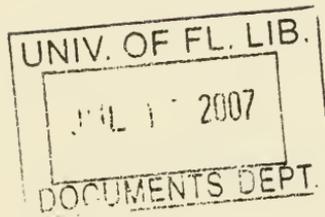


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Coaling Facilities.

The following is a report of the coaling facilities and operations at the Canal during the quarter ending June 30, 1919:

The normal supply of coal on hand, taking the average for three months, was 206,622 tons. The amount consumed per month, averaging the three months, was 47,594 tons. Coal on hand on July 1, 1919, amounted to 183,964 tons. It was distributed as follows:

At the Cristobal coaling station, 164,464 tons; in cars at Cristobal, 594 tons; in barges at Cristobal, 1,044 tons; at the Balboa coaling station, 17,655 tons; in barge *No. 4* at Balboa, 207 tons.

The main coaling plant at Cristobal has discharging capacity of 1,000 tons per hour, reclaiming capacity of 2,000 tons per hour, and delivering or reloading capacity of 2,500 tons per hour.

Facilities for handling coal at Cristobal, in addition to the coaling plant, were:

- (a) Brown hoist.
- (b) One railroad locomotive crane, equipped with clam-shell bucket, when necessary.
- (c) Four DeMayo conveyors, on pier 8 and dock 9.
- (d) Four DeMayo conveyors, on barges *No. 13* and *No. 29*, two each.
- (e) Four DeMayo conveyors on barge *No. 21*.

(Two spare DeMayo conveyors on hand.)

(f) Two cranes equipped with clam-shell buckets on barges *Nos. 1* and *2*, one each (cranes temporarily out of commission.)

(g) Seven barges, *Nos. 1, 2, 13, 15, 19, 21, and 29*, with a coal-carrying capacity of 500 tons each.

The capacity of the crane and conveyor devices was as follows:

- (a) Brown hoist, 50 to 100 tons per hour, depending upon construction of ship discharging.
- (b) Locomotive cranes, will average 30 tons per hour.
- (c) DeMayo conveyors, approximately 35 tons per hour each.
- (d) Crane barges *No. 1* and *No. 2*, clam-shell, 60 to 100 tons per hour. (Temporarily out of commission.)

The main coaling plant at Balboa has discharging capacity of 500 tons per hour; reclaiming capacity of four berm cranes, 500 tons per hour; reclaiming capacity of two unloaders, 500 tons per hour; and delivering or reloading capacity, 1,000 tons per hour.

Other facilities for handling coal at Balboa are one locomotive crane, barge *No. 4* with clam-shell hoist, and such ship's gear as is available.

The capacity of the locomotive crane is 30 tons per hour, and that of barge *No. 4* with clam-shell hoist, 60 to 100 tons per hour.

The Brown hoist referred to above in connection with the Cristobal coal-handling facilities, can be used only for unloading purposes, as there is no storage pile there.

The new DeMayo barge *No. 15*, similar to DeMayo barge *No. 21*, is awaiting arrival of new conveyors to be placed in commission.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, August 16, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Belgrade	9	7:55	9	16:48	10	11:07	10	12:20	American	United States Shipping Board	267	0	24	6	Newport News	Callao	Coal	2,629	2,657
Loran	10	10:07	11	6:25	11	14:03	11	14:38	American	United States Shipping Board	395	5	21	4	New York	Auckland	General	2,986	7,258
Manay	5	18:00	11	10:02	11	18:12	12	12:40	British	Pacific Steam Navigation Co.	216	0	34	5	Cristobal	Guayaquil	General	1,241	1,241
Imperial	6	18:00	11	10:28	11	18:05	11	18:53	Chilean	South American Steamship Line	336	8	41	2	Cristobal	Valparaiso	General	936	3,621
Florence Olsen	11	20:32	12	6:25	12	13:37	12	19:22	American	Oliver J. Olsen	425	0	42	20	Baltimore	Callao	Coke	1,273	1,381
Kumara	11	15:12	12	6:25	12	14:12	12	15:32	British	Shaw, Savill and Albion Co.	425	0	24	28	London	Pt. Chambers	Coke	4,500	7,449
San Joaquin	12	1:03	12	6:50	12	15:08	12	17:17	Norwegian	W. Wilhelmsen	425	0	57	1	Tampico	Tocopilla	Crude oil	9,261	7,020
Bitter (a)	6	23:17	12	9:20	12	18:09	14	11:12	American	United States Navy	187	0	32	0	Galveston	West Coast	General	6,400	5,768
UP-88 (b)	6	23:17	12	9:20	12	18:22	13	17:42	British	United States Navy	185	0	21	0	New York	Sligoport	General	160	734
Lowther Castle	12	6:20	12	10:24	12	18:22	13	17:42	British	James Chambers & Company	400	0	51	0	Cristobal	Buenaventura	General	9,186	7,666
Balboa	10	15:15	13	8:20	13	14:52	13	22:03	American	Colombian Maritime Company	190	0	29	0	New York	Buenaventura	General	11,000	9,592
Toyohashi Maru	13	18:06	14	6:15	14	14:44	14	15:40	Japanese	Nippon Yusen Kaisha	450	0	58	0	Kobe	Yokohama	Petroleum	833	1,170
Jamaica	3	20:35	14	6:15	14	13:46	14	18:47	British	Pacific Steam Navigation Co.	220	0	34	0	Beaumont	Champerico	General	500	1,213
Standard Arrow	14	6:10	14	7:14	14	13:20	14	16:24	American	Standard Transportation Co.	467	6	62	7	Cristobal	Buenaventura	General	11,000	9,592
Salvador	11	13:28	14	9:21	14	16:32	14	17:34	British	Pacific Metals Corporation	215	0	35	0	Cristobal	Champerico	General	500	1,213
Laura C. Hall c	12	21:45	15	7:00	15	13:42	16	13:10	British	Pacific Metals Corporation	81	0	25	0	Cristobal	Buenaventura	General	2,731	2,676
Bohisan	15	12:14	15	12:40	15	19:58	16	10:42	American	United States Shipping Board	267	3	45	0	New York	Huasco	Coal	10,500	6,054
Kabanga	15	9:57	15	16:57	16	9:37	16	10:42	British	Ellerman & Bucknall	400	0	52	1	New York	Shanghai	General	2,980	3,959
Brashear	15	17:40	16	7:24	16	13:25	16	14:35	American	United States Shipping Board	324	0	41	0	Baltimore	Caldera	Coke, coal, gen.	2,903	3,952
Irwin	16	5:56	16	7:15	16	14:39	16	15:45	British	Pacific Steam Navigation Co.	300	6	43	2	Liverpool	Coronel	General	7,791	6,092
Gold Shell	15	12:50	16	10:20	16	17:35	16	18:38	American	Shell Company	411	6	53	4	Tampico	San Francisco	Crude oil	7,791	6,092

(a) Submarine tender. (b) Submarine. (c) Motor ship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Pakeba	9	16:45	10	6:50	10	14:13	10	17:00	British	Shaw, Savill & Albion Co.	477	5	27	0	Timaru, N. Z.	London	General	7,026	11,329
Balboa	9	5:10	10	8:34	10	15:15	13	8:20	American	Colombian Maritime Company	190	0	29	1	Buenaventura	Cristobal	General	591	734
Salvador	10	15:00	11	6:35	11	13:28	11	9:21	British	Pacific Steam Navigation Co.	273	3	33	4	Champerico	Cristobal	General	366	1,213
Mono	14	14:30	11	6:37	11	14:30	11	20:15	American	United States Shipping Board	273	3	45	21	San Francisco	British King	Barley	2,450	3,215
National Bridge	10	16:15	11	7:56	11	15:57	11	19:17	American	United States Shipping Board	324	0	46	2	Talca	Cristobal F. O.	Nitrates	4,764	3,959
Chile	16	00:11	11	4:46	11	15:55	18	7:30	British	Pacific Steam Navigation Co.	300	3	44	18	Valparaiso	Cristobal	General	1,884	4,040
Cleveland (d)	10	05:19	11	3:15	11	22:25	11	23:00	American	United States Navy	309	0	44	0	Balboa	Puerta Cortez	Copper, wool	5,625	5,007
Sherman	11	1:37	12	6:45	12	14:12	12	14:12	American	Sherman Steamship Company	400	0	49	0	Talcahuano	New York	Nitrates	3,150	3,052
Aberdeen	12	6:40	12	7:39	12	15:36	13	6:36	American	United States Shipping Board	273	0	45	1	Caleta Buena	Cristobal F. O.	Barley	1,935	1,386
Alta (Soil)	11	9:20	12	11:00	12	19:55	14	12:25	American	C. Henry Smith	236	0	44	19	San Francisco	Isiwick, Eng.	Barley	1,035	1,386
Alector	12	9:20	12	11:00	12	19:55	14	12:25	American	United States Shipping Board	237	5	46	24	Portland	Wichawaken	Fir, ties	(b)	6,515
Mount Shasta e	5	9:00	12	1:28	12	23:38	13	5:15	Norwegian	United States Shipping Board	267	5	43	21	Aberdeen	London	Fir, spruce, lum.	2,100	1,537
Laura C. Hall e	9	10:30	12	2:09	12	21:45	13	7:00	British	Compuels Bull Company	81	0	25	6	Buenaventura	Cristobal	Coffee, platinum	68	130

(d) Cruiser. (e) Motor Ship. (f) Coffee, wool, ores, hides, and rubber. (g) Sugar, wool, ores, hides, and iodine. (h) 1,325,060 feet.

THE PANAMA CANAL RECORD

Ship	Collier	(t)	1277.28 tons	(t)	1,286.475 feet	(m)	1,064.939 feet	Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.
West Islay	8 16 45	13	7 18	13 17 16	14	3 05	American	United States Shipping Board
Chipeching	8 5 15	13	8 29	13 18 40	14	1 10	American	United States shipping Board
Mahama	12 19 35	13	8 30	13 18 23	16	16 35	American	United States Shipping Board
Hegira	12 23 30	13	8 33	13 19 30	14	7 15	American	United States Shipping Board
Falena	13 4 00	13	9 09	13 17 30	13	23 57	Chilean	Chilean Line
Wenakee	13 7 00	13	9 34	13 19 40	13	23 57	American	United States Shipping Board
Golden State (t)	13 10 40	13	12 11	13 21 15	14	19 18	American	United States Shipping Board
Cheron	13 10 30	13	14 10	13 21 33	14	14 29	American	Rolph Navigation & Coal Co.
Knexville	13 15 00	14	7 25	14 14 56	14	20 00	American	United States Shipping Board
Lomoxe	13 15 00	14	7 43	14 15 10	14	15 10	British	C. T. Bowring
Ft. Leavenworth	14 4 00	14	8 31	14 15 52	15	5 55	American	United States Shipping Board
Ad. Wainworth	14 7 00	14	10 20	14 17 36	15	12 57	American	Pacific Steamship Company
Bon Secour	14 13 00	14	6 55	14 21 08	15	13 15	American	United States Shipping Board
Deer Lodge	14 17 00	15	6 37	15 20 20	16	9 55	American	United States Shipping Board
Acapulca	14 17 25	15	6 45	15 16 04	16	5 55	British	Pacific Steam Navigation Co.
Brutus (t)	15 7 00	15	8 31	15 16 28	16	23 20	American	United States Navy
Eyota	15 7 25	16	6 32	16 15 38	17	12 27	American	United States Shipping Board
Fort Seward	7-20 17 13	10	10 57	16 19 32	17	6 54	American	United States Shipping Board
Canca	16 12 05	16	12 54	16 19 58	16	6 54	British	Donald Steamship Co.

ARRIVALS		DEPARTURES	
Date	Vessels	From	Line
Aug. 10	Metapan	United Fruit Company	Panama Railroad Commissary
Aug. 10	Buford (transport)	United States Army	New York and Port Limon
Aug. 10	Gen. G. W. Goethals	New Orleans	Panama Railroad Steamship Line
Aug. 11	Orofina (m)	Port Limon	New York
Aug. 11	Lake Wilson	United States Shipping Board	New York
Aug. 12	Montserrat	Spanish Steamship Line	United Fruit Company
Aug. 13	Panama	Panama Railroad Steamship Line	New Orleans and wayports
Aug. 13	Abangarez	United Fruit Co.	United States Army
Aug. 14	William H. Tupper	United Fruit Company	New York
Aug. 14	Santa Marta	Gulf & Southern Steamship Co.	New York and Kingston
Aug. 14	Caribbean	Panama Railroad Commissary	Puerto Colombia
Aug. 14	Momesis	Lindsay Swan Hunter	Colombia
Aug. 14	Lake Hurst	United States Shipping Board	New York via San Juan
Aug. 15	Gen. H. F. Hodges	Panama Railroad Steamship Line	Port Limon

ARRIVALS		DEPARTURES	
Date	Vessels	From	Line
Aug. 16	Seiyo Maru	Toyoko Kisen Kaisha	United States Navy
Aug. 16	Valparaiso	North Carolina	United States Navy
Aug. 12	North Carolina	United States Army	San Diego

*Other than ships passing through the Canal.

Tentative Schedule of Sailings of U. S. A. Transport "Kilpatrick."

(See circular letter "Transportation of Employees and Families on Army Transports," page 9.)

Leave	Date	Arrive	Date	Days at Sea	Days in Port
New Orleans.....	August 18.....	Cristobal.....	August 24.....	6	5
Cristobal.....	August 29.....	San Juan.....	September 2.....	4	4
San Juan.....	September 6.....	New Orleans.....	September 13.....	7	6
New Orleans.....	September 19.....	Cristobal.....	September 25.....	6	5
Cristobal.....	September 30.....	San Juan.....	October 4.....	4	4
San Juan.....	October 8.....	New Orleans.....	October 15.....	7	6

(The usual hour for sailing from Cristobal, C. Z., is 3 p. m.)

Reduction in Panama Railroad Telegraph Rates.

Effective September 1, 1919, the following rates will apply for the transmission of commercial telegrams over the wires of the Panama Railroad Company:

For the first ten (10) words (or fraction thereof), 20 cents.

For each additional word, 1 cent.

This rate also applies to interline business handled in connection with cable and radio companies.

Any telegraph station of the Panama Railroad will accept messages for delivery at any other at the above rates, and the receiving station will make delivery promptly to the addressee if he can be located. Deliveries will be made by telephone where telephone number is indicated in address, written confirmation to be mailed or delivered by messenger if requested.

The present rates are a reduction from 25 cents for the first 10 words and 2 cents for each additional word. The reduction was made at the suggestion of the Government of Panama, to make the rates between Panama and Colon conform with the rates between other points connected by lines of the national telegraphs of Panama.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending August 16, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Colon.....	Panama Railroad Steamship Line..		August 11.....	Tons.	Tons.
Imperial.....	United Fruit Company.....		August 11.....		3,781
Caribbean.....	Panama Railroad Commissary.....		August 10.....		937
Lake Wilson.....	Panama Railroad Steamship Line..	August 11.....		2,750	20
Chile.....	Pacific Steam Navigation Co.....	August 11.....		1,881	
Montserrat.....	Spanish Steamship Co.....	August 12.....	August 13.....	686	234
Panama.....	Panama Railroad Steamship Line..	August 13.....		2,772	
Abangarez.....	United Fruit Company.....	August 13.....	August 14.....	2,168	257
Palena.....	United Fruit Company.....	August 13.....		1,278	
Caribbean.....	Panama Railroad Commissary.....	August 14.....		350	
Santa Marta.....	United Fruit Company.....	August 14.....	August 14.....	2	5
Lake Hurst.....	Panama Railroad Steamship Line..	August 15.....		1,990	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending August 17, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Marie de Ronde.....	Donald Steamship Co.....	July 29.....	August 10.....	Tons.	Tons.
Salvador.....	Pacific Steam Navigation Co.....	August 10.....	August 11.....	3,000	
Chile.....	Pacific Steam Navigation Co.....	August 10.....	August 11.....	54	
Charles Nelson.....	Charles Nelson Co.....	August 12.....		4	
Mukilteo.....	Charles Nelson Co.....	August 12.....		1,626	
City of Para.....	Pacific Mail Steamship Co.....	August 12.....		1,770	
Guatemala.....	Pacific Mail Steamship Co.....	August 14.....		245	
	Pacific Steam Navigation Co.....	August 16.....		17	

Special Customs Service.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., August 9, 1919.

To all steamship lines—In accordance with Panama Canal circular No. 679-8, entitled "Charges for Special Customs Service," effective September 1, 1919, no inspection of passengers' baggage will be made for steamers between the hours of 6 p. m. and 7 a. m. except upon written request of the master or agent to the Chief Customs Inspector, upon forms which will be furnished by The Panama Canal.

For work performed between the hours mentioned above, charge will be made in accordance with circular No. 679-8, and masters shall sign in triplicate certificates of services rendered, upon which the Collector, The Panama Canal, will make payment direct to the inspectors concerned and charge the account of the steamship accordingly.

In the case of work being started before and not completed by 6 p. m., overtime will be charged for work necessary to complete the inspection, and only such inspectors will be retained to complete the work as are requested by the master or agent on the vessel.

When services are performed for more than one vessel by the same inspectors between the hours of 6 p. m. and 11 p. m. and after 11 p. m. and before 7 a. m., or on Sundays or holidays, the amount of the charge for each inspector's services shall be prorated among the ships served. In such cases the Chief Customs Inspector shall indicate on the certificate of service rendered the amount to be charged against each ship.

The Chief Customs Inspector should be advised in advance of the arrival of vessels whenever possible, and also informed as to the time the inspectors are to report for duty, which should coincide with the time of the arrival of the vessel at the dock.

CHESTER HARDING,
Governor.

Resin Excavated from Borrow Pit near Gold Hill.

In the operation of a borrow pit near Summit, northeast of Gold Hill, for use in macadamizing roads, a quantity of fossil resin has been unearthed. Lumps as large as a foot in each dimension are found, covered with a rather soft, stratified rock. The physiologist of the Municipal Division examined several specimens of the resin and found it on analysis to be as follows:

Color, dark brown; fracture, conchoidal; specific gravity, at 77/77° F., 1.052; melting point, 374° F.; iodine number (Hanus), 58.98; saponification number, 4.02; acid number (direct), 2.35; ester number, 1.67; ash, 5.76 per cent. The material is somewhat similar to copal, insoluble in alcohol and ether, but partly soluble in benzine and chloroform.

A sample has been forwarded to the Bureau of Standards at Washington with the request that investigation be made of its possible commercial value.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights, (telephone 286).

Tabulating mechanic (male); \$1,200 to \$1,600 a year; No. 372; form 1800; age, more than 20 years.†

Patent investigator (male); \$1,200 to \$1,800 a year; No. 373; August 26, 1919; form 1312; age, within reasonable age limits.*

Expert patent investigator (male); \$1,800 to \$2,400 a year; No. 373; August 26, 1919; form 1312; age, within reasonable age limits.*

Adding machine mechanic (male); \$1,500 to \$1,800 a year; No. 380; August 26, 1919; form 1800; age, over 20 years.*

Assistant in plant fumigation (male); \$1,500 to \$2,500 a year; No. 371; September 3, 1919; form 1312; age, not 45 years.

Addressograph expert (male); \$2,250 a year; No. 378; August 26, 1919; form 1312; age, more than 20 years.*

Research chemist (male); \$2,200 to \$2,500 a year; No. 393; September 2, 1919; form 1312; age, 25 years, but not 45 years.*

Typist (male and female); \$900 to \$1,200 a year; No. 300; August 22 and September 26, 1919; form 304; age, more than 18 years.

Clerk with knowledge of stenography (male and female); \$900 to \$1,200 a year; No. 300; August 22 and September 26, 1919; form 304; age, more than 18 years.

Apprentice plate cleaner, apprentice transferrer, apprentice picture engraver, apprentice letter engraver (male); \$600 a year; No. 149—amended; September 3, October 8, and November 5, 1919; form 304; age, 16 years but not 18 years.

Chief metallurgist (male); and assistant chief metallurgist (male); \$4,500 to \$5,000 a year (chief metallurgist); \$3,600 to \$4,500 a year (assistant chief metallurgist); September 16, 1919; age, over 30 years (for chief metallurgist, not 45 years).*

Deputy shipping commissioner (male); \$900 a year; No. 166—amended; September 3, October 8, and November 5, 1919; form 1312; age, over 18 years.

Economist in charge of rural life studies (male); \$3,000 to \$4,260 a year; September 16, 1919; form 2118.*

Electrical engineer (male); and assistant electrical engineer (male); \$2,400 to \$3,000 a year (electrical engineer), \$1,800 to \$2,400 a year (assistant electrical engineer); September 16, 1919; form 2118; no age limit.*

Junior electrical engineer (male); \$1,080 to \$1,200 a year; No. 151—amended; form 1312; age, not 30 years.*

Music teacher (female); \$720 a year; September 17, 1919, form 1312; age, 25 years but not 40 years.

Engineer (\$3,000 or over a year), assistant engineer (\$1,800 to \$2,880 a year), junior engineer (\$1,200 to \$1,740 a year); engineering draftsman (\$1,200 to \$3,000 a year) (male); form 1312; age (engineer) 30 years but not 60 years; (assistant engineer) more than 20 years; (junior engineer) more than 20 years, and (engineering draftsman), more than 22 years.†

Computer—ordnance (male); \$7.20 to \$12 a day; September 17, 1919; form 1312; age, more than 21 years.

Junior highway bridge engineer (male); \$1,200 to \$1,600 a year; September 17, 1919; form 1312; age, 20 years, but not 30 years.

Aid (male); Lighthouse Service; \$1,200 a year; September 16, 1919; form 1312; age, 21 years but not 30 years.*

Chief of Division of Foreign Investigations (male); \$2,500 a year; September 9, 1919; form 2118; age, 25 years but not 50 years.*

Associate mechanical engineer (male); \$2,000 to \$2,800 a year; September 16, 1919; form 2118; age, 25 years but not 45 years.*

Investigator in commercial dehydration (male); \$2,000 to \$3,000 a year; September 16, 1919; form 2118; age, 25 years but not 45 years.*

Supplemental announcement, No. 167. The United States Civil Service Commission announces that as sufficient eligibles have been obtained from the contiguous nonassembled open competitive examination for office manager and supervising clerk (male and female) no applications for these examinations will be received unless filed with the Commission at Washington, D. C., prior to the hour of closing business on August 5, 1919.

Band leader and instructor (male); \$720 to \$1,000 a year; No. 413; September 16, 1919; form 1312; age, over 20 years.*

Histo-pathologic technician (male); \$1,200 to \$1,500 a year; No. 407; September 9, 1919; form 2111; age, 21 years but not 45 years.*

Specification engineer (male); \$2,000 to \$2,400 a year; No. 401; September 9, 1919; form 1312; age, 25 years but not 45 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Reopening of Examinations Which Have Been Held, for the Purpose of Admitting Soldiers, Sailors, and Marines.

Soldiers, sailors, and marines will be admitted to any Civil Service examination, either assembled or nonassembled, which was pending on April 6, 1917, or which was subsequently announced, the eligibility resulting from which is still alive, either originally or by extension.

Sixty days from August 1, 1919, will be allowed soldiers, sailors, and marines, in which to be examined for positions for which examinations have already been held if they shall have been discharged from the military or naval service prior to that date, or 60 days from the date of their discharge subsequent to August 1, 1919.

The examinations will be open to soldiers, sailors, and marines, without regard to whether they served at home or abroad.

The examinations will not be open to soldiers, sailors, and marines who served and were discharged prior to April 6, 1917.

It will not be necessary that a person shall have been discharged from the military or naval service in order to be admitted to examinations.

Examinations requiring an educational test will be held semimonthly on dates to be determined by the Commission.

In cases of first, second, and third-class postmasters, a person will not be allowed to compete if the vacancy has been filled.

Welfare workers who accompanied the military forces; civilians attached to the expeditionary forces, including dieticians, nurses, and other civilian employees in military hospitals; persons who were on the inactive list in military or naval reserve forces; persons who were discharged from the draft, not being actually and finally accepted for military service; and contract surgeons will not be allowed to file application on the same basis as soldiers, sailors, and marines.

Field clerks, persons who served in the Student Army Training Corps, and enlisted army and navy nurses will be admitted on the same basis as soldiers, sailors, and marines.

West Indian Branch, Canal Zone Chapter, American Red Cross.

The West Indian Branch, Canal Zone Chapter, American National Red Cross has been granted to West Indians resident on the Canal Zone and in Panama and Colon. This branch will be conducted by the West Indians themselves but under the direction of the Canal Zone Chapter both as to finances and activities. Every West Indian who joins this branch will be a full-fledged member of the American Red Cross and will be required to pay \$1 gold each year for membership, half of which fee is required to be remitted to headquarters in the States and the other half is to be available for expenditure by the West Indian Branch for their own people.

This is designed to provide a permanent and large fund for the benefit of West Indians in distress and especially to assist the families of West Indians where the father has died or is unable to earn a living. This fund should operate practically as an insurance fund for the protection of West Indians and their families in distress.

The Canal authorities have given permission to make pay roll deduction for one month only for annual membership. Foremen and timekeepers will send in deduction cards with timebooks to Timekeeping Bureau, Balboa Heights, not later than August 24.

New Dentist's Office at Balboa.

A dentist's office is to be opened at Balboa, presumably on August 25, in the cottage opposite the cold storage plant and previously used by the photographer in connection with photo-metal check work. Hours are to be from 8 a. m. until 6 p. m., and rates under the regulation of The Panama Canal.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Donald Lyte.....	52569	Barbados.....	Colon.....	Panama Railroad....	August 9, 1919.
Clement Pounder.....	38754	Barbados.....	Colon.....	Panama Railroad....	August 9, 1919.
Tadeo Gonzalez.....	23248	Panama.....	Panama.....	Eng. of Maint.....	July 25, 1919.

Locations of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the new Ancon Hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Present number of beds.	Visiting hours.
Section "A"—White American, male:		
Ward No. 1, Medical, Eye and Ear.....	44	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. Sundays and holidays, 9.30 to 11 a. m. and 2.30 to 4.30 p. m.
Ward No. 2, Medical, Eye and Ear.....	41	
Ward No. 3, Surgical.....	44	
Ward No. 4, Surgical.....	41	
Cells (2).....	2	
	172	
Section "B":		
White American, female.....	23	Daily except Sunday, 2 to 4.30 p. m.; 6.30 to 8 p. m. Sundays and holidays, 10 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m. No visitors permitted.
White foreign, female.....	15	
Nursery.....	16	
Private Rooms (40).....	46	
Cells (2).....	2	
	102	Daily, 9.30 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m.
Section "C":		
Ward No. 9, White foreign, male.....	39	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward No. 10, Colored, eye and ear, convalescent medical.....	39	
Ward No. 11, Colored Acute surgical.....	39	
Ward No. 12, Colored Acute medical.....	39	
Ward No. 13, Colored Convalescent surgical.....	39	
Ward No. 14, Colored Convalescent surgical.....	39	
Cells (6).....	6	
Rooms (7).....	7	
	247	
Section "D":		
Ward No. 15.....	41	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m. Daily, 9.30 to 10 a. m.; 2 to 4 p. m.
Ward No. 16.....	39	
Ward No. 17, Colored children.....	32	
Ward No. 18, White children.....	30	
Ward No. 19, Colored female medical.....	41	
Ward No. 20, Colored female surgical.....	34	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Rooms (6).....	6	
Cells (6).....	6	
	229	
Isolation:		No visitors permitted.
Floor No. 1.....	14	
Floor No. 2.....	29	
Floor No. 3.....	28	
Floor No. 4.....	28	
	99	
Total number of beds.....	849	

Emergency passes are issued only by and in the discretion of the section nurse.

Official Circulars.

Hand and Push Cars.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 8, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

The stock of hand and push cars is entirely exhausted. It is believed that there is a quantity of these cars in charge of the different departments and divisions which are not actually in use, the return of which to stock would eliminate the necessity at the present time of purchasing additional equipment of this class.

It is directed, therefore, that heads of departments and divisions arrange to have all hand and push cars in their possession which are in first-class, serviceable condition shipped to the General Storekeeper, Balboa, for stock and reissue to departments and divisions requiring them. This, of course, applies to cars not actually in use and for which no need is anticipated within the near future.

It is also directed that all bad-order cars on hand be shipped to the General Storekeeper, who will have them repaired at Balboa Shops and placed in stock for reissue. The General Storekeeper should be invoiced by the different departments and divisions for the value of the items turned in at original prices, such departments and divisions being billed by the Mechanical Division for cost of repairs in accordance with paragraph 16 of my circular 656-1.

CHESTER HARDING, Governor.

Building Division.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 16, 1919.

CIRCULAR No. 660-49:

Effective this date Mr. Thomas C. Morris is appointed Resident Engineer in charge of the Building Division, vice Mr. Hartley Rowe resigned, and will report to the Engineer of Maintenance.

CHESTER HARDING, Governor.

Transportation of Employees and Families on Army Transports.

THE PANAMA CANAL,
BUREAU OF STATISTICS,

BALBOA HEIGHTS, C. Z., August 12, 1919.

To all concerned—The following instructions, governing the transportation of employees and their families on the U. S. Army transports between Cristobal and New Orleans, are published for the information of all concerned:

1. Requests for transportation must be submitted to this office in sufficient time to forward to the Department Quartermaster, U. S. Army, not later than seven (7) days prior to the departure of the transport, the cost of transportation to be paid to the Department Quartermaster (Transportation Branch), Panama Canal Department, Ancon, Canal Zone, not later than forty-eight (48) hours prior to sailing. Upon the receipt of such payment, the transportation authority will be furnished.

2. In case of children, the full name and age must be stated. Where name of child or servant is misleading, sex must be given.

3. In case of dependent members of an employee's family other than wife or children, and transportation of servants, strict compliance with the following certificates is required.

"This certifies that my is a permanent member of my immediate family, habitually resides with me, and has no other home."

"This certifies that is a bona fide servant in my family and not employed for the trip only. I personally guarantee that if the transportation is granted, said servant will not become a public charge upon the community to which taken, and will be returned to the Canal Zone, whenever necessary, without expense to the United States."

The certificates mentioned herein may be obtained from this office and must be returned properly accomplished, in duplicate, before authority for the necessary transportation is furnished.

4. Passengers will make arrangements to deliver their baggage at ships' side. Baggage must be claimed by owners at the dock.

5. First and second class passengers will not be permitted aboard transport before two (2) hours prior to hour of sailing.

6. Upon arrival on board, passengers will present themselves immediately at the Quartermaster's office to obtain their stateroom assignment and to surrender their authority for transportation (Q. M. C. Form No. 935).

7. The following is the tentative schedule for the U. S. A. T. *Kilpatrick*:

(Printed top page 4, this issue.)

8. If transportation is desired from New Orleans, La., on the transport *Kilpatrick*, application should be made to The Chief of Office, The Panama Canal, Washington, D. C.

C. A. McILVAINE,
Executive Secretary.

Acting Storekeeper, Cristobal Store.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., August 12, 1919.

To all concerned—Effective this date, August 12, and continuing during absence on leave of Mr. L. J. Stapleton, Mr. Walter R. Smith will be in charge of Cristobal store as Acting Storekeeper.

R. K. MORRIS,
Chief Quartermaster.

Reopening of Post Offices.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 14, 1919.

CIRCULAR No. 73:

To all postmasters—Effective August 16, the following post offices will be reopened:

Fort Amador, Fort Randolph, Paraiso, Empire, Coco Solo.

Business will be transacted by all offices upon their former basis as of July 31 and dispatches to and from the above-mentioned post offices will be made in accordance with instructions in effect prior to July 31. Circular No. 62, issued by this office July 25, is canceled.

C. H. CALHOUN,
Director of Posts.

Joint Commission.

Rule of Dismissal.

In the matter of the claim of Felix de V. Ruanes for property located on the Galuncillo River, rule of dismissal No. 425, docket No. 2698, August 4, 1919.—The claim of Felix de V. Ruanes, docket No. 2688, is hereby disallowed and dismissed for lack of evidence sufficient to justify an award against the United States.

FEDERICO BOYD, JULIO J. FABREGA, BURT NEW, GEORGE A. CONNOLLY, Commissioners.

Award.

In the matter of the claim of the heirs of Agustin Arias Feraud for property known as "El Mangal," award No. 200, docket No. 2799, August 5, 1919.

—At the beginning of the trial of the above entitled claim, counsel for the Government and counsel for the claimant reached an agreement as to the value of the mango and other fruit trees, and all other improvements located on the property known as "El Mangal," and on August 4, 1919, stipulated in writing that an award in the sum of \$800.00 be made to the heirs of Agustin Arias Feraud for these improvements.

In accordance with this stipulation an award is hereby made against the United States in the sum of Eight Hundred Dollars, U. S. currency, (\$800.00) for all right, title and interest the heirs of Agustin Arias Feraud may possess or may have possessed in and to the improvements located within the Canal Zone on the property known as "El Mangal," described in claim docket No. 2799.

If payment or tender of payment of this award is not made on or before September 5, 1919, said award shall thereafter bear interest at the rate of six per centum (6%) per annum until paid.

FEDERICO BOYD, BURT NEW, GEORGE A. CONNOLLY, R. J. ALFARO, Commissioners.

Certificate of Disagreement.

In the matter of the claim of Carlos W. Muller, as attorney-in-fact, for Constancia de la Espriella de Muller, et al., for property known as "Punta de Chame," certificate of disagreement rule No. 426, docket No. 3108, August 5, 1919—Pursuant to the provisions of Article XV of the Treaty between the United States of America and the Republic of Panama, ratified February 26, 1904, the Commission hereby desires to bring to the notice of the Empire duly appointed under the said Treaty that the Commission has been unable to reach an agreement in the above entitled matter on the following, to wit:

The Question of Liability and the Question of the Sufficiency of the Evidence to Justify an Award against the United States.

The Commission herewith certifies this disagreement to the Empire appointed under the Treaty as provided for in Article XV thereof.

Done at the National Palace, Panama, Republic of Panama, this fifth day of August, 1919.

FEDERICO BOYD, BURT NEW, R. J. ALFARO, GEORGE A. CONNOLLY, Commissioners.

Decisions of the Empire.

In the matter of the claim of Eduardo Icaza, for property located near the town of Arratjan, and known as "La Palsareda." Amount claimed, at the

rate of \$25 per hectare. Decision of the Umpire, award No. 201, docket No. 1776, August 11, 1919—An award is hereby made against the United States of America in favor of Eduardo Icaza in the sum of \$13,240, United States currency, for all right, title, and interest which the said Eduardo Icaza may possess or may have possessed in and to the property known as "La Polvareda," consisting of 529 6/10 hectares of land located within the Canal Zone near Arraijan, subject of claim docket No. 1776, including any and all damages sustained by him on account of the expropriation of this property by the United States of America.

This award shall be paid on or before the eleventh day of September, 1919, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum (6%) per annum until paid.

Done in the National Palace, Panama, on the eleventh day of August, 1919.

MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of Ernesto Arosemena, Carlos C. Arosemena, Florencio Arosemena, Dolores H. Arosemena, Herclilia D. Arosemena, Delia Arosemena de Uribe, for property known as "San Jose" located near Panama, consisting of 545 hectares. Amount claimed, \$459,152.80. Decision of the Umpire, award No. 204, docket No. 2757, August 13, 1919—An award is hereby made against the United States of America in favor of Ernesto Arosemena, Carlos C. Arosemena, Florencio Arosemena, Dolores H. Arosemena, Herclilia D. Arosemena, and Delia Arosemena de Uribe in the total sum of \$32,700.01, United States currency, for all right, title, and interest which the above-named claimants may possess or may have possessed in and to the property known as "San Jose" located near Panama, subject of claim docket No. 2757, including the improvements located thereon and any and all damages sustained by them on account of the expropriation of this property by the United States of America, this award to be paid in the proportions and amounts as follows:

To Ernesto Arosemena, 13/18 thereof	\$23,616.66
To Carlos C. Arosemena, 1/18 thereof	1,816.67
To Florencio Arosemena, 1/18 thereof	1,816.67
To Dolores H. Arosemena, 1/18 thereof	1,816.67
To Herclilia D. Arosemena, 1/18 thereof	1,816.67
To Delia Arosemena de Uribe, 1/18 thereof	1,816.67

Total..... \$32,700.01

This award shall be paid on or before the thirteenth day of September, 1919, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum (6%) per annum until paid.

Done in the National Palace, Panama, on the thirteenth day of August, 1919.

MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of Manuel Espinosa B. for property known as "La Union," located in the district of Ancon, Canal Zone, consisting of 441 1/2 hectares, of which 75 hectares are in dispute. Total amount claimed, \$300,000. Decision of the Umpire, award No. 203, docket No. 3337, August 13, 1919—

An award is hereby made against the United States of America in the total sum of \$52,362.50, United States currency, same being my valuation of the property known as "La Union," subject of claim docket No. 3337, consisting of 441 1/2 hectares of land located in the district of Ancon, Canal Zone, and the improvements which existed on the said property when same was expropriated by the United States of America.

Of this amount the sum of \$47,487.50, United States currency, shall be paid to Manuel Espinosa B. for all right, title, and interest which he may possess or may have possessed in and to the undisputed portion (366 1/2) hectares) of the "La

Union" property, including the improvements thereon and any and all damages sustained by him on account of the expropriation of this property by the United States of America.

This amount (\$47,487.50) shall be paid to the said Manuel Espinosa B. on or before the thirteenth day of September, 1919, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum (6%) per annum until paid.

The balance of \$4,875, United States currency, representing my valuation of the seventy-five hectares in dispute, is hereby ordered deposited in the District Court of the Canal Zone, Balboa Division, until that Court shall have determined the conflict existing as to the ownership of this portion of the "La Union" tract.

Done in the National Palace, Panama, on the thirteenth day of August, 1919.

MANUEL WALLS Y MERINO,
Umpire.

Cable Notice.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., August 14, 1919.

To agents and operators—The following information has been received from the Central and South American Telegraph and Cable Company:

"British Pacific route to Australia clear."
"W. U. advise, effective immediately, rate to Australia will be seven cents per word more than rates quoted in the tariff book."

W. J. BISSELL,
Acting Master of Transportation.

July Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1919.
	1917	1918	1919			
<i>Pacific section—</i>						
Balboa	9.17	4.32	4.94	7.93	23	15
Balboa Heights	10.17	5.13	4.75	7.60	23	15
Miraflores	12.23	5.21	8.03	8.14	11	18
Pedro Miguel	14.78	5.54	7.30	8.74	12	18
Rio Grande	14.44	7.18	7.42	7.42	15	20
<i>Central section—</i>						
Culebra	13.59	8.49	7.52	9.37	28	22
Camacho	12.70	7.79	8.89	9.66	13	22
Empire	11.96	9.24	7.72	8.89	15	23
Cambao	17.75	6.51	6.70	10.12	39	21
Juan Mina	11.66	5.25	11.14	9.66	9	22
Alhajuela	12.90	8.79	13.46	12.49	21	25
Vigia	13.71	11.96	13.92	12.35	11	20
Prijoles	14.71	6.37	10.50	9.92	8	25
Trinidad	11.59	4.78	5.67	8.94	12	24
Monte Lirio	13.93	7.83	9.37	11.62	12	29
<i>Atlantic section—</i>						
Gatun	17.80	8.15	7.86	11.68	15	25
Brazos Brook	17.54	10.82	9.28	15.02	14	30
Colon	13.58	10.36	13.60	15.97	49	28

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama"; in the United States, "Panacanal, Washington."

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Misdirected Letters.

BALBOA HEIGHTS, C. Z., August 16, 1919.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Request may be made by telephone, calling No. 182, Balboa:

Aston, Stanley	Gaskey, Robert
Bertsch, Chas. O.	Hall, Doyle
Brown, Carl A.	Jenkins, W. W.
Carter, James Washing-	Johnson, Andrew*
ton*	Lane, Miss J. S.
Clarke, Charles A.	Lecar, Maria
Coker, Lee Sims*	Morgan, Mrs. Thomas
Drake, Grover J.	Lawrence
Dudleys, Wm. E.	Poupou, Harry
Ferguson, Allen*	Tiedemann, Wm. P.
	Woodward, W. W.

*Special Delivery.

Rainfall from July 1 to 31, 1919, Inclusive.

STATIONS.	Maximum in one day.	Date.	Total.
<i>Pacific section—</i>	<i>Ins.</i>		<i>Ins.</i>
Balboa	1.19	5	4.94
Balboa Heights	1.46	5	4.75
Miraflores	1.49	5	8.03
Pedro Miguel	1.38	5	7.30
Rio Grande	1.68	5	7.42
<i>Central section—</i>			
*Culebra	1.59	24	7.52
*Camacho	2.36	2	8.89
Empire	1.85	24	7.72
Gambo	1.06	10	6.70
*Juan Mina	1.89	10	11.14
Alhajucla	2.16	21	13.46
*El Vigia	2.92	20	13.92
*Frijoles	2.42	25	10.50
*Trinidad	1.72	19	5.67
*Monte Lirio	.97	24	9.37
*Darien	1.80	19	8.26
<i>Atlantic section—</i>			
Gatun	1.83	30	7.86
*Brazos Brook	1.19	28	9.28
Colon	2.46	28	13.60
*Porto Bello	3.90	5	24.23

*Standard rain gauge—readings at 5 p. m. daily.

Automatic rain gauge at unstarred stations—values, midnight to midnight.

Additions to Commissary Stock.

Towels, bath, Turkish, 20" x 40", ea.	\$0.33
Towels, Turkish, white, hemstitched, 24" x 46", ea. . . . .	.90
Towels, Turkish, hemstitched, white, 26" x 48", ea.	1.00
Towels, Turkish, hemstitched, white, 24" x 50", ea. . . . .	.83
Bread, Pilot, 1-lb. ctn. . . . .	.08
Mustard, prepared, Gulden's, 8-oz., bot. . . . .	.10
Marmalade, Sunkist, 1s. jar. . . . .	.35
Drawers, women's, muslin and cambric, closed, assorted styles, pr.	\$1.15
Drawers, women's, muslin and cambric, closed, assorted styles, pr.	1.35
Drawers, women's, muslin and cambric, closed, assorted styles, pr.	1.50
Handkerchiefs, cotton, initial, ladies', ea. . . . .	.14
Handkerchiefs, cotton, plain hemstitched, ladies', 12", ea. . . . .	.09
Handkerchiefs, cotton, embroidered, ladies', ea. . . . .	.28
Handkerchiefs, linen, initial, ladies', ea. . . . .	.32
Handkerchiefs, cotton, ladies', ea. . . . .	.24
Handkerchiefs, cotton, plain, men's, 20" ea. . . . .	.20
Handkerchiefs, linen, embroidered, ladies', ea. . . . .	.95
Laces, cotton, yd. . . . .	.59
Suiting, alpaca, yd.	1.80

Current Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships, including warships of all nations, in transit through the Canal, delivered and trimmed in bunkers, at \$11.50 per ton of 2,240 pounds at either Cristobal or Balboa. For ships not in transit through the Canal, \$11.50 per ton at Cristobal and \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$13 per ton at Cristobal, \$15 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$2.00 per barrel of 42 gallons.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. The prices will be increased by 25 per cent in cases of sales to United States and foreign naval vessels and commercial ships, including yachts. Prices quoted are United States currency, per pound.

Beef hinds, 13 cents; beef fores, 10 cents; beef ribs, entire set, 14 cents; short loins, 18 cents. This beef is from Colombian cattle, slaughtered on the Isthmus.

Statement of Occupation of Quarters, June 30.

Occupants	Men.	Women.	Children.	Total.
Americans	3,244	2,274	2,542	8,060
Europeans	213	38	70	321
West Indians	5,415	2,015	3,732	11,162
Total	8,872	4,327	6,344	19,543

COMMISSARY NOTES.**Leather Leggings.**

A long overdue shipment of English make leather leggings in both plain and strap styles has just been received and will retail for \$5.45 the pair. This shipment was detained in England owing to war restrictions and is an exceptionally good value at this price.

Fruit.

The steamship *Advance* brought the first shipment of huckleberries this season. No watermelons, cantaloupes or plums were received, the commissary purchasing agent stating that the prices were extremely high and the quality poor. Casaba melons were received on the steamship *Colon* and it is probable that shipments of this fruit will be made regularly.

COMMISSARY NOTES.

Books.

The commissaries have stocked a new dictionary which sells at \$1 and is considered good value.

Shoes.

It is the opinion of the best shoe men in the country that prices this coming autumn and winter will be around \$15 to \$20 per pair. There are some who expect prices to go even higher and state that a cheap shoe will be simply shoddy—made to sell and not to wear.

Canned Goods.

A scarcity of certain canned goods seems to exist in the market at present. The commissary purchasing agent has explained that for this reason there will probably be some delay in shipments of apricots, asparagus, blackberries, crab meat, plain dates in glass, tuna fish, and several other items.

Textile Trade Conditions.

Indicative of general conditions in the textile trades is this excerpt from letter received from one of the largest firms in the United States: "We have sold the product of our mills for the next 6 months, without even having a set of samples to show. If we find we can turn out more goods, we will advise you later, but at present we do not see our way clear to take any additional orders."

Wearing Apparel.

According to a trade publication, clothiers all over the country have been advised that prices the coming season will be very high. This condition, it is said, will apply to woolen and cotton clothing, hats, flannel shirts, work shirts, silk shirts, underwear, and hosiery. It has been pointed out that the difficulty starts with the source of supply—the mills and the weaving of cloth—and that it is not a case of manipulating prices.

Matches.

For the past several years commissary patrons have been considerably inconvenienced owing to the poor quality of matches which they have been forced to purchase. This condition was occasioned by the war restrictions in foreign countries.

We are now glad to announce that these restrictions have been removed and we have just received a shipment of the old reliable Canal Zone matches which will be a great relief in the present situation.

Art Prints.

Many customers will be interested in the announcement that the larger commissaries have opened an art print department in connection with their sections selling books, stationery, and sheet music. The initial shipment of pictures consists of photogravures, mezzo prints, nursery rhymes, Stanlows post cards, and colored posters, the originals of which appeared in the leading illustrated American weeklies and in one monthly magazine of wide circulation in the United States. A variety of subjects is offered, and the price is somewhat below that at which such prints ordinarily are sold.

Books.

Books received:

"An Adopted Husband," by Sono Amokage; "The Madman," by Kahlil Gibran; "Good Sports," by Olive Higgins Prouty; "Fischerznd of Bolshevism," by Princess Catherine Radziwill; "The Beloved Stranger," by Witter Bynner; "The Life of the Party," by Irvin Cobb; "The Shadow on the Dial," by Orton H. Carmichael; "Caesar or Nothing," by Pio Baroja; "The Best Short Stories of 1918," by Edward J. O'Brien; "From Father to Son," by Mary S. Watts; "The Cricket," by Marjorie Benton Cooke; "The Last Million," by Ian Hay Beith; "The Secret City," by Hugh Walpole; "Tam o' the Scoots," by Edgar Wallace; "Alice-Sit-by-the-Fire," by J. M. Barrie; "With the Children in Lewis Carroll's Company," by William V. Kelly; "Christopher and Columbus," by the author of "Elizabeth and her German Garden;" "Strange Case of Cavendish," by Randall Parrish; "A Smile a Minute," by H. C. Witwer; "The Gay-Dombeys," by Sir Harry Johnston; "Midas & Son," by Stephen McKenna; "Lillies White and Red," by Frances Wilson Huard; "Saint's Progress," by John Galeworthy; "The Undying Fire," by H. G. Wells; "The Desert of Wheat," by Zane Grey; "The Arrow of Gold," by Joseph Conrad.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Volume XIII. Balboa Heights, C. Z., August 27, 1919. No. 2.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending August 23, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Lake Wilson	Panama Railroad Steamship Line.	August 17	August 17		2,739
Chile	Pacific Steam Navigation Co.	August 18	August 18		1,564
Palena	United Fruit Company.	August 19	August 19		680
Guatemala	Pacific Steam Navigation Co.	August 17	August 22	2,379	522
Calvert	Panama Agencies.	August 18	August 19	42	
Atenas	United Fruit Company.	August 18	August 19	422	
Panama	Panama Railroad Steamship Line.	August 18	August 20		3,833
Lake Hurst	Panama Railroad Steamship Line.	August 18	August 20		2,653
Cartago	United Fruit Company.	August 18	August 20	400	13
Ucayali	Peruvian Steamship Co.	August 19	August 19	2,562	
Gen. O. H. Ernst	Panama Railroad Steamship Line.	August 20	August 20	3,542	
Tiyives	United Fruit Company.	August 20	August 21	196	520
City of Para	Pacific Mail Steamship Line.	August 20	August 20	1,631	
Alianza	Panama Railroad Steamship Line.	August 21	August 21	2,276	
Abangarez	United Fruit Company.	August 21	August 22	5	1
Orotina	Panama Railroad Commissary.	August 21	August 21	82	
Peru	Pacific Steam Navigation Co.	August 21	August 21	1,705	
Bologna	Italian Steamship Line.	August 23	August 23	320	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending August 24, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
City of Para	Pacific Mail Steamship Co.	August 14	August 20	(*)	(†)
Guatemala	Pacific Steam Navigation Co.	August 16	August 17	(*)	(‡)
Peru	Pacific Steam Navigation Co.	August 20	August 21	10	(‡)
Cauca	Pacific Steam Navigation Co.	August 22	August 22	(†)	4
Pedro Christopherson	Johnson Line	August 23	August 23	13	(†)

(*) Reported in issue of August 17.

(†) No cargo discharged.

(‡) No cargo laded.

Executive Order.

It is hereby ordered that all veterans of the Civil War in the service of the Government of the United States who desire to attend the Fifty-third National Encampment of the Grand Army of the Republic to be held at Columbus, Ohio, September seventh to fourteenth, nineteen hundred and nineteen, shall be granted leave of absence with pay, in addition to the annual leave provided for by statute, from September seventh to fourteenth, inclusive, that they may have the opportunity to attend the Encampment, and that they be granted as many more days additional leave with pay in each case as are necessary for the journey to Columbus and return to their posts of duty.

THE WHITE HOUSE,
12 July, 1919.

WOODROW WILSON.

[No. 3112.]

Executive Order.

The Civil Service Commission may enter upon its register for stenographer, typewriter, or stenographer and typewriter at Washington, D. C., or elsewhere, the name of a person certified and appointed within three years from any of these registers who is found to be assigned principally in point of time or importance to work not requiring proficiency in the technical subjects upon which he was examined, after the following procedure:

(1) The employee shall transmit request for entry of his name on the register through the head of his department or office or his authorized representative,

in which he shall state the kind or kinds of work he is performing and the amount of time devoted to each kind.

(2) The request shall be promptly forwarded to the Commission with comment or recommendation.

(3) If the Commission finds that the principal duties of the person are not those requiring proficiency in the technical subjects upon which he was examined, his name shall be entered upon the appropriate register for further certification unless the department or office corrects the assignment and so reports.

(4) No disciplinary measure or discrimination shall follow request under this order except for false statement therein, of which the Commission shall be the judge.

(5) A person certified and selected under the terms of this order shall be at liberty to accept appointment without objection or hindrance by the department or office which failed to assign him to duties in keeping with his examination.

THE WHITE HOUSE,
30 June, 1919.

WOODROW WILSON.

[No. 3108.]

Executive Order.

1. The area of land hereinafter described as Fort Amador and Fort Grant Reservations, situated in the Canal Zone, is hereby set apart and assigned to the uses and purposes of a Military Reservation and shall be under the control of the Secretary of War; but said area shall be subject to the civil jurisdiction of the Canal Zone authorities in conformity with the Panama Canal Act.

2. The said area is described as follows:

FORT AMADOR AND FORT GRANT RESERVATIONS.

Starting at monument "V" which is a concrete monument whose location is latitude $8^{\circ} 56'$ plus 3,602.8 feet, longitude $79^{\circ} 33'$ plus 1,556.9 feet, shown on a map on file in the District Engineer Office, Balboa Heights, C. Z., entitled "Reservations of Fort Amador and Fort Grant, C. Z." File No. GP-2308, dated December 28, 1918; thence on a line (azimuth $97^{\circ} 06'$) connecting the said monument "V" with the center of the most southerly foot of the south radio tower, to the intersection of said line with the top of slope, a distance of 63 feet, more or less, which intersection is marked by a monument, marked "Mon. A" on the map; thence a distance of 534 feet on a line making an azimuth of $80^{\circ} 44'$ to a point just west of the main road to Fort Amador and marked by a peg set into a concrete pad in the gutter, marked "Mon. B" on the map; thence a distance of 405.3 feet on a line making an azimuth $70^{\circ} 0'$ to the intersection with the present boundary line at Balboa Radio Station WZ (Shown on a plan dated March 17, 1915, scale 1 to 600, entitled "U. S. Naval Radio Station, Balboa, C. Z." submitted by F. H. Cook) marked by a monument called "Mon. C" on the map; thence a distance of 635.4 feet, more or less, on a line making an azimuth of $307^{\circ} 40'$ to a point marked by a monument known as "Monument Z"; thence a distance of 652.4 feet, more or less, on a line making an azimuth of $37^{\circ} 40'$ to a concrete monument, marked "Mon. D" on the map, which monument is on the extreme high water line on the shore of Balboa Harbor; thence along the extreme high water line in a general southeasterly direction along the west bank of the breakwater, around the former islands of Naos, Culebra, Perico, and Flamenco back on the east bank of the breakwater and around the east bank of the present Fort Amador post site, on the extreme high water line to a concrete monument marked "Mon. G." on the map; thence on a line the azimuth of which is $37^{\circ} 40'$ for a distance of 63.8 feet to the concrete monument marked "V" on the map which is the point of beginning. Besides the area included in this boundary, the islands of San Jose, Panamarca, Changarni, Tortolita, Tortola, Cocoviceta, Cocovi, and Venado, are also within the reservation of Fort Grant.

All azimuths are true and read from south.

3. All land in this area, north of latitude $8^{\circ} 56'$ will be known as Fort Amador Reservation and all land south including the islands of San Jose, Panamarca, Changarni, Tortolita, Tortola, Cocoviceta, Cocovi, and Venado, will be known as Fort Grant Reservation. The monuments, marked "Mon. E." and "Mon. F." on the map locating this east and west line (Lat. $8^{\circ} 56''$) are placed on the extreme high water mark about 730 feet south of gun No. 1, Battery Birney.

4. Executive Order of May 28, 1918, relating to the transferring of a certain portion of land within the Balboa Radio Station Reservation from the control of the Secretary of the Navy to the control of the Secretary of War is hereby rescinded.

5. The following described portion of that certain tract of land situated at Balboa, Canal Zone, and placed under the control of the Secretary of the Navy by the Execu-

tive Order of May 26, 1914, No. 1948, is hereby transferred from the control of the Secretary of the Navy and placed under the control of the Secretary of War for military purposes:

Starting at monument "V" which is a concrete monument whose location is latitude $8^{\circ} 56'$ plus 3,602.8 feet, longitude $79^{\circ} 33'$ plus 1,556.9 feet, shown on a map on file in the District Engineer Office, Balboa Heights, C. Z., entitled "Reservations of Fort Amador and Fort Grant, C. Z., File No. GP-2308 dated December 28, 1918; thence on a line (azimuth $97^{\circ} 06'$) connecting the said monument "V" with the center of the most southerly foot of the south radio tower, to the intersection of said line with the top of slope, a distance of 63 feet, more or less, which intersection is marked by a monument, marked "Mon. A." on the map; thence a distance of 534 feet on a line making an azimuth of $80^{\circ} 44'$ to a point just west of the main road to Fort Amador and marked by a peg set into a concrete pad in the gutter, marked "Mon. B" on the map; thence a distance of 405.3 feet on a line making an azimuth of $70^{\circ} 0'$ to the intersection with the present boundary line at Balboa Radio Station WZ (shown on a plan dated March 17, 1915, scale 1 to 600 entitled "U. S. Naval Radio Station, Balboa, C. Z." submitted by F. H. Cooke) marked by a monument called "Mon. C", on the map; thence a distance of 635.4 feet on a line making an azimuth of $307^{\circ} 40'$ to a point marked by a monument known as "Monument Z" thence a distance of 765 feet, more or less on a line making an azimuth of $217^{\circ} 40'$ to Monument "V" which is the point of beginning.

All azimuths are true and read from south.

6. The transfer of the above described tract of land is made subject to the continued right of the Navy Department to lay and maintain therein underground antennae receiving wires needed in connection with the maintenance and operation of the Naval Radio Station, at Balboa, C. Z.

7. This portion of land herein transferred is included in the above description of Fort Amador.

8. In addition to the above the Secretary of War shall have control of all lands and water for a distance of one hundred yards out to sea from the high water line on all shores of Fort Amador and Fort Grant Reservations, terminating at the prolongation of boundary lines toward the sea from points marked "Mon. D" and "Mon. G" on the map.

THE WHITE HOUSE,
25th July, 1919.

WOODROW WILSON.

[No. 3130.]

September Weather Probabilities.

The following weather conditions may be expected at the Canal entrances during the month of September, 1919. Predictions are based on the records at Colon and Balboa Heights for the past 12 and 13 years, respectively:

Winds—Light southeast and variable winds will prevail over the Atlantic coast, with an average hourly velocity of about 7 miles, although a maximum velocity as high as 35 miles an hour may occur during the passage of local rain or thunder showers.

Light northwest or north winds will prevail over the interior and the Pacific coast, with an average hourly velocity of about 6 miles. A maximum velocity of 30 or 35 miles an hour may be expected during local rain or thunder storms, but such storms seldom last for more than a few minutes.

Rain—The average September rainfall on the Atlantic coast for a period of 48 years is 12.67 inches, while the average rainfall at the Pacific entrance for a period of 22 years is 7.75 inches. Heavy showers may be expected on both coasts. The average number of days during the month on which the rainfall equals or exceeds 1 inch (1.00) has been 4 on the Atlantic coast and 3 on the Pacific side.

Fogs—Few, if any, fogs are likely to occur on either coast, but night and early morning fogs will be numerous over the interior. The average number of fogs over the Gaillard Cut section of the Canal during the month of September is about 25, 57 per cent of which have been dense. (In a dense fog objects can not be distinguished at a distance of one thousand feet.) All fogs that occur may be expected to lift or become dissipated by 8.30 a. m.

Temperature—The average shade air temperature over both coasts will be approximately 80° Fahrenheit. The maximum temperature for the month is not likely to exceed 94° F. at the Pacific entrance, or the minimum be lower than 68° F., while at the Atlantic entrance a temperature higher than 91° F. or lower than 71° F. is not likely to occur. The mean daily range in temperature will be about 13° F. on the Pacific coast and 10° F. on the Atlantic.

Barometric pressure—Except for the well-marked diurnal changes, variations in atmospheric pressure on the Isthmus are very slight, and have little value in indicating future weather conditions. The mean atmospheric pressure for the month will be about 29.84 inches over both coasts. The highest pressure is not likely to be above 29.95 inches, or the minimum lower than 29.70 inches.

Relative humidity—The percentage of moisture in the air varies but slightly from month to month during the rainy season. The average humidity for the month of September on both coasts will be close to 87 per cent. On the Pacific coast the average maximum night-time humidity will be about 95 per cent, while the average minimum day-time value will be close to 74 per cent. On the Atlantic coast the corresponding values will be about 92 per cent and 79 per cent, respectively.

Storms—Local wind, thunder or rain squalls of limited extent may be expected quite frequently over the Isthmus during the month of September. No severe general storms are likely to occur as the Canal Zone lies without the regions of violent and widespread atmospheric disturbance. The West Indian hurricane season is from June to November, but the normal paths of these storms during the coming month lie well to the northward of the Isthmus. A rough sea with fresh winds may be experienced occasionally outside the breakwater following the passage of one of these storms. The average number of days during September on which thunderstorms occur is about 18 on both coasts.

Generally cloudy weather will prevail and smooth to moderate seas may be expected at the Pacific entrance.

Tides—Tidal fluctuations at the Atlantic entrance to the Canal are too small to affect navigation, as the maximum tidal range of record is only about 2 feet.

Panama (Balboa) tide predictions are given below:

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.			
W.	Mo.					W.	Mo.					W.	Mo.				
M	1	1:38	7:37	2:08	7:58	Th	11	4:11	10:36	4:32	10:55	S	21	1:17	7:36	1:42	8:01
		2.8	14.0	3.0	13.0			16.7	-0.5	16.6	-0.7			13.8	3.0	14.0	2.4
Tu	2	2:22	8:13	2:55	8:40	F	12	4:52	11:15	5:15	11:34	M	22	2:12	8:31	2:34	8:52
		3.8	13.1	3.9	12.1			17.3	-1.0	16.9	-0.8			14.6	2.1	14.7	1.7
W	3	3:13	8:58	3:54	9:37	S	13	5:34	11:56	5:58	.....	Tu	23	2:58	9:17	3:19	9:34
		4.7	12.3	4.7	11.4			17.5	-1.0	16.8	.....			15.2	1.3	15.2	1.1
Th	4	4:17	10:00	5:03	10:55	S	14	0:15	6:18	12:39	6:43	W	24	3:39	9:57	4:00	10:12
		5.4	11.6	5.0	11.1			-0.5	17.3	-0.6	16.4			15.7	0.7	15.5	0.8
F	5	5:31	11:24	6:15	.....	M	15	1:00	7:04	1:27	7:30	Th	25	4:17	10:33	4:37	10:48
		5.6	11.5	4.9	.....			0.2	16.7	0.2	15.6			16.0	0.4	15.7	0.7
S	6	0:16	6:42	12:29	7:19	Tu	16	1:50	7:53	2:20	8:24	F	26	4:52	11:08	5:13	11:22
		11.6	5.1	12.1	4.2			1.3	15.7	1.3	14.6			16.0	0.3	15.6	0.9
S	7	1:17	7:42	1:37	8:11	W	17	2:48	8:49	3:23	9:26	S	27	5:27	11:43	6:47	11:58
		12.5	4.1	13.0	3.1			2.4	14.6	2.3	13.7			15.8	0.6	15.2	1.3
M	8	2:05	8:32	2:24	8:56	Th	18	3:57	9:58	4:35	10:44	S	28	5:58	12:17	6:20	.....
		13.6	2.9	14.0	1.9			3.4	13.7	3.1	13.1			15.4	1.1	14.8	.....
Tu	9	2:48	9:16	3:08	9:37	F	19	5:13	11:20	5:50	.....	M	29	0:30	6:30	12:53	6:53
		14.7	1.6	15.0	0.8			3.9	13.2	3.4	.....			2.0	14.8	1.8	14.1
W	10	3:30	9:57	3:51	10:17	S	20	0:07	6:29	12:38	7:02	Tu	30	1:08	7:02	1:32	7:29
		15.8	0.4	15.9	-0.1			13.2	3.7	13.4	3.1			2.9	14.1	2.7	13.4

The tides are placed in the order of their occurrence; the *times* of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The *elevations* of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons

interested may obtain data on application to the Civil Service Board, Balboa Heights, (telephone 286):

Superintendent of melting shops (male); \$5,000 a year; No. 421; September 23, 1919; form 1312; age, within reasonable age limits.*

Superintendent of forge shops (male); \$5,000 a year; No. 421; September 23, 1919; form 1312; age, within reasonable age limits.*

Oiler (male); \$840 a year; No. 417; September 16, 1919; form 1800; age, over 18 years.*

Grain supervisor (male); \$1800 to \$3,240 a year; No. 408; September 30, 1919; form 2118; age, 25 years but not 50 years.*

Apprentice map engraver (male); \$700 to \$800 a year; September 17, 1919; form 304; age, 16 years but not 18 years.*

Assistant examiner, Patent Office (male and female); \$1,500 a year; No. 400; September 17, 18 and 19, 1919; November 19, 20 and 21, 1919; form 1312; age, 20 years and over.

Kelp plant chemist (male); \$1,440 to \$1,800 a year; No. 418; September 16, 1919; form 1312; age, not 45 years.*

Skilled laborer, qualified in pasteboard box making (female); \$720 to \$900 a year; September 23, 1919; form 304; age more than 18 years.*

Expert radio aid (male); \$7.04 to \$12 a day; No. 298, amended; September 30, 1919; form 2118; age, within reasonable age limits.*

Investigator in tobacco warehousing (male); \$2,200 to \$3,000; October 7, 1919; form 2118; age, 25 years but not 45 years.*

Clerk-translator (male and female) (qualified in Japanese); \$1,000 a year; October 8, 1919; form 304; age, over 18 years.

Industrial supervisor (male and female); \$2,600 to \$3,000 a year; industrial assistant (male and female); \$2,100 to \$2,500 a year; industrial agent (male and female); \$1,800 to \$2,000 a year; October 14, 1919; form 2118; age, over 25 years.*

Junior physicist (male); (qualified in fuel analysis and high temperature measurements); \$1,500 a year; October 7, 1919; form 1312; age, not 40 years.*

Plant engineer (male); \$3,000 to \$3,600 a year; September 30, 1919; form 1312; age, within reasonable age limits.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Local Civil Service Examinations.

The following examinations will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, September 21, 1919.

Postal Clerk, September 28, 1919.

Stenographer and Typist, September 28, 1919.

Full information in regard to the scope and the character of the examinations is contained in pamphlet form 1424, Information for Applicants for Stenographer and Typewriter Examination, a copy of which may be obtained from the Secretary of the Civil Service Board, Administration Building, Balboa Heights, C. Z. Applicants for the Clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First, typewriting; second, bookkeeping; third, general business training and experience; fourth, timekeeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for Postal Clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone postoffices or as postmaster or as Navy mail clerk, and that they are familiar with the receipt, distribution and dispatch of mail matter, the issuance of money orders, registration of mail, and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officers' certificate, and should be filed promptly with the Board of Civil Service Examiners at Balboa Heights, C. Z.

Applicants must have reached their 20th but not their 45th birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within 2 years, securely pasted in the place provided in the admission cards sent them after their applications are filed.

Applicants for the Clerk examination in answer to question 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some *State or Territory* of the United States from the time of taking up residence therein to *September, 1919*, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the *county*.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted army and navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for The Panama Canal Service.

COMMISSARY NOTE.

Fishing Tackle.

A shipment of fishing tackle recently received has been distributed among Cristobal, Gatun, and Balboa Commissaries. Reels, tarpon hooks, treble hocks, cutty line, record spoons, swivels, and drag handles are some of the items now offered for sale.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, August 23, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage									
	Day	Hour	Day	Hour	Day	Hour										Gross	Net								
Acajutla.....	15	16	04	17	5	55	17	14	05	17	14	50	British	Pacific Steam Navigation Co.	215	0	33	0	13	3	Cristobal	Manta.....	Ballast.....	1,273	706
Salem (d).....	15	13	10	17	6	05	17	13	58	17	13	50	American	United States Navy.....	120	0	47	0	20	9	Boston.....	San Diego.....	.....	.....	.....
Tamaha.....	16	22	16	17	7	10	17	16	50	17	16	50	British	Standard Transportation Co.	420	0	54	0	26	0	Beaumont.....	San Francisco	.....	8,484	6,573
Minerie.....	17	5	06	17	20	03	17	20	03	17	20	03	British	Andrew Weir and Company.....	405	0	52	0	25	9	New York.....	San Francisco	.....	7,036	6,139
Castree.....	17	12	24	17	13	30	17	13	30	17	13	30	British	United States Shipping Board.....	233	4	43	6	21	2	Baltimore.....	Cadco.....	.....	2,131	2,704
Eastern Queen.....	16	22	23	17	12	10	17	12	10	17	12	10	American	United States Shipping Board.....	385	0	51	0	28	2	Baltimore.....	San Francisco	.....	7,948	5,920
Williams (b).....	17	8	40	18	6	02	18	6	02	18	6	02	American	United States Navy.....	314	0	30	5	12	6	New York.....	San Francisco	.....	.....	.....
Cream (b).....	17	8	40	18	6	20	18	14	02	18	14	57	American	United States Navy.....	314	0	30	5	12	6	New York.....	San Francisco	.....	.....	.....
Lea (b).....	17	8	44	18	6	20	18	13	57	18	13	57	American	United States Navy.....	314	0	30	5	12	6	New York.....	San Francisco	.....	.....	.....
Idaho (c).....	17	17	42	18	6	03	18	18	01	18	18	55	American	United States Navy.....	314	0	30	5	12	6	New York.....	San Francisco	.....	.....	.....
Chile.....	11	18	55	18	7	30	18	16	18	18	21	39	British	Pacific Steam Navigation Co.	360	0	97	0	32	0	Rio de Janeiro	San Francisco	.....	.....	.....
Republic.....	18	6	30	18	8	01	18	16	53	18	17	40	American	Chile Steamship Company.....	345	1	49	1	20	0	New York.....	San Francisco	.....	1,612	4,040
Alatouos.....	18	6	30	18	13	18	18	19	58	18	20	40	British	Alfred Holt and Company.....	411	0	52	0	26	9	New York.....	Valparaiso.....	.....	4,900	4,023
Calvert.....	18	9	17	19	6	15	19	14	20	19	15	10	American	United States Shipping Board.....	339	0	49	0	17	8	Baltimore.....	Shanghai.....	.....	6,700	6,706
Palena.....	13	17	30	19	6	25	19	14	10	19	15	00	Chilean	South American Steamship Line.....	350	0	42	0	22	6	Baltimore.....	Honolulu.....	.....	1,926	4,398
Balto.....	13	20	19	6	25	19	14	10	19	15	00	American	United States Shipping Board.....	297	3	46	0	24	0	Norfolk.....	Coquimbo.....	.....	681	3,639	
Aroostook (d).....	18	9	42	19	13	30	19	19	42	22	15	22	American	United States Navy.....	387	0	52	0	18	6	Hampton Rds.	San Pedro.....	.....	2,500	2,655
Miraflores (e).....	17	22	42	20	5	50	20	13	51	20	13	51	American	United States Navy.....	118	6	23	0	13	0	New York	Salboa.....	.....	9,087	8,284
Nudea.....	19	11	45	20	6	30	20	13	49	21	10	43	British	British India Steam Nav. Co.	449	5	58	2	27	0	New York	Brisbane.....	.....	2,530	2,407
Crane.....	19	17	00	20	7	30	20	16	29	20	17	35	American	United States Shipping Board.....	253	5	43	2	3	0	Norfolk.....	Los Vilos.....	.....	7,500	5,933
Rafines Maru.....	20	17	35	21	6	10	21	14	07	21	14	55	Japanese	Osaka Shosen Kaisha.....	385	0	51	0	26	1	New Orleans.....	San Francisco	.....	.....	.....
City of Melbourne.....	30	11	47	21	9	38	21	17	39	21	18	25	British	Ellerman Lines, Ltd.....	412	3	55	5	29	0	New York	Yokohama.....	.....	8,000	4,763
Kanawara.....	21	12	00	21	12	25	21	19	05	22	18	42	British	Union S. Co. of New Zealand.....	331	0	46	1	26	1	Norfolk.....	San Francisco	.....	4,200	3,421
Kanagawa Maru.....	21	8	33	21	12	31	21	20	21	21	23	Japanese	Nippon Yusen Kabushiki Kaisha	445	0	49	4	22	0	London.....	San Francisco	.....	6,026	6,291	
Brutus (f).....	15	16	28	22	5	37	22	14	02	22	22	42	American	United States Navy.....	321	5	41	5	24	9	Cristobal.....	Annapala.....	.....	3,000	2,816
Tatsuno Maru.....	22	4	37	22	7	43	22	15	07	22	20	54	Japanese	Nippon Yusen Kabushiki Kaisha	445	0	58	0	26	0	New York.....	San Francisco	.....	9,739	7,719
La Habra.....	22	6	20	22	8	52	22	16	54	22	18	08	Norwegian	W. Wilhelmsen.....	424	8	57	0	27	6	Tampico.....	Tocepolla.....	.....	9,000	7,235
Sea Rover (g).....	17	20	52	22	9	35	22	18	05	22	20	16	American	United States Navy.....	120	0	26	0	15	1	Norfolk.....	San Diego.....	.....	542	4,246
and Target 54.....	17	20	05	22	10	36	22	18	05	22	20	54	British	Pacific Steam Navigation Co.	359	0	43	3	18	0	Cristobal.....	Valparaiso.....	.....	1,205	1,582
Guatemala.....	16	19	55	22	10	42	22	17	47	22	21	12	British	Pacific Steam Navigation Co.	246	0	35	0	16	2	Cristobal.....	Guayaquil.....	.....	5,387	8,783
City of Winchester.....	21	22	00	22	13	14	22	21	23	22	22	54	American	Ellerman Lines, Ltd.....	436	0	47	0	27	6	Norfolk.....	Dunedin.....	.....	3,200	6,603
U. S. S. Bath (h).....	21	7	38	22	13	27	22	20	09	22	20	18	British	United States Navy.....	329	0	56	2	20	3	New York.....	San Francisco	.....	1,443	5,281
Pedro Christophersen (i).....	22	15	37	22	17	30	23	9	58	23	18	16	Swedish	Johnson Steamship Line.....	360	0	51	7	16	0	Gothenberg.....	San Francisco	.....	1,443	5,281
Orotina (j).....	21	21	55	23	11	00	23	20	28	23	20	28	American	P. Wilson.....	87	0	22	7	0	0	Port York.....	Valparaiso.....	.....	102	65
Santa Luisa.....	22	22	13	23	11	10	23	17	52	23	18	30	American	W. R. Grace & Company.....	360	0	51	6	22	0	New York.....	Valparaiso.....	.....	3,207	5,694

(a) Cruiser. (b) Destroyer. (c) Dreadnaught. (d) Mine planter. (e) U. S. Tug. (f) Collier. (g) U. S. Tug. (h) Supply ship. (i) Motor ship. (j) Power schooner.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Date	Vessels	Line	From	Date	Vessels	Line	To
Bushrod	9 7 00	17 6 40	17 16 37	18 8 25	American	United States Shipping Board	294.0	Aberdeen
Esmeront Castle	17 12 01	17 11 50	17 22 50	17 22 50	British	James Chambers & Company	410.0	Kobe
Guatemala	16 6 10	17 12 50	17 20 05	20 30	British	Pacific Steam Navigation Co.	350.3	Valparaiso
Panama Isabel	17 13 00	18 9 31	18 19 55	18 21 00	American	Grace Steamship Company	210.5	Salaverry
Ucayali	19 3 15	19 9 24	19 16 21	20 05	Peruvian	Peruvian Steamship Line	374.7	Callao
City of Para	14 22 09	20 10 05	20 17 34	20 05	American	Pacific Mail Steamship Co.	345.0	San Francisco
Governor Forbes	21 8 05	21 8 53	21 16 07	21 20 05	American	A. O. Lindvig	260.0	San Francisco
Grayling	16 9 30	21 10 20	21 17 21	21 45	Norwegian	United States Shipping Board	273.3	Tacoma
Peru	20 16 00	21 12 26	21 19 10	21 45	British	Pacific Steam Navigation Co.	350.0	Port Custer
Cocoino	21 11 30	21 12 41	21 20 52	22 12 30	American	United States Shipping Board	275.2	Vancouver
Asyana	22 6 30	22 7 38	22 15 18	22 21 55	British	A. Holt & Company	392.3	San Francisco
Bordland	21 12 35	22 7 54	22 16 58	20 30	Norwegian	Peter Olsen	362.0	Valparaiso
Suavite	22 12 01	22 8 11	22 17 15	22 20 20	British	Andrew Weir & Company	460.0	Balboa
S. C. No. 282	8 12 17	22 8 51	22 16 41	20 05	American	United States Navy	376.0	Eten
Vancouver	22 1 30	22 9 40	22 19 07	23 1 23	British	Gow Harrison & Company	266.9	Honolulu
Aiken	22 8 45	22 10 52	22 18 45	23 6 42	American	United States Shipping Board	250.0	San Francisco
George W. Elder	23 3 58	23 7 43	23 15 02	23 15 02	American	Thomas Crowley and others	409.6	Honolulu
Elmsport	23 10 30	23 11 30	23 19 57	23 23 15	American	United States Shipping Board	409.6	Honolulu

(k) Sugar, ore, hides, steel. (l) Lumber, flour, and canned goods. (m) Sugar, coffee, broomroot.

PORT OF CRISTOBAL.

		*ARRIVALS			*DEPARTURES		
Date	Vessels	Line	From	Date	Vessels	Line	For
Aug. 18	Cartago	United Fruit Company	New Orleans	Aug. 17	Lake Wilson	United States Shipping Board	New York
Aug. 18	Avenas	United Fruit Company	New York and Habana	Aug. 19	Atenas	United Fruit Company	New York via Port Limon.
Aug. 20	Gen. O. H. Ernst	Panama Railroad Steamship Line	New York and Haiti	Aug. 19	Medallbury	United States Shipping Board	Cartagena
Aug. 20	Tivives	United Fruit Company	New York and Kingston	Aug. 20	Panama	Panama Railroad Steamship Line	New York
Aug. 21	Allianca	Panama Railroad Steamship Line	New York	Aug. 20	Lake Hurst	United States Shipping Board	New York
Aug. 21	Alvarez	United Fruit Company	Cartagena	Aug. 20	Cartago	United Fruit Company	New Orleans, Boens, Habana
Aug. 21	Bologna	La Veloz Steamship Line	Genoa via waypoints	Aug. 21	Tivives	United Fruit Company	Kingston.
Aug. 23	Melina	H. E. Mess & Company	Tampico, Mexico	Aug. 22	Nemesis	Lindsay Swan Hunter	Colombia.
Aug. 23	Dushrod	United States Shipping Board	High seas for repairs	Aug. 22	Abanagarc	United Fruit Company	New York and Kingston.
				Aug. 22	Gen. H. F. Hodges	Panama Railroad Steamship Line	New York and Haiti.

PORT OF BALBOA.

		*ARRIVALS			*DEPARTURES		
Date	Vessels	Line	From	Date	Vessels	Line	For
Aug. 16	Melville (n)	United States Navy	High seas	Aug. 17	Seivo Maru	Toyo Kisen Kaisha	Hongkong.
Aug. 12	Mukitico	Charles Nelson	Mukitico	Aug. 23	Lake Sanford	United States Shipping Board	Tacoma.
Aug. 12	Charles Nelson	Charles Nelson	Mukitico				
Aug. 20	Guardian (o)	Central & South American Cable Co.	Callao				
Aug. 21	Lake Sanford	United States Shipping Board	Valparaiso				

*Other than ships passing through the Canal. (n) Supply ship. (o) Cable ship.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Hubert Thompson....	23912	Jamaica.....	Red Tank.....	Operation and Main.	August 13, 1919.
Arnold Green.....	22207	St. Vincent.....	Panama.....	Dredging Div.....	August 17, 1919.

Official Circulars.**Accountable Official.**

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 17, 1919.

CIRCULAR No. 203:

Effective June 16, 1919, Mr. T. C. Morris, Assistant Engineer, is designated an accountable official of The Panama Canal, *vice* Mr. Hartley Rowe, and as such will account for all nonexpendable property in use in the Building Division.

H. A. A. SMITH,

Approved: Auditor, The Panama Canal.

CHESTER HARDING,
Governor.

Cable Notice.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., August 20, 1919.

To agents and operators—The following information has been received from the Central and South American Telegraph and Cable Company:

"Manila-Shanghai cable repaired. Direct communication with China and Siberia is restored."

W. J. BISSELL,

Acting Master of Transportation.

Leave of Absence and Time Limit on Quarters of Employees Delayed by Strikes.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 23, 1919.

To all concerned—In accordance with the following communication from the Washington Office, dated August 7, 1919, the leaves of absence and time limits on quarters will be protected in cases of employees concerned:

"The Panama Railroad Company has been able to secure for us some additional berths on the United Fruit Company steamers during this month, in view of which we will now be able to transport all accumulated and surplus passengers during this month. We have found it necessary, however, to assign a few passengers to the *Advance* sailing August 28, who will arrive on the Isthmus a little overdue on their quarters and leave. This is absolutely unavoidable, and it is assumed, therefore, that you will protect the leaves of absence and family quarters of all Canal employees sailing during the month of August. We are assuring all passengers accordingly. Copies of our various reservation lists as we send them to the Panama Railroad Company are of course being furnished you, as has been our practice for some time, from which can be obtained the names of all employees as they are scheduled to sail."

By direction of the Governor:

C. A. McILVAINE,
Executive Secretary.

Train Service for Labor Day.

PANAMA RAILROAD COMPANY,

OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., August 26, 1919.

CIRCULAR No. 1347:

To all concerned—The Panama Railroad will operate regular Sunday schedules on the main line and Las Cascadas branch on Labor Day, Monday, September 1.

No change will be made in the Fort Randolph Branch train schedule for that date.

Local freights will not run on Monday, September 1.

Train No. 101, scheduled to leave Cristobal 11.15 p. m., will be held until midnight, Monday, September 1.

W. J. BISSELL,

Approved: Acting Master of Transportation.

S. W. HEALD
Superintendent.

In Charge of Division of Civil Affairs.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 22, 1919.

To all concerned—Effective August 27, 1919, and during the absence of the Chief, Division of Civil Affairs, on leave, Mr. C. E. Nevius will be Acting Chief of the Division of Civil Affairs and Acting Administrator of Estates. Mr. S. C. Russell will be Acting Director of Posts, and Mr. J. A. Mitchell will be Acting Shipping Commissioner.

C. A. McILVAINE,

Approved: Executive Secretary.

CHESTER HARDING,
Governor.

Sale of Four Kelly-Springfield Motor Busses.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., September 26, 1919, and then opened, for the purchase of four Kelly-Springfield motor busses. These busses were operated by the Panama Railroad Company, carrying passengers between Ancon and Balboa up to August 1, when same were retired from service. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Three Buildings on Pier 4, Colon.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., September 26, 1919, and then opened, for the purchase of three buildings known as the armory, the mess hall, and the bath house, located on pier 4, Colon. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Joint Commission.

Decisions of the Umpire.

In the matter of the claim of Domingo Diaz A., Mrs. Elicia A. vda. de Diaz, Isabel Diaz de Jimenez, for a portion of the property known as "Lo de Caceres," located near Pueblo Nuevo. Amount claimed: At the rate of \$250 per hectare. Decision of Umpire, award No. 202, docket No. 3260, August 11, 1919—An award is hereby made against the United States of America, in favor of Mrs. Elicia A. vda. de Diaz, Domingo Diaz A., and Isabel Diaz de Jimenez in the total sum of \$3,978, United States currency, plus interest at the rate of six per centum (6%) per annum from December 5, 1912, the date of the depopulation order of the Canal Zone, until payment or tender of payment of this award is made, for all right, title, and interest which the said Mrs. Elicia A. vda. de Diaz, Domingo Diaz A., and Isabel Diaz de Jimenez may possess or may have possessed in and to a portion of the property known as "Lo de Caceres," consisting of 120½ hectares located within the Canal Zone near Pueblo Nuevo, subject of claim docket No. 3260, including any and all damages sustained by them on account of the expropriation of this property by the United States of America, this award to be paid in the proportions and amounts as follows:

To Mrs. Elicia A. vda. de Diaz, one half thereof (plus interest as above indicated).....	\$1,989.00
To Isabel Diaz de Jimenez, one-fourth thereof (plus interest as above indicated).....	994.50
To Domingo Diaz A., one fourth thereof (plus interest as above indicated).....	994.50
Total (plus interest as above indicated).....	\$3,978.00

MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of Domingo Diaz A., Mrs. Elicia A. vda. de Diaz Isabel Diaz de Jimenez, for a portion of the property known as "Lo de Caceres," located near Pueblo Nuevo. Amount claimed: At the rate of \$250 per hectare. Decision of the Umpire, award No. 205, docket No. 3260, August 21, 1919—Referring to my award No. 202, dated August 11, 1919, in favor of the above-named claimants, in the amount of \$3,978, the following explanation is made:

Due to the fact that in connection with a former stipulation as to the value of improvements on a portion of the tract in question the amount agreed upon was divided and \$3,000 ordered deposited in court; and that it was also stipulated (page 163 of the record) that \$3,000 was the value of the improvements on the section of this same tract now being connected with both of these amounts of \$3,000, the undersigned gained the erroneous impression that the matter of improvements on the 120½ hectares had already been settled, and for this reason no mention of improvements was made in my said award No. 202.

Having discovered this error, an additional award is therefore made against the United States of America in the amount of \$3,000 United States currency, for the value of all improvements which existed upon the undisputed 120½ hectares of the "Lo de Caceres" property at the time of the expropriation of same by the United States, this award to be paid in the proportions and amounts as follows:

To Mrs. Elicia A. vda. de Diaz, one half thereof.....	\$1,500.00
To Isabel Diaz de Jimenez, one fourth thereof.....	750.00
To Domingo Diaz A., one fourth thereof.....	750.00
Total.....	\$3,000.00

If payment or tender of payment of this award is not made on or before the 21st day of Septem-

ber, 1919, said amount shall thereafter bear interest at the rate of six per centum (6%) per annum until paid.

Done in the National Palace, Panama, this twenty-first day of August, 1919.

MANUEL WALLS Y MERINO,
Umpire.

Current Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships, including warships of all nations, in transit through the Canal, delivered and trimmed in bunkers, at \$11.50 per ton of 2,240 pounds at either Cristobal or Balboa. For ships not in transit through the Canal, \$11.50 per ton at Cristobal and \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$13 per ton at Cristobal, \$15 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$2.00 per barrel of 42 gallons.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. The prices will be increased by 25 per cent in cases of sales to United States and foreign naval vessels and commercial ships, including yachts. Prices quoted are United States currency, per pound.

Beef hinds, 13 cents; beef fores, 10 cents; beef ribs, entire set, 14 cents; short loins, 18 cents. This beef is from Colombian cattle, slaughtered on the Isthmus.

Act of Congress.—Sundry Civil Appropriation, 1920.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 13, 1919.

CIRCULAR NO. 600-64:

The extracts from an Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations for sundry civil expenss of the Government for the fiscal year ending June 30, 1920, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums are appropriated, out of any moneys in the Treasury not otherwise appropriated, for the fiscal year ending June 30, 1920, namely:

* * * * *
WAR DEPARTMENT
* * * * *
QUARTERMASTER CORPS
* * * * *

Disposition of remains of officers, soldiers, and civilian employees: For interment, or of preparation and transportation to their homes or to such national cemeteries as may be designated by proper authority, in the discretion of the Secretary of War, of the remains of officers, cadets, United States Military Academy, including acting assistant surgeons and enlisted men in active service; interment, or of preparation and transportation to their homes, of the remains of civil employees of the Army in the employ of the War Department, who die abroad, in Alaska, in the Canal Zone, or on Army transports, * * * \$8,451,000; Provided, That during the continuances of the present war the above provisions shall be applicable in the cases of officers and enlisted men on the retired list of the Army who have died or may hereafter die while on active duty by proper assignment.

* * * * *
DEPARTMENT OF THE INTERIOR
* * * * *
SAINT ELIZABETHS HOSPITAL

For support, clothing, and treatment in Saint Elizabeths Hospital of the insane from the Army, Navy, Marine Corps, Coast Guard, inmates of

the National Home for Disabled Volunteer Soldiers, persons charged with or convicted of crimes against the United States who are insane, all persons who have become insane since their entry into the military and naval service of the United States, civilians in the quartermaster's service of the Army, persons transferred from the Canal Zone, who have been admitted to the hospital and who are indigent, * * *

* * * * *
 DEPARTMENT OF COMMERCE
 * * * * *
 COAST AND GEODETIC SURVEY
 * * * * *

Field expenses: For surveys and necessary surveys of the Atlantic and Gulf coasts of the United States, including the coasts of outlying islands under the jurisdiction of the United States: *Provided*, That not more than \$45,000 of this amount shall be expended on the coasts of said outlying islands, and the Atlantic entrance to the Panama Canal, \$115,000;

* * * * *
 THE PANAMA CANAL

For every expenditure requisite for and incident to the maintenance and operation, sanitation, and civil government of the Panama Canal and Canal Zone, including the following: Compensation of all officials and employees, including \$1,000 additional compensation to the Auditor for the War Department for extra services in auditing accounts for the Panama Canal; foreign and domestic newspapers and periodicals; law books not exceeding \$500, textbooks and books of reference; printing and binding, including printing of annual report; rent and personal services in the District of Columbia; purchase or exchange of typewriting, adding, and other machines; purchase or exchange, maintenance, repair, and operation of motor-propelled and horse-drawn passenger-carrying vehicles; claims for damages to vessels passing through the locks of the Panama Canal, as authorized by the Panama Canal Act; claims for losses of or damages to property arising from the conduct of authorized business operations; claims for damages to property arising from the maintenance and operation, sanitation, and civil government of the Panama Canal; acquisition of land and land under water, as authorized in the Panama Canal Act; expenses incurred in assembling, assorting, storing, repairing, and selling material, machinery, and equipment heretofore or hereafter purchased or acquired for the construction of the Panama Canal which are unserviceable or no longer needed, to be reimbursed from the proceeds of such sales; expenses incident to conducting hearings and examining estimates for appropriations on the Isthmus; or like character not foreseen or otherwise provided for herein; per diem allowance in lieu of subsistence when prescribed by the Governor of the Panama Canal, to persons engaged in field work or traveling on official business, pursuant to section 13 of the Sundry Civil Appropriation Act approved August 1, 1914; and for such other expenses not in the United States as the Governor of the Panama Canal may deem necessary best to promote the maintenance and operation, sanitation, and civil government of the Panama Canal, all to be expended under the direction of the Governor of the Panama Canal and accounted for as follows:

For maintenance and operation of the Panama Canal, salary of governor, \$10,000; purchase, inspection, delivery, handling, and storing of material, supplies, and equipment for issue to all departments of the Panama Canal, the Panama Railroad, other branches of the United States Government, and for authorized sales, payment in lump sums of not exceeding the amounts authorized by the Injury Compensation Act approved September 7, 1916, to alien cripples who are now a charge upon the Panama Canal by reason of injuries sustained while employed in the construction of the Panama Canal, \$7,547,939, together with all moneys arising from the conduct

of business operations authorized by the Panama Canal Act;

For sanitation, quarantine, hospitals, and medical aid and support of the insane and of lepers, and aid and support of indigent persons legally within the Canal Zone, including expenses of their deportation when practicable, and including additional compensation to any officer of the United States Public Health Service detailed with the Panama Canal as chief quarantine officer, \$850,000;

For civil government of the Panama Canal and Canal Zone, district judge at the rate of \$7,500 per annum from March 1, 1919, district attorney, \$5,000, marshal \$5,000, and for gratuities and necessary clothing for indigent discharged prisoners, \$702,000;

For completing in every detail two sea-going coal barges now under construction by contract entered into by the United States Shipping Board Emergency Fleet Corporation acting for the Panama Canal, to the extent that it was acting within the limits of the authority of the Panama Canal under the act approved June 12, 1917, (Fotiet., Statutes at Large, page 177), \$364,949 each, or so much thereof as may be necessary, in addition to \$800,000 each appropriated for two sea-going barges in said Act: *Provided*, That the limitation contained in said Act that the total cost of each barge shall not exceed \$800,000 each is hereby removed, \$729,898.

In all, \$9,829,837, to continue available until expended.

Except in cases of emergency, or conditions arising subsequent to and unforeseen at the time of submitting the annual estimates to Congress, and except for those employed in connection with the construction of permanent quarters, offices, and other necessary buildings, dry docks, repair shops, yards, docks, wharves, warehouses, storehouses, and other necessary facilities and appurtenances for the purpose of providing coal and other materials, labor, repairs, and supplies, and except for the permanent operating organization under which the compensation of the various positions is limited by section 4 of the Panama Canal Act, there shall not be employed at any time during the fiscal year 1920 under any of the foregoing appropriations for the Panama Canal any greater number of persons than are specified in the notes submitted, respectively, in connection with the estimates for each of said appropriations in the annual Book of Estimates for said year, nor shall there be paid to any such person during that fiscal year any greater rate of compensation than was authorized to be paid to persons occupying the same or like positions on July 1, 1918; and all employments made or compensation increased because of emergencies or conditions so arising shall be specifically set forth, with the reasons therefor, by the governor in his report for the fiscal year 1920.

In addition to the foregoing sums there is appropriated, for the fiscal year 1920 for expenditures and reinvestment under the several heads of appropriation aforesaid without being covered into the Treasury of the United States, all moneys received by the Panama Canal from services rendered or materials and supplies furnished to the United States, the Panama Railroad Company, the Canal Zone Government, or to their employees respectively, or to the Panama Government, from hotel and hospital supplies and services; from rentals, wharfage, and like service; from labor, materials, and supplies, and other services furnished to vessels other than those passing through the Canal, and to others unable to obtain the same elsewhere; from the sale of scrap and other by-products of manufacturing and shop operations; from the sale of obsolete and unserviceable materials, supplies, and equipment purchased or acquired for the operation, maintenance, protection, sanitation, and government of the Canal and Canal Zone; and any net profits accruing from such business to The Panama Canal shall annually be covered into the Treasury of the United States.

In addition there is appropriated for the operation, maintenance, and extension of waterworks,

sewers, and pavements in the cities of Panama and Colon, during the fiscal year 1920, the necessary portions of such sums as shall be paid as water rentals or directly by the Government of Panama for such expenses.

Sec. 2. That all sums appropriated by this Act for salaries of officers and employees of the Government shall be in full for such salaries for the fiscal year 1920, and all laws or parts of laws to the extent they are in conflict with the provisions of this Act are repealed.

Approved, July 19, 1919.

Act of Congress.—Deficiency Appropriation, 1919.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 13, 1919.

CIRCULAR NO., 600-62:

The extracts from the Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations to supply deficiencies in appropriations for the fiscal year ending June 30, 1919, and prior fiscal years, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be appropriated, out of any money in the Treasury not otherwise appropriated, to supply deficiencies in appropriations for the fiscal year ending June 30, 1919, and prior fiscal years, and for other purposes, namely:

* * * * *
DEPARTMENT OF STATE
* * * * *
FOREIGN INTERCOURSE
* * * * *

For relief and protection of American seamen in foreign countries, and in the Panama Canal Zone, and shipwrecked American seamen in the Territory of Alaska, in the Hawaiian Islands, Porto Rico, and the Philippine Islands, \$60,000.

* * * * *
DEPARTMENT OF THE INTERIOR
* * * * *
SAINT ELIZABETHS HOSPITAL

For support, clothing, and treatment in Saint Elizabeths Hospital of the insane from the Army, Navy, Marine Corps, Coast Guard, inmates of the National Home for Disabled Volunteer Soldiers, persons charged with or convicted of crimes against the United States who are insane, all persons who have become insane since their

entry into the military and naval service of the United States, civilians in the Quartermaster's service of the Army, persons, transferred from the Canal Zone, who have been admitted to the hospital and who are indigent, * * * * * \$100,000, to be available until expended.

Approved, July 11, 1919.

Act of Congress.—Army Appropriation, 1920.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 13, 1919.

CIRCULAR NO. 600-63.

The extracts from the Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations for the support of the Army for the fiscal year ending June thirtieth, nineteen hundred and twenty, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, for the support of the Army for the year ending June thirtieth, nineteen hundred and twenty:

* * * * *

MEDICAL DEPARTMENT

MEDICAL AND HOSPITAL DEPARTMENT

For the manufacture and purchase of medical and hospital supplies, including disinfectants for military posts, camps, hospitals, hospital ships, and transports, for laundry work for enlisted men and Army nurses, while patients in a hospital and supplies required for mosquito destruction in and about military posts in the Canal Zone: * * * * * \$4,500,000.

* * * * *
HOSPITAL CARE, CANAL ZONE GARRISONS

For paying the Panama Canal such reasonable charges, exclusive of subsistence, as may be approved by the Secretary of War, for caring in its hospitals for officers, enlisted men, military prisoners, and civilian employees of the Army admitted thereto upon the request of proper military authority: *Provided*, That the subsistence of the said patients, except commissioned officers, shall be paid to said hospitals out of the appropriation for subsistence of the Army at the rates provided therein for commutation of rations for enlisted patients in general hospitals, \$50,000.

Approved, July 11, 1919.

Increased Rates at Hotel Aspinwall, Toboga.

In order to make unnecessary the closing down of the Hotel Aspinwall on account of loss, the rates have been increased slightly. The following rates have been established, effective August 1:

Employees: Dinner, lodging, and breakfast.....	\$2.00
Employees..... per day..	2.75
Children under 12 years of age..... per day..	1.25
Servants of employees..... per day..	1.50
Employees for stay of 7 days..... per day..	2.00
Reduction of 10 per cent on above rates for stay of 30 days. Reduction of 10 per cent for families of four or more for over 7 days' stay.	
Nonemployees..... per day..	3.50
Children of nonemployees (under 12 years of age)..... per day..	1.50
Servants of nonemployees..... per day..	1.75
Meals:	
Breakfast.....	1.00
Luncheon.....	1.25
Dinner.....	1.25

COMMISSARY NOTES.

Porch Shades.

Porch shades recently received from the United States are meeting with considerable favor in the line stores.

Books.

Books of the Modern Library, a number of titles in which has recently been received, are on sale in all commissaries.

Fruit.

A small quantity of fruits was received by steamship *Allianca*. They were of very good quality and received in first-class condition.

Baking.

It is very difficult to obtain "Crisco" in sufficient quantities for our trade. The manufacturers state that they are considerably oversold and do not know when they will be in position to fill orders.

Electric Utensils.

After long delay a shipment of electric irons, grills, and percolators, much in request among commissary customers, has been received and distributed to the line stores.

Books.

Books received:

"Four Horsemen of the Apocalypse" (110th Edition), "La Bodega," "Blood and Sand," "Shadow of the Cathedral," by Blasco Ibanez; "Prefaces," by Don Marquis; "Second Marriage," by Viola Meynell; "In Secret," by Robert W. Chambers; "Small Things," by Margaret Deland; "Conrad in Quest of His Youth," by Leonard Merrick; "Tam O' the Scots," by Edgar Wallace; "Eyes of Asia," by Rudyard Kipling; "The Magnificent Ambersons," by Booth Tarkington; Complete Works of O. Henry (edition de luxe), \$19.30.

Straw Hats.

Manufacturers from whom the Commissary Division buys large quantities of straw hats, have called attention to conditions now prevailing in that industry. They state that since the first of July, which was the opening of their 1920 sample line, they have sold almost as many goods as during the entire season of 1918-19. Similar reports have been received from other sources and it is believed that prices for straw hats are almost certain to advance in the near future.

Extract of Vanilla Process.

The method used by the Commissary Division in the manufacture of "Pure Extract of Vanilla" is worthy of public notice, since there are very few manufacturers of this article who allow their product properly to age in casks, as is done here, for it must be borne in mind that aging vastly improves the flavor in the culinary product. As a rule, this aging is carried on only from one day to three months by manufacturers of this product in the United States, while here on the Isthmus it is from six to ten months, obviously producing a superior article.

The true Mexican vanilla bean, the fruit of the plant of the *Vanilla planifolia*, or flat-leaved vanilla, is the only bean used by this department, this being the choicest quality. Such beans as the Bourbon, Seychelles, Mauritius, Tahiti (Vanillons) are of an inferior grade. It may be of interest to know that *Vanillin*, an ingredient of the bean, imparts most of the odor, while the resins impart the taste and the aging forms the aromatic ethers so necessary to a high-grade product. The cheaper compound extracts of vanilla are most commonly made with synthetic vanillin and coumarin and no beans. In the process used by the Commissary Division, the beans are finely chopped, sugar added and the mixture pounded, transferred to a receptacle and alcohol and water added, mixed well, stoppered and occasionally agitated for six months, then filtered. The sizes put up by the Industrial Laboratory are: 2-ounce bottles 14 cents, 4-ounce bottles 25 cents, 8-ounce bottles 40 cents. There are always about 20 casks, or 1,000 gallons, of extract in the making, having an approximate value of \$5,000.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., September 3, 1919. No. 3.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending August 30, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Potosi	Pacific Steam Navigation Co.	August 24	August 25	430	47
Kilpatrick	United States Government	August 24	August 29	1,058	42
Geo. W. Elder	Pacific Mail Steamship Line.	August 24	August 30	1,816	1,664
Saramacca	United Fruit Company	August 25	August 25	1	19
Balbos	Terminal Shipping Agency	August 25	August 29	575	348
Acajutla	Pacific Steam Navigation Co.	August 25	August 29	1,020	1,030
Ucayali	Peruvian Steamship Co.	August 25	August 26		1,935
William Green	Anglo-American Steamship Co.	August 26	August 29	9,000	(*)
Allianca	Panama Railroad Steamship Line.	August 27	August 27		2,210
City of Para	Pacific Mail Steamship Line.	August 27	August 27		2,189
Turrialba	United Fruit Company	August 27	August 28	1,052	40
Middlebury	Panama Railroad Commissary	August 27		1,450	
Mantaro	Peruvian Steamship Co.	August 27		2,534	
Aysen	United Fruit Company	August 27		2,390	
Peru	Pacific Steam Navigation Co.		August 28		603
Gen. O. H. Ernst	Panama Railroad Steamship Line.		August 28		4,366
Laura C. Hall	Anglo-American Steamship Co.	August 27	August 29	62	49
Tivives	United Fruit Company	August 28	August 28	2	1
Metapan	United Fruit Company	August 28	August 29	1,191	139
Manavi	Pacific Steam Navigation Co.	August 28		714	
Jamaica	Pacific Steam Navigation Co.	August 28		828	
Jupiter	United States Navy	August 29	August 29	15	(*)
Caribbean	Panama Railroad Commissary	August 29		427	
Fairhaven	Anglo-American Steamship Co.	August 30		700	
Colon	Panama Railroad Steamship Line.	August 30		3,880	

*No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending August 30, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Mukilteo	Charles Nelson Company	August 12	August 27	(*)	1,434
Charles Nelson	Charles Nelson Company	August 12	August 27	(*)	1,021
Paraiso	Oliver J. Olsen	August 24	August 24		39
Laura C. Hall	Pacific Metals Corporation	August 24	August 25	2	
City of Para	Pacific Mail Steamship Company	August 27	August 27		2
Fairhaven	Fairhaven Steamship Company	August 27	August 30	95	
Manavi	Pacific Steam Navigation Co.	August 27	August 28	1	
Peru	Pacific Steam Navigation Co.	August 28	August 28		
Jamaica	Pacific Steam Navigation Co.	August 28	August 28	1	
Balboa	Colombian Maritime Co.	August 29	August 29		6
Laura C. Hall	Pacific Metals Corporation	August 29	August 29		15
George W. Elder	North Pacific Steamship Co.	August 29	August 29		63
Wilhelmina	Matson Navigation Co.	August 30	August 30	1	

(*) Reported August 17, 1919.

Notice to Mariners.—Light Extinguished, Roncador Bank, Caribbean Sea.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., August 23, 1919.

CIRCULAR NO 643-62:

Roncador Bank Light U was struck by lightning and installation damaged.

Light will be repaired and relighted as soon as practicable.

H. O. Charts 21-1007-1290-945-394-1374.

H. O. Light List Vol. 1, 1919, No. 1432 D.

Light List Atlantic and Gulf Coasts, 1919, page 388, No. 2303.

H. O. Pub. 130-1918, page 202.

CHESTER HARDING,
Governor.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, August 30, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons		Panama Canal tonnage
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Gross	Net	
Ayrshire.....	23	6:55	24	6:22	24	14 11	24	15:08	British.....	Turnball Martin and Company.....	460 0	58 8	28 0	Manchester.....	Sydney.....	General.....	5,000	9,882	7,462
Paraso.....	14	21:20	24	6:25	24	16 35	25	13 12	American.....	Oliver J. Olson.....	215 5	40 2	14 0	New Orleans.....	San Francisco.....	Ballast.....	1,400	933	933
Fort Bragg.....	20	14:23	24	6:45	24	16 35	24	17 26	American.....	Chas. H. Higgins.....	188 0	40 0	12 0	Pto. Plata.....	Salina Cruz.....	Ballast.....	986	587	587
Bushrod (a).....	23	12:05	24	8 05	25	21 17	22	12 15	American.....	United States Shipping Board.....	294 0	45 6	21 0	High seas.....	Balboa.....	Lumber.....	4,300	2,970	1,956
Yeiaku Maru.....	25	11 25	25	11 45	25	18 59	26	12 15	Japanese.....	Kawasaki Dockyard Company.....	385 0	51 0	25 0	Port Arthur.....	Shanghai.....	General and oil.....	7,355	5,983	4,995
Potosi.....	24	2 50	25	13 21	25	20 48	25	22 00	American.....	Pacific Steam Navigation Co.....	324 0	46 2	24 4	Liverpool.....	Colon.....	General.....	5,600	3,342	4,316
Pawtucket.....	25	7 01	26	6 25	26	13 35	26	14 40	American.....	United States Shipping Board.....	380 0	46 2	23 4	New York.....	Valparaiso.....	General.....	4,734	3,959	2,982
Uevali.....	19	16 21	26	9 17	26	16 09	26	17 59	Peruvian.....	Peruvian Steamship Line.....	374 7	46 3	23 9	Cristobal.....	Callao.....	General.....	1,910	4,278	2,244
Naurie.....	25	2 08	26	9 28	27	14 22	27	15 45	British.....	Andrew War and Company.....	430 7	49 0	28 2	New York.....	Papado.....	Coal.....	7,000	6,369	4,944
Castle Point.....	22	9 40	27	6 19	27	15 16	27	16 35	American.....	United States Shipping Company.....	321 0	49 0	20 0	Norfolk.....	Papado.....	Coal.....	4,000	13,516	2,155
Tern (b).....	26	12 00	27	6 25	27	16 12	30	19 35	American.....	United States Navy.....	187 5	35 5	13 6	Norfolk.....	Mare Island.....	General.....	5,760	4,702	3,389
Braut (b).....	26	13 15	27	9 19	27	17 00	27	18 00	British.....	United States Navy.....	376 1	52 0	22 8	Norfolk.....	Mare Island.....	Petroleum, nap a.....	3,739	2,459	2,628
Australford.....	26	13 15	27	9 19	27	17 00	27	18 00	British.....	Commonwealth Government.....	376 1	52 0	22 8	Norfolk.....	Mare Island.....	Petroleum, nap a.....	3,739	2,459	2,628
City of Para.....	20	17 34	27	11 06	27	18 16	27	23 10	American.....	Pacific Mail Steamship Co.....	345 0	38 6	20 9	Cristobal.....	San Francisco.....	General.....	4,106	3,950	3,550
Alcona.....	27	9 00	27	12 58	27	20 16	27	21 09	American.....	United States Shipping Board.....	321 0	46 2	22 3	New York.....	Tacubano.....	General.....	5,000	3,950	3,550
Badger (c).....	27	14 51	28	6 05	28	13 05	29	10 30	American.....	United States Navy.....	315 0	33 0	11 0	Philadelphia.....	San Diego.....	General.....	5,000	3,950	3,550
Schley (c).....	27	14 52	28	6 05	28	13 23	29	10 30	American.....	United States Navy.....	315 0	33 0	11 0	New York.....	San Diego.....	General.....	5,000	3,950	3,550
Hazelwood (e).....	27	14 54	28	6 05	28	13 28	29	10 30	American.....	United States Navy.....	315 0	33 0	11 0	New York.....	San Diego.....	General.....	5,000	3,950	3,550
Peru.....	21	19 10	28	6 21	28	14 07	28	16 30	British.....	Pacific Steam Navigation Co.....	360 0	42 0	18 1	Cristobal.....	Valparaiso.....	General.....	4,144	2,632	2,632
Northern (d).....	28	5 48	28	11 01	28	17 07	28	17 47	American.....	United States Army.....	509 5	63 1	27 6	New York.....	San Francisco.....	Army supplies.....	1,017	7,290	5,270
Waipara.....	28	8 55	29	6 07	29	14 30	29	15 42	British.....	British India Steam Nav. Co.....	420 6	51 0	24 5	Middlesbrough.....	Sydney.....	General.....	4,680	7,290	5,270
Acuña.....	25	17 15	29	6 10	29	15 34	29	16 22	British.....	Pacific Steam Navigation Co.....	215 7	23 5	16 6	Cristobal.....	Guayaquil.....	General.....	1,273	706	706
Balboa.....	25	15 47	29	6 31	29	15 15	29	21 57	American.....	Colombian Maritime Company.....	190 0	20 1	13 6	Cristobal.....	Buenaventura.....	General.....	348	734	350
Laura C. Hall (e).....	27	21 04	29	9 14	29	20 02	31	7 16	British.....	Pacific Metals Corporation.....	81 0	25 6	9 6	Cristobal.....	Buenaventura.....	General.....	130	79	79
Juniper (f).....	29	10 25	29	13 20	29	20 45	31	8 43	American.....	United States Navy.....	320 0	65 2	30 6	New York.....	San Francisco.....	Stores and coal.....	10,560	10,631	7,606
Tsami.....	29	13 05	30	6 19	30	14 04	30	17 20	British.....	Shaw Savill and Albion Co.....	477 8	61 1	24 8	London.....	Washington.....	Stores and coal.....	10,631	7,606	7,606
Tosani.....	29	15 06	30	6 38	30	16 24	30	17 30	Dutch.....	Rotterdamische Lloyd.....	445 8	54 9	22 0	New York.....	Nagasaki.....	Petroleum.....	7,187	5,091	5,091
Koan Maru.....	30	17 28	30	6 38	30	14 35	30	17 50	Japanese.....	Kaizuka Steamship Company.....	325 0	45 0	22 0	New York.....	Yokohama.....	General.....	3,529	3,426	2,644
Wilhelm.....	30	16 12	30	7 28	30	15 09	30	20 27	American.....	Matson Steamship Company.....	426 1	54 1	27 0	New York.....	San Francisco.....	Navy coal.....	6,000	8,158	5,589
Geo. W. Elder.....	23	15 02	30	10 16	30	17 50	30	23 10	American.....	Thomas Crowley & Company.....	250 0	33 0	20 0	New York.....	San Francisco.....	General.....	1,076	1,535	1,535
Benoni.....	30	7 17	30	15 58	31	16 45	31	17 37	American.....	United States Shipping Board.....	409 6	54 4	25 5	New York.....	Manila.....	General.....	7,435	7,435	7,435

(a) Returned for repairs. (b) Mine sweeper. (c) Destroyer. (d) United States Army Transport. (e) Power schooner. (f) Collier.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons		Panama Canal tonnage
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Gross	Net	
Braeburn.....	19	21 00	24	6 43	24	15 47	25	12 40	American.....	United States Shipping Board.....	267 8	49 8	23 6	Portland.....	South Hamp'n.....	Railroad ties.....	2,600	2,994	1,906
West Alota.....	23	16 20	24	6 45	24	16 28	25	3 58	American.....	United States Shipping Board.....	415 0	54 0	23 6	San Francisco.....	Copenhagen.....	General.....	6,172	6,592	4,963
Leurel Branch.....	24	4 00	24	8 14	24	17 58	24	20 55	British.....	F. & W. Ritson.....	360 0	46 0	21 0	Tacubano.....	United King.....	General.....	5,000	4,182	3,053
Beldins.....	12	22 20	24	9 45	24	17 52	25	1 20	American.....	United States Shipping Board.....	266 6	46 2	20 0	San Francisco.....	Bilbao, Spain.....	Corra.....	1,441	2,649	1,572

Mount Hood (f)	24	6 00	24	13 49	24	22 55	28	16 05	Norwegian.	Cornelius Bull.	233.4	43.7	20.0	Aberdeen.	Queensbor'gh.	Lumber, pine...	1,531
Champlain...	25	16 30	25	6 43	25	14 40	27	16 47	French.	French Government.	179.0	46.0	19.0	Victoria, B. C.	Queensdown.	Lumber.	2,600
Balboa...	25	4 00	25	8 10	25	15 47	29	8 39	American.	Colombian Maritime Company.	290.0	29.1	12 3	Buenaventura.	Cristobal.	Lumber.	2,674
Lake George.	25	12 15	25	8 10	25	17 15	29	6 10	American.	United States Shipping Board.	253.0	43.5	22 10	Iquique.	Cristobal.	Coffee nuts, hides	575
Acajutla.	25	6 00	25	9 08	25	17 15	29	20 50	British.	Pacific Steam Navigation Co.	215.7	46.5	17 10	Manta.	Delaware River	Nitrates.	3,500
Alfakley.	27	14 37	25	10 48	25	18 37	29	2 13	American.	United States Shipping Board.	267.1	46.5	22 0	Seattle.	Lumber.	1,020	
Burside.	16	4 30	26	8 12	26	16 42	28	10 15	American.	United States Shipping Board.	266.5	46.0	20 0	San Francisco.	Ivory nuts.	(g)	
Anders.	26	7 30	26	8 36	26	16 45	28	10 00	American.	United States Shipping Board.	267.9	44.1	21 0	Portland.	Copra.	2,676	
Pauline (f)	24	13 30	27	7 00	27	16 42	27	17 00	American.	S. O. Stray & Company.	248.2	44.5	19 0	San Francisco.	Plymouth, Eng.	2,450	
Cowboy.	25	14 40	27	7 07	27	15 17	28	8 55	American.	United States Shipping Board.	263.0	43.0	21 4	Copulimbo.	Queensdown.	1,784	
Mancaro.	26	21 30	27	8 09	27	16 25	28	9 35	Peruvian.	Peruvian Line.	360.0	46.0	21 5	Callao.	Ore, general.	2,812	
Aysen.	27	4 30	27	10 07	27	17 41	1	17 10	Chilean.	Chilean Line.	379.6	44.3	22 0	Valparaiso.	Cristobal.	2,534	
Laura C. Hall (f)	24	15 30	27	13 51	27	17 04	90	9 14	British.	Pacific Metals Corporation.	81.0	25.6	10 0	Buenaventura.	Cristobal.	62	
Crown of Toledo	27	17 00	28	6 40	28	14 36	28	15 30	British.	Prattice Service & Henderson.	455.4	56.2	27 6	San Pedro.	General.	9,000	
Manavi.	27	23 30	28	7 50	28	15 28	2	6 08	British.	Pacific Steam Navigation Co.	216.0	35.1	14 0	Guayaquil.	General.	7,730	
Wm. T. Lewis (g)	27	17 40	28	8 40	28	15 20	29	16 25	American.	Mind Kolph & Company.	279.7	42.1	22 0	Tunaco.	Barley.	3,117	
Jamaica.	28	9 40	28	11 47	28	19 00	2	5 55	British.	Pacific Steam Navigation Co.	220.0	34.0	13 6	Tunaco.	General.	828	
War Column.	28	16 05	29	6 49	29	15 06	29	15 06	British.	British Government.	410.0	54.4	24 6	Vancouver.	Lumber.	1,170	
Cochina.	28	16 30	29	6 50	29	16 00	29	18 38	American.	Union Oil Company.	471.0	55.0	20 1	Tocopilla.	General.	6,243	
Eurades.	28	19 00	29	8 08	29	17 10	30	6 10	British.	Alfred Holt & Company.	430.0	54.0	26 9	Singapore.	Ballast.	8,062	
Terrer.	29	8 30	29	9 45	29	17 55	30	10 55	Norwegian.	W. Wilhelmssen.	400.0	52.0	25 0	Talta.	Nitrates.	7,377	
Colorado																	8,024
Springs.	29	12 01	29	11 22	29	21 58	30	3 20	American.	United States Shipping Board.	409.6	54.2	26 0	Tacama.	New York.	Flour.	8,903
Fairhaven.	27	15 30	30	6 28	30	14 45			American.	Fairhaven Steamship Company.	185.5	38.0	18 6	San Francisco.	Cristobal.	Rice, general.	7,002
Mahy Maru.	30	10 00	30	11 19	30	19 18	31	10 20	Japanese.	Osaka Shosen Kaisha.	379.9	50.1	23 6	Hongkong.	New Orleans.		4,370

(f) Motor ship. (g) Sailing vessel. (h) Coffee, platinum, and empty drums. (i) Lumber, coffee, tiger skins. (j) 1,327,430 feet. (k) 4,382,896 feet.

PORT OF CRISTOBAL.

Date	Vessels	Line	From	Date	Vessels	Line	For
Aug. 23.	Bologna.	La Veloce Steamship Line.	Genoa and waypoints.	Aug. 25.	Saramacca.	United Fruit Company.	New Orleans.
Aug. 24.	Kilpatrick (U.S.A.T.)	United Fruit Company.	New Orleans.	Aug. 26.	Caribbean.	Panama Railroad Commissary.	Cartagena.
Aug. 25.	Saramacca.	United Fruit Company.	New Orleans and waypoints.	Aug. 27.	Alliance.	Panama Railroad Steamship Line.	New York.
Aug. 26.	William Green.	Pan-American Pet. & Trans. Co.	Tampico.	Aug. 28.	Gen. O. H. Ernst.	Panama Railroad Steamship Line.	New York.
Aug. 27.	Turrubalva.	United Fruit Company.	New York via Kingston.	Aug. 28.	Trives.	United Fruit Company.	New York and Kingston.
Aug. 27.	Middlebury.	United States Shipping Board.	Cartagena.	Aug. 28.	Turrubalva.	United Fruit Company.	Colombian ports.
Aug. 28.	Metapan.	United Fruit Company.	New Orleans.	Aug. 28.	William Green.	Pan-American Pet. & Trans. Co.	Tampico.
Aug. 28.	Trives.	United Fruit Company.	Colombian ports.	Aug. 28.	Metapan.	United Fruit Company.	New Orleans and Boas.
Aug. 28.	Caribbean.	Panama Railroad Commissary.	Cartagena.	Aug. 29.	Kilpatrick.	United States Government.	New Orleans and San Juan.
Aug. 30.	Colon.	Panama Railroad Steamship Line.	New York and Haiti.				

*ARRIVALS

*DEPARTURES

PORT OF BALBOA.

Date	Vessels	Line	From	Date	Vessels	Line	For
Aug. 23.	Maranon	Sanguinetti.	Eureka.	Aug. 27.	Chas. Nelson.	Chas. Nelson.	San Pedro.
Aug. 23.	Maranon	Sanguinetti.	Eureka.	Aug. 27.	Makileo.	Makileo.	San Pedro.
				Aug. 27.	Maranon.	Maranon.	Punta Arenas.
				Aug. 30.	Rhode Island (l)	United States Navy.	San Diego.

*ARRIVALS

*DEPARTURES

*Other than ships passing through the Canal. (l) Battleship.

Notice to Mariners.—Toro Point Lighthouse, Color of Tower to be Changed.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., August 23, 1919.

CIRCULAR No. 643-63:

On or about October 1, 1919, the color of Toro Point Lighthouse Tower will be changed from "WHITE AND RED" to "WHITE."

Owing to the dark background it is believed that white will show a greater contrast in colors.

H. O. Charts 945-950-1007-1176-1290-5002.

H. O. List of Lights Vol. 1, No. 1233.

CHESTER HARDING,
Governor.

Victory Liberty Bonds.

The Liberty Loan Committee is in a position to accept a limited number of additional applications for 4 $\frac{3}{4}$ per cent notes of the Victory Liberty Loan, to replace cancellations by employees leaving the service.

Payments may be made in cash, or the amounts may be collected in two installments from September and October earnings by payroll deduction.

Application forms may be secured at the Collector's Office, Balboa Heights; or a letter addressed to the Collector will be considered sufficient authority to enter a subscription.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal postoffices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286):

Foreman of heat treatment of projectiles (male); \$8 per day; Foreman of small guns (male), \$8 per day; No. 424; September 23, 1919; form 1371; age, within reasonable age limits.*

Farm economist (male); \$2,500 to \$3,300 a year; No. 416; September 23, 1919; form 2118; age, 25 years but not 45 years.*

Printer's helper (male); \$900 a year; No. 423, September 23, 1919; form 304; age, more than 18 years.*

Foreman, heat treatment of armor plate (male); \$10 to \$14.40 a day; Foreman, heat treatment of large guns (male); \$8 to \$12.56 a day; Foreman, 14,000-ton press for armor and large-caliber guns (male); \$11.84 to \$13.28 a day; No. 424; September 23, 1919; form 1371; age, within reasonable age limits.*

Apprentice map engraver (male); \$700 to \$800 a year; No. 426; September 17, 1919; form 304; age, 16 years but not 18 years.

Woolen expert (male); \$3,000 to \$3,600 a year; No. 430; September 30, 1919; form 1312; age, within reasonable age limits.*

Industrial research clerk, \$1,600 to \$1,800 a year.

Special agent, \$1,400 to \$1,600 a year (male and female); October 8, 1919; form 1312; age, within reasonable age limits.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Comparative Wind Records—Cape Mala, Sosa Hill, and Balboa Heights, July, 1919.

The total wind movement during July, 1919, was 65 per cent greater on Sosa Hill and 22 per cent greater at Cape Mala than at Balboa Heights. The average hourly velocities were as follows: Balboa Heights 6.9 miles, Sosa Hill 11.4 miles, and Cape Mala 8.4 miles.

The prevailing wind direction was from the northwest at all stations, although southerly winds prevailed at Cape Mala during the daytime.

Maximum wind velocities recorded during the month were 32 miles an hour from the east on the 5th on Sosa Hill, 25 miles from the south on the 28th at Balboa Heights and 58 miles from the northeast on the 27th at Cape Mala. This is the highest wind velocity of record at Cape Mala since the station was established about 2 years ago.

NOTE—Elevation of anemometers: Balboa Heights, 97 feet above ground and 231 feet above mean sea level; Sosa Hill, 35 feet above ground and 405 feet above mean sea level; and Cape Mala, 110 feet above ground and 150 feet above mean sea level.

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE No. 29, EFFECTIVE SEPTEMBER 7, 1919.—Continued.

Sun-day only	DAILY					Daily except Sun-day	DAILY					Daily except Sun-day	DAILY					Sun-day only
	65	63	61	59	57		55	53	51	50	52		54	56	58	60	62		64	66
A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	A. M.	
12:30	11:05	7:30	3:30	1:00	10:00	7:45	6:19	6:19	7:05	8:40	10:55	1:55	4:25	6:25	8:25	11:59	1:25	
12:32	11:07	7:32	3:32	1:02	10:02	7:47	6:12	6:12	7:03	8:38	10:53	1:53	4:23	6:23	8:23	11:57	1:23	
12:34	11:09	7:34	3:34	1:04	10:04	7:49	6:14	6:14	7:01	8:36	10:51	1:51	4:21	6:21	8:21	11:55	1:21	
12:37	11:12	7:37	3:37	1:07	10:07	7:52	6:17	6:17	6:58	8:33	10:48	1:48	4:18	6:18	8:18	11:53	1:18	
12:43	11:18	7:43	3:43	1:13	10:13	7:58	6:23	6:23	6:50	8:25	10:40	1:40	4:10	6:10	8:10	11:45	1:10	
12:49	11:24	7:49	3:49	1:19	10:19	8:04	6:29	6:29	6:45	8:20	10:35	1:35	4:05	6:05	8:05	11:40	1:05	
12:55	11:30	7:55	3:55	1:25	10:25	8:10	6:35	6:35	6:49	8:15	10:30	1:30	4:00	6:00	8:00	11:35	1:00	
A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.	A. M.	A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	A. M.	
67	65	63	61	59	57	55	53	51	50	52	54	56	58	60	62	64	66	

FORT RANDOLPH BRANCH STATIONS

Leave Third Street, Colon
 Seventh Street
 Cristobal Commissary
 Tower "P"
 Diversion Bridge
 France Field
 Coco Solo Station
 Fort Randolph
Arrive

Official Circulars.

In Charge of Marine Division.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 27, 1919.
To all concerned—Effective this date, during the temporary absence of Capt. L. R. Sargent, U. S. Navy, Lieut.-Com. John G. Fels, U. S. N. R. F., will act as Marine Superintendent, in addition to his duties as Captain of the Port, Cristobal.

Lieut.-Com. Chas. Svensson, U. S. N. R. F., will act as Chairman of the Board of Local Inspectors, with Lieut. M. C. Davis, U. S. Navy, and Capt. H. L. Eden, Assistant Captain of the Port, Cristobal, as members.

Lieut. M. C. Davis, U. S. Navy, will act as Chairman of the Board of Admeasurement, with Mr. Frederick deV. Sill and (during the temporary absence of Mr. F. E. Williams) Mr. Elmer Stetler as members.

CHESTER HARDING,
Governor.

Acting Magistrate at Balboa.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 29, 1919.
To all concerned—Effective this date and during the absence of Judge James W. Blackburn, on leave, Mr. Joseph J. McGuigan will perform the duties of Magistrate for the sub-division of Balboa.

CHESTER HARDING,
Governor.

Work Performed by Employees for Individuals and Companies.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 5, 1919.
 CIRCULAR No. 641-1:

Circular No. 641 is hereby amended as follows:

1. Employees are prohibited from performing private work for individuals or companies, which is of such a nature that it should be performed by a department or division of The Panama Canal or Panama Railroad Company, unless prior approval has been obtained from the proper authority.

CHESTER HARDING,
Governor, The Panama Canal,
President, Panama Railroad Company.

Acting Chief Clerk.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 27, 1919.
To all concerned—Effective this date and during the absence of Mr. John H. Smith, Jr., on leave, Mr. J. C. Kiernan will be Acting Chief Clerk.

C. A. MCLVAINE,
Executive Secretary.

Approved:
CHESTER HARDING,
Governor.

Including Bonus in Estimate.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., August 25, 1919.
 HEADS OF DEPARTMENTS AND DIVISIONS:

In making estimates for salaries and wages for the fiscal year ending June 30, 1921, the rates of pay estimated for shall include as part of the base rate from which the rate on the Isthmus is determined, the \$240 annual increase authorized by law for certain positions in the United States during the present fiscal year, wherever such increase is applicable; i. e., to the class of positions

to which the \$120 annual increase was added during the last fiscal year.

The total amount added to the estimate on account of the \$240 annual increase, will be reported by each division, in the letter transmitting the estimate.

H. A. A. SMITH,
Auditor, *The Panama Canal.*
CHESTER HARDING,
Governor.

Date of Circular No. 660-49.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 28, 1919.

To all concerned—Please note that the date of circular No. 660-49* should be August 15, instead of August 15, 1919, and all copies should be changed accordingly.

C. A. McILVAINE,
Executive Secretary.

*Published in THE PANAMA CANAL RECORD of August 20, 1919.

Sale of Cement Sweepings.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,

BALBOA HEIGHTS, C. Z., August 28, 1919.

To all concerned—The Panama Railroad has on hand 1,077 sacks of cement ex the steamship *General O. H. Ernst*, August 20, 1919.

This cement is known as sweepings, or loose cement picked up after the discharge of a steamer. There is very little foreign substance to be found in it, and for almost any concrete work, it is just as good as any cement.

We will be glad to have you bid on this lot of cement before 3 p. m., Wednesday, September 3, 1919. Please make your bids on the basis of keeping the bags, and also returning the bags to us.

A charge of 10 cents per bag will be collected when cement is delivered. This charge will be refunded when the bags are returned in usable condition.

S. W. HEALD,
Superintendent.

Joint Commission.

Decisions of the Umpire.

In the matter of the claim of Mario Galindo, for the property known as "Chorrillo del Manglar." Amount claimed, \$200,000. Decision of the Umpire, award No. 207, dismissal, rule No. 426, docket No. 3002, August 29, 1919.—The claimant originally estimated the area of this tract as being 14 hectares. At the beginning of the hearing, on November 12, 1918, the attorney for the claimant was willing to reduce the area claimed to about 7 hectares. The attorney for the Government, by referring to the established boundaries of the adjoining properties, proved that the tract called "Chorrillo del Manglar," contained only three and a fraction hectares.

The dereliction of claimant's titles to the "Chorrillo del Manglar" property is not clear. The Government has admitted title to the strip of 320 85/100 square meters which the claimant bought out of the Los Pocitos tract, which strip is included in this claim.

Therefore, the claim is hereby dismissed as to any right, title, or interest asserted by this claimant in or to the land contained in the portion of the property known as the "Chorrillo del Manglar."

However, in equity, an award is made against the United States of America, in favor of Mario Galindo, in the amount of \$320.85, United States currency, covering the value of the above-mentioned 320 85/100 square meters of land and the value of any fences, cultivations, or other improvements which may have existed on the whole of the property claimed, together with the value of

any damages which the claimant may have sustained due to the forcible suspension of his proposed dairy business through the expropriation of the whole property by the United States.

If payment or tender of payment of this award is not made on or before September 29, 1919, said amount shall thereafter bear interest at the rate of six per centum per annum until paid.

Done at the National Palace, Panama, this twenty-ninth day of August, 1919.

MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of Alberto B. de Obarrio, Elisa Arosemena de Diaz, Isabel Diaz de Jimenez, and Domingo Diaz A., for property known as "Los Pocitos", located in the Canal Zone adjoining the city of Panama. Area expropriated, 52,600 square meters. Amount claimed, \$104,202. Decision of the Umpire, award No. 206, docket No. 2717, August 26, 1919.—An award is hereby made against the United States of America in favor of Alberto B. de Obarrio, Elisa Arosemena de Diaz, Isabel Diaz de Jimenez, and Domingo Diaz A., in the total sum of \$32,055.16, United States currency, plus compound interest at the rate of 6 per centum per annum from December 5, 1912, the date of the depopulation order of the Canal Zone, until payment or tender of payment of this award is made, for all right, title, and interest which the said Alberto B. de Obarrio, Eliza Arosemena de Diaz, Isabel Diaz de Jimenez, and Domingo Diaz A., may possess or may have possessed in and to the property known as Los Pocitos situated within the Canal Zone, adjoining the city of Panama, subject of claim docket No. 2717, one-half of which is as adaptable for building purposes as the adjoining District of Chorrillo, Panama City, of which it was a part prior to the expropriation, and the other half containing a quarry, this award to include the value of the quarry and any and all damages sustained by the above-named claimants on account of the expropriation of this property by the United States of America, and to be paid in the proportions and amounts as follows:

To Alberto B. de Obarrio, 1/2 thereof (plus compound interest as above indicated).....	\$16,027.58
To Eliza Arosemena de Diaz, 1/4 thereof (plus compound interest as above indicated).....	8,013.79
To Isabel Diaz de Jimenez, 1/4 thereof (plus compound interest as above indicated).....	4,006.89
To Domingo Diaz A., 1/4 thereof (plus compound interest as above indicated).....	4,006.90

Total (Plus compound interest as above indicated)..... \$32,055.16
Done in the National Palace, Panama, on the 28th day of August, 1919.

MANUEL WALLS Y MERINO,
Umpire.

Sale of 95 Carboys of Electrolyte.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., September 30, 1919, and then opened, for the purchase of 95 carboys of electrolyte, 1.4 specific gravity at 680 F., weighing 13,330 pounds, net, located in Section "K," Electrical Storehouse, Balboa. Detailed information and form of proposal may be had upon application to the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Additions to Commissary Stock.

Bottles, vacuum, all metal, 1-qt., ea.....	\$7.00
Brushes, clothes, scrubbing, ea.....	.07
Earthenware, Guernsey:	
Jars, bean 1-qt., ea.....	.59
Jars, bean, 2-qt., ea.....	.93
Forks, medium, tinned, ea.....	.04
Knives, medium, tinned, ea.....	.12

Local Civil Service Examinations.

The following examinations will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, September 21, 1919.

Postal Clerk, September 28, 1919.

Stenographer and Typist, September 28, 1919.

Full information in regard to the scope and the character of the examinations is contained in pamphlet form 1424, Information for Applicants for Stenographer and Typewriter Examination, a copy of which may be obtained from the Secretary of the Civil Service Board, Administration Building, Balboa Heights, C. Z. Applicants for the Clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First, typewriting; second, bookkeeping; third, general business training and experience; fourth, timekeeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for Postal Clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone postoffices or as postmaster or as Navy mail clerk, and that they are familiar with the receipt, distribution and dispatch of mail matter, the issuance of money orders, registration of mail, and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officers' certificate, and should be filed promptly with the Board of Civil Service Examiners at Balboa Heights, C. Z.

Applicants must have reached their 20th but not their 45th birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within 2 years, securely pasted in the place provided in the admission cards sent them after their applications are filed.

Applicants for the Clerk examination in answer to question 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some *State or Territory* of the United States from the time of taking up residence therein to *September, 1919*, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the *county*.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted army and navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for The Panama Canal Service.

Route Service Jitney—Cristobal-Mt. Hope.

The following is the schedule of the official jitney service between the Terminal building at Cristobal and Mount Hope. Cars stop at the office of the Commissary Division each way:

Leave Terminal Building.		Leave Mount Hope.	
A. M.	P. M.	A. M.	P. M.
8.00	12.30	8.15	12.45
8.30	1.00	8.45	1.15
9.00	1.30	9.15	1.45
9.30	2.00	9.45	2.15
10.00	2.30	10.15	2.45
10.30	3.00	10.45	3.15
	3.30		3.45

COMMISSARY NOTES.

Fruits.

The first shipment of grapes of the season was received on the steamer *Colon*, September 1. Other seasonable fruits and vegetables were received and found ready sale.

Shoe Sale.

A shoe sale covering a large number of attractive models and styles at considerably reduced prices is announced to be held at Balboa and Cristobal Commissaries only, beginning Monday, September 8, 1919.

Books.

A very attractive 24-page booklet, descriptive of The Panama Canal, and containing many views of recent date as well as some taken prior to the completion of the Canal, has recently been stocked by the Commissary Division. A map, table of distances to various ports, and other interesting information are also included. These booklets sell at 20 cents each.

Books received:

"Arrow of Gold" (de luxe edition), by Joseph Conrad; "Chinese Poems," by Arthur Waley; "Lad, a Dog," by Albert Payson Terhune; "Four Horsemen of the Apocalypse" (116th Edition), by Blasco Ibanez.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., September 10, 1919. No. 4.

CANAL WORK IN JULY.

The following is the report of the Governor to the Secretary of War of Canal operations during the month of July, 1919:

BALBOA HEIGHTS, C. Z., September 2, 1919.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of July, 1919:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal for the month was 158, exclusive of 24 United States Navy destroyers, 22 United States battleships, 7 United States cruisers, 4 United States supply ships, 5 United States colliers, 6 United States scout patrols, 2 United States Navy subchasers, 1 United States Coast and Geodetic Survey ship, and 3 United States Navy Coast Guard vessels. The total number of ocean-going vessels was 232, the greatest number which the Canal has handled in any month to date. The large number of Naval vessels was due to the passage of part of the Pacific Fleet to the Pacific, and the transit from Atlantic to Pacific and return of the six battleships of the Naval Academy Practice Squadron.

Classifications of the traffic are shown in the following tabulations. The net tonnage of the 158 commercial ships aggregated 513,618 tons, Panama Canal measurement. Their registered gross tonnage was 617,778 tons, and their registered net tonnage 430,519 tons. The cargo carried by them totaled 568,172 tons of 2,240 pounds, of which 7,527 tons were carried as deck load. Ships of 11 different nationalities were included in the month's traffic. The total net tonnage of commercial ships was 6,388 less than that of commercial ships passing through the Canal in June, when 161 ships of 520,006 tons made the transit. The cargo carried was 18,715 tons less than that handled through the Canal in June.

The United States coastwise trade was made up of 30 vessels, aggregating 103,542 net tons, Panama Canal measurement, and carrying 131,953 tons of cargo. From the Atlantic to the Pacific, 4 ships with a total net tonnage of 14,426 net tons, Panama Canal measurement, carried 21,679 tons of cargo. From the Pacific to the Atlantic 26 vessels of 89,116 net tons carried 110,274 tons of cargo.

The United States Shipping Board operated 2 of the westbound ships in the coastwise trade, with a net tonnage of 9,994, Panama Canal measurement, carrying 14,687 tons of cargo, and operated 24 out of the 26 vessels eastbound. The net tonnage of the 24 ships aggregated 75,550 and their cargo amounted to 110,274 tons.

In the foreign trade the Shipping Board sent 6 vessels of 10,338 net tons, Panama Canal measurement, through from Pacific to the Atlantic, carrying 14,392 tons of cargo. No Shipping Board ships passed from Atlantic to Pacific in the foreign trade.

Among the principal commodities included in the traffic from the Pacific to the Atlantic during the month were: Flour, 8 whole cargoes, aggregating 61,623 tons; lumber and ties, 18 whole cargoes, 47,953 tons; nitrates, 5 whole cargoes, 18,537 tons; 3 whole cargoes of sugar amounting to 18,672 tons; barley, 3 whole cargoes, 9,603 tons; 2 whole cargoes of wheat, 12,485 tons; and 27 cargoes of general, amounting to 90,135 tons. Three ships went in ballast from the west coast to Beaumont; their aggregate net tonnage, Panama Canal measurement, was 18,283 tons. The bulk shipments from the Atlantic to the Pacific were: Fuel oil, 25,148 tons, all for the west coast of South America; kerosene, 14,781 tons, of which 8,862 tons were from New Orleans to Shanghai, and 5,919 tons from Port Arthur to Shanghai; petroleum, 12,880 tons, of which 8,251 tons were from New Orleans to Honolulu, 4,629 tons, from New York to San Francisco; coal, 12,915 tons, of which 5,287 tons were from Norfolk, bound for the west coast of South America, 2,947 tons from Baltimore to Guayaquil, and 4,681 tons from London to Auckland; coke, 7,004 tons, all from Baltimore to Callao, one cargo of paraffin oil, 9,138 tons, from New Orleans to Shanghai; and 4,300 tons of crude naphtha from Tampico to San Francisco.

Commercial vessels passing through the Canal on their way to the west coast of South and Central America during July were, by nationalities, as follows:

No.	Nationality.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
					<i>Tons.</i>
15	British.....	40,273	24,981	30,318	25,802
2	Chilean.....	6,367	3,889	5,570	3,367
1	Panamanian.....	69	53	53	.....
2	Peruvian.....	7,822	3,941	5,005	3,399
15	United States.....	44,183	29,303	31,846	47,377
35	Totals.....	98,714	62,167	72,792	79,945

Of the 35 vessels, 17 with 14,315 tons of cargo originated at the Atlantic terminus of the Canal; 13 with 43,224 tons, came from United States ports; 2 with 13,198 tons of oil, from Tampico; 2 with 9,208 tons of general cargo, from Liverpool, and 1 with no cargo, from Gibraltar.

SERVICES TO CANAL SHIPPING.

Repairs were made on 125 vessels during the month, 61 at Cristobal and 64 at Balboa. Sixteen vessels were dry-docked at Cristobal and 15 at Balboa. Sales of fuel oil to ships from the stock of The Panama Canal were 672.22 barrels to 2 vessels at Cristobal. Coal sales were 27,859 tons to 77 vessels at Cristobal, and 4,775 tons to 20 vessels at Balboa, a total of 97 vessels, receiving 32,625 tons. Water sold included 6,738,490 gallons to 156 vessels at Cristobal and 2,310,750 gallons to 115 vessels at Balboa, a total of 9,049,240 gallons to 271 vessels. Sales of commissary supplies to commercial ships of lines other than that of the Panama Railroad aggregated \$65,071.21, of which \$40,683.25 worth was supplied at Cristobal and \$24,387.96 at Balboa. Laundry service for all ships amounted to \$3,023.21. Tug service performed for vessels using the Canal and the terminal ports was charged at \$22,940.45, of which \$13,470.20 was collected through the office of the Captain of the Port at Cristobal, and \$9,470.25 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulation:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	67	91	158
Net tonnage of commercial ships, P. C. measurement.....	223,590	290,028	513,618
United States equivalent net tonnage of commercial ships.....	194,185	320,873	515,058
Registered gross tonnage of commercial ships.....	291,408	389,370	671,778
Registered net tonnage of commercial ships.....	186,433	244,086	430,519
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	235,874	332,298	568,172
Deck load cargo, included in above.....	900	6,627	7,527
Nationality of commercial ships through Canal:			
British.....	34	26	60
Chilean.....	2	2	4
Danish.....	.....	1	1
French.....	.....	2	2
Japanese.....	4	4	8
Norwegian.....	.....	1	1
Peruvian.....	2	3	5
Panamanian.....	1	.....	1
Swedish.....	1	.....	1
Spanish.....	0	1	1
United States.....	23	51	74
Total.....	67	91	158
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	131,859	96,899	228,758
Chilean.....	5,570	5,570	11,140
Danish.....	.....	3,479	3,479
French.....	.....	3,934	3,934
Japanese.....	15,185	18,477	36,662
Norwegian.....	.....	5,042	5,042
Peruvian.....	5,045	8,220	13,225
Panamanian.....	53	.....	53
Swedish.....	3,009	.....	3,009
Spanish.....	.....	2,467	2,467
United States.....	59,018	145,940	204,958
Total.....	223,590	290,028	513,618
United States equivalent net tonnage of commercial ships, through the Canal:			
British.....	115,387	83,039	198,426
Chilean.....	3,540	3,540	7,080

Item.	Cristobal.	Balboa.	Total.
United States equivalent net tonnage of commercial ships, through the Canal—continued:			
Danish.....		2,823	2,823
French.....		3,840	3,840
Japanese.....	15,926	16,095	32,021
Norwegian.....		4,438	4,438
Peruvian.....	3,351	5,803	9,154
Panamanian.....	53		53
Swedish.....	2,380		2,380
Spanish.....		2,224	2,224
United States.....	53,548	199,071	252,619
Total.....	194,185	320,873	515,058
Registered gross tonnage of commercial ships through the Canal:			
British.....	170,339	127,293	297,632
Chilean.....	6,367	6,377	12,734
Danish.....		4,395	4,395
French.....		4,729	4,729
Japanese.....	23,652	24,116	47,768
Norwegian.....		6,987	6,987
Peruvian.....	7,922	12,677	20,599
Panamanian.....	69		69
Swedish.....	3,805		3,805
Spanish.....		3,370	3,370
United States.....	79,254	190,436	269,690
Total.....	291,408	380,370	671,778
Registered net tonnage of commercial ships, through the Canal:			
British.....	108,949	81,890	189,939
Chilean.....	3,859	3,889	7,778
Danish.....		2,795	2,795
French.....		3,834	3,834
Japanese.....	15,183	14,855	30,038
Norwegian.....		4,422	4,422
Peruvian.....	3,941	7,014	10,955
Panamanian.....	53		53
Swedish.....	2,833		2,833
Spanish.....		2,174	2,174
United States.....	52,485	123,213	175,698
Total.....	186,433	244,086	430,519
Cargo carried by ships of various nationalities:			
British.....	111,988	95,016	207,004
Chilean.....	3,367	3,135	6,502
Danish.....		6,752	6,752
French.....		3,901	3,901
Japanese.....	23,560	30,176	59,736
Peruvian.....	3,399	8,952	12,351
Swedish.....	2,200		2,200
Spanish.....		4,100	4,100
United States.....	85,360	180,265	265,625
Total.....	235,874	332,298	568,172
Vessels passing through the Canal free of tolls:			
U. S. Navy battleships.....	16	6	22
U. S. Navy cruisers.....	7		7
U. S. Navy destroyers.....	24		24
U. S. Navy colliers.....	4	1	5
U. S. Navy supply ships.....	4		4
U. S. Navy scout patrols.....	3	3	6
U. S. Navy subchaser.....	1	1	2
U. S. Navy coast guard vessels.....	2	1	3
U. S. Coast and Geodetic survey ship.....	1		1
Total.....	62	11	74
Launches	2	3	5
Net tonnage of launches, Panama Canal measurement.....	5	21	26
Total ocean-going ships transiting Canal.....	125	103	228
Total vessels transiting Canal.....	127	106	233
Cargo on which no tolls were charged.....	27,989	4,000	31,989
Commercial ships through Canal without cargo, but not in ballast.....	4		4
Net tonnage of above.....	15,060		15,060
Commercial ships through Canal in ballast.....		7	7
Net tonnage of above.....		29,426	29,426
Total of commercial ships without cargo transiting Canal.....	4	7	11
Net tonnage of above.....	15,060	29,426	44,486
Motor ships through the Canal.....		5	5
Net tonnage of Motor ships.....		4,859	4,859
Sailing ships through the Canal.....		1	1
Net tonnage of sailing ships.....		1,171	1,171
Tolls levied on laden ships through the Canal.....	\$237,501.54	\$279,807.70	\$517,309.24
Tolls on ships in ballast through the Canal.....		21,175.92	21,175.92
Total tolls levied.....	\$237,501.54	\$300,983.62	\$538,485.16

Item.	Cristobal.	Balboa.	Total.
Total ships entering port.....	244	227	471
Total ships clearing from port.....	250	224	474
Total ships handled,.....	494	451	945
Net registered tonnage of vessels entering port.....	1,043,090	876,658	1,919,748
Net registered tonnage of vessels clearing port.....	1,056,316	827,097	1,883,413
Total, for vessels entering and clearing.....	2,099,406	1,703,755	3,803,161
Registered gross tonnage of vessels entering.....	1,384,244	1,132,309	2,516,553
Registered gross tonnage of vessels clearing.....	1,403,887	1,081,023	2,484,910
Total registered gross tonnage of vessels entering and clearing.....	2,788,131	2,213,332	5,001,463
Vessels entering port, but not passing through Canal.....	39	4	43
Net tonnage of above.....	87,308	4,844	92,152
Gross tonnage of above.....	144,702	8,287	152,989
Vessels clearing port, but not passing through Canal.....	43	6	49
Net tonnage of above.....	101,377	9,611	110,988
Gross tonnage of above.....	166,716	14,852	181,568
Vessels passing through Canal, and handling passengers or cargo at port, entered.....	32	36	68
Net tonnage of above.....	41,267	48,867	90,124
Gross tonnage of above.....	67,475	83,636	151,111
Vessels passing through Canal, and handling passengers or cargo at port, cleared.....	34	26	70
Net tonnage of above.....	42,426	46,124	88,550
Gross tonnage of above.....	70,017	79,863	149,880
Transit cargo arriving..... tons.	624,649	612,237	1,236,886
Transit cargo cleared..... tons.	633,284	612,279	1,245,563
Local cargo arriving..... tons.	42,517	4,111	46,628
Local cargo shipped..... tons.	3,286	1,470	4,756
Total local cargo handled..... tons.	45,803	5,581	51,384
Total local and transit cargo..... tons.	1,303,736	1,230,097	2,533,833
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons	39,118	7,646	46,764
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons	46,087	1,510	47,597
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons	666	5,323	5,989
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	85,871	14,479	100,350
Cargo stevedored, included in above,..... tons	30,545	134	30,679
Commercial vessels other than P. R. R. supplied with bunker coal..... tons	76	20	96
Panama Railroad vessels supplied with bunker coal..... tons.	1	.....	1
Coal received during July..... tons.	12,035	.....	12,035
Coal supplied Panama Railroad Steamship Line..... tons.	202	.....	202
Coal supplied Panama Railroad departments..... tons.	1,085	.....	1,085
Coal supplied individuals and companies..... tons.	457	.....	457
Coal supplied other steamship lines..... tons.	27,648	4,775	32,423
Coal supplied Army, including vessels..... tons.	432	21	453
Coal supplied Navy, including vessels..... tons.	2,624	3,128	5,752
Coal supplied The Panama Canal..... tons.	2,122	910	3,032
Coal on hand, August 1..... tons.	132,870	6,463	139,333
Vessels supplied with water.....	156	115	271
Water sold to ships..... gals.	6,738,490	2,310,750	9,049,240
Vessels dry-docked.....	16	15	31
Commercial vessels furnished commissary supplies.....	115	70	185
Panama Railroad vessels furnished commissary supplies.....	9	.....	9
Other U. S. Government vessels furnished commissary supplies.....	44	22	66
Total vessels furnished commissary supplies.....	168	92	260
Commissary sales to commercial vessels:			
Ice.....	\$841 01	\$381 56	\$1,222 57
Wholesale groceries.....	11,056 78	4,507 07	15,563 85
Wholesale cold storage.....	25,541 85	17,837 12	43,378 97
Laundry.....	1,425 44	1,15	1,426 59
Miscellaneous.....	1,818 17	1,661 06	3,479 23
Total.....	\$40,633 25	\$24,387 96	\$65,071 21
Commissary sales to Panama Railroad vessels:			
Ice.....	\$102 00	.....	\$102 00
Wholesale groceries.....	2,092 23	.....	2,092 23
Wholesale cold storage.....	6,629 80	.....	6,629 80
Laundry.....	436 63	.....	436 63
Miscellaneous.....	530 37	.....	530 37
Total.....	\$9,791 03	.....	\$9,791 03
Commissary sales to other Government vessels:			
Ice.....	\$370 00	\$505 24	\$875 24
Wholesale groceries.....	5,639 95	3,502 50	9,142 45
Wholesale cold storage.....	52,383 37	29,412 27	82,795 64
Laundry.....	327 07	424 59	751 66
Miscellaneous.....	1,464 02	1,037 41	2,501 43
Total.....	\$61,184 41	\$34,882 01	\$96,066 42
Total commissary sales to vessels.....	\$111,658 69	\$59,269 97	\$170,928 66

Item.	Cristobal.	Balboa.	Total.
Fuel oil issued to U. S. Navy.....barrels..	205.02		205.00
Fuel oil issued to U. S. Army.....barrels..	465.29		467.20
Fuel oil issued to Canal departments.....barrels..	5,434.41	23,477.78	28,912.19
Other sales, issues, and consumption at plant.....barrels..	239.50	349.38	588.88
Total furnished from Canal tanks.....barrels..	6,346.13	23,827.16	30,173.29
Fuel oil on hand August 1.....barrels..	32,560.52	118,701.83	151,262.35
Other oil pumped.....barrels..	277,387.08	37,742.86	315,129.94
Diesel oil on hand August 1.....barrels..		1,516.21	1,516.21
Passengers arriving, including transit passengers:			
First cabin.....	2,513	1,546	4,059
Other than first cabin.....	7,120	2,997	10,117
Total.....	9,633	4,543	14,176
Total passengers departing including transit passengers:			
First cabin.....	2,889	1,534	4,423
Other than first cabin.....	6,545	3,000	9,545
Total.....	9,434	4,534	13,968
Total movement of passengers.....	19,067	9,077	28,144
Passengers disembarking:			
First cabin.....	1,091	187	1,278
Other than first cabin.....	1,188	67	1,255
Total.....	2,279	254	2,533
Passengers embarking:			
First cabin.....	1,502	185	1,687
Other than first cabin.....	974	50	1,024
Total.....	2,476	235	2,711
Services to seamen:			
Seamen shipped.....	239	111	350
Seamen paid off.....	186	24	210
Seamen deserted.....	38	1	39
Seamen lodged, subsisted, and repatriated.....	25		25
Seamen's identification certificates issued:			
United States citizens.....	5	14	19
Aliens.....	30	101	131
Total seamen handled.....	523	251	774
Seamen's wages received.....	\$12,423.66	\$1,978.19	\$14,401.85
Seamen's wages disbursed.....	\$6,230.75	\$1,201.88	\$7,432.63
Seamen's wages on hand, July 31.....	\$9,240.52	\$1,569.28	\$10,839.80
Services to American vessels:			
Crews shipped.....	3		3
Crews paid off.....	3		3
Shipping articles written.....	3	3	6
Marine notes of protest noted.....	12	5	17

LOCK OPERATIONS.

Lockages of commercial vessels were made during the month as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	86	64	150	96	67	163
Pedro Miguel.....	90	68	158	95	68	163
Miraflores.....	84	67	151	96	69	165

Army and Navy vessels, and vessels operated by The Panama Canal are included in the following summary of all lockages during the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	150	158	151
Noncommercial, United States Army and Navy.....	52	54	52
Canal equipment.....	14	34	31
Total.....	216	246	234
Vessels:			
Commercial vessels.....	163	163	165
Noncommercial, United States Army and Navy.....	121	155	144
Total.....	284	318	309

Water consumed for all lockages amounted to 1,686,370,000 cubic feet, that used at Pedro Miguel becoming available for second use at Miraflores Locks.

The number of lockages made during the month was the greatest of any month since the Canal has been in operation.

Consumption of water during the month was as follows:

	Cubic Feet.		
	Gatun.	Pedro Miguel.	Miraflores.
Lockage.....	884,920,000	787,600,000	707,190,000
Leakage.....	20,000,000	25,930,000	13,500,000
Maintenance.....		13,850,000	
Total.....	904,920,000	827,380,000	720,690,000

The main part of the Pacific Fleet, consisting of 8 battleships, 1 cruiser, 22 destroyers, and 3 miscellaneous crafts, was locked through the Canal during the month. The battleships *New Mexico* and *Mississippi*, each of 32,000 tons, with a length of 624 feet and a beam of 97 feet 4½ inches, are the largest vessels which have ever transited the Canal. In the locks eight towing locomotives were used on each, and no difficulty was experienced in their lockage. The entire fleet was locked through without mishap. On July 24th, 1 battleship, 1 cruiser, 1 fuel ship, and 22 destroyers were locked through Gatun Locks southbound, besides 2 commercial ships, 1 north and 1 southbound, making a total of 27 ships passing through Gatun Locks on that day, which is a record. On July 25th, 5 dreadnaughts, and on July 26th, 1 dreadnaught were locked through southbound. The time required for the lockage of the dreadnaughts through Gatun Locks was from 1 hour and 2 minutes to 1 hour and 34 minutes.

METEOROLOGY.

The estimated average rainfall over the Gatun Lake watershed was 11.06 inches, compared with a 9-year mean of 10.89 inches, and the average over the Chagres River basin above Alhajuella was 16.71 inches, compared with an 18-year mean of 14.61 inches. The rainfall for the month was generally deficient except over the upper Chagres drainage basin. The greatest monthly fall was at Porto Bello, totalling 24.23 inches, and the minimum monthly fall was at Cucherbo, 3.60 inches. The greatest precipitation recorded in 24 hours was 3.90 inches, at Porto Bello on the 5th.

Four slight seismic disturbances were recorded at Balboa Heights. They occurred on the 10th, 11th, 17th, and 22d. All were of very slight intensity in the Canal Zone, and resulted in no damage.

The average Chagres River discharge at Alhajuella was 28 per cent below the 18-year July average, or 2,060 c. f. s. against a mean of 2,846 c. f. s. The Chagres furnished 40 per cent of the Gatun Lake total yield. There were no freshets in the Chagres River with a rise of more than 5 feet at Alhajuella.

The elevation of Gatun Lake varied from a maximum of 85.29 feet on the 1st to a minimum of 84.99 feet on the 26th, averaging 85.12 feet. On July 31, it was 85.26 feet.

There was a decrease in storage of 140 million cubic feet. The draft on Gatun Lake for lockages and electric power was 2,067 c. f. s., compared with 2,014 c. f. s., for last month and 1,729 c. f. s., for July, 1918. The ratio of water used for hydroelectric power to that for Gatun Lake lockages was 2.28 to 1. The Brazos Brook reservoir and the Gamboa pumping plant drew 15,210,000 and 43,540,000 cubic feet, respectively, from Gatun Lake.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The net output of the hydroelectric station for the month of July was 5,136,725 K. W. H., and the computed water consumption was 3,849,877,200 cubic feet. There were no interruptions in service or failure of major equipment at this station. There were 25 spillway gate operations during the month.

Miraflores steam plant—One interruption in high tension service made it necessary for this station to pick up local load for 3 minutes. Extra boilers were cut in on line on two occasions to insure continuous service on the locks in case of line failure. This was necessary on account of extra heavy lockages while the Pacific Fleet was transiting the Canal.

Total power output—The total net power output for both generating stations was 4,945,525 K. W. H., and the total amount of power distributed to feeders by substations and generating plants was 4,446,725 K. W. H., representing an energy loss of 10.0 per cent.

Transmission line—There was one interruption to transmission service during the month. Line No. 2 failed at 11.32 a. m., on the 23d, interrupting service at Cristobal 3 minutes, Balboa 4 minutes, Gamboa 10 minutes, and Darien 3 minutes. This interruption was caused by crane No. 70 coming in contact with line between towers 1-11 and 1-12 in the Cristobal yard of the Panama Railroad.

Marine work—At Cristobal 12 orders were accomplished, embracing 17 items of repairs and additions on the following vessels: *Allianza*, *Melville*, tug *Porto Bello*,

Caribbean, Salaverry, Keketicut, Panama, tug Tavernilla, General Ernst, Perou, Andra, and Advance. The work in progress on the *Middlebury* was 50 per cent complete and that on the *Culebra* 60 per cent complete at the end of the month. At Balboa electrical work was performed on the following vessels: *Salaverry*, submarine *C-4, Anubis, Cristobal, Roman*, barges *Nos. 13 and 29*, motorship *Cap Palos*, tug *Gorgona, Trollind, Transvaal, San Joaquin, Peru, Oraton, Keketicut, Azov, Santa Isabel, Ozette, Ahala, Snetind, Brookland*, motorship *Cap Finisterre, Mulpua*, U. S. S. *Cleveland, Fort Snelling, Fort Sill and Ossining.*

New construction work—The building work on the substation batteries at all four stations was completed. Installation of lighting in the new cold storage plant at Mount Hope was carried to 98 per cent of completion and the installation of electrical power equipment to 85 per cent of completion. Fifteen motors were placed in service. Electrical work at the slaughterhouse nearby was advanced to 95 per cent of completion. Installation on Pier 6, *Cristobal*, was 65 per cent complete. Work was continued on the power plant equipment at *Coco Solo*, and the exterior electrical work on the seaplane hangar was 95 per cent complete at the end of the month. No work was done on the 6,600-volt extension to the fortified islands at *Fort Amador*, which remains 99 per cent complete. Installation of permanent armored feeder cable from *Miraflores* substation to the distribution house for the *Miraflores* Army post was advanced to 85 per cent of completion, and in the construction of underground duct lines, exclusive of manholes and pipe laterals to buildings at the post, 1,300 feet of 8-way duct and 510 feet of 6-way duct were laid during the month.

SHOPS, FOUNDRY, AND DRY DOCK WORK.

The visit of the Pacific Fleet, incidental to its passage through the Canal, was of interest to the shops on account of work done for the fleet and likely to be done in the future. It is believed that the stationing of this fleet upon the Pacific means the opening of a new field of considerable magnitude for the shops of the Canal. Minor repairs were called for by a portion of the Naval vessels constituting the Pacific Fleet while in the Canal, all of which were handled without delay to any of the ships. The U. S. S. *Cleveland* remained at Balboa shops for repairs to operating equipment, which work was being carried forward at the end of the month, subject to the provision that the ship must not be disabled to such an extent that she could not be ready for sea on 48 hours' notice.

Repairs to the ex-German vessel *Uarda* (renamed *Salaverry*) were completed, successful sea trials were run, and the vessel was delivered to the Shipping Board on July 14. Repairs to the ex-German vessel *Anubis* (renamed *Paita*) were continued, but considerable delay is experienced by the nonreceipt of two main engine cylinders, numerous pumps, and the other material due from the United States. Most of this material was on board ships at New York at the time the recent shipping strike occurred, and completion of the *Anubis* will be delayed by approximately the equivalent of the time the vessels were delayed by the strike.

The work on the steamship *Cristobal* of the Panama Railroad Steamship Line has been advancing as far as the undecided questions in connection with her overhaul admit. The structural arrangements within the vessel for carrying oil will differ so materially from those which will be used in case of adherence to coal burning that almost all of the lower part of the vessel is affected, while the proposed modifications for increased passenger-carrying introduced an almost equal number of uncertainties in the upper portion of the vessel. The interference with mails, with the consequent nonarrival of working decisions from the New York office, has thus operated to hamper consistent progress upon the vessel.

The alterations to the steamship *Middlebury* advanced substantially during the month.

The steamship *Azov* was placed in dry dock for repairs to bow and a general overhaul of the machinery. The lower half of her stern is being renewed, together with about 25 pieces of bow plating and a considerable part of her framing system. The work on the vessel was about half completed at the end of July.

The following vessels arrived for repairs at the *Cristobal* shops: Schooners *Aviator, Linda S.*, and *Centinela*, barges *Nos. 26, 150, 28, 49*, and 3, schooner *Lt. Pegoud*, steamer *Poe*, motorboat *Orotina*, tugs *Porto Bello* and *Tavernilla*, U. S. S. *Itaska C-2, C-3*, scout patrols *Nos. 1841, 2232*, and *2235, Cyama, Supply No. 1*, coal hoist *No. 1*, subchaser *No. 355*, U. S. S. *Supply*, mine planter *Graham*, launch *Psyche*, transport *Kilpatrick*, steamships *Advance, Hodges, Achilles, Middlebury, Culebra, General Ernst, Allianca, Caribbean, Panama, San Jose, Cartagena, Ucajali, Eldorado, Abangarez, Lake Wilson, Catalina, Andra, Palena, Bushong, Salvador, Salaverry, Roman,*

Santa Marta, West Celeron, Edsito, Manavi, Balboa, Antilla, Quittacas, Kanakee, Cauca, Oraton, Wayucan, and Finisterre.

Of the above the following were in dry dock during the month: U. S. S. *C-2, C-3*, steamer *Poe*, tug *Porto Bello*, schooners *Aviator* and *Linda S.*, scout patrols *Nos. 1841, 2232, 2235*, coal hoist *No. 1*, barges *Nos. 28, 26, 150, 3, 49*, and steamship *Cartagena*.

At the Cristobal shops 131 individual and company job orders were issued during the month, 8 of which were for work on Navy craft, none of which were submarines. Of the remaining 123, forty-four covered repairs to ships making this port or in transit of the Canal, exclusive of Panama Railroad ships.

Work was performed at the Balboa shops during the month for the following vessels:

U. S. S. *Algonquin, Charleston, Chicago, Cleveland, Cuyama, Elliott, Houston, Maine, Phillips, Radford, Tarbell, Tacoma, Vermont, Wicks, Wisconsin*, motorship *Cap Palos*, steamships *Santa Isabel, Suzanne, Snetind, Ahala, Brookland, Benzonía, Cartagena, Culebra*, motorship *Cap Finisterre*, steamships *Cristobal, Eldorado, Fort Sill, Fort Snelling, Fort Russell, Goodspeed, General Ernst, Guardian, Gorgona, Rolph, Joan of Arc, Keketicut, Lake Sanferd, La Habra, La Primeria, Laura Hall, Middlebury, Marie de Ronde, Melville, Mulpua, Manavi, Ossining, Ozette, Oraton, Peru, Panama Raranga, San Joaquin, Salaverry, Transvaal, West Wind, Wayucan, and War Cavalry.*

The following vessels were in dry dock during the month at Balboa: Steamship *Transvaal*, motorship *Trollind*, launch *Limon*, steamships *Fort Russell, Oraton, Joan of Arc, Uarda, U. S. S. Chicago*, launch *Vacuum*, steamships *Benzonia, Brookland, tug Gorgona*, steamships *Middlebury, Azcr, and Cristobal.*

Work on the four new 61-foot steel frame passenger coaches was continued, and two were completed and put into service. These cars, which have been trimmed with native wood of Panama and finished in the natural color, have occasioned pleasing comment.

Foundry output, compared with that of June, was as follows:

	July.	June.
	Pounds.	Pounds.
Iron.....	143,370½	176,027
Steel.....	45,070	18,45½
Brass.....	19,308	17,383½

Equipment was hostled as follows: Locomotives, 1,598; cranes, 217; making a total of 1,815. One hundred and seventy-two shop and 1,420 field repairs were made on cars, 808 freight cars were repacked, and 2,259 passenger coaches were packed, cleaned, oiled, and inspected.

BUILDING CONSTRUCTION.

The construction work of the Building Division had reached the following status on July 31:

Ward group No. 8 of the new Ancon Hospital buildings was completed and turned over to the Health Department for operation.

Cement block walls of the lumber shed at Balboa were completed during the month.

For the Puerto Obaldia radio station work was performed during the month on the construction of the towers, assembling material, etc. This was done at Cristobal, preparatory to sending the construction gang to Puerto Obaldia.

Status of work on other buildings was as follows:

The construction of the abattoir building at Mount Hope was completed, and the installation of equipment was completed except in the offal room and the oleo and lard equipment. The plant was used by the Supply Department during the month. For the canning plant, a small amount of carpentry work was performed during the month; the building remained 99 per cent completed.

The boiler house and exterior steam lines of the coal storage plant were 99 per cent complete, and the installation of the boiler advanced from 70 to 90 per cent of completion during the month. The machine shop at Mount Hope was 85 per cent completed, and the carpenter shop there 75 per cent completed. The ten 12-family silver quarters at Mount Hope were 95 per cent completed. The office building for the Central & South American Telegraph Company at Balboa was 25 per cent completed. The tuberculosis ward of Corozal Hospital remained 80 per cent completed. The office for the Lighthouse Section at Gatun was 80 per cent completed. Construction of a temporary bone mill at Mount Hope was brought to completion. Construction of a fumigating shed at Pier 8 was completed. The erection of two houses for a seaman's home at Balboa was 98 per cent completed.

Terminal construction—Pier 6 was practically completed on July 1, except the side doors, cargo unloading masts, and approaches.

DREDGING DIVISION.

The total excavation by dredges during July was 334,300 cubic yards, as follows:

Cubic yards.	Earth.	Rock.	Character of work.	Stations.	Equipment.
7,400 (a)	7,400	.....	Maintenance....	1441 to 1446-50 E. 1424 to 1429-50 W..... 1799-00 to 1802-00 W. 1755-50 to 1765-00 W.....	Paraiso.
9,200 (c)	4,900	4,300	Maintenance....	Paraiso P. I. Imprv. 1896-00 to 1902-00 W.....	Paraiso.
5,100 (c)	3,100	2,000	Maintenance....	Miraflores P. I. Imprv. 2088-50 to 2093-50 W..... 2279-65 to 2289-50 W.....	Paraiso.
21,300 (e)	3,300	18,000	Maintenance....	2186-00 to 2196-00 W.....	Paraiso.
120,200 (e)	120,200	.....	Maintenance....	Pier 6, Cristobal.....	No. 84.
21,300 (e)	21,300	.....	Maintenance....	Balboa Inner Harbor.....	No. 86.
7,000 (f)	4,500	2,500	Aux. Const.....	Balboa Inner Harbor.....	Paraiso.
10,000 (g)	.....	10,000	Construction....	Balboa Inner Harbor.....	Cascadas.
30,000 (g)	30,000	.....	Maintenance....	Balboa Inner Harbor.....	Cascadas.
8,500 (g)	8,500	.....	Construction....	Balboa Inner Harbor.....	No. 88.
94,300 (g)	94,300	.....	Maintenance....	Balboa Inner Harbor.....	No. 88.
334,300	297,500	36,800	Total for month		

(a) Gatun Lake section. (c) Gaillard Cut. (e) Pacific entrance. (g) Balboa inner harbor.
 (d) Miraflores Lake. (f) Atlantic terminals (h) Coco Solo. (i) Unmined rock.

The following disposition was made of the excavated material: From the Pacific entrance section, 3,300 cubic yards of earth and 18,000 cubic yards of rock were dumped at sea, 120,200 cubic yards of earth were handled through a pipeline 1,400 feet in length to the flats west of the channel, and 21,300 cubic yards of earth were piped 1,700 feet to the San Juan fill. From the inner harbor at Balboa 40,000 cubic yards were dumped at sea, and 102,800 cubic yards of earth were deposited in the Diablo dump "A." A relay pump was used to assist the dredge in this work, with equal lengths of pipeline of 2,600 feet from the dredge to the relay and from the relay to the outfall. Twenty-one thousand seven hundred cubic yards of material excavated north of Gamboa were dumped in Gatun Lake. At the Atlantic entrance, 4,500 cubic yards of earth and 2,500 cubic yards of rock removed from north and south sides of Pier 6 were dumped between the land end of the East Breakwater and Margarita Point.

On August 1 there remained to be excavated from the Canal prism, ocean to ocean, 173,200 cubic yards of earth and rock and from the Cristobal coaling station and Balboa inner harbor, 169,900 cubic yards of earth and rock. The following table shows the distribution.

Location.	Earth.	Rock.	Total.
Gaillard Cut.....	.....	25,000	25,000
Pacific Entrance.....	61,300	86,900	148,200
Total, Canal prism.....	61,300	111,900	173,200
Cristobal Coaling Station.....	.....	2,100	2,100
Balboa Inner Harbor.....	154,400	13,400	167,800
Total, Cristobal Coaling Station and Balboa Inner Harbor.....	154,400	15,500	169,900
Grand total—ocean to ocean.....	215,700	127,400	343,100

Surveys covering all slide areas in the Gaillard Cut, and the Pacific entrance channel from Miraflores Locks to the steel dock south of Balboa harbor were made prior to the passing of the Pacific Fleet from the Atlantic to the Pacific Ocean. All slide areas were dragged and shoals marked.

MUNICIPAL DIVISION.

Jobs completed in July included the completion of the installation of pumps at the Submarine Base, Coco Solo, and water, sewers, and fire protection for barracks and mess hall at the Naval Air Station. The road to the Mount Hope cold storage plant was 85 per cent completed, and the extension of the road to Pier 6, Cristobal, 98 per cent completed. At the Gatun Army post, grading was 65 per cent, track construction, 90 per cent, and the water lines 50 per cent completed. Work in the Ancon Hospital grounds was completed as far as authorized. The concrete platform at Balboa shops building No. 5 was completed. The work on the Army post at Miraflores advanced, grading being 85 per cent, tracks 98 per cent, and the water lines 80 per cent completed at the end of the month.

Water pumped in the southern district amounted to 614,568,000 gallons, and in the northern district to 173,286,500 gallons, making a total of 787,854,500 gallons. This

was an increase of 35,924,750 gallons over the quantity pumped in June. Colon was furnished with 46,593,600 gallons of water, Panama with 87,516,000 gallons and 9,049,240 gallons were supplied to 271 ships. The incinerator at Cavilan Island burned 2,050 tons of garbage and 31 dead animals during the month.

WORKING FORCE.

Effective July 23, 1919.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office	34	47	81
Building Division.....	198	1,662	1,860
Electrical Division.....	210	344	554
Municipal Engineering.....	126	2,848	2,974
Lock Operation.....	126	629	755
Dredging Division.....	114	859	973
Mechanical Division.....	949	1,914	2,863
Marine Division.....	105	376	481
Fortifications.....	45	335	380
Total.....	1,907	9,014	10,921
Supply Department:			
Quartermaster.....	142	1,848	1,990
Subsistence.....	25	429	454
Commissary.....	209	1,453	1,662
Cattle Industry—Plantations.....	30	667	697
Accounting.....	200	13	213
Health.....	241	1,166	1,407
Executive.....	511	198	709
Panama Railroad:			
Superintendent.....	48	542	590
Transportation.....	130	280	410
Receiving and Forwarding Agent.....	79	1,089	1,168
Coaling Station.....	106	894	1,000
Hotel Washington.....	5	97	102
Grand total.....	2,633	17,690	21,323

The total gold force at work on July 23 was 343 more than the 3,290 at work on June 18, and the silver force was 619 more than the 17,071 then at work. As compared with the gold force for the corresponding month of last year, reported as of July 24, 1918, the gold force was an increase of 611 over the 3,022 at work on that date, and the silver force an increase of 2,057 over the 15,633 of that day.

The occupation of quarters on July 31, was as follows:

Occupants.	Men.	Women.	Children.	Total.
Americans.....	3,259	2,144	2,595	7,998
Europeans.....	218	41	69	328
West Indians.....	5,322	2,010	3,809	11,141
Total.....	8,799	4,195	6,473	19,467

Three hundred and seven new applications for gold family quarters were on file.

PUBLIC HEALTH.

Two hundred and sixty-two cases of malaria were admitted to hospitals. Two deaths occurred from malaria. Influenza cases admitted numbered 37. Six cases of pneumonia were admitted, and one death resulted from pneumonia.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material received during the month on United States requisitions was \$439,572.67, as compared with \$769,754.37 in June. Of that received in July, \$415,315.10 was chargeable to operation and maintenance; \$18,301.81 to construction and equipment; and \$5,955.76 to miscellaneous departments. Isthmian cash sales from storehouses and obsolete store amounted to \$29,338.89, of which \$27,092.62 was for stock, \$1,402.20 for scrap, and \$844.07 for obsolete and second-hand material. There were no important sales made in the United States during the month.

The total sales of material from storehouses to steamships, exclusive of fuel oil, commissary supplies, and ice for the month was \$15,593.54. Sales of commissary supplies to all purchasers for the month aggregated \$924,108.70, made up as follows: To steamships, other than United States Naval vessels, \$63,080.18; to The Panama Canal, \$133,205.24; to the United States Government, including sales to the Army and Navy, \$160,321.39, of which sales to the Navy, including vessels in the Pacific Fleet, aggregated \$97,753.93; to individuals and companies, principally through charge accounts in the retail stores, \$16,662.10; to the Panama Railroad, including the Hotel Washington, \$38,705.73; to individuals purchasing with coupons, \$512,134.06.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on July 31, exclusive of fortifications, was \$17,038,874.99; the balance in fortifications was \$8,094,558.06. Payments from appropriations by the Disbursing Clerk in Washington amounted to \$681,482.14 and by the Paymaster on the Isthmus to \$1,320,888.27. Purchases of commissary books from the Panama Railroad Company amounted to \$301,485.28. Collections of tolls totaled \$538,485.16. Deposits of \$140,325.77 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$1,081,530.74, and collections by the Disbursing Clerk, Washington, \$757,076.56. Receipts from the Canal Zone and miscellaneous funds were \$144,038.49, and disbursements from the same source amounted to \$184,134.14. July pay rolls on the Isthmus aggregated \$1,220,333.31 as compared with \$1,132,073.23 for June, a difference of \$88,260.08.

Respectfully,

CHESTER HARDING,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 6, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Perou.....	Compagnie Generale Transat'ique.	August 31.....	September 4..	352	9
Carrillo.....	United Fruit Company.....	August 31.....	August 31.....	106	(*)
Aysen.....	United Fruit Company.....		September 1..		925
Bologna.....	Italian Steamship Line.....		September 1..		2,120
Parismina.....	United Fruit Company.....	August 1.....	September 2..	27	1
Heredia.....	United Fruit Company.....	August 1.....	September 2..	836	116
Manavi.....	Pacific Steam Navigation Co.....		September 2..		663 1/2
Mantaro.....	Peruvian Steamship Line.....		September 2..		1,453
Jamaica.....	Pacific Steam Navigation Co.....		September 2..		631
Almelo.....	Royal Netherlands Steamship Co..	September 3..	September 4..	25	(*)
Santa Marta.....	United Fruit Company.....	September 3..	September 4..	940	393
San Juan.....	Pacific Mail Steamship Line.....	September 3..		1,707	
Fairhaven.....	Anglo-American S. S. Agency.....		September 4..		(*)
Turrialba.....	United Fruit Co.....	September 4..	September 4..	11	1
Elerdard.....	Royal Mail Steamship Company.....	September 4..		200	
Advance.....	Panama Railroad Steamship Line..	September 5..		1,736	
Salvador.....	Pacific Steam Navigation Co.....	September 5..		778	
Middlebury.....	Panama Railroad Commissary.....		September 6..		4
Colon.....	Panama Railroad Steamship Line..		September 6..		3,897

*No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 6, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Jamaica.....	Pacific Steam Navigation Co.....	September 2..	September 2..		19
Manavi.....	Pacific Steam Navigation Co.....	September 2..	September 2..		1
Sao Juan.....	Pacific Mail Steamship Co.....	September 2..	September 3..	93	

Notice to Mariners.—Roncador Bank Light U Relighted.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., September 8, 1919.

CIRCULAR No 643-64:

Roncador Bank Light U, previously reported out of commission, was relighted on September 4, 1919:

H. O. Charts 21-1007-1290-945-394-1374.

H. O. Light List Vol. 1, 1919, No. 1432 D.

Light List Atlantic and Gulf Coasts, 1919, page 388, No. 2303.

H. O. Pub. 130-1918, page 202.

CHESTER HARDING,
Governor.

Roncador Cay, Caribbean Sea.—Reservation for Lighthouse Purposes.

By the President of the United States of America, A Proclamation—

WHEREAS, the Congress of the United States has provided by act of August 18, 1856 (11 U. S. Statutes at Large, page 119; Secs. 5570 to 5578 U. S. Revised Statutes), that whenever any citizen of the United States, after the passage of the act, discovers a deposit of guano on any island, rock, or key, not within the lawful jurisdiction of any other government and shall take peaceable possession thereof and occupy the same, the island, rock, or key may, at the discretion of the President of the United States, be considered as appertaining to the United States.

AND WHEREAS, pursuant to the foregoing act of Congress, Roncador Cay in the western part of the Caribbean Sea is now under the sole and exclusive jurisdiction of the United States, and out of the jurisdiction of any other government.

NOW, THEREFORE, I, WOODROW WILSON, President of the United States, by virtue of the power in me vested, do hereby declare, proclaim, and make known that Roncador Cay, in the western part of the Caribbean Sea, be and the same is reserved for lighthouse purposes, such reservation being deemed necessary in the public interests, subject to such legislative action as the Congress of the United States may take with respect thereto.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done this fifth day of June in the year of our Lord one thousand nine hundred [SEAL.] and nineteen, and of the Independence of the United States the one hundred and forty-third.

WOODROW WILSON.

By the President:

WILLIAM PHILLIPS,
Acting Secretary of State.

[No. 1522-A.]

New Form of Peddler's Permit.

A new form of peddler's permit to sell articles of food in the Canal Zone has been printed which prohibits the sale of fresh meat and shellfish. These permits are issued without fee upon the condition that the holder shall carefully observe the sanitary regulations of the Canal Zone and shall be subject to the directions of the officials of the Health Department in the conduct of his business.

It is hereby directed that all persons desiring to peddle food in the Canal Zone secure new permits from the Division of Civil Affairs, room 301, Administration Building, Balboa Heights, Canal Zone, on or before October 1, 1919. New permits may be secured in person or by mail. The old form of permits will not be accepted as authority for peddling foodstuffs on or after October 1, 1919.

A copy of the new form of permit is published below.

C. A. McILVAINE,
Executive Secretary.

BALBOA HEIGHTS, C. Z., September 5, 1919.

PERMIT TO SELL ARTICLES OF FOOD.

License is hereby granted to to peddle articles of food in the Canal Zone other than fresh meat and shellfish. This permit is issued upon the condition that the holder shall carefully observe the sanitary regulations of the Canal Zone and shall be subject to the direction of the officials of the Sanitary Department in the conduct of business. All foodstuffs shall be protected against contamination by dirt or insects by being kept in suitable receptacles.

Business conducted in United States Army camps shall be subject to such special regulations as may be prescribed by the military authorities.

No authority is given under this permit for the sale of any article other than foodstuffs.

.....
Chief, Division of Civil Affairs.

Copy to Chief of Police.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal postoffices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286):

Dairy manufacturing specialist (male); \$1,800 to \$2,700 a year; October 14, 1919; age, under 45 years.*

Animal husbandman (male); \$1,800 to \$2,000 a year; October 14, 1919; form 2112; age, 21 years but not 45 years.*

Assistant animal husbandman (male); \$1,200 to \$1,500 a year; October 9, 1919; form 1312; age, 21 years but not 45 years.

Dairy editor (male); \$2,000 to \$2,500 a year; October 14, 1919; age, 25 years but not 45 years.*

Junior computer (male and female); \$1,020 a year; October 8-9, 1919; form 1312; age, under 30 years.

Research assistant in agricultural geography (male and female); \$1,500 to \$2,000 a year; October 8, 1919; form 1312; age, 21 years but not 50 years.

Lithographic pressman (male); \$1,600 a year; No. 431; September 30, 1919; form 1800; age, within reasonable age limits.*

Assistant fuel engineer (male), \$1,620 to \$2,160 a year; No. 443; October 7, 1919; form 2118; age, applicants admitted regardless of age, but at request of department making appointments certification will be made of eligibles who have not reached their 36th birthday.*

Engineer, \$3,000 or over a year; assistant engineer, \$1,800 to \$2,880 a year; junior engineer, \$1,200 to \$3,000 a year; engineering draftsman, \$1,200 to \$3,000 a year (male); No. 361-amended, supplemental.

The United States Civil Service Commission calls attention to the fact that from the foregoing examinations for which applications may be filed with the Commission at Washington, D. C., at any time until further notice, it is expected that appointments will be made in connection with carrying out the provisions of the soldier land bill in the event this bill becomes a law.

There is a continuing need in the Reclamation Service for eligibles for the positions of assistant engineer and junior engineer, at the salaries indicated above; but the demand for eligibles for the higher-salaried positions of engineer and engineering draftsman is contingent on the soldier land law bill becoming a law.

* Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Local Civil Service Examinations.

The following examinations will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, September 21, 1919.

Postal Clerk, September 28, 1919.

Stenographer and Typist, September 28, 1919.

Full information in regard to the scope and the character of the examinations is contained in pamphlet form 1424, Information for Applicants for Stenographer and Typewriter Examination, a copy of which may be obtained from the Secretary of the Civil Service Board, Administration Building, Balboa Heights, C. Z. Applicants for the Clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First, typewriting; second, bookkeeping; third, general business training and experience; fourth, timekeeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for Postal Clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone postoffices or as postmaster or as Navy mail clerk, and that they are familiar with the receipt, distribution and dispatch of mail matter, the issuance of money orders, registration of mail, and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officers' certificate, and should be filed promptly with the Board of Civil Service Examiners at Balboa Heights, C. Z.

Applicants must have reached their 20th but not their 45th birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within 2 years, securely pasted in the place provided in the admission cards sent them after their applications are filed.

Applicants for the Clerk examination in answer to question 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some *State or Territory* of the United States from the time of taking up residence therein to *September, 1919*, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the *county*.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted army and navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for The Panama Canal Service.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama"; in the United States, "Panacanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, September 6, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage		
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net	
Upshur (a)	30	10 20	30	17 30	31	15 56	31	18 40	American	United States Shipping Board	318.8	52.2	36.8	New York	Paita	General	4,800	5,667	4,094	
Aaron Ward (a)	30	10 21	31	6 30	31	13 07	1	17 53	American	United States Navy	315.0	30.0	10.0	New York	West Coast	General	925	4,584	3,063	
Roper (a)	30	10 22	31	6 30	31	13 18	1	17 53	American	United States Navy	314.0	31.0	10.0	New York	West Coast	General	622	1,170	620	
Corinthic	30	10 45	31	6 40	31	15 14	16 03	1	17 53	British	White Star Line	500.3	63.3	27.0	London, w/p	Wellington	General	4,800	12,792	9,506
Osakas	30	17 30	31	8 45	31	15 56	31	18 40	American	United States Army	318.8	52.2	36.8	New York	Paita	General	4,800	5,667	4,094	
Gen. Wm. Graham (b)			31	9 30	31	17 36			American	United States Army	318.8	52.2	36.8	New York	Paita	General	4,800	5,667	4,094	
Ayacucho	27	17 41	1	17 10	2	9 39	4	7 06	Chilean	South American Steamship Line	379.0	43.0	18.1	Cristobal	Bahoa	General	925	4,584	3,063	
Manava	28	10 00	2	5 55	2	13 28	2	19 12	British	Pacific Steam Navigation Co.	220.0	33.0	12.4	Cristobal	Buenaventura	General	622	1,170	620	
Manavi	28	15 24	2	6 08	2	13 33	2	20 00	British	Pacific Steam Navigation Co.	216.0	35.1	14.6	Cristobal	Buenaventura	General	925	4,584	3,063	
Lompoc	27	7 05	2	7 00	2	15 03	2	15 55	British	C. T. Boving	435.3	55.8	29.0	Tampico	Guayaquil	Crude oil	9,600	7,488	5,342	
Mantaro	27	16 25	2	8 55	2	15 03	2	16 06	Peruvian	Peruvian Steamship Line	369.0	46.0	19.6	Cristobal	Callao	General	1,400	4,639	2,761	
Pont Judith	2	8 30	2	15 40	3	9 19	3	10 15	American	United States Shipping Board	289.0	44.0	19.0	New York	Arica	General	2,820	2,895	1,983	
Adolph Woer-			3	6 20	3	14 17	3	15 22	British	George Thompson and Co.	411.4	50.7	22.4	Carliff	Wellington	General	7,011	7,011	4,895	
Panama Maru	3	10 20	3	10 40	3	17 38	4	7 18	Japanese	Osaka Shosen Kabushiki Kaisha	400.0	51.8	26.3	New Orleans	Yokohama	General	5,977	5,995	4,565	
Santa Alicia	2	16 40	3	12 10	3	19 55	4	16 42	American	W. R. Grace and Co.	283.3	44.0	21.5	Santos	Seattle	Coffee	2,440	2,628	1,713	
Elder Branch	2	22 37	3	12 26	3	19 45	4	10 50	British	Nauticus Steam Shipping Co.	380.3	49.7	22.3	Liverpool	Guayaquil	General	4,323	4,955	3,653	
Fairhaven	3	14 45	4	6 07	4	14 15	4	19 15	American	Fairhaven Steamship Co.	185.0	38.0	17.0	Cristobal	Puntarenas	Ballast	82	1,164	742	
Almelo	3	11 37	4	11 23	4	18 17	4	19 11	Dutch	Royal Netherland S. S. Co.	447.0	62.0	19.0	Amsterdam	Panama	General	82	9,403	6,653	
Tropic	4	5 57	4	16 30	5	10 19	5	11 14	British	White Star Line	475.0	55.2	28.1	Baltimore	Lytleton	Coal	6,790	8,120	6,185	
Lake Graphite	4	13 50	5	7 49	5	16 20	5	17 43	American	United States Shipping Board	328.0	43.0	24.0	Liverpool	Guanayacu	Coke, coal, com ¹	3,060	2,758	1,772	
Baltimore (c)	4	13 30	5	8 06	5	16 21	5	17 43	American	United States Navy	328.0	43.0	24.0	Liverpool	Guanayacu	Coke, coal, com ¹	3,060	2,758	1,772	
Parthore (d)	5	14 23	6	6 45	6	14 18	6	15 28	American	United States Navy	187.0	35.1	10.8	Norfolk	San Pedro	General	7,011	7,011	4,895	
Cardinal (e)	5	21 30	6	6 45	6	15 28	6	16 38	American	United States Navy	187.0	35.1	10.8	Norfolk	San Pedro	General	7,011	7,011	4,895	

(a) Destroyer. (b) Tug. (c) Mineplanter. (d) U. S. Tug, towing barges. (e) Towing target.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
West Isleta	31	8 30	31	9 37	31	17 50	31	23 50	American	United States Shipping Board	409.8	54.2	24.6	Seattle	Norfolk (F.O.)	Flour	7,616	6,759	4,785
Ascarate	31	9 15	31	8 53	31	18 52	1	3 05	American	United States Shipping Board	401.9	53.1	25.7	Tacoma	Newport News	Wheat	7,552	6,571	4,944
Yakuk	31	3 45	1	9 02	1	16 35	2	17 45	American	United States Shipping Board	401.9	53.1	24.7	Portland	Newport News	Wheat	7,600	6,569	4,932
West Chetac	1	9 00	1	9 39	1	17 21	4	16 04	American	United States Shipping Board	410.5	54.3	23.0	San Francisco	Gibraltar	Flour	7,253	6,567	4,899
Tuclanuck	28	9 20	1	10 28	1	18 35	2	12 19	American	United States Shipping Board	402.0	53.0	26.0	San Francisco	Newport News	Flour	8,411	6,541	4,898
Suffolk	1	22 15	1	7 26	2	15 17	2	22 35	British	Federal Steam Navigation Co.	460.0	58.2	20.0	Newcastle	Liverpool	General	6,700	8,975	6,457
Alberic Meftin	2	5 00	2	9 01	2	16 35	6	14 40	French	French Government	257.8	43.5	18.6	Tacoma	Nipe, Cuba	lumber	1,179	2,473	1,609

San Juan	2	7 30	3	6 32	3	14 42	American	Pacific Mail S. S. Company	283 0	37 0	17 6	San Francisco	Cristobal	General	1,707	2,379
Waimata	2	16 00	3	6 40	3	15 58	British	Shaw, Saville and Albion Co.	477 6	63 1	26 6	Lyttleton	London	General	6,500	11,229
Ruahine	3	7 00	3	8 03	3	17 18	British	New Zealand Shipping Co.	480 6	60 3	27 0	Wellington	London	General	5,537	11,197
West Harshaw	2	19 30	3	8 18	3	16 02	American	United States Shipping Board	410 0	54 2	23 0	Portland	Gibraltar F.O.	Wheat	6,422	6,582
San Joaquin	3	1 30	3	8 40	3	17 10	Norwegian	W. Wilhelmsen	425 5	57 1	17 5	Iquique	Tampico	Ballast	7,020	5,042
Boxbutte	2	21 50	3	10 16	3	17 50	American	United States Shipping Board	266 9	46 1	22 6	Aberdeen	London	Lumber, ties	1,439	2,637
C a n a d i a n	3	12 15	3	13 17	3	21 15	British	Canadian Government	320 0	44 0	21 0	Vancouver	Queenstown L.O.	Lumber	2,301	3,212
Trooper	3	1 00	4	8 00	4	16 10	American	Chiquimula Shipping Company	176 3	35 1	15 8	La Union	Baltimore	Managense ore	880	716
Crown of Galapagos	4	19 00	5	6 54	5	14 32	British	Prentiss Service & Henderson	400 0	52 0	23 6	San Francisco	Liverpool	General, lumber	5,362	5,731
Adway	5	7 00	5	8 16	5	16 07	American	United States Shipping Board	267 7	46 5	22 3	Seattle	London	Lumber, ties	1,221	2,673
Salvador	4	18 30	5	9 05	5	16 20	British	Pacific Steam Navigation Co.	215 0	33 5	14 8	Champerico	Cristobal	General	778	1,213
Coverun	5	23 20	5	13 40	5	21 15	American	United States Shipping Board	261 0	43 7	22 0	Pisagua	Cristobal F.O.	Nitrates	3,599	.....

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL

*ARRIVALS			*DEPARTURES		
Date	Vessels	From	Date	Vessels	For
Aug. 31	Perou	Bordeaux and wayports.	Aug. 31	Carrillo	United Fruit Company
Aug. 31	Carrillo	New York.	Sept. 1	Bologna	La Vchoce Steamship Line
Sept. 1	Parismina	New York and Habana.	Sept. 2	Parismina	United Fruit Company
Sept. 1	Heredia	New Orleans.	Sept. 4	Perou	French Steamship Line
Sept. 3	Santa Marta	New York and Kingston.	Sept. 4	Heredia	United Fruit Company
Sept. 4	Turrialba	Cartagena.	Sept. 4	Turrialba	United Fruit Company
Sept. 4	Ellerdale	London.	Sept. 4	Santa Marta	United Fruit Company
Sept. 5	Advance	New York.	Sept. 6	Colon	Panama Railroad Steamship Line
			Sept. 6	Middlebury	United States Shipping Board

PORT OF BALBOA

*ARRIVALS			*DEPARTURES		
Date	Vessels	From	Date	Vessels	For
Sept. 6			Sept. 6	Azov	London & Pacific Petroleum Co.
					Paita.

*Other than ships passing through the Canal.

Executive Order.—Registry of Foreign Built Vessels.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., August 28, 1919.

CIRCULAR No. 601-95:

In pursuance of the authority conferred upon the President of the United States by section 2 of the act approved August 18, 1914,* entitled "An Act to provide for the admission of foreign-built ships to American registry for the foreign trade, and for other purposes," it is hereby ordered:

That the provisions of law requiring survey, inspection and measurement, by officers of the United States, of foreign-built ships admitted to United States registry under said Act are hereby suspended so far and for such length of time as is herein provided, namely: The said provisions shall not apply to any such foreign-built ship during the period of eighteen months from September 1, 1919, provided the Secretary of Commerce is satisfied in the case of any such ship that the ship is safe and seaworthy and that proper effort is being made to comply with the said provision.

THE WHITE HOUSE,
August 8, 1919.

WOODROW WILSON.

*Published as circular No. 600-11. The Executive Order of August 8, 1919, above, has been published as circular No. 601-95.

End of Contributions to the War Relief Fund.

Payroll deductions of contributions to the war relief fund of the American National Red Cross by employees of The Panama Canal and the Panama Railroad were discontinued after July 31. Contributions began July 1, 1917, when a number of employees authorized the deduction each month of one per cent of their pay, and the total contributions to the war fund, made by payroll deduction and in cash, amounted to \$136,279.46. Thanks to the community have been expressed by national and local headquarters.

Official Circulars.**Act of Congress.—Appropriations, Fiscal Year 1920, Made Available July 1, 1919.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 27, 1919.

CIRCULAR No. 600-65:

The Act of Congress quoted below is published for the information of all concerned.

CHESTER HARDING,
Governor.

Joint Resolution to ratify and confirm from and including July 1, 1919, obligations incurred pursuant to the terms of certain appropriations for the fiscal year 1920.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That appropriations for the service of the fiscal year 1920, contained in the Agricultural, Army, District of Columbia, Navy, and Sundry Civil Appropriations Acts, and the "Third Deficiency Appropriation Act, fiscal year, 1919," shall be available from and including July 1, 1919, for the purposes respectively provided in the said appropriations for the service of the said fiscal year. And all obligations incurred pursuant to the terms of such appropriations in the aforesaid Acts as approved are ratified and confirmed from and including July 1, 1919.

Approved, July 31, 1919.

Reimbursement for Meals.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., August 29, 1919.

CIRCULAR No. 658-5:

Paragraph 8 of circular No. 658-4, dated November 24, 1916, is amended to read as follows, effective September 1, 1919:

8. Reimbursement for meals taken at a Panama Canal restaurant having a *la carte* service only is limited to 35 cents for the morning meal, and 45 cents per meal for the noon and evening meal, or a total of \$1.20 per day. At hotels where regular meals are served, reimbursement is limited to the price of such meals.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., September 2, 1919.

CIRCULAR No. 211:

Effective September 2, 1919, Mr. W. F. Foster is designated an accountable official of The Panama Canal, *vice* Mr. S. W. Heald, and as such will account for all nonexpendable property in use by the Superintendent of The Panama Railroad and The Panama Canal transportation.

H. A. A. SMITH,
Auditor.

Approved:
CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., September 3, 1919.

CIRCULAR No. 212:

Effective as of September 2, 1919, Mr. G. S. Briggs is designated an accountable official of The Panama Canal, *vice* Mr. Arthur V. Dayton, and as such will account for all storehouse stock at The Panama Canal Press.

H. A. A. SMITH,
Auditor.

Approved:
CHESTER HARDING,
Governor.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.
Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., September 17, 1919. No. 5.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 13, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Zacapa.....	United Fruit Company.....	September 7..	September 7..		1
Iquitos.....	Peruvian Steamship Line.....	September 7..	September 13..	1,525	822
Ellerdale.....	Royal Mail Steam Packet Co.....		September 8..		3,133
Cartago.....	United Fruit Company.....	September 8..	September 9..	1,479	106
Cauca.....	Pacific Steam Navigation Co.....	September 8..	September 13..	1,214	1,116
San Juan.....	Pacific Mail Steamship Line.....		September 9..		1,988
Saint Louis.....	Compagnie Gen. Transatlantique..	September 9..		100	
Nortonian.....	Levland Line.....	September 9..		1,509	
Urubamba.....	Peruvian Steamship Line.....	September 9..		2,641	
Salvador.....	Pacific Steam Navigation Co.....		September 10..		1,053
Atenas.....	United Fruit Company.....	September 10..	September 11..	766	184
William Green.....	Anglo-American Steamship Agency	September 10..	September 12..	9,900	(*)
Advance.....	Panama Railroad Steamship Line..		September 13..		1,562
Huasco.....	United Fruit Company.....	September 10..	September 13..	2,252	
Laura C. Hall.....	Anglo-American Steamship Agency	September 10..		41	
Balboa.....	Terminal Shipping Agency.....	September 11..		663	
Santa Marta.....	United Fruit Company.....	September 11..	September 11..	2	3
Middlebury.....	Panama Railroad Commissary.....	September 11..		500	
Panama.....	Panama Railroad Steamship Line..	September 13..		3,735	
Buford.....	United States Government.....	September 13..		272	
Namecki.....	Panama Railroad Steamship Line..	September 13..		2,745	

*No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 13, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Kiyo Maru.....	Toyo Kisen Kaisha.....	September 7..	September 8..	734	117
Cauca.....	Pacific Steam Navigation Co.....	September 8..	September 8..	1	
San Juan.....	Pacific Mail Steamship Co.....	September 9..	September 9..		11
Laura C. Hall.....	Pacific Metals Corporation.....	September 8..	September 10..	7	
Urubamba.....	Peruvian Steamship Co.....	September 9..	September 9..	1	
Salvador.....	Pacific Steam Navigation Co.....	September 10..	September 10..	1	
Balboa.....	Colombia Maritime Co.....	September 10..	September 11..	52	

Free Entry Requests Approved in City of Panama.

In compliance with the request of the Government of Panama, in the handling of requests for the free entry of goods for employees of the United States Government on the Isthmus, copies will no longer be forwarded to the Captain of the Port of Colon for approval but three copies of approved requests will be forwarded to the Secretary of Finance and Treasury, in the city of Panama, by the Executive Secretary. To avoid delay, these will be delivered and called for by a messenger of the Police and Fire Division.

This change does not affect the procedure of employees in submitting the request (Form 164-2) in sextuplicate through the head of the department or division or the procedure of forwarding the request by the head of the department or division to the Executive Secretary; the only change is in connection with the administration in Panama.

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, September 13, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Natica.....	6	17	00	7	6	15	7	13	53	British.....	406	0	29	9	New Orleans	Kerosene.....	6,552	5,966	4,321
Alps Maru.....	7	3	45	7	10	23	7	19	47	Osaka Shosen Kaisha.....	425	0	30	2	Shanghai	General and oil.....	9,533	8,006	5,680
Tanishima Maru.....	7	8	25	7	11	03	7	20	17	Nippon Yusen Kaisha.....	445	0	58	0	Shanghai	General.....	10,205	7,456	5,220
Port Alma.....	8	6	45	8	11	41	8	20	27	Commonwealth & Dominion Line.....	450	0	55	0	New York	Auckland.....	9,787	8,283	6,232
Chino.....	31	13	21	8	20	25	8	21	38	United States Shipping Board.....	266	5	42	23	Norfolk	Coal.....	2,341	2,638	1,671
Belridge.....	3	13	55	8	14	28	9	9	32	W. Wilhelmsen.....	285	1	57	0	Crude oil	Crude oil.....	9,500	7,060	5,144
San Juan.....	3	14	42	9	6	12	9	12	59	Pacific Mail Steamship Co.....	423	0	27	8	Cristobal	General.....	2,379	1,993	
Corcovad.....	8	15	08	9	6	12	9	14	35	Pacific Steam Navigation Co.....	390	0	37	0	London	General, cement.....	4,590	4,976	3,273
Ajuna.....	9	21	30	10	6	20	10	13	38	Australand Steam Shipping Co.....	454	0	47	25	Manchester	General.....	4,500	7,981	5,597
Salvador.....	5	16	20	10	12	05	10	14	35	Pacific Steam Navigation Co.....	215	0	33	0	Cristobal	General.....	1,053	1,213	692
Livah Yih.....	10	7	20	10	12	10	10	19	56	United States Shipping Board.....	414	0	49	0	New York	General.....	6,300	5,321	3,801
Crown of Cadiz.....	10	21	33	11	6	10	11	13	43	Prentice Service & Henderson.....	385	0	52	0	Glasgow	Ballast.....	5,370	3,789	
South Dakota.....	11	10	15	12	9	53	12	17	36	United States Navy.....	504	0	69	5	New York	General.....	1,582	1,023	
Cauca.....	8	21	20	13	6	10	13	14	34	Pacific Steam Navigation Co.....	246	0	35	0	Cristobal	General.....	4,497	8,152	5,210
Wangarata.....	12	18	47	13	6	16	13	13	47	British India Steam Nav. Co.....	324	0	48	0	Glasgow	General.....	3,758	3,959	2,628
National Bridge.....	12	18	08	13	6	25	13	14	32	United States Shipping Board.....	460	0	63	10	Baltimore	Coal, coke.....	9,191	10,492	7,775
Surrey.....	13	3	15	13	7	50	13	15	26	Federal Steam Navigation Co.....	536	0	65	0	Norfolk	Coal.....	12,113	11,519	6,988
Ulysses.....	13	3	15	13	7	50	13	15	26	Panama Railroad Steamship Line.....	350	0	42	5	Crude oil	Crude oil.....	819	3,486	2,200
Iquitos.....	7	18	55	13	9	21	13	15	21	Peruvian Steamship Line.....	471	0	55	0	Puerto Lobos	General.....	9,062	5,860	
Coalinga.....	13	8	47	13	9	28	13	19	32	Union Oil Company.....	362	0	51	6	New York	General.....	2,827	3,842	4,150
Santa Ana.....	12	23	00	13	11	00	13	17	28	W. R. Grace and Company.....	362	0	51	6	New York	General.....	2,827	3,842	4,150

(a) Battleship. (b) 74,000 barrels.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Gray Eagle.....	1	22	15	7	6	33	7	14	10	United States Shipping Board.....	272	9	49	1	Seattle	Lumber.....	2,342	3,182	1,869
Armaga.....	6	14	30	7	6	48	7	15	42	United States Shipping Board.....	530	5	63	0	Sydney	General.....	7,860	12,857	8,665
Armenia.....	7	2	25	7	16	42	7	20	40	United States Shipping Board.....	399	3	50	2	Iquique	Nitrates.....	6,800	5,851	3,853
Iquitos.....	7	11	15	7	11	56	7	18	11	Peruvian Steamship Line.....	350	0	42	5	Callao	Copper, wool.....	1,325	3,572	2,296
Toyama Maru.....	8	1	30	8	8	00	8	16	11	Nippon Yusen Kaisha.....	445	0	58	0	Hongkong	General.....	9,420	7,815	5,620
Cauca.....	8	14	30	8	14	49	8	21	20	Pacific Steam Navigation Co.....	246	0	35	2	Guayaquil	General.....	1,215	1,582	1,023
Falkland (c).....	8	21	12	9	7	12	9	19	05	Falkland Company.....	253	0	47	2	San Francisco	Barley.....	2,889	2,144	1,938
Fort Wright.....	8	21	30	9	7	51	9	15	16	United States Shipping Board.....	467	3	46	3	Bellingham	Fir, ties.....	1,565		
Monasses.....	8	19	37	9	8	09	9	19	30	United States Shipping Board.....	402	6	53	0	Honolulu	Sugar.....	7,879	6,689	9,381
Port Pire.....	8	19	00	9	10	15	9	18	35	Commonwealth & Dominion Line.....	470	1	58	4	Auckland	General.....	6,689	9,381	6,915
Urulamba.....	9	13	30	9	14	57	9	21	45	Peruvian Steamship Line.....	381	0	48	0	Callao	General.....	2,041	3,018	3,215

(c) Sailing. (d) For orders.

Ship	Date	Vessels	From	Date	Vessels	Line	For
John Ena (c)	9 16 30	10 6 44	American	312 9	48 1	San Francisco	Barley
Sylvan Arrow	10 4 00	7 41 10	American	467 6	62 7	San Francisco	Ballast
Huasco	10 6 30	7 58 10	Chilean	379 7	44 3	Valparaiso	General
Kangi	8 31 10	8 21 10	American	260 6	46 2	Portland	Fr. ties
Ardmore	9 5 00	8 38 10	American	449 6	50 1	Yanover	Ballast
Caura	9 21 00	9 37 10	American	266 9	46 1	Houquam	Fr. ties
Laura C. Hall (e)	8 20 00	10 13 30	British	81 0	25 6	Buenaventura	Coffee, platinum
Ralboa	10 6 45	9 34 11	British	206 9	46 1	Colombian Maritime Company	(J)
Tripp (c)	10 15 00	7 09 11	American	190 0	29 1	San Francisco	Barley, lumber
Western Comet	11 5 00	8 11 11	American	231 4	43 5	San Francisco	Flour
Blakely (e)	10 17 00	9 53 11	American	409 8	54 2	Portland	General
Oriana	11 10 00	11 50 11	American	409 8	54 2	Melbourne	New York
Los Angeles	5 7 40	11 14 10	British	183 1	39 0	Talcahuano	New Orleans
Crowley (c)	12 6 45	8 10 12	American	465 7	56 2	Antofagasta	Liverpool
Victoria	12 15 15	6 35 13	British	435 0	56 0	Callao	Tamico
La Habra	12 16 00	6 50 13	Norwegian	250 0	36 0	Coronel	Cristobal (d)
				401 4	52 5	Tocopilla	Liverpool
				424 0	57 0		Tamico

(c) Sailing. (d) For orders. (e) Motor ship. (f) Ivory nuts, rubber, hides, coffee.

PORT OF CRISTOBAL.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	For
Sept. 7	Zacapa	United Fruit Company	New York and Habana	Sept. 7	Zacapa	United Fruit Company	New York and Limon
Sept. 8	Cartago	United Fruit Company	New Orleans	Sept. 7	Alakey	United States Shipping Board	Grimsby, England
Sept. 9	Nortonian	Leyland Steamship Line	Liverpool and wayports	Sept. 8	Elerdale	Hindustan Steamship Company	London and Havre
Sept. 9	Saint Louis	French Steamship Line	Havre	Sept. 9	Cartago	United Fruit Company	N. Orleans, Bocas, Habana
Sept. 10	Arenas	United Fruit Company	New York and Kingston	Sept. 11	Arenas	United Fruit Company	Colombian ports
Sept. 10	William Green	Mexican Petroleum Company	Tamico	Sept. 11	Santa Marta	United Fruit Company	New York via Kingston
Sept. 11	Middlebury	Panama Railroad Steamship Line	Cartagena	Sept. 12	William Green	Mexican Petroleum Company	Tamico
Sept. 11	Panama	United States Army	New York via Haiti	Sept. 13	Advance	Panama Railroad Steamship Line	New York
Sept. 13	Buford (Transport)	United States Army	New York				
Sept. 13	Namecki	West Indian Steamship Company	Norfolk				

PORT OF BALBOA.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	For
Sept. 7	Kiyo Maru	Toyo Kisen Kaisha	Hongkong	Sept. 8	Kiyo Maru	Toyo Kisen Kaisha	Valparaiso
Sept. 8	Georgina Rolph (e)	Rolph Navigation & Coal Co.	Iquique	Sept. 9	Georgina Rolph (e)	Rolph Navigation & Coal Co.	High seas
				Sept. 10	Georgina Rolph (e)	Rolph Navigation & Coal Co.	San Francisco

(e) Motor ship. *Other than ships passing through the Canal.

Prices of Various Commodities for Ships.

The Supply Department has issued the following bulletin, effective September 1, 1919, of prices to individuals and companies, on commodities listed:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.45
Brass, sheet.....	Lb.	.62
Bronze, Tobin.....	Lb.	.41
Cement, at Panama:		
Departments of United States Government, (includes surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.766
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Departments of United States Government, (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.33
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	.75
Copper, bar.....	Lb.	.41
Gasoline, in drum (motor grade).....	Gal.	.38
Lead, sheet.....	Lb.	.11
Lead, pig.....	Lb.	.11
Lumber, yellow pine or fir (except ceiling).....	M ft. R.M.	57.09
Lumber, ceiling, 1 by 6.....	M ft. B.M.	74.00
Metal, yellow.....	Lb.	.60
Nuts, iron, machine, hexagonal.....	Lb.	.20
Nuts, iron, machine, square.....	Lb.	.20
Nails, common, wire.....	Lb.	.06
Nails, galvanized.....	Lb.	.08
Oakum, Navy, spun.....	Lb.	.17
Oakum, Navy, unspun.....	Lb.	.16
Fuel oil, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same.....	42-gal. bbl.	*2.09
Commercial vessels and individuals and companies.....	42-gal. bbl.	*2.00
Individuals and companies from tank No. 116, Balboa.....	42-gal. bbl.	*2.04
Fuel oil, at Balboa and Cristobal—in drums or barrels:		
United States Army and Navy and vessels operated by same.....	42-gal. bbl.	*2.25
Commercial vessels and individuals and companies.....	42-gal. bbl.	*2.25
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.52
Oil, ammonia cylinder.....	Gal.	.37
Oil, burning, "Colza".....	Gal.	1.08
Oil, cylinder, dark marine, "Texas".....	Gal.	.75
Oil, cylinder, ice machine, steam, "Garnett".....	Gal.	.70
Oil, engine, "Arctic".....	Gal.	.63
Oil, engine, "Cetus"—in tins.....	Gal.	.55
Oil, engine, "Cetus"—in barrels.....	Gal.	.475
Oil, gas engine, "Texas," heavy—in drums.....	Gal.	.45
Oil, gas engine, "Ursa"—in barrels.....	Gal.	.70
Oil, gas engine, "Ursa"—in cases.....	Gal.	.84
Oil, kerosene—in drums.....	Gal.	.20
Oil, kerosene—in tins.....	Gal.	.27
Oil, linseed, boiled.....	Gal.	1.80
Oil, linseed, raw.....	Gal.	1.80
Oil, locomotive, engine.....	Gal.	.28
Oil, lard.....	Gal.	1.40
Oil, marine engine, "Gargoyle".....	Gal.	.83
Oil, marine engine, "Atlas".....	Gal.	.56
Oil, marine, dark, cylinder, "Vacuum".....	Gal.	1.00
Oil, marine, engine, "Dolphin".....	Gal.	.33
Oil, marine, engine.....	Gal.	.55
Oil, "Mineral Seal".....	Gal.	.27
Oil, nonliquid.....	Lb.	.08
Oil, stationary engine.....	Gal.	.31
Oil, sperm.....	Gal.	2.42
Oil, signal.....	Gal.	1.10
Oil, valve.....	Gal.	.45
Oil, car.....	Gal.	.18
Vaclite.....	Lb.	.18
Wax, lamp.....	Lb.	.09
Grease, black, gear.....	Lb.	.95
Grease, yellow, cup, No. 3.....	Lb.	.10
Grease, yellow, cup, No. 5.....	Lb.	.12
Grease, rod, special.....	Lb.	.13
Grease, tunnel, bearing.....	Lb.	.13
Tallow.....	Lb.	.15
Turpentine.....	Gal.	1.05
Turpentine substitute.....	Gal.	.37
Vaseline.....	Lb.	.09
Paint, lead, white, dry.....	Lb.	.10
Paint, lead, white, in oil.....	Lb.	.12
Paint, zinc, white, dry.....	Lb.	.18
Paint, zinc, white, in oil.....	Lb.	.18
Paint, zinc, white leaded, 35 per cent in oil.....	Lb.	.19

Commodity.	Unit.	Price.
Rivets.....	Lb.	\$0 08
Rope, Manila, $\frac{1}{2}$ " diameter.....	Cft.	.75
Rope, Manila, $\frac{3}{4}$ " diameter.....	Cft.	1.65
Rope, Manila, $1\frac{1}{2}$ " diameter.....	Cft.	2.85
Rope, Manila, $2\frac{1}{2}$ " diameter.....	Cft.	4.50
Rope, Manila, $3\frac{1}{2}$ " diameter.....	Cft.	4.75
Rope, Manila, $4\frac{1}{2}$ " diameter.....	Cft.	6.00
Rope, Manila, $5\frac{1}{2}$ " diameter.....	Cft.	7.50
Rope, Manila, $6\frac{1}{2}$ " diameter.....	Cft.	10.00
Rope, Manila, $7\frac{1}{2}$ " diameter.....	Cft.	13.00
Rope, Manila, $8\frac{1}{2}$ " diameter.....	Cft.	27.00
Rope, Manila, $9\frac{1}{2}$ " diameter.....	Cft.	33.00
Rope, Manila, $10\frac{1}{2}$ " diameter.....	Cft.	35.00
Rope, Manila, $11\frac{1}{2}$ " diameter.....	Cft.	80.00
Rope, Manila, $12\frac{1}{2}$ " diameter.....	Cft.	100.00
Steel, bar.....	Lb.	.05
Steel, spring.....	Lb.	.10
Steel, cold rolled, rd.....	Lb.	.08
Steel, sheet.....	Lb.	.05
Steel, structural (angles, beams, etc.).....	Lb.	.05
Tin, block.....	Lb.	.78
Tin, banca.....	Lb.	.80
Tin, sheet.....	Lb.	.16
Washers, cut.....	Lb.	.10
Waste, white and colored.....	Lb.	.17
Zinc, boiler plate $\frac{1}{2}$ by 6 by 12.....	Lb.	.12

* No surcharge.

Notice to Mariners.—Lights Established, Panama Canal.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., September 13, 1919.

CIRCULAR NO. 643-65:

Lights at the Panama Canal have been established as follows:

Balboa Harbor—A light, electric, red, flashing, 1 second light, 1 second dark, on the top of shed on northern extremity Dock 4, Balboa Harbor, to mark the end of the dock. Height of focal plane 45 feet.

Miraflores Approach, Southern end, West bank—A light, electric, white, flashing, 1 second light, 1 second dark, focal plane 8 feet, exhibited from iron standard or small wooden float, painted black, to mark the edge of the navigable channel, in 30 feet mean low water. This float is placed there temporarily, to take the place of former Beacon No. 9, until dredging operations are resumed.

CHESTER HARDING,
Governor.

Refrigeration Plant Installed at Pedro Miguel Commissary.

A refrigerating plant has been installed and is now in operation at Pedro Miguel commissary. It is up-to-date cold storage equipment, furnished with refrigeration from the Pedro Miguel restaurant. Three rooms are supplied with refrigeration. Two of these are used for keeping meat, poultry, and similar commodities. The third and largest room is used for such purposes as the keeping of vegetables and the cutting of meat. The counter box has also been refrigerated, whereby a much lower temperature has been obtained than is possible through the use of ice. Improvement in the handling and keeping of supplies is consequently resulting.

Weather Conditions in August, 1919.

Rainfall during the month of August was generally deficient over the Canal Zone and vicinity. Totals ranged from 4.02 inches at Miraflores to 18.48 inches at Indio. The greatest amount of rainfall on any one day was 4.78 inches, at Porto Bello on the 14th.

The estimated average rainfall over Gatun Lake watershed was 9.42 inches, compared with a 9-year mean of 11.56 inches, and the average over the Chagres River basin above Alhajuella was 13.60 inches, compared with an 18-year mean of 14.35 inches.

Reference to a severe electric storm which occurred on the Atlantic side on August 5, during which an observation balloon at Coco Solo was burned and the mess hall struck by lightning and slightly damaged was made in THE PANAMA CANAL RECORD of August 13.

The air temperature, atmospheric pressure, wind movement, and evaporation were all slightly above normal, while the relative humidity was slightly below. The day-time cloudiness was above normal on the Atlantic coast and below on the Pacific. No fogs were observed on either coast but a number of fogs occurred over the interior, most of which lifted or were dissipated by 9 a. m.

Gatun Lake hydrology—Mean elevation of Gatun Lake, 85.12 feet; maximum, 85.29, on the 31st; minimum, 85.00 on August 3-4-5; evaporation from Gatun Lake surface, 4.548 inches; rainfall on Gatun Lake drainage basin, 9.42 inches; total yield of Gatun Lake watershed, 4.44 inches on watershed. The total yield amounted to 47 per cent of the rainfall.

The following table gives a summary of the weather conditions during the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.				Mean relative humidity.	Precipitation.			Wind.					
		Mean.	Maximum.	Date.	Minimum.		Date.	Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Max. velocity in miles.	Direction.	Date.
Balboa Heights ..	29.730	81.4	92	Aug. 4	72	Aug. 20	85.1	5.82	7.72	22	48.54	N. W.	32	S. W.	Aug. 5
Colon	25.818	80.8	87	Aug. 24	73	Aug. 21	85.2	6.77	14.83	22	68.23	W.	28	S.	Aug. 21
Gamboa .....	.....	81.2	92	Aug 17*	72	Aug. 13	.....	7.37	11.77	26	31.42	N. E.	25	S.	Aug. 5
Gatun .....	.....	80.3	89	Aug. 24	72	Aug. 20	.....	9.07	13.99	23	43.58	N.	23	E.	Aug. 5

* And other dates.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Charles Dear	20329	British Guiana..	Aneon Hospital..	Health Department..	August 19, 1919.
Clarence Delvalle	26935	Rep. of Panama..	Colon	Mechanical Division.	August 24, 1919.
Andreas Quintana	32807	Panama	Colon	Supply Department..	August 23, 1919.
Frederick A. White	20154	Jamaica	Panama	Police and Fire Div..	August 29, 1919.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal postoffices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights, (telephone 286):

Welfare worker (female); \$1,200 to \$1,600 a year; October 8, 1919; form 1312; age, more than 25 years.

Radio clerk (male); \$1,000 a year; October 8, 1919; form 1312, age, more than 18 years.

Senior highway engineer (male); \$2,200 to \$3,000 a year; October 21, 1919; form 1312; age, not 50 years.*

Field superintendent in insect control (male); \$1,800 to \$2,400 a year; No. 453; October 4, 1919; form 2118; age, 25 years but not 50 years.*

Laboratory assistant (male); \$1,600 a year; No. 198-amended, supplemental; September 17-18, 1919; form 1312.

Expert radio aid (male); Grade 1, \$7.04 per diem; Grade 2, \$10 per diem; Grade 3, \$12 per diem; No. 435; October 7, 1919; form 2118; age, within reasonable age limits.

Claims examiner (male); \$1,800 a year; No. 437; October 8, 1919; form 1312; age, 21 years but not 50 years.

Technical expert (male); \$1,800 a year; No. 446; October 14, 1919; form 1312; age, not less than 20 years.*

Physicist, qualified in optics (male); \$3,600 to \$4,000 a year; No. 445; October 14, 1919; form 1312; age, within reasonable age limits.*

File clerk (male and female); \$1,000 to \$1,200 a year; No. 77-amended; September 17, October 22, November 19, and December 10, 1919; form 1312; age, not under 18 years.

Trained nurse (male and female) (Panama Canal service); \$95 a month (female); \$100 a month (male); No. 269-amended; October 22, 1919, December 10, 1919; form 1312; age, males 20 to 40 years, females 20 to 35 years.

Clerk (Bureau of the Census) (male and female); \$900 to \$1,020 a year; October 18, 1919; form 304; age, 18 years but not 50 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Local Civil Service Examinations.

The following examinations will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, September 21, 1919.

Postal Clerk, September 28, 1919.

Stenographer and Typist, September 28, 1919.

Full information in regard to the scope and the character of the examinations is contained in pamphlet form 1424, Information for Applicants for Stenographer and Typewriter Examination, a copy of which may be obtained from the Secretary of the Civil Service Board, Administration Building, Balboa Heights, C. Z. Applicants for the Clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First, typewriting; second, bookkeeping; third, general business training and experience; fourth, timekeeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for Postal Clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone postoffices or as postmaster or as Navy mail clerk, and that they are familiar with the receipt, distribution and dispatch of mail matter, the issuance of money orders, registration of mail, and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officers' certificate, and should be filed promptly with the Board of Civil Service Examiners at Balboa Heights, C. Z.

Applicants must have reached their 20th but not their 45th birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within 2 years, securely pasted in the place provided in the admission cards sent them after their applications are filed.

Applicants for the Clerk examination in answer to question 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some *State or Territory* of the United States from the time of taking up residence therein to *September, 1919*, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the *county*.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted army and navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for The Panama Canal Service.

Tourist Cruises.

A series of 11 cruises to the Isthmus, each to contain from 120 to 140 persons, has been scheduled for the coming dry season by the United Fruit Company, the American Express Company, Thomas Cook & Son, and the Raymond & Whitcomb Company. The first party is scheduled to arrive at Cristobal about January 11, and the others will follow at weekly intervals.

Bureau of Clubs and Playgrounds Operating Boat Club.

The operation of the Yacht Club at Balboa passed from private control to the management of the Bureau of Clubs and Playgrounds on September 10, on request of a majority of the members, and it will hereafter be operated along the lines of the other Canal clubhouses. Locker space will be rented and boats cared for at the rate of \$3 per month, as before, and in other respects the house will be open to all gold employees. The name has been changed from Yacht Club to Boat Club. An effort will be made to stimulate its use, especially in connection with swimming at Farfan beach, on the west side of the Canal, opposite the clubhouse.

Information concerning use of the property for private parties and dances may be obtained from the matron at the Boat Club (telephone 778, Balboa), the secretary of the clubhouse at Balboa (telephone 800), or the General Secretary at Balboa Heights (telephone 200).

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama"; in the United States, "Pancanal, Washington."

Joint Commission.

Decision of the Umpire.

In the matter of the claim of B. Burns Duncan for the Quebrada de Oro Plantation and Mining Company, located in the District of Empire, Canal Zone. Amount claimed: \$100,000.

Decision of the Umpire, judgment No. 427, docket No. 3003, August 30, 1919.

I.

The hearing of the above-entitled claim commenced before the Joint Commission on December 2, 1918, and was concluded on December 10, 1918. The claimant, in reviewing the vicissitudes which the Quebrada de Oro mine, subject of this claim, had encountered, stated that it had been worked prior to the year 1882 by an American company from Philadelphia. Shortly after beginning operations this company was forced to abandon the project on account of the death of the representatives of the company and of the son of the president, caused by an epidemic of yellow fever which developed at that time. Only a guard remained at the mine on account of the panic which was created by this epidemic.

After some time had elapsed an engineer was sent from the United States to continue the exploitation of the mine but this time operations were suspended on account of the "periodical revolution." The guard, believing that the mine had been completely abandoned, proceeded to sell the machinery belonging to the collapsed enterprise in order to collect his salary which was due.

A number of employees of the French Canal Company then organized a new company to work the abandoned mine, the present claimant being a member thereof. Another engineer was sent for, but soon after his arrival he was unfortunately killed in a fight, and as a consequence the work of the Quebrada de Oro mine was again paralyzed. The discouraged stockholders decided to dissolve the company, and in the year 1889 the claimant requested from the Government of Colombia the right to exploit the mine. Having obtained permission he organized a company under the name of "The Colombian Gold Mining Company."

The claimant explained to the satisfaction of the Commission the reason the documents were not in his name, the reason he was using an assumed name, and why it was that his wife, and not himself, acquired rights from the Government

El Arbitro de la Comisión Mixta Estados Unidos de América—República de Panamá, Panamá.

Reclamación de B. Burns Duncan en representación de "The Quebrada de Oro Plantation and Mining Co." enclavada en el Distrito de Emperador, Zona del Canal. Cantidad reclamada: \$100,000.

Decisión del Arbitro, regla No. 427, expediente No. 3003, 30 de Agosto de 1919.

I.

En la audiencia de esta reclamación celebrada ante la Comisión Mixta del 2 al 10 de Diciembre de 1918, el reclamante haciendo la historia de las vicissitudes por que había pasado la mina denominada Quebrada de Oro, objeto de la presente reclamación, manifestó que había sido trabajada con anterioridad al año 1882, por una compañía americana de Philadelphia, que hubo de abandonarla a poco de comenzar los trabajos, a causa de la epidemia de fiebre amarilla que se desarrolló por entonces, y de la que fueron víctima los representantes de la Compañía, con el hijo de su Presidente. Tal fue el pánico que este creó que solo un guarda quedó al frente de la mina.

Transcurrido algún tiempo, enviaron de los Estados Unidos un ingeniero para recomenzar las obras, pero esta vez fue la "revolución periódica" la causa de su paralización.

El guarda de la mina la consideró completamente abandonada, y procedió a la venta de las herramientas pertenecientes a la fracasada empresa, con objeto de cobrarse los salarios que se le adeudaban.

Entre varios empleados de la Compañía del Canal francés, se organizó otra nueva, para reanudar los trabajos de la mina abandonada, de cuya Compañía formó parte el actual reclamante.

Se envió a buscar a los Estados Unidos otro ingeniero, y llegó, pero con tan mala fortuna, que a poco lo mataron en una reyerta, quedando nuevamente paralizada la explotación de la mina Quebrada de Oro.

Desanimados los accionistas, decidieron disolver la Compañía, y entonces el reclamante (año 1889) solicitó del Gobierno de Colombia el derecho de explotación de la misma, y una vez obtenido, organizó una Compañía con el título de "The Colombian Gold Mining Company."

El reclamante manifestó a satisfacción de la Comisión Mixta por qué causas los documentos están expedidos a nombre que no es el suyo, por qué pasaba a la sazón con nombre supuesto, y por qué fue su esposa, y no él, quien intervino en la

of Colombia and organized the above-mentioned company.

Operations were again begun with great expectations because they were working an open vein which had evidently been discovered by the assassinated engineer, but a little more than 3 months later this vein was exhausted, and it has not been found again in spite of the fact that 27 years have elapsed since that time. The claimant, however, is of the opinion that the vein has not been lost. He believes that it has simply sunk as a result of the earthquakes which are prevalent in these Central American countries, and that by excavating to a greater depth the valuable gold vein can again be located. At all events, the stockholders were not of the same opinion for they decided to suspend operations of the mine and to engage in agricultural pursuits. In view of this intention the new name of "The Quebrada de Oro Plantation and Mining Company" was given to the company, and its representative claims from the Government of the United States the sum of \$100,000 on account of the expropriation of the land where these two ventures might have been carried on.

The claimant stated that in May, 1918, a few months before this claim was heard before the Joint Commission, he engaged Mr. Alex Gair Davidson, Bachelor of Science of the University of Dunedin, New Zealand, and resident of Panama since January, 1917, to write a report from a mining standpoint, on the commercial value of the land subject of this claim.

According to the report of Mr. Davidson the mineral zone of the land is divided into two sections—the "Quebrada de Oro" and the "Río Sardinilla." The map which accompanies the report marks the exact location of these sections.

He stated that the principal part of the work which was done in the mine was accomplished in the time of the Spaniards, and by the company which exploited it prior to the year 1882. He further stated that in making his examination of the ground he discovered a number of gold-bearing veins; that the possibility of obtaining water in sufficient quantities to work the mine at all times, including the dry season, would greatly facilitate its operation, and that in his opinion it would be a paying proposition. He presented seventy-four samples taken from dif-

adquisición de los derechos de parte del Gobierno de Colombia y en la formación de la Compañía de referencia.

Al organizarse ésta, recibió cinco mil dollars (\$5,000) en efectivo, más el 50 per cent en los intereses de la empresa.

Entonces se trabajó la mina con grandes esperanzas, porque se explotaba un filón descubierto, según parece, por el ingeniero asesinado, pero poco después de tres meses se agotó el filón, y no se ha vuelto a dar con él a pesar de los 27 años transcurridos desde entonces.

El reclamante, no obstante, es de opinión que el filón no se ha agotado; piensa que a causa de los movimientos sísmicos peculiares a estas tierras centro americanas, el filón se ha hundido simplemente, y es solo cuestión de abondar algo más, para dar con la valiosa vena de oro.

De todas suertes, los accionistas no debieron participar de la misma opinión, al desistir en su propósito de explotar la mina, y pensar dedicarse a la agricultura, para lo cual solicitaron un préstamo en los Estados Unidos, préstamo que no materializó.

Por este doble aspecto de las empresas a que debía haberse dedicado la "Compañía Agrícola-minera Quebrada de Oro," es por lo que se le dió nuevo título, y su representante reclama del Gobierno de los Estados Unidos la suma de \$100,000 por la expropiación del terreno donde aquellas pudieran haber existido.

El reclamante manifestó que en Mayo de 1918, pocos meses antes de verse la reclamación ante la Comisión Mixta, encomendó a Mr. Alex Gair Davidson, Bachiller en Ciencias por la Universidad de Dunedin, Nueva Zelandia, y residente en Panamá desde Enero de 1917, la redacción de una Memoria a fin de determinar el valor comercial del terreno objeto de esta reclamación, en concepto de propiedad minera.

Según la opinión de Mr. Davidson la zona minera de este terreno comprende dos secciones: la parte de la Quebrada de Oro, y la del Río Sardinilla. En el mapa que acompaña a la Memoria, se localiza la posición precisa de dichas secciones.

Con respecto a la importancia de los trabajos realizados en la mina, considera que los principales fueron los llevados a cabo en tiempo de los españoles, y después, los que realizó la compañía que la explotó con anterioridad al año 1882. Manifiesta que en los exámenes sobre el terreno ha descubiertos varias vetas auríferas; que la posibilidad de obtener agua para los trabajos en cantidad suficiente, en toda época, incluso en la temporada de secas, aconseja la explotación de la mina; y es de opinión que sus trabajos serían de resultados comerciales.

ferent sections of the land the analysis of which shows a percentage of gold up to \$8 per cubic yard. He explained in technical detail the commercial value of the mine; the work necessary to be done in order to exploit it; the most favorable season to do the work; and after calculating the expenses and the production the following figures resulted:

Expenses of exploitation for five years,.....	\$156,000.00
Production during same period	\$289,000.00
Net proceeds in five years..	\$133,000.00

There was introduced on behalf of the Government of the United States the testimony of the expert, Mr. Donald F. McDonald, who previously belonged to the Geological Survey in Washington, but who was an employee of The Panama Canal at the time he testified. He stated that he had made two inspections of the land; that he had taken samples and that he had had analyses made of these samples. The samples selected during the first inspection were sent to the Treasury Department of the United States for examination by the Mint. The assays showed a percentage of gold from \$0.35 to \$5 per cubic yard, and from \$0.20 to \$6.80 per ton.

This expert stated in his testimony in answer to questions of counsel for the claimant that "The claim must be considered mineral land; that it is a good place for the prospector to work, and that it would not be impossible for him to find gold in paying quantities." (Page 114, Transcript.)

The first inspection covered almost exclusively the "Quebrada de Oro" section; the second included both sections. Stone and gravel were selected from both sections to be assayed. The samples selected during this second inspection were sent by the authorities of the Canal Zone to a different office from the first to be assayed. The figures of the second analysis differ widely from the first ranging from zero to \$1 per ton.

The expert who testified on behalf of the claimant stated that he had studied on the ground from May 2d to October 15th, 1918. (Page 5, Transcript.) Counsel for the claimant called the Commission's attention to the fact that the expert who testified on behalf of the Government of the United States, in making his examinations had followed the course of the Quebrada for more than a mile; had made the study necessary

Presenta 74 muestras tomadas de las diversas secciones del terreno, cuyo análisis demuestra una existencia de oro hasta \$8 por yarda cúbica.

Entra en detalles técnicos con respecto al valor comercial de la mina; acerca de la clase de trabajos que deben emprenderse para su explotación; época más favorable para realizarlos; y después de calcular los gastos, compara estos con la producción, dando las siguientes cifras:

Gastos de explotación durante un quinquenio...	\$156,000.00
Producto durante el mismo tiempo.....	\$289,000.00
Beneficio líquido en un quinquenio.....	\$133,000.00

El Gobierno de los Estados Unidos, por su parte, presenta al perito Mr. Donald F. MacDonald, que anteriormente pertenecía a la Oficina de Geología de Washington, y al momento de servir de testigo era empleado de la Zona del Canal.

Manifiesta verificó dos inspecciones sobre el terreno, y de las muestras se hicieron los análisis correspondientes.

Remitidas las muestras de la primera inspección de orden del Departamento del Tesoro de los Estados Unidos, de Washington, al negociado de la Casa de Moneda, su análisis arroja una existencia de oro en proporciones entre \$0.35 y \$5.00 por yarda cúbica, y \$0.20 y \$6.80 por tonelada.

Dicho perito manifestó en su declaración, contestando a preguntas del abogado del reclamante, "que la reclamación debe ser considerada como de tierra mineral; que es un lugar a propósito para que un explotador haga en él trabajos; y que no sería imposible que estos llegaran a ser remunerados." (Pag. 114 del Testimonio.)

La primera inspección cubrió casi solamente la parte de la Quebrada de Oro; la segunda, abarcó las dos secciones. En ambas se tomaron piedra y arena, para los análisis.

Las muestras de esta segunda inspección fueron remitidas por las autoridades de la Zona del Canal, para su análisis, a distinta oficina que las primeras. Las cifras de este segundo análisis, distan mucho de las del primero, oscilando entre cero y \$1 por tonelada.

El perito por parte del reclamante participa estuvo haciendo estudios sobre el terreno, desde el 2 de Mayo al 15 de Octubre de 1918. (Pag. 5 del Testimonio.)

El abogado del reclamante llama la atención de la Comisión Mixta acerca del hecho de que el perito del Gobierno de los Estados Unidos, para el examen del terreno ha tenido que seguir el curso de la quebrada durante más de una milla; hacer los estudios necesarios para dividir-

to divide the mine into two sections; had taken 198 samples of gravel and 44 of rock, and that he had accomplished all of this work in 110 hours. (Page 101, Transcript.)

Counsel for the claimant estimated that about \$15,000 had been spent by the "Quebrada de Oro Plantation and Mining Company" in working the mine.

II.

The Members of the Joint Commission have been unable to reach an agreement either as to the rights of the claimant or as to the amount of compensation.

The Panamanian Members believe that the claimant in obtaining the concession fulfilled all the requirements of the Colombian law in force at the time and they are of the opinion that the claim is legally justified, but when they proceed to value the damages sustained by the claimant as a result of the expropriation of this concession, they estimate the damages in the sum of \$15,000.

The American Commissioners deny that the claimant has any right to make a claim against the United States, and they base their opinion on the fact that by Article XXI of the Treaty of the Republic of Panama granted to the United States all public lands without encumbrance whatever, and they are of the opinion that inasmuch as under the mining laws of Colombia the State or Department retained ownership of the mines, granting to claimant only exploitation privileges, when Panama made that cession to the United States, it made impossible any such claim against the latter, and the claimant, therefore, only has recourse against the Republic of Panama.

III.

The fact remains that the claimant did not succeed in operating the mine in question in a manner which would render it possible to capitalize the returns, and to correctly judge the amount of damages sustained on account of its expropriation.

The claim has two aspects: One technical, with regard to the intrinsic value of the mine, and the other economical, with regard to its commercial value. From the evidence adduced the undersigned Umpire has been unable to appraise either the intrinsic value or the commercial value of the mine. The reports of the experts have impressed him more as a business proposition than as an estimate. Therefore, whether or not the mine was worked, until the results obtainable are known, the value will remain a mystery, and to appraise it will be impossible.

lo en secciones; tomar 198 muestras de arena y 44 de roca; y que para todo ello empleó solamente 110 horas (Pag. 101, del Testimonio).

El abogado del reclamante aprecia en unos \$15,000 el importe de los gastos realizados en sus trabajos por la Quebrada de Oro Plantation and Mining Company.

II.

Los miembros de la Comisión Mixta no han logrado ponerse de acuerdo ni sobre el derecho del reclamante ni sobre el importe de la remuneración.

Mientras que los miembros por parte de Panamá, fundándose en que el reclamante, para obtener las concesiones por cuya expropiación reclama, ha cumplido con los requisitos exigidos por la ley colombiana vigente a la sazón, son de opinión de que le asisten todos los derechos para reclamar; al proceder al avalúo de los perjuicios experimentados por este como consecuencia de la expropiación referida, los estiman en \$15,000.

Los comisionados por parte de los Estados Unidos, niegan que asista al reclamante derecho alguno contra el Gobierno de los Estados Unidos, y se fundan en que por el Artículo XXI del Tratado del Canal, la República de Panamá cedió al Gobierno de los Estados Unidos todos los terrenos públicos sin gravamen alguno, y como por las leyes de minas Colombianas el Estado o el Departamento conservaban el derecho de propiedad sobre las minas, concediendo solo el de explotación, al hacer Panamá aquella cesión a los Estados Unidos anuló toda posible reclamación contra éstos, y al reclamante solo le queda hacerlo contra la República de Panamá.

III.

El hecho es que el reclamante no logró explotar la mina en cuestión de modo que sea posible capitalizar sus rendimientos y poder juzgar a punto cierto la monta de los perjuicios experimentados a causa de su expropiación.

Esta reclamación tiene dos aspectos: uno técnico, relacionado con el valor real de la mina; y otro económico, relacionado con el valor comercial de la misma.

Por las pruebas aducidas, el Arbitro que suscribe, no ha logrado poder llegar a materializar ni el valor real, ni el valor económico, o comercial de la mina. Los informes periciales le han impresionado más como un proyecto de negocio que como un avalúo. Por aquel se podrá pensar en emprenderlo o no, pero mientras se desconozcan sus resultados, el valor continuara siendo una incógnita, y el avalúo se hace imposible.

The figure of \$15,000, suggested by the Panamanian Members, in compensation for a gold mine seems a small amount. And, on the other hand, to ask the United States to pay the sum of \$15,000 which is the amount counsel for the claimant stated had been spent in working the mine, does not seem just. If the business venture was a failure the United States Government should not be held responsible for it.

Therefore, and without prejudice to any claim which the claimant may make before a competent tribunal the undersigned Umpire considers that on account of lack of evidence which would prove the true intrinsic and commercial value of the claim of the "Quebrada de Oro Plantation and Mining Company," he should refrain, and he does hereby refrain from announcing a decision in this case.

Done in the National Palace, Panama, August 30, 1919.

MANUEL WALLS Y MERINO,
Umpire.

Aceptar la cifra de \$15,000 sugerida por los miembros panameños, para recompensar la expropiación de una mina de oro, le parece poca recompensa. Y, por otra parte, hacer pagar al Gobierno de los Estados Unidos la suma de \$15,000 que coincide con lo que el abogado del reclamante manifestó había aquel gastado en los trabajos de la mina, no le parece justo. Si el negocio no salió bien, no debe hacerse responsable de ello al Gobierno de los Estados Unidos.

En su consecuencia, y sin prejuzgar el mejor derecho que el reclamante pueda alegar ante Tribunal competente, el Arbitro que suscribe considera que por falta de elementos que le permitan conocer el verdadero valor técnico y comercial relacionado con la reclamación de la *Quebrada de Oro Plantation and Mining Company* debe inhibirse y se inhibe de pronunciar fallo acerca de la misma.

Dado en español y en inglés en el Palacio Nacional de Panamá a los 30 días del mes de Agosto de 1919.

MANUEL WALLS Y MERINO,
Arbitro.

Reoccupying Family Quarters after Leave.

Attention of employees to whom family quarters are assigned is called to that part of paragraph 19 of circular No. 674-24 which reads, "Employees will be required to notify the District Quartermaster at expiration of leave period, and on date they reoccupy quarters, of the total time absent during that period. (Hospital treatment excepted.)" This applies to absences of 10 days or more.

This report may be made orally or in writing. The simple statement, "I have reoccupied my quarters in House No." is sufficient.

Official Circulars.

Acting Superintendent, Acting Master of Transportation, Panama Railroad.

PANAMA RAILROAD COMPANY,
OFFICE OF PRESIDENT,

BALBOA HEIGHTS, C. Z., September 2, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

Effective this date, and during the absence on leave of Mr. S. W. Heald, Mr. W. F. Foster will act as Superintendent of the Panama Railroad, and Mr. W. J. Bissell will act as Master of Transportation.

CHESTER HARDING, *President.*

Watch Inspection.

PANAMA RAILROAD COMPANY,

OFFICE OF MASTER OF TRANSPORTATION,

BALBOA HEIGHTS, C. Z., September 10, 1919.

CIRCULAR No. 1361:

To conductors, engineers, yardmaster, motor car operators—The records kept by the official watch inspectors at Panama and Colon show that a number of our conductors and engineers are not complying with Circular No. 1247, issued April 24, 1919, relative to the semi-monthly watch inspection, and through failure to do so makes it necessary to again call your attention to the importance of having your watch inspected as required by the rules.

It seems to have been the practice of some of our conductors and engineers to call at the watch inspector, compare time with the clock therein, make some remark relative to the exactness of their watch, walk out and take it for granted that they had fulfilled all the requirements necessary in having their watch inspected.

Please be advised that when calling at the official watch inspector for the purpose of having your watch inspected, as per rule, it will be necessary for conductors and engineers to hand their watch to the official watch inspector or his representative for inspection, otherwise your call at his office will not be considered official, and no record will be made of same. Should there be the faintest shadow of a doubt in your mind at any time as to the person who inspects your watch having authority to do so, you will submit written report to this office and the matter will be taken up with the proper authorities.

Open hours of the inspector's office at—
Colon: 7.30 a. m. to 7.30 p. m., daily except Sundays and holidays.

Panama: 8 a. m. to 6 p. m. daily except Saturdays, Sundays, and holidays. 8 a. m. to 9 p. m. Saturdays only.

W. J. BISSELL,

Acting Manager of Transportation.

Approved:

W. F. FOSTER,

Acting Superintendent.

Opening of Public Schools.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
DIVISION OF SCHOOLS,

BALBOA HEIGHTS, C. Z., September 9, 1919.

To all concerned—The public schools of the Canal Zone will open on Wednesday, October 1, 1919.

All children residing in the Canal Zone, whether of employees or non-employees, and children of American employees of The Panama Canal, Panama Railroad, United States Army and Navy, and other departments of the United States Government residing in Panama or Colon are entitled to free school privileges. The children of employees not living in the Canal Zone and not citizens of the United States are not entitled to Canal Zone school privileges. No child will be admitted, however, who will not be six (6) years old on or before February 1, 1920.

Schools for white children will be opened at the following places:

Balboa.....	Grades 1 to 12, inclusive
Ancon.....	Grades 1 to 8, inclusive
Pedro Miguel.....	Grades 1 to 8, inclusive
Gatun.....	Grades 1 to 8, inclusive
Cristobal (Colon Beach)	Grades 1 to 12, inclusive

The dividing line between the Ancon and Balboa school districts commences at the old nurses' quarters and extends to the railroad tracks, passing between houses Nos. 592 and 593-X. Grade pupils who live in houses No. 36, 47, 569, 570, 571, 572, 574, and 592, and on the Ancon side of these houses, will attend the Ancon school; those who live in houses Nos. 201, 202, 576, 593 to 604, including 593-X, and on the Balboa side of these houses, will attend the Balboa school.

1 Pupils who live in Corozal will attend the Balboa school.

Pupils who live in Paraiso and on the west side of the Canal will attend the Pedro Miguel school.

Grade pupils who live between Gatun and New Culebra will attend the Gatun school.

Pupils living in Cristobal will take the train to the Washington Hotel leaving the commissary at 8.36 a. m., and return on the train leaving the Washington Hotel at 3.30 p. m.

Pupils in all schools remaining at school during the noon hour will be under the supervision of a teacher.

White schools will open and close according to the following schedule:

	A. M.	P. M.
Balboa High.....	8.00—11.15	12.45—3.30
Balboa Elementary.	8.00—11.30	1.00—2.30
Ancon.....	8.00—11.30	1.00—2.30
Pedro Miguel.....	8.00—11.30	1.00—2.30
Gatun.....	8.00—11.30	1.00—2.30
Cristobal Elementary	9.00—12.00	1.00—3.00
Cristobal High.....	9.00—12.00	1.00—4.00

1 Wherever practicable, the first grade in all white schools will dismiss 30 minutes earlier than the other grades, and the second grade 15 minutes earlier, both morning and afternoon.

Schools for colored children will open at La Boca, Pedro Miguel, Paraiso, Empire, Gatun, and Cristobal. The sessions will be from 8 to 11 a. m. and from 1 to 3 p. m.

The above schedules are subject to such changes as conditions may warrant.

1 Requests should be made to this office immediately for necessary railroad transportation.

1 Parents of pupils attending the Canal Zone schools for the first time should prepare the following information and give the slip of paper containing the same to the pupils to hand to the teachers on the first day of school: Pupil's name; place and date of birth; date of arrival on the Isthmus; city, or town, and State in which pupil attended school, if pupil has previously attended school; and name, check number, occupation, and address of parent or guardian. Pupils who have attended school in the States should, if possible, submit their report cards from such schools.

A. R. LANG,

Approved: *Superintendent of Schools.*

C. A. McILVAINE,
Executive Secretary.

Acting Shop Accountant, Mechanical Division.

THE PANAMA CANAL,
MECHANICAL DIVISION,

Balboa, C. Z., September 13, 1919.

To all concerned—Mr. A. B. Caruthers is appointed acting shop accountant, Mechanical Division, effective September 13, 1919, *vice* Mr. J. F. Everett, on leave.

E. G. KINTNER,
Superintendent, Mechanical Division.

Employees with Switch Keys.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., September 8, 1919.
CIRCULAR No. 1358:

To all concerned—Please furnish this office as soon as possible with a list of all employees, with check number, under your jurisdiction who have in their possession a switch key.

W. J. BISSELL,
Acting Master of Transportation.

Cable Notice.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., September 11, 1919.
To agents and operators—The following information has been received from the Central and South American Telegraph and Cable Company:

"Communication with Costa Rica restored; accept at sender's risk."

"Tegucigalpa, Honduras, reports all traffic on hand for Honduras since the first at main office; unable forward or deliver owing revolution. Useless accepting traffic for Honduras. No means of delivery."

W. J. BISSELL,
Acting Master of Transportation.

Christmas Candies in Pails.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., September 6, 1919.
MEMORANDUM No. 871:

To all concerned—We have received a few requests for mixed candies in pails for Christmas. In order that our requisition may be placed in sufficient time to insure the arrival of these candies before Christmas, I would thank you to advise your estimated requirements for this year.

J. J. JACKSON,
General Manager, Commissary Division.

Misdirected Letters.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Request may be made by telephone, calling No. 182, Balboa.

Allpass, T. F.	Neimarr, T. C.
Avett, Mrs. Nora	Noben, William H.
Blumberg, Charles	Roberts, Daniel
Brown, Arthur	Salmon, Richard Homer
Crossman, Alfred H.	Smith, Mrs. F. M.
Dougherty, Charles F.	Swanson, Oscar
Fellstrom, Arthur	Watson, W. C.
Howard, Lawrence C.	Welten, Theo.
Narronga, R. T.	Yale, Chas. E.

BALBOA HEIGHTS, C. Z., September 15, 1919.

Barry, Mrs. Max	Hall, Fitz A.*
Caicedo, Sra. Dolores	Riely, Eugene R.
Combs, Master Walter	Salaman, Alejandró
V., Jr.	Shoberg, Charles
Crowford, Mrs. R. S.	Thorne, Capt. E. A.†
Eberling, Alexander	Yale, Charles E.
Head, C. V.	

* Special delivery. † Parcel.

**List of the Diplomatic and Consular Corps
Accredited to the Republic of Panama.**

September 15, 1919.

- ARGENTINA
Panama
Bruno Cittadini, Consul General.
Rafael Gutieri, Acting Consul General.
- BELGIUM.
Guatemala.
Alberto Moulart (resides in Guatemala), Acting
Charge d'Affaires.
- Panama.*
B. D. Fidanque, Consul.
Colon.
J. J. Henriquez, Vice-Consul.
- BOLIVIA.
Panama.
Samuel Boyd, Consul General.
Colon.
Isidoro Hazera, Consul.
- BRAZIL.
Habana, Cuba.
Luis Guinaraes, Charge d'Affaires.
Panama.
José Fonseca Filho, Vice-Consul.
Jorge Domingo Arias, Consular Agent.
- CHILE.
San Jose, Costa Rica.
Julio Garces, Envoy Extraordinary and Min-
ister Plenipotentiary.
- Panama.*
Francisco Echaurren Orrego, Charge d'Affaires,
ad interim and Consul General.
Ramon Arias F., Jr., Consular Agent.
- CHINA.
Panama.
Woo Pei Kuang, Consul General.
C. N. Chau, Vice-Consul.
- COSTA RICA.
Panama.
Humberto Vaglio, Consul General.
Colon.
Daniel Rojas P., Consul.
Bocas del Toro.
Juan Rafael Mora Escalante, Consul.
- CUBA.
Panama.
Carlos A. Vasseur y Poo, Minister Resident.
Jose F. Baron, Secretary of Legation.
Antonio Mesa Plasencia, Secretary of Legation.
- Colon.*
José Dominguez Romay, Consul.
- DENMARK.
Panama.
J. L. Maduro, Consul.
Colon.
J. V. Beverhoudt, Vice-Consul.
- ECUADOR.
Panama.
Modesto Rivadeneyra, Consul.
- FRANCE.
Panama.
J. P. E. Bizel, Charge d'Affaires.
Maurice de Simonin, Charge d'Affaires, *ad interim*.
- Colon.*
Gustave de Laigue (resides in Panama City),
Chancellor. (Attache.)
M. Marcel, Vice-Consul.
- David.*
Eugene Loeffler, Vice-Consul.
- GREAT BRITAIN.
Panama.
Andrew Percy Bennett, Envoy Extraordinary
and Minister Plenipotentiary.
Charles F. Madeley, Vice-Consul.
E. S. Humber, Proconsul.
- Colon.*
J. R. Murray, Consul.
George Goodall, Vice-Consul.
Frederick Woodcock, Proconsul.
Bocas del Toro.
William H. Ponton, Consul.
- David.*
William C. Kincaid, Consular Agent.
- GREECE.
Panama.
Florencio Arosemena Ycaza, Consul.
- GUATEMALA.
Panama.
J. F. Arango, Consul General.
Colon.
Vicente Delgado, Consul.
- HAITI.
Colon.
Hilario V. Seixas, Consul General.
- HOLLAND.
Panama.
David M. Sasso, Consul General.
Colon.
J. J. Ecker, Consul.
- HONDURAS.
Panama.
Marcos E. Velasquez, Consul General.
- ITALY.
Panama.
Carlo Raguzzi, Charge d'Affaires and Consul.
Colon.
Miguel Papio, Consular Agent.
- JAPAN.
Panama.
Tadanao Imai, Vice-Consul.
- MEXICO.
Panama.
Vicente Rendón Quijano, Consul.
Baldomero Méndez, Vice-Consul.
Colon.
Inocencio Galindo, Vice-Consul.
- THE NETHERLANDS.
See HOLLAND.
- NICARAGUA.
Panama.
Marcos E. Velasquez, Charge d'Affaires.
Bocas del Toro.
Salomon H. Conoan, Consul.
- NORWAY.
Mexico City.
Michael Strom Lie, Consul General.
Panama.
C. D. Corinaldi, Vice-Consul.
Colon.
Oswald Montagn Grimsey, Consul.
Nicolas Bergh, Vice-Consul.
- PARAGUAY.
Panama.
Juan Brin, Consul General.
- PERU.
Panama.
Oscar Barrenechea y Raygada, Charge d'Affaires.
Alberto B. de Obarrio, Consular Agent.
- Colon.*
Enrique Vallarino, Consul.
- PORTUGAL.
Caracas.
Fernaó Botto Machado, Envoy Extraordinary
and Minister Plenipotentiary.
Colon.
Ruben S. Arcia, Consul.
Ofilio Hazera, (resides in Panama), Vice-Consul.
Bocas del Toro.
E. C. McFarland, Vice-Consul.
- SALVADOR.
Panama.
Ernesto A. Boyd, Consul General.
- SANTO DOMINGO.
Colon.
José M. Fidanque, Vice-Consul.
- SPAIN.
Panama.
José Albiñana, Acting Charge d'Affaires and
Consul.
Luis San Simon y Ortega, Vice-Consul.
Colon.
Antonio Andrade Polanco, Consul.
David.
Pedro del Rio, Consular Agent.
Santiago de Veraguas.
Julio García Sierra, Vice-Consul.

SWEDEN.
Panama.

B. Malo, Consul.

Colon.

J. J. Ecker, Vice-Consul.

SWITZERLAND.
Panama.

José Misteli, Consul.

UNITED STATES.
Panama.

Wm. Jennings Price, Envoy Extraordinary and
Minister Plenipotentiary.
Clarence B. Hewes, Secretary of the Legation.
H. B. Crosby, Military Attache.
Alban G. Snyder, Consul General.

Colon.

Julfus D. Dreher, Consul.

Theodore M. Fisher, Vice-Consul.

Bocas del Toro.

William J. Burke, Consular Agent.

VENEZUELA.
Panama.

Virgilio Capriles, Vice-Consul.

Colon.

Isaias Garbiras, Consul General.

Shipping Commissioner's Sale.

The Acting Shipping Commissioner, room 305, Administration Building, Balboa Heights, Canal Zone, will accept written bids up to noon, Saturday 20, 1919, for the purchase of the personal effects belonging to the estate of A. Cunningham, deceased American seaman. The property to be sold is listed below and bids may be made for the entire lot of the effects or be limited to individual articles.

Prospective bidders desiring to examine the effects should apply to the Acting Shipping Commissioner's office on any business day. Bids should be submitted in sealed envelopes, addressed to the Acting Shipping Commissioner, marked "Bid on effects of A. Cunningham, deceased." The right is reserved to reject any or all bids.

One sea bag, 2 hats, 1 coat, 1 trousers, 1 pipe and case, 1 safety razor.

J. A. MITCHELL,
Acting Shipping Commissioner.

Rainfall from August 1 to 31, 1919, Inclusive.

STATIONS.	Maximum in one day.	Date.	Total.
<i>Pacific section—</i>	<i>Ins.</i>		<i>Ins.</i>
Taboga	4.10	7	6.79
Balboa	1.10	13	5.96
Balboa Heights	1.14	9	5.82
Miraflores .....	.84	7	4.02
Pedro Miguel	1.30	31	7.61
Rio Grande	2.24	10	9.95
<i>Central section—</i>			
*Culebra	2.04	11	8.58
*Camacho	1.45	27	8.63
Empire	1.59	10	8.49
Gamboa	1.04	16	7.37
*Juan Mina	2.65	16	9.32
Alhajuela	1.40	24	8.11
*El Vigia	1.92	30	7.82
*Daríen	1.60	31	10.27
*Trinidad	1.19	28	6.78
*Monte Lirio	3.08	31	10.17
<i>Atlantic section—</i>			
Gatun	3.45	21	9.07
*Brazos Brook	2.36	31	11.10
Colon	2.10	31	6.77
†Bocas del Toro	2.94	17	17.54
†Porto Bello	4.78	14	17.76

* Standard rain gauge—readings at 5 p. m. daily.
Automatic rain gauge at unstarred stations—values, midnight to midnight.

† Standard rain gauge—readings at 8 a. m. daily.

August Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1919.
	1919	1918	1917			
<i>Pacific section—</i>						
Balboa	5.96	3.75	6.27	7.54	21	21
Balboa Heights	5.82	3.84	7.42	7.72	23	22
Miraflores	4.02	5.70	9.45	8.16	11	21
Pedro Miguel	7.61	4.41	9.51	8.26	12	25
Rio Grande	9.95	5.52	10.28	9.44	15	22
<i>Central section—</i>						
Culebra	8.58	4.91	9.97	10.00	28	27
Camacho	8.63	6.81	9.95	9.43	14	26
Empire	8.49	5.18	8.76	9.12	16	25
Gamboa	7.37	8.59	12.62	11.77	37	26
Juan Mina	9.32	11.36	15.30	11.63	9	22
Alhajuela	8.11	9.16	13.32	12.30	21	29
Vigia	7.82	10.25	15.71	12.23	11	22
Frijoles	10.19	8.91	9.71	10.26	8	...
Trinidad	6.78	5.81	16.35	10.20	12	26
Monte Lirio	10.17	11.82	12.83	11.73	12	26
<i>Atlantic section—</i>						
Gatun	9.07	17.95	17.81	13.99	15	23
Brazos Brook	11.10	19.20	19.71	14.45	14	26
Colon	6.77	18.85	15.79	14.83	49	22

Additions to Commissary Stock.

Pipes, ea.....	\$0.23
Pipes, ea.....	.35
Pulleys for sewing machine motor, ea.....	.61
Saws, panel, 12-point, Disston, 22", ea.....	2.25
Saws, compass No. 4, Disston, 12", ea.....	.45
Shades, Vuder, porch, 6', ea.....	5.15
Shades, Vuder, porch, 8', ea.....	6.85
Spoons:	
Tea, tinned, ea.....	.02
Table, tinned, ea.....	.04
Dictionary, Standard, Comprehensive, Funk and Wagnall's, ea.....	1.05
Cambric, linen, 36", yd.....	1.15
Camisoles, satin, assorted colors, plain or trimmed, ea.....	1.35
Collars:	
Soft, Wellsford, ea.....	.18
Soft, Cavalier, ea.....	.15
Soft, Oakmont, ea.....	.23
Dress goods:	
Cotton, fancy, white goods, yd.....	.46
Cotton, fancy, white goods, yd.....	.22
Cotton, white, fancy pique, yd.....	.97
Cotton, fancy, white goods, yd.....	.26
Dimity, fancy, white goods, yd.....	.49
Organdie, 40", yd.....	.87
Satin, fancy, yd.....	.97
Suiting, Carolina, yd.....	.55
Swiss, yd.....	.46
Swiss, yd.....	.46
Swiss, colored, yd.....	.55
Voile, yd.....	.37
Voile, white pattern, 39", yd.....	.60
Voile, white pattern, 39", yd.....	.56
Voile, white pattern, 39", yd.....	.64
Voile, white pattern, 39", yd.....	.36
Voile, fancy, yd.....	.46
Hose, ladies', summer weight, full fashioned, black, pr.....	.44
Knickerbockers, boy's, beach cloth, pr.....	.80
Linen:	
Sheer, 36", yd.....	.97
Sheer, 36", yd.....	1.30
Napkins, 18" x 18", ea.....	.14
Pajamas, men's, assorted, striped percale, suit.....	1.40
Pins, hump, hair, 20s, pkg.....	.03
Shirts, negligee, boy's coat style, collar band, soft cuffs, assorted patterns:	
Colored, Madras striped, ea.....	1.10
White pongette, ea.....	1.10
Soap, erasive, Palmer's, cake.....	.12

COMMISSARY NOTES.

Beverage.

Orange has been added to the list of flavors of soda water manufactured by the Commissary Division.

Toys.

All commissaries are selling Rollomobiles, at \$2.75. These popular toys are built to withstand the abuse which healthy children may be expected to give them.

Electric Sewing Machines.

No. 1 portable sewing machines, recently arrived, are now offered at all commissaries at \$34.75.

Baskets.

Baskets, of various sizes and shapes, comprising waste paper, market, work, flower, and fruit baskets from Jamaica, are unusual values at the prices asked. They are much in request among commissary customers.

Zweibach.

A fine grade of zweibach is now being made by the commissary bakery and can be obtained at line stores, fresh, daily. The price of 10 cents per package is low in comparison with that of the imported product.

Electric Irons.

A number of customers will be glad to learn that a shipment of 6-pound electric irons has been received by recent arrival from the United States and may be obtained at all line stores, at \$4.95.

Auto Supplies.

A shipment of auto supplies has recently been received and is on sale at Cristobal, Gatun, and Balboa commissaries this week. Lock washers, hand horns, outside blow-out patches, liners, pumps, Black-Lac, tires and inner tubes, are some of the items.

Books.

Books received:

"The Four Horsemen of the Apocalypse," and "Mare Nostrum," by Blasco Ibañez (116th edition); "What Happened to Europe," by Frank Vanderlip; "The Undying Fire," by H. G. Wells; "Shops and Houses," "The Happy Family," "Nocturne," "The Chaste Wife," and "On the Staircase," by Frank Swinnerton.

Kerosene Oil.

Kerosene is now sold in any quantity, and not merely in 5-gallon tins, as formerly. Kerosene tanks with pump outfits, which permit such sales, have been placed in operation at the commissaries in Ancon, Ancon Market, Balboa, La Boca, Pedro Miguel, Red Tank, Gatun, Camp Bierd and Cristobal. These tanks are of concrete and are located outside of the commissary buildings. Yearly sales of kerosene through the commissaries amount approximately to 250,000 gallons. So that kerosene might be sold with less trouble to customers, and with less work to the Commissary Division, requisition for the 9 tanks and pumps was placed in July, 1918. The outfits were received and installation was handled by the Building Division.

Delivery Delay.

Typical of conditions now existing in many lines is the following letter from a manufacturer in the United States, with whom the Commissary Purchasing Agent placed awards for certain items of hardware:

"We quite agree with you that 90 days seems an unreasonable period in which to execute an order, especially as in the past we have been able to give you prompt delivery, but briefly the explanation is this: The trade generally, has held off buying in the firm conviction that prices would come down. Now with the shelves empty and facing no lower prices they have simply swamped us with business. These orders are from our old time customers both at home and abroad and we are under obligations to all. We are simply doing the best we can and if we can ship your order earlier than 90 days we assure you we will do so."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

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Volume XIII. Balboa Heights, C. Z., September 24, 1919. No. 6.

Purchases by Vessels from Canal Commissary Division.

Two thousand two hundred forty-six dollars and five cents was the average of the daily purchases by commercial steamships of commissary supplies from The Panama Canal during the last fiscal year. The total of their purchases for the year was \$819,808.17, which is slightly over \$68,300 per month. The total was made up of \$761,746.16 for miscellaneous groceries and cold storage; \$25,067.37 for coffee, \$21,192.21 for bakery products, and \$11,802.43 for ice. In addition, the Commissary Division rendered laundry service for the commercial ships valued at \$19,123.62, averaging \$1,593.63 per month.

Sales to vessels of the United States Navy are accounted for with other sales to the United States Government. The latter amounted to \$2,395,162.73 during the year. It is estimated that one-fourth of these sales were to ships of the Navy, purchases by which would accordingly approximate \$600,000 a year. Including the estimated sales to Naval vessels, the value of the purchases by vessels during the year averaged approximately \$118,000 a month.

Ship's Chandlery.

The General Storekeeper at Balboa has completed an investigation of the extent to which the range of standard ship's chandlery kept in stock on the Isthmus might be extended, and reports that as a whole the steamship operators, masters, and agents are very well satisfied with the stock now handled by The Panama Canal.

Suggestions along this line are always welcome and will be given due consideration.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 20, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Balboa.....	Terminal Shipping Agency.....		September 14.		205
Middlebury.....	Panama Railroad Commissary.....		September 14.		17
Nameeki.....	Panama Railroad Steamship Line.....		September 15.		(*)
Nortonian.....	Leyland Steamship Line.....		September 15.		3,870½
Urubamba.....	Peruvian Steamship Line.....		September 16.		289
Huasco.....	United Fruit Company.....		September 16.		1,335½
Saint Louis.....	Compagnie Gen. Transatlantique.....		September 16.		4,735½
Acajutla.....	Pacific Steam Navigation Co.....	September 15.	September 18.	1,096	736
Fuerto Rico.....	Compagnie Gen. Transatlantique.....	September 15.	September 19.	42	½
Jamaica.....	Pacific Steam Navigation Co.....	September 15.	September 20.	768	902
Abangarez.....	United Fruit Company.....	September 16.	September 16.	36	22
Manuel Calvo.....	Spanish Steamship Line.....	September 16.	September 17.	388	98
Panama.....	Panama Railroad Steamship Line.....		September 18.		3,568
Tivives.....	United Fruit Company.....	September 17.	September 18.	869	13
Imperial.....	United Fruit Company.....	September 17.	September 18.	1,439	
Atenas.....	United Fruit Company.....	September 18.	September 18.	1½	½
C. A. Canfield.....	Anglo-American S. S. Agency.....	September 18.	September 19.	3,148	(*)
Metapan.....	United Fruit Company.....	September 19.	September 20.	1,077	89
Logician.....	Leyland Steamship Line.....	September 19.		546	
Lake Hurst.....	Panama Railroad Steamship Line.....	September 19.		2,595	
Middlebury.....	Panama Railroad Commissary.....	September 19.		550	
Buford.....	United States Government.....		September 20.		433
Manavi.....	Pacific Steam Navigation Co.....	September 20.		678	
San Jose.....	Pacific Mail Steamship Line.....	September 20.		1,019½	
Gen. O. H. Ernst.....	Panama Railroad Steamship Line.....	September 20.		1,839	

*No cargo laded.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending September 20, 1919.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Balboa.....	Colombian Maritime Co.....	September 14.	September 16.		34
Ulysses.....	United States Government.....	September 14.	September 17.	12,114	
Jamaica.....	Pacific Steam Navigation Co.....	September 15.	September 15.	1	
Kronprinzessin Margareta.....	Johnson Line.....	September 17.	September 17.		2
San Jose.....	Pacific Mail Steamship Co.....	September 18.	September 20.	116	35
West Chatala.....	United States Shipping Board.....	September 18.		578	
Manavi.....	Pacific Steam Navigation Co.....	September 20.	September 20.	1	
Newport.....	Pacific Mail Steamship Co.....	September 20.		35	
Jamaica.....	Pacific Steam Navigation Co.....	September 20.	September 20.		37

October Weather Probabilities.

During the month of October, 1919, the following weather conditions may be expected at the Canal entrances. Predictions are based on the records at Colon and Balboa Heights for the past 12 and 13 years, respectively:

Winds—Light, variable winds will prevail over the Atlantic coast with an average hourly velocity of about seven miles. The prevailing direction of the wind is usually from the southeast, although a considerable percentage of west and north-west winds may be expected during the month. A maximum velocity of from 30 to 38 miles an hour may be expected during the passage of local rain or thunder squalls.

Over the Pacific coast and the interior, light northwest winds will prevail with an hourly velocity of about 6 miles. Here, too, during occasional rain or thunder squalls, the maximum velocity of the wind may exceed 30 miles an hour, but these wind storms are invariably of short duration.

Rain—The average October rainfall at the Atlantic entrance of the Canal is 14.89 inches, and on the Pacific side 10.25 inches, these averages being for periods of 49 and 22 years, respectively. About 25 days with rain may be expected on the Atlantic coast, and 22 on the Pacific coast, while the average number of days with heavy rain (1.00 inch or more) has been 6 at the Atlantic entrance and 3 at the Pacific. Throughout the length of the Canal, the greatest part of the rainfall occurs during the daytime, the heaviest rainfall generally occurring between the hours of 1 p.m. and 4 p.m. However, at this season of the year, the percentage of daytime rain fall is higher over the interior and Pacific coast than over the Atlantic coast, and heavy rainfall may be expected on the Atlantic side during the early morning hours. Over both coasts the time of least rainfall is from 8 to 9 a. m.

Fogs—No fogs are likely to occur at either Canal entrance, but night and early morning fogs will be numerous over the interior. About 25 nights with fog may be expected over the Gaillard Cut section of the Canal, but as all fogs lift or become dissipated before 8.30 a.m., they should not prove a hindrance to navigation.

Temperature—The average shade air temperature will be about 79° Fahrenheit on both coasts. On the Atlantic coast the temperature is not likely to rise above 90° F., or fall lower than 70° F., while on the Pacific side the maximum temperature may be as high as 94° F. and the minimum as low as 68° F. The mean daily range of temperature will be about 10° F. on the Atlantic coast and 14° F. on the Pacific coast.

Barometric pressure—The average sea-level atmospheric pressure will be approximately 29.85 inches over both coasts. The maximum pressure for the month is not likely to exceed 29.95 inches, or the minimum to be lower than 29.70 inches.

Relative humidity—The humidity of the atmosphere should average about 87 per cent over both coasts. The daily range in humidity is greater on the Pacific coast than on the Atlantic side, the average night-time humidity being higher and the midday humidity lower than on the Atlantic side. The figures for years of record are 94 and 74 on the Pacific side and 92 and 78 on the Atlantic.

Storms—The Isthmus is seldom visited by violent or widespread atmospheric disturbances although rain, wind, or thunder storms of more or less limited extent are of common occurrence, and may be expected quite frequently during the month. Rough weather may be experienced occasionally to the northward of the Atlantic entrance, as this is the season of the West Indian hurricane. The path

of these storms lies well to the northward of the Isthmus, but a rough sea accompanied by brisk winds may be expected outside the breakwaters, following the passage of one of those storms. Generally cloudy weather will continue over both coasts, and smooth seas are usually experienced at the Pacific entrance during the month of October.

Tides—Tidal fluctuations on the Atlantic side do not affect navigation as the extreme tidal range at Colon is but approximately two feet.

Panama (Balboa) tide predictions for the month are presented in the following table:

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.			
W.	Mo.					W.	Mo.					W.	Mo.				
W	1	1:49	7:37	2:16	8:08	S	12	5:13	11:37	5:44	11:58	Th	23	3:10	9:33	3:35	9:47
		3.8	13.4	3.6	12.7			17.9	-1.4	17.2	-0.5			15.2	1.4	14.9	1.9
Th	2	2:37	8:18	3:10	9:00	M	13	6:01	12:23	6:31	.....	F	24	3:47	10:09	4:13	10:23
		4.6	12.6	4.4	12.1			17.6	-1.0	16.8	.....			15.4	1.0	15.0	1.7
F	3	3:36	9:12	4:13	10:03	Tu	14	0:45	6:50	1:11	7:22	S	25	4:23	10:44	4:48	10:59
		5.2	11.9	4.9	11.7			0.2	16.9	-0.1	16.1			15.5	0.8	15.1	1.8
S	4	4:46	10:26	5:23	11:20	W	15	1:37	7:42	2:04	8:16	S	26	4:57	11:16	5:24	11:33
		5.4	11.7	4.9	12.0			1.3	15.9	1.0	15.2			15.4	0.9	15.0	2.0
S	5	5:58	11:49	6:30	.....	Th	16	2:36	8:37	3:05	9:16	M	27	5:31	11:53	5:58	.....
		5.0	12.0	4.4	.....			2.4	14.8	2.2	14.2			15.1	1.3	14.7	.....
M	6	0:28	7:02	12:57	7:29	F	17	3:42	9:43	4:13	10:27	Tu	28	0:08	6:03	12:29	6:33
		12.8	4.1	12.9	3.5			3.3	13.7	3.1	13.6			2.4	14.7	1.8	14.3
Tu	7	1:23	7:57	1:50	8:20	S	18	4:55	10:50	5:24	11:42	W	29	0:45	6:37	1:05	7:08
		13.9	2.8	14.0	2.3			3.8	13.1	3.6	13.5			3.0	14.2	2.5	13.8
W	8	2:12	8:45	2:40	9:06	S	19	6:08	12:16	6:32	.....	Th	30	1:25	7:12	1:48	7:47
		15.2	1.4	15.2	1.1			3.7	13.2	3.6	.....			3.6	13.6	3.2	13.4
Th	9	2:56	9:30	3:24	9:50	M	20	0:50	7:13	1:20	7:34	F	31	2:11	7:52	2:36	8:30
		16.3	0.2	16.1	0.2			13.9	3.3	13.6	3.3			4.2	13.1	3.9	13.0
F	10	3:41	10:12	4:09	10:32	Tu	21	1:45	8:07	2:12	8:25						
		17.2	-0.8	16.9	-0.6			14.4	2.7	14.0	2.8						
S	11	4:26	10:55	4:57	11:14	W	22	2:30	8:53	2:58	9:08						
		17.8	-1.4	17.3	-0.7			14.8	2.0	14.5	2.3						

The tides are placed in the order of their occurrence; the *times* of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The *elevations* of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Work on Ex-German Ships Drawing to Completion.

Following the receipt of the two main engine cylinders for the former German steamship *Anubis*, renamed *Paita*, from the United States in August and of other replacement items during September, after delay occasioned by strikes in the United States, work on the completion of the vessel has been pushed, and it is expected that it will be ready to turn over to the Shipping Board about the end of the month.

The *Paita* is the last of five ships towed from Callao and given a complete overhauling, amounting to a partial rebuilding, at Balboa shops. The others were, in the order of completion, the *Callao*, *Eten*, *Pisco*, and *Salaverry*. Their aggregate gross tonnage is 32,841 tons. The first of the ships left Callao on September 6, 1918, and left the Isthmus for New York, after overhauling, on April 8, 1919.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama"; in the United States, "Pan canal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight September 20, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Patella.....	13	16.36	14	6.51	14	15.18	14	16.28	British	Anglo-Saxon Petroleum Co.....	406.0	51.3	26.4	New Orleans	Shanghai	Kerosene oil.....	6,904	5,974	4,387
Balboa.....	11	14.06	14	7.54	14	16.31	16	17.10	American	Colombian Maritime Company..	190.0	29.0	12.2	Cristobal	Emeraldas	General	207	734	3,540
Tokyo Maru..	14	7.52	14	11.08	14	18.47	14	19.36	Japanese	Nippon Yusen Kabushiki Kaisha	445.0	58.0	26.9	New York	San Francisco	General	10,601	7,657	5,360
Kronstad.....	14	23.07	15	10.35	15	18.01	15	18.55	Norwegian	Bendix Grefsrud.....	313.0	46.5	20.6	Baltimore	Callao	Coke and cement	4,116	2,338	2,091
Grace Dollar..	15	11.35	15	12.09	15	19.27	15	22.53	British	Canadian Robert Dollar Co., Ltd.	412.4	55.8	28.3	New York	San Francisco	Navy coal.....	9,300	6,625	4,662
Huasco.....	10	16.30	16	5.58	16	12.54	16	16.14	Chilean	South American Steamship Line.	379.0	44.3	23.6	Cristobal	Valparaiso	General	1,330	4,508	3,066
Urubamba.....	9	21.45	16	11.43	16	18.16	16	21.48	Peruvian	Peruvian Steamship Line.....	381.0	46.0	19.6	Cristobal	Callao	General	259	5,018	3,215
Thistlecote...	16	15.40	16	6.05	16	13.13	16	14.57	British	Allen Black & Company.....	370.0	51.4	14.0	Gibraltar	Pata	General	7,758	5,062	3,824
San Joaquin...	18	4.54	18	6.50	18	14.50	18	17.27	British	Alfred Holt & Company.....	430.0	53.8	28.6	New York	Honolulu	Crude oil.....	9,261	6,752	4,631
Eurylochus...	16	15.40	17	6.16	17	13.29	17	14.10	Norwegian	W. Wilhelmssen.....	425.4	57.1	26.6	Tampico	Antofagasta	General	7,758	6,752	4,631
San Joaquin...	18	4.54	18	6.50	18	14.50	18	17.27	Norwegian	Alfred Holt & Company.....	430.0	53.8	28.6	New York	Honolulu	Crude oil.....	9,261	6,752	4,631
Lydonia (o)...	17	2.40	18	8.10	18	15.29	18	20.58	American	U. S. Coast & Geodetic Survey	180.6	26.0	13.0	Norfolk	Antofagasta	General	7,758	6,752	4,631
Acajutla.....	15	15.44	18	12.05	18	18.13	18	20.58	British	Pacific Steam Navigation Co....	215.7	33.5	15.6	Cristobal	Guayaquil	General	736	1,273	706
Macou (b)...	15	15.44	18	12.05	18	18.13	18	20.58	American	United States Steel Products..	360.0	47.0	24.6	Gatun Lake	Cristobal	General	5,600	4,605	3,047
Bantu.....	18	14.28	19	6.23	19	13.59	19	14.47	American	Par-American Tel. & Trans. Co.	405.0	55.5	21.10	Tampico	Chalarr	Fuel oil.....	3,500	6,345	4,200
C. A. Canfield..	18	12.55	19	13.03	19	20.09	19	20.55	American	W. J. Frisbie.....	360.0	47.0	24.6	New York	Salaverry	General	5,600	4,605	3,047
Jamaica.....	13	18.15	20	5.35	20	13.35	20	22.15	British	Pacific Steam Navigation Co....	220.0	34.0	12.9	Cristobal	Buenaventura	General	1,187	622	622

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ardena.....	13	23.00	14	8.23	14	16.00	15	4.33	American	United States Shipping Board...	268.0	46.5	22.5	Tacoma	New York	Fir, rwy. ties...	1,643	2,672	1,721
Gen. W. M. Graham (c)...	14	8.23	14	8.23	14	14.32	15	7.08	American	United States Army.....	526.4	61.4	27.6	Balboa	Cristobal	Frozen meats...	8,000	12,275	8,918
Shropshire.....	14	11.00	14	12.17	14	20.25	15	9.30	British	Federal Steam Navigation Co....	267.8	49.8	23.0	Sydney	Liverpool	Canned goods...	2,361	2,994	1,906
Braxton.....	14	11.00	14	12.17	14	20.25	15	9.30	American	United States Shipping Board..	279.0	46.9	15.3	San Francisco	New York	Lumber.....	1,096	1,685	1,096
Erie.....	14	16.00	15	6.29	15	15.00	21	8.40	French	French Government.....	215.7	33.5	16.2	Etien	Cristobal	Sugar.....	1,096	1,231	706
Acajutla.....	15	6.15	15	8.54	15	15.44	18	12.00	British	Pacific Steam Navigation Co....	220.0	34.0	13.2	Tacoma	Cristobal	General	678	1,187	622
Jamaica.....	15	10.30	15	11.27	15	18.15	20	5.55	British	Pacific Steam Navigation Co....	220.0	34.0	13.2	Tacoma	Cristobal	General	678	1,187	622
C-39.....	15	16.45	16	7.93	16	14.50	16	19.25	French	French Government.....	196.8	39.3	16.0	Vancouver	Cristobal	Pine, lumber...	691	1,193	722
Belgrade.....	15	16.45	16	7.93	16	14.50	16	19.25	American	United States Shipping Board..	267.0	46.0	22.10	Inouque	Cristobal (FO)	Nitrates	2,700	2,657	1,670
Mahnet.....	16	8.45	16	9.34	16	19.07	19	4.25	American	United States Shipping Board..	267.2	46.2	22.0	Seattle	Grimsb	Douglas fir, ties	1,530	2,648	1,646
Ulysses.....	13	19.45	17	6.34	17	13.26	17	14.05	American	United States Government.....	514.0	68.4		Balboa	Norfolk	Douglas fir, ties	11,519	6,910	6,910
Mc. Whitney (d)	15	16.05	17	9.32	17	17.04	18	20.40	Norwegian	Cornelius Bull & Company....	292.8	45.2	20.0	Tacoma	Liverpool	Douglas fir...	1,647	1,566	1,354
Doisara (e)...	15	16.05	17	9.32	17	17.04	18	20.40	British	Arthur Necker.....	105.0	32.0	12.0	Seattle	New York	Douglas fir...	374	567	483

(a) Coast guard cutter. (b) Lanuch. (c) Misoiplanter. (d) Sailing. (e) Yacht. (f) 1,323,992 feet.

Imperial.....	17	10.45	17	11.27	17	18.45	22	10.11	Chilean.....	Chilean Line.....	336.8	41.2	23.0	Tulehuano.....	Cristobal.....	General.....	1,440	3,621	2,397
Kronprinzessin	17	3.30	17	13.00	17	19.35	17	20.10	Swedish.....	Johnson Line.....	360.2	51.4	16.5	San Francisco.	Sweden.....	Dried fruits.....	1,270	5,296	3,967
Margareta (g)	17	5.00	18	7.06	18	17.05	18	17.17	Norwegian.....	Cornelius Bull & Co.....	322.8	45.2	20.6	Bellingham.....	Lumber.....	1,581	1,564	1,184	
McHamilton (g)	17	17.00	18	7.09	18	14.56	19	17.17	American.....	United States Shipping Board.....	267.8	49.9	25.6	Portland.....	Grimsby.....	(b)	2,994	1,906	
Corvalis.....	17	19.00	18	7.57	18	16.18	18	24.00	British.....	New Zealand Shipping Co.....	457.3	58.2	24.4	Auckland.....	London.....	5,345	9,600	6,770	
Ruapehu.....	17	17.00	18	12.55	18	20.26	19	2.10	American.....	United States Shipping Board.....	273.8	49.4	23.0	Seattle.....	Swansea.....	(c)	3,021	1,794	
Muncaster	19	12.01	19	8.07	19	15.20	19	15.50	British.....	Lancashire Shipping Co.....	409.0	50.0	23.6	Kobe.....	Camden, N. J.....	General.....	6,310	5,690	4,375
Castle	19	17.00	20	6.35	20	14.40	20	14.35	American.....	United States Shipping Board.....	402.5	53.0	24.0	San Francisco.	Liverpool.....	Canned fruits.....	8,600	5,694	3,975
Canumset.....	20	3.30	20	7.30	20	14.25	20	14.35	American.....	United States & Pacific S. Co.....	369.5	51.5	23.0	Valparaiso.....	New York.....	Nitrates, general.....	3,733	5,694	3,975
Santa Luisa.....	20	12.18	20	7.46	20	15.45	20	15.45	British.....	Pacific Steam Navigation Co.....	216.0	35.1	14.0	Guayaquil.....	Cristobal.....	General.....	678	1,241	759
Manavi.....	18	19.45	20	13.23	20	17.50	20	17.50	American.....	Pacific Mail Steamship Co.....	283.0	37.0	14.0	San Francisco.	Cristobal.....	General.....	1,019.5	2,337	1,617

(g) Motor ship. (h) 1,358,264 feet. (i) 1,554,000 feet.

PORT OF CRISTOBAL.

*ARRIVALS

Date	Vessels	Line	From	Date	Vessels	Line	For
Sept. 15.....	Puerto Rico.....	French Steamship Line.....	San Nazaire and waypoints.	Sept. 14.....	Mirdlebury.....	Panama Railroad Commissary.....	Cartagena.
Sept. 16.....	Mmanuel Calvo.....	Spanish Steamship Line.....	Habana.....	Sept. 15.....	Nameski.....	United States Shipping Board.....	Bluefields.
Sept. 16.....	Abangarez.....	United Fruit Company.....	New York and Habana.	Sept. 15.....	Nortonia.....	Levland Line.....	Newport News.
Sept. 17.....	Tivives.....	United Fruit Company.....	New York via Kingston.	Sept. 16.....	Alangarez.....	United Fruit Company.....	New York and Port Limon.
Sept. 17.....	Atenas.....	United Fruit Company.....	Cartagena.	Sept. 16.....	Saint Louis.....	French Steamship Line.....	Havre via Vera Cruz.
Sept. 18.....	Northern Pacific.....	United States Army.....	New York.	Sept. 18.....	Panama.....	Panama Railroad Steamship Line.....	New York via Haiti.
Sept. 18.....	Metapan.....	United Fruit Company.....	New Orleans.	Sept. 18.....	Tivives.....	United Fruit Company.....	Colombian ports.
Sept. 19.....	Logician.....	Harrison Steamship Line.....	Liverpool and waypoints.	Sept. 18.....	Atenas.....	United Fruit Company.....	New York and Kingston.
Sept. 19.....	Lake Hurst.....	United States Shipping Board.....	New York.	Sept. 18.....	Mmanuel Calvo.....	Spanish Steamship Line.....	Puerto Colombia.
Sept. 19.....	Middlebury.....	Panama Railroad Commissary.....	Cartagena.	Sept. 19.....	Puerto Rico.....	French Steamship Line.....	Puerto Colombia.
Sept. 20.....	Coppename.....	United Fruit Company.....	N. Orleans, Habana, Bocas.	Sept. 20.....	Metapan.....	United Fruit Company.....	New Orleans via Bocas.
Sept. 20.....	Kassala.....	Merline Shipping Company.....	Glasgow.				
Sept. 20.....	Gen. O. H. Ernst.....	Panama Railroad Steamship Line.....	New York.				

*DEPARTURES

*Other than ships passing through the Canal.

Corrected Figures for Tonnage of Ships through the Canal in July.

In the report of the Governor to the Secretary of War for the month of July, 1919, published in THE PANAMA CANAL RECORD of September 10, some of the figures for tonnage of commercial ships were in error, due to mistakes in tabulation. The following are the corrected figures for the 158 commercial ships:

Item.	Cristobal.	Balboa.	Total.
Net tonnage of commercial ships, P. C. measurement	223,490	287,318	510,808
United States equivalent net tonnage of commercial ships.....	194,185	247,633	441,818
Registered gross tonnage of commercial ships	291,708	380,380	672,088
Registered net tonnage of commercial ships.....	186,433	244,086	430,519

The same errors require the correction of the tables of tonnages by nationalities which are presented below as revised:

Item.	Cristobal.	Balboa.	Total.
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	131,859	96,899	228,758
Chilean.....	5,570	5,570	11,140
Danish.....	.....	3,479	3,479
French.....	.....	3,934	3,934
Japanese.....	18,185	18,477	36,662
Norwegian.....	.....	5,042	5,042
Peruvian.....	5,005	8,220	13,225
Panamanian.....	53	.....	53
Swedish.....	3,900	.....	3,900
Spanish.....	.....	2,467	2,467
United States.....	58,918	143,230	202,148
Total.....	223,490	287,318	510,808
United States equivalent net tonnage of commercial ships, through the Canal:			
British.....	115,387	83,089	198,476
Chilean.....	3,540	3,540	7,080
Danish.....	.....	2,823	2,823
French.....	.....	3,840	3,840
Japanese.....	15,926	16,095	32,021
Norwegian.....	.....	4,438	4,438
Peruvian.....	3,351	5,803	9,154
Panamanian.....	53	.....	53
Swedish.....	2,380	.....	2,380
Spanish.....	.....	2,224	2,224
United States.....	53,548	125,781	179,329
Total.....	194,185	247,633	441,818
Registered gross tonnage of commercial ships through the Canal:			
British.....	170,639	127,303	297,942
Chilean.....	6,367	6,367	12,734
Danish.....	.....	4,395	4,395
French.....	.....	4,729	4,729
Japanese.....	23,652	24,116	47,768
Norwegian.....	.....	6,987	6,987
Peruvian.....	7,922	12,677	20,599
Panamanian.....	69	.....	69
Swedish.....	3,805	.....	3,805
Spanish.....	.....	3,370	3,370
United States.....	79,254	190,436	269,690
Total.....	291,708	380,380	672,088
Registered net tonnage of commercial ships, through the Canal:			
British.....	108,049	81,890	189,939
Chilean.....	3,859	3,889	7,778
Danish.....	.....	2,795	2,795
French.....	.....	3,834	3,834
Japanese.....	15,183	14,855	30,038
Norwegian.....	.....	4,422	4,422
Peruvian.....	3,941	7,014	10,955
Panamanian.....	53	.....	53
Swedish.....	2,833	.....	2,833
Spanish.....	.....	2,174	2,174
United States.....	52,485	123,213	175,698
Total.....	186,433	244,086	430,519

Commissaries Closed on Account of Quarterly Inventory.

Commissaries will be closed for quarterly inventory all day on Tuesday, September 30. The grocery and cold storage sections will be opened not later than 10 a. m. on Wednesday, October 1, and other departments as soon as the check by the Auditor's representatives has been completed.

Witnessing Pay Receipts.

BALBOA HEIGHTS, C. Z., September 20, 1919.

To all concerned—My attention has been called to the fact that it is a not uncommon occurrence for undelivered pay receipts to be returned to the Bureau of Payrolls, bearing the signature of a witness without such pay receipt having been signed by the payee.

The practice of witnessing pay receipts in advance of signature by payee is contrary to instructions heretofore issued. It is impossible for a person to witness a signature before that signature is written, and this practice is strictly prohibited. Timekeepers or foremen violating this rule in the future will be subject to discipline.

CHESTER HARDING,
Governor, The Panama Canal.
President, Panama Railroad Co.

Riprapping to Protect Bases of Range Light Towers.

The Lighthouse Subdivision is completing the work of protecting four of the range light towers in Gatun Lake from erosion due to wave action. This has included the placing of concrete blocks around the bases. On one of them, tower No. 19, nearly two hundred cubes, two feet on the side, were used for riprapping, and since then erosion has been practically stopped.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal postoffices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286):

Field superintendent of insect control (male); \$1,800 to \$2,400 a year; No. 453-amended; October 14, 1919.

The United States Civil Service Commission announces that the date of the open competitive examination for field superintendent of insect control (announcement No. 453), for men only, to fill vacancies in the Bureau of Entomology, Department of Agriculture, is October 14, 1919, instead of October 4 as stated at the head of the original announcement.

Assistant in marketing dairy products, Grade 1; \$1,800 to \$2,400; No. 324.

Inspector of dairy products; \$1,800 to \$2,400; No. 570.

Assistant in transportation, Grade 1; \$1,800 to \$2,700; No. 596.

The United States Civil Service Commission states that as sufficient eligibles to meet the needs of the service have been obtained from the open competitive nonassembled continuous examinations listed above, until further notice no applications for these examinations will be accepted unless filed with the Commission at Washington, D. C., prior to the hour of closing business on September 23, 1919.

Glass blower, (male); Bureau of Standards; \$1,200 to \$1,860 a year; No. 466; October 28, 1919; form 1312; age, 20 years but not 46 years.*

Artist (male); \$1,800 a year; No. 465; October 14, 1919; form 1312; age, not under 20 years.*

Medical interne (Saint Elizabeth's Hospital) (male and female); \$1,200 a year; No. 460; October 22, November 19, and December 10, 1919; form 1312; age, 20 years or over.

Agriculturist in charge of demonstrations on reclamation projects (male); \$3,500 a year; No. 454; October 14, 1919; form 2118; age, 25 years or over.*

Glass blower (male); Bureau of Standards; \$1,200 to \$1,860 a year; No. 466; October 28, 1919; form 1312; age, 20 to 45 years inclusive.*

Surveillance inspector (male); Ordnance Department at large; \$1,600 to \$2,400 a year; October 21, 1919; form 1312; age, at least 21 years.*

Assistant mechanical engineer (Bureau of Mines) (male); \$1,500 to \$1,680 a year; No. 360-amended; October 14, 1919; form 1312; age, any.*

Chief of division for scientific research, \$3,500 to \$4,500 a year; chief of division for educational research and development, \$3,500 to \$4,500 a year; educational assistant, \$2,800 to \$3,600 a year; chief of division of relations with states, \$3,500 to \$4,500 a year; chief of division of records, information, and planning, \$3,500 to \$4,500 a year; supervising assistant and inspector, \$2,800 to \$3,600 a year; field agent, \$1,800 to \$3,000 a year (male and female); November 4, 1919; form 2118; age, no limit.*

Aeronautic engineer (Bureau of Construction and Repair, Navy Department) (male); Grade 1, \$5.20 to \$8.80 per diem; Grade 2, \$9.20 per diem and above; October 28, 1919; form 1312; age, 20 years or over.*

* Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Almost Whole Cargo of Fruit from California.

The motorship *Kronprinzessin Margareta*, passing through the Canal on September 17, carried almost a whole cargo of canned fruits from San Francisco to Swedish ports and Helsingfors, Finland. The cargo of 1,396 tons included 94 tons of coffee for Gothenburg and 1,302 tons of fruit, of which 99 tons were for Helsingfors, 523 tons for Stockholm, 283 tons for Malmö, and 397 tons for Gothenburg.

Deceased and Insane Employees.

The estates of the following deceased or insane employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

DECEASED.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Wm. Cumberbatch...	23996	Barbados.....	Red Tank.....	Pacific Locks.....	August 29, 1919.
Wm. Dowers (Downs)	33493	Trinidad.....	Panama.....	Commissary Division..	August 30, 1919.
Jacob Lewis.....	26980	Guadeloupe.....	Colon.....	Mechanical Division...	August 21, 1919.
Leonard Lindsay (<i>alias</i> Lency).....	51993	Guadeloupe.....	Camp Bierd....	Sanitary Department...	August 22, 1919.
Jose Anastacio (<i>alias</i> Ignacio) Frias.....	41545	Colombia.....	Panama.....	Municipal Eng. Div....	September 1, 1919.
Reuben Berry.....	32745	Jamaica.....	Colon.....	Commissary Division..	August 24, 1919.
Elijah Manning.....	28141	Jamaica.....	Cativa, R. P....	Municipal Eng. Div....	August 24, 1919.
Juan Isabel Vega.....	41211	Panama.....	Panama.....	Commissary Division...	September 8, 1919.
Augustus Pilgrim.....	25686	Barbados.....	La Boca.....	Mechanical Division...	September 11, 1919.

INSANE.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of commitment.
Guy K. Rounsevell...	890	United States...	Aneon.....	Accounting Dept....	September 5, 1919.
Victor Rose.....	22149	Martinique.....	Paraiso.....	Supply Department..	August 5, 1919.
Juan Munoz.....	40477	Chile.....	S. S. Culebra...	Cattle Industry.....	September 5, 1919.

Official Circulars.

Unserviceable Rubber Stamps.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., September 22, 1919.

To all concerned—It is respectfully requested that all unserviceable rubber stamps in the various offices of The Panama Canal and Panama Railroad Company, be forwarded to The Panama Canal Press, Mount Hope, where they can be utilized to good advantage,

R. K. MORRIS,
Chief Quartermaster.

Stops of Panama-Paraiso Labor Train in Panama Yard.

PANAMA RAILROAD COMPANY,

OFFICE OF MASTER OF TRANSPORTATION,

BALBOA HEIGHTS, C. Z., September 17, 1919.

CIRCULAR NO. 1371:

To conductors and engineers, P. R. R.—In view of the fact that Panama-Paraiso labor train consists of 21 cars, crew handling this labor train

evenings from Paraiso will arrange to make 3 stops in Panama yard instead of 2 as heretofore. First stop to be made with head and about opposite No. 8's engine, then pull down an equal number of car lengths in making the other 2 stops. This to permit passengers detraining to pass from Panama yard to main thoroughfare north of No. 8's engine and avoid laborers climbing over coaches.

This cancels all previous instructions issued relative to stopping Panama-Paraiso labor train in Panama yard.

W. J. BISSELL,
Acting Master of Transportation.

Sale of Tug "Chame."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, Canal Zone, up to 10.30 a. m., October 23, 1919, and then opened, for the purchase of the tug *Chame*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

COMMISSARY NOTES.

Toys.

California coasters, ordered for Christmas, are unobtainable, as the contractors advise that their factory has accepted orders beyond capacity for this year on these toys.

Shoes.

The shoe sale held at Cristobal and Balboa commissaries recently was well attended \$2,100 worth being sold the first day. Not only was most of the bargain stock disposed of, but business was stimulated on other lines of shoes as well.

THE PANAMA CANAL RECORD

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Volume XIII.

Balboa Heights, C. Z., October 1, 1919.

No. 7.

CANAL WORK IN AUGUST.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of August, 1919:

BALBOA HEIGHTS, C. Z., *September 23, 1919.*

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of August, 1919:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal for the month was 188, exclusive of 34 United States Government vessels, as follows: Two battleships, 3 cruisers, 3 colliers, 6 supply ships, 9 destroyers, 1 submarine, 1 submarine tender, 1 mineplanter, 2 minesweepers, 1 tug with target, and 2 subchasers of the Navy; and 1 transport and 2 tugs of the Army. The total number of ocean-going vessels was 222, in addition to which 1 launch went from Atlantic to Pacific.

Classifications of the traffic are shown in the following tabulations. The net tonnage of the 188 commercial ships aggregated 586,111 tons, Panama Canal measurement. Their registered gross tonnage was 757,843 tons, and their registered net tonnage 487,811 tons. The cargo carried totaled 715,724 tons of 2,240 pounds, and exceeded that handled during any month since May, 1918, when 780,041 tons went through the Canal. Of that in August, 1919, 7,928 tons were carried as deck load. Ships of 10 different nationalities were included in the month's traffic. The total Panama Canal net tonnage of commercial ships was 75,303 tons more than that of commercial ships passing through the Canal in July, when 158 ships of 510,808 tons made the transit. The cargo was 147,552 tons more than that handled through the Canal in July.

Three British transports carried 2,259 troops through the Canal from Europe to New Zealand, and 1 United States transport carried 58 troops and 1,017 tons of cargo from New York to San Francisco, disembarking 86 passengers at Cristobal.

The United States coastwise trade was made up of 26 vessels aggregating 99,087 net tons, Panama Canal measurement, and carrying 154,219 tons of cargo. From the Atlantic to the Pacific, 4 ships with a total net tonnage of 19,132 net tons, Panama Canal measurement, carried 28,992 tons of cargo. From the Pacific to the Atlantic, 22 vessels of 79,955 net tons, carried 125,227 tons of cargo.

The United States Shipping Board operated 3 of the westbound ships in the coastwise trade, with a net tonnage of 12,369 tons, Panama Canal measurement, carrying 17,992 tons of cargo, and 20 of the 22 vessels eastbound. The net tonnage of the 20 ships from Pacific to Atlantic aggregated 77,090 tons and their cargo amounted to 125,227 tons.

Among the principal commodities included in the traffic from the Pacific to the Atlantic during the month were: Flour, 3 whole cargoes, aggregating 23,922 tons; lumber and ties, 22 whole cargoes, 62,591 tons; 6 whole cargoes of nitrates, 27,088 tons; 5 whole cargoes of sugar, amounting to 43,595 tons; barley, 6 whole cargoes, 17,950 tons; 3 whole cargoes of wheat, 22,679 tons. Twenty-six ships carried general cargoes amounting to 74,623 tons. Four ships went in ballast from the west coast to Tampico; their aggregate net tonnage, Panama Canal measurement, was 18,802 tons.

The bulk shipments from Atlantic to Pacific were: Fuel oil, 9,000 tons, for the west coast of South America; kerosene, 17,422 tons, of which 6,606 tons were from New Orleans to Shanghai, and 10,816 tons from Sabine to Hongkong; petroleum, 18,992 tons, of which 7,992 tons were from New York to Nagasaki, and 11,000 tons from Beaumont to San Francisco; coal, 18,891 tons, of which 5,261 tons were from Norfolk, bound for the west coast of South America, 2,629 tons from Newport News to Callao, 4,500 tons from Norfolk to Port Chalmers, and 6,501 tons from Norfolk to Coquimbo; coke, 1,623 tons, from Baltimore to Callao; 3 cargoes of crude oil, 24,626 tons, of which 9,261 tons were from Tampico to Tocopilla, and 15,365 tons from

Tampico to San Francisco; 1 cargo of case oil, 5,880 tons, from New York to Brisbane; 1 cargo of oil, 8,484 tons, from Beaumont to San Francisco; 1 cargo of railroad material, 932 tons, from New York to La Union; 1 cargo of Army supplies, 1,997 tons from Baltimore to San Francisco; and 52 general cargoes amounting to 209,108 tons.

Commercial vessels passing through the Canal on their way to the west coast of Central and South America during August were, by nationalities, as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
British.....	14	29,793	17,987	23,343	<i>Tons.</i> 19,550
Norwegian.....	3	19,130	12,023	14,288	18,261
Chilean.....	3	9,078	5,503	8,055	2,093
Peruvian.....	2	8,065	4,587	5,459	2,510
Italian.....	1	5,663	3,458	4,266	700
Swedish.....	1	4,952	3,973	4,013	1,434
United States.....	18	46,318	28,872	33,095	45,183
Total.....	42	122,999	76,403	92,519	89,737

Of the 42 vessels, 18 with 11,865 tons of cargo originated at the Atlantic terminus of the Canal; 17 with 50,289 tons, came from United States ports; 2 with 18,261 tons of oil from Tampico; 1 with 903 tons of general cargo from Liverpool; 1 with 700 tons of general cargo from Genoa; 1 with 1,434 tons of general cargo from Gothenburg; 1 with 6,285 tons of general cargo from Glasgow, and 1 with no cargo from Puerto Plata.

Shipments from the west coast of Central and South America through the Canal during August were carried by 37 vessels. Three were bound for Great Britain, with 6,000 tons of sugar from Eten and 14,230 tons of general cargo from Chilean ports. Twenty-one completed the voyage at the Atlantic terminus of the Canal, discharging 1 bulk cargo of 1,030 tons of ivory nuts from Nanta, and 24,165 tons of general cargo, including coffee, nuts, hides, and other raw materials. Nine ships were on the way to the United States; 6 had whole cargoes of nitrate, aggregating 27,088 tons of 2,240 pounds; and 3 carried mixed cargoes, mostly ore, sugar, copper, wood, and hides, aggregating 9,981 tons. Four went in ballast to Tampico, Mexico; 3 were from Tocopilla, and 1 was from Corinto.

By nationalities the ships from the west coast of South and Central America were as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
British.....	17	41,355	24,404	32,369	<i>Tons.</i> 33,194
Chilean.....	4	12,894	7,793	11,088	6,406
Norwegian.....	2	12,144	7,602	9,246	3,024
Peruvian.....	2	7,917	3,941	5,005	5,109
United States.....	12	36,369	23,107	26,014	30,261
Totals.....	37	110,679	66,847	83,722	82,994

The distribution of the traffic through the Canal in August, 1919, according to the principal trade routes, was as follows:

	Ves-sels.	Net tonnage.	Cargo.
<i>Atlantic to Pacific.</i>			
United States coastwise.....	4	19,132	<i>Tons.</i> 28,992
United States to South America.....	17	40,103	50,289
Europe to South America.....	4	14,612	9,322
Cristobal to South America.....	18	26,908	11,865
Europe to west coast of North America.....	2	7,837	1,182
Europe to Australia and New Zealand.....	5	39,431	9,920
United States to Australia and New Zealand.....	8	41,955	50,881
United States to Far East.....	21	99,072	158,197
Cristobal to west coast of North America.....	2	3,994	3,739
Mexico to west coast of North America.....	2	8,651	15,365
Mexico to west coast of South America.....	2	10,309	18,261
Miscellaneous.....	3	2,508	4,300
Total.....	88	314,512	362,313
<i>Pacific to Atlantic.</i>			
United States coastwise.....	22	79,955	125,227
West coast North America to Europe.....	29	64,259	98,634
West coast South America to Europe.....	3	12,972	20,730
West coast South America to United States.....	9	21,100	37,069
West coast North America to Cristobal.....	3	4,736	4,524

	Ves-sels.	Net tonnage.	Cargo.
<i>Pacific to Atlantic.—Continued.</i>			
West coast South America to Cristobal.....	21	30,848	Tons. 25,195
West coast South America to Mexico.....	4	18,802	(") 4,227
West coast North America to Cuba.....	2	2,854	18,808
Australia and New Zealand to Europe.....	4	22,693	18,997
Far East to east coast of North America.....	3	13,380	
Total.....	100	271,599	353,411

*Ballast.

SERVICES TO CANAL SHIPPING.

Repairs were made on 111 vessels during the month, 65 at Cristobal and 46 at Balboa. Eleven vessels were dry docked at Cristobal and 7 at Balboa. Sales of fuel oil to ships from stock of The Panama Canal were 618.11 barrels to 3 vessels at Cristobal, and 4,127.76 barrels to 2 vessels at Balboa. Coal sales were 42,647 tons to 117 vessels at Cristobal, and 6,237 tons to 21 vessels at Balboa, a total of 138 vessels receiving 48,884 tons. Water sold included 8,191,497 gallons to 181 vessels at Cristobal and 4,342,500 gallons to 153 vessels at Balboa, a total of 12,533,997 gallons to 334 vessels. Sales of commissary supplies to commercial ships of lines other than that of the Panama Railroad aggregated \$67,813.57, of which \$43,318.85 worth, including \$2,012.09 for laundry, was supplied at Cristobal and \$24,494.72, including \$1.71 for laundry at Balboa. Laundry service for all ships amounted to \$3,116.86. Tug service performed for vessels using the Canal and the terminal ports was charged at \$25,963.75, of which \$12,063.75 was collected through the office of the Captain of the Port at Cristobal and \$13,900 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulation:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	88	100	188
Net tonnage of commercial ships, P. C. measurement.....	314,512	271,599	586,111
United States equivalent net tonnage of commercial ships.....	260,545	236,039	496,584
Registered gross tonnage of commercial ships.....	402,170	355,673	757,843
Registered net tonnage of commercial ships.....	256,692	231,119	487,811
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	362,313	353,411	715,724
Deck load cargo, included in above.....	1,211	6,717	7,928
Nationality of commercial ships through Canal:			
British.....	37	25	62
Norwegian.....	3	7	10
Chilean.....	3	4	7
Peruvian.....	2	2	4
Japanese.....	9	1	10
French.....	0	1	1
Swedish.....	2		2
Dutch.....	2		2
Italian.....	1		1
United States.....	20	60	89
Total.....	88	100	188
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	149,137	76,369	225,506
Norwegian.....	14,288	20,949	35,237
Chilean.....	8,053	11,088	19,143
Peruvian.....	5,459	5,005	10,464
Japanese.....	40,770	4,037	44,807
French.....		1,670	1,670
Swedish.....	7,980		7,980
Dutch.....	10,206		10,206
Italian.....	4,266		4,266
United States.....	74,351	152,481	226,832
Total.....	314,512	271,599	586,111
United States equivalent net tonnage of commercial ships, through the Canal:			
British.....	121,684	65,170	186,854
Norwegian.....	12,281	17,726	30,007
Chilean.....	5,112	7,075	12,187
Peruvian.....	3,579	3,351	6,930
Japanese.....	36,408	3,472	39,880
French.....		1,566	1,566
Swedish.....	6,071		6,071
Dutch.....	9,378		9,378
Italian.....	3,981		3,981
United States.....	62,051	137,679	199,730
Total.....	260,545	236,039	496,584

Item.	Cristobal.	Balboa.	Total.
Registered gross tonnage of commercial ships through the Canal:			
British.....	187,725	94,431	282,156
Norwegian.....	19,130	26,881	46,011
Chilean.....	9,078	12,894	21,972
Peruvian.....	8,065	7,917	15,982
Japanese.....	52,477	4,557	57,034
French.....		2,705	2,705
Swedish.....	8,726		8,726
Dutch.....	12,817		12,817
Italian.....	5,663		5,663
United States.....	98,489	206,288	304,777
Total.....	402,170	355,673	757,843
Registered net tonnage of commercial ships, through the Canal:			
British.....	118,770	59,759	178,529
Norwegian.....	12,023	17,199	29,222
Chilean.....	5,503	7,793	13,296
Peruvian.....	4,587	2,941	8,528
Japanese.....	35,451	3,247	38,698
French.....		1,646	1,646
Swedish.....	6,848		6,848
Dutch.....	8,137		8,137
Italian.....	3,458		3,458
United States.....	61,915	137,534	199,499
Total.....	256,692	231,119	487,811
Cargo carried by ships of various nationalities:			
British.....	153,841	84,494	238,335
Norwegian.....	18,261	29,766	48,027
Chilean.....	2,093	6,406	8,499
Peruvian.....	2,516	5,109	7,625
Japanese.....	65,595	4,870	70,465
French.....		2,329	2,329
Swedish.....	1,434		1,434
Dutch.....	14,060		14,060
Italian.....	700		700
United States.....	103,813	220,437	324,250
Total.....	362,313	353,411	715,724
Vessels passing through the Canal free of tolls:			
U. S. Navy battleships.....	2		2
U. S. Navy cruisers.....	2	1	3
U. S. Navy destroyers.....	9		9
U. S. Navy colliers.....	3		3
U. S. Navy supply ships.....	5	1	6
U. S. Navy sub-chaser.....	1	1	2
U. S. Navy submarine.....	1		1
U. S. Navy sub-tender.....	1		1
U. S. Navy mine-planter.....	1		1
U. S. Navy mine-sweepers.....	2		2
U. S. Navy tug and target.....	1		1
U. S. Army tugs.....	2		2
U. S. Army transport.....	1		1
Total.....	31	3	34
Launches.....			
Net tonnage of launches, Panama Canal measurement.....	1		1
Total ocean-going ships transiting Canal.....	119	103	222
Total vessels transiting Canal.....	120	103	223
Cargo on which no tolls were charged.....			
Commercial ships through Canal without cargo, but not in ballast.....	39,922		39,922
Net tonnage of above, Canal measurement.....	3		3
Commercial ships through Canal in ballast.....	26,699		26,699
Net tonnage of above, Canal measurement.....	6	6	12
Total of commercial ships without cargo transiting Canal.....	10,237	21,667	31,904
Net tonnage of above, Canal measurement.....	9	6	15
Motor ships through Canal.....	36,936	21,667	58,603
Net tonnage of above, Canal measurement.....	6	8	14
Sailing ships through the Canal.....	8,966	7,730	16,696
Net tonnage of sailing ships, Canal measurement.....		4	4
Tolls levied on laden ships through the Canal.....	\$314,196 15	\$269,823.45	\$584,024.60
Tolls levied on ships in ballast.....	7,370.64	15,796.92	23,167.56
Tolls on launches.....	1.20	3.60	4.80
Supplemental payments, previous passages.....	1,250.00	1,000.00	2,250.00
Total tolls levied.....	\$322,517.99	\$286,628.97	\$609,446.96
Total ships entering port, including Canal transit.....	244	228	472
Total ships clearing from port including Canal transit.....	237	231	468
Total ships handled.....	481	459	940
Net registered tonnage of vessels entering port.....	697,624	666,984	1,364,608
Net registered tonnage of vessels clearing port.....	685,420	712,100	1,397,520
Total for vessels entering and clearing.....	1,383,044	1,379,084	2,762,128

Item.	Cristobal.	Balboa.	Total.
Registered gross tonnage of vessels entering.....	1,043,104	958,835	2,001,939
Registered gross tonnage of vessels clearing.....	1,022,058	1,001,742	2,023,800
Total registered gross tonnage of vessels entering and clearing.....	2,065,162	1,960,577	4,025,739
Vessels entering port, but not passing through Canal.....	43	10	53
Net tonnage of above.....	95,478	47,276	142,854
Gross tonnage of above.....	162,904	49,759	212,663
Vessels clearing port, but not passing through Canal.....	40	8	48
Net tonnage of above.....	86,144	38,985	125,129
Gross tonnage of above.....	145,955	42,469	188,424
Vessels passing through Canal, and handling passengers or cargo at port, entered.....	34	34	68
Net tonnage of above.....	92,522	44,850	137,372
Gross tonnage of above.....	129,665	75,969	205,634
Vessels passing through Canal, and handling passengers or cargo at port, cleared.....	30	36	66
Net tonnage of above.....	88,395	49,578	137,973
Gross tonnage of above.....	122,543	82,268	204,811
Transit cargo arriving..... tons	787,938	751,313	1,539,251
Transit cargo cleared..... tons	764,077	743,193	1,507,270
Local cargo arriving..... tons	25,902	3,839	29,741
Local cargo shipped..... tons	5,220	2,587	7,807
Total local cargo handled..... tons	31,122	6,426	37,548
Total local and transit cargo arriving..... tons	813,840	755,152	1,568,992
Total local and transit cargo cleared..... tons	769,297	745,780	1,515,077
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons	78,172	8,117	86,289
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons	44,892	3,150	48,042
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons	1,434	4,337	5,771
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons	124,498	15,604	140,102
Cargo stevedored, included in above..... tons	59,989	1,917	61,906
Commercial vessels other than P. R. R. supplied with bunker coal..... tons	99	15	114
Coal supplied to commercial vessels other than Panama Railroad..... tons	34,700	3,388	38,088
Panama Railroad vessels supplied with bunker coal..... tons	6	.....	6
Coal supplied Panama Railroad Steamship Line..... tons	709	.....	709
U. S. Navy vessels supplied with coal..... tons	8	5	13
Coal supplied U. S. Navy vessels..... tons	7,143	2,807	9,950
U. S. Army vessels supplied with coal..... tons	4	1	5
Coal supplied to U. S. Army vessels..... tons	95	42	137
Total vessels supplied with coal..... tons	117	21	138
Total coal furnished to vessels..... tons	42,647	6,237	48,884
Coal supplied Panama Railroad departments..... tons	795	.....	795
Coal supplied Army, excepting vessels..... tons	242	.....	242
Coal supplied The Panama Canal..... tons	2,090	645	2,735
Coal supplied individuals and companies..... tons	480	.....	480
Total coal furnished..... tons	46,254	6,882	53,136
Coal received during August..... tons	.....	3,419	3,419
Coal on hand, September 1..... tons	86,616	3,000	89,616
Vessels supplied with water..... gals	181	153	334
Water sold to ships..... gals	8,191,497	4,342,500	12,533,997
Vessels dry-docked.....	11	7	18
Commercial vessels furnished commissary supplies..... tons	138	81	219
Panama Railroad vessels furnished commissary supplies..... tons	9	.....	9
Other U. S. Government vessels furnished commissary supplies..... tons	30	21	51
Total vessels furnished commissary supplies..... tons	177	102	279
Commissary sales to commercial vessels:			
Ice.....	\$979.12	\$742.81	\$1,721.93
Wholesale groceries.....	9,770.32	4,076.20	13,846.52
Wholesale cold storage.....	28,032.89	17,067.58	45,100.47
Laundry.....	2,012.09	1.71	2,013.80
Miscellaneous.....	2,524.43	2,606.42	5,130.85
Total.....	\$43,318.85	\$24,494.72	\$67,813.57
Commissary sales to Panama Railroad vessels:			
Ice.....	\$132.00	.....	\$132.00
Wholesale groceries.....	1,660.97	.....	1,660.97
Wholesale cold storage.....	5,033.79	.....	5,033.79
Laundry.....	582.19	.....	582.19
Miscellaneous.....	652.61	.....	652.61
Total.....	\$8,061.56	.....	\$8,061.56
Commissary sales to other Government vessels:			
Ice.....	\$164.26	\$429.15	\$593.41
Wholesale groceries.....	6,858.46	8,376.31	15,234.77
Wholesale cold storage.....	26,832.06	25,603.99	52,436.05
Laundry.....	286.68	234.19	520.87
Miscellaneous.....	2,213.86	816.11	3,029.97
Total.....	\$36,355.32	\$35,459.75	\$71,815.07
Total commissary sales to vessels.....	\$87,735.73	\$59,954.47	\$147,690.20

Item.	Cristobal.	Balboa.	Total.
Fuel oil issued to U. S. Navy.....barrels..	210 51	4,127.76	4,338.27
Fuel oil issued to U. S. Army.....barrels..	310 60		310.60
Fuel oil issued to Canal departments.....barrels..	7,798 82	15,762.54	23,561.36
Other sales, issues, and consumption at plant.....barrels..	97 00	279.08	376.08
Total furnished from Canal tanks.....barrels..	8,416.93	20,169.38	28,586.31
Fuel oil on hand September 1.....barrels..	24,143.59	98,532.45	122,676.04
Other oil pumped.....barrels..	233,234.93	14,594.30	247,829.23
Diesel oil sold during month.....barrels..			
Diesel oil on hand September 1.....barrels..		1,516.21	1,516.21
Passengers arriving, including transit passengers:			
First cabin.....	3,410	1,547	4,957
Other than first cabin.....	3,100	3,061	6,161
Total.....	6,510	4,608	11,118
Total passengers departing including transit passengers:			
First cabin.....	2,930	1,542	4,472
Other than first cabin.....	3,626	3,112	6,738
Total.....	6,556	4,654	11,210
Total movement of passengers.....	13,066	9,262	22,328
Passengers disembarking:			
First cabin.....	1,987	190	2,177
Other than first cabin.....	986	49	1,035
Total.....	2,973	239	3,212
Passengers embarking:			
First cabin.....	2,004	185	2,189
Other than first cabin.....	943	190	1,043
Total.....	2,947	285	3,232
Services to American seamen:			
Seamen shipped.....	277	106	383
Seamen paid off.....	169	60	229
Seamen deserted.....	3	3	6
Seamen deceased.....		1	1
Seamen lodged, subsisted, and repatriated.....	30		30
Total seamen handled.....	479	170	649
Seamen's wages received.....	\$4,743.10	\$2,034.45	\$6,777.55
Seamen's wages disbursed.....	\$3,738.16	\$2,065.08	\$5,803.24
Seamen's wages on hand, August 31.....	\$12,749.98	\$3,499.53	\$16,249.51
Services to American vessels:			
Crews shipped.....	2		2
Crews paid off.....	3		3
Shipping articles written.....	2	6	8
Marine notes of protest noted.....	13	6	19
Oath, change of Master.....	2		2

LOCK OPERATIONS.

Lockages of commercial vessels were made during the month as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	95	86	181	101	90	191
Pedro Miguel.....	99	90	189	100	90	190
Miraflores.....	92	85	177	100	90	190

Army and Navy vessels, and vessels operated by The Panama Canal are included in the following summary of all lockages during the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	181	189	177
Noncommercial, United States Army and Navy.....	21	22	21
Canal equipment.....	5	18	19
Total.....	207	229	217
Vessels:			
Commercial vessels.....	191	199	190
Noncommercial, United States Army and Navy.....	61	76	74
Total.....	252	266	264

Water consumed for all lockages amounted to 1,570,880,000 cubic feet, that used at Pedro Miguel becoming available for second use at Miraflores Locks.

Consumption of water during the month was as follows:

	Cubic feet.		
	Gatun.	Pedro Miguel.	Miraflores.
Lockage.....	858,860,000	722,020,000	652,910,000
Leakage.....	20,000,000	28,980,000	14,000,000
Maintenance.....		3,810,000	
Total.....	878,860,000	754,810,000	666,910,000

METEOROLOGY.

Rainfall during the month was generally deficient, especially on the Atlantic side. The fall at Colon, 6.77 inches, was the least August precipitation at that station since 1902. The greatest monthly fall was at Indio, totaling 18.84 inches, and the minimum was at Miraflores, 4.02 inches. The greatest precipitation recorded in 24 hours was 4.78 inches, at Porto Bello on the 14th.

A slight seismic disturbance was recorded at Balboa Heights on the evening of August 18, which although of slight amplitude, was felt by a number of people in Ancon and Balboa. The epicenter of this disturbance was about 100 miles distant, probably to the south.

The Chagres River discharge at Alhajuela was 31 per cent below the 18-year August average, or 2,049 c. f. s. against a mean of 2,986 c. f. s. The Chagres furnished 40 per cent of the Gatun Lake total yield. There was one freshet in the Chagres River during the month with a rise of more than 5 feet at Alhajuela.

The elevation of Gatun Lake on August 31, was 85.29, as compared with 85.26 at the end of the prior month.

A severe electric storm occurred on the Atlantic side on August 5, during which an observation balloon at Coco Solo was burned and the mess hall was struck and slightly damaged.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The net output of the hydroelectric station for the month of August was 5,332,123 K. W. H., and the computed water consumption was 4,043,885,000 cubic feet.

Miraflores steam plant—The net output of the steam plant was minus 187,950 K. W. H., and the oil consumption was 2,368.42 barrels.

Total power output—The total net power out put for both generating stations was 5,144,173 K. W. H., and the total amount of power distributed to feeders by substations and generating plants was 4,637,893 K. W. H., representing an energy loss of 9.84 per cent.

Transmission line—There was one interruption to transmission service during the month. Line No. 1 failed at 12.25 p. m., on the 2d, from unknown cause, interrupting service at Cristobal 1 minute, Darien 8 minutes, Gamboa 2 minutes, and Balboa 2 minutes.

Marine work—Repairs and additions of electrical equipment were made at Cristobal on the following vessels, under 22 work orders: Steamships *Middlebury*, *Urubamba*, *Kineo*, *Carrillo*, *Colon*, *Caribbean*, *Advance*, *Mono*, *Jamaica*, *Panama*, *Nemesis*, *Paraiso*, and *City of Para*; tug *Engineer* and dredge *Paraiso*. The work in progress on the steamships *Middlebury* and *Caribbean* of the Panama Railroad Steamship Line advanced to 95 and 65 per cent of completion, respectively. At Balboa, electrical work was done on the following vessels: *Anubis*, *Cristobal*, *Azov*, *Snetind*, *Fort Sill*, *Santa Elena*, *Ossining*, *Acuelo*, *Mario de Ronde*, *Brookside*, *Mount Shasta*, *Chipchung*, *Bushrod*, *Pakeha*, *Eyota*, *Fort Seward*, *Belding*, *Charles Nelson*, *Buhisan*, *Grayling*, *Afalkey*, *Lake Sanford*, *Guardian*, *Orotina*, *Cow Boy*, *Aimwell*, *Tuckanuck*, submarine C-4, U. S. S. *Cleveland*, *Melville*, *Rhode Island*, tugs *Bolivar* and *Empire*, dredge *Cascadas*, and barges No. 13 and No. 29.

New construction—The installation of lighting in the new cold storage plant at Cristobal was completed during the month, and the installation of the electrical equipment there advanced to 96 per cent of completion. Installation in the slaughterhouse adjoining remains 95 per cent complete. Electrical work at Pier 6, Cristobal, was 80 per cent complete at the end of the month.

SHOPS, FOUNDRY, AND DRY DOCK WORK.

The repairs to the ex-German vessel *Anubis* were continued. The two main engine cylinders were received from the United States and completely machined, ready to be erected in place, at the end of the month. Nearly all the machinery to be received from the United States had been received or was en route and it is expected that the vessel will be completed and turned over to the Shipping Board by the end of September.

Definite instructions were received to convert the steamship *Cristobal* from coal to oil burning and to enlarge her passenger accommodations. Details remain still to be settled but the situation was unlocked to such an extent by the two decisions noted that the work may now be expected to proceed rapidly.

Repairs and general overhauling of the steamship *Azov* were completed, except for the finishing touches and the trial of the vessel's machinery.

At the beginning of the month the U. S. S. *Cleveland* was being repaired at the Balboa shops, subject to the provision that the ship must not be disabled to such an extent that she could not be ready for sea upon 48 hours' notice. Such notice was given on Saturday, August 9, at an hour when most of the employees might be expected to be out of reach of the telephone on account of the more or less general custom of seeking amusement away from home on Saturday night. This was the most difficult time that could be found to call in extra men and finish up work on a ship to meet departure on short notice; nevertheless, all unfinished work was completed well within the time set for the departure of the vessel.

The U. S. S. *Melville* was towed to the Balboa shops, arriving August 16, in a disabled condition; both of her boilers having been burnt out at sea. New boiler tubes were secured from the cruiser *Charleston* and the defective tubes in the boilers of the *Melville* were replaced and tested to Navy requirements. After departure the vessel returned from the Pacific because the boilers again showed signs of failure. The Navy Department thereupon decided to modify her furnaces and oil burning system. At the end of August the vessel was still moored before the shops waiting the arrival of the modified furnace fronts and oil-burning system which are being sent from the United States to be installed by the Mechanical Division.

During the month the battleship *Rhode Island*, which had passed through the Canal with the Pacific Fleet, put back to Balboa with the starboard propeller shaft disabled. The vessel was docked on August 11, and it was found that the outside shaft coupling had broken, allowing the propeller and propeller shaft to come aft in the strut until brought up by the remnants of the coupling. The propeller shaft was bent; the strut torn loose, top and bottom, a hole punched in the shell of the ship in one of the after compartments, and the after peak tank and steering engine room were flooded where the strut fastenings had torn loose. The wreckage was removed, the hole in the shell closed and the strut riveted. A new propeller shaft and coupling were machined from rough machined spares carried on board. Meanwhile, the stern tube was removed from the ship after considerable difficulty; and after removal was found to be cracked. There being no spare on board and no billet on the Isthmus of sufficient size or quality for the manufacture of a new shaft, the vessel was ordered North under one engine by the Navy Department for repairs. Accordingly, she was redocked, made secure for the voyage and the parts gotten out at Balboa placed on board.

A new feed line was supplied the cruiser *Salem*, and a quantity of work was performed on her boilers.

Minor repairs were made to minesweepers *Tern* and *Brant*.

The heavy operating repairs in progress at the beginning of the month on steamships *Fort Sill*, *Ossining*, *Santa Elena*, and *Aculeo* were completed during the month and a large amount of miscellaneous commercial work was performed for various vessels.

At the Cristobal shops the following vessels arrived for repairs: *Caribbean*, *Oraton*, *Urubamba*, *Culebra*, *Orator*, *Brookside*, *Afalkey*, *General Goethals*, *Balboa*, *Balsto*, *Palena*, *Republic*, *Paraiso*, *Cauca*, tug *Sea Rover*, *General Erist*, *Salvador*, *Finisterre*, *Kineo*, *Jamaica*, *Aculbia*, *Acajulla*, *A. G. Forse*, *Lake Wilson*, *Gold Shell*, *Panama*, *Guatemala*, *Metapan*, *Cranenest*, *Abangarez*, *Allianca*, *Manavi*, *Middlebury*, *SanGiorgio I*, *Colon*, *Benoni*, *Advance*, *Aberdeen*, *Chile*, *West Isley*, *Deer Lodge*, *Nemesis*, *Antera*, *City of Melbourne*, *Peru*, *Ucayali*, *Chiquimula*, tug *Porto Bello*, tug *Tavernilla*, barge No. 49, barge No. 17, U. S. S. *Brutus*, *Fort Bragg*, *San Blas*, *Bologna*, *G. W. Elder*, *Castle Point*, *C. W. Fields*, *City of Para*, *Braeburn*, *Champlain*, derrick barge No. 157, and transport *Kilpatrick*.

Of the above the following were in dry dock during the month: Barge No. 17, steamships *Caribbean*, *Jamaica*, *Manavi*, *Nemesis*, *Paraiso*, *San Blas*, motorboat *Orotina*, tug *A. G. Forse*, cable ship *Cyrus W. Fields*, and derrick barge No. 157.

At the Cristobal shops 199 individual and company job orders were issued during the month, 6 of which were for work on Navy craft, none for submarines. Of the remaining 183, 86 covered repairs to ships making this port or in transit of the Canal, exclusive of Panama Railroad ships. The work of overhauling the steamship *Culebra*, prior to turning her over to the Dredging Division, was continued during the month. The work of converting the steamship *Middlebury* into a cattle carrier was completed during the month.

Work was performed at the Balboa shops during the month for the following vessels: Steamers *Brookside*, *Aculeo*, *Ossining*, *Azov*, *Anubis*, *Cristobal*, *Salvador*, *Acajulla*, *Chipchung*, *West Islay*, *Bushrod*, *Eyota*, *Sherman*, *Pakeha*, *Fort Seward*, *Helding*, *Lompoc*, *Buhisan*, *Grayling*, *Crabtree*, *Afalkey*, *La Habra*, *Braeburn*, *Lake Sanford*, *Aimwell*, *Cow Boy*, *War Column*, *Tuckanuck*, *Cauca*, cable ship *Guardian*, U. S. S. *Melville*, U. S. S. *Cleveland*, U. S. S. *Rhode Island*, U. S. S. *Salem*, U. S. S. *Tern*, U. S. S. *Brant*, motorships *Marie de Ronde*, *Santa Elena*, *Pauline*, *Mount Shasta*, *Orotina*, *Maranon*, *Chiriqui*, and *Snetind*, schooner *Falketind*, and steam schooner *Chas. Nelson*.

The following vessels were in dry dock at Balboa during the month: Steamships *Cristobal*, *Azov*, *Anubis*, U. S. S. *Rhode Island*, cable ship *Guardian*, tugs *Cocoli* and *Bolivar*.

Foundry output, compared with that of July, was as follows:

	August.	July.
	<i>Pounds.</i>	<i>Pounds.</i>
Iron	130,226½	143,370½
Steel	34,860	45,070
Brass	28,086½	19,308

Equipment was hostled as follows: Locomotives, 1,603; cranes, 196; making a total of 1,799. Two hundred and ninety-eight shop and 1,575 field repairs were made on cars, 759 freight cars were packed, and 2,053 passenger coaches were packed, cleaned, oiled, and inspected.

BUILDING CONSTRUCTION.

Assembling of the towers and material for the Puerto Obaldia radio station was completed during the month, and on August 28, the entire outfit was transported to Puerto Obaldia.

Installation of offal room equipment at the abattoir was completed during the month. Oleo equipment was brought to 95 per cent and the lard equipment to 90 per cent of completion.

The canning plant building at Mount Hope was completed, except for the installation of an elevator.

The boiler house and exterior steam lines of the Mount Hope cold storage plant were completed during the month. The machine shop was 87 per cent completed, and the carpenter shop 90 per cent completed.

Of the ten 12-family quarters at Mount Hope, 8 buildings were completed and the other 2 were completed except for painting.

The office building of the Central and South American Telegraph Company at Balboa was 40 per cent completed.

The tuberculosis ward of Corozal Hospital remains 80 per cent completed.

The office for the Lighthouse Subdivision at Gatun was 90 per cent completed.

Terminal construction—The status of the work under way at Pier 6, Cristobal, is as follows: Doors, 99 per cent; cranes, 5 per cent; and trimming work, 100 per cent completed. The pier is now practically completed except for installation of cargo-handling cranes and putting on finish wash on outside walls.

Reconstruction of the Royal Mail pier at Colon was started during the month. Plant was assembled and one section of floor slab was brought to 10 per cent completion.

DREDGING DIVISION.

The total excavation by dredges during August was 367,150 cubic yards, as follows:

Cubic yards.	Classified as:		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
24,800 (a)	24,800	.....	Maintenance. {	2289-00 to 2300-60 W. }	No. 88.
122,000 (a)	122,000	.....	Maintenance....	2186-00 to 2174-50 W.	No. 84.
5,550 (b)	1,050	4,500	Aux. Const.....	2218-00 to 2221-25 E.	Paraiso.
10,500 (b)	2,650	7,850	Aux. Const.....	Pier No. 6, Cristobal.....	Paraiso.
38,700 (b)	14,700	21,000	Aux. Const.....	Area No. 1, Cristobal.....	Paraiso.
26,400 (b)	10,600	15,800	Aux. Const.....	Area No. 10, Cristobal.....	Paraiso.
58,000 (c)	58,000	.....	Maintenance....	Area No. 11, Cristobal.....	Paraiso.
81,200 (c)	81,200	.....	Maintenance....	Balboa Inner Harbor.....	Cascadas.
				Balboa Inner Harbor.....	No. 88.
367,150	315,000	52,150	Total for month		

(a) Pacific entrance. (b) Atlantic entrance. (c) Balboa inner harbor.

The following disposition was made of the excavated material: Thirty thousand five hundred cubic yards were dumped in San Juan fill; 116,300 cubic yards in Pacific entrance flats, west of channel; 58,000 cubic yards from the Pacific entrance at sea; 81,200 cubic yards in Diablo Dump "A"; and 81,150 cubic yards in between land end of the East breakwater and Margarita Point.

The excavation remaining to be done in the Canal prism on September 1, was 173,200 cubic yards, the same as stated for August 1, in my report for July, no original excavation within the prism having been performed during August.

During the month forces of the Dredging Division made borings on the area selected for a proposed ferry landing near Mindi.

MUNICIPAL DIVISION.

The road to the cold storage plant at Mount Hope was completed in August; 14,103 square yards of road and 1,414 linear feet of curb were concreted during the month. The extension of the road to Pier 6 at Cristobal was also completed. The renewal of the cast iron discharge line from the sewage sump in Colon is held up indefinitely, pending availability of necessary material. Work in Block 29, Colon, was completed during the month. Work of grading and filling the new townsite at Mount Hope for silver employees, was advanced to 40 per cent of completion, 7,480 cubic yards having been excavated and filled and 1,510 square yards graded. On the circulating water system for the cold storage plant at Mount Hope, 1,993 cubic yards were excavated, 942 cubic yards backfilled, and 415 linear feet of 20-inch dredge pipe were laid; this work is 65 per cent completed. Reversing the sewer grades in 16th, 17th, 19th, and 20th streets, Panama, was brought to completion during August.

This division did extensive work in grading and filling and the construction of track, sewers, and water lines at the Army posts at Gatun and Miraflores, of which separate report has been made.

Water pumped in the southern district amounted to 617,943,000 gallons, and in the northern district to 207,402,000 gallons, making a total of 825,345,000 gallons. This was an increase of 37,490,500 gallons over the quantity pumped in July. Colon was furnished with 46,107,055 gallons of water, Panama with 86,101,000 gallons and 12,533,997 gallons were supplied to 334 ships. The incinerator at Gavilan Island burned 2,059 tons of garbage and 53 dead animals during the month.

WORKING FORCE.

Effective August 20, 1919.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	38	42	80
Building Division.....	272	1,790	2,062
Electrical Division.....	270	347	617
Municipal Engineering Division.....	125	2,635	2,760
Lock Operation.....	162	557	719
Dredging Division.....	147	829	976
Mechanical Division.....	963	1,830	2,793
Marine Division.....	135	362	497
Fortifications.....	62	282	344
Total.....	2,174	8,647	10,848
Supply Department:			
Quartermaster.....	147	1,735	1,900
Subsistence.....	28	412	440
Commissary.....	247	1,550	1,797
Cattle Industry—Plantations.....	34	716	750
Accounting.....	228	12	240
Health.....	241	1,155	1,396
Executive.....	493	181	674
Panama Railroad:			
Superintendent.....	64	528	592
Transportation.....	163	282	445
Receiving and Forwarding Agent.....	88	1,722	1,810
Coaling Station.....	87	795	882
Hotel Washington.....	5	99	104
Grand total.....	3,999	17,879	21,878

The total gold force at work on August 20 was 366 more than the 3,633 at work on July 23, and the silver force was 189 more than the 17,690 then at work. As compared with the gold force for the corresponding month of last year, reported as of August 21, 1918, the gold force was an increase of 1,114 over the 2,850 at work on that date, and the silver force an increase of 1,653 over the 16,226 of that day.

The occupation of quarters on August 31, was as follows:

Occupants.	Men.	Women.	Children.	Total.
Americans.....	3,469	2,118	2,515	8,102
Europeans.....	206	39	66	311
West Indians.....	5,365	2,000	3,813	11,178
Total.....	9,040	4,157	6,394	19,591

PUBLIC HEALTH.

One hundred and twenty-six cases of malaria were admitted to the Canal Zone hospitals; 1 death resulted from malaria, as compared with 262 admissions and 2 deaths during the month of July. Influenza admissions numbered 20, as compared with 37 during the preceding month. There were no deaths from influenza. There were 6 admissions and 5 deaths from pneumonia, as compared with 6 admissions and 1 death during the preceding month. One case of yellow fever was received at quarantine from Nicaragua. The patient died on the day of admission. One case of smallpox from the interior of the Republic of Panama was admitted to Ancon Hospital.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material received during the month on United States requisitions was \$525,760.57, as compared with \$439,572.67 in July. Of that received in August, \$480,885.92 was chargeable to operation and maintenance; \$19,475.72 to construction and equipment; and \$25,398.93 to miscellaneous departments. Isthmian cash sales from storehouses and obsolete store amounted to \$46,463.69, of which \$40,928.67 was for stock, \$1,458.20 for scrap, and \$4,076.82 for obsolete and second-hand material. The more important sales made during the month in the United States were as follows: Dredge spare parts, \$1,457.76; 6 pairs of skid chains, \$67.20; 6 pairs of nonskid chains, \$31.98. On the Isthmus, important sales of obsolete material included a 20-ton locomotive crane for \$2,500; 20 tons of rail for \$600; 48,200 pounds of scrap iron for \$482; 2½ K. W. generator for \$300; a steel barge for \$150; and the hull of claret *No. 4*, for \$150.

The total sales of material from storehouses to steamships for the month, including fuel oil, but excluding sales by the Commissary Division, amounting to \$147,690.20, were \$25,782.84. Sales of commissary supplies to all purchasers for the month aggregated \$1,020,270.16, made up as follows: To steamships, other than United States Naval vessels and those of the Panama Railroad Steamship Line, \$67,813.57; to Panama Railroad vessels, \$8,061.56; to The Panama Canal, \$130,527.07; to the United States Government, including sales to the Army and Navy, \$228,418.77; to individuals and companies, principally through charge accounts in the retail stores, \$17,312.26; to the Panama Railroad including the Hotel Washington, \$20,764.19; and to individuals purchasing with coupons, \$547,372.74.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on August 31, exclusive of fortifications, was \$16,369,782.27; the balance in fortifications was \$7,703,480.67. Payments from appropriations by Disbursing Clerk in Washington, amounted to \$515,856.07 and by the Paymaster on the Isthmus to \$1,444,506.25. Purchases of commissary books from the Panama Railroad Company amounted to \$322,070.49. Collections of tolls totaled \$608,196.96. Deposits of \$230,358.40 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$1,767,094.59, and collections by the Disbursing Clerk, Washington, \$83,627.03. Receipts from the Canal Zone and miscellaneous funds were \$133,895.06, and disbursements from the same source amounted to \$181,194.71. August pay rolls on the Isthmus aggregated \$1,229,398.32, as compared with \$1,225,661.93 for July, a difference of \$3,736.39.

Respectfully,

CHESTER HARDING, *Governor.*

The "Culebra" to Return to Dredging.

The steamship *Culebra*, which has been used by the Panama Railroad Steamship Line for carrying cattle and other live stock from Colombian ports to the Canal Zone for the Cattle Industry Division, is being readjusted at Cristobal shops for service in its original capacity of sea-going suction dredge and is to be returned to the Dredging Division. The dredge will be used in maintenance work, principally for the removal of silt, and will range through all sections of the Canal as needed. The steamship *Middlebury* has been chartered from the United States Shipping Board and placed in service in the place of the *Culebra*, and the *Caribbean*, former suction dredge, sister ship of the *Culebra*, and the first of the cattle carriers of the Cattle Industry Division, remains in the cattle service with the *Middlebury*.

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, September 27, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Slave Prince	20	6:20	21	6:10	21	15:39	21	20:57	British	Prince Line, Limited	448.0	57.0	27.6	New York	Shanghai	General, steel	9,200	9,121	6,704
Lake Ghipon	20	15:19	21	6:17	21	13:10	21	14:01	British	United States Shipping Board	431.0	43.6	23.9	New York	San Francisco	Steel rails	4,000	2,762	1,742
British Princess	21	8:12	22	6:12	22	13:21	22	14:17	British	British Tanker Company	230.0	57.0	26.40	New York	Shanghai	Kerosene	9,115	7,349	5,298
Mau	22	8:25	22	9:36	22	17:23	22	18:18	American	Maison Navigation Company	484.0	58.0	25.0	Norfolk	San Francisco	Navy coal	7,664	11,076	8,012
Imperial	17	18:45	22	10:11	22	15:25	22	20:09	Chilean	South American S. Line	336.0	41.0	25.2	Norfolk	Valparaiso	General	720	3,634	2,475
Bassano	21	6:32	23	6:22	23	14:20	24	16:43	British	Ellerman and Wilson	385.0	49.0	22.16	New York	Cristobal	General	5,600	4,739	3,654
Mont Ceaus	23	6:35	23	7:30	23	15:08	23	15:56	French	Transports Maritime	363.0	48.0	23.0	Norfolk	Bremerton	Navy coal	5,331	4,652	3,512
Laura C. Hall	8	20:00	24	6:09	24	13:40	23	13:17	British	Transports Maritime	316.0	25.0	9.6	Cristobal	Buenaventura	General	40	130	69
Manavi	20	15:43	25	6:05	25	13:49	25	14:53	British	Pacific Steam Navigation Co.	216.0	35.0	14.6	Cristobal	Guayaquil	General	723	1,241	759
Edwards (a)	24	9:07	25	8:02	26	12:09	.....	.....	American	Pacific Steam Navigation Co.	315.0	22.0	11.6	Guantanamo	San Francisco	General	.....	.....	.....
Chew (a)	24	9:10	25	8:02	26	12:09	.....	.....	American	United States Navy	305.0	30.0	11.0	Guantanamo	San Francisco	General	.....	.....	.....
Bailey (a)	24	9:11	25	8:02	26	12:36	.....	.....	American	United States Navy	314.0	31.0	14.7	Guantanamo	San Francisco	General	.....	.....	.....
Dorsey (a)	24	9:11	25	8:02	26	12:36	.....	.....	American	United States Navy	315.0	30.0	11.0	Guantanamo	San Francisco	General	.....	.....	.....
Soucon	24	16:18	25	10:48	25	18:33	25	19:13	American	United States Shipping Board	407.0	53.7	16.0	New York	Manila	General, steel	6,555	6,106	4,355
Minnesota	25	19:20	25	13:07	25	19:37	25	20:20	American	American-Hawaiian Line	390.0	54.2	25.0	Baltimore	Manila	General, steel	11,469	7,150	5,026
Sylvan Arrow	25	16:53	26	6:24	26	14:15	26	15:15	American	Standard Transportation Co.	467.6	62.7	28.0	Beaumont	Shanghai	Petroleum	.....	.....	.....
Ardmore	26	1:37	26	7:11	26	16:11	26	17:04	American	Standard Oil Company	449.5	59.0	27.6	Tampico	Pisagua	Crude oil	9,725	8,656	6,385
Kaikyu Maru	25	16:07	26	11:51	26	19:02	27	19:35	Japanese	Kansuichi Kisen Kaishiki Kaisha	445.0	58.0	16.4	New Castle-on Tyne	Talalt	Oil in cases	8,207	5,900	.....
Bali	26	5:56	26	12:16	26	21:14	27	15:35	Dutch	Netherland Steamship Co.	438.0	55.0	27.8	New York	Hongkong	General	8,150	7,123	5,170
Sumatra Maru	26	17:17	27	6:16	27	14:07	27	14:58	Japanese	Osaka Shosen Kaisha	385.0	55.0	26.6	New York	Kobe	General	7,000	5,909	5,441
Caddo	27	9:38	27	10:00	27	17:19	27	20:30	American	Standard Oil Company	437.0	56.0	23.0	Tuxpan	Pisagua	Crude oil	(b)	6,438	.....

(a) Destroyer. (b) 60,000 barrels.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
West Chatala	18	19:40	21	6:50	21	15:03	22	10:30	American	United States Shipping Board	409.8	54.2	24.1	Portland	New York	Flour, lumber	6,314	6,589	4,770
Cotati	21	12:53	21	7:47	21	16:15	21	22:15	American	United States Shipping Board	402.6	53.0	25.0	San Francisco	Norfolk	Flour	7,800	6,503	4,792
Eelbeck	21	12:35	21	8:21	21	17:14	23	12:25	American	United States Shipping Board	401.7	54.8	23.0	Seattle	London	General	8,000	6,928	5,103
Newport	20	5:45	21	10:19	21	17:45	28	10:06	American	Pacific Mail Steamship Co.	326.0	38.2	19.0	San Francisco	Cristobal	General	800	3,173	2,183
Fairhaven	20	21:15	21	14:30	21	22:20	.....	.....	American	Fairhaven Steamship Co.	155.5	38.0	21.0	Panama	Cristobal	Dyedwood, logs	847	1,164	742
Fondaco	22	6:45	22	7:50	22	15:06	23	6:40	American	United States Shipping Board	207.1	46.2	22.6	Seattle	Philadelphia	Fr. ties	1,601	2,659	1,683
Albionstar	23	17:05	23	9:41	23	14:54	23	14:48	British	Blue Star Line, Ltd.	430.0	55.5	28.0	Hankow	Liverpool	Bacon, eggs, gen.	6,173	8,317	5,631
Corielia	23	3:15	23	7:58	23	15:23	23	16:55	British	C. T. Bowring & Co.	420.3	54.6	19.0	Talalt	Tampico	Fr. ties	6,690	4,937	.....
Umatilla	23	6:00	23	8:19	23	16:52	27	14:40	American	United States Shipping Board	266.9	46.2	21.0	St. Helens	United King.	Fr. ties	1,735	2,649	1,572

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 27, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Newport.....	Pacific-Mail Steamship Line.....	September 21	.....	488	.....
Fairhaven.....	Anglo-American S. S. Agency.....	September 21	.....	847	.....
Imperial.....	United Fruit Company.....	.....	September 22	.....	720
Middlebury.....	Panama Railroad Commissary.....	.....	September 22	.....	18
Laura C. Hall.....	Anglo-American S. S. Agency.....	.....	September 24	.....	45
Lake Hurst.....	Panama Railroad Steamship Line.....	.....	September 24	.....	1,971
Heredia.....	United Fruit Company.....	September 22	September 24	1,199	464
Ucayali.....	Peruvian Steamship Line.....	September 23	.....	1,211	.....
Palena.....	United Fruit Company.....	September 24	.....	1,642	.....
Carrillo.....	United Fruit Company.....	September 24	September 24	92	1
Lake Wilson.....	Panama Railroad Steamship Line.....	September 24	.....	1,398	.....
Turrialba.....	United Fruit Company.....	September 24	September 25	1,539	146
Manavi.....	Pacific Steam Navigation Co.....	.....	September 25	.....	723
Tivives.....	United Fruit Company.....	September 25	September 25	2	1
Colon.....	Panama Railroad Steamship Line.....	September 25	.....	3,000	.....
Gen. O. H. Ernst.....	Panama Railroad Steamship Line.....	.....	September 26	.....	3,895
Kilpatrick.....	United States Government.....	September 26	.....	485	.....
Allianca.....	Panama Railroad Steamship Line.....	September 27	.....	2,007	.....
Logican.....	Levland Line.....	.....	September 27	.....	2,421

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 28, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Fairhaven.....	Fairhaven Steamship Company.....	September 20	September 21	98	(†)
Manavi.....	Pacific Steam Navigation Co.....	September 25	September 25	(*)	2
Juan of Arc.....	Rolph Coal and Navigation Co.....	September 24	September 26	125	(†)
Annetti Rolnh.....	Rolph Coal and Navigation Co.....	September 25	September 28	206	125

* No cargo discharged.

† No cargo laded.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights, (telephone 286):

Farm economist (male); No. 416-amended; October 21, 1919. The United States Civil Service Commission announces the amendment of the announcement of the open competitive examination for farm economist (announcement No. 416) by the omission of the word "extension" in the last lines of the sixth and seventh paragraphs, and by the postponement of the date by which applications must be on file with the Civil Service Commission at Washington, D. C., prior to the hour of closing business, from September 23 to October 21, 1919.

Junior computer (male and female); No. 448-amended; October 8, 1919. The United States Civil Service Commission announces that the open competitive examination for junior computer, Bureau of Mines, will be held on October 8, instead of on October 8 and 9, as stated in the original announcement (No. 448). The statement in the original announcement that "Two days will be required for this examination" is incorrect and only one day will be allowed.

Training officer (male); \$2,400 to \$3,000 a year; No. 433; form 2118; age, at least 24 years but under 50 years.†

Training assistant (male); \$1,500 to \$2,400 a year; No. 433; form 2118; age, at least 24 years but under 50 years.†

Placement officer (male); \$2,400 to \$3,000 a year; No. 433; form 2118; age, at least 24 years but under 50 years.†

District medical officer (male); \$1,800 to \$3,000 a year; No. 433; form 2118; age, at least 25 years but under 65 years.†

Assistant medical officer (male); \$1,800 to \$2,750 a year; No. 433; form 2118; age, at least 25 years but under 65 years.†

Placement assistant (male); \$1,500 to \$2,400 a year; No. 433; form 2118; age, at least 24 but under 50 years.†

Assistant economist in marketing (male); Grade 1, \$1,800 to \$2,400; Grade 2, \$2,400 to \$3,000 a year; No. 464; November 5, 1919; form 1312; age, Grade 1, at least 22 years; Grade 2, at least 25 years.

Clerk, Bureau of the Census (male and female); \$900 to \$1,029 a year; No. 461; October 18, 1919, and November 15, 1919; form 304; age, at least 18 years but under 50 years.

Claims examiner (male); \$1,800 to \$2,500 a year; No. 437-amended; October 8, 1919; the requirement that applicants must not have reached their fiftieth birthday on the date of the examination is eliminated.

Trained nurse (female); No. 1952-amended.

The United States Civil Service Commission announces the amendment of the maximum age requirement of the open competitive nonassembled continuous examination for trained nurse (announcement

No. 1952-A), so as to provide that for the public health service, applicants must not have reached their fiftieth birthday on the date of making oath to the application, instead of that they must not have reached their forty-fifth birthday on such date.

Drainage engineer (male): \$1,800 to \$2,100 a year; November 4, 1919; form 1312; age, at least 25 years but less than 45 years. Persons entitled to preference because of military or naval service are released from age requirements.*

Map colorist (male and female); \$900 a year; November 5, 1919; form 1312; age, at least 18 years, but less than 40 years. Persons entitled to preference because of military or naval service are released from age limitations.

Forest ranger (male); \$900 to \$1,200; October 27, 1919; form 1312; age, at least 21 years but less than 40 years. Persons entitled to preference because of military or naval service are released from age requirements.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

The United States Civil Service Commission announces that as sufficient eligibles to meet the needs of the service have been obtained from the open competitive nonassembled continuous examinations listed below, until further notice no applications for these examinations will be accepted unless filed with the Commission at Washington, D. C., prior to the hour of closing business on September 23, 1919. (Issued September 5, 1919). No. 374, Assistant in marketing dairy products. Grade 1, \$1,800 to \$2,400; No. 570, Inspector of dairy products, \$1,800 to \$2,400 a year; No. 596, assistant to transportation, Grade 1, \$1,800 to \$2,700 a year.

Membership in Canal Clubhouses Discontinued.

The Governor has authorized the discontinuance of memberships in the Panama Canal clubhouses, effective September 1, 1919. All members may have the balance due them on that date refunded, if the request is made to the local secretary in writing, and is accompanied by unexpired membership card. Request for refund should be made as soon as convenient.

Wind Storm at Gamboa.

The Chief Hydrographer has made the following report of a severe wind storm which visited the vicinity of Gamboa, near the north end of Gaillard Cut, on September 26. Salvaging operations on the gravel cranes were begun by the Dredging Division on September 29:

A wind storm of unusual severity occurred at Gamboa shortly after noon on September 26, 1919. The storm moved down the Chagres River arm of Gatun Lake from the northeast and was accompanied by heavy rainfall.

The high winds at Gamboa continued for only 21 minutes, from 12.29 p. m. to 12.50 p. m. During this time the wind shifted from northwest to north, northeast, east and southeast, but nearly all of the strongest winds blew from the northeast.

The maximum velocity recorded at the Gamboa station was 50 miles an hour from the northeast at 12.45 p. m. It is thought that the center of the storm passed over a depression in the ridge and across the Canal about midway between the Gamboa hydrographic station and the Gamboa signal station, and that there the wind velocities were considerably higher. A tree 15 to 18 inches in diameter of vigorous growth was broken off clean, indicating a maximum wind velocity of 70 or more miles per hour.

The path of destructive winds was relatively narrow, approximately $\frac{1}{4}$ mile in width, and it is thought that the storm soon spent itself as no damage was reported except in the vicinity of Gamboa.

The two unloading cranes at the Gamboa gravel plant were overturned and wrecked causing damage estimated at about \$20,000.

A silver quarters building at Gamboa was partly unroofed, the monitor on the Marine Division signal station was torn off, and three buildings were similarly damaged at the Gamboa stockade. Most of the buildings damaged were old French buildings in a state of partial decay. Except for the signal station no new buildings at Gamboa were materially damaged. Nearly all fruit trees were considerably damaged in the storm path.

Storms of this type have a gyratory or whirlwind motion and resemble in many respects the destructive tornadoes (miscalled cyclones) that visit mid-western, central, and eastern sections of the United States, but tornadoes in the States are of far greater violence than the most destructive storms that occur on the Isthmus. A storm of similar type occurred in the vicinity of Gamboa on May 14, 1912, during which the high winds did considerable damage at Matachin, and at Bas Obispo. No automatic record of the wind velocity was obtained, but from the damage done the maximum wind velocity was estimated at 60 miles an hour.

Official Circulars.**Appointment.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 26, 1919.
CIRCULAR No. 661-79:

Mr. Thomas L. Clear is hereby reinstated as Collector of The Panama Canal, effective September 20, 1919, *vice* Mr. Elwood P. Sine, resigned.
CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 8, 1919.
CIRCULAR No. 213:

Effective as of August 19, 1919, Mr. Stanley R. Ford, district quartermaster, is designated an accountable official, *vice* Mr. Charles P. Morgan, and as such will account for all nonexpendable property charged to the district quartermaster at Gatun, and for all storehouse stock under his charge.

H. A. A. SMITH,
Approved: Auditor, *The Panama Canal*.
CHESTER HARDING,
Governor.

Annual Reports.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 22, 1919.

To all concerned—In order to facilitate the preparation, handling and mailing of future annual reports of the Governor to the Secretary of War, it is directed that all duplicate, triplicate and quadruplicate copies of the annual reports of all heads of Departments and Divisions of The Panama Canal to the Governor shall be turned in to the Correspondence Bureau, the originals thereof being sent direct to the Governor, and that all details connected with the handling of this yearly report shall be centered in the Correspondence Bureau instead of the Bureau of Statistics, as heretofore.

The stenographer in the Correspondence Bureau selected by the Governor to prepare his report to the Secretary of War shall be charged with the responsibility of all details in connection with the handling of this yearly report, such as corrections to be made in departmental and divisional reports subsequent to their submission, the collection of all photographs, charts and diagrams to accompany the Governor's report, etc.

C. A. McILVAINE,
Approved: Executive Secretary.
CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 22, 1919.
CIRCULAR No. 214:

Effective September 12, 1919, Mr. John G. Fels is designated an accountable official of The Panama Canal, *vice* Capt. Frederick Kariger, and as such will account for all nonexpendable property in use by the Lighthouse Sub-Division.

H. A. A. SMITH,
Approved: Auditor, *The Panama Canal*.
CHESTER HARDING,
Governor.

Appointments.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 29, 1919.
To all concerned—Effective September 6, 1919, the following appointments are made:
Mr. Wilson H. Kromer, Chief Accountant,
Mr. Frank Bruk, Railroad Accountant,
Mr. Malcolm L. Duff, Assistant Railroad Accountant.
Those having business with these branches of the Accounting Department should be governed accordingly.

H. A. A. SMITH,
Auditor, *The Panama Canal*.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., September 29, 1919.
The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Requests may be made by telephone, calling No. 182, Balboa:

Alexander, Julian	Jensen, A. B.
Baker, Harry D.*	Lewis, Miss Manne
Beukena, Herman	Claudius
Bonum, H. B.	Miller, Eugene D.
Carey, Medos J., M. D.	Rowland, W.
Dreher, Miss Evlyn	Rumler, Jose D.
Earle, Lyon H.	Stamatagos, Geo.
Erton, Fred	Stevens, Mrs. Janet E. †
Guthridge, Morton N.	Towler, Mrs. H. H.
Jackson, Mrs. Harold	Tuthill, Mrs. Maude A.
Rufus	

*Special delivery. †Paper.

Sale of 2-Cylinder Buffalo Marine Gasoline Engine.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., October 6, 1919, and then opened for the purchase of the above described engine. Engine is located at Cristobal store and will be shown to prospective purchasers by the storekeeper at that place any week day between the hours of 7 a. m. and 11 a. m., and 12 (noon) and 4 p. m. Bids must be accompanied by postal money order or certified check in an amount not less than 10 per cent of the bid. Bidders should make inspection of engine and satisfy themselves as to condition.

COMMISSARY NOTES.**Oysters.**

The first shipment of oysters of the season, 30 barrels, was received ex the steamship *Allianca*, September 25, and distributed to the line stores.

Books.**Books received:**

"The Magnificent Ambersons," by Booth Tarkington; "Far Away and Long Ago," by W. H. Hudson; "Modern Japan," by Amos and Susanne Hershey; "Women in American History," by Grace Humphrey; "The Yellow Lord," by Will Levington Comfort; "Labrador Days," by Wilfred Thomason Grenfell; "Abraham Lincoln," by Rose Strunsky; "Irish Fairy and Folk Tales," by W. H. Yeats; "The Four Horsemen of the Apocalypse," by Blasco Ibañez; "The Re-Creation of Brian Kent," by Harold Bell Wright.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1 00 per year; foreign, \$1.50 address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Volume XIII.

Balboa Heights, C. Z., October 8, 1919.

No. 8.

Distances of Various Ports from the Canal.

The Panama Canal has issued, and distributed among steamship lines and allied interests, a small single-sheet folder of distances by way of the Canal and representative reductions effected by its use. Additional copies may be had free on request to The Panama Canal, Balboa Heights, Canal Zone, or Washington, D. C.

One item in the folder is the following tabulation of distances to the nearest Canal terminal by usual routes from the representative ports named; figures are nautical miles, and the length of the Canal is 43 nautical miles:

Montreal, Can.....	3,160	Ascension Island.....	4,212	Magdalena Bay, Mexico..	2,265
Halifax, N. S.....	2,317	St. Helena Island.....	4,878	Mazatlan, Mexico.....	2,006
Portland, Me.....	2,198	Cape Town, Africa.....	6,574	Acapulco, Mexico.....	1,426
Boston, Masa.....	2,157	Montrovia, Liberia.....	4,148	Salina Cruz, Mexico.....	1,170
New York, N. Y.....	1,974	Freetown, Sierra Leone..	3,983	San Jose, Guatemala.....	886
Philadelphia, Pa.....	1,946	St. Vincent, C. V. I.....	3,263	La Union, Salvador.....	748
Baltimore, Md.....	1,901	Funchal, Madeira.....	3,859	Amapala, Honduras.....	745
Norfolk, Va.....	1,779	Fayal, Azores.....	3,288	Corinto, Nicaragua.....	683
Wilmington, N. C.....	1,730	Gibraltar (Strait).....	4,343	Puntarenas, Costa Rica...	471
Charleston, S. C.....	1,564	Marseilles, France.....	5,026	Pedregal, Panama.....	243
Savannah, Ga.....	1,607	Genoa, Italy.....	5,203	Buenaventura, Colombia..	356
Jacksonville, Fla.....	1,535	Naples, Italy.....	5,325	Guayaquil, Ecuador.....	793
Key West, Fla.....	1,065	Constantinople, Turkey..	6,166	Callao, Peru.....	1,346
Mobile, Ala.....	1,393	Odessa, Russia.....	6,509	Iquique, Chile.....	1,778
New Orleans, La.....	1,403	Port Said, Egypt.....	6,268	Antofagasta, Chile.....	2,140
Galveston, Tex.....	1,493	Lisbon, Portugal.....	4,205	Valparaiso, Chile.....	2,615
Tampico, Mexico.....	1,485	Bordeaux, France.....	4,598	Coronel, Chile.....	2,822
Tuxpan, Mexico.....	1,455	Havre, France.....	4,610	Punta Arenas, Chile.....	3,943
Vera Cruz, Mexico.....	1,420	Bishop Rock, Scilly Is...	4,356	Cape Horn, Chile.....	4,260
Belize, Brit. Honduras..	816	Liverpool, England.....	4,548		
Puerto Barrios, Guatemala	780	Glasgow, Scotland.....	4,492	Galapagos Islands.....	864
Truxillo, Honduras.....	622	Plymouth, England.....	4,455	Marquesas Islands.....	3,826
Bluefields, Nicaragua...	276	London, England.....	4,763	Christmas Island.....	4,752
Port Limon, Costa Rica..	192	Antwerp, Belgium.....	4,808	Honolulu, Hawaii.....	4,655
Bocas del Toro, Panama..	144	Amsterdam, Holland.....	4,832	Midway Islands.....	5,707
Habana, Cuba.....	1,003	Hamburg, Germany.....	5,070	Yokohama, Japan.....	7,682
Bermuda Islands.....	1,643	Copenhagen, Denmark...	5,350	Vladivostok, Siberia.....	7,833
Kingston, Jamaica.....	551	Christiania, Norway.....	5,237	Shanghai, China.....	8,556
Port au Prince, Haiti....	774	Stockholm, Sweden.....	5,897	Hongkong, China.....	9,195
San Juan, Porto Rico.....	993	Petrograd, Russia.....	6,282	Mandla, P. I.....	9,347
St. Thomas, Virgin Id...	1,029	Bergen, Norway.....	5,295	Singapore, S. S.....	10,505
Barbados, West Indies...	1,237	Archangel, Russia.....	6,900	Batavia, Java.....	10,610
Port of Spain, Trinidad..	1,159			Port Apra, Guam.....	7,988
Caracao.....	699	Sitka, Alaska.....	4,547	Caroline Islands (Ponape)	7,321
Catagena, Colombia.....	281	Vancouver, B. C.....	4,032	Marshall Islands.....	7,041
La Guaira, Venezuela.....	841	Seattle, Wash.....	4,021	Fiji Islands (Levuka)....	6,288
Georgetown, Br. Guiana..	1,535	Fort Townsend, Wash...	3,9 5	Samoa (Apia).....	5,710
Paramaribo, Ditch Guiana	1,648	Astoria, Oreg.....	3,775	Tahiti, Societv Islands...	4,486
Para, Brazil.....	2,374	Portland, Oreg.....	3,869	Sdney, Australia.....	7,674
Pernambuco, Brazil.....	3,458	San Francisco, Cal.....	3,245	Melbourne, Australia...	8,255
Rio de Janeiro, Brazil...	4,349	Los Angeles, Cal.....	2,913	Wellington, New Zealand.	6,505
Buenos Aires, Argentina..	5,450	San Diego, Cal.....	2,843		

Prices of Representative Items in Cold Storage Plant.

In connection with the description of the cold storage plant and abattoir published in this issue, steamship masters and operators will be interested in the following representative prices, in effect at present but subject to change:

Beef hinds, from Colombian cattle, per pound, \$0.18 $\frac{3}{4}$; beef fores, per pound, \$0.13 $\frac{3}{4}$; beef ribs, entire set, per pound, \$0.20; short loins, \$0.25; potatoes, per pound, \$0.05.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, October 4, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Santa Tecla.....	27	10.00	28	6.05	28	13.05	28	13.50	American	United States Shipping Board	300.0	40.0	21.4	New Orleans	Guayaquil	General	1,500	2,835	1,795
Newport.....	27	17.45	28	10.06	28	16.08	28	18.25	American	Pacific Mail Steamship Company	326.0	38.0	16.8	Cristobal	San Francisco	General	1,926	3,173	2,163
Minnequa.....	25	9.25	28	13.16	28	9.40	28	11.25	American	United States Shipping Board	330.0	54.0	27.0	New York	Valparaiso	General	5,456	9,100	4,353
Los Angeles.....	29	12.49	29	6.35	29	14.45	29	15.50	American	United Oil Company	435.0	56.0	30.0	Puerto Lobos	San Francisco	Crude oil	9,500	7,190	5,502
Wyltheville.....	23	9.15	29	9.43	29	16.47	29	22.32	American	United States Shipping Board	335.5	55.0	27.0	New York	Yokohama	General	9,700	6,841	4,686
Palema.....	23	11.47	29	10.07	29	17.23	29	18.03	Chilean	South American Steamship Line	359.0	42.0	23.3	Cristobal	Valparaiso	General	627	3,039	2,537
San Jose.....	20	19.50	30	6.00	30	13.11	30	16.22	American	Pacific Mail Steamship Co.	185.0	37.0	17.0	Cristobal	San Francisco	General	1,918	2,432	1,642
Fairhaven.....	21	12.30	30	13.49	30	14.17	30	17.16	American	Empire Mail Steamship Co.	285.0	38.0	18.0	Cristobal	San Francisco	Scrap iron	935	1,164	742
Ternier.....	28	2.26	30	18.03	1	9.38	1	22.05	Norwegian	W. Wilhelmsen	400.0	52.0	24.0	Baltimore	Mejillones	General	55.31	55.31	3,979
Dakota.....	28	19.03	1	6.57	1	14.45	1	15.48	American	American-Hawaiian Line	407.7	53.7	28.9	New York	Sandwich Is.	General	7,000	12,852	5,116
Ugac.....	30	19.03	1	12.50	1	19.42	2	7.35	British	White Star Line	509.3	63.3	29.9	London	Wellington	General	6,645	5,197	3,649
City of Madras.....	12	28	1	12.50	1	16.45	2	12.55	British	Ellerman Hall Line	395.4	49.6	23.0	New York	Sydney	General	905	1,514	2,244
Ucayali.....	23	17.45	2	10.19	2	16.35	3	14.43	Peruvian	Peruvian Steamship Line	374.0	46.0	18.6	Cristobal	Callao	General	7,429	6,879	4,562
Santa Barbara.....	1	17.27	2	6.50	2	13.50	2	14.43	American	W. R. Grace and Company	406.8	54.0	27.0	New York	Valparaiso	General	9,000	7,235	5,769
La Habra.....	2	15.06	3	6.25	3	13.57	3	15.03	Norwegian	W. Wilhelmsen	439.0	57.0	27.0	Puerto Lobos	Tooyupia	Crude oil	3,923	11,664	8,776
Remucra.....	2	23.58	3	6.56	3	14.47	3	15.35	British	S. M. Kuhale & Son	410.0	54.0	25.2	London	Shanghai	General	8,000	6,253	4,747
Arna.....	3	12.51	3	12.23	3	20.42	3	21.33	Norwegian	United States Army	508.0	55.0	27.0	New York	San Francisco	Steel, general	.....	.....	.....
Madavaska (a).....	27	14.36	4	6.07	4	13.32	4	14.12	American	United States Army	152.0	26.0	13.6	New York	Mare Island	General	.....	.....	.....
Iroquois (b).....	3	5.10	4	7.07	4	16.44	4	16.44	American	United States Army	152.0	26.0	13.6	New York	Mare Island	General	.....	.....	.....

(a) Transport. (b) Tug, towing target No. 50.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Adela (c).....	1	17.10	28	6.50	28	16.07	30	8.55	Peruvian	Via de Rosas	233.3	44.5	17.6	Supé	Bristol	Cotton seed	(b)	1,595	1,199
Medford.....	25	11.40	28	9.04	28	18.17	29	5.50	American	United States Shipping Board	267.5	46.4	23.6	Portland	West Hart pool	Fir lumber	(h)	1,530	1,722
Balboa.....	28	3.30	28	12.46	28	19.35	29	19.35	American	Colombian Maritime Co.	190.0	29.1	15.0	Buenaventura	Cristobal	Timber	(i)	704	350
Guan (c).....	28	17.00	29	6.56	29	15.05	1	6.35	Norwegian	Hansen Hermandsen	197.6	40.0	21.0	Vancouver	Greenock	Meat, general	(f)	1,004	855
Port Chalmers.....	20	11.45	29	12.47	29	20.30	30	12.43	British	Commonwealth & Dominion Line	450.3	55.3	27.0	Newcastle	London	Timber, Oregon	(g)	8,000	8,313
Canca.....	30	16.09	30	7.29	30	14.28	30	14.43	British	Pacific Steam Navigation Co.	246.0	35.2	17.8	Guayaquil	Cristobal	General	(j)	1,190	1,582
Grasho Prince.....	30	17.00	1	6.32	1	14.18	1	14.18	British	Prince Line Ltd	449.5	57.3	25.0	Manila	New York	General	(k)	9,906	9,157
Braher.....	27	5.50	1	7.49	1	16.80	2	5.55	American	United States Shipping Board	324.0	46.2	23.0	Talalt	Ghent, Belg.	Nitrates	(l)	4,470	3,959
Kenosha.....	30	18.20	1	8.12	1	17.30	5	6.45	American	United States Shipping Board	265.3	46.2	23.0	Aberdeen	Liverpool	Lumber, ties	(m)	2,600	2,970
Bushrod (e).....	8-23	17.22	1	8.22	1	13.13	1	13.13	American	United States Shipping Board	204.0	45.6	22.4	Balboa	London	General	(n)	1,470	1,856
Chile.....	30	21.00	1	6.33	1	17.40	2	17.40	British	Pacific Steam Navigation Co.	350.3	43.1	19.0	Valparaiso	Cristobal	Hides, sugar	(o)	1,553	4,040
Kirin Maru.....	1	17.30	2	6.29	2	14.19	2	17.32	Japanese	Nippon Yusen Kaisha	360.7	41.5	19.7	Kobe	New York	General	(p)	3,892	4,028

(c) Motor ship. (d) Sailing. (e) This vessel went northbound through the Canal on August 17 and on account of extensive repairs, returned southbound from Cristobal to Balboa for dry-docking.
(f) Coffee, hides, rubber, etc. (g) Cocoa, ivory nuts, rubber, hats. (h) 1,601,900 kilos. (i) 930,124 feet.

Origin	Vessels	Date	Line	From	Date	Vessels	Line	For	
Orari	1	17 30	2	15 38	2	18 42	British	New Zealand Steamship Co.	
Bogota	2	6 15	2	16 53	2	19 35	British	Pacific Steam Navigation Co.	
Capines	1	20 08	2	15 05	3	16 40	American	United States Shipping Board	
Acajutha	2	7 10	2	18 47	3	2 10	American	Pacific Steam Navigation Co.	
Dellina	9-30	6 28	2	18 47	3	2 10	American	United States Shipping Board	
Glymont	2	9 20	2	11 49	2	19 55	3	4 25	American
Jamaica	2	11 15	2	12 45	2	20 56	2	20 56	British
Hatichu	2	7 20	3	6 49	3	14 54	3	18 21	American
Botimenu	2	16 00	3	7 43	3	16 37	3	19 50	American
Blue Eagle	3	8 45	3	11 30	5	14 11	American	United States Shipping Board	
Bosworth	3	18 30	4	7 50	4	15 16	American	United States Shipping Board	
Assini	9-22	17 15	4	11 23	4	18 45	5	5 07	American

(G) 1,202,000 feet, board measure.

PORT OF CRISTOBAL.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	For
Sept. 28	Middlebury	Panama Railroad Commissary	Cartagena.	Sept. 29	Lake Wilson	United States Shipping Board	New York.
Sept. 29	Cartago	United Fruit Company	New Orleans.	Sept. 30	Kilpatrick	United States Army	New Orleans and San Juan.
Sept. 30	Ulysses	Panama Railroad Steamship Line.	Norfolk.	Sept. 30	Cartago	United Fruit Company	New Orleans and wayports.
Sept. 30	Gen. W. C. Gorgas.	Panama Railroad Steamship Line.	New York and Haiti.	Oct. 1	Allianna	Panama Railroad Steamship Line.	New York.
Sept. 30	Stocum (k)	United States Army	San Nazaire.	Oct. 1	Colon	Panama Railroad Steamship Line.	New York and Haiti.
Sept. 30	Santa Leonora	United States Army	New York.	Oct. 2	Coppename	United Fruit Company	Boston and Port Limon.
Oct. 1	Santa Malta	United States Army	New Orleans.	Oct. 2	Santa Marta	United Fruit Company	Colombian ports.
Oct. 1	Zacapa	United Fruit Company	New York via Kingston.	Oct. 2	Zacapa (k)	United Fruit Company	Cartagena.
Oct. 2	Alexandrian	Leyland Line	New York via Port Limon.	Oct. 3	Ulysses	United Fruit Company	New York.
Oct. 2	Advance	Panama Railroad Steamship Line.	Liverpool via wayports.	Oct. 3	Ulysses	Panama Railroad Steamship Line.	Norfolk.
Oct. 3	S. M. Spaulding	Pan-American Pet. & Trans. Co.	Tampico.				

(k) Tug.

PORT OF BALBOA.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	For
Oct. 1	Lima (crusier)	Peruvian Government	Callao.	Sept. 28	Annette Rolph	Rolph Navigation & Coal Co.	San Francisco.
Oct. 3	Butte	United States Shipping Board	Portland.				

*Other than ships passing through the Canal.

Nitrate Traffic through the Canal.

Press reports state that the sale of 500,000 tons of nitrate from Chilean fields for delivery in Great Britain was made in England in the early part of September, and that vessels will be sent from England to receive the shipments between October of this year and March of 1920. This traffic will normally pass through the Canal, which effects a saving of about 3,000 miles in the voyage from ports of Great Britain to Iquique or Arica, or about 10 days for a 12-knot ship, with the advantage of cheaper coal by the Canal route.

During the current year the nitrate traffic through the Canal has declined very noticeably, which is ascribed to lack of transportation, the cessation of the war, development of the extraction of nitrogen from the air, and conditions of the market. During the time that the United States was in the war the shipments of nitrate through the Canal (from April 1, 1917 to November 1, 1918) aggregated 3,644,443 tons, an average of 191,813 tons per month for the 19 months. In November, 1918, they amounted to 242,623 tons; in December they dropped to 176,288 tons, and the total shipments from January 1 to September 1, 1919, have been 192,799 tons, an average of 24,100 tons a month, slightly over an eighth of the war period average. The following table shows the shipments through the Canal from July 1, 1918, to September 1, 1919, allowing as an average that in the instances where nitrate was carried in mixed cargoes and not definitely stated, half the cargo may be considered as nitrate:

Month and Year.	Bulk.		Mixed.		Total—Bulk and $\frac{1}{2}$ mixed.		
	U. S.	Europe.	U. S.	Europe.	U. S.	Europe.	Total.
1918.							
July.....	192,804	41,427	20,860	.....	203,234	41,427	244,661
August.....	208,514	9,630	22,574	8,913	219,801	14,286	234,087
September.....	195,317	.....	16,086	7,060	203,360	3,550	206,980
October.....	285,328	20,050	8,303	12,497	290,479	26,298	316,777
November.....	210,055	17,172	21,383	9,460	220,721	21,902	242,623
December.....	168,315	6,370	3,206	.....	169,918	6,370	176,288
1919.							
January.....	45,484	5,731	2,242	.....	46,605	5,731	52,336
February.....	11,234	.....	4,775	10,867	13,621	5,433	19,064
March.....	19,063	800	10,097	.....	24,111	800	24,911
April.....	13,880	27,050	.....	5,800	13,880	5,650	19,530
May.....	1,504	11,947	.....	5,511	1,504	14,702	16,206
June.....	13,341	.....	.....	.....	13,341	.....	13,341
July.....	13,636	4,901	.....	3,592	13,636	6,697	20,333
August.....	27,088	.....	.....	.....	27,088	.....	27,088
Total.....	1,406,563	120,778	109,476	63,700	1,461,299	152,826	1,614,125

From the opening of the Canal to April 1, 1917, the nitrate shipments aggregated 3,208,700 tons, and from April 1, 1917, to September 1, 1919, they amounted to 4,256,163 tons, making the aggregate to the latter date, 7,464,863 tons, slightly over one-fourth of all the cargo which had passed through the Canal.

Notice to Mariners.—Light Extinguished, Serrana Bank, Caribbean Sea.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., October 4, 1919.

CIRCULAR NO. 643-66:

Serrana Bank Light is reported out at present for some unknown reason.

It will be investigated and relighted as soon as practicable.

Light—white, flashing, 0.5 second light, 4.5 seconds dark.

Latitude 14° 16' 40" north.

Longitude 80° 23' 50" west.

CHESTER HARDING,
Governor.

New Cold Storage Plant and Abattoir.

The cold storage plant and abattoir unit at Mount Hope, adjoining Cristobal, at the Atlantic entrance to the Canal, has been placed in practically complete operation. The services which the new plant has rendered in the past few months have demonstrated its fitness and have served to suggest at the same time a few minor changes of internal arrangement which will increase its efficiency. It has shown itself to be a valuable adjunct in the service of supplying foodstuffs to the steamships at the Canal, as well as to the Government forces stationed here.

In the handling of cattle, the force at the abattoir has been able to kill and dress 200 beeves, preparatory to chilling, in a working day of eight hours. This is at the rate of 25 an hour, or one every 2 minutes and 40 seconds. At an average of 500 pounds per dressed carcass, the daily output of beef products would be 100,000 pounds, or 50 tons. In addition, 200 hogs and 600 chickens may be killed in a day. The storage rooms in the adjoining building will ordinarily hold 4,815 beef carcasses hanging in halves, or 2,957 head if hung in quarters, and these capacities can be increased if necessary by stacking the beef instead of hanging it.

The unit contains three main buildings, each three stories in height, the cold storage building, abattoir, and a meat cannery, now used as a storage for canned goods. The refrigerating and ice plant is housed in a separate building adjoining the cold storage building, and across a concrete road from this and the main buildings is a garage, which serves also as a charging station for the electric trucks used about the plant, and a building which houses the steam plant, with a machine and tin shop at one end and a carpenter shop at the other. Cattle pens adjoin the abattoir.

The plant covers slightly over four acres, and its cost to September 1, 1919, was approximately \$1,491,500.

The construction is of reinforced concrete columns, beams, and floor slabs, with filled-in block walls. The roofs are of flat slabs, made waterproof by eliminating temperature cracks with $\frac{1}{2}$ per cent of reinforcing steel. Floors, walls, and ceiling are lined with 4-inch, 6-inch, or 9-inch thickness of cork where low temperatures are required. The ice cream rooms and those devoted to storage and handling of dairy products are floored with red ceramic tile.

ABATTOIR.

The abattoir is 95 by 134 feet in plan, and three stories in height.

The live stock is driven up from the stockyards over a 6-foot wide exterior concrete runway to the third floor, where all killing is done. Provision has been made for slaughtering as high as 300 cattle per day on six killing beds, with allowance for installation of a seventh bed, and 600 hogs per day, with capacity for further expansion. A dehairing machine with a capacity of 200 per hour has been installed. The dressed beef and hogs are run upon overhead rails across a bridge and directly into the chill rooms of the cold storage plant.

All offal and by-products from the killing floor are dropped through chutes and delivered by gravity to the floor below, where they are cleaned and sent to the proper department. On this floor are also located the bone room, the upper part of the tank house, and the upper part of the lard and oleo oil department.

The tank house, which extends to the basement, is equipped with six rendering tanks, two blood cookers, an evaporator, and a press from which the tannage is conveyed by trucks to the fertilizer plant and the grease in barrels for transportation to the United States.

The lard and oleo department, extending through the first and second floor, is provided with machinery required for the manufacture of steam lard, open-kettle lard, oleo oil and stearine, together with the cold room for storage of the finished products.

A small poultry-killing space has been provided on the first floor where 600 chickens, ducks, etc., may be killed daily.

The remainder of the first floor is occupied by the hide department. The hides are dropped direct from the killing floor, after which they are salted and stored in salt vats, which have a storage capacity of 6,000 hides.

The building occupies a convenient location with respect to the cold storage building, boiler house, and repair shops, and is reached by a road on the east side and by railroad tracks on the west.

COLD STORAGE BUILDING.

The visitor to the cold storage plant is struck by the novelty of zero temperature in the tropics, and snow at an elevation of 10 feet above sea level at a latitude of nine degrees from the equator. The refrigerating pipes become in time so encrusted with snow that it is necessary to remove it. The pipes are flushed with a hot gas and the melting snow drops to the floor, from which it is picked up in scoops and carted away. It is one of the few waste products of the plant.

Nearly half of the storage space is devoted to beef, which is killed in the adjacent abattoir and transferred to the chill and storage rooms on overhead tracks. Space is provided for refrigeration of over 5,000 carcasses of beef, consisting of:

Two chill rooms with a capacity of 200 carcasses each; four coolers with a hanging capacity of 4,815 carcasses (9,630 sides); three freezers in which quarters of beef are stacked, having a capacity of 8,064 quarters, or 2,016 carcasses.

Over 50,000 square feet of floor space, or 688,780 cubic feet, are devoted to storage of various classes, as follows:

Storage.	Square feet.	Cubic feet.
Beef.....	20,710	333,100
Boxed goods.....	4,705	53,400
Butter.....	1,110	12,130
Chilled rooms.....	4,440	72,500
Egg.....	2,254	24,650
Vegetable.....	17,670	193,000
Total.....	50,889	688,780

The cold storage building has three floors. The first story is 341 feet 3 inches in length, overall, by 115 feet 8 inches in width, and the two stories above, having the same length, are 105 feet 8 inches wide.

On the third floor of the building are rooms, with necessary equipment, for corning beef, for making sausage and hamburger, and for pickling meat. On the first floor are an ice cream manufacturing plant, with rooms for freezing, hardening, brick cutting, storage, etc., and the milk bottling plant, where milk is pasteurized and bottled. The remainder of the third and first floors and all of the second floor are devoted to storage rooms, with necessary small allowances of space for the three electric elevators, each 6 by 10 feet, and for office room. The

beef storage is mostly on the third floor and shipping rooms are on the first floor; the distribution of spaces throughout the building is shown in this tabulation:

FIRST FLOOR.

No.	Name of Room.	Length.	Width.	Height.	Cubic feet.	Temperature, degrees F.	Kind of refrigeration.	
100	Corridors.....	330'	25'	11' 4"	178,000	45°	Brine spray	
		330'	14' 8"					
		74'	15' 6"					
		74'	15' 3"					
101	Box goods freezer.....	34'	10'	11' 4"	14,800	10°	Direct expansion	
		41'	34' 6"					
102	Box goods freezer.....	11'	10'	11' 4"	9,780	10°	Direct expansion	
103	Box goods freezer.....	34' 6"	25'	11' 4"	6,450	20°	Direct expansion	
104	Box goods freezer.....	66' 10"	8' 6"	11' 4"	12,150	5°	Direct expansion	
105	Box goods freezer.....	39'	27' 6"	11' 4"	8,270	0°	Direct expansion	
106	Packing room.....	27' 6"	26' 7"	11' 4"	26,180	45°	Fan system	
		73'	33'					
107	Livers, tongues, and hearts.....	11'	9'	11' 4"	5,690	26°-30°	Direct expansion	
108	Saw room.....	27' 6"	18' 3"	11' 4"	5,150	45°	Brine	
109	Scrap room.....	27' 6"	16' 6"	11' 4"	3,960	20°	Direct expansion	
110	Butcher.....	24' 6"	14' 3"	11' 4"	1,695	32°	Direct expansion	
111	Cutting.....	14' 3"	10' 6"	11' 4"	16,300	40°	Fan system	
112	Meat cooler.....	36' 3"	29' 8"	11' 4"	13,550	18°	Direct expansion	
113	Meat cooler.....	72' 6"	16' 6"	11' 4"	29,600	18°	Direct expansion	
114	Meat cooler.....	72' 6"	36'	11' 4"	27,800	18°	Direct expansion	
115	Packing.....	72' 6"	35'	11' 4"	45°	Brine	Direct expansion	
116	Hardening room.....	40' 6"	39'	11' 4"	0°	Direct expansion	Direct expansion	
117	Ante room.....	21'	8'	11' 4"	20°	Direct expansion	Direct expansion	
118	Brick cutting.....	17' 1"	7'	11' 4"	40°	Direct expansion	Direct expansion	
125	Hardening room.....	18' 4"	14' 10"	11' 4"	9,090	0°	Direct expansion	Direct expansion
126	Finished product.....	21'	8'	11' 4"	1,650	0°	Direct expansion	Direct expansion
	Ice storage.....	12'	12' 6"	11' 4"	27,000	28°	Direct expansion	Direct expansion
		83'	34' 6"	9' 6"				

SECOND FLOOR.

200	Corridor.....	297' 6"	14' 6"	10' 10 1/2"	46,800	45°	Brine spray
205	Onions.....	48' 1"	14' 4"	10' 10 1/2"	7,480	36°-38°	Direct expansion air
206	Vegetable storage.....	87' 2"	85' 2"	10' 10 1/2"	82,750	36°-38°	Fan system
		30' 7"	15'				
207	Vegetable storage.....	11'	10'	10' 10 1/2"	95,500	36°-38°	Fan system
		87' 6"	85' 2"				
208	Cheese.....	21' 6"	54'	10' 10 1/2"	3,465	32°	Direct expansion
209	Egg packing.....	19'	9'	10' 10 1/2"	6,300	45°	Brine
210	Ventilating system.....	18' 8"	17' 1"	10' 10 1/2"	8,100		
211	Egg storage.....	34'	17' 1"	10' 10 1/2"	17,900	32°-38°	Direct expansion
212	Salt cured meat.....	39' 8"	18' 8"	10' 10 1/2"	4,700	38°-40°	Brine
		48' 2"	34' 4"				
214	Butter cutting.....	24' 7"	15'	10' 10 1/2"	4,020	58°	Brine
215	Oleomargarine and butter.....	11'	6'	10' 10 1/2"	7,820	10°	Direct expansion
216	Milk storage.....	24' 3"	15' 3"	10' 10 1/2"	8,800	32°	Direct expansion
217	Tempering room.....	30'	24' 1"	10' 10 1/2"	4,070	40°	Direct expansion
219	Bunker room.....	29' 2"	28' 2"	10' 10 1/2"	(a)	(a)	(a)
220	Extract.....	28' 2"	13' 4"	10' 10 1/2"			
223	Bunker.....	21'	8'	10' 10 1/2"			

(a) Included in ice cream.

THIRD FLOOR.

300	Corridor.....	227' 6"	14' 6"	14' 6"	53,630	45°	Brine spray
	Sausage cutting.....	52' 6"	6'	18' 6"	9,125	35°	Brine spray
		37'	17'	14' 6"	5,840	32°	Direct expansion
303	Sausage cooker.....	25' 10"	15' 7"	14' 6"	24,500	38°	Brine spray
304	Pickling room.....	50' 10 1/2"	33' 3"	14' 6"	24,200	18°	Direct expansion
305	Meat cooler.....	88' 5"	18' 1"	14' 6"	43,300	18°	Direct expansion
		10'	7'				
306	Meat cooler.....	11'	10'	14' 6"	66,500	18°	Direct expansion
307	Meat cooler.....	88' 5"	34' 4"	14' 6"	66,500	18°	Direct expansion
308	Meat cooler.....	88' 5"	51' 10"	14' 6"	65,000	18°	Direct expansion
309	Meat cooler.....	88' 5"	51' 10"	14' 6"	21,160	36°-48°	Brine spray
		11'	11'				
310	Chill room.....	45' 4"	25' 3"	18' 6"	21,160	30°-36°	
311	Chill room.....	45' 4"	25' 3"	18' 6"	22,000	36°-48°	
312	Chill room.....	45' 4"	26' 3"	18' 6"	22,000	30°-36°	

Ice manufacturing plant—This structure adjoins the cold storage building and is connected with it by a 30-foot platform. Three

50-ton freezing tanks with necessary agitators, air blowers, filters, tipping tables, precoolers, and dipping tanks are located in the tank room.

Raw water ice is manufactured in 300-pound cakes, and three overhead cranes, one for each tank, are provided for handling the ice. The plant is now supplying the north end of the Canal Zone. The ice plant at Balboa supplies the south end.

Engine room—The engine room equipment consists of three 200-ton high speed York single-action vertical condensed ammonia compressors, directly connected to 400-horsepower motors. One pump-out machine is provided. Four vertical centrifugal pumps of 1,000 gallons-per-minute capacity are located in a sump under the engine room, directly connected to vertical motors located on the main floor of the engine room. Salt water is furnished to this sump from the East Diversion by gravity through a 24-inch concrete pipe, 3,900 feet long, and is pumped to double tube condensers on the roof of the freezing room. Fresh water is furnished from Brazos Brook Reservoir.

A 20-ton overhead electric crane is provided, covering the entire area of the engine room.

The main electrical switchboard, transformers, and distribution system are located along one side of this room.

An idea of the producing work of the plant may be gained from the following comparative statement of output of the several plants during the five fiscal years, 1915 to 1919. In the last column is shown the average daily production for each of the 304 working days of the fiscal year 1919. These figures do not show the ultimate capacity of the new plant, and it was not until toward the end of the fiscal year 1919, (June 30), that it was in use:

(For statement referred to, see page 97.)

The new cold storage plant was used for the first time on February 25, 1919, when 300 sides of beef were put into the chill rooms. Two rendering tanks, each with a daily capacity of 9,000 pounds of offal, were placed in operation on February 26. The first hides were put down three days later and by the middle of March practically all the beef storage was in use. With the transfer of the butter, cheese, egg, and vegetable sections on May 18, the new cold storage plant proper was in complete operation.

At the end of June, 1919, the plant was full almost to capacity, there being 3,611 carcasses hanging, 8,159 quarters wrapped ready for export, and 2,009 quarters unwrapped. This was due to the fact that the kill had been for some time maintained at the rate of 200 cattle daily and shipments on a contract with the Depot Quartermaster, United States Army, New York, were suspended on very short notice. As soon as this advice was received from the Army, the kill was reduced to approximately 100 cattle daily.

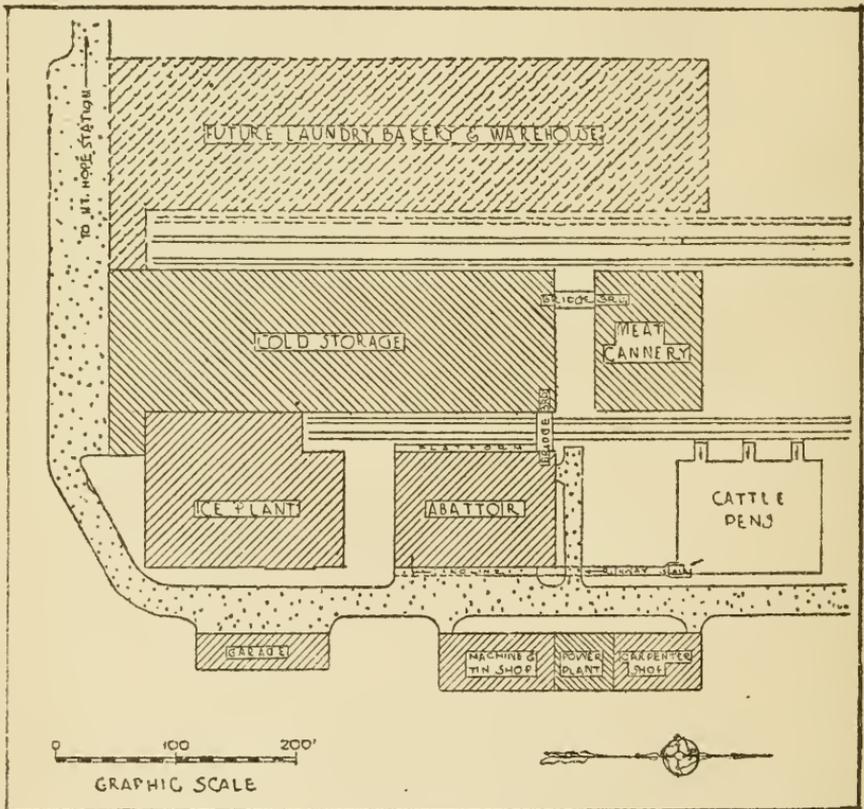
The facilities at the new abattoir are a great improvement over those at the old slaughterhouse, where the employees worked in such congested quarters that, when the kill reached 200 cattle per day, it was necessary to work two shifts. Located immediately contiguous to the cold storage, it is much more convenient for all concerned and time and labor are saved. After slaughtering, the halved carcasses are transferred by conveyor track to the chill room, thus obviating the

necessity of the car formerly used for conveying from the old abattoir to cold storage.

The plant was designed by Canal engineers, in cooperation with officials of the Commissary Division, and is a development to meet local conditions, using at the same time the equipment and lay-out of modern plants in the United States.

The meat-canning factory, a three-story building 103 feet 4 inches long by 87 feet 8 inches in width, has been completed as far as building operations are concerned, but the canning machinery has not been installed. The building is now used as a storage for canned goods.

The accompanying plan shows the layout of the completed buildings and also the site adjoining on which it is proposed to erect a large building of the same general type of construction, to serve as a laundry, warehouse, and bakery.



LAYOUT OF COLD STORAGE, ICE PLANT, AND ABATTOIR OPERATED BY THE PANAMA CANAL AT ATLANTIC TERMINUS.

Tolls in September.

Tolls paid by commercial ships passing through the Canal in September aggregated \$588,993.99, of which \$264,114.90 was paid by vessels from Atlantic to Pacific and \$324,879.09 by those going from Pacific to Atlantic; the number of the former was 73 and of the latter, 101. (The average per ship was \$3,385.02.) The total tolls were \$20,452.97 less than in August.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 4, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Newport.....	Pacific Mail Steamship Line.....		September 28		1,971
Middlebury.....	Panama Railroad Commissary.....	September 28		500	
Balboa.....	Terminal Shipping Agency.....	September 28		704	
Palena.....	United Fruit Company.....		September 29		626
Lake Wilson.....	Panama Railroad Steamship Line.....		September 29		2,295
Cartago.....	United Fruit Company.....	September 29		727	424
Kilpatrick.....	United States Government.....		September 30		33
Fairhaven.....	Anglo-American S. S. Agency.....		September 30		935
San Jose.....	Pacific Mail Steamship Line.....		September 30		1,822
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....	September 30		1,250	
Ulysses.....	Panama Railroad Steamship Line.....	September 30	October 3	12,192	
Cauca.....	Pacific Steam Navigation Co.....	September 30		1,190	
Santa Leonora.....	United States Government.....	September 30		460	
Allianca.....	Panama Railroad Steamship Line.....		October 1		1,769
Santa Malta.....	United States Government.....	October 1		1,665	
Chile.....	Pacific Steam Navigation Co.....	October 1		1,553	
Santa Marta.....	United Fruit Company.....	October 1	October 2	928	50
Ucayali.....	Peruvian Steamship Company.....		October 2		773½
Coppename.....	United Fruit Company.....		October 2		113
Colen.....	Panama Railroad Steamship Line.....		October 2		3,479
Acajutla.....	Pacific Steam Navigation Co.....	October 2		806	
Jamaica.....	Pacific Steam Navigation Co.....	October 2		352	
Zacapa.....	United Fruit Company.....	October 2	October 3	68	
Alexandrian.....	Leyland Line.....	October 2		653	
Advance.....	Panama Railroad Steamship Line.....	October 3		1,916	
S. M. Spalding.....	Anglo-American S. S. Agency.....	October 3		10,000	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 4, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Newport.....	Pacific Mail Steamship Co.....	September 28	September 28	90	47
Balboa.....	Colombia Maritime Co.....	September 28	September 28	50	
San Jose.....	Pacific Mail Steamship Co.....	September 30	September 30		1
Cauca.....	Pacific Steam Navigation Co.....	September 30	September 30	4	
Chile.....	Pacific Steam Navigation Co.....	October 1	October 1	22	
Hatchie.....	United States Shipping Board.....	October 2	October 2	805	
Acajutla.....	Pacific Steam Navigation Co.....	October 2	October 2	1	
Jamaica.....	Pacific Steam Navigation Co.....	October 2	October 3	7	
Butte.....	United States Shipping Board.....	October 3		1,679	

Manifests of Cargo.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., September 29, 1919.

CIRCULAR NO. 679-9:

1. Circular No. 695-5, of December 13, 1918, requiring each vessel transiting the Canal to furnish to the boarding officer a full manifest of the cargo on such vessel, and each vessel entering a Canal Zone port to furnish an additional copy of its manifest, for statistical purposes, is canceled.

2. Present requirements are that three copies of the manifest be submitted by each ship handling cargo in the terminal ports of the Canal, and that the cargo declaration form, No. 4363, be submitted by vessels making the transit of the Canal, but not handling cargo at the terminal ports. For the convenience of such vessels, however, a manifest will be accepted in place of the cargo declaration at the option of the ship's master.

CHESTER HARDING,
Governor.

Contract for 1,000,000 Barrels of Fuel Oil.

Contract has been made with The Panama Canal by the West India Oil Company for the delivery by the latter of 1,000,000 barrels of fuel oil to the tanks of the Canal, June 30, 1920. Three hundred thousand barrels are to be delivered at Cristobal, at \$1.12 per barrel and 700,000 at Balboa at \$1.29 per barrel. The oil is to be purchased on the basis of 42 gallons to the barrel at 60° F.

Toll Charges in Connection with Double Bottom Spaces.

Under the present method of assessing tolls on loaded merchant vessels, other than oil tankers, transiting the Panama Canal, spaces in cellular double bottoms are, in effect, not charged for even when such spaces are used to carry fuel oil, boiler feed water, drinking water, or cargo, when the Panama Canal net tonnage times \$1.20 exceeds the United States net tonnage times \$1.25.

Oil tank steamers are charged on such spaces when used for other than water ballast.

Merchant vessels, when in ballast, are charged on such spaces if used for other than water ballast.

Seventy-four Days from the Fiji Islands.

The 4-masted schooner *Ludlow* arrived at Balboa from Levuka, Fiji Islands, on September 28, for passage through the Canal, carrying a cargo of 799 tons of copra in bulk for Norfolk. The schooner was 74 days in making the voyage from Levuka. She is 185 feet in length by 39 foot beam, and carries a crew of 10 men. She laid up at Balboa for repairs, and is there now.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal postoffices, and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286):

Surveillance inspector (male); \$1,600 to \$2,400 a year; No. 469; October 28, 1919; form 1312; age, not under 21 years.*

Teacher (Indian Service) (male and female); \$600 to \$720 a year; No. 148-amended; October 22, November 19, and December 10, 1919; form 1312; age, at least 20 years but under 50 years.

Automobile mechanic (male); \$1,000 a year; No. 482; October 28, 1919; form 1800; age, at least 18 years.*

Matron; \$500 to \$720 a year; No. 152-amended; October 22, November 19, and December 10, 1919; form 304; age, at least 21 years, but under 48 years.

Domestic science teacher (female); \$720 a year; No. 258-amended; October 22, November 19, and December 10, 1919; form 1312; age, at least 22 years but under 50 years.

Calculating machine operator (male and female); \$900 to \$1,200 a year; No. 32-amended; October 2, November 19, and December 10, 1919; form 304; age, at least 18 years.

Operative (male and female); \$900 to \$1,000 a year; No. 32-amended; October 22, November 19, and December 10, 1919; form 304; age, at least 18 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Samuel Friedman	923	United States . . .	Gatun, C. Z.	Accounting Department	September 30, 1919.
Jack Miller	26788	United States . . .	Cristobal	Mechanical Division . . .	September 18, 1919.
James Muir (Muire or Mure)	40867	Jamaica	Colon	Electrical Division	September 21, 1919.

Police Census of the Canal Zone.

The Police and Fire Division has issued a summary of a house-to-house canvass of civil inhabitants of the Canal Zone, taken between August 20 and 31, 1919. The total civil population was found to be 21,759, an increase of 52 persons from the 21,707 enumerated be-

tween June 20 and 30, 1918. The results of that canvass were published in THE PANAMA CANAL RECORD of July 24, 1918. In the Balboa district there was an increase of 44 persons, to a total of 14,056, and in the Cristobal district an increase of 62, to a total of 7,586; the prisoners, counted separately, decreased from 171 to 117, a change of 54. In connection with the canvass, an enumeration was made of people living outside the Canal Zone on the shores of Gatun Lake and dependent on the lake for transportation; these showed an increase of 616, to a new total of 2,979. The detailed figures of the enumeration follow:

BALBOA DISTRICT.

Location.	Americans.		All others.		Americans.			All others.			Total.
	Total men.	Em- ployees.	Total men.	Em- ployees.	Total women.	Em- ployees.	Children.	Total women.	Em- ployees.	Children.	
ANCON.....	507	503	180	180	162	76	241	74		20	1,184
<i>Ancón Hospital.</i>											
Staff.....	20	20	46	46	60	60					126
Patients (civilians only).....	169	30	377	158	8	2	9	75	3	17	646
Tivoli Hotel.....	19	7			11		5	2	2		37
Rural (on east side of Canal between boundary line and Cardenas River).....			5	5				3		4	12
BALBOA HEIGHTS.....	171	168	24	24	252	143	192	48			687
BALBOA.....	967	953	145	94	664	52	863	155		37	2,831
Petrolia.....	3				3		3	1			10
La Boca.....	54	54	895	895	59	1	67	426		874	2,375
Quarantine Station.....	9	5	23	16	2		2	3			39
Floating equipment.....	3	3	34	23							37
PALO SECO.....											
Staff.....	1	1	16	16	1		3	6	2		27
Patients.....			48					17		8	73
Venado plantation.....			1	1							1
Rural (on west side of Canal between Pacific shore and Arraijan trail).....			2					1		5	8
Farfan pastures.....			70	70							70
COROZAL.....	8	3	28	24	5		5	28		4	78
<i>Corozal Asylum.</i>											
Staff.....	16	16	156	156	8	8	8	15	15		203
Patients.....	4		222					168			394
MIRAFLORES.....	11	11						2			13
PEDRO MIGUEL.....	226	222	23	23	157	14	159	14			579
Miraflores pastures.....			6	6				4		3	13
Red Tank.....			571	504				385		647	1,603
Rural (on east side of Canal between Cardenas River and Chares River).....	1	1	1	1	1			1		1	5
Pedro Miguel pastures.....											
PARAISO.....	5	5	478	468	4	2	8	283		570	1,348
Paraiso pasture camp.....			8	8							8
Floating equipment.....	3	3	24	24							27
SUMMIT.....	5	5	82	81	1		2	15		28	133
Summit pastures.....											
Las Cascadas plantation.....			8					1		2	11
La Pita.....			7								7
GAMBOA (south of Chagres River)	2	2	77	77				42		67	188
<i>Gamboa stockade.</i>											
Officers.....	5	5	4	4							9
Juan Mina plantation.....	1	1	15	15				2		1	19
Limon plantation.....											
CULEBRA.....	7	6	18		7		4	1			37
Golden Green.....			99	2				88		127	314
EMPIRE.....	3	1	156	25	3	1	3	106		186	457
Lirio camp.....			64	63				63		150	277
Cerro camp.....			28	17							28
Camacho.....											
Mandingo pastures.....	2	2	136	136							138
Rural (on west side of Canal between Arraijan trail and Gatun Lake).....			4								4
LAS CASCADAS.....											
Marinique camp.....											
Bas Obispo pasture camp.....											
Total employees.....		2,027		3,222		359			22		5,630
Total persons.....	2,213		4,081		1,408		1,574	2,029		2,751	14,936

CRISTOBAL DISTRICT.

Location.	Americans.		All others.		Americans.			All others.			Total.
	Total men.	Em- ployees.	Total men.	Em- ployees.	Total wom- en.	Em- ployees.	Child- ren.	Total wom- en.	Em- ployees.	Child- ren.	
GAMBOA (north of Chagres River)	10	10			4		5	2			21
Floating equipment.....											
Limon plantation.....	1	1	30	30				3		1	35
Rural (on east side of Canal be- tween Chagres River and Rio Frijolito).....											
DARIEN.....			7	7				2			9
CAIMITO PASTURES.....	1	1	17	17	1			5		3	27
FRIOLES.....	1	1	24	24				10		12	47
Frijoles plantation.....			19	19							19
BOBIO PASTURES.....			8	8							8
MONTE LIRIO.....	4	3	43	42	1		2	20		23	93
Monte Lirio pastures.....			2	2				1			3
GATUN.....	183	180	208	203	161	5	224	170		261	1,207
Labor camps.....			55	55							55
New Gatun.....	1	1	527	496	1		1	300	1	437	1,267
Bracho plantation.....			2	2				1		2	5
Rural (on east side of Canal be- tween north shore of Gatun Lake and Caribbean Sea).....	1	1	7	7	1			4		3	16
France Field, Coco Solo and Ft. Randolph.....	1		6		1		1	28		6	43
MINDI DAIRY.....	1	1	48	48	1		5	2		2	59
MOUNT HOPE.....	15	12	6		10		26	2		2	61
Mt. Hope pastures (including hog farm and Manjagal plantation).....	4	4	24	24	2			13		11	54
CRISTOBAL.....	693	679	39	36	240	31	221	9		1	1,203
Folks River camp.....	1	1	387	381				341	4	783	1,512
Camp Bierd.....			1,711	1,711				35		66	1,812
Sweetwater plantation.....			17	17				3			20
Fortification camp.....			1	1							1
Bracho-Mindi plantation.....			2	2				2		5	9
Total employees.....		895		3,132		36			5		4,068
Total persons.....	917		3,190		423		485	953		1,618	7,586

PRISONERS.

Balboa.....	4		17					1			22
Ancon.....			3								3
Pedro Miguel.....	3		26								29
Gamboa.....			1								1
Gamboa penitentiary.....	2		30								32
Gatun.....			3								3
Cristobal.....	2		25								27
Total persons.....	11		105					1			117

RECAPITULATION.

Balboa district.....		2,027		3,222		395		22			5,630
Balboa district.....	2,213		4,081		1,408		1,574	2,029		2,751	14,056
Cristobal district.....		895		3,132		36		5			4,068
Cristobal district.....	917		3,190		423		485	953		1,618	7,586
Prisoners.....	11		105					1			117
Total employees.....		2,922		6,354		395		27			9,698
Total persons.....	3,141		7,376		1,831		2,059	2,983		4,369	21,759

POPULATION OF THE GATUN LAKE AREA (OUTSIDE THE CANAL ZONE), WHO ARE DEPENDENT ON GATUN LAKE FOR TRANSPORTATION.

UPPER CHAGRES.....			83	5				66		89	238
Gatunilla.....			38					21		28	87
Santa Rosa.....			40					29		35	104
CANO QUEBRADA.....	1	1	107	11				44		68	220
TRINIDAD RIVER.....	2		166	1				99		150	447
Eseoval.....	3	1	128		3		1	109		180	424
GATUN RIVER.....			74					38		62	174
New Limon.....	3	2	177	9	1		1	152		243	577
New Providence.....	3	1	243	15	2		3	138		220	609
Cabra Naque.....			28					14		17	59
QUEBRANCHA ARM.....	1		18		1			7		13	40
Total employees.....		5		41							46
Total persons.....	13		1,102		7		5	717		1,135	2,979

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama"; in the United States, "Pancanal, Washington."

Official Circulars.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 30, 1919.
HEADS OF DEPARTMENTS AND DIVISIONS:
Effective October 1, 1919, Mr. R. W. Glaw is designated Paymaster, The Panama Canal, and will serve during the absence of Mr. J. H. McLean.
CHESTER HARDING,
Governor.

Transportation.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 1, 1919.
CIRCULAR No. 658-6:
Paragraph 17 of Circular No. 658-4, dated November 24, 1916, is amended to read as follows, effective October 1, 1919:
17. Reimbursement for cab, jitney or street car fares will be allowed when it is necessary for an employee to use such transportation in the performance of official duties assigned to him by proper authority. The trips must be itemized including date, starting point and destination, when submitting voucher for reimbursement. When available, regular bus or street car must be used. Fares in excess of those charged on bus or street car lines, when the points between which the travel is performed are convenient to such lines, will require specific explanation.
CHESTER HARDING,
Governor.

Official Correspondence.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 30, 1919.
CIRCULAR No. 616-1:
1. Employees must not take any action either by correspondence with or a visit to a contractor or prospective contractor for material or supplies for The Panama Canal, which could in any way be construed to be official or authoritative, unless such employees have been specially authorized to so represent The Panama Canal.
2. If it is desirable to give or to receive information regarding any Panama Canal contract or prospective contract in the United States, the employee may, if on the Isthmus, address the Chief Quartermaster; if in the United States, address the General Purchasing Officer, The Panama Canal, Washington, D. C.
CHESTER HARDING,
Governor.

Photographs and Blue Prints.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 1, 1919.
CIRCULAR No. 617-2:
Paragraph 3, of Circular No. 617-1, dated March 15, 1916, is amended to read as follows:
3. Copies of tracings in blue or white prints will be sold at 5 cents per square foot, and brown prints (vandyke negatives) at 10 cents per square foot, regardless of the size of the drawing. When the tracing is furnished by the person desiring prints, the rate will be 3 cents per square foot for blue or white prints, and 7 cents per square foot for brown prints.
CHESTER HARDING,
Governor.

Sale of Universal Marine Gas Engine.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., October 11, and then opened for the purchase of the above-

mentioned engine. This is a 12-horsepower, high speed engine, with magneto and reverse gear, rear starter, propeller and shaft, muffler, etc. Same will be shown to prospective purchasers by the Storekeeper, Cristobal, any week day between the hours of 7 and 11 a. m. and 12 noon and 4 p. m. Bid should be accompanied by postal money order or certified check in an amount not less than 10 per cent of the amount bid. The Panama Canal reserves the right to reject any or all bids.

Rainfall from Sept. 1 to 30, 1919, Inclusive.

STATIONS.	Maximum in one day.		Date.	Total.
	Ins.	In.		
<i>Pacific section—</i>				
Taboga	3.50		23	9.25
Balboa	2.17		24	8.46
Balboa Heights	2.58		24	10.84
Miraflores	1.51		3	8.33
Pedro Miguel	1.44		8	9.33
Rio Grande	2.15		1	10.89
<i>Central section—</i>				
*Culebra	2.40		1	11.73
*Camacho	3.60		1	12.21
Empire	2.21		1	11.04
Gamboa	1.80		21	9.39
*Juan Mina	2.73		19	13.85
Alhajucla	1.88		26	9.85
*Vigia	2.68		1	11.96
*Daríen	1.50	7 & 21		12.73
*Trinidad	1.96		11	8.44
*Monte Lirio	3.96		8	15.48
<i>Atlantic section—</i>				
Gatun	2.25		22	8.42
*Brazos Brook	3.60		8	10.55
Colon	2.22		4	11.74
†Bocas del Toro				
*Porto Bello	2.45		7	14.37

* Standard rain gauge—readings at 5 p. m. daily.
Automatic rain gauge at unstarred stations—values, midnight to midnight.
† Standard rain gauge—readings at 8 a. m. daily.

September Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1919.
	1919	1918	1917			
<i>Pacific section—</i>						
Balboa	8.46	6.58	9.41	7.04	21	21
Balboa Heights	10.84	7.03	11.53	7.89	23	21
Miraflores	8.33	6.97	14.25	9.14	11	19
Pedro Miguel	9.38	7.27	11.78	8.87	12	21
Rio Grande	10.89	7.81	11.39	10.40	15	21
<i>Central section—</i>						
Culebra	11.73	10.01	13.05	10.77	30	25
Camacho	12.21	9.12	9.95	10.45	14	23
Empire	11.04	9.25	11.44	8.92	16	22
Gamboa	9.39	7.60	9.93	10.38	37	20
Juan Mina	13.85	41.53	11.51	12.07	9	22
Alhajucla	9.35	11.07	9.92	11.53	21	25
Vigia	11.96	13.24	10.67	13.08	12	25
Frijoles	13.50	12.87	13.78	11.34	8	...
Trinidad	8.44	9.04	8.44	11.00	12	22
Monte Lirio	15.48	12.10	14.10	13.04	12	24
<i>Atlantic section—</i>						
Gatun	8.42	7.27	12.20	10.05	15	18
Brazos Brook	10.55	13.79	13.31	12.24	14	17
Colon	11.74	15.34	17.67	12.65	49	20

Live Stock on Pastures and Farms.

At the beginning of October, the Cattle Industry had on hand in the Canal Zone pastures, fattening for slaughter, 12,430 beef cattle, classified as follows: Fat steers, 4,769; 4-year olds, 7,375; 3-year olds, 161; 2-year olds, 41; and 1-year olds, 84. The breeding stock, in addition to the foregoing, contained 1,155 head, and the dairy stock, 1,083 head, of which 85 are Holstein cows.

Stock on the hog farms consisted of 731 pigs, 937 shoats, 155 hogs, 790 sows, 13 boars, and 110 goats.

Stock at the poultry farm included 11 chicks, 2,048 chickens, and 49 turkeys.

COMMISSARY NOTES.

Voile.

The Commissary purchasing agent has written that the market is practically bare of low-priced voile and any acceptable quality is commanding a good figure at present.

Straw Hats.

Inquiries recently made failed to locate an inexpensive grade of straw hat being manufactured in the United States. From all indications the day of the cheap straw hat is at an end.

Oysters.

Another shipment of oysters, consisting of 25 barrels, was received on the steamship *Advance*. They are, for the most part, large in size and were received in excellent condition. All line stores now have them for sale.

Oil Stoves.

A shipment of "Florence Way" oil cook stoves, 2 burner and 4-burner, was distributed to the line stores Saturday. These have been in large request among commissary patrons.

Shirts.

Advice from New York states that men's negligee shirts have reached a high mark in price. It is said to be hard to find a retail store selling a shirt of any quality at less than \$2.

Pottery.

A further increase of 10 per cent in price is announced by the Royal Doulton Potteries. It is stated that the recent increase in the cost of fuel added to the considerable advance given their work people together with the certainty that materials will continue to rise makes this action absolutely necessary.

Crushed Orange Syrup.

Concentrated crushed orange syrup, a new beverage product for making soft drinks at home at little cost, has been manufactured by the Commissary Division and is now on sale at all retail stores in quart bottles at 50 cents (with 5 cents for return of the bottle). It is only necessary to add several tablespoonfuls to a glass of ice cold water to obtain a drink that will, as a rule, allay the thirst. The fresh fruit flavor makes it delicious as well as refreshing. The time and trouble usually spent in cutting and crushing the fruit is saved, this drink being preparable within a few minutes.

Cabbage.

The commissary purchasing agent has advised that just prior to the departure of the steamship *Advance* from New York there was little cabbage in the market and that it was the general opinion that it would be impossible to obtain this vegetable in shipping condition for the next five weeks, after which good "Danish" cabbage would be coming into the market.

However, commissary customers will probably suffer no inconvenience on this account as the supply from Costa Rica will, it is believed, be sufficient to last during this period.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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The Panama Canal, Washington, D. C.
Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., October 15, 1919. No. 9.

Notice to Steamship Lines.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., October 11, 1919.

1. Difficulties experienced in securing the delivery of sufficient coal to supply ships using the Canal with all the bunker coal they desire, make it necessary to request the cooperation of steamship lines in limiting the amount of coal required by their ships to a minimum.

2. For the present, it is requested that vessels be dispatched so that those passing from the Atlantic to the Pacific will require only sufficient bunker coal to reach San Francisco, Honolulu, or Coronel. Those vessels trading to South American ports north of Valparaiso will be supplied with sufficient coal for return voyage to the Canal. In the case of vessels passing from the Pacific to the Atlantic and bound for European ports, it will be impracticable at present to supply them with sufficient bunker coal to make the voyage direct, but they will be bunkered to reach Norfolk, or Newport News, Va.

3. Those vessels using either terminal port as a terminus of their established route should be dispatched so as to require only sufficient coal to make the next port of call on their established route where a commercial coaling station is available.

4. Those vessels using either terminal port merely as a port of call will be given coal only in exceptional cases.

CHESTER HARDING, Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 11, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Alexandrian.....	Leyland Line.....		October 5.....		163
S. M. Spalding.....	Pan-American Pet. & Trans. Co.....		October 5.....	(*)	
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....		October 5.....		4,215
Middlebury.....	Panama Railroad Steamship Line.....		October 6.....		70
Santa Leonora.....	United States Government.....		October 6.....		3
Santa Melta.....	United States Government.....		October 6.....		8
Acajutla.....	Pacific Steam Navigation Co.....		October 7.....		1,080
Jamaica.....	Pacific Steam Navigation Co.....		October 7.....		713
Advance.....	Panama Railroad Steamship Line.....		October 7.....		1,508
Salvador.....	Pacific Steam Navigation Co.....	October 5.....	October 9.....	302	1,042
Achilles.....	Panama Railroad Steamship Line.....	October 6.....	October 10.....	12,023	(*)
Laura C. Hall.....	Pacific Metal Corporation.....	October 7.....	October 10.....	65	55
Aysen.....	United Fruit Company.....	October 8.....		1,666	
Atenas.....	United Fruit Company.....	October 8.....	October 9.....	179	27
Ansaldo I.....	Societa Nazionale Navigazione.....	October 8.....	October 10.....	137	(*)
Chile.....	Pacific Steam Navigation Co.....		October 9.....		792
Santa Marta.....	United Fruit Company.....	October 9.....	October 9.....	28	95
Marica.....	United States Government.....	October 9.....		203	
Cauca.....	Pacific Steam Navigation Co.....		October 10.....		695
Neptune.....	United States Government.....	October 10.....	October 9.....	17	
Panama.....	Panama Railroad Steamship Line.....	October 10.....		3,262	
Metapan.....	United Fruit Company.....	October 11.....	October 11.....	50	68

* No cargo laded.

† Pounds.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 11, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Salvador.....	Pacific Steam Navigation Co.....	October 5.....	October 5.....	93	
Acajutla.....	Pacific Steam Navigation Co.....	October 7.....	October 7.....		2
Jamaica.....	Pacific Steam Navigation Co.....	October 7.....	October 7.....		9
Chile.....	Pacific Steam Navigation Co.....	October 9.....	October 9.....		1
Laura C. Hall.....	Anglo-American Steamship Co.....	October 9.....	October 9.....		34
Ansaldo I.....	Marco Rocco.....	October 10.....	October 10.....	5	
San Francisco.....	Johnson Lines.....	October 10.....	October 11.....	125	

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, October 11, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Architect	4	21	48	5	12	52	5	13	35	Harrison Steamship Line	410	52	0	22	0	General	2,500	6,245	4,306
Snerman	5	12	00	5	10	20	6	7	21	Sherman Steamship Company	400	45	3	25	0	General and coke	4,530	5,037	3,492
Mexico	5	18	40	6	13	20	6	14	00	Pacific Steam Navigation Co.	401	52	0	12	8	General	3,952	6,551	4,202
Sloterdyk	5	18	40	6	17	11	6	18	32	Holland-American Line	413	0	52	0	0	Habana	6,525	4,760	
Kalfari	5	20	56	6	9	27	7	12	47	D. Steen	414	53	0	17	0	Antofagasta	7,051	5,156	
Jamaica	5	20	56	7	13	20	7	17	22	Pacific Steam Navigation Co.	220	34	0	13	9	Cristobal	713	1,187	622
Kia-Ora	6	13	52	7	13	20	7	15	08	Shaw, Savill and Albion Co.	448	56	5	28	3	London	4,769	8,454	5,990
Acajuta	2	17	55	7	6	41	7	13	30	Pacific Steam Navigation Co.	215	33	0	16	6	Cristobal	1,080	1,273	706
Stocum (a)	6	16	04	7	17	19				United States Army	156	31	0	16	0	Cartagena			
S. C. 279, 280, 281				7	8	47	7	17	19	United States Navy	385	52	0	25	0	Cristobal	6,000	5,136	3,771
Clan MacBeth	7	12	24	7	12	45	8	7	30	Clan Line S. S. Limited	423	56	0	25	0	New York	7,611	6,461	4,722
Tokushima	8	7	07	8	15	30	8	16	15	Nippon Yusen Kaisha	379	50	0	22	6	Shanghai	5,300	5,165	4,087
Malay Maru	8	15	28	9	14	27	9	15	10	Osaka Shosen Kaisha	430	54	2	25	0	Wellington	1,500	8,174	6,062
Paparea	8	15	28	9	13	20	9	23	23	New Zealand Shipping Company	400	55	0	25	0	Shanghai	6,102	5,765	4,404
Himalaya Maru	9	3	21	9	7	10	9	14	49	Osaka Shosen Kaisha	400	33	5	15	6	Champatico	794	1,213	662
Salvador	9	21	10	9	9	50	9	17	30	Pacific Steam Navigation Co.	319	43	0	18	8	General	690	3,482	2,261
Chile	1	17	46	9	10	10	9	16	55	Pacific Steam Navigation Co.	350	47	0	14	0	Chile	4,040	2,628	
Conde d'Abasco	9	10	35	9	11	05	9	17	52	Felix de Abasco	241	47	0	14	0	Savona	3,482	2,261	
Cauca	3	14	20	10	6	05	10	14	00	Pacific Steam Navigation Co.	246	35	0	15	8	Cristobal	690	1,582	1,023
Laura C. Hall	7	15	55	10	6	25	10	13	40	Pacific Metals Corporation	81	25	6	10	0	Cristobal	49	130	69
Ansaio I.	8	19	50	10	7	25	10	14	41	National Navigation Society	368	48	3	20	6	Genoa	920	5,457	3,750
Corfelia	9	22	51	10	8	08	10	15	53	C. T. Bowring & Company	420	54	6	28	6	Port Lobos	250	6,690	4,971
San Francisco	10	10	36	10	10	50	10	17	19	Johnson Steamship Line	362	51	0	16	0	Gothenborg	250	5,298	4,001
Bell buckle	10	6	35	11	6	22	11	13	05	United States Shipping Board	395	55	0	24	0	New York	5,222	7,285	5,207

(c) Oil, 60,000 barrels.

(b) Pig iron, steel, rosin, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Montreal	5	7	30	5	16	22	11	19	25	French Government	279	46	9	21	0	Queenstown	2,050	2,687	1,675
Cranenest	5	7	45	5	17	44	7	15	22	United States Shipping Board	253	43	8	19	6	Habana	2,357	2,407	1,502
Buhisan	9	26	16	5	18	45	5	18	45	United States Shipping Board	267	46	0	23	0	Valencia	2,875	2,676	1,722
Ady (d)	4	11	10	5	20	55	5	20	55	Compagnie de Transport Bel.	132	32	5	12	0	London	377	306	266
Salvador	5	6	30	5	14	50	9	9	50	Pacific Steam Navigation Co.	215	33	5	13	2	Champatico	302	1,213	692
Winnipeg	6	5	30	6	8	26	6	20	09	French Government	279	46	9	18	0	Victoria	1,960	2,689	1,674
S. V. Harkness	6	22	05	7	7	45	7	18	23	Standard Oil Company	419	57	2	20	0	Queenstown (l)	1,960	2,689	1,674
																Lumber	1,960	2,689	1,674
																Tampico	1,960	2,689	1,674

(d) Motor ship.

Ship Name	Date	Vessels	Line	From	Date	Vessels	Line	To	For
Laura C. Hall (d)	7	2 00	British	Pacific Metals Corporation	81 0	25 6	9.1	Cristobal	Coffee, hides, etc
Bonifay	7	11 22	7 18 35	United States Shipping Board	256 8	46 1	23 1	Dirkoonhead	Ties, lumber
Goddie Prince	7	11 10	7 19 45	Prince Line, Ltd.	448 1	57 2	27 0	New York	General
Sorata	7	19 20	8 04	Pacific Steam Navigation Co.	390 0	47 3	21 1	Liverpool	General
Aysen	8	15 40	8 37	Union Line	379 6	41 3	21 6	Cristobal	General
Coalinga	8	14 00	8 14 45	Union Oil Company	471 0	55 0	21 0	Tampico	General
San Joaquin	9	11 00	9 12 03	W. Wilhelmssen	425 5	57 1	17 0	Tampico	Frozen meat
Camaqua	9	20 00	10 15 33	Blue Star Line	380 7	53 2	23 0	London	Spelter, lumber
C-46	9	23 30	10 8 52	French Government	198 5	40 5	15 0	Queensdown (7)	General
Deroche	10	12 50	10 13 47	United States Shipping Board	435 0	56 0	19 0	Vancouver	General
Otra	11	2 30	11 7 48	Shaw Saville Albion & Co.	450 4	53 4	23 0	Hull	General
Matatua	11	2 30	11 8 30	Shaw Saville Albion & Co.	448 0	56 5	24 0	London	General
Butte	3	1 30	11 8 40	United States Shipping Board	294 0	45 6		Auckland	Butterfats
Ludlow (e)	9-25	18 00	11 10 08	Whitney & Boidden Shipping Co.	185 4	39 8	15 2	Balboa	Coira in bulk
Santa Ana	10	17 00	11 10 09	United States & Pacific Line	360 2	51 6	26 0	Levuka	Nitrates general
C-33	10	18 30	11 10 40	French Government	195 3	40 6	16 9	Valparaiso	Spelter, lumber
								Vancouver	

(e) Sailing. (7) For orders.

PORT OF CRISTOBAL.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	To
Oct. 5	Lake Como	United States Shipping Board	New York	Oct. 5	S. M. Stradling	Pan-American Pet. & Trans. Co.	Tampico
Oct. 5	Holbrook	United States Shipping Board	Curacao	Oct. 5	Alexandrian	Levland Line	New Orleans
Oct. 6	Achilles	Panama Railroad Steamship Line	Norfolk	Oct. 5	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York
Oct. 8	Atenas	United Fruit Company	New York via Kingston	Oct. 6	Middlebury	Panama Railroad Commissary	Cartagena
Oct. 9	Santa Marta	United Fruit Company	Colombian ports	Oct. 6	Santa Leonora	United States Army	New York
Oct. 9	Batonville	United States Shipping Board	New York via Bluefields	Oct. 6	Santa Malta	United States Army	New York
Oct. 9	Marica (g)	United States Army	New York	Oct. 7	Advance	Panama Railroad Steamship Line	New York
Oct. 10	Panama	Panama Railroad Steamship Line	New York via Haiti	Oct. 7	Lake Como	United States Shipping Board	Bluefields
Oct. 11	Metapan	United Fruit Company	New Orleans via Habana	Oct. 9	Holbrook	United States Shipping Board	New York via Kingston
				Oct. 9	Santa Marta	United Fruit Company	Colombian ports
				Oct. 9	Atenas	United Fruit Company	Norfolk
				Oct. 10	Achilles	Panama Railroad Steamship Line	New Orleans via Bocas
				Oct. 11	Metapan	United Fruit Company	

(g) Transport.

PORT OF BALBOA.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	To
Oct. 5	Guardian (g)	Gen. & S. Amer. Tel. & Cable Co.	High seas	Oct. 5	Guardian (h)	Gen. & S. Amer. Tel. & Cable Co.	High seas
Oct. 5	Anton (i)	Weir and Stone	Panama Bay				

(h) Cableship. (i) Motor launch.

*Other than ships passing through the Canal.

Bonded Warehouses near Atlantic End of the Canal.

Contracts have been entered into by the Government of Panama with two United States corporations for the establishment of bonded warehouses in the city of Colon, adjacent to the Atlantic terminus of the Canal, and one of the firms has its warehouse well advanced toward completion. The contracts provide for the importation and reexportation of goods under a net tariff charge of about two per cent.

Cristobal, the Atlantic terminus of the Canal, is the port at which most of the transshipment of goods at the Canal is handled. Six lines plying the Pacific make Cristobal their terminus, their vessels passing through the Canal on each voyage, but there is no line which runs from the Atlantic through the Canal to complete its voyage at the Pacific terminus. Such a service was established by the Panama Railroad Steamship Line shortly after the opening of the Canal but was abandoned. During the past 2 years and 8 months, from January 1, 1917, to September 1, 1919, the incoming cargo handled over the piers at Cristobal has been slightly over 14 times the quantity received at Balboa, and that dispatched has been over 23 times as much as was shipped from Balboa.

The accompanying table, printed on pages 110 and 111, shows the total cargo handled by the Receiving and Forwarding Agency of the Panama Railroad Company, operating the terminal piers of the Canal at Cristobal and Balboa, from August, 1914, to August, 1919, inclusive. The Canal was opened on August 15, 1914. As far as the old records are available the table shows also the cargo received, dispatched, and rehandled, and, as a matter of local interest, the cargo stevedored by the forces of the Receiving and Forwarding Agency. Where a quantity is unknown the fact is indicated by leaders in the table. The sudden drop in tonnage rehandled at Cristobal, after October, 1916, was due to the better preparation of ships' papers prior to discharging cargo on the piers and subsequent establishment of better connections between carriers. Rehandling is simply a feature of discharging and storing or relading cargo; the real index of traffic is the cargo received and the cargo dispatched. Relatively little cargo originates on the Isthmus, and the difference between cargo received and dispatched is approximately the goods of which the final destination is the Isthmus.

The quantities of cargo received and cargo dispatched through the Receiving and Forwarding Agency at Cristobal are shown graphically on the accompanying chart, by months from the opening of the Canal. Up to April 15, 1916, traffic through the Canal was subjected to interruptions by the slides, and this was reflected in extensive fluctuations of goods transhipped over the terminal piers and by way of the Panama Railroad. From the middle of 1917 the movement of goods has been steadier. An interesting feature is the development of cargo dispatched, as shown by the broken line; with the virtual completion of Canal and terminal construction it has approached the height of the solid line indicating cargo received, and the lagging parallelism between the lines has become very distinct since March, 1918. The chart affords no index for the future, only suggesting that with the steadying of traffic, violent variations in the yearly average are not to be expected, though with the development of warehousing and transshipping businesses on the Isthmus a gradual increase of cargo handled over the piers would normally be anticipated.

TONS OF CARGO.

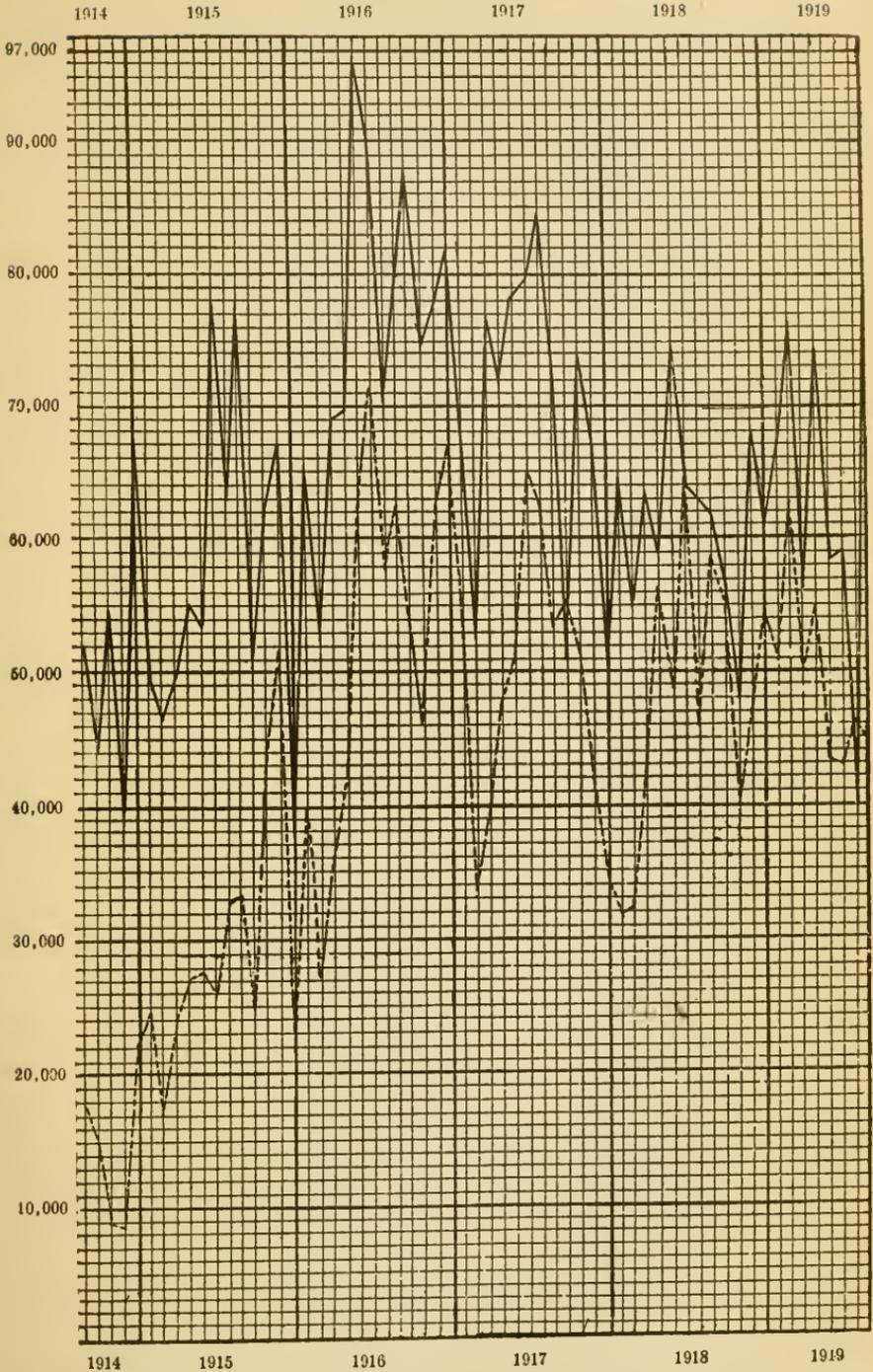


CHART OF CARGO RECEIVED AND DISPATCHED BY RECEIVING AND FORWARDING AGENCY OF PANAMA RAILROAD AT CRISTOBAL; SOLID LINE INDICATES CARGO RECEIVED, BROKEN LINE CARGO DISPATCHED. VERTICAL LINES REPRESENT MONTHS AND HORIZONTAL LINES THOUSANDS OF TONS OF CARGO.

Cargo Handled by Receiving and Forwarding Agency During Five Years of Canal Operation.

PORT OF CRISTOBAL.

Month.	Cargo received.	Cargo dispatched.	Cargo rehandled.	Total handled.	Cargo stevedored.
1914.					
August.....	51,693	17,612	19,202	88,907	.....
September.....	43,881	14,874	12,000	70,755	.....
October.....	54,841	8,940	4,262	68,043	.....
November.....	38,500	8,500	14,000	61,000	.....
December.....	68,000	22,060	5,500	95,500	.....
Total, 1914.....	257,215	71,926	54,964	384,105	.....
1915.					
January.....	49,500	24,500	21,175	95,175	.....
February.....	46,200	17,000	14,600	77,800	.....
March.....	49,500	24,000	14,900	88,400	.....
April.....	54,939	27,065	27,758	109,822	.....
May.....	53,301	27,734	29,817	110,852	.....
June.....	78,232	25,665	27,849	131,746	.....
July.....	62,851	32,642	30,070	125,493	.....
August.....	77,970	33,262	19,061	130,296	.....
September.....	50,500	24,525	9,135	84,160	.....
October.....	62,211	43,907	20,639	126,757	.....
November.....	67,287	51,833	31,425	150,545	.....
December.....	37,062	21,590	22,414	81,075	.....
Total, 1915.....	689,613	353,732	268,776	1,312,121	.....
1916.					
January.....	65,314	39,905	35,684	140,903	.....
February.....	52,281	27,111	22,000	101,392	.....
March.....	68,948	35,926	47,500	152,374	.....
April.....	39,623	42,422	67,200	179,245	.....
May.....	96,479	62,486	78,500	237,465	.....
June.....	90,450	71,541	52,000	213,991	.....
July.....	70,042	57,930	35,000	162,972	.....
August.....	79,448	62,405	42,559	184,412	.....
September.....	88,018	54,498	38,000	180,516	.....
October.....	74,068	46,392	35,257	155,717	68,641
November.....	77,776	62,411	984	141,171	73,251
December.....	81,970	66,865	1,334	150,169	64,820
Total, 1916.....	914,417	629,892	456,018	2,090,327	.....
1917.					
January.....	65,661	55,648	746	122,056	.....
February.....	54,237	33,498	461	88,196	.....
March.....	77,067	39,831	845	117,743	61,154
April.....	71,535	47,739	2,365	121,639	59,005
May.....	78,397	51,616	811	130,824	67,455
June.....	79,739	64,897	558	145,194	68,017
July.....	84,866	62,367	2,194	149,427	79,787
August.....	72,833	53,308	2,696	128,837	58,425
September.....	51,165	55,272	1,719	108,156	58,733
October.....	74,198	49,900	3,806	127,904	76,607
November.....	66,823	41,877	2,546	111,246	64,738
December.....	50,354	34,417	4,676	89,447	44,798
Total, 1917.....	826,878	590,370	23,423	1,440,671	.....
1918.					
January.....	64,420	31,768	3,016	99,214	51,892
February.....	54,708	32,171	1,597	88,476	42,528
March.....	63,462	41,440	1,627	106,529	58,661
April.....	58,774	56,177	2,513	117,464	62,816
May.....	75,047	48,751	3,211	127,009	57,609
June.....	63,955	65,065	1,993	131,013	57,694
July.....	62,908	45,826	3,279	112,013	55,824
August.....	61,762	58,606	3,402	123,770	54,679
September.....	56,526	55,166	2,856	114,552	61,750
October.....	47,976	39,706	3,210	91,892	39,630
November.....	68,664	47,830	4,130	120,624	51,454
December.....	60,419	54,426	2,737	117,572	66,177
Total, 1918.....	738,631	576,932	33,565	1,350,128	660,714
1919.					
January.....	67,461	51,105	4,822	123,388	62,722
February.....	76,063	62,821	3,094	141,978	80,851
March.....	55,809	49,588	4,316	109,704	47,471
April.....	75,343	54,949	3,081	133,378	73,098
May.....	58,458	43,201	2,217	103,876	70,864
June.....	59,089	42,877	1,522	103,488	44,250
July.....	39,118	46,087	666	85,871	30,545
August.....	78,172	44,892	1,434	124,498	59,989
Total, 1919.....	509,509	394,520	21,152	926,181	469,790
Grand total to September 1, 1919.....	3,936,263	2,617,372	857,898	7,413,533	.....

PORT OF BALBOA.

Month.	Cargo received.	Cargo dispatched.	Cargo rehandled.	Total handled.	Cargo stevedored.	Total handled both ports.
1914.						
August.....	27,160	27,127		54,287		143,094
September.....	11,960	9,508		21,468		92,223
October.....	11,436	10,709		22,145		90,188
November.....	23,163	12,379		35,542		96,542
December.....	17,027	15,411		33,438		128,938
Total, 1914.....	90,746	76,134		166,880		550,985
1915.						
January.....	23,020	17,596		40,616	18,783	135,791
February.....	20,445	18,647		39,092	18,967	116,892
March.....	21,025	22,076		43,101	18,796	131,501
April.....	29,469	23,248		52,717	23,225	162,539
May.....	19,274	20,086		39,360	20,530	150,212
June.....	19,756	17,776		37,532	19,189	169,278
July.....	20,236	16,615		36,851	5,147	162,344
August.....	15,144	11,173		26,317		156,613
September.....				15,434		102,594
October.....				60,943		186,800
November.....				94,000		244,545
December.....			9,540	55,569		136,644
Total, 1915.....				543,632		1,855,753
1916.						
January.....				70,310		211,213
February.....			15,441	69,401	12,180	170,793
March.....			17,650	69,483	5,054	221,857
April.....			18,602	26,488	1,603	205,733
May.....			3,441	6,060	3,369	243,525
June.....	1,472	4,722	590	6,794	1,689	220,785
July.....	6,414	1,336	796	8,546	282	171,518
August.....	2,738	621	770	4,129	4,330	188,541
September.....	3,053	1,019	98	4,170	501	184,686
October.....	10,545	393	7,346	18,284	665	174,001
November.....	12,657	1,492	5,704	19,853	1,024	161,024
December.....	3,315	39	228	3,582	707	153,751
Total, 1916.....				307,100		2,307,427
1917.						
January.....	11,270	920	600	12,790	2,491	134,848
February.....	9,310	753		10,063	179	98,259
March.....	3,408	7,900		11,308		129,051
April.....	2,560	238		2,798	528	124,437
May.....	4,664	2,602		7,266	2,225	138,090
June.....	3,575	1,151		4,726	1,719	149,920
July.....	2,265	784		3,149	479	152,576
August.....	869	214		1,083	483	129,920
September.....	2,199	202		2,401	377	110,557
October.....	1,528	2,003		3,531	2,972	131,435
November.....	12,814	7,331		20,145	12,171	131,391
December.....	2,781	1,484		4,265	176	93,712
Total, 1917.....	57,343	25,582		83,525		1,524,196
1918.						
January.....	3,506	1,548		5,108	3,263	104,322
February.....	2,303	2,131		4,434		62,910
March.....	2,924	169		3,093	148	109,622
April.....	7,697	1,032		8,728	561	126,192
May.....	3,945	2,353		6,297	306	133,306
June.....	3,459	1,464		4,923	2,846	135,936
July.....	1,788	541		2,329	835	114,342
August.....	3,137	752		3,888	2,680	127,658
September.....	1,854	2,093		3,947	375	118,499
October.....	7,924	6,799	1,021	15,744	14,199	107,636
November.....	1,401	830	118	2,359	452	122,983
December.....	5,282	3,771	218	9,271	7,839	126,843
Total, 1918.....	45,220	23,483		70,121	33,504	1,420,249
1919.						
January.....	4,437	3,951	68	8,456	3,106	131,844
February.....	1,283	3,290		4,573	3,234	146,551
March.....	11,480	2,047	8,110	21,637	3,586	131,341
April.....	5,495	3,020	2,630	1,145	174	134,523
May.....	4,067	551	270	4,888	253	108,764
June.....	676	751	62	1,487	176	104,975
July.....	7,646	1,510	5,323	14,479	134	100,350
August.....	8,117	3,150	4,337	15,604	1,917	140,102
Total, 1919.....	43,201	18,270	20,800	72,269	12,580	998,450
Grand total to September 1, 1919.....				1,243,527		8,657,060

Toll Charges in Connection with Double Bottom Spaces.

Because of a decision of the Commissioner of Navigation, received since the publication of THE PANAMA CANAL RECORD of last week, the statement in that issue on this matter is amended to read as follows:

Under the present method of assessing tolls on loaded merchant vessels, transiting the Panama Canal, spaces in cellular double bottoms are, in effect, not charged for even when such spaces are used to carry fuel oil, boiler feed water, drinking water, or cargo, when the Panama Canal net tonnage times \$1.20 exceeds the United States net tonnage times \$1.25.

The above does not apply, however, to a merchant ship in ballast.

Notice to Mariners.—Serrana Bank Light Relighted.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., October 13, 1919.

CIRCULAR NO. 643-67:

Serrana Bank Light, previously reported out of commission, was relighted on October 10, 1919:

Light—White, flashing, 0.5 second light, 4.5 seconds dark.

Latitude 14° 16' 40" north.

Longitude 80° 23' 50" west.

CHESTER HARDING,
Governor.

Cargo Declarations.

The cargo declaration referred to in Circular No. 679-9, dated September 29, as acceptable in place of a manifest from ships making the transit of the Canal but not handling cargo at its terminal ports, is a single sheet, folded once, giving four pages, each 8 by 10½ inches. Over 90 classifications of cargo are listed, with spaces opposite for quantity, port at which shipped, and port at which to be discharged. The following instructions are printed at the top of the first page:

A copy of this form is handed to the master of each vessel arriving at Balboa or Cristobal for passage through the Canal, if he has not been previously provided with the form through the office of his steamship line. It should be filled in while the vessel is in transit (if not previously prepared) and delivered to the pilot at the opposite terminal port. Extra copies for future use will be supplied at the Canal.

Accurate information is desired concerning cargo that is important on account of its tonnage or value, though it is not expected that small and unimportant items of cargo will be entered separately on the list.

In the case of ships carrying general cargo it is desired that the principal items be listed, and the remainder may be included under the designation "general."

Entries should be made in tons of 2,240 pounds wherever possible. Please give the value of treasure.

Addressing Mail for Ships at the Canal.

All mail for ships transiting the Canal or for ships touching at Canal ports is handled through the Cristobal, Canal Zone, post office and should be addressed, "Cristobal, Canal Zone."

Mail addressed to Colon or Panama may miss connection, as ships at all times are in Canal waters. The attention of shipping interests is called to the fact that Cristobal and Balboa are the terminal ports of entry for Colon and Panama, and that ships arrive at and depart from Cristobal and Balboa, and not Colon and Panama.

It will be noted that this applies to all ships, including those which call only at Balboa in passing along the west coast. The Cristobal post office receives reports of expected arrival three times daily and forwards to Balboa the mail for ships due there.

The Roosevelt Memorial.

Governor Harding has accepted the chairmanship of the Canal Zone branch of the Roosevelt Memorial Association and issues an invitation to the employees of The Panama Canal, Panama Railroad Company, and other residents of the Canal Zone and Republic of Panama to become subscribers to the memorial fund. It is the intention of the association to construct a monumental memorial at Washington, D. C. and establish a memorial park at Oyster Bay which will ultimately include Sagamore Hill, the old home of Colonel Roosevelt. It is a nonpartisan, nonpolitical cause. No one will be urged to contribute to the fund, the object of the association being simply to encourage and facilitate the subscriptions of those who desire to participate in the erection of these memorials.

The Governor has appointed a local chairman for each town and military post on the Canal Zone and for the cities of Panama and Colon through whom subscriptions to the memorial fund may be made. Arrangements have also been made whereby employees of The Panama Canal and Panama Railroad Company can have their subscription paid by collection from the pay rolls for the month of October or November if desired. It is intended to hold public meetings in each of the towns during the week of October 20-27, which is the time fixed for the campaign throughout the United States.

The fact that Theodore Roosevelt took such a personal interest in the construction of the Panama Canal will serve to make the proposed memorial to him of unusual interest to Panama Canal employees, especially the older ones who now have the medal authorized by him for those employees who were here during construction.

Rates at Hotel Aspinwall, Taboga.

The following rates at the Hotel Aspinwall, Taboga, have been established, effective August 1:

Employees: Dinner, lodging, and breakfast.....	\$2.00
Employees..... per day ..	2.75
Children under 12 years of age..... per day ..	1.25
Servants of employees..... per day ..	1.50
Employees for stay of 7 days..... per day ..	2.00
Reduction of 10 per cent on above rates for stay of 30 days. Reduction of 10 per cent for families of four or more for over 7 days' stay.	
Nonemployees..... per day ..	3.50
Servants of nonemployees (under 12 years of age)..... per day ..	1.50
Servants of nonemployees..... per day ..	1.75
Meals:	
Breakfast.....	1.00
Luncheon.....	1.25
Dinner.....	1.25

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster, or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.	
Police Station.....	Leave on the hour and half hour.
Administration Building.....	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary.....	Leave 10 minutes and 40 minutes after the hour.
Balboa Shops.....	Arrive 15 minutes and 45 minutes after the hour.
FROM BALBOA SHOPS TO ANCON POLICE STATION.	
Balboa Shops.....	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office.....	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary.....	Leave 20 minutes and 50 minutes after the hour.
Administration Building.....	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station.....	Arrive on the hour and half hour.

Commodity.	Unit.	Price.
Vaseline.....	Lb	\$0.09
Paint, lead, white, dry.....	Lb.	.10
Paint, lead, white, in oil.....	Lb.	.12
Paint, zinc, white, dry.....	Lb.	.18
Paint, zinc, white, in oil.....	Lb.	.18
Paint, zinc, white leaded, 35 per cent in oil.....	Lb	.16
Rivets.....	Lb.	.08
Rope, Manila, 1/4" diameter.....	Cft.	.75
Rope, Manila, 1/2" diameter.....	Cft.	1.65
Rope, Manila, 3/4" diameter.....	Cft.	2.85
Rope, Manila, 1" diameter.....	Cft.	4.50
Rope, Manila, 1 1/4" diameter.....	Cft.	4.75
Rope, Manila, 1 1/2" diameter.....	Cft.	6.00
Rope, Manila, 1 3/4" diameter.....	Cft.	7.50
Rope, Manila, 2" diameter.....	Cft.	10.00
Rope, Manila, 2 1/4" diameter.....	Cft.	18.00
Rope, Manila, 2 1/2" diameter.....	Cft	27.00
Rope, Manila, 2 3/4" diameter.....	Cft.	33.00
Rope, Manila, 3" diameter.....	Cft.	40.00
Rope, Manila, 3 1/4" diameter.....	Cft.	50.00
Rope, Manila, 3 1/2" diameter.....	Cft.	100.00
Steel, bar, 1".....	Lb.	.05
Steel, spring.....	Lb.	.19
Steel, cold rolled, rd.....	Lb.	.08
Steel, sheet.....	Lb.	.05
Steel, structural (angles, beams, etc.).....	Lb.	.05
Tin, block.....	Lb.	.78
Tin, banca.....	Lb.	.80
Tin, sheet.....	Lb.	.16
Washers, cut.....	Lb.	.10
Waste, white and colored.....	Lb.	.17
Zinc, boiler plate 5/8 by 6 by 12.....	Lb.	.12

* No surcharge.

† Steel now on hand purchased at a cost over .05 lb. will be given the purchase price.

Weather Conditions in September, 1919.

The rainfall during the month of September was above the average at 11 stations and deficient at 8 stations. Totals ranged from 8.33 inches at Miraflores to 22.52 inches at the Indio station on the upper Chagres. The greatest amount of precipitation on any one day was 3.96 inches, at Monte Lirio on the 8th.

The estimated average rainfall over the Gatun Lake watershed was 12.49 inches, compared with a 9-year mean of 11.87 inches, and over the Chagres River basin above Alhajuela it was 14.10 inches compared with an 18-year mean of 12.58 inches.

A severe wind storm occurred at Gamboa on the afternoon of September 26, during which a maximum velocity of 50 miles an hour was recorded from the northeast. Two unloading cranes at the Gamboa gravel plant were overturned and damaged to the extent of approximately \$20,000.

The atmospheric pressure, relative humidity, and wind movement were slightly below normal, while the air temperature was below normal everywhere except at Colon. The evaporation was above normal over the Atlantic Coast and Gatun Lake, but below on the Pacific Coast.

A number of fogs were observed at interior stations, most of which were light and lifted or were dissipated by 9 a. m.

Gatun Lake hydrology.—Mean elevation of Gatun Lake was 85.22 feet above sea level; maximum, 85.54 on the 30th, minimum, 85.01 on the 11th; evaporation from Gatun Lake surface, 4,372 inches; rainfall on Gatun Lake drainage basin, 12.49 inches; total yield of Gatun Lake watershed, 7.63 inches on watershed. The total yield amounted to 61 per cent of the rainfall.

The following table given as summary of the weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.				
		Mean.	Maximum.	Date.	Minimum.	Date.		Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Max. velocity in miles.	Direction.	Date.
Balboa	29.834	79.4	90	Sep. 6	71	Sep. 27	86.9	10.84	7.89	21	4,690	N. W.	23	S.	Sep. 13
Heights.....	29.830	80.6	90	Sep. 12	73	Sep. 4	84.2	11.74	12.65	20	4,928	S. E.	27	N.	Sep. 7
Colon.....	79.3	80.6	93	Sep. 18	71	Sep. 2*	...	9.39	10.38	20	3,111	N. E.	50	N. E.	Sep. 26
Gamboa.....	80.4	79.3	90	Sep. 15	73	Sep. 1	...	8.42	10.05	18	4,397	S. E.	24	S. E.	Sep. 24

* And other dates.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286):

- Dictating-machine operator (male and female); \$1,100 to \$1,400 a year; No. 475; November 7 and December 14, 1919; form 304; age, at least 18 years.
- Typist (male and female); \$1,100 a year; No. 300-amended; October 26 and December 7, 1919, and January 11, 1920; form 304; age, at least 18 years.
- † Clerk with knowledge of stenography (men and women); \$1,200 a year; No. 300-amended; October 26 and December 7, 1919, and January 11, 1920; form 304; age, at least 18 years.
- † Local and assistant inspector of boilers (male); \$2,100 to \$2,500 a year; No. 270-amended; November 7 and 8, 1919, and January 11 and 12, 1920; form 1087; age, at least 25 years but under 55 years.
- † Local and assistant inspector of hulls (male); \$2,100 to \$2,500 a year; No. 270-amended; November 7 and 8, 1919, and January 11 and 12, 1920; form 1087; age, at least 25 years but under 55 years.
- Electrical engineer (male); \$2,400 to \$3,600 a year; No. 394-amended; November 11, 1919; form 2118; age, no limits.*
- Assistant electrical engineer (male); \$2,000 to \$2,400 a year; No. 394-amended; November 11, 1919; form 2118; age, no limits.*
- Electrical assistant (male); \$1,500 to \$2,000 a year; No. 394-amended; November 11, 1919; form 1312; age, no limits.*
- Specialist in industrial and economic relations in education (female); \$3,500 a year; November 11, 1919; form 2118; age, no limits.*
- Deputy chief, U. S. game warden (male); \$2,500 to \$3,000 a year; November 4, 1919; form 1312.*
- Assistant in date investigations (male); \$1,600 to \$2,250 a year; November 7, 1919; form 1312; age, at least 21 years but under 50 years.
- Plant engineer (male); \$5,000 a year; November 11, 1919; form 1312; age, under 45 years.*
- Assistant auditor (male and female); \$1,400 to \$1,800 a year for grade I, and \$2,000 to \$2,500 a year for grade II; November 21, 1919; form 1312; age, at least 20 years but under 45 years.
- Assistant chief chemist (male); \$3,000 to \$4,000 a year; November 11, 1919; age, no limits.*
- Solar radiation assistant, Weather Bureau (male), \$1,080 to \$1,200 a year; form 304; age, at least 18 years, but under 55 years.
- † Junior irrigation engineer (male); \$1,440 to \$1,800 a year; November 9, 1919; form 1312; age, under 35 years.
- Research operator—metallurgical (male); grade I, \$1,500 to \$2,000 a year; grade II, \$2,000 to \$2,500 a year; November 18, 1919; form 1312; age, at least 21 years.*
- Predatory animal inspector (male); \$1,500 a year; No. 487, November 4, 1919; form 2118; age, at least 25 years but under 45 years.*
- Drainage engineer (male); \$1,800 to \$2,100 a year; No. 476; November 4, 1919; form 1312; age, at least 25 years but under 45.*
- Wet plate process photographer (male); \$1,500 a year; No. 488; November 11, 1919; form 1312; age, at least 20 years.*
- Forest ranger (male); \$900 to \$1,200 a year; No. 474; October 27, 1919; form 1312; age, at least 21 years but under 40.
- Chief of Division of Relations with States (male and female); \$3,500 to \$4,500 a year; No. 470-supplemental; November 4, 1919; form 2118.*
- Circular 465 regarding examination for artist, Public Health Service, Treasury Department; \$1,800 a year; October 14, 1919; form 1312; has been changed to include women as well as men.
- Supervising assistant and inspector (male and female); \$2,800 to \$3,600 a year; No. 470-supplemental; November 4, 1919; form 2118.*
- Field agent (male and female); \$1,800 to \$3,050 a year; November 4, 1919; form 2118.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

Route Service Jitney—Cristobal-Mt. Hope.

The following is the schedule of the official jitney service between the Terminal building at Cristobal and Mount Hope. Cars stop at the office of the Commissary Division each way:

Leave Terminal Building.		Leave Mount Hope.	
A. M.	P. M.	A. M.	P. M.
8.00	12.30	8.15	12.45
8.30	1.00	8.45	1.15
9.00	1.30	9.15	1.45
9.30	2.00	9.45	2.15
10.00	2.30	10.15	2.45
10.30	3.00	10.45	3.15
	3.30		3.45

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

† The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pancanal, Washington."

† Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Official Circulars.

Restriction of Hunting.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., October 9, 1919.

To all concerned—Effective this date, circulars of all concerned, dated December 12, 1918, and August 5, 1919, granting permission to hunt on Sundays and holidays within that part of the Canal Zone lying west of the Canal between the Cocoli River and the Paraiso-Arraijan trail, and south from the Cocoli River to the coast, respectively, are hereby revoked. This is necessary owing to the large number of cattle now in this area, and consequent danger to the men and the live stock from hunting.

Therefore, on and after this date all hunting is prohibited within that part of the Canal Zone lying west of the Canal south from the Carabali River to the coast.

CHESTER HARDING,
Governor.

Correspondence Addressed to Army or Navy Headquarters.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., October 7, 1919.

TO HEADS OF DEPARTMENTS AND DIVISIONS:

Letters and correspondence prepared by departments and divisions and addressed to the Commanding General of U. S. Troops on the Isthmus, Ancon, or to the Commandant, Fifteenth U. S. Naval District, Balboa, will be signed by the Governor.

Routine letters and correspondence intended for Army or Navy headquarters on the Isthmus are not of such importance as to call for signature by the Governor, may be signed by heads of departments and divisions, in which case they may be addressed as follows:

The Adjutant,
Office of Chief of Staff,
Panama Canal Department,
Ancon, C. Z.

or
Aide to the Commandant,
15th U. S. Naval District,
Balboa, C. Z.

By direction of the Governor.

C. A. McILVAINE,
Executive Secretary.

Steamship Crews Riding on Engines and Cars.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 2, 1919.

CIRCULAR NO. 1382:

Conductors, Engineers, Yardmasters.—Report has been made to this office that some of the Cristobal yard crews are allowing employees of steamship crews to pass through the yard on engines and cars.

This must be discontinued at once, as such practice if allowed to continue will result in considerable smuggling and pilfering.

W. J. BISSELL,
Acting Master of Transportation.

Syrups for Retail Trade.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., October 7, 1919.

MEMORANDUM NO. 760-234:

Concentrated orange and lemon syrups are now offered for sale at 50 cents per quart bottle, 5 cents being refunded for return of empty bottle.

Please place orders on wholesale groceries for your requirements. Bottles are packed 12 to each case.

J. J. JACKSON,
General Manager, Commissary Division.

Additions to Commissary Stock.

Suiting:	
Cotton, 28", yd.....	\$0.84
Rainproof cotton, 28", yd.....	1.20
Rainproof cotton, 54", yd.....	2.00
Umbrellas, men's, rustless, 10 ribs, 26", ea	3.00
Men's gun metal bals, Goodyear welt, Strand last, pr.....	10.70
Men's black glazed kid Oxford, Goodyear welt, Balfour last, pr.....	9.15
Men's gun metal calf Oxford, invisible eye- lets, Goodyear welt, Balfour last, pr....	9.15
Men's Norwegian veal veget tanned, fancy Oxford, Goodyear welt, Strand last, pr.	9.75
Men's white sea island duck blucher Ox- ford, Goodyear welt, Campus last, pr....	7.55
Men's Russia calf Oxford, Oakland last, pr	7.55
Men's black kid bals, polo last, pr.....	7.70
Men's black kangaroo kid Oxford, polo last, pr.....	7.90
Men's, Russia calf Oxford, city last, pr....	7.95
Women's black glazed kid opera pumps, pr	7.05
Women's black glazed kid beaded pumps, pr.....	7.70
Candy, hard, house party, Farley, 20-oz., jar.....	.73
Dressing, salad, Durkee's, 3-oz., bot.....	.12
Olives ripe, Premier XXX, 15-oz., jar....	.44
Peaches, sliced, 10s tin.....	1.40
Aerated waters and beverages, grape juice, white, Calwa, pt., bot.....	.26
Caps, milk bottle, "Help Mate," ea.....	.11
Earthenware (Guernsey), bowls, mixing, ea	.11
Hooks, gate, brass, 1 1/2", ea.....	.02
Razors, Swedish, white handle, ea.....	2.10
Razors, Gillette safety, silver plated, Aris- tocrat, ea.....	4.40
Razors, Gillette safety, Milady Decol- lette, gold plated, ea.....	4.40
Razors, Gillette safety, packed edition No. 20, silver plated, ea.....	4.40
Razors, Gillette safety, standard combi- nation, set No. 00, silver plated, ea....	6.60
Trunks, Army lockers, ea.....	10.45
Books, dictionary, Webster's, ea.....	1.40
Combs, men's, ivory, ea.....	.10
Embroidery, cotton, yd.....	.05
Stationery:	
Paper, typewriter, second sheets, un- glazed, 8" x 10 1/2", quire (24 sheets) ..	.03
Paper, typewriter, white bond, 8" x 10 1/2", quire (24 sheets).....	.05
Cream, evaporated, "Rico," 15-oz. tin....	.40
Cigarettes, Lucky Strike, 50s tin.....	.32
Tobacco, Edgworth, sliced plug, 2-oz. tin..	.18
Mustard, prepared, 1/2-gal. jar.....	.80
(5 cents allowed for return of empty jar)	
Sugar, loaf, 5s, ctn.....	.64
Aerated waters and beverages:	
Grape juice, A. O. B., individual, bot. .	.12
Cigars, Golofina perfects, ea.....	.09
Athletic goods:	
Books, club score, cricket, ea.....	1.05
Bikes, buster, ea.....	3.10
Cups, drinking, pint, ea.....	.04
Dinners, laundry or suds, ea.....	.53
Earthenware, (Guernsey) bowls, mixing, ea	1.40
Knives, mincing, double blade, ea.....	.15
Pans, pudding, 2-quart, ea.....	.09
Pans, pudding, 4-quart, ea.....	.12
Pans, muffin (8 plain cups), ea.....	.19
Pans, rinsing, 10-quart, ea.....	.25
Pans, mountain cake, ea.....	.08
Pouches, tobacco, red rubber, ea.....	.14
Wax, prepared, liquid, pint, bot.....	.54
Wheel, toy, ea.....	4.15
Wheel, toy, ea.....	6.90
Men's white basketball bals, pr.....	3.00
Men's white tennis bals, Klay Kort, pr....	2.25
Men's work shoe, duck top, rubber soles, pr	2.40
Men's white canvas Oxfords, pr.....	6.60
Women's black glazed kid chrome tanned blucher Oxfords, pr.....	8.20
Women's black glazed kid chrome tanned bals, pr.....	10.40
Women's chrome tanned Russia calf Ox- fords, pr.....	8.20
Women's black patent pump, leather, low shoes, pr.....	4.80

COMMISSARY NOTES.

Tailoring.

The increase in cost of labor and all items entering into the composition of suits has risen to such an extent that the Commissary Division is obliged to make a slight increase in prices in its tailoring shops, which will be announced in the near future.

Tricycles.

Children's vehicles are not to be found in the market at present. The commissary purchasing agent has advised that tricycles on order will be delayed for that reason. Following a period when toys, etc., were in small request has come a time when the manufacturers are entirely unable to cope with the demand.

Pottery.

Deliveries of pottery from a contractor with whom the Commissary Division does considerable business, have been postponed due to conferences between the pottery workers and the potters on questions of wages which have resulted in curtailed production.

Flowers.

Roses, ferns, shrubs, crotons, etc., from the Corozal Hospital farms, are always available for purchase in the line stores. Roses are on sale every day at Ancon, Balboa, and Cristobal Commissaries and the managers of the other stores will be glad to order them for customers on request.

Holiday Market Situation.

The situation in the holiday markets this year is unparalleled. Buyers have been obliged to contend with the most adverse conditions. The commissary purchasing agent was able to make many fortunate purchases but a number of items are not to be had because of the present under-production in the face of world-wide shortages.

Hosiery.

It is fortunate that the Commissary Division is rather well protected on hosiery as it seems impossible to place orders now for delivery this year. One of the factories from which the Commissary Division buys has announced that any orders in transit are subject to confirmation for next year's delivery at increased prices.

The commissary purchasing agent has written that great difficulty is being experienced in obtaining fashioned silk hosiery for the holiday season. It is extremely scarce, he states, and when a quality stocking is found, a very high price is asked. None of the hosiery manufacturers or manufacturers' agents are said to be taking orders for fashioned stockings at this time.

Canned Salmon.

The commissary purchasing agent has advised that higher prices are anticipated on canned salmon and that from all indications it will be scarce. From a reliable source information has been received that the packers thus far have allotted only 15 per cent of contracts. The Surplus Division of the War Department had for sale none of this item but it has been found possible to purchase 500 cases of medium red salmon in New York.

Beverages.

In the preparation of its varied line of soft drinks, the Commissary Division, from the sterilization of the bottles until the product is ready for shipment, exercises a degree of care seldom met with elsewhere. All bottles pass through the automatic washer and sterilizer, first receiving a washing in soap suds, then with lye solution, three rinsings of hot water, and are finally steamed at 180° F., the entire process requiring five minutes. When cooled, the bottles are filled with the syrup and carbonated water automatically and are then capped by machinery. Hands do not come in contact with the product at any stage.

Directory of The Panama Canal.

Executive Department.

Headquarters, Balboa Heights

COLONEL CHESTER HARDING, U. S. A., Governor.

M. B. Stevens, Secretary.

C. A. MCLVAINE, Executive Secretary.

JOHN H. SMITH, Chief Clerk, Executive Office.

GUY JOHANNES, Chief, Police and Fire Division.

CREDE H. CALHOUN, Chief, Division of Civil Affairs.

A. R. LANG, Superintendent, Division of Schools.

T. S. BOOZ, General Secretary, Bureau of Clubs and Playgrounds.

FRANK FEUILLE, Special Attorney, Ancon.

WALTER F. VAN DAME, Assistant to the Special Attorney and Land Agent,
Ancon.

ALBERT C. HINDMAN, District Attorney, Ancon.

Department of Operation and Maintenance.

(Under immediate direction of the Governor as Head of the Department.)

Headquarters, Balboa Heights.

LT.-COL. J. J. MORROW, U. S. A., Engineer of Maintenance.

W. L. HERSH, Electrical Engineer, Electrical Division.

W. R. HOLLOWAY, Superintendent, Pacific Locks, Pedro Miguel.

E. D. STILLWELL, Superintendent, Gatun Locks, Gatun.

C. J. EMBREE, Office Engineer.

O. E. MALSBURY, Assistant Engineer, Section of Surveys.

R. Z. KIRKPATRICK, Chief Hydrographer, Section of Meteorology and Hydrography.

D. E. WRIGHT, Municipal Engineer, Division of Municipal Engineering.

JOEL M. PRATT, Superintendent, Dredging Division, Paraiso.

JOHN G. CLAYBOURN, Assistant Engineer, Dredging Division, Balboa.

F. E. HOLLERAN, Assistant Engineer, Fortifications Division, Balboa Heights.

T. C. MORRIS, Resident Engineer, Building Division.

Assistant Engineer, Building Division.

SAMUEL M. HITT, Architect.

CAPT. LEONARD R. SARGENT, U. S. N., Marine Superintendent, Marine Division.

LIEUT. COM. J. G. FELS, U. S. N. R. F., Captain of the Port, Cristobal.

LIEUT. COM. CHAS. SVENSSON, U. S. N. R. F., Captain of the Port, Balboa.

Board of Local Inspectors—LIEUT. COM. J. G. FELS, U. S. N. R. F., *Chairman*,

LIEUT. COM. CHAS. SVENSSON, U. S. N. R. F., and LIEUT. M. S. DAVIS, U. S. N.

George J. Vanderslice, Recorder.

F. KARIGER, Pilot in charge, Lighthouse Subdivision, Gatun.

COMDR. EDWIN G. KINTNER, Naval Constructor, U. S. N., Superintendent of Mechanical Division, Balboa.

WM. J. AUTEN, Mechanical Engineer, Mechanical Division, Balboa.

WM. H. STONE, General Foreman, Cristobal Shops, Cristobal

Supply Department.

Headquarters, Balboa Heights.

R. K. MORRIS, Chief Quartermaster.

ROY R. WATSON, Superintendent.

J. J. JACKSON, General Manager, Commissary Division, Cristobal.

M. D. SMITH, General Storekeeper, Balboa.

W. B. BROWN, Superintendent, Cattle Industry, Cristobal.

B. C. POOLE, District Quartermaster, Ancon-Balboa, Balboa Heights

J. M. KING, District Quartermaster, Cristobal.

STANLEY FORD, District Quartermaster, Gatun.

C. PETERS, District Quartermaster, Pedro Miguel.

Accounting Department.

Headquarters, Balboa Heights.

H. A. A. SMITH, Auditor.

ELWYN GREENE, Assistant Auditor on the Isthmus

JOHN H. MCLEAN, Paymaster

T. L. CLEAR, Collector

Health Department.

Headquarters, Balboa Heights.

- COL. H. C. FISHER, U. S. A., Chief Health Officer.
 DR. HENRY HANSON, Assistant Chief Health Officer.
 DR. DALFERES P. CURRY, Chief Sanitary Inspector.
 SURGEON S. B. GRUBBS, U. S. P. H. S., Chief Quarantine Officer.
 COL. L. T. HESS, U. S. A., Superintendent, Ancon Hospital, Ancon.
 ———, Superintendent, Colon Hospital, Cristobal.
 DR. LOUIS WENDER, Superintendent, Corozal Hospital, Corozal.
 MAJ. E. A. BOCOCK, Superintendent, Santo Tomas Hospital (Panama), Ancon.
 CAPT. HENRY GOLDTHWAITE, U. S. A., Health Officer of Panama, Ancon.
 CAPT. JESSE L. BYRD, U. S. A., Health Officer of Cristobal-Colon, Cristobal.

Courts.

- JOHN W. HANAN, District Judge, Ancon.
 E. M. GOOLSBY, Clerk, Ancon.
 WM. B. CHEATHAM, Clerk, Cristobal.
 J. W. BLACKBURN, Magistrate, Balboa.
 JOHN W. THOMPSON, Magistrate, Cristobal.

The Panama Canal in the United States.

Headquarters, Washington, D. C.

- A. L. FLINT, General Purchasing Officer and Chief of Office, Washington, D. C.
 E. D. ANDERSON, Chief Clerk, Purchasing Department, Washington, D. C.
 RAY L. SMITH, Assistant to the Chief of Office, Washington, D. C.
 B. F. HARRAH, Assistant Auditor, Washington, D. C.
 R. E. RUTHERFORD, Assistant Purchasing Agent, 24 State Street, New York,
 N. Y.
 A. S. PERRY, Assistant Purchasing Agent, New Orleans, La.
 W. A. E. DOYING, Inspecting Engineer, Washington, D. C.

Panama Railroad Company.

- COL. CHESTER HARDING, U. S. A., President, Balboa Heights.
 LT.-COL. J. J. MORROW, U. S. A., Second Vice President, Balboa Heights.
 SAMUEL W. HEALD, Superintendent, Balboa Heights.
 ROBERT BEVERLEY, Assistant to Superintendent.
 W. F. FOSTER, Master of Transportation, Balboa Heights.
 M. B. CONNOLLY, Roadmaster, Balboa Heights.
 R. B. WALKER, Receiving and Forwarding Agent, Cristobal.
 T. W. MCFARLANE, Superintendent, Coaling Plants, Cristobal.
 FRANK FEUILLE, Counsel, Ancon.
 WALTER F. VAN DAME, Assistant to the Counsel and Land Agent, Ancon.

Office in the United States, 24 State Street, New York City.

- E. A. DRAKE, First Vice President, New York, N. Y.
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 V. M. NEWTON, Auditor, New York.
 RICHARD REID ROGERS, General Counsel, New York.
 A. E. PATERSON, Freight Agent, New York.
 C. C. VAN RIPER, Passenger Agent, New York.
 H. I. BAWDEN, Terminal Superintendent, New York.
 R. E. RUTHERFORD, Commissary Purchasing Agent, New York.
 A. S. PERRY, Assistant Commissary Purchasing Agent, New Orleans, La.

Joint Commission.

- HON. MANUEL WALLS Y MERINO, Umpire, Panama City, and Ancon.
 FEDERICO BOYD, Member, Panama City.
 GEORGE A. CONNOLLY, Member, Ancon.
 JULIO J. FABREGA, Member, Panama City.
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Miss G. E. Bliss, Secretary

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Volume XIII. Balboa Heights, C. Z., October 22, 1919. No. 10.

Expenses of Operation and Maintenance Compared with Revenues.

During the fiscal year ending June 30, 1919, the ordinary expenses for the operation and maintenance of the Canal, including those of civil government and sanitation, amounted to \$6,112,194.77, as compared with \$5,920,342.94 in 1918 and \$6,788,047.67 for the year 1917. Overhead charges included in the cost of operation and maintenance in the year 1919 amounted to \$3,382,167.30, and include expenses of civil government, hospitals, quarantine, and sanitation, the Executive Department, the Accounting Department, the Washington Office, operation and repairs of storehouses and quarters, lighting of streets, operation of water and sewer systems and roads, etc.

Offsetting the total expenses for operation and maintenance are the amounts earned for tolls on vessels passing through the Canal, \$6,156,118.95; licenses and taxes, court fees, and fines, \$136,870.77; and profits on business operations, \$61,027.26, a total of \$6,354,016.98.

The revenues earned in excess of current expenses were accordingly \$241,822.21. The charges for operation and maintenance do not include, with minor exceptions, any allowance for depreciation of plant and equipment, nor do they include any interest charges on the capital investment. The actual cost of the Canal projects estimated for in 1908 up to June 30, 1919, is figured at \$365,415,985.18, which may be considered as the capital investment on that date.

Including expenditures in previous years, the aggregate of expenditures charged to operation and maintenance of the Canal to June 30, 1919, was \$30,109,494.46. The revenues offsetting this amounted to \$25,490,803.71, less approximately \$75,000 yet to be refunded on account of erroneous collection of tolls. The recorded deficit in operation and maintenance for the period of Canal operation to June 30, 1919, was therefore \$4,618,690.75 plus about \$75,000, or approximately \$4,693,690.75.

The cost of operation and maintenance and the revenues earned during the period of Canal operation, with the variations in the deficit in this account, are shown in this statement:

Fiscal year.	Maintenance and operation, including proportion of overhead.	Revenues.	Revenues in excess of expenses.	Expenses in excess of revenues.	Excess of revenues over expenses to date.	Excess of expenses over revenues to date.
1914.....	\$166,030.91	\$14,618.68*		\$151,412.23		\$151,412.23
1915.....	4,123,128.09	4,343,383.69	\$220,255.60		\$68,843.37	
1916.....	6,999,750.15	2,558,542.38†		4,441,207.77		4,519,177.92
1917.....	6,788,047.60	5,808,398.70		979,648.90		5,352,013.30
1918.....	5,920,342.94	6,411,843.28	491,500.34			4,860,512.96
1919.....	6,112,194.77	6,354,016.98	241,822.21			4,618,690.75
Totals.....	30,109,494.46	25,490,803.71	953,578.15	5,572,268.90		4,618,690.75

*Tolls on barges towed through the Canal, prior to opening to commercial ships.

†Heavy drop due to closing Canal 6 months on account of slides.

Had the original Panama Canal rules of measurement and collection been used, the deficit of \$4,618,690.75 as of June 30, 1919, would

have been reduced to \$954,919.05. The loss through not applying the Canal rules alone, but limiting the collections by the proviso that the amount collectible shall not exceed the equivalent of that obtained by multiplying the net tonnage as determined by measurement by registry in the United States by \$1.25, amounted to \$3,663,771.70 to the end of the fiscal year 1919. By fiscal years the losses, counting the refunds made so far, have been:

Fiscal year.	Difference in tolls actually collected.	Refunds made later for excess collections during years.	Total.
1914.....			
1915.....		\$165,457.71	\$165,457.71
1916.....	\$390,714.05	22,110.46	412,824.51
1917.....	1,034,001.88	17,382.47	1,051,384.35
1918.....	1,083,111.69	8,701.09	1,091,812.78
1919.....	867,526.48	284.35	867,810.83
Totals.....	3,375,354.10	213,936.08	3,589,290.18

Adding to \$3,589,290.18 the sum of \$74,481.52 due to be refunded, disbursement of which had not been effected to the close of the fiscal year 1919, gives a total loss to July 1, 1919, of \$3,663,771.70.

On the other hand, the provision that tolls on ships in ballast shall not be less than the equivalent of 75 cents per net ton, United States registry measurement, though levied on the basis of 72 cents per net ton, Panama Canal measurement, has resulted in slight gains to the Canal. Additional collections made under this ruling during the fiscal years 1918 and 1919 amounted to \$930.94, or slightly over two-fifths of 1 per cent of the refunds made during the same period on account of the change of rules.

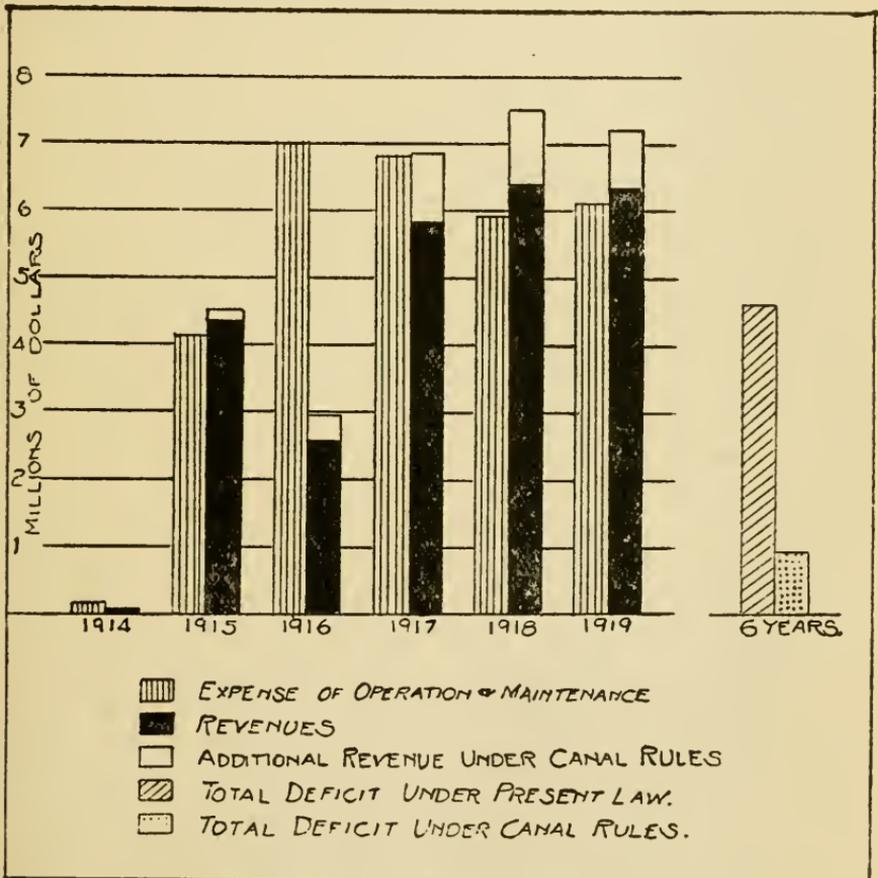
These additional collections have in practically all cases been absorbed in the refunds, by deducting them from the amount due an operator as a refund. The checks drawn to pay refunds have accordingly represented the actual loss to the Canal under the changed system, which effects losses on most loaded vessels and gains on a part of those in ballast.

Authority to pay the refunds was contained in an Act of Congress dated June 12, 1917. The following table shows the refunds made to July 1, 1919, to various operators, as distributed among the fiscal years in which transit was made by the vessels for which refunds were allowed:

Operator.	1915.	1916.	1917.	1918.	1919.	Total.
W. R. Grace & Co.....	\$12,803.41	\$723.11	\$338.75			\$13,865.27
Panama Railroad Company.....	7,442.50					7,442.50
E. J. Dodge Co.....	622.55					622.55
Wittenberg Coal Co.....	360.00					360.00
Luckenbach Steamship Co.....	8,855.25					8,855.25
United States Shipping Board.....					\$3.60	3.60
Norton Lilly & Co.....	7,693.02	5,922.35	25.00			13,640.37
Wessel Duval & Co.....	5,997.45	713.75				6,711.20
Funch Edye & Co.....	1,529.50	682.50				2,212.00
United States Steel Products Co.....	15,517.65	548.75				16,066.40
Barber & Co.....	6,542.70					6,542.70
Dodwell & Co.....	2,765.05	255.85				3,020.90
Pacific Steam Navigation Co.....	9,632.10		6.25		276.75	9,915.10
Mitsui & Co.....			407.50			407.50
Sudden & Christensen.....	10,134.00	27.50				10,161.60
Gaston, Williams and Wigmore.....			1,275.30			1,275.30
Bruusgaard Kiosterud.....	11.80					11.80
United States & Australia S. S. Co.....	496.25					496.25
J. L. Mowinkel.....	3,096.65					3,096.65
Emery Steamship Co.....	6,288.65					6,288.65
Fred Linderman.....	1,276.90					1,276.90
American-Hawaiian S. S. Co.....	1,341.25					1,341.25
W. Andrews & Co.....	6,331.05	2,758.05				9,089.10
United Fruit Company.....	29,154.05	2,439.20		\$127.50		31,720.75

Operator.	1915.	1916.	1917.	1918.	1919.	Total.
British Admiralty.....	\$7,209.19					\$7,209.19
International Banking Corporation.....			\$25.92	\$38.16		64.08
Commercial National Bank.....			6.25			6.25
Union Oil Company.....	1,306.75					1,306.75
Swayne & Hoyt.....	984.10					984.10
Hinds, Rolph & Co.....	274.35					274.35
J. R. Hanify.....	65.15					65.15
M. E. Kinsley.....					\$4.00	4.00
Booth & Co.....			17.50			17.50
Barr, Crombie Co.....			10.80			10.80
Tatem Steam Navigation Co.....				1,042.13		1,012.13
Golden Gate S. S. Co.....	665.45					665.45
Payne & Wardlaw.....	10,733.63	\$1,057.00				11,790.63
Anglo-American S. S. Co.....	5,129.35	2,602.00				7,731.35
Peruvian Steamship Co.....	802.80	4,380.40	15,269.20	7,493.30		27,945.70
McBeth & Co.....	395.06					395.06
Totals.....	165,457.71	22,110.46	17,382.47	8,701.09	284.35	213,936.08

The accompanying chart shows graphically the relation, by fiscal years, between the expenses of maintenance and operation of the Canal, and the revenues derived; and shows also the relation of the additional revenue which would have been derived under the application of the Canal rules:



Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight October 18, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Vincent	11	13.40	12	7.15	12	14.33	12	15.24	American	United States Shipping Board	395.5	55.0	28.3	New York	Pearl Harbor	Navy coal	8,136	7,285	5,298
Balboa	9-28	19.55	12	7.51	12	14.40	12	23.40	American	Colombian Maritime Company	190.0	29.0	13.6	Cristobal	Buena Ventura	General	544	734	350
Colorado	10	5.55	12	8.35	12	17.02	12	18.01	American	United States Shipping Board	409.0	54.0	27.6	Newport News	San Diego	Coal, navy supp.	10,888	7,491	5,722
Springs	10	17.40	12	8.45	12	16.08	12	17.02	American	United States Navy	542.0	65.0	32.0	New York	San Francisco	Coal	10,888	7,491	5,722
Neptune	11	20.18	12	9.06	12	17.14	16	9.16	American	United States Shipping Board	547.3	46.0	17.9	Norfolk	Liquine	Petroleum	6,784	5,963	4,230
Tanka	12	7.40	12	13.26	12	20.30	12	21.32	British	Anglo-Saxon Petroleum Co.	406.0	51.0	27.0	Beaumont	Shanghai	Crude oil	9,500	7,418	5,342
Ranala	12	23.06	13	6.55	13	15.31	13	18.32	British	C. T. Bowring & Company	435.0	55.0	27.8	Pro. Lobos	Antofagasta	General	7,119	6,529	4,658
Lompeo	12	8.47	13	8.32	13	18.17	13	18.12	American	United States Shipping Board	400.7	54.0	25.6	New York	Yokohama	Coal	6,800	6,193	4,406
Cosigan	12	17.50	13	9.24	13	16.19	13	18.15	Dutch	Rotterdamse Lloyd	400.0	53.5	24.0	Norfolk	San Diego	General	6,799	4,905	3,977
Arekan	8	15.56	13	4.46	13	10.20	13	18.26	Chilean	South American S. S. Line	379.0	44.3	23.0	Cristobal	Valparaiso	Steel and general	5,860	4,925	3,664
Aysen	14	5.35	14	10.03	14	18.05	14	19.05	American	United States Shipping Board	405.0	52.0	24.6	New York	San Francisco	Case oil	6,800	5,225	4,110
Ica	13	23.23	14	12.20	14	19.46	14	10.57	British	Swan Hunter & Company	310.0	44.0	15.0	New York	Adeleide	General	8,000	2,952	2,011
Canasota	13	15.24	15	6.05	15	13.37	15	14.25	Spanish	Naveera Guip & Cvanna	310.0	44.0	15.0	Gijon	Arca	General	3,000	2,855	1,768
Rosario	14	17.15	15	6.15	15	12.28	16	18.29	American	United States Navy	315.0	30.0	11.6	Philadelphia	San Diego	General and steel	7,300	6,914	4,954
Twigg (b)	14	17.15	15	6.15	15	12.31	16	18.29	American	United States Navy	315.0	30.0	11.6	Philadelphia	San Diego	Coal, coke, brick	3,250	2,939	1,976
McLanahan (b)	14	17.15	15	6.15	15	12.31	16	18.29	American	United States Navy	315.0	30.0	11.6	Philadelphia	San Diego	General	300	9,489	6,792
Talbot	14	17.15	15	6.15	15	12.31	16	18.29	American	United States Navy	315.0	30.0	11.6	Philadelphia	San Diego	General	816	1,241	759
Ulysses	15	4.55	15	6.57	15	14.40	19	6.34	American	Panama Railroad Steamship Line	536.0	65.0	29.0	Norfolk	Balboa	General	12,017	11,531	6,910
Lake Farming-dale	15	12.20	15	10.52	15	18.18	16	4.00	American	United States Shipping Board	251.0	43.6	24.6	New York	Manila	General	3,000	2,855	1,768
Euryades	15	22.55	16	12.46	16	19.53	18	20.46	British	Alfred Holt & Company	430.0	50.0	27.6	New York	Shanghai	General and steel	7,300	6,914	4,954
Lake Elkwater	14	18.37	16	17.01	17	15.10	17	16.06	American	United States Shipping Board	210.0	44.0	24.6	Baltimore	Chile	Coal, coke, brick	3,250	2,939	1,976
Alkmaar	14	8.05	17	8.40	17	15.53	17	16.30	Dutch	Royal Netherland S. Co.	447.0	63.0	16.0	Rotterdam	Valparaiso	General	300	9,489	6,792
Manavi	12	14.40	18	5.55	18	13.45	18	18.08	British	Pacific Steam Navigation Co.	216.0	35.0	15.0	Cristobal	Guayaquil	General	816	1,241	759
Santa Luisa	17	19.05	18	6.13	18	13.05	18	13.55	American	W. R. Grace & Company	360.0	51.0	17.0	New York	Valparaiso	Gen'l and mach.	8,840	5,694	3,975
Valparaiso	17	19.05	18	6.13	18	13.25	18	22.30	Swedish	Johnson Steamship Line	375.0	51.0	17.0	Gotheborg	Valparaiso	General	1,500	1,961	1,312
Santa Isabel	17	19.10	18	7.05	18	15.56	19	11.26	American	W. R. Grace & Company	216.0	42.0	17.0	New York	Calbo	General	1,505	5,371	3,989

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Manavi	12	2.55	12	7.23	12	14.40	18	5.55	British	Pacific Steam Navigation Co.	216.0	35.1	14.3	Guayaquil	Cristobal	General	772	1,241	759
Orator	12	6.00	12	7.48	12	15.53	12	18.25	British	Harrison Line	385.5	52.0	22.6	Victoria	Liverpool	Lumber, etc.	6,000	5,178	3,870
Balsto	11	16.50	12	8.29	12	17.50	12	23.45	American	United States Shipping Board	267.3	46.0	23.0	Antofagasta	Savannah	Nitrate of soda	2,900	2,655	1,688
Chimo	12	1.55	12	8.44	12	16.52	16	19.36	American	United States Shipping Board	266.5	46.2	22.6	Antofagasta	Wilmington	Nitrate of soda	2,802	2,635	1,671
C-44	12	15.00	13	6-39	13	16.55	19	8.45	French	French Government	196.8	40.5	16.0	Manama	Kingston (c)	Lumber	.....	(d)	.....
Duendes	13	4.15	13	7.49	13	15.05	13	19.12	British	Pacific Steam Navigation Co.	390.0	50.0	23.0	Talcahuano	Liverpool	General	5,594	6,014	4,494

(c) For orders. (d) 533,729 ft. B. M.

Princess May	9 20	13	10 15	16 55	14 17	50	British	Princess May S. S. Co.	249 0	33 2	18 0	San Francisco	Cienfuegos	Rice and fish	917
Republic	14 12 30	11 7 38	14 15 24	14 15 24	14 15 24	14 15 24	American	Chile Steamship Company	315 1	46 1	23 4	Valparaiso	New York	(e)	6,146
Avonia	14 1 07	14 8 10	14 15 38	14 15 38	14 15 38	14 15 38	American	United States Shipping Board	324 0	46 2	23 4	Iquique	New Orleans	Nitrate of soda	4,815
Goodspeed	9 18 00	14 8 56	14 16 35	14 16 35	14 16 35	14 16 35	American	United States Shipping Board	266 5	43 8	20 0	Seattle	Nuevitas	(f)	3,059
C. A. Canfield	14 8 30	14 9 17	14 16 31	14 16 31	14 16 31	14 16 31	American	Pan-American Pet. & Transp. Co.	266 9	45 9	22 0	Portland	United King	Lumber	2,556
El Segundo	14 14 35	15 6 36	15 12 23	15 12 23	15 12 23	15 12 23	American	Standard Oil Company	321 7	46 2	22 6	Chaparral	Tampico	Fir, ties	1,688
Mamaheoking	14 16 30	15 6 43	15 12 29	15 12 29	15 12 29	15 12 29	American	United States Shipping Board	372 6	49 5	24 0	Seattle	Baltimore	Lubricating oil	4,200
Pawtucket	14 19 05	15 8 22	15 15 21	15 15 21	15 15 21	15 15 21	American	United States Shipping Board	324 0	46 2	23 5	Iquique	Savannah	Fir, ties, lumber	1,773
Almedo	14 20 30	15 8 36	15 15 17	15 15 17	15 15 17	15 15 17	Holland	Royal Netherlands S. S. Co.	410 0	62 5	27 0	Talcahuano	Amsterdam	Nitrate of soda	4,800
Mantaro	15 5 30	15 9 45	15 17 12	15 17 12	15 17 12	15 17 12	Peruvian	Peruvian Steamship Line	360 0	46 0	22 9	Callao	Cristobal	General	3,470
Dardano	15 12 55	15 10 06	15 17 41	15 17 41	15 17 41	15 17 41	Peruvian	United States Shipping Board	264 6	46 1	22 5	Portland	Grimshy, Eng.	Fir, ties	1,539
Subalaser 284	9 13 14	16 6 42	16 11 12	16 11 12	16 11 12	16 11 12	American	United States Navy	396 0	56 2	24 0	Balboa	Cristobal	(g)	7,634
Lime Branch	16 5 15	16 7 37	16 15 57	16 15 57	16 15 57	16 15 57	British	Nautibus Steam Shipping Co.	279 0	16 9	19 0	Iquique	Liverpool	Lumber	6,566
Ontario	16 12 30	16 13 20	16 20 58	16 20 58	16 20 58	16 20 58	French	French Government	370 3	51 4	23 5	Vancouver	Queens-town	Sugar	2,013
Thudlor	17 12 15	17 7 33	17 19 22	17 19 22	17 19 22	17 19 22	British	Albyn Line	410 5	63 3	27 0	Salaverry	Queens-town	General	6,900
War Company	15 15 10	17 11 48	17 19 22	17 19 22	17 19 22	17 19 22	British	British Government	410 5	63 3	27 0	Vancouver	Queens-town	Lumber	5,062
Athenic	18 2 00	18 8 03	18 15 58	18 15 58	18 15 58	18 15 58	British	White Star Line	500 3	63 3	27 0	Lytleton	London	(h)	6,000
Guatemala	18 3 30	18 9 43	18 17 10	18 17 10	18 17 10	18 17 10	British	Pacific Steam Navigation Co.	359 3	43 3	20 0	Vancouver	Cristobal	Metals, sugar	5,962
Port Albany	18 9 00	18 10 59	18 18 30	18 18 30	18 18 30	18 18 30	British	Commonwealth & Dominion Line	426 3	54 1	55 0	Valparaiso	London	Frozen meat, gen.	2,513
Luca	18 13 10	18 13 54	18 21 17	18 21 17	18 21 17	18 21 17	British	Pacific Steam Navigation Co.	360 6	43 2	22 6	Talcahuano	Liverpool	General	4,370
															3,688
															3,952
															2,751

(c) Copper, nitrate, wool, hides, etc. (f) 1,535,719 ft. B. M. (g) Sugar, nitrate, cotton, and general. (h) Wool, meat, cheese, tallow, etc.

PORT OF CRISTOBAL.

Date	Vessels	Line	From	Date	Vessels	Line	For
Oct. 12	Mid-Jelby	Panama Railroad Commissary	Cartagena	Oct. 14	Marica	United States Army	New York via San Juan
Oct. 13	Heredia	United Fruit Company	New Orleans	Oct. 15	Panama	Panama Railroad Steamship Line	New York via Haiti
Oct. 13	Stuyvesant	Royal Dutch West India Mail Co	Amsterdam and wayports	Oct. 15	Heredia	United Fruit Company	New Orleans and wayports
Oct. 14	Antonio Lopez	Spanish Steamship Line	Barcelona and Habana	Oct. 15	Mid-Jelby	Panama Railroad Commissary	Cartagena
Oct. 15	Baldhill	United States Shipping Board	Tampico	Oct. 15	Stuyvesant	Royal Dutch West India Mail Co	Puerto Colombia
Oct. 15	Carillo	United Fruit Company	New York via Kingston	Oct. 15	Arcus	United Fruit Company	New York via Kingston
Oct. 16	Breakwater (i)	United States Navy	Cape May ²	Oct. 16	Antonio Lopez	Spanish Steamship Line	Puerto Colombia
Oct. 18	Tevent	Royal Mail Company	Cardiff	Oct. 16	Carillo	United Fruit Company	Colombian ports
				Oct. 17	Baldhill	United States Shipping Board	Tampico

(i) Scout patrol.

PORT OF BALBOA.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	For
				Oct. 9	Paiza	United States Shipping Board	Arica

*Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 18, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons
Balboa	Colombian Maritime Co.		October 12.		550
Neptune	United States Government		October 12.		(*)
Aysen	United Fruit Company		October 13.		435
Marica	United States Government		October 14.		12
Panama	Panama Railroad Steamship Line.		October 15.		3,066
Middlebury	Panama Railroad Commissary.	October 12.	October 15.	450	77
Manavi	Pacific Steam Navigation Co.	October 12.	October 18.	772	815
Heredia	United Fruit Company	October 13.	October 15.	1,779	199
Stuyvesant	Royal Dutch West India Mail.	October 13.	October 15.	184½	57
Antonio Lopez	Spanish Line	October 14.	October 16.	435	148
Alkmaar	Royal Netherlands S. S. Line	October 14.	October 17.	310	(*)
Carrillo	United Fruit Company	October 15.	October 16.	1,089	87
Baldhill	United States Shipping Board.	October 15.	October 17.	7,000	(*)
Mantaro	Peruvian Steamship Line	October 15.		3,328	
Atenas	United Fruit Company	October 16.	October 16.	3	245†
Guatemala	Pacific Steam Navigation Co.	October 18.		2,512	

* No cargo laded.

† Pounds.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 18, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons
Manavi	Pacific Steam Navigation Co.	October 12.	October 12.	1	
Balboa	Colombia Maritime Co.	October 12.	October 12.		22
Ulysses	Panama Railroad Steamship Line.	October 15.		12,017	
Manavi	Pacific Steam Navigation Co.	October 18.	October 18.		9
Guatemala	Pacific Steam Navigation Co.	October 18.	October 18.	1	

Changes in Freight Rates to South Pacific Ports.

The Panama Railroad Steamship Line, with connecting carriers, has issued Supplement No. 1 to freight classification and tariff No. 28, publishing class and commodity rates from New York, N. Y., to South Pacific ports in Colombia, Ecuador, Peru, and Chile, effective September 30, 1919. Distribution of the supplement has been made and additional copies may be obtained from the offices of the line at 24 State Street, New York, or Balboa Heights, C. Z.

Distances to Victoria and Prince Rupert.

In connection with the table of distances recently distributed by The Panama Canal, a portion of which was reprinted in THE PANAMA CANAL RECORD of October 8, 1919, inquiry has been made as to the distances to Victoria and Prince Rupert, British Columbia. The distance from the Pacific terminal of the Canal to Victoria is stated by the Hydrographic Office of the Navy Department to be 3,962 nautical miles, and that to Prince Rupert, 4,425 nautical miles.

The distance saved by the Canal in the voyage to these ports, as well as Vancouver, from Liverpool is 5,666 nautical miles; from Hamburg and Antwerp, 5,528 miles; from Bordeaux, 5,376 miles; and from Gibraltar, 4,950 miles. Between the British Columbian ports and representative United States ports, the savings are as follows: Portland, Me., 7,651 miles; Boston, 7,661 miles; New York, 7,873 miles; Philadelphia, 7,948 miles; Baltimore and Norfolk, 8,020 miles; Charleston, 8,234 miles; Savannah, 8,267 miles; Jacksonville, 8,301 miles; Mobile, 8,839 miles; New Orleans, 8,873 miles; and Galveston, 8,946 miles.

Admission to Docks.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., October 4, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

The following regulations, governing the admission to piers and docks are hereby published for your information and guidance:

1. Admission to piers or docks (Cristobal and Balboa) shall be limited strictly to persons having legitimate business thereon.

2. Legitimate business necessitating admission to piers or docks is recognized in the following cases:

(a) Officials of The Panama Canal or Panama Railroad, or officers of the Army or Navy, whose duties of a supervisory character require visits on their part from time to time to piers and docks.

(b) Officials of the Republic of Panama, or members of the diplomatic corps and consular service (United States and foreign).

(c) Employees of the United States, The Panama Canal or Panama Railroad, whose duties require routine visits to piers and docks.

(d) Representatives of shipping interests or other responsible commercial establishments whose duties necessitate frequent visits to piers and docks.

(e) Contractors, or subcontractors (and their gangs) and employees of shipping or other responsible commercial concerns whose work requires habitual admission to piers and docks.

(f) Officers and crews of Army, Navy, and merchant vessels lying in port.

3. Identification under each of the foregoing headings shall be established in the following manner.

(a), (b), (c) and (f) above referred to upon proper identification by police officer at the main entrance.

Representatives of shipping and commercial interests, and contractors or subcontractors and their foremen will be admitted upon annual pass issued by the Executive Secretary upon recommendation of the Captain of the Port after consultation with the Receiving and Forwarding Agent, the Chief Customs Inspector, and the Police District Commander. Silver gangs of the above concerns shall be checked in by their timekeepers or foremen at the main entrance.

Silver employees of the United States Government, The Panama Canal or Panama Railroad, shall be checked in at the main entrance by timekeeper or foreman.

4. Persons not mentioned in the foregoing are denied entrance to piers and docks, except under special circumstances, which, in the opinion of the Captain of the Port, justify the issuance of a single trip permit, or in exceptional cases, of a permit for a reasonable period.

The Receiving and Forwarding Agent shall issue such passes as may be necessary in connection with his duties.

The Chief Customs Inspector at each port shall issue such passes as may be necessary in connection with his duties.

All persons visiting the docks (with proper pass) as escorts or companions of arriving or departing passengers shall keep clear of the dock aprons and of ship's gangways, and such persons must confine themselves strictly to the dock sheds.

Outgoing passengers will be permitted to embark at all hours, but vessels upon which such passengers have previously obtained transportation shall be required to receive them on board immediately after their admission within the dock area.

All traffic, excepting employees of the United States Government, The Panama Canal and Panama Railroad traveling on official business to and from the coaling plant at Cristobal, must enter and leave via the main entrance at the Terminal Building.

5. At the Cristobal Terminal all outgoing steamer freight originating in the cities of Cristobal and Colon shall be delivered through the Local Freight House. Delivery at ship's side by private carrier is prohibited.

Incoming freight destined to the cities of Cristobal and Colon may be received at the team track at the main entrance upon proper pass issued by the Receiving and Forwarding Agent.

At the Balboa Terminal outgoing and incoming steamer freight shall be handled in accordance with The Panama Canal Tariff as published from time to time.

Regulations governing the admission of duly licensed baggage wagons and carts to the dock area, and appropriate to the conditions obtaining locally at their respective terminals, shall be established by a board composed of the Captain of the Port, the Receiving and Forwarding Agent, the Chief Customs Officer, and the Police District Commander, in accordance with the principles stated herein.

6. Panama Canal, Panama Railroad, Army, Navy, and private trucks delivering supplies or delivering and receiving baggage from vessels moored to the dock, will be permitted to enter the dock area and dock sheds under the supervision of the dock foreman.

Public vehicles will be permitted to enter the dock area only when carrying a passenger or passengers entitled (under the foregoing rules) to admission to such area, or (without a passenger or passengers) at a reasonable time prior to the anticipated arrival of a passenger vessel. One driver only will be permitted to enter in each vehicle. Such vehicles, after having been passed into the area, may remain there awaiting other fares during daylight hours only. All such vehicles in the area awaiting fares shall park in locations indicated by the police or the dock foreman. Drivers will not be permitted to leave their vehicles at any time.

7. Private vehicles may enter the dock area when occupied by a person or persons duly authorized to enter.

8. No passenger vehicle of any description shall be permitted to enter the dock sheds without proper pass from the Receiving and Forwarding Agent, and then only under the supervision of the dock foreman.

9. The speed of all vehicles entering the dock area must not exceed 12 miles per hour, and within the dock sheds not exceed 4 miles an hour.

10. In the event of fire within the dock area, the fire-fighting apparatus and personnel shall be allowed unimpeded admission to the dock area and to the dock sheds. The same rule shall govern the admission of equipment and personnel for relief work in the event of emergencies in general.

11. The improper or unnecessary use of any dock pass shall be considered sufficient cause for its revocation.

CHESTER HARDING,
Governor.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286):

Stenographer, typist, and stenographer-typist, Departmental Service (male and female); \$1,100 for typists, and \$1,200 a year for stenographers and stenographer-typists; No. 807-amended; December 7, 1919; form 304; age, at least 18 years.

Senior structural engineer, Grade 1 (male), \$3,000 to \$4,000 a year; senior structural engineer, Grade 2 (male), \$1,800 to \$2,700 a year; senior mechanical engineer, Grade 2 (male), \$1,800 to \$2,700 a year; (Interstate Commerce Commission); No. 504; form 1312; age, less than 60 years.†

Printer (male and female), bookbinder (male), pressman (male), electrotyper-finisher (male), electrotyper-molder (male), stereotyper (male); 75 cents an hour; No. 462-amended; forms 304 and 1745, 304 and 2109, 304 and 2165, 304 and 1747, 304 and 1747, 304 and 1747, respectively; age, at least 20 years.†

Tariff clerk (male); \$1,200 to \$1,500 a year; No. 329-amended; November 23, 1919; form 1312; age, at least 21 years but under 50 years.

Biological assistant (male), \$1,440 to \$1,800 a year; No. 483; November 11, 1919; form 2118; age, at least 20 years but under 45 years.*

Assistant in cotton testing (male); Grade 1, \$1,800 to \$2,400 a year, Grade 2, \$1,200 to \$1,800 a year; No. 255; November 18, 1919; form 2118; age, under 45 years.*

Metallographist (male); \$7.60 per diem; No. 508; November 25, 1919; form 2118; age, under 40 years.*

Junior mechanical engineer (male); Engineer Department at Large; \$1,800 to \$2,000 a year; No. 501; November 11, 1919; form 1312; age, no limits.*

Lithographer (male); \$1,000 a year; No. 498; November 11, 1919; form 304; age, at least 20 years.*

Chief metallurgical chemist (male); \$3,000 a year; assistant chief metallurgical chemist (male); \$8.80 a day; metallurgical chemist (male and female); \$6.00 a day; assistant metallurgical chemist (male and female); \$5.12 a day; November 25, 1919; age, no limits; form 1312.*

Assistant economist (male and female); \$1,800 to \$2,700 a year; December 14, 1919; form 1312; age, at least 25 but under 45 years.

Agent for agricultural education (male); \$3,000 to \$3,500 a year; agent for trade and industrial education (male); \$3,000 to \$3,500 a year; December 2, 1919.*

Highway engineer (male); \$1,800 to \$2,400 a year; November 11, 1919; age, under 35 years.*

Hospital interne (male); \$100 a month with subsistence, quarters, and laundry; November 23, 1919.

The following examinations are closed:

Master gage expert (male); \$2,000 to \$3,600; gage inspector (male); \$1,800 to \$2,400; assistant gage inspector (male); \$1,200 to \$1,800; gage inspector's helper (male and female); \$900 to \$1,320; assistant in marketing, Grade 1 (male); \$1,800 to \$2,400; cement tester (male); \$900 to \$1,200.

(*) Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

(†) Nonassembled. Applications will be received at any time until further notice.

Official Circulars.**Acting Member of Board of Local Inspectors.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., October 15, 1919.

To all concerned—Effective this date, Capt. John Weishofer will act as Member of the Board of Local Inspectors, in addition to his duties as Assistant Captain of the Port, Cristobal.

CHESTER HARDING,
Governor.

Reduced Fares for Government Employees and Members of their Families.

PANAMA RAILROAD COMPANY,

BALBOA HEIGHTS, C. Z., October 16, 1919.

CIRCULAR RA-660:

To all concerned—1. Effective at once and until further notice, "U. S." tickets, both single trip (designated as "SS") and round trip (designated "S"), will be sold to employees of The Panama Canal and Panama Railroad Company on the gold roll, and their families and to all others entitled to rates granted employees, as well as to officers and enlisted men of the United States Army and Navy in uniform. "U. S." tickets will also be sold to families and visiting relatives and friends of officers and enlisted men of the United States Army and Navy upon presentation of half-rate requests.

2. At stations where no "U. S." tickets are provided, half-rate simplex tickets 576-A and 576-D will be sold.

3. Persons entitled to the tickets specified above, boarding trains at nonagency stations or after regular stations are closed, will be charged half the regular tariff rate. Minimum cash fare on trains will be 10 cents United States currency, except between Pedro Miguel and Paraiso, and Culebra and Empire, where the charge will be 5 cents United States currency.

4. Effective Monday, October 20, 1919, the special rate \$1.50 Sunday and holiday round trip ticket will be sold at regular stations every day, to employees of The Panama Canal and the Panama Railroad Company on the gold roll and to their families, and to all others entitled to rates granted employees, including officers and enlisted men of the United States Army and Navy in uniform. The going portion will be good only on regular trains on date of sale. The return portion may be used not later than the last regular train leaving a terminal on the day following the date of sale, except that when a Sunday and holiday occur together, the return portion of tickets sold on the day immediately preceding the two days, will be honored not later than on the last regular train leaving a terminal on the second of the two days.

5. No baggage will be checked on the special round trip tickets and no refunds will be made for unused portions thereof.

6. All persons, civilian and military, boarding trains without transportation at regular stations open for business, will be charged full tariff rates plus 10 cents.

7. All persons requesting or being furnished with transportation, at reduced rate herein authorized, shall properly identify themselves to ticket sellers, collectors, or trainmen, either by producing commissary identification card, photo-metal check, or other proper authority issued by the Executive Office or by the Superintendent of the Panama Railroad, and shall otherwise be subject to the rules and regulations of the company in effect at the time.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

W. F. FOSTER,
Actg. Supt., Panama Railroad Co.

Approved:

CHESTER HARDING,
President, Panama Railroad Co.

Foreman's Orders for Nonexpendable Property, on Commissaries.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., October 11, 1919.

CIRCULAR No. 216:

The Governor's circular No. 656-13 and Auditors circular No. 188, were issued for the purpose of allowing nonexpendable property to be issued from commissary stock only when the articles desired are not obtainable in Supply Department storehouse, and are available for issue from the commissary on which the order is drawn.

The foreman's orders should constitute both an order and a receipt for the property and cover cases only where immediate delivery is made.

The commissary invoice issued and sent to this office should cover every item on the foreman's order. The foreman's order should not be left open to have an additional issue made to be covered by an additional invoice. Items on foreman's orders not filled immediately, should be crossed off.

The original foreman's order, as drawn, and the foreman's order as filled, should be compared as required by Auditor's circular No. 181.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

CHESTER HARDING,
Governor.

Count of Mail Handled by Post Offices.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., October 13, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

For statistical purposes a count of all mail handled by Canal Zone post offices will be made during the period October 16 to November 15, inclusive. You are therefore directed to issue the necessary instructions so that all outgoing mail during this period will be delivered to or handed in at post offices as often as possible.

The cooperation of all departments and divisions will relieve considerably the congestion at post offices and will insure the dispatch of all mail without delay.

By direction of the Governor.

C. A. McILVAINE,
Executive Secretary.

Final Issue of Commissary Books.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., October 17, 1919.

To all concerned—As it has been ascertained that practically all employees have a sufficient amount earned as of the 24th of each month to cover their monthly needs for commissary books, the following regulations will govern:

Effective at once the issue of commissary books on the 4-day period ending the 24th day of the month will be the final issue to all employees each month.

Foremen and timekeepers are directed to notify the employees under their jurisdiction that this rule will be strictly adhered to.

Employees should provide themselves with sufficient books on this final issue to last until the first issue of the following month.

Timekeepers when taking orders for books for the period ending the 24th must call the attention of all employees to the fact that no further requests for commissary books will be received during that month.

By direction of the Governor.

C. A. McILVAINE,
Executive Secretary.

Cable Notice.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 15, 1919.
CIRCULAR No. 1397:

To agents and operators—The following information has been received from the Central and South American Telegraph and Cable Company:

"Communication with Guam and Philippines via San Francisco and wireless restored subject to delay."

W. J. BISSELL,
Acting Master of Transportation.

Appointment.

THE PANAMA CANAL,
DEPT. OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., October 14, 1919.
To all concerned—Effective October 16, 1919, Mr. George W. Green is appointed Superintendent of the Southern Municipal District, vice Mr. R. C. Hardman, transferred.

D. E. WRIGHT,
Municipal Engineer.

Increase in Cost of Meal Tickets.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 17, 1919.
To all concerned—Effective November 1, 1919, the cost of 30-cent and 40-cent rations at all silver messes will be increased to 40 and 50 cents.

The 40-cent ticket will continue to be used for the 40-cent ration. The present stock of 30-cent tickets have been stamped "FIFTY CENTS" and will be used for the 50-cent ration.

All 30-cent tickets should be turned in to this office immediately after the first of next month.

Requisitions for a supply of 50-cent tickets should be placed with this office in ample time for use on the above effective date.

H. A. A. SMITH,
Auditor, The Panama Canal.

Passenger Accommodations on the "Gen. Geo. W. Goethals."

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,
BALBOA HEIGHTS, C. Z., October 18, 1919.

To all concerned—Owing to delay in sailing of our passenger steamers from New York on account of the strike, I wish to advise that those who desire to secure transportation during the latter part of this month, or before arrival of the steamers which are being detained at New York, can obtain passage on the steamship *Gen. Geo. W. Goethals*, which will probably sail from Cristobal between October 25 and 29. This ship has 18 rooms, with two berths and sofa in each room, capable of accommodating three adults, two rooms with four berths each, and three rooms with two berths each. All staterooms are in excellent condition, and we can book a total of 68 first-class passengers on this steamer.

W. F. FOSTER,
Acting Superintendent.

Joint Commission.

Rules of Dismissal.

In the matter of the claim of Bertina Diaz, for property known as "La Granja," rule of dismissal No. 428, docket No. 2723, October 15, 1919—With reference to the claim of Bertina Diaz, docket No. 2723, the evidence before the Commission is that settlement therefor was made by the United States on September 9, 1919.

In view of such settlement, the above claim calls for no further action by this Commission and said claim is therefore hereby dismissed.

FEDERICO BOYD, BURT NEW, RICARDO J. ALFARO, GEORGE A. CONNOLLY, Commissioners.

In the matter of the claim of Alberto and Francisca Guilray, in which rules of default have been entered, rule of dismissal No. 430, docket No. 3286, October 16, 1919—On April 13, 1916, the Joint Commission, with the approval of the two governments, parties to the treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called.

The said rule also provides that: "Upon the entry of such rule of default (at the end of each month) notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within 60 days from said first publication their claims will be considered as having been either settled or abandoned and the same will be dismissed and forever barred."

In the claim of Alberto and Francisca Guilray, docket No. 3286, set for hearing July 30, 1919, there was no appearance on the part of claimants nor counsel for claimants, and a rule of default was accordingly entered against them.

Due notice having been given as provided for in the above-quoted section of the rule of the Commission, and there having been no appearance by the claimants in person or by counsel during the 60-day period fixed in the rule referred to, which began on August 7, 1919, the foregoing claim against the United States is hereby dismissed and forever barred.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, Commissioners.

Award.

In the matter of the claim of Frank Malcolm Briggs, for property located in the District of Chagres, award No. 208, docket No. 3598, October 17, 1919—An award is hereby made against the United States of America in favor of Frank Malcolm Briggs in the sum of \$1,000 United States currency, for all right, title, and interest the said Frank Malcolm Briggs may possess or may have possessed in and to the property located on the west bank of the Chagres River, between the Canal Zone boundary and the mouth of said river, within the Republic of Panama, subject of claim docket No. 3598, including all improvements located thereon and any and all damages sustained on account of the expropriation of the said property by the United States of America.

This award shall be paid on or before the 17th day of November, 1919, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum per annum until paid.

FEDERICO BOYD, BURT NEW, JULIO J. FABREGA, GEORGE A. CONNOLLY, Commissioners.

Additions to Commissary Stock.

Polish, shoe, black, Bostonian cream, bot.	\$0.16
Trees, slipper, steel, pr.	.07
Cigarettes, Piedmont, 20s pkg.	.12
Spare parts for Icy Hot Vacuum Bottles:	
Corks for quart bottles, ea.	.05
Corks for pint bottles, ea.	.05
Pads for quart and pint bottles, ea.	.01
Rings, rubber, for quart bottles, ea.	.08
Rings, rubber, for pint bottles, ea.	.04
Bowls, sugar, enameled, pt., ea.	.57
Knives, table, celluloid handles, ea.	.79
Knives, pocket, ea.	1.00
Knives, pocket, ea.	.45
Knives, pocket, ea.	1.50
Pitchers, cream, enameled, 1/2-pt., ea.	.47
Pots, tea, individual, enameled, pt., ea.	.76
Shakers, salt or pepper, ea.	.15

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., October 29, 1919. No. 11.

Notice to Steamship Lines.—Crew Lists for Incoming Vessels.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., October 22, 1919.

1. Circular No. 679-4, dated December 8, 1917, requires that "all vessels entering Canal Zone ports, or transiting the Canal, will be required to furnish a correct copy of their crew lists to the Quarantine Officer, in addition to the copy which is now furnished the boarding inspector of the Customs Service by vessels stopping at Canal Zone ports."

2. In order that these lists may be prepared with minimum effort in the required form, The Panama Canal has prepared a form (No. 1509), "Crew List for Incoming Vessels," which may be used when other suitable lists giving the required information are not available. This form is being distributed to steamship operators, and additional copies may be secured as needed by request made to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

3. Attention is invited to the fact that this form is designed to give requisite information to the customs and quarantine authorities at the Canal Zone only for incoming ships of all nations. Form 710-A of the Department of Commerce is used at the Canal Zone for crew lists of American ships with crews signing on and shipping from the Canal Zone, under the supervision of the Deputy Commissioners.

CHESTER HARDING, *Governor.*

Style of Crew Lists for Incoming Vessels.

The heading of Form 1509, crew list for incoming vessels, referred to in the Notice to Steamship Lines published above, is as follows:

THE PANAMA CANAL

CREW LIST FOR INCOMING VESSELS.

Persons composing the crew of the
(Insert nationality, rig, and name.)

From..... To.....
....., Canal Zone,, 19....
(Place.) (Date.)

Name.	Capacity or duty.	Birthplace.	Citizen or subject of.	Age.

The sheet is 8 by 14 inches, ruled on both sides with $\frac{1}{4}$ -inch spacing and provides space for 91 names. The average crew coming to the Canal is composed of about 80 persons. At the bottom of the reverse side of the sheet the oath of the master is provided for, as follows:

I, Master of said
do solemnly, sincerely, and truly swear that the within list contains the names of all the crew of the said vessel, including detailed men from the Navy, workaways and stowaways, together with the places of their birth, as far as I can ascertain the same.

.....
Master.

Subscribed and sworn to this day of, 19.... before me.

Sheet No.

.....
Quarantine Officer.

The use of Form 1509 is not compulsory if the required information is given on other suitable lists. The form is furnished "in order that the lists may be prepared with minimum effort in the required form."

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight October 25, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Toyama Maru.	20	6 10	20	7 18	20	14 40	20	15 40	Japanese.	Nippon Yusen Kabushiki Kaisha.	445 0	58 0	24 0	New York.	San Francisco	General.	7,399	7,815	5,620
Bara-bi.	20	6 45	20	8 10	20	15 28	20	16 38	Spanish.	Naveira Baracaldo.	313 0	45 0	11 0	Glasgow.	Calcutta Duenna.	General.	1,025	3,042	2,170
Mantaro.	15	17 46	20	11 43	20	18 23	21	7 32	Peruvian.	Peruvian Steamship Line.	360 0	46 0	19 7	Cristobal.	Callao.	General.	4,731	2,853	2,895
Nagano Maru.	20	15 50	21	6 19	21	13 13	21	14 00	Japanese.	Nippon Yusen Kabushiki Kaisha.	315 0	50 0	22 5	Philadelphia.	San Francisco	Gasoline, etc.	5,954	4,119	2,895
Loctrim.	20	12 40	21	6 46	21	15 12	21	16 00	British.	Union S. Co. of New Zealand.	470 0	60 0	30 7	New York.	Auckland.	General.	7,500	10,050	6,831
George Wash- ington.	20	17 17	21	6 40	21	14 17	21	22 30	Norwegian.	Fred Olsen.	425 5	55 3	16 0	Christiana.	San Francisco	General.	3,000	7,440	5,627
Gambet (a).	21	4 06	21	8 57	21	14 57	23	11 39	American.	United States Navy.	187 0	35 0	13 0	Guantanamo.	San Francisco	None.	None	None	3,732
Oak Branch.	20	21 08	21	10 36	21	17 44	21	18 27	British.	F. & W. Ritson.	385 9	49 8	11 9	Liverpool.	Corraal.	General, cattle	2,400	4,816	7,504
Arava.	21	6 10	22	6 21	22	14 28	22	15 40	British.	Shaw, Saville and Albion Co.	469 0	60 0	7 3	London.	Auckland.	General.	4,907	7,504	5,044
Delaware (b).	16	29 51	22	11 12	22	19 40	23	17 59	American.	United States Navy.	130 0	20 0	3 0	Cape May.	Honolulu.	None.	None	None	
Pocomoke (b).	17	12 05	22	11 59	22	19 48	23	17 59	American.	United States Navy.	125 0	20 0	8 0	Key West.	San Diego.	None.	None	None	
S. V. Harkness.	22	12 00	22	12 24	22	19 23	23	16 15	American.	Standard Oil Company.	419 0	57 0	26 1	Tampico.	Panama.	Crude oil	7,928	7,443	5,545
Jamaica.	19	16 19	23	6 02	23	12 45	23	16 15	British.	Pacific Steam Navigation Co.	220 0	34 9	11 4	Cristobal.	Buenaventura.	General.	415	1,187	622
Peru.	19	19 25	24	6 09	24	13 30	24	17 43	British.	Pacific Steam Navigation Co.	359 3	43 3	18 6	Cristobal.	Guayaquil.	Ballast	4,109	9,646	7,700
Guatemala.	23	21 16	24	6 29	24	13 39	24	17 43	British.	Pacific Steam Navigation Co.	359 3	43 3	18 6	Cristobal.	Valparaiso.	General.	4,109	9,646	7,700
Carolinian.	23	21 59	25	6 20	25	13 05	25	16 05	American.	Garland Steamship Corporation.	359 8	50 2	21 3	New York.	Hialeah.	General.	6,000	4,042	3,518
Benham.	24	11 59	25	6 20	25	13 05	25	16 05	American.	United States Shipping Board.	300 0	40 0	19 0	Cartagena.	Bahoa.	Ballast.	3,496	2,151	1,511
Kailoua.	24	10 23	25	6 35	25	14 20	25	15 10	British.	New Zealand Shipping Company.	469 0	58 0	28 6	Avonmouth.	Wellington.	General.	6,546	9,153	6,583
Ure Maru.	25	10 30	25	11 24	25	18 23	26	7 55	Japanese.	Ocean Transport Company.	356 0	55 0	30 0	New York.	Honolulu.	Iron and cotton.	4,200	4,145	3,128
Coahuila.	25	12 35	25	12 58	25	20 52	26	7 55	American.	Union Oil Company.	471 0	55 0	26 0	Pt. Lobos.	Apr 6/Amstia.	Pebl oil	11,000	8,105	5,877

(a) Mine sweeper. (b) Scout patrol.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Hazel Branch.	15	14 30	19	6 47	19	14 18	19	16 55	British.	F. & W. Ritson.	400 4	51 2	23 0	Equipe.	Liverpool.	General.	6,300	5,167	3,582
Ulysses.	18	14 10	19	7 18	19	15 00	19	15 00	American.	United States Government.	514 0	68 4	17 0	Bahoa.	Yorfolk.	Ballast.	11,319	6,310	4,901
Cuddle.	19	1 00	19	7 55	19	16 28	19	18 10	American.	Standard Oil Company.	415 0	55 2	23 0	Callao Buena	Tampico.	Ballast.	6,488	4,381	3,010
Jamaica.	19	6 25	19	8 07	19	16 10	23	6 02	British.	Pacific Steam Navigation Co.	409 8	51 0	23 3	Tumaco.	New York	General.	765	1,187	622
West Cheswald.	19	2 49	19	10 12	19	19 00	23	6 35	British.	United States Shipping Board.	229 0	31 0	13 3	Portland.	Philadelphia	Flour.	7,570	6,389	4,775
Peve (P. S. N.).	18	21 50	19	12 18	19	19 26	21	6 03	British.	Pacific Steam Navigation Co.	350 0	43 1	19 5	Valparaiso.	New York	General.	2,214	4,000	2,615
Mamari.	19	15 03	19	11 05	19	19 21	15	13 30	British.	Shaw, Saville and Albion Co.	453 4	56 4	26 0	Auckland.	London.	Frozen meat, gen	5,010	8,611	6,017
Noosabe.	19	21 53	20	8 23	20	15 21	22	1 40	American.	United States Shipping Board.	266 7	46 2	22 8	Portland.	Cristobal (c)	Fir ties.	1,454	2,649	1,572
Orcus.	20	5 00	20	8 45	20	16 20	22	7 15	American.	United States Shipping Board.	389 2	53 1	23 0	Tama.	New York.	Flour.	6,000	5,667	4,250
Aspenhill.	12	10 42	20	10 04	20	17 23	22	7 15	American.	United States Shipping Board.	295 9	46 1	22 1	Grays Harbor	Wilmington.	Fir ties, lumber.	1,445	2,657	1,708
National Bridge.	20	16 20	20	10 47	20	18 00	21	16 07	American.	United States Shipping Board.	321 0	46 2	23 0	Talal.	Wilmington.	Nitrates.	4,767	3,959	2,628
Pais.	18	22 55	20	11 45	20	18 58	20	20 20	American.	United States Shipping Board.	264 6	45 1	21 0	Eureka.	Cristobal (c)	Redwood lumber	1,742	2,643	1,693

(c) For orders.

Origin	Date	Vessels	Line	From	Date	Vessels	Line	To	For
Obiyo	4 00	13 48	20 20	13 48	20 20	29 43	American	United States Shipping Board	266 6
West Murrumbidgee	21 11 20	21 12 03	21 20 10	21 12 03	21 20 10	22 6 18	American	United States Shipping Board	410 0
Point Judith	21 16 20	22 6 28	22 14 23	22 6 28	22 14 23	6 25	American	United States Shipping Board	299 1
Inlay	22 12 01	22 8 28	22 16 21	22 8 28	22 16 21	14 55	American	United States Shipping Board	425 8
Castle Point	22 17 03	22 9 06	22 17 05	22 21 55	22 17 05	21 55	American	United States Shipping Board	322 0
Huasco	22 21 30	22 8 40	22 14 41	26 9 17	22 14 41	26 9 17	Chilean	Chilean Line	379 7
West Calumb	22 18 15	22 8 44	23 16 15	23 2 57	23 16 15	23 2 57	American	United States Shipping Board	410 0
Caura	23 14 45	21 6 24	24 33 38		24 33 38		British	Pacific Steam Navigation Co.	216 0
C-49	17 16 30	21 6 43	24 33 40	25 18 07	24 33 40	25 18 07	French	French Government	195 7
Minesotan	15 16 30	21 6 58	24 16 24	24 23 17	24 16 24	24 23 17	American	Amerian-Hawaiian S. Line	437 7
Savannah	21 3 10	24 7 50	24 16 24	24 22 47	24 16 24	24 22 47	American	United States Shipping Board	390 0
Crabree	24 5 15	24 8 26	24 16 52	24 22 47	24 16 52	24 22 47	American	United States Shipping Board	253 4
West Hartley	23 21 30	24 10 01	24 16 56	25 1 10	24 16 56	25 1 10	American	United States Shipping Board	110 0
La Habra	24 22 00	25 7 21	25 14 32	25 15 58	25 14 32	25 15 58	Norwegian	W. Wilhelmsen	424 8
Unlamba	25 1 03	25 8 15	25 15 28		25 15 28		Peruvian	Peruvian Line	334 2
Port Victor	25 1 03	25 8 30	25 16 30	25 18 47	25 16 30	25 18 47	British	Commonwealth & Dominion Line	470 0
Port Lyttelton	24 21 33	25 9 17	25 18 06	25 22 24	25 18 06	25 22 24	British	Commonwealth & Dominion Line	450 0
Latoka	25 7 13	25 9 22	25 18 18	25 3 10	25 18 18	25 3 10	American	United States Shipping Board	297 5

(d) Fresh salted hides, sugar. (e) Lubricating oil and general. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CHRISTOBAL.

*ARRIVALS										*DEPARTURES									
Date	Vessels	Line	From	Date	Vessels	Line	To	Date	Vessels	Line	To	Date	Vessels	Line	To				
Oct. 20	Cartago	United Fruit Company	New Orleans	Oct. 21	Batonville	United States Shipping Board	New York via Colorado Bar.	Oct. 21	Batonville	United States Shipping Board	New York via Colorado Bar.	Oct. 21	Batonville	United States Shipping Board	New York via Colorado Bar.				
Oct. 20	Middlebury	Panama Railroad Commissary	Cartagena	Oct. 22	Middlebury	Panama Railroad Commissary	Cartagena	Oct. 22	Cartago	United Fruit Company	Cartagena	Oct. 22	Cartago	United Fruit Company	Cartagena				
Oct. 22	Tivives	United States Shipping Board	New York and Tubana	Oct. 23	Tivives	Royal Mail Steam Packet Co.	Cartagena	Oct. 23	Tivives	United Fruit Company	Cartagena	Oct. 23	Tivives	United Fruit Company	Cartagena				
Oct. 23	Nobles	Panama Railroad Steamship Line	Norfolk	Oct. 24	Ahilles	United Fruit Company	Norfolk	Oct. 24	Tivives	United Fruit Company	New York via Port Limon	Oct. 24	Ahangarez	United Fruit Company	New York via Port Limon				
Oct. 23	Ahilles	Panama Railroad Steamship Line	Norfolk	Oct. 25	Antifan	Leyland Steamship Line	Liverpool via waypoints	Oct. 25	Ahilles	Panama Railroad Steamship Line	Norfolk	Oct. 25	Ahilles	Panama Railroad Steamship Line	Norfolk				

PORT OF BALBOA.

*ARRIVALS										*DEPARTURES									
Date	Vessels	Line	From	Date	Vessels	Line	To	Date	Vessels	Line	To	Date	Vessels	Line	To				
Oct. 29	Almirante (f)	F. Shuler	Panama	Oct. 20	U. S. S. Melville (g)	U. S. Navy	San Diego	Oct. 20	U. S. S. Melville (g)	U. S. Navy	San Diego	Oct. 25	Kiyo Maru	Toyo Kisen Kaisha	Honolulu				
Oct. 25	Kiyo Maru	Toyo Kisen Kaisha	Valparaiso	Oct. 25	Kiyo Maru	Toyo Kisen Kaisha	Honolulu	Oct. 25	Kiyo Maru	Toyo Kisen Kaisha	Honolulu	Oct. 25	Kiyo Maru	Toyo Kisen Kaisha	Honolulu				

(f) Schooner. (g) Supply ship. *Other than ships passing through the Canal.

Tariff Supplement.

The Panama Canal has issued supplement No. 1 to Tariff No. 3, as follows:

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., October 15, 1919.

The following amendments are made to Tariff No. 3—Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at the Panama Canal:

ITEM 3—PILOTAGE.

(Add to paragraph 5).

Effective October 1, 1919. No charge for pilotage will be made against a vessel solely on account of its acceptance or delivery of mails originating in or destined for the Canal Zone or the Republic of Panama.

ITEM 4—HANDLING LINES.

4. Effective October 1, 1919. If for reasons other than the fault of The Panama Canal, a vessel fails to start through the Canal on the day the men for handling lines are placed on board such vessel, a charge of \$1 per man will be made in addition to the regular charge of \$3.50 per man for the transit of the Canal.

ITEM 22—FUEL AND DIESEL OILS.

1. Effective October 15, 1919. Fuel oil per barrel of 42 gallons, delivered to vessels at either Cristobal or Balboa, \$1.50.

3. Effective September 3, 1919. Pumping oil into and out of private tanks, 4 cents per barrel. Oil having a viscosity in excess of 225 Engler degrees at 86° Fahrenheit will not be handled by Panama Canal oil plants and permission for storage thereof will not be granted.

The General Storekeeper at Balboa should be advised as to the approximate dates that steamers are due to arrive with oil either at Cristobal or Balboa, so that necessary arrangements may be made for handling.

ITEM 37—CUSTOMS FEES.

2. In order to facilitate the discharge of passengers from vessels after the usual working hours at the terminal ports of the Canal, the following additional customs regulations are hereby established, effective September 1, 1919:

(a) The Bureau of Customs shall furnish customs inspectors for inspection of passengers' baggage between the hours of 6 p. m. and 7 a. m. and on Sundays and holidays, only upon the request of the master or authorized agent of any vessel calling at the ports of Balboa and Cristobal.

(b) A charge will be made for such services against the vessel for which the service is rendered on the basis of \$5 for each customs inspector engaged between the hours of 6 p. m. and 11 p. m., or fraction thereof, on any work day, and \$10 for each inspector engaged after 11 p. m.; and for service on Sundays and holidays a charge of \$10 will be made for each inspector engaged between the hours of 7 a. m. and 6 p. m. and 6 p. m. and 11 p. m.

(c) The number of customs inspectors who may be required to inspect passengers' baggage of any vessel will be determined by the Chief Customs Inspectors, or designated subordinate officers, based on their information and knowledge of the requirements.

CHESTER HARDING,
Governor, The Panama Canal.
President, Panama Railroad Company.

Beginning of Pacific Mail Company Coastwise Service Through the Canal.

The steamship *Point Bonita*, passing through the Canal on October 26, on the way from Baltimore to San Francisco, is making the first voyage in a new coastwise service established by the Pacific Mail Steamship Company, which thus resumes Atlantic traffic after an absence of nearly a quarter of a century. In the new service a ship will sail in each direction every three weeks. From Baltimore the route will be via Habana and Puerto Colombia to Cristobal, thence through the Canal and along the Pacific Coast to San Francisco, with calls at the principal Central American ports; on the eastbound voyage the route will be the reverse. Four new oil-burning steamships will be

employed in the service. They are the *Point Judith*, *Point Bonita*, *Point Adams*, and *Point Lobos*. No passengers will be carried, but passengers will continue to be carried on the regular service between Cristobal and San Francisco, which began on April 16, 1916, when the southern terminus was made Cristobal instead of Balboa, and was an extension through the Canal of a service which had been operating on the Pacific for nearly half a century.

The Atlantic line of the Pacific Mail, operating in the early 90's and connecting with the Pacific line by means of the Panama Railroad, was discontinued under an agreement with the Panama Railroad Company, then a privately owned corporation, dated December 16, 1895. The Panama Railroad Company ceased the operation of the direct line of steamers which it had operated between Panama and San Francisco, and the Pacific Mail discontinued the operation of its line between New York and Colon, which had run in competition with the Panama Railroad Company's line on the Atlantic.

Forty Wooden Ships for France.

The Canal is being used for the passage of 40 wooden vessels built in British Columbia for the French Government. Thirteen have passed through the Canal to date. They have been chartered by the British Government, and on their maiden voyages are carrying lumber to Great Britain, though it is expected that they will ultimately be used in the coasting trade of France. Twenty of the ships are twin screw steamers of 3,000 tons, and the other half are of approximately 1,500 tons, and are of the type which the French call *barge*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 25, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Mantaro.....	Feruvian Steamship Line.....		October 20.....		1,026
Jamaica.....	Pacific Steam Navigation Co.....	October 19.....	October 23.....	765	201½
Peru.....	Pacific Steam Navigation Co.....	October 19.....	October 24.....	2,295	(†)
Cartago.....	United Fruit Company.....	October 20.....	October 22.....	(*)	120
Middlebury.....	Panama Railroad Commissary.....	October 20.....	October 22.....	400	41½
Tivives.....	United Fruit Company.....	October 22.....	October 23.....	5	52
Teviot.....	Royal Mail Steam Packet Co.....		October 23.....		2,371
Nobles.....	United States Shipping Board.....	October 23.....		6,416	
Abangarez.....	United Fruit Company.....	October 23.....	October 24.....	2½	27
Achilles.....	Panama Railroad Steamship Line.....	October 23.....	October 25.....	12,013	(†)
Huasco.....	United Fruit Company.....	October 23.....		1,568	
Mendocino.....	Huasteca Petroleum Co.....	October 24.....		9,900	
Cauca.....	Pacific Steam Navigation Co.....	October 24.....		1,222	
Guatemala.....	Pacific Steam Navigation Co.....		October 24.....		838
Orea.....	Pacific Steam Navigation Co.....	October 25.....		28	
Urubamba.....	Peruvian Steamship Line.....	October 25.....		2,583	
Antillian.....	Leyland Steamship Line.....	October 25.....		1,365	

* No cargo discharged.

†No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 25, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Jamaica.....	Pacific Steam Navigation Co.....	October 19.....	October 19.....	1	1
Jamaica.....	Pacific Steam Navigation Co.....	October 23.....	October 23.....		13
Cauca.....	Pacific Steam Navigation Co.....	October 23.....	October 24.....	1	
Urubamba.....	Peruvian Steamship Company.....	October 25.....	October 25.....	1	

Prices of Coal.

The following prices of coal in various ports of the world are quoted on the basis of information published in *Nauticus*, issue of September 27, 1919. The prices were supplied to *Nauticus* by Messrs. Willard, Sutherland & Co., bunkering contractors, as of September 15. For quotations in other than United States currency the equivalent values in United States currency have been added for normal exchange and for present rates of exchange. The value of current exchange is taken from a statement issued by the Guaranty Trust Company of New York under date of September 20, 1919, with the exception of the rupee, on which exchange is as quoted by the American Foreign Banking Corporation on October 4. Separate quotations were made by the banks on exchange of gold, silver, and bank notes; the figures for bank notes were taken for this tabulation, as it is believed transactions would not normally be made in gold or silver coin. Where more than one price is quoted for a port the exchange has been calculated on the lowest rate.

Prices at Balboa and Cristobal for ships passing through the Canal are \$11.50 per ton; for ships calling at the terminal ports without passing through the Canal, \$11.50 at Cristobal and \$13.50 at Balboa. Prices at the other ports quoted are as follows:

FOREIGN PORTS.

Prices at ports outside of the United States and Canada are given below:

	Foreign ports quotation.	Value in U. S. currency, normal exchange.	Value in U. S. currency, present exchange.
Gibraltar.....	125s	\$30.37½	\$26.25
Algiers.....	137s 6d	33.41	27.50
Marseilles.....	115s	27.94½	23.00
Oran.....	115s	27.94½	23.00
Port Said.....	125s	30.37½	28.25
Newcastle.....	75s to 80s	18.22½	15.00
Southampton.....	90s 6d	21.99	18.10
Liverpool.....	50s to 60s	12.15	10.00
Plymouth.....	90s	21.87	18.00
Hull.....	51s to 55s	12.39	10.20
Fowey.....	85s 6d	20.77½	17.10
London-Gravesend.....	100s	24.30	20.00
Dartmouth-Portland.....	105s 6d	25.63½	21.10
Cardiff.....	75s to 80s	18.22½	15.00
Swansea.....	60s	14.58	12.00
North of Scotland.....	No coal.....		
Copenhagen.....	Kr. 145	38.86	31.17½
Trondhjem.....	140s 10d	34.22	28.16½
Göthenborg.....	Kr. 175	46.90	41.12½
Amsterdam.....	70 Guilders	28.14	25.90
Rotterdam.....	70 Guilders	28.14	25.90
Antwerp.....	105s	25.51½	21.00
Havre.....	No coal.....		
Bordeaux.....	No coal.....		
Bilbao.....	130 Pesetas	25.09	24.37½
Azores.....	125s	30.37½	26.25
Madeira.....	103s 6d	25.15	20.70
Teneriffe.....	117s 6d	28.55	23.50
Las Palmas.....	117s 6d	28.55	23.50
St. Vincent.....	117s 6d	28.55	23.50
Barbados.....	102s 6d	24.90	20.50
St. Lucia.....	102s 6d	24.90	20.50
Trinidad.....	101s 6d	24.66	20.30
St. Thomas, V. I.....	101s 6d	24.65	20.30
Bermuda.....	\$20.00	20.00	20.00
Curaçao, D. W. I.....	\$22.00	22.00	22.00
Rio de Janeiro.....	152s 6d	37.05½	30.50
Pernambuco.....	155s	37.66½	31.00
Bahia.....	155s	37.66½	31.00
Santos.....	155s	37.66½	31.00
Rosario.....	147s 6d	35.84	29.50
Bahia Blanca.....	149s	36.20½	29.80
Buenos Aires.....	145s	35.23½	29.00
La Plata.....	145s	35.23½	29.00
Montevideo.....	145s	35.23½	29.00

	Foreign ports quotations.	Value in U. S. currency, normal exchange.	Value in U. S. currency, present exchange.
Cornel.....	65s to 70s	\$15,79½	\$13.00
Delago Bay.....	33s 6d	8 04	6.70
Port Natal.....	35s 6d to 37s	8 62½	7.10
Cape Town.....	43s 10d to 48s 4d	10.65	8.76½
Dakar.....	117s	23 43	23.98½
Singapore.....	81s to 91s	19 68	16.20
Colombo.....	75s to 81s 6d	18 22½	15.04
Aden.....	102s 6d to 105s	24 90	20.58
Bombay.....	26-8-0 Rupees	8.42	11.18
Karachi.....	2½ Rupees	7.77½	10.32
Port Kembla.....	18s	4.37	3.62
Adelaide.....	34s 9d	9.44	7.12
Albany.....	40s 9d	9.90	8.33
Fremantle.....	40s 9d	9.90	8.33
Melbourne.....	29s 9d	7.22½	6.00½
Sydney.....	27s	6.56	5.53½
Sydney Harbor.....	20s	4.86	4.12

AMERICAN PORTS.

New York, N. Y.; \$6.35 pool 9 and 71, f. a. s. ex lighters.
 Philadelphia, Pa.; \$6.50 pool 9 and 71, trimmed, ex lighters.
 Baltimore, Md.: \$6.50 pool 9 and 71, trimmed, ex lighters.
 Newport News, Sewall's Point, Lambert's Point, Va.; \$6.50 f. o. b. under chutes at coal piers, trimming extra.
 Boston, Mass.; \$10.25 t. i. b., ex lighters.
 Charleston, S. C.; \$6.25 f. o. b. and trimmed, under chutes at coal piers.
 Portland, Me.; \$11.50 trimmed ex lighters.
 Wilmington, Del.; \$7.90 f. o. b. ex lighters.
 Savannah, Ga.; \$6.80 t. i. b. alongside supplier's wharf.
 Jacksonville, Fla.; \$9.95 New River-Pocahontas; \$8.75 Stonega, t. i. b. alongside supplier's wharf.
 Mobile, Ala., \$7.50 Sipsey; \$6.50 Pratt R/M; f. o. b. alongside supplier's wharf.
 Pensacola, Fla.; \$6.25 Cahaba or Black Creek washed; \$5.25 Pratt R/M; \$5.85 Cahaba or Black Creek R/M; f. o. b. under chutes at coal piers.
 New Orleans, La.; \$7.40 Sipsey; \$6.50 Pratt R/M; t. i. b. ex lighters.
 Galveston, Tex.; \$10.50 Oklahoma Steam Coal; f. o. b. at supplier's wharf.
 Seattle, Wash.; \$9.15 Comox Steam Coal, f. a. s. ex lighters.
 San Francisco, Cal.; \$13.05 Utah and/or British Columbia, f. o. b. ex lighters, trimming extra.
 San Pedro, Cal.; \$8.50 Utah Black; \$9.65 R/M; f. o. b. alongside supplier's wharf.

CANADIAN PORTS.

Union Bay, Vancouver; \$7.65 Comox Steam Coal; f. o. b. under chutes at coal piers, trimming extra.
 St. John, N. B.; \$10.50 t. i. b. ex lighters.
 North Sydney, N. S.; \$7.25 t. i. b. at piers.
 Halifax, N. S.; \$10.50 t. i. b. ex lighters.

* Thunderstorms on the Isthmus.

Thunderstorms, like cyclones and earthquakes, being violent manifestations of the powers of nature, make dramatic impressions on human consciousness and are consequently often described with a tendency to exaggeration of their phenomena. Much has been said of the terrific thunderstorms of the Isthmus, but the following paper on "Panama Thunderstorms," prepared in the office of the Chief Hydrographer of The Panama Canal, is believed to be the first adequate report to be made on Panama thunderstorms based on authentic records:

Thunderstorms are of frequent occurrence in most tropical and equatorial regions of heavy rainfall. In Panama the curves of thunderstorm frequency follow fairly close the curves of average monthly rainfall, but August is generally the month of maximum thunderstorm frequency, while May and November are the months of heaviest rainfall. There is a marked decrease in thunderstorms in November and December due to a decrease in the number of afternoon convective showers, yet November is usually the rainiest month of the year.

The following table shows the yearly average number of thunderstorm days at stations in the Canal Zone, compared with selected stations in the United States:

Station.	Location.	Approximate elevation.	Years of record.	Thunderstorm days each year.
		<i>Feet.</i>		
Colon.....	Atlantic Coast.....	10	11	106
Culebra.....	Continental Divide.....	400	7	137
Balboa Heights.....	Pacific Coast.....	100	13	119
Tampa, Florida.....	Gulf Coast.....	67	10	94
Santa Fe, New Mexico.....	Rocky Mountains.....	7,013	10	73
Chicago, Illinois.....	Great Lakes.....	595	10	40
New York City.....	Atlantic Coast.....	314	10	28
San Francisco.....	Pacific Coast.....	155	10	1

Thunderstorms in Panama are most numerous in the interior near the Continental Divide and fewest along the Atlantic Coast.

HOURLY DISTRIBUTION OF THUNDERSTORMS.

Sufficient data are not available to show accurately the curves of hourly distribution of thunderstorms in Panama, but in a general way from 75 per cent to 80 per cent of all thunderstorms occur during the daytime on the Pacific Coast and over the interior, while along the Atlantic Coast nearly half of the thunderstorms occur during the night or early morning. The reason for this difference in thunderstorm distribution is to be found in the character of prevailing rainstorms. On the Pacific Coast and over the interior most of the rains are afternoon local showers of convective origin, usually accompanied by thunder and lightning, while along the Atlantic Coast much of the rainfall comes in the form of general storms of wider extent, and many of these occur during the night or early morning.

Attendant phenomena normally include precipitation, wind squalls, and occasionally hail.*

**Precipitation.*—Practically all Panama thunderstorms are accompanied by rainfall, many of the rains being at an excessive rate. The average number of excessive rains per year is about 60 on the Atlantic Coast and about 30 on the Pacific Coast. Most of these excessive rains accompany thunderstorms. (Excessive rains are classified in accordance with the U. S. Weather Bureau Scale of Excessive Precipitation.)

Wind squalls.—Thunderstorms in the Canal Zone frequently are accompanied by wind squalls. These seem to have a gyratory motion at times, but the maximum wind usually is a straight blow. The wind may blow from any direction. Maximum wind velocities range from 25 up to 45 or 50 miles an hour. These wind squalls seldom are of sufficient violence to do much damage on land, and they never are of long enough duration to kick up a heavy sea at either Canal entrance.

Thunderstorms and wind squalls usually travel across the Isthmus from the Atlantic Coast toward the Pacific, approximately in the direction of the general air circulation, which is from north to south or from northeast to southwest. Occasional thunderstorms have been observed to travel in the opposite direction from the south or southeast toward the north or northwest. Two of the most violent wind storms of record in Panama moved across the Isthmus from the southeast. One occurred on July 10, 1909, with a maximum wind velocity of 59 miles an hour at Ancon and the other occurred during the night of June 16-17, 1919, the maximum velocity recorded being 50 miles an hour at Gatun, C. Z.

Hail.—Hail has been observed in the Canal Zone or vicinity on three occasions during the past 12 years, accompanying thunder or rain storms. Hail fell at Cucaracha (near Culebra) in 1908, the exact date being unknown, and again at Alhajuela on the afternoon of May 28, 1910. A third hail storm occurred on Naos Island on June 15, 1912, during a heavy rain storm. The hail stones that fell during these storms were small and melted quickly, and in no case was the fall excessive. This phenomenon is unusual in a low-lying tropical country, but severe hailstorms are experienced frequently at high altitudes in mountainous regions within the tropics.

SEVERE THUNDERSTORMS.

Although thunderstorms are very numerous in Panama, averaging from 100 to 140 per year, very few of these storms are particularly severe. Perhaps not more than two or three extremely severe thunderstorms will occur during the course of a year. Contrary to the popular belief that thunderstorms in equatorial regions are something terrific, it is the writer's observation that thunderstorms in the central and upper Mississippi valley sections of the United States, while not nearly so numerous as thunderstorms in Panama, are frequently more severe and destructive.

LIGHTNING DAMAGE.

Lightning accompanying thunderstorms has caused little damage or loss of life in the Canal Zone and vicinity during recent years. The following table shows the number of deaths by lightning since 1906, taken from the Health Department vital statistics, and from newspaper reports:

Year.	Deaths from lightning.	Year.	Deaths from lightning.
1906.....	0	1914.....	1
1907.....	0	1915.....	0
1908.....	*2	1916.....	0
1909.....	1	1917.....	0
1910.....	0	1918.....	1
1911.....	3		
1912.....	0	Total (13 years).....	8
1913.....	0		

*Deaths from dynamite; explosion set off by lightning.

The average population of the Canal Zone (including Panama City and Colon) during this period was about 120,000.

There are few records of serious property damage from lightning in the Canal Zone.

An oil tank at Mount Hope belonging to the Union Oil Company was struck by lightning on May 20, 1908, and 11,000 barrels of oil were burned.

The radio towers at Colon were struck by lightning three times on the night of October 14, 1914, and badly damaged.

The instrument tower at Balboa Heights was struck on October 19, 1914.

The radio towers are struck by lightning frequently during electrical storms, but when properly grounded they ordinarily suffer little or no damage.

Canal lighthouses and range lights have been struck by lightning a number of times. Lighthouse tower No. 5 at the Pacific entrance was struck twice in June, 1918, and badly damaged; and a tall lighthouse tower at Gatun was struck and damaged in August, 1918.

An observation balloon at the Coco Solo Naval air station was burned by lightning during an electric storm on August 5, 1919. The mess hall located close by was struck at practically the same time and slightly damaged. It was stated in the report of the Naval Committee that investigated the damage, "That the electric current seemed to pass from the bottom of the building upward and out through the roof." A similar phenomenon was reported a few months earlier on Bona Island in the Gulf of Panama where the reinforced concrete lighthouse tower was struck by lightning, the charge seeming to pass from the base of the tower upward and out into space.

The relatively slight damage from lightning suffered in the Canal Zone and vicinity may be partly explained as follows:

(1) A large percentage of the lightning bolts probably never reach the earth but merely pass from one cloud to another.

(2) In the Canal Zone and vicinity there are a large number of hills with round, conical tops, ranging in elevation from a few hundred feet up to 1,000 feet or more. These hilltops probably serve as lightning rods or conductors, and, being for the most part uninhabited, lightning bolts that strike them do no damage.

(3) It is probable, also, that the humid atmospheric conditions and frequent rainstorms that prevail on the Isthmus and the moist condition of the soil facilitate the ready interchange of electrical currents between the atmosphere and the earth, thus tending to prevent the accumulation of powerful electric stresses that would finally find relief in severe thunderstorms. This is thought to be one of the principal causes of the relatively slight damage suffered in the Canal Zone from electric storms.

COMPARISONS.

It is interesting to compare thunderstorm conditions in Panama with conditions in the United States. There are two areas of maximum thunderstorm frequency in the United States. The principal one extends over the Gulf States with center near Tampa, Florida, where the average annual number of thunderstorms is about 94. Another thunderstorm region centers over New Mexico, where the average annual number of thunderstorms is about 73. The Pacific Coast of the United States is the most free from electric storms. The average number of thunderstorms at San Francisco is less than one per year.

Thunderstorms over the central and upper Mississippi Valley States average about 40 per year. A large percentage of these accompany general cyclonic storms and they may occur either during the daytime or at night. The greatest damage from lightning occurs in the region from the central Mississippi valley eastward to the Atlantic Coast.

It is variously estimated that from 500 to 1,000 buildings are struck by lightning and burned in the United States each year, and that several hundred people are killed by the lightning annually, and many more injured.

It would seem that although thunderstorms are more numerous in Panama than anywhere in the United States, the total loss of life and property damage from electric storms is relatively less in Panama than in many sections of the United States.

The data on thunderstorms in the United States presented herein were abstracted from papers on Thunderstorms, by Wm. A. Alexander, of the U. S. Weather Bureau, and Robert DeC. Ward, published in the Proceedings of the Second Pan-American Scientific Congress, Vol. II.

Commercial Telephones.

Owing to the fact that there are no surplus telephone instruments on the Isthmus, it will be impossible for the Electrical Division to fill the numerous requests on file for private telephone installations, until the arrival of new instruments from the States.

It is impossible to state when the telephone instruments now on order will arrive, on account of the uncertainty of labor and shipping conditions. When they arrive, notice will be published.

W. L. HERSH, *Electrical Engineer.*

New Spur Track at La Pita.

A spur track heading north has been built on the east side of the main line of the Panama Railroad at La Pita to be used for dumping manure for the Supply Department gardens. The total length of the track is 323 feet and the available length from derail to end, 151 feet.

November Weather Probabilities.

The following weather conditions may be expected at the Canal entrances during the month of November, 1919. Predictions are based on November records of 12 and 13 years at Colon and Balboa Heights, respectively:

Winds—Light and variable winds with an average hourly velocity of from 6 to 12 miles an hour will prevail throughout the month at the Atlantic entrance, the higher average wind velocities occurring during the middle of the day. Southeast and west winds will predominate. Maximum velocities of from 30 to 40 miles an hour are possible during local rain or thunder squalls.

At the Pacific entrance and over the interior light northwest winds will prevail, with a considerable percentage of variable wind during the daytime. The average hourly velocity will range from 5 miles during the early morning to 8 miles during the middle of the day, although maximum velocities of from 25 to 30 miles an hour are likely to occur during rain or thunder squalls.

Rain—The average November rainfall at Colon is 21.34 inches, and at the Pacific entrance 10.87 inches; these averages are based on 48 years' record at Colon and 22 years' record at Balboa Heights. About 26 days with rain may be expected at the Atlantic entrance, and 23 days at the Pacific, while the average number of days with heavy rain (1 inch or more) is about 8 at the Atlantic entrance, and 3 on the Pacific side. The greater part of the rainfall (about 70 per cent) occurs during the daytime at the Pacific entrance and over the interior, while along the Atlantic Coast nearly half of the November rainfall occurs during the nighttime.

Fogs—A few fogs may be expected on the Pacific Coast, but none are likely to occur on the Atlantic side. The average number of nights with light or dense fog over the Gaillard Cut section of the Canal is 14. These fogs should not prove a hindrance to navigation in the daytime, as practically all fogs that occur may be expected to lift or be dissipated before 8.30 a. m.

Temperatures—The average shade air temperature will be approximately 79° Fahrenheit over both coasts. Temperatures are more equal on the Atlantic Coast than on the Pacific. The temperature is not likely to rise above 90° F. or fall lower than 70° F. on the Atlantic Coast, while at the Pacific entrance the maximum temperature may be as high as 94° F. and the minimum as low as 67° F. The mean daily range of temperature is approximately 8° F. on the Atlantic Coast, and 14° F. on the Pacific.

Barometric pressure—The average sea level atmospheric pressure will be about 29.85 inches. Local barometric readings are of little value in forecasting weather conditions, as fluctuations in air pressure on the Isthmus are very slight, except for the well-marked diurnal changes. The maximum pressure during the month may not be expected to exceed 29.98 inches, or the minimum pressure to be less than 29.68 inches.

Relative humidity—The relative humidity of the atmosphere will average about 88 per cent over both coasts. The range is greater on the Pacific Coast, where the nighttime average humidity is about 95 per cent and the average daily humidity is about 75 per cent, while on the Atlantic Coast the average nighttime humidity is about 92 per cent, and the average daily minimum humidity is about 75 per cent.

Storms—The so-called "northers" may extend as far south as the Atlantic entrance of the Canal during the month of November. These storms are characterized by brisk north to northwest winds, ranging in velocity up to 30 or more miles an hour, and are usually accompanied by a heavy swell. Local wind, thunder, and rain squalls, of more or less limited extent, may be expected quite frequently during the month. Generally cloudy weather will continue over both coasts, and smooth to moderate seas may be expected at the Pacific entrance. Storms of the hurricane type may occur during the month over the Caribbean Sea and West Indian Islands.

Tides—Tidal fluctuations need not be considered in navigating the Atlantic entrance to the Canal, as the extreme tidal range is but about two feet. The tidal

range at the Pacific entrance averages about 13 feet, while the maximum range may reach 20 feet during spring tides.

Panama (Balboa) tide predictions for the month are given below:

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.							
W.	Mo.					W.	Mo.					W.	Mo.								
S	1	3:05	8:40	3:31	9:24	Tu	11	5:48	12:07	6:22	.....	F	21	2:38	9:06	3:07	9.21	14.4	2.2	14.0	3.0
		4.6	12.5	4.3	12.8			17.5	-1.1	17.1	.....									
S	2	4:08	9:43	4:34	10:25	W	12	0:32	6:39	12:57	7:13	S	22	3:16	9:46	3:46	10.00	14.6	1.7	14.3	2.7
		4.5	12.3	4.2	12.9			0.3	16.9	-0.3	16.5										
M	3	5:13	10:59	5:39	11:30	Th	13	1:24	7:31	1:43	8:05	S	23	3:53	10:23	4:25	10:37	14.8	1.4	14.5	2.5
		4.5	12.3	4.2	13.4			1.1	16.0	0.7	15.8										
Tu	4	6:18	12:11	6:42	.....	F	14	2:21	8:25	2:45	9:01	M	24	4:31	10:58	5:03	11.13	14.8	1.3	14.6	2.5
		3.8	13.0	3.6	.....			2.1	15.0	1.8	15.0										
W	5	0:38	7:18	1:12	7:46	S	15	3:24	9:25	3:47	10:02	Tu	25	5:07	11:34	5:41	11.49	14.4	2.7	14.0	2.6
		14.4	2.7	14.0	2.7			2.9	14.0	2.8	14.2										
Th	6	1:32	8:12	2:05	8:34	S	16	4:30	10:32	4:51	11:07	W	26	5:43	12:10	6:17	.....	14.6	1.7	14.4	.....
		15.4	1.5	15.1	1.6			3.5	13.2	3.5	13.8										
F	7	2:24	9:02	2:53	9:24	M	17	5:36	11:42	5:54	.....	Th	27	0:26	6:20	12:47	6:52	14.6	1.7	14.4	.....
		16.4	0.2	16.0	0.6			3.7	12.9	3.9	.....			2.9	14.2	2.1	14.3				
S	8	3:14	9:50	3:47	10:10	Tu	18	0:12	6:38	12:46	6:53	F	28	1:06	6:57	1:25	7:29	14.6	1.7	14.4	.....
		17.2	-0.7	16.8	-0.1			13.7	3.6	13.0	3.9			3.2	13.9	2.6	14.1				
S	9	4:04	10:35	4:38	10:57	W	19	1:08	7:35	1:40	7:50	S	29	1:49	7:34	2:08	8:08	14.6	1.7	14.4	.....
		17.7	-1.3	17.2	0.4			13.9	3.2	13.3	3.7			3.5	13.6	3.0	13.9				
M	10	4:55	11:21	5:30	11:42	Th	20	1:55	8:23	2:26	8:38	S	30	2:38	8:19	2:58	8:55	17.9	-1.5	17.3	-0.3
		17.9	-1.5	17.3	-0.3			14.2	2.7	13.6	3.4			3.7	13.2	3.4	13.8				

The tides are placed in the order of their occurrence; the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Comparative Wind Records, Cape Mala, Sosa Hill, and Balboa Heights, August and September, 1919.

The following figures show comparative wind records at Cape Mala, at the entrance to the Gulf of Panama, and at Sosa Hill and Balboa Heights, Canal Zone, in August and September, 1919:

	Cape Mala.		Sosa Hill.		Balboa Heights.	
	Aug.	Sept.	Aug.	Sept.	Aug.	Sept.
Average hourly velocity.....miles..	9.6	9.2	11.0	8.4	6.6	5.7
Percentage of wind movement over that at Balboa Heights.....	45.	61.	67.	48.	.....	.....
Prevailing direction.....	NW	SW	NW	NW	NW	NW
Maximum velocity recorded.....miles..	38	39	48	29	32	22
Day of month.....	21	26	5	8	5	13
Direction from which blowing.....	SE	NE	E	S	SW	S

NOTE—Approximate elevations of anemometers are as follows: Cape Mala, 110 feet above ground, 150 feet above mean sealevel; Sosa Hill, 35 feet above ground, 405 feet above mean sealevel; Balboa Heights, 97 feet above ground, 231 feet above mean sealevel.

Local Civil Service Examinations.

The following examinations for The Panama Canal Service will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

- Clerk, December 21, 1919.
- Postal clerk, December 14, 1919.
- Stenographer and typist, December 14, 1919.

The usual entrance salaries are: Clerk, \$106 a month; postal clerk, \$100 to \$125 a month; stenographer and typist, \$137 for males and \$116 for females.

Full information in regard to the scope and the character of the examinations is contained in pamphlet, form 1424, "Information for Applicants for Stenographer and Typewriter Examination", a copy of which may be obtained from the Secretary, Board of Civil Service Examiners, Administration Building, Balboa Heights, C. Z. Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First,

typewriting; second, bookkeeping; third, general business training and experience; fourth, time-keeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for postal clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and they are familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officer's certificate, and should be filed promptly with the Board of Civil Examiners at Balboa Heights, C. Z.

Applicants must have reached their twentieth but not their forty-fifth birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within two years, securely pasted in the place provided on the admission cards sent them after their applications are filed.

Applicants for the clerk examination in answer to question No. 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some State or territory of the *United States* from the time of taking up residence therein to *December, 1919*, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the *county*.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted Army and Navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for the Panama Canal Service.

In addition to the examinations listed above, examinations for Stenographer, Typist and Stenographer-Typist in the Departmental Service in Washington, or elsewhere, will be held at Balboa Heights, C. Z. on December 7, 1919. These examinations are substantially the same as those for like positions with the Panama Canal Service, except that the minimum age limit is lower, namely 18 years. The entrance salary for typist is usually \$1,100 and that for stenographer \$1,200, in the United States, but for employment in civilian positions with the U. S. Army on the Isthmus, the same salaries may be paid as in the Panama Canal Service.

Motor Vehicles and Bicycles Licensed in the Canal Zone.

For the calendar year of 1919 the following licenses have been issued for motor vehicles, which expire December 31, with the exception of the official licenses, which continue in force as long as the license tag is in good condition and the vehicle to which it is assigned is running:

Personal licenses for private cars, 491; commercial licenses for cars carrying persons for hire, omnibuses, and trucks, 454; official licenses for automobiles and trucks of The Panama Canal, United States Army and Navy, and the Panama Government, 463; personal motorcycle licenses, 136; official motorcycle licenses, 142.

The total number of automobile licenses is 1,408, and the total of motorcycles, 278. As machines owned in Panama are licensed reciprocally in Panama, the foregoing figures include vehicles of both Panama and Colon and the Canal Zone.

The Canal Zone annual license fees are as follows:

For each passenger automobile for personal use only, \$5; for each automobile of 29 horsepower or less, used for carrying passengers for hire, \$20; for each automobile of more than 29 horsepower, used for carrying passengers for hire, \$30; for each truck or omnibus of one-ton capacity or less, \$20; for each truck or omnibus of a capacity of more than one ton but less than three tons, \$30; for each truck or omnibus of a capacity of three tons or more, \$40; for each motorcycle, \$2.

Residents of the Canal Zone must secure a Canal Zone license first and are then entitled to the following reciprocal rates per year from the municipalities of Panama and Colon:

For each passenger automobile for personal use only, \$1; for each automobile used for carrying passengers for hire, \$12.50; for each truck or omnibus, \$15; for each motorcycle, \$1.

The above reciprocal rates are also allowed residents of Panama, who are required to license their vehicles in Panama or Colon first, and

may then receive a reciprocal Canal Zone license upon presentation of their Panama or Colon license receipt.

Bicycles are licensed for the fiscal year at \$1 per year. There are 139 official bicycles licensed in the Canal Zone. Since July 1, 1919, there have been issued 565 licenses for private bicycles.

As the present supply of 1919 automobile license tags for private cars, with blue background and white raised letters and numbers, No. 001 to 500, will be exhausted in a few days, it will be necessary to issue tags similar to those used on private cars in 1918, during the remainder of this calendar year. These tags have a white ground and black raised letters and will begin with No. 451 and run to No. 500.

Subscribers to Victory Liberty Loan.

Subscribers to the Victory Liberty Loan, who have changed their address since submitting their applications last April and May, should notify Mr. T. L. Clear, Treasurer, Liberty Loan Committee, Balboa Heights, in writing, in order that delivery of their Victory notes may be made without unnecessary delay.

Shortage of Electric Lamps.

The stock of 25, 40, 60 and 100-watt Mazda B lamps has been entirely exhausted. These are the sizes used in house lighting and most all other lighting, and it is recommended that employees conserve their lamps as much as possible until the new supply has arrived.

Part of the year's supply of lamps has been passed for shipment, but the unsettled labor and shipping conditions in the States makes it impossible to state when these lamps will be received.

Balboa Night School.

BALBOA HEIGHTS, C. Z., October 21, 1919.

The Balboa Night School will begin the 1919-20 session Tuesday, November 4, at 7 p. m. Classes will be offered in shorthand and typewriting, beginning and advanced Spanish, English grammar or literature, mechanical drawing, and commercial or shop mathematics.

Each class will be two hours in length, from 7 to 9 p. m., meeting twice each week. Beginning Spanish and English will be scheduled for Mondays and Thursdays; shorthand and typewriting as one class, advanced Spanish, and mechanical drawing will be scheduled for Tuesdays and Fridays. In case of sufficient demand a class in bookkeeping may be offered.

Four dollars per month per course is charged.

For further information telephone or write the High School Principal, Balboa, C. Z.

A. R. LANG,
Superintendent of Schools.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Official Circulars.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 15, 1919.
CIRCULAR No. 661-80:

The appointment of Dr. Dalferes P. Curry as Assistant Chief Health Officer, effective October 1, 1919, is hereby announced.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 16, 1919.
CIRCULAR No. 217:

Effective October 13, 1919, Lieut. Com. J. G. Fels, U. S. N. R. F., is designated an accountable official of The Panama Canal, *vice* Capt. H. L. Eden, and as such will account for all nonexpendable property in use by the Captain of the Port, Cristobal.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Instructions Relative to the Handling of Two Labor Trains from Paraiso every Afternoon Daily except Sundays and Holidays.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 28, 1919.
CIRCULAR No. 1414:

First labor train will leave Paraiso at 3.30 p. m., making stops with engine in so far as possible at the following track spans and other points:

- Pedro Miguel..... 40-7
- Miraflores..... 42-10
- Miraflores..... 42-12
- Miraflores..... 43-4
- Corozal..... 44-4
- Balboa Heights, 2 car lengths south of switch leading to motor car house.
- Bisnop's Hollow, at switch leading to Ancon commissary.

Tivoli Spur, at switch south of passenger shed.
Panama, first stop, north end of No. 8's train;
second stop, about opposite first class passenger gate.

On arrival at Panama after making the two stops and putting labor train away return with light engine to Paraiso, picking up the four labor cars and coach left there, back up to opposite Paraiso station convenient for employees to board cars, leaving Paraiso at 1.15 p. m., or as soon thereafter as ready, stopping at:

- Pedro Miguel.
- Red Tank.
- Miraflores station.
- Corozal commissary.
- Balboa Heights.
- Tivoli Spur.
- Panama, north end of No. 8's train.

Crews handling these labor trains will leave Balboa Heights station first trip north at 3.05 p. m., with one coach for the accommodation of school children living at Corozal, Pedro Miguel, and Paraiso. Coach to be handled only on school days. This coach and four labor cars will be left at Paraiso. Coach to be used by gold employees on second trip south.

On Saturdays and other days that labor train runs when there is no school, engine will go light to Paraiso, leaving Diablo at 3.15 p. m., and on arrival at Panama on first trip after making second stop at north end of No. 8's train, the last gold

employees' car will be uncoupled from train and taken back to Paraiso for the accommodation of gold employees who use coach on school days.

Circular No. 1410, issued under date of October 25, and all other instructions relative to above labor trains, are hereby canceled.

W. J. BISSELL,
Acting Master of Transportation.

Approved:
S. W. HEALD,
Superintendent.

Passenger Train Service on November 3.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 24, 1919.
CIRCULAR No. 1405:

To all concerned—On account of Monday, November 3, being a legal holiday, the Panama Railroad will operate regular Sunday schedule on the main line that date.

No change will be made in the Las Cascadas Branch nor Fort Randolph Branch schedules.

W. J. BISSELL,
Acting Master of Transportation.

Approved:
S. W. HEALD,
Superintendent.

Noon Hours of Work Train Crews.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 17, 1919.
CIRCULAR No. 1398:

Dispatchers, conductors, and engineers, P.R.R.—In the future, chain gang crews handling work trains through the midday period will take one hour for noon meal unless otherwise ordered by the department for which crew is working. If it is desired that crew work through noon hour the conductor will so notify the dispatcher at the first opportunity.

W. J. BISSELL,
Acting Master of Transportation.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., October 25, 1919.
The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Request may be made by telephone, calling No. 182, Balboa.

- | | |
|------------------------|-------------------------|
| Anjin, David | Holgeson, Edw. |
| Bagley, Clarence | Icaza, Octavio A. de* |
| Beebe, Cornelius | Kline, Mr. |
| Bonneville, E. H. | Krust, Mrs. Robert |
| Bowman, Robert Paul | Lamb, Thomas F.† |
| Brown, H. | Lowsky, Alexander |
| Cara, Fred* | McAniff, Mrs. Johanna |
| Clark, Mrs. Chas. A. | Malone, Mrs. Meselita |
| Cook, James Gordon | Mangnall, John N. |
| Damon, Quincy A.* | Mueller, Ernst |
| Dodge, Mrs. M. H. | Noone, Patrick B. |
| Doty, Charies | Reynolds, Thomas |
| Edwards, Marguerite R. | Ruiz, Anastasio N. |
| Fauchier, Ernest | Salgado, Dr. Rafael M.* |
| Follette, J. P. | Treacle, J. C.* |
| Forbes, Egbert* | Troyer, S. E. |
| Geania, Mrs. Sarah | Veysset, Jeanne |
| Grosch, Nicholas, Jr.* | Ward, Philip Raymond |
| Haggerty, Jos. B. | Wiggins, James |
| Harris, C. W. | Williams, Calvert |
| Haus, Mrs. H. | |

*Paper. †Special Delivery.

Additions to Commissary Stock.

- Stoves, Florence, 2-burner, ea..... \$14.85
- Trays, round, enameled, ea..... .54
- Trunks, wardrobe, ea..... 43.20
- Trunks, wardrobe, ea..... 39.30
- Trunks, wardrobe, ea..... 31.45
- Aprons, gingham, May time model, ea.... 1.65

Additions to Commissary Stock.

Chemise, envelope, embroidered Philippine, ea.....	\$2.20	Hose, ladies' silk, medium gray, pr.....	\$2.50
Corsets, white, Bon Ton, ea.....	3.45	Hose, ladies' silk, silver gray, pr.....	2.50
Cuticle, comfort, cutex, jar.....	.27	Hose, ladies' silk, light gray, pr.....	2.50
Dress goods:		Hose, ladies' silk, navy, pr.....	2.50
Burlap, printed curtain, 36", yard.....	.46	Hose, ladies' silk, pearl, pr.....	2.50
Crepe, Raty, yd.....	.38	Hose, ladies' silk, white, pr.....	2.50
Linen, white dress, 36", yd.....	.98	Hose, ladies' silk, pink, pr.....	2.50
Voile, Primavera printed, 26", yd.....	.29	Hose, ladies' silk, navy, pr.....	1.95
Voile, Primavera printed, 26", yd.....	.29	Nightgowns, embroidered, Philippine, ea..	2.20
Voile, Primavera printed, 26", yd.....	.29	Nightgowns, embroidered, Philippine, ea..	3.15
Voile, Deauville printed, 39/40", yd.....	.49	Pants, boys', olive drab, pr.....	1.05
Voile, Deauville printed, 39/40", yd.....	.49	Pens, fountain, Waterman's regular type, ea.....	2.00
Voile, Deauville printed, 39/40", yd.....	.49	Pens, fountain, Waterman's safety type, ea	2.40
Voile, Gainsborough printed, 35/36", yd.....	.55	Pens, fountain, Waterman's self-filling, ea	2.00
Voile, Gainsborough printed, 35/36", yd.....	.55	Polish, white, Cutex, cake.....	.27
Garters, ivory, pr.....	.30	Polish, pink, Cutex, cake.....	.27
Handkerchiefs, H. S. linen, ea.....	.35	Polish, liquid, Cutex, bot.....	.27
Handkerchiefs, H. S. linen, ea.....	.40	Polish, Cutex, tube.....	.27
Handkerchiefs, cotton, ea.....	.28	Rouge, Cutex, jar.....	.27
Handkerchiefs, linen, embroidered, ea.....	.90	Stationery:	
Handkerchiefs, linen, fancy, ea.....	.45	Books, memo, black leather, quad. ruled without printing, ea.....	.30
Handkerchiefs, linen, fancy, ea.....	.43	Suits, linen, bleached, 45", yard.....	.82
Hose, ladies' silk, Cordovan, pr.....	2.50	Ties, knit, 4-in-hand, ea.....	1.85
Hose, ladies' silk, African brown, pr.....	2.50	Ties, knit, 4-in-hand, ea.....	1.85
Hose, ladies' silk, black, pr.....	2.50	Ties, knit, 4-in-hand, ea.....	1.40
Hose, ladies' silk, brown, pr.....	2.50	Ties, knit, 4-in-hand, assorted, ea.....	2.85
Hose, ladies' silk, bronze, pr.....	2.50	Ties, knit, 4-in-hand, assorted, ea.....	2.50
Hose, ladies' silk, Chasseur blue, pr.....	2.50	Towels, H. S. union, huck, 20 x 38, ea....	.45
Hose, ladies' silk, Champagne, pr.....	2.50		
Hose, ladies' silk, green, pr.....	2.50		

COMMISSARY NOTES.**Commissary Closing Notice.**

The groceries and cold storage sections and cigar counters of all commissaries will be open Monday, November 3, 1919, only from 8 to 9 a. m.

Mineral Water.

Club soda is now on sale at all commissaries. It is a carbonated water and is intended for those who seek a highly charged beverage without sweetening or flavor.

Variety of Stock Selection.

It will be of interest to commissary customers to learn that approximately 4,300 different items are carried in the retail stores, as follows: Grocery department, 716; hardware department, 1,244; boots and shoes department, 329; dry goods department, 1,823; and cold storage department, 229.

Hosiery.

A shipment of ladies' silk hose in all the latest and most fashionable shades, including cordovan, African brown, bronze, Chasseur blue, champagne, green, medium gray, silver gray, light gray, black, pearl, navy, white and pink, has recently been received and placed on sale in the commissaries. These are priced at \$2.50 per pair. Not only are these in demand in shades matching evening gowns, but with white Oxfords are used for wear with sports clothes.

Cost of Water Ices Reduced.

Effective October 21, the retail prices of sherbets, or water ices, manufactured by the Commissary Division were reduced to the following: Pineapple, 70 cents per gallon, strawberry, \$1.10 per gallon, orange, 70 cents per gallon, lemon, 50 cents per gallon. The new selling prices are not standard for it has been found that the cost of making sherbet varies widely, according to the flavor, and that therefore a standard selling price for all flavors can not be exact.

Souvenirs.

Splendid views of an epochal naval event, the passage through the Panama Canal of the new Pacific Fleet, United States Navy, in July, 1919, are provided in a 24-page booklet of attractive form, recently stocked by the Commissary Division. The cover of the booklet shows, in two colors, the U. S. S. *Rhode Island* in Gatun Lake. The booklet also includes several miscellaneous views taken in the Canal Zone. These are designed to give a general idea of the towns and country adjacent to the Canal. The price of the booklet is 40 cents.

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE No. 29, EFFECTIVE SEPTEMBER 7, 1919.

MAIN LINE STATIONS.	DAILY.			Daily except Sat day	Sat'day only.	Sunday only.	MAIN LINE STATIONS.				DAILY.			Sat'day only.	Sunday only.	
	3	5	7				101	9	11	4	6	8	10			12
Leave																
Colon.....	7.10	11.00	5.00	P. M.	11.15	P. M.	9.35	A. M.	11.00	5.00	P. M.	7.10	11.00	5.00	P. M.	
Mount Hope.....	7.15	11.05	5.05	11.20	11.35	9.40	.....	.....	7.15	11.05	5.05	7.15	11.05	5.05	9.40
New Gatun.....	7.27	11.17	5.17	11.40	11.49	9.52	.....	.....	7.21	11.12	5.10	7.21	11.12	5.10	9.46
Gatun.....	7.42	11.32	5.32	11.55	12.04	10.07	.....	.....	7.26	11.17	5.15	7.26	11.17	5.15	11.46
Monte Lirio.....	7.53	11.43	5.43	A. M.	12.15	10.18	.....	.....	7.30	11.23	5.23	7.30	11.23	5.23	11.53
Frijoles.....	8.00	11.50	5.50	12.18	12.22	10.25	.....	.....	7.46	11.35	5.35	7.46	11.35	5.35	12.05
Darien.....	8.14	12.02	6.02	12.30	12.33	10.37	.....	.....	7.58	11.47	5.47	7.58	11.47	5.47	12.17
Gamboa.....	8.30	12.14	6.14	12.42	12.45	10.49	.....	.....	8.07	11.57	5.57	8.07	11.57	5.57	12.28
Pedro Miguel.....	8.44	12.26	6.26	1.00	12.57	11.01	.....	.....	8.14	12.04	6.04	8.14	12.04	6.04	12.35
Red Tank.....	8.50	12.32	6.30	1.06	1.00	11.04	.....	.....	8.25	12.15	6.15	8.25	12.15	6.15	12.46
Miraflores Locks.....	8.54	12.36	6.34	1.10	1.05	11.09	.....	.....	8.40	12.30	6.30	8.40	12.30	6.30	1.01
Corozal.....	9.00	12.45	6.40	1.15	1.12	11.14	.....	.....	8.50	12.40	6.40	8.50	12.40	6.40	1.10
Balboa Heights.....	9.05	12.50	6.45	1.20	1.20	11.25	.....	.....	8.55	12.45	6.45	8.55	12.45	6.45	1.15
Panama.....	9.05	12.50	6.45	A. M.	A. M.	P. M.	.....	.....	A. M.	P. M.	P. M.	A. M.	P. M.	P. M.	A. M.
Arrive																
	3	5	7	101	9	11						4	6	8	10	12

All trains stop where time is shown except f indicates stop on signal only.

MAIN LINE STATIONS.	DAILY.			Daily except Sat day	Sat'day only.	Sunday only.	LAS CASCADAS BRANCH STATIONS				DAILY.			Sat'day only.	Sunday only.	
	3	5	7				31	33	35	37	39	31	33			35
Leave																
Colon.....	12.30	11.30	7.05	A. M.	9.25	6.45	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mount Hope.....	12.35	11.35	7.10	9.30	6.55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Gatun.....	12.47	11.47	7.22	9.43	7.07	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gatun.....	12.50	11.50	7.24	9.46	7.11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monte Lirio.....	1.00	11.53	7.27	9.49	7.14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frijoles.....	1.05	11.57	7.30	9.53	7.19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Darien.....	1.10	12.01	7.34	9.58	7.24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gamboa.....	1.15	12.06	7.40	10.05	7.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pedro Miguel.....	1.20	12.11	7.45	10.10	7.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Red Tank.....	1.25	12.16	7.50	10.15	7.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miraflores Locks.....	1.30	12.21	7.55	10.20	7.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corozal.....	1.35	12.26	8.00	10.25	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Balboa Heights.....	1.40	12.31	8.05	10.30	7.55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Panama.....	1.45	12.36	8.10	10.35	8.00	
Arrive																
	39	37	35	33	31							30	32	34	36	38

THE PANAMA CANAL RECORD

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CANAL WORK IN SEPTEMBER.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of September, 1919:

BALBOA HEIGHTS, C. Z., October 22, 1919.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of September, 1919:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal for the month was 170, exclusive of 13 United States Government vessels, as follows: One cruiser, 1 mine depot ship, 4 destroyers, 1 mine-planter, 2 tugs, 3 merchant ships with coal for the Navy, and 1 Coast and Geodetic Survey ship. The total number of ocean-going vessels was 183, in addition to which 1 launch went from Atlantic to Pacific, and 3 from Pacific to Atlantic.

Classifications of the traffic are shown in the following tabulations. The net tonnage of 170 commercial ships aggregated 586,186 tons, Panama Canal measurement, and was 75 tons more than that of commercial ships passing through the Canal in August, when 188 ships of 586,111 tons made the transit. Their registered gross tonnage was 765,050 tons, and their registered net tonnage 488,395 tons. The cargo carried totaled 638,270 tons of 2,240 pounds, and was 77,454 tons less than that handled in August. Of that in September, 1919, 7,921 tons were carried as deck load. Ships of 10 different nationalities were included in the month's traffic.

The United States coastwise trade was made up of 17 vessels, aggregating 61,156 tons, Panama Canal measurement, and carrying 80,948 tons of cargo. From Atlantic to Pacific, 2 ships with a total net tonnage of 9,065 tons, Panama Canal measurement, made the transit, carrying 15,469 tons of cargo. From the Pacific to the Atlantic there were 15 vessels of 52,091 tons, carrying 65,479 tons of cargo.

The United States Shipping Board operated 1 of the westbound ships in the coastwise trade, with a net tonnage of 1,742 tons, Panama Canal measurement, carrying 4,000 tons of cargo, and 13 of the 15 vessels eastbound. The net tonnage of the 13 ships from Pacific to Atlantic aggregated 44,627 tons, and their cargo amounted to 65,479 tons.

PRINCIPAL COMMODITIES.

The bulk shipments from Atlantic to Pacific were: Crude oil, 61,486 tons, of which 9,261 tons were from Tampico to Antofagasta, 9,500 tons from Puerto Lobos to San Francisco, 9,725 tons from Tampico to Pisagua, 10,500 tons from Puerto Lobos to Tocopilla, 9,400 tons from Tampico to San Pedro, 3,500 tons from Tampico to Chanaral, and 9,600 tons from Tampico to Tocopilla; petroleum, 32,115 tons, of which 8,150 tons were from New York to Honolulu, 11,469 tons from Beaumont to San Francisco, and 12,496 tons from Tuxpan to Pisagua; kerosene, 22,571 tons, of which 13,456 tons were from New Orleans to Shanghai, and 9,115 tons from New Orleans to Honolulu; coal, 9,248 tons, of which 6,907 tons were from Newport News to Lyttleton, and 2,341 tons from Norfolk to Papudo; scrap iron, 935 tons from Cristobal to San Francisco; mixed cargoes aggregated 31,501 tons, of which 4,613 tons were from London to Valparaiso, 9,200 tons from New York to Honolulu, 4,116 tons from New York to Callao, 6,555 tons from New York to Manila, 3,259 tons from Baltimore to Cuayacan, and 3,758 tons from Baltimore to Carrizal; 37 cargoes described as "general," amounted to 123,658 tons.

From the Pacific to the Atlantic the principal commodities were lumber, of which 24 whole cargoes, aggregating 43,640 tons passed through the Canal, 17 ships carrying 32,185 tons for Great Britain, 5 ships 9,189 tons to Atlantic ports of the United States, 1 ship 1,326 tons to Nipe, Cuba, all from the west coast of North America; and 1

ship carrying 940 tons of dyewood and cedar to Cristobal, from Puntarenas, Costa Rica; 4 cargoes of barley from San Francisco, 10,375 tons bound for England, and 2,889 tons for Copenhagen; flour, 6 whole cargoes, 46,334 tons, from Portland and San Francisco, 24,943 tons to Norfolk and Newport News, 14,248 tons to Gibraltar, and 7,143 tons to New York; nitrates, from Iquique and Pisagua for the United States, 3 whole cargoes, aggregating 13,099 tons; wheat, 2 whole cargoes from Portland, 7,600 tons to Newport News and 6,422 tons to Gibraltar; sugar, 8,975 tons in 2 shipments, 7,879 tons from Honolulu to Philadelphia and 1,096 tons from Eten to Cristobal; and 1 whole cargo each of canned fruit, 8,600 tons, from San Francisco to Liverpool; dried fruit, 1,270 tons from San Francisco to Sweden; 1,445 tons of cottonseed, from Supe, Peru, to Bristol; and manganese ore, 880 tons, from La Union to Baltimore. Twenty-one cargoes were "mixed," containing several commodities, aggregating 95,556 tons, and 21 contained the variety designated as "general," amounting to 73,827 tons.

Ships in ballast numbered 7 from the Atlantic, with an aggregate net tonnage of 28,376 tons, Panama Canal measurement, and 10 from Pacific to Atlantic, of 47,664 net tons, a total of 17 ships of 76,040 tons.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal on their way to the west coast of Central and South America during September were, by nationalities, as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
					<i>Tons.</i>
British.....	12	28,771	17,651	21,282	24,413
Chilean.....	4	12,894	7,793	11,111	3,608
Peruvian.....	3	12,641	7,583	8,272	2,501
Norwegian.....	3	14,753	9,196	11,612	13,377
Japanese.....	1	8,134	5,046	5,900	.....
Dutch.....	1	6,899	4,417	6,653	82
United States.....	16	75,536	45,644	56,298	75,618
Total.....	40	159,628	97,330	121,128	119,599

Of the 40 vessels, 17 with 12,193 tons of cargo originated at the Atlantic terminus of the Canal; 12 with 43,306 tons came from United States ports; 4 with 32,086 tons of oil from Tampico; 1 with 10,500 tons of crude oil from Puerto Lobos; 1 with 12,496 tons of petroleum from Tuxpan; 3 with general cargo from Europe, amounting to 9,018 tons; 1 with no cargo from Newcastle and 1 with no cargo from Gibraltar.

Shipments from the west coast of Central and South America through the Canal during September were carried by 31 vessels. Three were bound for Great Britain with 10,191 tons of cargo from Chilean and Peruvian ports; 5 were bound for Tampico in ballast; 7 for the United States; and 16 completed the voyage at the Atlantic terminus of the Canal, discharging 1 bulk cargo of sugar amounting to 1,096 tons, and 17,870 tons of general cargo.

By nationalities the ships from the west coast of South and Central America were as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
					<i>Tons.</i>
British.....	11	35,381	21,332	25,127	14,552
Norwegian.....	2	14,099	8,859	10,309	.....
Chilean.....	3	9,080	5,505	8,078	5,369
Peruvian.....	4	12,913	7,869	8,954	6,786
United States.....	11	37,749	22,890	26,362	20,164
Totals.....	31	109,132	66,455	78,830	46,871

PRINCIPAL TRADE ROUTES.

The distribution of the traffic through the Canal in September, 1919, according to the principal trade routes, was as follows:

	Ves- sels.	Panama Canal net tonnage.	Cargo. Tons.
<i>Atlantic to Pacific.</i>			
United States coastwise	2	9,065	15,469
United States to South America	12	39,407	43,306
Europe to South America	5	23,303	9,018
Cristobal to South America	17	25,725	12,193
Europe to west coast of North America	1	3,789	.....
Europe to Australia and New Zealand	3	15,702	8,997
United States to Australia and New Zealand	4	23,356	31,505
United States to Far East	15	74,166	113,964
Cristobal to west coast of North America	4	6,100	6,484
Mexico to west coast of North America	2	10,646	18,900
Mexico to west coast of South America	6	32,753	55,082
Miscellaneous	1	1,713	2,440
Total	72	265,725	317,358
<i>Pacific to Atlantic.</i>			
United States coastwise	15	52,091	65,479
West coast, North America to Europe	31	74,181	98,532
West coast, South America to United States	7	19,918	17,714
West coast, North America to Cristobal	3	5,373	3,161
West coast, South America to Cristobal	16	22,169	18,966
West coast, South America to Mexico	5	25,624	(*)
Australia and New Zealand to Europe	10	76,661	72,401
Far East to east coast of North America	2	9,984	15,730
Anustralia and New Zealand to east coast of North America	2	9,333	11,182
West coast, South America to Europe	3	11,119	10,191
West coast, North America to Mexico	1	6,385	(*)
Far East to Europe	1	5,531	6,230
Miscellaneous	2	2,092	1,326
Total	98	320,461	320,912

* Ballast.

SERVICES TO CANAL SHIPPING.

Repairs were made on 111 vessels during the month, 68 at Cristobal and 43 at Balboa. Ten vessels were dry-docked at Cristobal and 10 at Balboa. Sales of fuel oil to ships from stock of The Panama Canal, were 814 barrels to 4 vessels at Cristobal and 3,367 barrels to 1 vessel at Balboa. Coal sales were 38,739 tons to 116 vessels at Cristobal and 5,313 tons to 26 vessels at Balboa, a total of 142 vessels receiving 44,052 tons. Water sold included 10,246,395 gallons to 190 vessels at Cristobal and 3,266,250 gallons to 120 at Balboa, a total of 13,512,645 gallons to 310 vessels. Sales of commissary supplies to commercial ships of lines other than that of the Panama Railroad, aggregated \$84,732.44, of which \$54,458.78 worth, including \$1,693.79 for laundry, was supplied at Cristobal, \$6.60 at Gatun, and \$30,267.06, including \$714.12 from Ancon laundry, at Balboa. Laundry service for all ships amounted to \$3,965.53. Tug service performed for vessels using the Canal and the terminal ports was charged at \$20,398.35, of which \$11,411.25 was collected through the office of the Captain of the Port at Cristobal and \$8,987.10 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulations:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal	72	98	170
Net tonnage of commercial ships, Panama Canal measurement	265,725	320,461	586,186
United States equivalent net tonnage of commercial ships	220,004	272,358	492,362
Registered gross tonnage of commercial ships	346,348	418,702	765,050
Registered net tonnage of commercial ships	215,205	273,190	488,395
Cargo through Canal in commercial ships, tons of 2,240 pounds	317,358	320,912	638,270
Deck load cargo, included in above	426	7,495	7,921
Nationality of commercial ships through Canal:			
British	25	26	51
Norwegian	4	5	9
Peruvian	3	4	7
French .....	.....	5	5
Chinese	1	.....	1
Chilean	4	3	7
Swedish .....	.....	1	1
Japanese	6	1	7
Dutch	2	.....	2
United States	27	53	80
Total	72	98	170

Item.	Cristobal.	Balboa.	Total.
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	90,030	118,390	208,420
Norwegian.....	16,756	13,716	30,472
Peruvian.....	8,272	8,954	17,226
French.....		6,379	6,379
Chinese.....	3,801		3,801
Chilean.....	11,111	8,078	19,189
Swedish.....		3,967	3,967
Japanese.....	31,097	5,420	36,717
Dutch.....	11,823		11,823
United States.....	92,835	155,357	248,192
Total.....	265,725	320,461	586,186
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	77,973	99,139	177,112
Norwegian.....	13,955	12,303	26,258
Peruvian.....	6,846	6,914	13,760
French.....		5,861	5,861
Chinese.....	3,707		3,707
Chilean.....	6,891	4,928	11,819
Swedish.....		2,307	2,307
Japanese.....	27,506	4,545	32,051
Dutch.....	8,477		8,477
United States.....	74,649	136,261	211,010
Total.....	220,004	272,358	492,362
Registered gross tonnage of commercial ships through the Canal:			
British.....	116,838	152,871	269,709
Norwegian.....	21,791	18,059	39,850
Peruvian.....	12,641	12,913	25,554
French.....		10,131	10,131
Chinese.....	5,174		5,174
Chilean.....	12,894	9,080	21,374
Swedish.....		3,774	3,774
Japanese.....	41,284	7,085	48,369
Dutch.....	13,593		13,593
United States.....	122,133	204,789	326,922
Total.....	346,348	418,702	765,050
Registered net tonnage of commercial ships, through the Canal:			
British.....	73,171	97,521	170,692
Norwegian.....	13,616	12,282	25,898
Peruvian.....	7,583	7,869	15,452
French.....		6,363	6,363
Chinese.....	3,707		3,707
Chilean.....	7,793	5,505	13,298
Swedish.....		2,875	2,875
Japanese.....	26,219	4,387	30,606
Dutch.....	8,643		8,643
United States.....	74,473	136,398	210,861
Total.....	215,205	273,190	488,395
Cargo carried by ships of various nationalities:			
British.....	104,454	107,565	212,019
Norwegian.....	22,777	5,582	28,359
Peruvian.....	2,501	6,786	9,287
French.....		6,487	6,487
Chinese.....	6,300		6,300
Chilean.....	3,608	5,369	8,977
Swedish.....		1,270	1,270
Japanese.....	43,706	9,420	53,126
Dutch.....	8,232		8,232
United States.....	125,780	178,433	304,213
Total.....	317,358	320,912	638,270
Vessels passing through the Canal free of tolls:			
U. S. Navy cruisers.....	1		1
U. S. Navy Mine Depot ships.....	1		1
U. S. Navy destroyers.....	4		4
U. S. Navy tugs.....	2		2
U. S. Army mine-plar ter.....		1	1
U. S. Coast and Geodetic Survey ship.....	1		1
Merchant ships with coal for Navy.....	3		3
Total.....	12	1	13
Launches.....	1	3	4
Net tonnage of launches, Panama Canal measurement.....	5	5	10
Total ocean-going ships transiting Canal.....	84	99	183
Total vessels transiting Canal.....	85	102	187
Cargo on which no tolls were charged.....	22,295		22,295
Commercial ships through Canal without cargo, but not in ballast.....	7	1	8
Net tonnage of above, Canal measurement.....	28,376	483	28,859
Commercial ships through Canal in ballast.....		10	10
Net tonnage of above, Canal measurement.....		47,654	47,664
Total of commercial ships without cargo transiting Canal.....	7	11	18
Net tonnage of above, Canal measurement.....	28,376	48,147	76,523

Item.	Cristobal.	Balboa.	Total.
Motor ships through Canal.....	1	6	7
Net tonnage of motor ships, Canal measurement.....	69	8,317	8,386
Sailing ships through the Canal.....		6	6
Net tonnage of sailing ships, Canal measurement.....		8,665	8,665
Yachts through the Canal.....		1	1
Net tonnage of yachts, Canal measurement.....		483	483
Tolls levied on laden ships through the Canal.....	\$244,199.70	\$290,801.45	\$535,001.15
Tolls levied on ships in ballast.....		34,372.74	34,372.74
Tolls on launches.....	6.00	4.90	10.90
Total tolls levied.....	\$244,205.70	\$325,179.09	\$569,384.79
Total ships entering port, including Canal transit.....	214	192	400
Total ships clearing port, including Canal transit.....	211	186	397
Total ships handled.....	425	378	803
Net registered tonnage of vessels entering port.....	648,270	535,740	1,184,010
Net registered tonnage of vessels clearing port.....	633,744	530,684	1,164,428
Total for vessels entering and clearing.....	1,282,014	1,066,424	2,348,438
Registered gross tonnage of vessels entering.....	1,008,008	827,014	1,835,022
Registered gross tonnage of vessels clearing.....	984,429	819,447	1,803,876
Total registered gross tonnage of vessels entering and clearing.....	1,992,437	1,646,461	3,638,898
Vessels entering port, but not passing through Canal.....	43	4	47
Net tonnage of above.....	127,758	11,014	138,772
Gross tonnage of above.....	207,358	16,746	224,104
Vessels clearing port, but not passing through Canal.....	37	5	42
Net tonnage of above.....	117,176	11,995	129,171
Gross tonnage of above.....	190,676	18,514	209,190
Vessels passing through Canal, and handling passengers or cargo at port entered.....	29	32	61
Net tonnage of above.....	65,407	46,174	111,581
Gross tonnage of above.....	107,539	76,468	184,057
Vessels passing through Canal, and handling passengers or cargo at port cleared.....	29	32	61
Net tonnage of above.....	62,843	46,174	109,017
Gross tonnage of above.....	103,434	76,468	179,902
Transit cargo arriving..... tons.	668,184	655,435	1,323,619
Transit cargo cleared..... tons.	663,060	578,967	1,242,027
Local cargo arriving..... tons.	28,754	14,217	42,971
Local cargo shipped..... tons.	3,252	433	3,685
Total local cargo handled..... tons.	32,006	14,650	46,656
Total local and transit cargo arriving..... tons.	696,938	669,652	1,366,590
Total local and transit cargo cleared..... tons.	660,312	579,400	1,239,712
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	60,406	3,042	63,448
Cargo dispatched by Receiving and Forwarding Agency of P. R. R. tons.	58,540	3,675	62,215
Cargo rehandled by Receiving and Forwarding Agency of P. R. R. tons.	1,159	1,636	2,795
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	120,105	8,353	128,458
Cargo stowed, included in above..... tons.	53,292	1,054	54,346
Commercial vessels other than P. R. R. supplied with bunker coal..... tons.	65	20	115
Coal supplied to commercial vessels other than Panama Railroad..... tons.	34,928	4,914	39,842
Panama Railroad vessels supplied with bunker coal..... tons.	4	1	5
Coal supplied Panama Railroad Steamship Line..... tons.	699	1	700
U. S. Navy vessels supplied with bunker coal..... tons.	2	3	5
Coal supplied U. S. Navy vessels..... tons.	2,838	352	3,190
U. S. Army vessels supplied with coal..... tons.	5	2	7
Coal supplied to U. S. Army vessels..... tons.	274	46	320
Total vessels supplied with coal..... tons.	106	26	132
Total coal furnished to vessels..... tons.	38,739	5,313	44,052
Coal supplied Panama Railroad departments..... tons.	642	40	682
Coal supplied Army, excepting vessels..... tons.	94		94
Coal supplied The Panama Canal..... tons.	1,941	695	2,636
Coal supplied individuals and companies..... tons.	452		452
Total coal furnished..... tons.	41,868	6,048	47,916
Coal received during September..... tons.	14,937	12,114	27,051
Coal on hand, October 1..... tons.	59,685	9,066	68,751
Vessels supplied with water..... tons.	190	120	310
Water sold to ships..... gals.	10,246,395	3,266,250	13,512,645
Vessels dry-docked..... tons.	10	10	20
Commercial vessels furnished commissary supplies..... tons.	131	71	202
Panama Railroad vessels furnished commissary supplies..... tons.	10		10
Other U. S. Government vessels furnished commissary supplies..... tons.	21	16	37
Total vessels furnished commissary supplies..... tons.	162	87	249
Commissary sales to commercial vessels.....			
Ice.....	\$1,249.46	\$605.19	\$1,854.65
Wholesale groceries.....	12,343.58	6,869.91	19,213.49
Wholesale cold storage.....	35,905.33	18,941.98	54,847.31
Laundry.....	1,693.79	3.07	1,696.86
Miscellaneous.....	3,266.62	3,332.79	6,599.41
Total.....	\$1,249.46	\$605.19	\$1,854.65
Total.....	\$54,458.78	\$29,452.94	\$84,011.72

Item.	Cristobal.	Balboa.	Total.
Commissary sales to Panama Railroad vessels:			
Ice.....	\$57.75		\$57.75
Wholesale groceries.....	1,391.38		1,391.38
Wholesale cold storage.....	6,893.53		6,893.53
Laundry.....	614.81		614.84
Miscellaneous.....	994.38		994.38
Total.....	\$9,951.88		\$9,951.88
Commissary sales to other Government vessels:			
Ice.....	\$626.88	\$361.57	\$988.25
Wholesale groceries.....	2,172.47	4,023.25	6,195.72
Wholesale cold storage.....	16,863.06	15,460.14	32,323.20
Laundry.....	799.81	139.90	939.11
Miscellaneous.....	1,089.48	208.21	1,297.69
Total.....	\$21,551.70	\$20,192.87	\$41,744.57
Total commissary sales to vessels.....	\$85,962.36	\$49,745.81	\$135,708.17
Fuel oil sold to commercial vessels.....	barrels 814	3,367	4,181
Fuel oil issued to U. S. Navy.....	barrels 200		200
Fuel oil issued to U. S. Army.....	barrels 638	198	836
Fuel oil issued to Canal departments.....	barrels 6,562	14,235	20,797
Other sales, issues, and consumption at plant.....	barrels 296	184	474
Total furnished from Canal tanks.....	barrels 8,504	17,984	26,488
Fuel oil on hand October 1.....	barrels 15,640	81,731	97,371
Other oil pumped.....	barrels 213,456	11,764	225,220
Diesel oil issued to Canal departments.....	barrels 17		17
Diesel oil on hand October 1.....	barrels 1,499		1,499
Passengers arriving, including transit passengers:			
First cabin.....	3,107	1,809	4,916
Other than first cabin.....	3,308	2,449	5,757
Total.....	6,415	4,258	10,673
Total passengers departing including transit passengers:			
First cabin.....	3,209	1,795	5,004
Other than first cabin.....	4,189	2,414	6,603
Total.....	7,398	4,209	11,607
Total movements of passengers.....	13,813	8,467	22,280
Passengers disembarking:			
First cabin.....	1,567	233	1,800
Other than first cabin.....	734	101	835
Total.....	2,301	334	2,635
Passengers embarking.....			
First cabin.....	1,867	219	2,086
Other than first cabin.....	2,180	66	2,246
Total.....	4,047	285	4,332
Services to American seamen:			
Seamen shipped.....	138	63	201
Seamen paid off.....	88	51	139
Seamen deserted.....	9	6	15
Seamen lodged, subsisted, and repatriated.....	27		27
Total seamen handled.....	262	120	582
Seamen's wages received.....	\$8,928.07	\$3,423.59	\$12,351.66
Seamen's wages disbursed.....	3,408.84	1,495.60	4,904.44
Seamen's wages on hand, September 30.....	12,336.91	4,180.19	16,517.10
Services to American vessels:			
Crews shipped.....	1		1
Crews paid off.....	1		1
Shipping articles written.....	1	2	3
Marine notes of protest noted.....	16	7	23

LOCK OPERATIONS.

Lockages of commercial vessels were made during the month as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	97	71	168	99	75	174
Fedro Miguel.....	100	76	176	100	77	177
Miraflores.....	93	72	165	99	75	174

Lockages of Army and Navy vessels, vessels operated by The Panama Canal, and of commercial vessels, are included in the following summary of all lockages during the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	168	176	165
Noncommercial, United States Army and Navy.....	6	6	5
Canal equipment.....	2	29	31
Total.....	176	211	201
Vessels:			
Commercial vessels.....	174	177	174
Noncommercial, United States Army and Navy and Canal.....	27	75	75
Total.....	201	252	249

Water consumed for all lockages amounted to 1,367,930,000 cubic feet, that used at Pedro Miguel becoming available for second use at Miraflores locks.

Consumption of water by the locks during the month was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	734,650,000	633,280,000	607,600,000
Leakage.....	20,000,000	29,520,000	15,000,000
Maintenance.....		27,390,000	8,240,000
Total.....	754,650,000	690,190,000	630,840,000

METEOROLOGY.

Rainfall during the month was above the average at 11 stations and deficient at 8 stations, the deficiency being well marked over the Atlantic section. Rainfall totals ranged from 8.33 inches at Miraflores to 22.52 inches at the Indio station on the upper Chagres. The greatest precipitation in 24 hours was 3.96 inches, at Monte Lirio on the 8th.

A slight seismic disturbance was recorded at Balboa Heights on the evening of September 26. Although the maximum amplitude of the record was 10 millimeters, so far as is known no one in this vicinity felt the quake. The epicenter of this disturbance was about 370 miles distant. The principal waves moved in a north-south direction, but the seat of the disturbance is unknown.

The Chagres River discharge at Alhajuella was 7 per cent below the 18-year September average, or 2,996 c. f. s. against a mean of 3,232 c. f. s. The Chagres furnished 33 per cent of the Gatun Lake total yield. There was one freshet in the Chagres River during the month with a rise of more than 5 feet at Alhajuella.

The elevation of Gatun Lake on September 30 was 85.47 feet, as compared with 85.29 at the end of the prior month.

A severe wind storm occurred at Gamboa on the afternoon of September 26, during which a maximum velocity of 50 miles an hour was recorded from the northeast. The two unloading cranes at the Gamboa gravel plant were overturned and wrecked, causing damage estimated at about \$20,000.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The net output of the hydroelectric station for the month of September was 5,060,617 K. W. H., and the computed water consumption was 3,925,910,000 cubic feet.

Miraflores steam plant—The net output of the steam plant was minus 165,170 K. W. H., and the oil consumption was 2,054.46 barrels. The removal of a span of the bridge at Gamboa and cutting the transmission line on September 29 made it necessary for the Miraflores plant to carry for 2½ hours all of the load on the system south of Gamboa. Seven extra boilers and three extra turbines were thrown into service for this.

Total power output—The total power output for both generating stations was 4,895,447 K. W. H., and the total amount of power distributed to feeders by substations and generating plants was 4,366,387 K. W. H., representing an energy loss of 10.8 per cent.

Transmission line—There were 3 interruptions to transmission service during the month, due respectively to an animal on the line, failure of a roof bushing, and failure of insulator and bushing during a severe lightning storm. The maximum interruption of service to any station was 35 minutes.

Marine work—Repairs and additions of electrical equipment were made at Cristobal on the following vessels, under 15 work orders: *Middlebury*, *Dakotan*, *Mada-waska*, *Aimwell*, *General Ernst*, *Cansumset*, *Gray Eagle*, *West Harsaw*, *Fort Wright*, *Advance*, *Boxbutte*, *Benoni*, and *Colon*. Work was in progress at the end of the month on the cable ship *Cyrus W. Field*, dredge *Gamboa*, steamship *Caribbean*, U. S. M. P. *Graham* and the steamship *Colon*. At Balboa, electrical work was done on the following vessels: *Anubis*, *Cristobal*, barge No. 13, barge No. 29, *Azov*, *Guardian*, *Oro-*

ina, *Aimwell*, tug *Empire*, *Kangi*, *Graham*, *Los Angeles*, *Bushrod*, clapet *No. 7*, *Falketind*, *Ardmore*, *Okiya*, dredges *Corozal* and *Cascadas*, *Ulysses*, tug *Gorgona*, dredge *No. 86*, *Bonifay*, dredge *No. 84*, *Melville*, *Adela*, *Asotin*, *Medford*, *Cresap*, *Buhisan*, and tug *Gatun*.

New construction—Installation of electrical equipment at Mount Hope cold storage plant remains about the same as last month, 96 per cent completed. Electrical installation at Pier 6, Cristobal, was advanced from 80 to 95 per cent of completion. Electrical work at the slaughterhouse at Mount Hope was completed during the month. There were 378 work orders issued for work to be performed by different sections of the Electrical Division during the month.

SHOPS, FOUNDRY, AND DRY DOCK WORK.

The repairs to the ex-German vessel *Anubis* (renamed *Paíta*) were completed except for finishing touches and trial. Steam was raised on the ship's boilers for the first time and a short preliminary trial was held on September 30.

The work on the outside hull of the steamship *Cristobal*, below the water line, incidental to converting to oil burning, and overhaul of machinery were completed, and the vessel was removed from dry dock. Satisfactory general progress was made on the vessel during the month. A considerable amount of steel work for the fuel oil tanks and miscellaneous water-tight subdivision was erected and partly riveted.

A number of small jobs were performed on naval vessels transiting the Canal. The usual run of water-front repairs was accomplished; this class of work being particularly heavy, especially on wooden ships.

Steel reinforcing knees were worked under the stern of the steamship *Bushrod* to strengthen the overhanging rudderpost of the vessel.

The boilers of the steamship *Aimwell* were rebuilt and the engines completely overhauled, including realignment and refitting of all brasses.

A general overhaul of a similar nature, but to lesser extent, was given the machinery of the wooden steamships *Okiya*, *Bonifay*, and *Asotin*.

At the Cristobal shops the following vessels arrived for repairs: Steamships *Chetac*, *Adolph Wierman*, *Afalkey*, *Finnisterre*, *Chimo*, *Santa Alicia*, *Albert Metin*, *Boxbulte*, *West Harsaw*, *Adway*, *Chiquimala*, *Salvador*, *Fonduco*, *Arapasho*, *West Cayote*, *Slavic Prince*, *Chili*, *Iquitos*, *Mannel Calvo*, *Jamaica*, *Kangi*, *Balboa*, *Panama*, *Allianca*, *Colon*, *Middlebury*, *Culebra*, *Advance*, *General Ernst*, *Lake Wilson*, *Lake Hurst*, *Lake Graphite*, *Ucayali*, *Coppename*, *Bassano*, *Hudson*, *Mt. Hamilton*, *Imperial*, *C-39*, *St. Louis*, *Erie*, *Mahnet*, *Tripp*, *Urubamba*, *C. W. Fields*, *Cadde*, *Dakotan*, *Ft. Logan*, *Saucon*, *Umatilla*, *Consumset*, *Metapan*, *Corvallis*, *Delaura*, *Huasco*, *Cauca*, *Norlonian*, *Crowley*, derrick barge *No. 157*, barge *No. 17*, tug *Engineer*, U. S. A. T. *Madawaska*, *A. G. Forse*, U. S. M. T. *Graham*, U. S. A. T. *Buford*, launch *Wilhelm*, motor schooner *Laura C. Hall*.

Of the above, the following were in dry dock during the month: *Crowley*, derrick barge *No. 157*, barge *No. 17*, *Salvador*, *C. W. Fields*, *Laura C. Hall*, *Graham*, launch *Wilhelm*, tugs *Engineer* and *A. G. Forse*.

At the Cristobal shops 211 individual and company job orders were issued during the month, 1 of which was for work on a submarine, and 2 on other Navy craft. Of the remaining 208, 86 covered repairs to ships making this port or in transit of the Canal, exclusive of Panama Railroad ships. The work of overhauling the steamship *Culebra* prior to turning over to the Dredging Division was continued during the month. The extension of the shops' tool room and the laying of concrete in same were completed during the month. The extension of an air line to and on pier No. 6, Cristobal, was continued during the month.

Work was performed at the Balboa shops during the month for the following vessels: *Kangi*, *Azov*, *Bushrod*, *Aimwell*, *Cristobal*, *Anubis*, *Aysen*, *Gray Eagle*, *Lampoc*, *Los Angeles*, *Santa Alicia*, *Ardmore*, *Okiya*, *Ulysses*, *Coalinga*, *Bonifay*, *Slavic Prince*, *Asotin*, *Joan of Arc*, *Medford*, *Brasher*, *Buhisan*, *Minnequa*, *Deifina*, cable ship *Guardian*, U. S. M. P. *Graham*, M. S. *Partridge No. 16*, *Cardinal*, *South Dakota*, *Lydonia*, *Melville*, *Dorsey*, destroyer *No. 106*, destroyer *Bailey*, motor ships *Santa Elena*, *Orotina*, *Chiriqui*, *Adela*, and *Laura C. Hall*, schooners *Falketind*, and *Ludlow*, dredge *Corozal*, and steamship *Cresap*.

The following vessels were in dry dock at Balboa during the month: Cable ship *Guardian*, tug *Boliver*, tug *Gatun* (twice), steamships *Aysen*, *Cristobal*, *Bushrod*, and *Anubis (Paíta)*, dredge *Corozal*, and U. S. S. *Melville*.

Foundry output, compared with that of August, was as follows:

	September.	August.
	Pounds	Pounds.
Iron.....	117,173	130,226½
Steel.....	26,361	34,860
Brass.....	27,097½	26,086½

Equipment was hosted as follows: Locomotives, 1,554; cranes, 200; making a total of 1,754. Two hundred and twenty-eight shop and 1,382 field repairs were made on cars, 788 freight cars were repacked, and 3,100 passenger coaches were packed, cleaned, oiled, and inspected.

BUILDING CONSTRUCTION.

Erection of the Puerto Obaldia radio station was 75 per cent completed at the end of the month.

Installation of abattoir equipment at Mount Hope, the machine shop at Mount Hope, and the ten 12-family silver quarters, Mount Hope, were all completed during September.

The office for the Lighthouse Subdivision at Gatun was completed.

The office building for the Central and South American Telegraph Company at Balboa, was 55 per cent completed at the end of the month.

Terminal construction—On Pier No. 6, Cristobal, the doors were 99 per cent completed, cranes, 50 per cent completed, and washing walls, 90 per cent completed at the end of the month. Placing concrete floor slabs in the reconstruction of the Royal Mail pier, Colon, was 50 per cent completed.

DREDGING DIVISION.

The total excavation by dredges during the month of September was 236,825 cubic yards, as follows:

Cubic yards.	Classified as:		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
a 10,000	10,000		Maintenance....	1746-50 to 1741-00 W.....	Paraiso.
a 28,125	20,000	8,125	Maintenance....	1802-00 to 1762-50 E and W.....	Paraiso.
b 46,600	46,600		Maintenance....	2219-00 to 2231-00 E.....	No. 84.
c 20,300	20,300		Maintenance....	Balboa Inner Harbor.....	Cascadas.
c 30,090	30,000		Maintenance....	Balboa Inner Harbor.....	No. 86.
c 6,400	6,400		Maintenance....	Balboa Inner Harbor.....	No. 84.
d 84,900	15,900	69,000	Aux. Const.....	Area No. 10, Cristobal.....	Gamboa.
d 10,500		10,500	Aux. Const.....	Area No. 11, Cristobal.....	Gamboa.
236,825	149,200	87,625	Total for month		

(a) Gaillard Cut.

(b) Pacific entrance.

(c) Balboa inner harbor.

(d) Atlantic terminal.

The following disposition was made of the excavated material: Forty-six thousand six hundred cubic yards were dumped in the San Juan fill; 20,300 cubic yards at sea beyond the Pacific entrance; 36,400 cubic yards in Diablo Dump "A"; 38,125 cubic yards in Gatun Lake, north of Gamboa; and 95,400 cubic yards between the east end of the East Breakwater and Margarita Point.

The excavation remaining to be done in the Canal prism on October 1, was 173,200 cubic yards of earth and rock, and from the Cristobal coaling station and Balboa inner harbor, 2,100 cubic yards, and 167,800 cubic yards, respectively. The total construction excavation to be done is comprised of 215,700 cubic yards of earth and 127,400 cubic yards of rock.

Mindi dykes and groins were maintained, the destruction of water hyacinths was continued, weekly surveys were made covering stations 1795 to 1775 and 1750 to 1738, and both of these areas were dragged daily. Surveys were made behind the dredges in the Pacific entrance, Balboa inner harbor, Gaillard Cut, and Atlantic terminals. Charts of all dredged, mined, and surveyed areas were prepared.

MUNICIPAL DIVISION.

The truck and cart oil-filling station at the Mount Hope oil handling plant was completed during the month. No work was done on the installation of water lines for the cold storage plant, or on the roads, and water and sewer lines for the group of 12-family silver quarters at Mount Hope. In the installation of the circulating water system for the cold storage plant, 1,905 linear feet of 20-inch dredge pipe were embedded in concrete, excavation and backfilling were carried on, and the work as a whole advanced to 85 per cent of completion. Grading and filling for the new silver townsite were 75 per cent completed; 11,507 cubic yards of fill were placed during September. The construction of sewer from North Avenue, Panama, to the beach was 50 per cent completed; work during the month included excavating 1,226 cubic yards, placing 835 cubic yards of backfill, and constructing 437 linear feet of box sewer, averaging approximately 4 by 4½ feet in cross section.

Water pumped in the northern district amounted to 217,168,500 gallons, and in the southern district to 569,711,000 gallons, making a total of 786,879,500 gallons, as compared with 825,345,000 gallons in August, Colon was furnished with 53,230,000 gallons, Panama with 86,526,000 gallons, and 13,512,645 gallons were sold to 310 ships. The incinerator at Gavilan Island burned 2,104 tons of garbage and 31 dead animals during September.

WORKING FORCE.

Effective September 24, 1919.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	43	44	87
Building Division.....	298	1,952	2,230
Electrical Division.....	125	370	629
Municipal Engineering Division.....	250	2,467	2,592
Lock Operation.....	164	599	763
Dredging Division.....	147	844	991
Mechanical Division.....	963	1,827	2,790
Marine Division.....	149	374	514
Fortifications.....	64	265	329
Total.....	2,203	8,722	10,925
Supply Department:			
Quartermaster.....	157	1,802	1,959
Subsistence.....	30	404	434
Commissary.....	249	1,586	1,835
Cattle Industry—Plantations.....	32	708	740
Accounting.....	247	11	258
Health.....	240	1,069	1,309
Executive.....	482	162	664
Panama Railroad:			
Superintendent.....	68	537	605
Transportation.....	157	281	438
Receiving and Forwarding Agent.....	99	2,091	2,190
Coaling Station.....	61	764	845
Hotel Washington.....	5	96	101
Grand total.....	4,050	18,253	22,303

The total gold force at work on September 24, was 51 more than the 3,999 at work on August 20, and the silver force was 374 more than the 17,879 then at work. As compared with the gold force for the corresponding month of last year, reported as of September 18, 1918, the gold force was an increase of 1,085 over the 2,965 at work on that date, and the silver force an increase of 2,056 over the 16,197 of that day.

The occupation of quarters on September 30, was as follows:

Occupants.	Men.	Women.	Children.	Total.
Americans.....	3,425	2,146	2,606	8,178
Europeans.....	181	41	56	278
West Indians.....	5,329	2,011	3,747	11,087
Total.....	8,936	4,198	6,409	19,543

PUBLIC HEALTH.

One hundred and twelve cases of malaria were reported during the month of September, as compared with 202 cases during the month of August. One death occurred from malaria. Influenza admissions numbered 17, as compared with 20 during the preceding month. There were no deaths from influenza. There were 15 admissions and 2 deaths from pneumonia, as compared with 11 admissions and 5 deaths during the preceding month. Typhoid fever caused 5 admissions, 3 of whom were nonresidents; 1 a nonresident, white American, died. Five cases of smallpox were admitted. There were no deaths from smallpox.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material received during the month on United States requisitions was \$499,551.88, as compared with \$525,760.57 in August. Of that received in September, \$457,892.14 was chargeable to operation and maintenance; \$19,570.27 to construction and equipment; and \$22,089.47 to miscellaneous departments. Isthmian cash sales from storehouses and obsolete store amounted to \$36,914.77 of which \$35,972.59 was for stock, \$484.33 for scrap, and \$457.84 for obsolete and second-hand material. The more important sales made in the United States were as follows: One thousand two hundred tons of No. 2 heavy melting steel, \$24,000; 212 net tons No. 1 wheels, cast iron, \$5,568; 1,021 net tons steel plate, \$20,981.58; one 24-horsepower engine, gasoline, and equipment, \$600; and 27,115 pounds of scrap copper screening and wire, \$4,947.76.

The total sales of material from storehouses to steamships for the month including fuel oil, but excluding sales by the Commissary Division, amounting to \$135,708.17 were \$19,788.01. Sales of commissary supplies to all purchasers for the month aggregated \$967,582.40, made up as follows: To steamships, other than United States naval vessels and those of the Panama Railroad Steamship Line, \$87,055.23; to The

Panama Canal, \$115,092.22; to the United States Government, including sales to the Army and Navy, \$179,866.56; to individuals and companies, principally through charge accounts in the retail stores, \$16,568.34; to the Panama Railroad including its steamships and the Hotel Washington, \$43,383.65; and to individuals purchasing with coupons, \$525,616.40.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on September 30, exclusive of fortifications, was \$15,453,896.17; the balance in fortifications was \$7,773,889.30. Payments from appropriations by Disbursing Clerk in Washington, amounted to \$510,016.25 and by the Paymaster on the Isthmus to \$1,705,118.19. Purchases of commissary books from the Panama Railroad Company amounted to \$340,853.50. Collectors of tolls totaled \$588,993.99. Deposits of \$235,705.43 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$1,981,092.45, and collections by the Disbursing Clerk, Washington, \$398,483.89. Receipts from the Canal Zone and miscellaneous funds were \$155,910.59, and disbursements from the same source amounted to \$130,618.30. September payrolls on the Isthmus aggregated \$1,203,824.84, as compared with \$1,222,868.69 for August, a difference of \$19,043.85.

Respectfully,

CHESTER HARDING, *Governor.*

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending November 1, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Huasco	United Fruit Company		October 26		446
Mendocino	United States Shipping Board		October 26	(†)	
Orca	Pacific Steam Navigation Co.		October 26	(†)	
Gen. G. W. Goethals	Panama Railroad Steamship Line	October 26	November 1	1,130	4,320
Ebro	Royal Mail Steam Packet Co.	October 27	October 28	(*)	162
Acajutla	Pacific Steam Navigation Co.	October 27	October 30	772	(†)
Antillian	Leyland Line		October 29		804
Metapan	United Fruit Company	October 27	October 30	20	8
Turrialba	United Fruit Company	October 29	October 30	11	1
Cauca	Pacific Steam Navigation Co.		October 30		709
Nobles	United States Shipping Board		October 30		(†)
Middlebury	Panama Railroad Commissary	October 29		400	
Imperial	United Fruit Company	October 29		1,539	
Zacapa	United Fruit Company	October 30	October 31	2	18
Balboa	Colombian Maritime Co.	October 30		572	
Salvador	Pacific Steam Navigation Co.	October 30		758	
Ulysses	Panama Railroad Steamship Line	October 31		12,194	
Laura C. Hall	Pacific Metals Corporation	October 31		38	
Urubamba	Peruvian Line		November 1		489
San Mateo	United Fruit Company	November 1	November 1	150	(†)
Perou	French Line	November 1		477	
Ucayali	Peruvian Line	November 1		1,643	
Chautauqua	United States Shipping Board	November 1		2,696	

* No cargo discharged.

† No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 1, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Coalinga	Union Oil Company	October 25	October 26	1,263	1,286
Point Bonita	Pacific Mail Steamship Co.	October 26	October 27	30	7
Acajutla	Pacific Steam Navigation Co.	October 26	October 26	5	
Cauca	Pacific Steam Navigation Co.	October 30	October 30		1
Salvador	Pacific Steam Navigation Co.	October 30	October 30	188	
Laura C. Hall	Pacific Metals Corporation	October 30	October 31	5	
Baldbutte	United States Shipping Board	October 30	November 1	8,571	
City of Para	Pacific Mail Steamship Co.	October 31	October 31	2	
Melville	United States Navv	August 16	October 29		*37

* Left out of report of October 25.

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, November 1, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage					
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net				
Point Bonita	23	14	06	26	6	25	26	14	16	27	19	00	American	United States Shipping Board	289.0	44.0	17.1	Baltimore	San Francisco	Steel and general	2,630	2,805	
San Joaquin	26	4	10	26	6	40	26	15	13	28	18	02	British	W. Wilhelmsen	425.0	57.0	26.0	Puerto Lobos	Talca	Petroleum	5,531	7,020	
Huasco	23	14	41	26	9	13	26	16	13	28	18	08	Chilean	South American Steamship Line	379.0	44.0	20.3	Cristobal	Valparaiso	General	4,508	3,006	
Orea	25	6	46	26	12	02	29	19	53	28	20	43	British	Pacific Steam Navigation Co.	550.0	68.0	24.6	Liverpool	Coronel	General	2,248	15,931	
Sonoma (a) (b)	24	16	00	27	6	17	27	15	09	30	15	00	American	United States Navy	189.0	31.0	17.0	Norfolk	San Francisco	General	.....	.....
Perceval S. Parks (c)	24	22	10	28	6	15	28	16	32	29	11	09	British	Vegetable Oil Corporation	96.0	25.0	12.6	New York	Tahiti	Gen. and mach.	200	134	
Ebro	27	10	03	28	11	19	28	18	02	28	19	07	British	Pacific Steam Navigation Co.	450.0	57.0	24.2	Liverpool	Valparaiso	General	2,273	9,039	
Mt. Vernon (d)	27	20	02	28	6	55	28	15	13	29	18	20	American	United States Army	685.4	72.2	33.0	New York	San Francisco	General	8,500	6,974	
Baldubate	30	8	15	30	8	40	30	16	00	11	6	20	American	United States Shipping Board	416.9	56.2	28.0	Tampico	Balboa	Crude oil	.....	.....
Acajutla	27	15	33	30	9	19	30	16	48	31	1	50	British	Pacific Steam Navigation Co.	215.7	33.0	14.2	Cristobal	Paita	Ballast	1,273	706	
Cauca	24	13	38	30	9	39	30	17	46	30	19	38	British	Pacific Steam Navigation Co.	246.0	35.2	15.0	Cristobal	Guayaquil	General	1,082	1,582	
Cleveland	31	9	55	31	10	23	31	17	04	11	2	10	American	United States Navy	331.0	42.0	17.6	Key West	Acapulca	General	489	5,018	
Urubamba	25	15	28	11	6	05	11	12	56	11	23	35	Peruvian	Peruvian Steamship Line	381.2	46.5	26.0	Cristobal	Callao	General	.....	3,508
Salazar	31	19	11	1	7	26	11	14	26	11	15	25	Spanish	Cantabrica de Navigacion	331.0	46.0	14.0	Cardiff	Talca	General	.....	.....
Scottish Monarch	11	9	47	11	12	12	11	19	08	11	1	22	35	British	Monarch Steamship Line	420.5	54.3	23.5	Newport News	Callao	Coal and gen.	6,045	6,318

(a) Tug. (b) Towing Target No. 44. (c) Motor Schooner. (d) Transport.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage					
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net				
William O'Brien	25	17	15	26	6	35	26	16	26	26	20	08	American	France & Canadian S. S. Co.	353.3	51.2	26.0	Tocopilla	Antwerp	Nitrate of soda	6,500	5,263	
C-46	25	3	30	26	9	45	26	18	00	26	18	00	French	French Government	195.7	40.5	16.6	Vancouver	Queenstown	Lumber	882	1,183	
Aronstad	26	10	20	26	11	22	26	16	22	26	30	30	Norwegian	Bondix Grefstad	313.0	46.5	20.0	Louque	Nantes	Nitrate of soda	4,150	2,948	
Himoto	26	10	20	26	11	22	26	16	22	26	30	30	American	United States Shipping Board	267.8	46.2	21.5	Seattle	Cienfuegos	Lumber	1,350	2,651	
Port Nicholson	26	10	35	26	14	15	26	23	10	27	3	00	British	United States Shipping Board	267.8	49.8	24.2	Portland	Philadelphia	Ties	1,829	2,994	
Brentwood	26	11	56	26	11	32	26	20	17	27	3	55	British	Commonwealth & Dominion Line	490.2	61.4	28.0	Wellington	London	Frozen meat, gen	10,000	.....
Dakotian	26	19	20	27	7	58	27	15	20	28	1	05	American	American-Hawair S. S. Line	407.7	53.7	28.0	Talca	La Pallice	Nitrate of soda	8,575	7,156	
Niokris	26	6	30	27	9	07	27	17	04	28	3	40	British	Allied Maritime Transp. Council	410.9	50.8	24.2	Valparaiso	Liverpool	General	5,000	6,655	
Bradford	26	6	30	27	9	07	27	17	04	28	3	40	British	Pacific Steam Navigation Co.	215.7	33.5	15.7	Guayaquil	Cristobal	General	772	1,273	
Kaiky Maru	27	6	32	27	9	23	27	17	00	28	1	14	American	Standard Oil Company	428.0	54.8	21.0	San Francisco	Tampico	Ballast	7,318	5,458	
Zarebno	27	6	36	27	10	30	27	19	05	27	23	12	Japanese	Katsuda Kisen Kabushiki Kaisha	445.0	58.0	29.6	Coronel	Halifax	Nitrate of soda	11,200	8,207	
Imperial	29	6	00	29	8	10	29	14	40	11	3	13	04	Chilean	United States Shipping Board	380.2	53.1	24.2	Tacoma	New York	Flour	6,436	5,672
Palm Branch	29	12	00	30	7	20	30	15	01	30	22	18	British	Chilean Line	336.8	41.2	23.6	Valparaiso	Cristobal	General	1,589	3,684	
	29	12	00	30	7	20	30	15	01	30	22	18	British	F. & W. Ritson	366.0	45.1	23.4	Punta Arenas	Liverpool	General	4,982	4,161	

Origin	Date	Vessels	Line	From	Date	Vessels	Line	To	
Chepadoa	29	12 00 30	7 36 30 15 37 30	20 14	American	United States Shipping Board	402 5	53 1 95 0	Seattle
Stoverdijk	30	1 30 30	8 40 30 16 15 30	22 22	Dutch	Holland-American Line	401 0	32 1 95 6	Antiolegasta
Oswayo	29	21 50 30	9 11 30 16 46 31	6 49	British	New Zealand Shipping Co.	460 7	29 2 53 3	Wellington
Bailoa	30	12 15 30	10 17 30 17 07 31	18 00	American	Colombian Maritime Co.	190 0	29 1 12 0	Buenaventura
Louises	30	8 30 30	11 17 30 19 12 31	18 00	Peruvian	Peruvian Line	356 9	42 5 23 6	Callao
Hyanis	30	1 00 30	13 25 30 20 09 31	5 00	American	United States Shipping Board	260 1	46 4 29 0	Aberdeen
Salvador	30	2 00 30	14 27 30 21 11 31	8 51	British	Pacific Steam Navigation Co.	215 0	33 5 16 4	Champetico
Lake Crepille	31	6 30 31	9 13 31 17 02 31	6 32	American	United States Shipping Board	251 1	43 6 19 7	Guayacan
Laura C. Hall	30	11 00 31	10 09 31 17 02 31	6 32	British	Pacific Metals Corporation	81 0	25 6 10 0	Buenaventura
City of Para	31	2 30 31	11 15 31 18 55 31	11 47	American	Allied Governments	461 6	59 1 24 1	Talcahuano
Dogside	31	9 15 31	12 15 31 19 07 31	1 59	American	Pa.ife Mail Steamship Line	345 0	38 6 25 0	Rice
Albert M yer(e)	31	9 30 31	12 33 31 19 30 31	3 35	American	United States Shipping Board	320 0	46 0 19 8	San Francisco
Balbuite	30	16 00 11-1	6 30 11-1 5 43 11-1 2 14 05	American	L. A. Scott	United States Shipping Board	156 0	36 0 13 6	Vavau
Ucayal	11-1	6 00 11-1	8 55 11-1 3 57 11-1 13 57	American	Peruvian Line	United States Shipping Board	415 9	56 2 20 0	Tamisco
Gen. W. M.			8 00 11-1 16 00	Peruvian			374 7	46 3 20 0	Callao
Graham (f)	11-2	14 28 11-1	8 05 11-1 15 45	American	United States Army	Chilean Government	377 1	44 3 22 0	Balboa
Anacamas	11-1	11 20 11-1	12 45 11-1 20 20	Chilean			268 8	52 2 23 0	Liquique
Osakis	11-1	12 30 11-1	13 16 11-1 21 45 11-1 2 09	American	United States Shipping Board		266 8	46 3 120 6	Valparaiso
Fassett	2	16 10 11-1	12 43 11-1 22 45 11-2 3 10	American	United States Shipping Board				Aberdeen

(e) Sailing. (f) Mine Planter. (g) Coffee, hides, ivory nuts, rubber. (h) Platinum, gold, rubber, hides. (i) Copper, cotton, sugar, lides, etc. (j) 1,109,149 feet
 Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	To
Oct. 26	Gen. G. W. Goethals.	Panama Railroad Steamship Line.	New York and Haiti.	Oct. 29	Antillian	Leyland Steamship Line.	New Orleans.
Oct. 27	Metapan	United Fruit Company.	New Orleans.	Oct. 30	Metapan	United Fruit Company.	New Orleans and wayports
Oct. 28	Middlebury	Panama Railroad Commissary.	Cartagena.	Oct. 30	Nobles	United States Shipping Board.	Galveston.
Oct. 29	Turrialba	United Fruit Company.	New York via Hatana.	Oct. 30	Turrialba	United Fruit Company.	New York via Pt. Limou
Oct. 30	Zacapa	United Fruit Company.	New York via Kingston.	Oct. 31	Zacapa	United Fruit Company.	New York via wayports
Oct. 31	Ulysses	Panama Railroad Steamship Line.	Norfolk.	Nov. 1	Gen. G. W. Goethals	Panama Railroad Steamship Line.	New York.
Nov. 1	San Mateo	San Mateo S. S. Company.	Have and wayports.				
Nov. 1	Perou	French Steamship Line.					

PORT OF BALBOA.

*ARRIVALS				*DEPARTURES			
Date	Vessels	Line	From	Date	Vessels	Line	To
Oct. 28	Terrier	W. Wilhelmsen	Mcjillomsen.	Oct. 30	Terrier	W. Wilhelmsen	San Francisco.

*Other than ships passing through the Canal

Longest Ship through the Canal.

The United States Army transport *Mount Vernon*, passing through the Canal on October 28 en route from New York to San Francisco, completing the Canal transit in 8 hours 18 minutes, is the longest, though not the largest ship to have used the Canal to date. Her length between perpendiculars is 685 feet 4 inches, and length over all 712 feet. The previous record for length was held by the steamship *Ceramic*, which passed through the Canal from Pacific to Atlantic on December 12, 1917, and which is 655 feet 1 inch in length between perpendiculars, 680 feet over all. The *Mount Vernon* drew 33 feet 6 inches of water at the time of transit, exceeding by 10 inches the draft of the dreadnaught *Mississippi*, which is 624 feet in length and which transited the Canal on July 25 and 26, 1919. In beam and gross and net tonnage, the *Mount Vernon* is exceeded by the steamship *Minnesota*, which is 645 feet over all, and which transited the Canal from Pacific to Atlantic on February 27, 1917.

Data on the 6 largest ships which have used the Canal are summarized herewith:

Vessel.	Length between perpendiculars.	Beam.	Draft at time of transit.	Registered gross tonnage.	Panama Canal net tonnage.	Date of transit.	Direction.
<i>Ceramic</i>	655' 1"	69' 4"	29' 8"	18,481	13,607	December 12, 1917...	Pacific to Atlantic.
<i>Minnesota</i>	622' 7"	73' 5"	28' 0"	20,602	15,777	February 27, 1917...	Pacific to Atlantic.
<i>Mississippi</i>	600'	97' 4½"	32' 8"	32,000	.....	July 26, 1919.....	Atlantic to Pacific.
				Displacement			
<i>Mount Vernon</i> ...	685' 4"	72' 2"	33' 6"	18,372	.....	October 29, 1919.....	Atlantic to Pacific.
<i>New Mexico</i>	600'	97' 4½"	32' 11"	32,000	.....	July 25, 1919.....	Atlantic to Pacific.
				Displacement			
<i>Von Steuben</i> ...	637' 3"	66' 3"	29' 10"	14,908	.....	December 29, 1917...	Atlantic to Pacific.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights, telephone 286:

Assistant in cotton grading (male); \$1,200 to \$2,000 a year; No. 497; November 23, 1919; form 1312; age, at least 21 but not 35 years.

Plasterer (male); \$75 a month; No. 511; November 25, 1919; form 1800; age, at least 20 years.*

Typewriter repairman (male); \$900 to \$1,520 a year; No. 512; November 25, 1919; form 304; age, at least 18 years.*

Lockmaker (male); \$4.50 per diem; No. 513; November 25, 1919; form 1800; age, at least 20 years.*

Artist (male and female); previously announced, closed October 14, 1919; and no further applications will be accepted.

General mechanic (male); range of entrance salaries has been changed from \$720 to \$960 to \$720 to \$1,000.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Local Civil Service Examinations.

The following examinations for The Panama Canal Service will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, December 21, 1919.

Postal clerk, December 14, 1919.

Stenographer and typist, December 14, 1919.

The usual entrance salaries are: Clerk, \$106 a month; postal clerk, \$100 to \$125 a month; stenographer and typist, \$137 for males and \$116 for females.

Full information in regard to the scope and the character of the examinations is contained in pamphlet, form 1424, "Information for Applicants for Stenographer and Typewriter Examination", a copy of which may be obtained from the Secretary, Board of Civil Service Examiners, Administration Building, Balboa Heights, C. Z. Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First, typewriting; second, bookkeeping; third, general business training and experience; fourth, time-keeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for postal clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and they are familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officer's certificate, and should be filed promptly with the Board of Civil Examiners at Balboa Heights, C. Z.

Applicants must have reached their twentieth but not their forty-fifth birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within two years, securely pasted in the place provided on the admission cards sent them after their applications are filed.

Applicants for the clerk examination in answer to question No. 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some State or territory of the United States from the time of taking up residence therein to December, 1919, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the county.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted Army and Navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for the Panama Canal Service.

In addition to the examinations listed above, examinations for Stenographer, Typist and Stenographer-Typist in the Departmental Service in Washington, or elsewhere, will be held at Balboa Heights, C. Z. on December 7, 1919. These examinations are substantially the same as those for like positions with the Panama Canal Service, except that the minimum age limit is lower, namely 18 years. The entrance salary for typist is usually \$1,100 and that for stenographer \$1,200, in the United States, but for employment in civilian positions with the U. S. Army on the Isthmus, the same salaries may be paid as in the Panama Canal Service.

Partial Eclipse of Sun on November 22.

An annular eclipse of the sun on November 22, 1919, visible on the Isthmus, is announced by the *Nautical Almanac*, published by the United States Naval Observatory. The charts indicate that it will be visible on the Isthmus between 6 and 8 o'clock in the morning.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Abraham Casio (Cassis)	53216	Jamaica	Colon	R. & F. Agent.	September 12, 1919.
Raphael Lopez	179801	Colombia	Colon	R. & F. Agent.	September 18, 1919.
Juan B. Segura	46075	Panama	Gatun	Mun. Eng. Div.	September 11, 1919.
Uriah Allen	182673	Jamaica	Camp Bierd.	R. & F. Agent.	September 27, 1919.
Edward Stokes	51859	Jamaica	Camp Bierd.	R. & F. Agent.	September 30, 1919.
Charles Rose	2405	American	Balboa	Mun. Eng. Div.	September 5, 1919.
Gerard (Gerald) Despoint	26925	St. Lucia	Colon	Building Division.	October 16, 1919.
Fred Fray	28140	Jamaica	Brazos Brook	Mun. Eng. Div.	October 12, 1919.
James Jordan	25600	Barbados	Panama	Mechanical Div.	October 14, 1919.
Arthur Lynch	37012	Colombia	Gamboa	Cattle Industry	October 14, 1919.
Rubin Mannin	24546	Trinidad	Colon	Marine Division	October 13, 1919.
David Richards	30972	Jamaica	Colon	Building Division	October 14, 1919.
Richard Roberts	22554	Jamaica	Panama	Supply Department.	October 20, 1919.
Robert Clarke	76388	Barbados	Colon	R. & F. Agent.	September 7, 1919.
Cruz Mereoado	40806	Colombia	Camp Bierd.	R. & F. Agent.	October 3, 1919.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Official Circulars.**Accountable Official.**

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., October 27, 1919.

CIRCULAR NO. 218:

Effective October 22, 1919, Mr. S. W. Heald is designated an accountable official of the Panama Railroad and Panama Canal, *vice* Mr. W. F. Foster, and as such will account for all non-expendable property in use by the Panama Railroad and Panama Canal rolling stock.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

CHESTER HARDING,
Governor.

Employees Returning on Transport.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., October 30, 1919.

To all concerned—Advice has been received by cable that employees whose leave expired up to and including October 25, and who were booked to sail on steamers *Allianza* and *Colon*, have been transferred to transport *Princess Mateika*, sailing from New York November 1.

The message states that families not traveling with employees returning from leave could not be accommodated on the transport.

C. A. McILVAINE,
Executive Secretary.

Rates of Pay and Commutation of Subsistence for Employees of Corozal Hospital.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., October 29, 1919.

To all concerned—The Governor has approved an additional monthly rate of \$31.50 for foremen, messengers, dairy men, clerks, etc., employees of Corozal Hospital.

This rate will be considered as amending paragraph 23 of Circular No. 625-6 dated October 24, 1918; making the schedule for monthly men as given therein, as follows:

\$16.50, \$21.50, \$24.00, \$26.50, \$27.50, \$29.00, \$31.50, \$36.50, and \$41.50. The last rate is for clerks only.

C. A. McILVAINE,
Executive Secretary.

Approved:

H. A. A. SMITH,
Auditor.

Tug "De Lesseps."

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., October 31, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

The Dredging Division advises that as far as they are concerned, the tug *De Lesseps* can be released for sale. Before efforts are made toward disposing of this tug by sale to private concerns, it is desired to ascertain definitely whether or not the same can be used by any of the departments or divisions of The Panama Canal.

This tug is tied up at Gamboa and a brief description of her is as follows: She is rated as a

second-class, iron hull, single-screw towboat; length 67' 6", beam 15', depth 9'; tonnage, 75. Oil is used as fuel and she has a capacity of 65 barrels; equipped with a generator for electric lights; built in France in 1885; boiler in O. K. condition and has a working pressure of 110 pounds; machinery in good condition and hull in fair condition.

Will you please advise as soon as possible whether or not you are interested in this tug?

R. K. MORRIS,
Chief Quartermaster.

Cable Notice.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 27, 1919.

CIRCULAR NO. 1413:

Agents and operators—The following information received from the Central and South American Telegraph and Cable Company:

"Naval Communication service advise effective October 20, 1919, will accept at Guantanamo messages for following points in Republic of Hayti: Anseaveay, Aquin, Caphaitien, Cayes Fortliberte, Conaivos, Jamel Jeremie Miragmanf, Petit Geave, Port de Paix, St. Marc, Port au Prince, charge beyond Guantanamo for this traffic is 25 cents per word. Effective same date messages will be accepted for all points in Dominican Republic, charges beyond Guantanamo being 22 cents per word."

"Western Union advise urgent messages may now be accepted at triple rate beyond London for Denmark, Norway, Sweden, Iceland, and Faroe Islands."

W. J. BISSELL,
Acting Master of Transportation.

Labor Train Changes, Atlantic End.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., October 30, 1919.

CIRCULAR NO. 1415:

To all concerned—Effective Saturday, November 1, the Coco Solo-Fort Randolph labor train will be discontinued.

Effective same date, evening Gatun labor train will discontinue running down to Broadway and will go to 3d street, using same route and making same stops formerly made by the Coco Solo-Fort Randolph labor train.

W. J. BISSELL,
Acting Master of Transportation.

Sale of Glass Carboys.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., December 1, 1919, and then opened, for the purchase of 140 five-gallon and 33 ten-gallon glass carboys. Bids will be considered on all or any number of these carboys. Bids must be accompanied by post office or money order or certified check in an amount not less than 10 per cent of the amount bid. Carboys will be shown to prospective purchasers, by the General Storekeeper at Balboa, any weekday between the hours of 8 a. m. and 11 a. m. and 12 noon and 4 p. m. The Panama Canal reserves the right to reject any or all bids.

COMMISSARY NOTE.**Books.**

Books received:

"Tarzan and the Jewels of Opar," by Edgar Rice Burroughs; "The Haunted Bookshop," by Christopher Morley; "My Lady Nicotine," "Tommy and Grizel," "The Little White Bird," "When A Man's Single," "A Window in Thrums," "Sentimental Tommy," "Peter and Wendy," "The Little Minister," "Half Hours," "Auld Licht Idyls," all by J. M. Barrie.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL

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The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., November 12, 1919. No. 13.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending November 8, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Middlebury.....	Panama Railroad Commissary.....		November 2....		†10
Chautauqua.....	United States Shipping Board.....		November 3....		(†)
Imperial.....	South American Steamship Line.....		November 3....		440
Salva-dor.....	Pacific Steam Navigation Co.....		November 3....		640
Laura C. Hall.....	Pacific Metals Corporation.....		November 4....		(‡)
Ulysses.....	Panama Railroad Steamship Line.....		November 4....		(†)
Perou.....	French Line.....		November 5....		54
Oranie Nassau.....	Royal Dutch W. I. Mail Co.....	November 3....	November 5....	217	454
Heredia.....	United Fruit Company.....	November 3....	November 6....	†150	26
Balboa.....	Colombian Maritime Co.....		November 7....		(†)
Santa Leonora.....	United States Government.....	November 3....	November 7....	661	89
Ucayali.....	Peruvian Steamship Line.....		November 8....		183
Jamaica.....	Pacific Steam Navigation Co.....	November 3....	November 8....	693	600½
Botstford.....	United States Shipping Board.....	November 4....		2,700	
Peru.....	Pacific Steam Navigation Co.....	November 4....	November 8....	2,039	266½
Palena.....	South American Steamship Line.....	November 5....		1,453	
Manavi.....	Pacific Steam Navigation Co.....	November 5....		765	
Middlebury.....	Panama Railroad Commissary.....	November 7....	November 8....	450	(†)
Santa Marta.....	United Fruit Company.....	November 7....	November 7....	(*)	3
Siam.....	Janish East Asiatic Steamship Co.....	November 8....	November 8....	10	(‡)
Princess Matoika.....	United States Government.....	November 8....		1,735	

* No cargo discharged.

† Pounds.

‡ No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 8, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Laura C. Hall.....	Pacific Metals Corporation.....	November 4....	November 4....		75
Peru.....	Pacific Steam Navigation Co.....	November 4....	November 8....	58	7
Sierra.....	United States Shipping Board.....	November 5....	In port.....	3,473	
Anyo Maru.....	Toyo Kisen Kaisha.....	November 5....	November 8....	1,015	26
Jamaica.....	Pacific Steam Navigation Co.....	November 8....	November 8....		25
Ucayali.....	Peruvian Steamship Line.....	November 8....	November 8....		54

New Coaling Record Established.

Coaling at the Canal plant at Cristobal on November 10, steamship *Port Milburn* received 904¾ tons coal in 2 hours and 5 minutes. This is a record at the plant for this quantity of coal.

Refunds of Tolls.

Tolls were refunded October 31, 1919, by The Panama Canal for overcharges against ships passing through the Canal, as follows:

Name of ship.	Date of transit.	Original tolls charged.	Corrected charge.	Amount refunded.	Payment made to—
Columbia.....	April 13, 1915.....	\$1,677.60	\$1,547.50	\$130.10	W. R. Grace & Co.
Columbia.....	May 29, 1915 ..	1,642.50	1,547.50	95.00	W. R. Grace & Co.
St. Helens.....	May 1, 1915.....	980.00	860.00	120.00	W. R. Grace & Co.
St. Helens.....	May 26, 1915.....	930.00	860.00	70.00	W. R. Grace & Co.
Talawa.....	September 11, 1915..	3,866.25	3,253.75	612.50	Payne & Wardlaw.
Canora.....	November 9, 1918..	2,279.52	1,257.50	1,022.02	Canadian Northern R. R. Co.
Total.....		\$11,375.87	\$9,326.25	\$2,049.62	

Surges and Currents in the Cut.

Studies of the currents and surges set up in Gaillard Cut and parts of Gatun Lake adjacent to the north end of the Cut by drawing water from the Cut to fill the chambers at Pedro Miguel Lock, have been made by the Section of Hydrography and Meteorology. With respect to the effect on navigation it has been determined that:

The currents that accompany these surges are generally too feeble seriously to hinder navigation. The currents toward Pedro Miguel are much stronger than the return currents toward Gamboa. Only the former need be considered as constituting a possible danger to navigation. Vessels are required to navigate the Gaillard Cut section of the Canal at slow speed (not over 6 knots). With the precautionary measures that are taken and moderate currents experienced, no serious accidents to navigation have occurred in Gaillard Cut, and but few minor accidents.

In the case of a restriction of a cross-section, as for instance by a wrecked hull or a slide, the current and wave effects would assume values that would make rapid filling of Pedro Miguel Lock unsafe for navigation in the Cut. That is, either no water should be drawn during the passage of ships in the Cut, or the culvert valves should be only partly opened so as to draw water slowly.

These surges have a maximum range in height from trough to crest of nearly three feet, *i. e.*, the highest crest levels are nearly 1.5 feet above mean lake level and the lowest troughs are about the same distance below the average level of the lake. These changes in the surface level of the lake due to surges may affect navigation when the lake is down to its minimum operating level by reducing the navigable depth of water in the Canal approximately 1.5 feet at the trough phase of the surge. When the lake stands at or near its maximum operating level there would be a tendency for the water to spill over the lock gates into the lock chambers and machinery pits at the crest phase of the surge. This tendency is not important as the gates and masonry walls at the upper end of Pedro Miguel Locks were built higher than the maximum operating level to prevent spilling over.

DESCRIPTION OF SURGES.

The surges have been recorded on hydrographs at Pedro Miguel, adjoining the upper entrance to the east chamber; at Gamboa, at the opposite end of the Cut; at Juan Mina, $4\frac{1}{2}$ miles up the valley of the Chagres, at approximately right angles to the axis of the Cut; and at Gatuncillo, 3 miles beyond Juan Mina, and near the head of backwater on the river. They have also been noticed as far as 6 miles beyond Gamboa, along the axis of the Canal. In a series of observations it was found that the surge traveled from Gamboa up the Chagres River arm of the lake in opposition to an inflow of water approximating 1,260 c. f. s. A considerable freshet, however, on the river will wipe out the surges on the Chagres arm of Gatun Lake.

The Cut, ending in Pedro Miguel Lock, is 6.97 nautical miles, or slightly over 8 statute miles, in length. The immersed portion of the Cut prism is theoretically 300 feet wide by 45 feet deep at lake elevation 85 feet, a cross-sectional area of 14,500 square feet. Due to removal of slides there are many places which have a greater cross-sectional area than this. To cut down current velocity in the neighborhood of the lock the Canal was excavated 600 feet wide, tapering to 300 feet at a point 4,300 feet from the lock.

A filling of a complete chamber with Lakes Miraflores and Gatun, at elevations of 54 feet and 85 feet, respectively, requires about 3,800,000 cubic feet of water in a lockage. The wall culverts have minimum clear openings of 255 square feet. If both a side and center wall culvert are opened a lock chamber is filled in $7\frac{1}{2}$ minutes. If a side culvert only is used, $13\frac{1}{2}$ minutes are necessary. Thus there are about 8,440 and 4,690 c. f. s., respectively, being drawn, according to whether 2 or 1

culvert is drawing water. If both chambers are receiving water simultaneously, with all 3 culverts open, there are $7\frac{1}{2}$ minutes in which water will be drawn at the rate of 13,130 c. f. s. This is the maximum case; and while such operation does not often occur, it would theoretically give a uniform velocity of about 1 f. s. or nearly 0.6 knot an hour in the Cut during a draft of water. This flow is *not* uniform.

Surges from lockages—When the valves are opened the Canal basin above the locks rapidly falls in elevation (sometimes as much as 1.5 feet, according to the number of valves open). The inertia of rest of the Canal water plus the friction from the sides and bottom of the Canal, prevents an immediate response to the tendency for a flow of water to set up toward the lock.

When the valves are closed and the effect of the difference in elevations overcomes the tendency for a retardation of flow in the Cut, an acceleration sets up, which results in a surge or over-travel, the crest of which is as much above the original lake level as the depression was below. Equalization of levels is finally reached after a series of wave amplitudes, with decreasing intensities, unless their movement is complicated by another lockage.

A study of the hydrographs shows that from crest to trough the oscillations at *all* stations are about 45 minutes apart. Examination of many such hydrographs have shown this definite period occurs daily. During the six lockages of August 3, 1919, the *average* period of time between the same phase of the surges at each station was as follows:

(a) Effect of opening valves at Pedro Miguel Lock appears on the Gamboa hydrograph in 18 minutes; at Juan Mina, in 60 minutes; at Gatuncillo in 78 minutes.

(b) The effect of closing valves at Pedro Miguel Lock appears at Gamboa in 19 minutes; at Juan Mina, 60 minutes; at Gatuncillo, 82 minutes.

(c) The peak of the return surge after the closing of the valves is observed at Gamboa 25 minutes after it appeared at Pedro Miguel; at Juan Mina in 65 minutes; and 87 minutes afterward at Gatuncillo.

When the crest phase of a wave is at Pedro Miguel a trough phase is approximately at Juan Mina, and *vice versa*. The relative heights of successive waves at the various stations vary somewhat, but the wave at Gamboa averages about $\frac{1}{3}$ the height of the wave at Pedro Miguel. Wave heights at Juan Mina are about the same as those at Gamboa, while at Gatuncillo at the head of the Chagres River arm of Gatun Lake, the wave heights are approximately 50 per cent greater than at Gamboa or Juan Mina.

Scope of Investigations of Marine Accidents by Board of Local Inspectors.

The Board of Local Inspectors of The Panama Canal, at a meeting on October 29, adopted the following definitive ruling with respect to the investigation of accidents:

The Board of Local Inspectors shall investigate:

1. All accidents resulting in loss of life or equipment.
2. All accidents in which Canal craft and the craft or property of private or commercial interests are involved.
3. All accidents in which the craft or property of more than one Panama Canal department (or Panama Railroad) is involved.
4. All other accidents which in the opinion of the division head are serious enough to justify action by the Board.

Where disciplinary action to a licensed officer is decided upon as the result of an independent investigation by a division head, the same shall be passed upon by the Board of Local Inspectors where the action recommended will result in the institution of official action toward the suspension or revocation of an officer's license.

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, November 8, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons		Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Gross	Net	Gross	Net
Mount Berwyn.	2	10 45	2	11 00	2	18 35	3	8 00	British	H. E. Moss.	400.3	52.3	28.0	Saline	Freemantle.	Sulphur.	6,900	5,783	4,008	
Caddo.	3	8 35	3	9 00	3	16 20	3	17 10	American	Standard Oil Company.	414.0	55.0	29.0	Tampoco.	Pisagua.	Petroleum.	7,753	6,438	4,301	
Salvador.	30	21 11	3	9 51	3	17 00	3	17 55	British	Pacific Steam Navigation Co.	215.0	33.5	19.6	Cristobal.	Champerico.	General.	700	1,213	692	
Imperial.	29	14 40	3	13 04	3	19 42	3	11 36	Chilean	South American Steamship Line.	336.0	41.0	21.7	Cristobal.	Valparaiso.	General.	3,634	2,473		
Laura C. Hall.	31	17 02	4	6 32	4	13 02	6	7 20	British	Pacific Metals Corporation.	81.0	25.0	9.6	Cristobal.	Ruamaventura.	General.	130	69		
S. C. 284 (a).	4	9 12	4	9 12	4	14 10	4	14 10	American	United States Navy.	314.0	31.0	42.6	Cristobal.	Balboa.	General.				
Evans (b).	5	11 57	6	6 05	6	13 15	6	13 55	American	United States Navy.	313.0	31.0	11.6	Puerto Cortez.	San Diego.	General.				
Greer (b).	5	11 57	6	6 10	6	13 20	6	13 55	American	United States Navy.	313.0	31.0	11.6	Puerto Cortez.	San Diego.	General.				
Point Adams.	5	17 35	6	6 17	6	14 49	6	15 28	American	Pacific Mail Steamship Co.	289.0	44.0	19.8	New York.	San Francisco.	Steel plates.	3,200	2,895	1,967	
South Bend (c).	6	14 33	7	6 55	7	13 55	7	14 33	American	United States Army.	418.9	60.2	23.0	New York.	San Francisco.	Naval stores.	10,000	9,272	6,714	
Achilles (d).	7	7 55	7	8 25	7	14 53	7	14 53	American	Panama Railroad Steamship Line	514.0	65.0	29.0	Norfolk.	Balboa.	Coal.	12,034	11,519	7,008	
Kirishimazan																				
Maru.	6	17 16	7	10 22	7	16 40	7	17 20	Japanese	Oruma Company.	381.0	47.0	17.8	Sunderland.	Iquique.	General.	4,872	3,174		
Jamaica.	3	18 35	8	6 12	8	14 12	8	18 13	British	Pacific Steam Navigation Co.	220.0	34.0	13.3	Cristobal.	Tumaco.	General.	690	1,187	622	
Ucayali.	1	16 00	8	6 20	8	13 26	8	22 40	Peruvian	Peruvian Steamship Line	374.7	43.3	18.2	Cristobal.	Callao.	General cement.	180	4,278	2,244	
Peru.	4	20 12	8	9 45	8	16 02	8	18 30	British	Pacific Steam Navigation Co.	350.0	43.0	17.6	Cristobal.	Valparaiso.	General.	266	4,100	2,646	
Shourieck (e).	8	6 08	8	10 37	8	16 30	8	16 30	American	United States Navy.	310.0	30.0	12.0	Kingston.	San Diego.	General.				
Laub (f).	8	6 09	8	10 43	8	16 44	8	16 44	American	United States Navy.	310.0	30.0	12.0	Kingston.	San Diego.	General.				
Slam.	8	12 15	8	12 05	8	18 25	8	19 08	Danish	East Asiatic Steamship Company	410.0	55.0	16.3	Copenhagen.	San Francisco.	General.	1,600	7,067	5,303	

(a) Subseacer. (b) Destroyer. (c) Transport. (d) Collier.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons		Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Gross	Net	Gross	Net
Kalfarli.	2	1 00	2	8 17	2	15 30	2	16 10	Norwegian.	D. Stern.	414.5	53.7	29.0	Antofagasta.	New York.	Nitrates.	8,050	7,051	5,156	
Bovette.	3	15 00	3	6 27	3	14 55	3	21 00	British	Andrew Weir & Company	385.0	49.8	23.6	Tocopilla.	Liverpool.	Nitrates.	6,660	4,966	3,815	
Jamaica.	3	10 00	3	11 30	3	18 53	3	18 53	British	Pacific Steam Navigation Co.	220.0	34.0	13.0	Buenaventura.	Cristobal.	General.	693	1,187	622	
Ohio.	3	11 20	4	7 32	4	15 10	4	19 45	American	United States Shipping Board	380.5	53.1	23.1	Tacoma.	New York.	Flour.	7,317	5,665	4,081	
West Katan.	3	23 40	4	7 47	4	19 12	6	8 28	American	United States Shipping Board	410.5	54.3	21.6	Los Angeles.	London.	General.	5,674	6,573	4,901	
Essex.	4	2 00	4	8 29	4	17 27	4	21 29	British	Federal Steam Navigation Co.	460.4	58.2	25.3	Wellington.	Liverpool.	Frozen meat, gen.	6,500	9,099	6,483	
Peru.	4	3 00	4	13 55	4	20 12	8	0 45	British	Pacific Steam Navigation Co.	350.0	43.1	19.1	Guayaquil.	Cristobal.	General.	2,031	4,100	2,646	
Sevickly.	9-30	6 28	5	9 32	5	13 51	5	17 44	American	United States Shipping Board	297.6	46.7	22.2	Honolulan.	Norfolk.	Lumber, ties.	1,713	2,671	1,654	
Palena.	4	23 20	5	7 32	5	15 02	9	10 18	Chilean	Chilean Line.	350.0	42.1	22.0	Talcahuano.	Cristobal.	General.	1,434	3,639	2,537	
S. C. 284 (a) (e).	4	14 10	5	7 49	5	15 00	5	15 00	American	United States Navy.	216.0	35.1	13.9	Balboa.	Cristobal.	General.	705	1,241	759	
Manavi.	5	12 55	5	13 17	5	20 10	10	6 08	British	Pacific Steam Navigation Co.	216.0	35.1	13.9	Guayaquil.	Cristobal.	General.	705	1,241	759	

(e) Towing Admiral's barge and motor sailer.

Colindo	29	15.45	7	6.30	7	13.47	7	18.07	American	United States Shipping Board	286.0	46.1	22.0	Portland	United King	Fir ties	1,398	2,659	1,742
Tainui	7	4.00	7	7.50	7	14.58	7	23.16	British	Shaw Saville & Albion	477.8	61.1	27.0	Wellington	London	Gen., frozen meat	5,000	19,631	7,600
Eucyprus	7	19.00	8	7.05	8	18.63	8	18.63	British	Alfred Holt & Co.	430.0	54.0	26.7	Singapore	New York	Rubber, tin, gen.	7,500	6,875	4,703
Tymene	7	19.15	8	7.40	8	15.41	8	22.30	British	Andrew Weir & Co.	409.1	52.3	24.0	Iquique	Alexandria	Nitrates	7,100		
Elder Branch	8	1.15	8	8.00	8	16.13	8	19.00	British	Naudts S seam-ship Co.	380.3	49.7	24.6	Mejillones	Liverpool	Gen., nitrates	6,180	4,955	3,653
Durham	8	3.00	8	8.29	8	16.02	9	1.22	British	Federal Steam Navigation Co.	420.7	54.0	24.6	Wellington	New York	Gen., frozen	5,052	7,138	5,358
Clio	8	6.00	8	9.41	8	16.20	9	17.10	American	United States Shipping Board	268.3	46.2	22.6	Aberdeen	New York	Fir, ties	1,410		
West Barriens	6	12.30	8	11.18	8	19.45	9	12.28	American	United States Shipping Board	403.8	46.2	22.0	Portland	New York	Flour	6,700	6,589	4,775

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

		*ARRIVALS			*DEPARTURES		
Date	Vessels	Line	From	Date	Vessels	Line	For
Nov. 1	Chantauqua	United States Shipping Board	Norfolk	Nov. 2	Middlebury	Panama Railroad Commissary	Cartagena
Nov. 3	Santa Leonora	United States Army	New Orleans	Nov. 3	Chantauqua	United States Shipping Board	Bluefields
Nov. 3	Heredia	United Fruit Company	New Orleans	Nov. 4	Ulysses	Panama Railroad Steamship Line	Norfolk
Nov. 3	Orange Nassau	Royal Dutch West India Mail Co.	Port Limon	Nov. 5	Perou	French Line	Puerto Colombia
Nov. 4	Boisfort	United States Shipping Board	Norfolk	Nov. 5	Orange Nassau	Royal Dutch West India Mail Co.	
Nov. 7	Middlebury	Panama Railroad Commissary	Cartagena	Nov. 6	Heredia	United Fruit Company	New Orleans and Jvaayports
Nov. 7	Santa Marta	United Fruit Company	New York and Habana	Nov. 7	Santa Leonora	United States Army	New Orleans via San Juan
Nov. 8	Princess Matoka	United Fruit Company	New York	Nov. 7	Santa Marta	United Fruit Company	Port Limon
Nov. 8				Nov. 7	Balboa	Colombian Maritime Company	Curacao
Nov. 8				Nov. 8	Middlebury	Panama Railroad Commissary	Cartagena

PORT OF BALBOA.

		*ARRIVALS			*DEPARTURES		
Date	Vessels	Line	From	Date	Vessels	Line	For
Nov. 5	Sierra M. S.	E. K. Wood Lumber Co.	Portland	Nov. 4	Anton (f)	Weir & Stone	Panama
Nov. 5	Anyo Maru	Toyokisen Kaisha	Hongkong	Nov. 8	Anyo Maru	Toyokisen Kaisha	Valparaiso

*Other than ships passing through the Canal. (f) Launch.

Local Civil Service Examinations.

The following examinations for The Panama Canal Service will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, December 21, 1919.

Postal clerk, December 14, 1919.

Stenographer and typist, December 14, 1919.

The usual entrance salaries are: Clerk, \$106 a month; postal clerk, \$100 to \$125 a month; stenographer and typist, \$137 for males and \$116 for females.

Full information in regard to the scope and the character of the examinations is contained in pamphlet, form 1424, "Information for Applicants for Stenographer and Typewriter Examination", a copy of which may be obtained from the Secretary, Board of Civil Service Examiners, Administration Building, Balboa Heights, C. Z. Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First typewriting; second, bookkeeping; third, general business training and experience; fourth, time-keeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for postal clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and they are familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officer's certificate, and should be filed promptly with the Board of Civil Examiners at Balboa Heights, C. Z.

Applicants must have reached their twentieth but not their forty-fifth birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within two years, securely pasted in the place provided on the admission cards sent them after their applications are filed.

Applicants for the clerk examination in answer to question No. 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some *State or territory of the United States* from the time of taking up residence therein to *December, 1919*, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the *county*.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted Army and Navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for the Panama Canal Service.

In addition to the examinations listed above, examinations for Stenographer, Typist and Stenographer-Typist in the Departmental Service in Washington, or elsewhere, will be held at Balboa Heights, C. Z. on December 7, 1919. These examinations are substantially the same as those for like positions with the Panama Canal Service, except that the minimum age limit is lower, namely 18 years. The entrance salary for typist is usually \$1,100 and that for stenographer \$1,200, in the United States, but for employment in civilian positions with the U. S. Army on the Isthmus, the same salaries may be paid as in the Panama Canal Service.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Accountant (male and female); Grade 2, \$3,600 to \$4,500 a year, and Grade 1, \$3,000 to \$3,600 a year; No. 532; form 1312; age, no limits.†

Transitman (male); \$900 to \$1,200 a year; No. 525; form 1312; age, at least 20 years.†

Veterinarian (male); \$1,500 to \$1,620 a year; No. 514; form 1312; December 14, 1919; age, at least 21 years but not 45 years.

Lay inspector (male); Grade 1, \$1,080 a year; No. 514; December 14, 1919; form 304; age, at least 18 but not 45 years.

Superintendent of transportation (Ordnance Department at Large) (male); \$1,800 to \$2,400 a year; No. 518; form 1312; age at least 25 years; November 25, 1919.*

Assistant engineer (furnace design); armor, guns, and projectile plant (male); \$11.20 per diem; No. 520; November 25, 1919; form 1312; age, under 45 years.*

Assistant special agent, social hygiene (female); \$600 to \$1,500 a year; No. 529; December 9, 1919; form 1312; age, at least 21 years.*

Physical laboratory helper (male); \$600 to \$900 a year; No. 64-amended; November 23, December 14, 1919, and January 11, 1920; form 1320; age, at least 16 years.

Apprentice fish culturist (male); \$600 to \$960 a year; No. 61-amended; November 23, December 14, 1919, and January 11, 1920; form 1312; age, at least 18 years but under 45 years.

Mechanican qualified as mechanical store and tool room keeper (male); \$720 to \$1,000 a year; No. 515; November 23, 1919; form 304; age, at least 18 years.

Senior structural engineer, Grade 1 (male); \$3,000 to \$4,000 a year; No. 504; form 1312; age, under 60 years.†

Senior structural engineer, Grade 2 (male); \$1,800 to \$2,700 a year; No. 504; form 1312; age, under 60 years.†

Senior mechanical engineer, Grade 2 (male); \$1,800 to \$2,700 a year; No. 504; form 1312; age, under 60 years.†

Superintendent of gas works (male); \$1,500 a year; No. 533; December 9, 1919; form 1312; age, at least 25 years.*

Cotton classifier's helper (male); \$900 to \$1,440 a year; No. 524; December 14, 1919; form 1312; age, at least 16 years but not 25 years.

Histo-pathologic technician (male); \$1,200 to \$1,500 a year; No. 528; December 2, 1919; form 2118; age, at least 21 years but not 45 years or over.*

Assistant instructor, Motor Transport Training School (male); \$1,800 to \$2,400 a year; No. 359-amended; form 2118.† The following come under the above-mentioned title: Assistant instructor for automobile machinists, assistant instructor for automobile mechanics, assistant instructor in ignition and carburetion, assistant instructor in battery repair and rebuilding, assistant instructor for chauffeurs, assistant instructor in welding, assistant instructor in tire repairing and wheel building, assistant instructor in blacksmithing and spring making, assistant instructor in sheet-metal working and radiator repairing, assistant instructor in carpentry and woodworking, assistant instructor in painting, assistant instructor in warehousing spare parts and issue, assistant instructor in engineering drawing, assistant instructor in applied structural engineering.

Assistant observer, Weather Bureau (male); \$1,080 a year; No. 361-amended; December 14, 1919; form 304; age, at least 18 years but under 35 years.

Fire chief, Ordnance Department at Large (male); \$1,800 a year; No. 519; November 25, 1919; form 1800; age, at least 25 years but under 50 years.*

Assistant for fishery food laboratory (male); \$2,000 to \$2,400 a year; December 23, 1919; age, no limits.*

Clinical clerk (male); \$900 to \$1,200 a year; No. 542; December 14, 1919; form 1312; age, at least 20 years but under 40 years.

Mineral geographic aid (male and female); \$1,200 to \$1,440 a year; and mineral geographer (male and female); \$1,500 to \$2,400 a year; No. 543; December 14 and 15, 1919; form 1312; age, at least 20 years but under 45 years.

Clerk qualified as pharmacist (male and female); \$75 to \$125 a month; No. 545; December 14, 1919; form 1312; age, at least 21 years but under 45 years.

Inspector (mechanical); inspector (electrical); inspector (mechanical and electrical) (male); Grade 1, \$5.20 to \$6.40 per diem; Grade 2, \$6.80 to \$8.80 per diem; No. 546; form 1312; age, at least 21 years; December 16, 1919.*

Master machinist, armor piercing projectiles; master machinist, guns up to 6-inch; master machinist, guns above 6-inch (male); \$12.40 per diem; No. 536; form 1371; age, no limits.*

Mechanical assistant in refrigeration (male); \$1,200 to \$1,400 a year; No. 534; December 9, 1919 form 1312; age, at least 21 years but not 35 years.*

Structural steel draftsman and designer (male); \$2,400 a year; No. 539; December 9, 1919; form 1312; age, at least 26 years but under 45 years.*

Foreman open hearth and electric furnace department (male); \$10 to \$12.56 per diem; No. 535; form 1371; age, no limits; December 9.*

Special assistant, legal unit (male); Grade 1, \$1,800 to \$2,250 a year; Grade 2, \$2,250 to \$2,750 a year; Grade 3, \$2,750 to \$3,500 a year; No. 537; December 16, 1919; form 2118; age, at least 25 years but under 45 years.*

The papers of applicants that are received in complete form prior to the hour of closing business on November 25, 1919, will be rated immediately, and eligibles resulting therefrom will be certified for filling vacancies existing at that time. Papers of applicants that are received in complete form after November 25, but prior to the hour of closing business on December 16, 1919, will be rated after December 16, and eligibles will be certified for any remaining or future vacancies.

Local and assistant inspector of boilers (male); \$2,100 to \$2,950; range of salary has been changed from \$2,100 to \$2,500.

Local and assistant inspector of hulls (male); \$2,100 to \$2,950; range of salary has been changed from \$2,100 to \$2,500.

Blue printer (male and female); the United States Civil Service Commission calls attention to the above continuous nonassembled examination. There are vacancies at \$3.20 per diem and \$770 a year.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice

Thanksgiving at Taboga.

The Hotel Aspinwall is making preparations for the entertainment of a large crowd on Thanksgiving Day and the night preceding. An old-home dinner, featuring turkey, cranberry sauce, and pumpkin pie, will be served at noon on Thanksgiving Day. There will be no change of rates.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast	.....	\$2.00
Employees	..... per day..	2.75
Children under 12 years of age	..... per day..	1.25
Servants of employees	..... per day..	1.50
Employees for stay of 7 days	..... per day..	2.00
Reduction of 10 per cent on above rates for stay of 30 days. Reduction of 10 per cent for families of four or more for over 7 days' stay.		
Nonemployees	..... per day..	3.50
Children of nonemployees (under 12 years of age)	..... per day..	1.50
Servants of nonemployees	..... per day..	1.75
Meals:		
Breakfast	.....	1.00
Luncheon	.....	1.25
Dinner	.....	1.25

Las Cascadas to be a Settlement of Silver Employees.

The village of Las Cascadas and the buildings of the former Army post of Camp Otis are to be devoted to a village for silver employees of the Canal and Panama Railroad, in connection with which adjacent areas of land may be cultivated. A committee has been appointed to draw up provisions for policing, sanitation, assignment of quarters, use of land, etc.

Certain of the buildings will be removed for the use of other departments of the Canal and of the Army. These include the old engine shed, one third of which will be used in connection with the pastures, and two-thirds moved to Pedro Miguel for a playshed; the police station, to be moved to Gamboa; 10 type 7 one-family quarters, to be held for further disposition; 9 type-15 cottages, to be moved to Pedro Miguel; and 3 type-18 bachelor quarters, to be moved to Balboa.

Weather Conditions in October, 1919.

The monthly rainfall was above normal at 12 stations and below at 8 stations, the deficiency occurring mainly over the upper Chagres valley. Totals ranged from 10.21 inches at the Culebra station on the Pequeñi River, to 23.22 inches at Gatun River. The greatest rainfall on any one day was 4.04 inches, at Juan Mina on the 10th.

The estimated rainfall over Gatun lake watershed was 14.79 inches, compared with a 9-year mean of 15.43 inches, and over the Chagres River basin above Alhajueta it was 13.92 inches, compared with an 18-year mean of 14.57 inches.

The air temperature, daytime cloudiness, and temperature of the sea water were generally above normal, while the atmospheric pressure, relative humidity, and evaporation were generally below normal. The wind movement was slightly above normal everywhere except on the Pacific Coast.

Numerous fogs occurred at interior stations, most of which were light and had lifted or were dissipated by 8 a. m.

A light earthquake shock was felt on the 9th and slight tremors were recorded on the 26th.

Gatun Lake hydrology.—Mean elevation of Gatun Lake was 86.03 feet above sea-level; maximum, 86.40 feet, on the 25th, minimum, 85.47 feet on the 1st; evaporation from Gatun Lake surface, 3.726 inches; rainfall on Gatun Lake drainage basin, 14.79 inches; total yield of Gatun Lake watershed, 9.20 inches on watershed; the total yield amounted to 62 per cent of the rainfall.

The following table gives a summary of the weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.				Mean relative humidity.	Precipitation.			Wind.						
		Mean.	Maximum.	Date.	Minimum.		Date.	Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.	
Balboa																
Heights	29.830	79.7	90	Oct. 21	70	Oct. 6	87.1	12.11	10.33	22	4,516	N. W.	31	S.		Oct. 24
Colon	29.826	80.1	90	Oct. 29	71	Oct. 4	84.4	21.94	15.03	26	5,822	S. E.	30	W.		Oct. 22
Gamboa	29.792	79.2	90	Oct. 16*	69	Oct. 6	84.4	11.72	12.76	27	3,036	N. E.	20	N. E.		Oct. 12
Gatun	29.800	80.0	90	Oct. 15	70	Oct. 5	84.4	17.46	16.56	27	4,563	N. W.	25	S.		Oct. 15

* And other dates.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Samuel Hinds	23702	Barbados	Gatun	Panama Railroad	October 26, 1919.
Juan Cavallero	53182	Haiti	Camp Bierd	Panama Railroad	November 1, 1919.

Official Circulars.

Restrictions on Hunting.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 6, 1919.

To all concerned—All previous circulars in regard to Canal Zone areas in which hunting is prohibited are hereby modified to the extent that hunting will be permitted with shotguns in all areas with the exception of watersheds. The provisions of existing circulars still hold good, however, in so far as hunting with rifles is concerned.

CHESTER HARDING, Governor.

Fence on West Side of Pedro Miguel Lock.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 7, 1919.

To all concerned—The attention of this office has been called to the fact that the fence constructed on the west side of Pedro Miguel Lock, to keep cattle, horses, etc., away from the backfill, has been repeatedly cut and portions thereof destroyed, presumably by equestrians en route across the locks. There is a gate in this fence at the lower end of the locks, opposite the guard gates, and all persons are instructed to use this gate and to refrain from attempting to short cut across the backfill by cutting the wires of this fence. Infractions of these instructions will result in disciplinary action.

CHESTER HARDING, Governor.

Office Equipment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 6, 1919.

To all concerned—The following items of office equipment, which are not in stock, are required, and it is requested that you advise the Chief, Property Bureau, at once if you have any of the items listed which are surplus and available for transfer. Also please advise if you have any other items of office equipment which are surplus. Cabinets, filing, vertical, 3 and 4 drawers. Cabinets, card index, 5" x 8", 4" x 6", and 3" x 5".

- Cases, book.
- Chairs, office, arm.
- Chairs, office, revolving.
- Chairs, typewriter.
- Desks, double and single.
- Safes, office, large.
- Safes, office, small.
- Tables, office.
- Tables, typewriter.

C. A. McILVAINE,
Executive Secretary.

Approximate Sailing's of Panama Railroad Vessels.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,

BALBOA HEIGHTS, C. Z., November 7, 1919.

To all concerned—The New York office advises that the longshoremen's strike has now been terminated, and that the Panama Railroad ships will be dispatched as follows:

- Steamship *Gen. O. H. Ernst*, November 8.
 - Steamship *Allianca*, November 10.
 - Steamship *Colon*, November 13.
 - Steamship *Ancon*, November 19 (with cement)
 - Steamship *Gen. W. C. Gorgas*, November 20.
- If the passenger ships mentioned will sail as above indicated, the following will be the approximate sailings from the Isthmus:
- Steamship *Allianca*, Saturday, November 22.
 - Steamship *Colon*, Thursday, November 27.
 - Steamship *Gen. W. C. Gorgas*, Thursday, December 4.
 - Steamship *Ancon*, Sunday, December 7.

We shall advise later if there is any change in the sailing dates mentioned.

S. W. HEALD, Superintendent.

Prices of Scrap.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., November 1, 1919

HEADS OF DEPARTMENTS AND DIVISIONS:

Effective November 15, 1919, the following prices will be allowed by the Supply Department for scrap turned in by the various departments and divisions of The Panama Canal. There are also shown the selling prices to departments and divisions, employees, individuals, and companies:

Kind or scrap.	Credit to be allowed divisions.	Selling prices.	
		To Depts. of Panama Canal.	To employees and I. & C.*
	<i>Net ton.</i>	<i>Net ton.</i>	<i>Net ton.</i>
Car wheels	\$7.00	\$7.50	(†)
Cast iron	7.00	7.50	\$30.00
Mixed scrap and wrought iron and steel	5.00	7.50	20.00
Rail, scrap	7.00	7.50	30.00
Rail, relaying	20.00	20.00	(†)
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>
Bronze, screening..	\$8.00	\$9.00	\$20.00
Copper, mixed	10.00	11.00	25.00
Brass, mixed	9.00	10.00	15.00
Brass borings and turnings	7.00	9.00	15.00
Lead	3.00	4.00	6.00
Zinc	3.00	4.00	6.00
Hose	2.00	3.00	6.00
Leather	2.00	3.00	6.00
Rope	2.00	3.00	5.00
Rubber	2.00	3.00	6.00
Rags	2.00	3.00	5.00

*Without surcharge. †None to be sold.

R. K. MORRIS,
Chief Quartermaster.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., November 10, 1919.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Request may be made by telephone, calling No. 182, Balboa:

- Backus, Mrs. W. C., Box 11aferman, Wm. & Co. 581 Hilbert, John
- Barnes, Charles Loring Logan, Jon, Box 139
- Bray, Alonzo Mangnall, John N.
- Bryan, Mrs. Sarah Mitchell, Euphemia D.,
- Edwards, Marguerite R. Box 463
- Garlow, Mrs. William, Sedeno, Manuel Berrocal, Box 138
- Gowan, Mrs. John Sterling, Miss Ada May

Additions to Commissary Stock.

Boots and Shoes Section.

- Women's kid Oxfords, turn sole, pr. \$7.45
- Women's pat. pumps, mock turn welt, pr. 7.55

Dry Goods Section.

- Rompers and creepers, children's, ea. 1.20
- Rompers and creepers, children's, ea.89
- Rompers and creepers, children's, ea.89
- Rompers and creepers, children's, ea.89
- Rompers and creepers, children's, ea. 1.00
- Soap, bath, Peroxide, cake
- Stationery:
- Books, memo, black leather, ea.52
- Books, memo, black leather, ea.59
- Cards, birth announcement, box
- Cards, birth announcement, ea.01
- Leads, H. B., for Eversharp pencils, tube .20
- Leads, F., for Eversharp pencils, tube .20

COMMISSARY NOTES.**Ladies' Blouses.**

A good selection of georgette and crepe de chine blouses, in white and flesh color, in assorted sizes, at \$6.20 and \$7.45, will be placed on sale in the commissaries next week. They are of good quality material and stylish design.

Japanese Goods.

A shipment of Japanese goods consisting of ivory beads; pongee embroidered silk-lined parasols, in various colors and designs; Jap Hauutai silk in white and pink; pink and blue silk handbags; handbags in printed cotton; brocade, silk-lined, novelty bags; and bags in tapestry effect, has recently been received and will be placed on sale next Monday.

Madeira Linens.

Tea cloths, ranging in prices from \$8.80 to \$17.90; night dress cases, from \$3.85 to \$5.65; doilies, from 34 cents for the small to \$3.10 for the large size; tray cloths from \$1.70 to \$4.70; and Dutchess dresser sets from \$5.05 to \$8, comprise a shipment of Madeira hand-embroidered linens in exquisite designs recently received by the Commissary Division. These will be placed on sale in the commissaries on November 17 and will make most desirable Christmas gifts.

Handbags.

To early shoppers in search of desirable gifts for Christmas, the information that the Commissary Division has recently received a selection of ladies' handbags in a variety of styles and prices, will be of interest. Among the many good values are bags of velvet, lined with silk and fitted with mirror and change purse, in plum, brown, blue, and black, at \$7.35; other velvet handbags, at \$4.70 and \$5.05; silk handbags in taupe, blue, brown, and black, with the usual fittings, at \$3.35, black silk handbags with silver frames, at \$3.35; and blue, black, tan, and gray handbags in silk with combinations of beads, at \$4.35. A small shipment of misses' handbags in moire silk at \$2.20 and \$2.35, were also received. With others now on hand, all reasonably priced, the commissaries offer an unusual and fashionable array. The new numbers will go on sale Monday, November 17.

Fountain Pens.

A leading brand of fountain pen, which has been in large request in the commissaries, has recently been added to stock. Three types are carried, the regular and the self-filler style at \$2 each, and safety at \$2.40.

Lace.

A recent shipment of real linen union laces received from England has been placed on sale at Ancon, Balboa, Cristobal, Pedro Miguel, and Gatun commissaries. These comprise a wide range of patterns and widths and the prices at which they are offered are considerably below to-day's purchase prices.

Ladies' and Children's Wear Scarcity.

Children's white lawn dresses and flesh colored and white organdie shirt waists, which have been on requisition for some time, are not available, according to advices recently received from the commissary purchasing agent, and these items, therefore, have been canceled.

Scarfs and Ties for Men.

According to items appearing in recent issues of trade publications, the demand for men's silk knitted scarfs has exceeded all previous records and they seem to be meeting with great popularity all over the United States. Not only are they favored because of the new and attractive color combinations and weaves, but also on account of the fact that they possess greater durability than the ordinary silk scarf.

The Commissary Division has recently added to stock men's silk knit four-in-hand ties, in assorted colors, ranging in prices from \$1.40 to \$2.85 each, which it is believed will be equally popular on the Isthmus.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., November 19, 1919. No. 14.

Navassa Island.

The Hydrographic Office has published the following general information about Navassa Island, which lies in the course of vessels plying through the Windward Passage on the way to or from the Canal (including normally those to or from Atlantic ports of North America north of Savannah):

Settlement—The phosphate company no longer operates on the island and its entire personnel has been removed. The buildings shown on chart near Lulu Bay are standing but unoccupied and out of repair. The only residents of the island are the light keepers and radio operators who live in the immediate vicinity of the lighthouse. A narrow-gauge track extends from Lulu Bay to the lighthouse. Cars are hauled up the steep incline by winch and cable operated by gasoline engine.

Lulu Bay—There are no mooring buoys or wharves. In good weather a small vessel can moor bow and stern to the cliffs on each side of the bay, or she may anchor in the bay and warp her stern into the cliffs where steel cables for holding on have been secured. A steam crane and a hand crane are installed on the cliff landing to hoist supplies ashore.

Communication—There is a United States naval radio station located here. A naval vessel from the Guantanamo naval station visits the island about once every three months carrying supplies to the light keepers and radio men."

The characteristics of the light established on Navassa Island were published in THE PANAMA CANAL RECORD of December 12, 1917.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending November 15, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Palena.....	South American Line.....		November 9.....		23½
Ansaldo San Giorgio II	National Navigation Society.....	November 9..	November 10.	7	(†)
Manavi.....	Pacific Steam Navigation Co.....		November 10.		180½
Santa Marta.....	United Fruit Company.....	November 10.	November 10.	93	1125
Atenas.....	United Fruit Company.....	November 10.	November 10.	684	5
Levisa.....	United Fruit Company.....	November 10.	November 11.	864	(†)
Parismina.....	United Fruit Company.....	November 10.	November 12.	†730	57
Botsford.....	United States Shipping Board.....		November 13.		
Princess Matoika*	United States Army.....		November 14.		49
Carrillo.....	United Fruit Company.....	November 13.	November 14.	1,346	18
Middlebury.....	Panama Railroad Commissary.....	November 13.	November 15.	400	5
P. de Satrustigui.....	Spanish Steamship Co.....	November 13.	November 15.	803	96
Acajutla.....	Pacific Steam Navigation Co.....	November 13.		1,073	
Cauca.....	Pacific Steam Navigation Co.....	November 14.		1,133	
Bologna.....	Italian Steamship Co.....	November 15.		513½	

* Transport.

† Pounds.

‡ None laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 15, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ansaldo San Giorgio II	National Navigation Society.....	November 10.	November 10.	7	(†)
Ansaldo San Giorgio I	National Navigation Society.....	November 13.	(*)	4	(†)
Cauca.....	Pacific Steam Navigation Co.....	November 14.	November 14.	2	(†)

* In port.

† No cargo laded.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, November 15, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Complete transit		Clearance for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage			
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net		
Palena	5	15	02	10	18	9	16	30	9	17	25	350	0	42	0	24	6	23	3,659	4,289	
Santa Ana	9	21	14	10	00	10	13	02	10	14	49	360	0	51	6	24	0	2,792	5,842	4,150	
Manavi	5	20	10	10	08	10	13	18	10	15	30	216	0	35	1	12	0	1,241	759	1,517	
Gorredijk	9	21	17	10	05	11	12	11	11	13	40	401	0	52	0	17	0	6,572	4,833	8,933	
Lake Maurepas	9	21	17	10	07	10	15	11	13	18	32	253	5	43	5	23	6	1,935	2,383	1,517	
Ansaldo San																					
Giorgio II	9	23	58	10	11	11	10	17	37	12	12	00	362	0	47	5	15	6	5,886	4,289	
Saint Andrews	10	16	32	11	7	10	11	13	31	11	15	26	325	0	46	8	20	0	3,814	3,459	2,463
Saint Francis	10	18	45	11	6	25	11	14	24	11	15	15	420	0	52	0	26	6	7,160	6,186	4,449
El Segundo	10	18	35	11	6	55	11	15	22	11	15	55	321	0	46	2	23	0	3,811	2,848	4,229
Hercules	11	16	58	12	6	05	12	13	49	12	14	47	360	0	48	1	14	1	4,229	2,777	4,229
La Habra	11	15	59	12	6	18	12	13	22	12	15	28	424	8	57	0	27	0	9,000	7,255	5,767
Bradford	12	8	57	12	6	28	12	15	43	12	16	33	428	0	54	0	27	8	9,272	7,318	5,458
Carpentaria	12	6	30	12	11	03	12	18	29	12	19	55	436	0	53	2	27	0	7,452	8,132	5,621
West Aleta	12	20	55	13	7	00	13	14	59	13	15	55	410	0	54	0	24	8	7,154	6,592	4,963
Nepen (a)	13	5	53	13	8	03	13	15	25	17	16	05	84	0	19	0	9	6	98	98	22
Rimac	13	5	37	13	8	03	13	15	25	17	16	05	84	0	19	0	9	6	98	98	22
Oriana	12	20	40	13	10	54	13	18	03	13	19	41	465	0	56	3	22	6	1,180	8,620	5,345
C. W. Fields (b)																					
Sylvia II (c)																					
Syrrer	13	21	42	14	6	20	14	13	55	14	17	07	41	5	9	6	3	6	3,854	2,813	
Shonbee	13	20	44	14	6	47	14	14	40	14	15	43	380	0	51	0	26	0	6,192	5,255	3,717
Donostia	14	9	48	14	10	15	14	17	36	16	7	35	300	0	42	1	10	6	4,000	2,852	1,805
Lake Faulk	14	6	10	14	12	36	14	19	50	15	18	13	251	0	43	6	5	1	4,000	3,347	2,428
Bartolo	14	6	17	14	12	58	14	20	05	14	21	50	324	0	47	1	14	4	6,000	6,210	4,516
Gilgal	14	6	45	14	15	41	15	11	50	15	12	32	420	0	55	0	25	9	6,000	6,210	4,516
S. C. 284																					
Cuacuc	14	18	00	15	7	20	14	12	10	15	14	00	394	0	52	0	14	6	5,610	4,993	
Huachuca	15	8	03	15	8	24	15	13	23	15	15	47	376	4	52	3	15	6	5,455	3,902	

(a) Tag. (b) U. S. S. Tag. (c) Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Origin	Date	Time	Line	Company	Time	Date	Destination	Time
Kumara	8	14 00	9	13 38	9	13 38	Shaw Saville & Albion Co.	425.1
Lima (M. S.)	9	15 00	10	13 54	10	14 32	Axel Johnson Line	364.0
Lake Sanford	9	17 00	10	14 25	10	16 21	United States Shipping Board	503.3
Port Melbourne	9	18 00	10	16 02	10	19 25	Commonwealth & Dominion Line	251.5
London	5	9 00	11	10 27	11	17 35	C. T. Bowring & Company	435.3
Achilles	7	14 52	11	18 25	11	18 26	Panama Railroad Steamship Line	514.0
Conde de Abasco	11	12 30	11	13 38	11	20 00	Felix de Abasolo	331.0
Colo	11	14 45	13	6 35	13	16 39	French Government	195.7
C-47	12	12 45	13	6 30	13	15 27	French Government	195.7
C-49	12	22 00	13	7 53	13	15 32	Pacific Service & Heisteron	815.0
Acajueta	12	20 25	13	8 07	13	15 07	Pacific Steam Navigation Co.	215.7
Port Lincoln	13	11 25	13	13 23	14	12 40	Commonwealth & Dominion Line	436.0
Port Hacking	13	11 30	13	13 03	14	15 20	Commonwealth & Dominion Line	430.0
Tamaha	13	20 10	14	7 24	14	14 11	Standard Transportation Co.	420.5
Paipa	7	9 00	14	9 57	14	17 48	United States Shipping Board	382.0
Waivera	14	10 00	14	10 47	14	20 05	Shaw Saville & Albion Co.	425.7
Cauca	14	14 05	14	14 42	14	21 20	Pacific Steam Navigation Co.	245.0
Ottawa	14	8 00	15	6 37	15	14 28	French Government	279.0
Santa Luisa	15	2 30	15	7 24	15	13 57	W. R. Grace & Company	360.5
Corinthic	15	6 30	15	7 46	15	15 14	White Star Line	500.3
Zealandic	15	8 00	15	9 25	15	17 27	White Star Line	477.5

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS		*DEPARTURES	
Date	Vessels	Date	Vessels
Nov. 10	Atenas	Nov. 10	Santa Marta
Nov. 10	Parismina	Nov. 10	Atenas
Nov. 10	Santa Marta	Nov. 11	Cricket
Nov. 10	Levisa	Nov. 11	Levisa
Nov. 10	Cricket	Nov. 12	Parismina
Nov. 13	P. de Saurustegui	Nov. 13	Bolsford
Nov. 13	Middlebury	Nov. 14	Carrillo
Nov. 13	Carrillo	Nov. 14	Princesa Matoka
Nov. 15	Balboa	Nov. 15	Middlebury
		Nov. 15	P. de Saurustegui

PORT OF BALBOA.

*ARRIVALS		*DEPARTURES	
Date	Vessels	Date	Vessels
Nov. 10	United Fruit Company	Nov. 10	United Fruit Company
Nov. 10	United Fruit Company	Nov. 10	United Fruit Company
Nov. 10	United Fruit Company	Nov. 11	Cricket Steamship Company
Nov. 10	Cricket Steamship Company	Nov. 11	United Fruit Company
Nov. 13	Spanish Steamship Line	Nov. 12	United Fruit Company
Nov. 13	Panama Railroad Commissary	Nov. 13	United States Shipping Board
Nov. 13	Colombian Maritime Company	Nov. 14	United States Army
		Nov. 15	Panama Railroad Commissary
		Nov. 15	Spanish Steamship Line

*Other than ships passing through the Canal.

Iquique.

E. K. Wood Lumber Co.

Sicras (M.S.)

For

New York, N. Y. via Col. & Kingston.

New York, Cartagena.

New Orleans via waypoints.

New York and waypoints.

Puerto Colombia.

Facilities for Repair of Vessels at the Panama Canal.

GENERAL.

The principal manufacturing and repair plant of The Panama Canal is located at Balboa, the Pacific terminal of the Canal. It is adjacent to an inner harbor, which has an area sufficient to permit access to docks, which aggregate 7,500 feet in length, including commercial docks, repair wharves, and coaling docks.

A much smaller plant is located at Cristobal, the Atlantic terminal, about one and one-half miles from the main commercial docks.

THE BALBOA PLANT.

Dry dock and repair wharves—The dry dock is 1,000 feet long by 110 feet wide, with a depth of 35 feet over the blocks at mean tide. High tide varies from 3 to 11 feet above mean tide. The dock is served by a 50-ton traveling crane with an outside reach of 5 feet beyond the center line of the dock. This crane is also capable of traveling along the face of some of the repair wharves, thus facilitating the prosecution of repairs to vessels. At regular intervals along the coping of the dock are outlets for air, water, and electric service; either direct current or alternating current can be supplied, thus furnishing power for the auxiliary motors of ships in dry dock.

For ships which do not require dry docking, there are adjacent to the shops approximately 3,500 feet of repair wharves.

Repair shops—The repair shops are centrally located with respect to the dry dock and repair wharves. Ample track and crane service provide for handling work between shops and ships.

The main metal working shops (machine, smithery, and boiler shop) are provided with 60-ton overhead traveling cranes, while the foundry has a 25-ton overhead crane. As all the shops are equipped with as complete a line of power tools as are generally found in an up-to-date repair shop, only the larger tools will be given special mention so as to give an idea of the maximum capacity of each department.

The machine shop is provided with a vertical boring mill capable of working 18 feet in diameter, with an open side extension planer 16 feet by 32 feet, and with a lathe 120-inch swing by 65 feet between centers.

The smithery is provided with a 500-ton forging press with the necessary furnaces to handle any work that the press is capable of.

The boiler and ship fitting shops have a set of rolls capable of bending plates $\frac{3}{4}$ inch by 30 feet 1 inch by 24 feet, or 2 inches by 6 feet.

The pipe shop is outfitted for plumbing work and for pipe, copper, and sheet metal work of the highest classes.

The foundry is equipped with a 2-ton tropenas converter and one 2-ton and one 1-ton cupola, and the usual brass furnaces. It can turn out castings as follows: Bronze brass or composition, $\frac{1}{4}$ pound to 1,000 pounds; iron, $\frac{1}{4}$ pound to 26,000 pounds; steel, $\frac{1}{4}$ pound to 10,000 pounds.

The planing mill and joiner shop is outfitted with the usual wood-working machines, including a sawmill capable of handling timbers likely to be used in connection with ship work.

The oxy-acetylene plant has portable electric-welding and oxy-acetylene cutting outfits capable of handling emergency repairs.

The plant develops approximately 400 cubic feet of acetylene per hour, 5,000 cubic feet of oxygen per day, and 10,000 cubic feet of hydrogen per day.

The storehouses (under the control of the Supply Department) carry on hand a large stock of steel shapes, pipe, ship fittings, and supplies of every description. Steel plate is carried in stock in all thicknesses up to and including 2 inches. Plates smaller than $\frac{5}{8}$ -inch vary by sixteenths and plates larger than $\frac{5}{8}$ -inch vary by eighths. The largest plates in stock are 72 inches by 10 feet by 2 inches thick. A large amount of steel billets is kept on hand in all sizes up to and including 24 inches by 24 inches by 19 feet. Structural shapes are carried as follows: Eyebeams, all sizes up to 27 inches; channels, all sizes up to 15 inches; ship channels, all sizes up to 12 inches; and angles, all sizes up to 8 inches by 8 inches by $\frac{3}{4}$ -inch.

In addition to the crane service heretofore mentioned, the services of two floating cranes with a capacity of 250 tons each are available at any time or place in the Canal or terminal harbors.

CRISTOBAL PLANT.

This plant has less capacity than the Balboa plant and is intended for repairs of less importance. The activities of these shops are confined to three buildings, of somewhat temporary construction; one of which houses the machine shop, smithery, pipe shop, and power plant; another the boiler and shipfitter's shop; and the third, the wood working shop. The tools are of less modern construction and of smaller capacity than those in use at the Balboa plant, few steps having been taken to modernize the plant pending more definite information as to exactly what the demands upon it will be. It is, however, capable of undertaking routine repairs to vessels; and, in emergencies, such parts as require larger tools than are available here can be shipped to Balboa to be machined.

There is available at this plant a small dry dock, originally constructed by the French and later extended by the Americans. This dock is now 300 feet in length, 50 feet in width, and has a depth over the blocks of 13 feet 6 inches at ordinary mean high tide. Adjacent to the shops and dry dock are approximately 2,000 feet of repair wharves.

WORKING FORCE.—COST OF REPAIRS.—DOCKING CHARGES.

Practically all skilled mechanics on the Isthmus come from the United States, the unskilled labor being performed almost exclusively by West Indians. About 775 skilled men and 1,427 silver employees are employed at Balboa Shops, and about 180 skilled and 460 silver men at Cristobal shops.

The actual cost of repairs, as billed, compares favorably with that to be found in the United States. No contracts are made for work performed in the Canal shops. The charges are at actual shop costs plus a moderate percentage for general administrative expense and profit, and the total cost is believed to be less than in Asiatic or South American establishments, while in many cases it compares favorably with costs in the United States.

Charges for docking are in accordance with the following rates.

	Balboa.	Cristobal.
Men-of-war. Per displacement ton for docking and undocking	\$0. 25	\$0. 15
For each lay day .....	. 15	. 10
Army and Navy transports, colliers, hospital ships, and supply ships, per gross ton, Panama Canal measurement:		
For docking and undocking .....	. 25	. 15
For each lay day .....	. 15	. 10

Merchant steamers. Per gross ton, Panama Canal measurement:		Balboa.	Cristobal.
For docking and undocking.....		\$0.25	\$0.15
For each lay day.....		.15	.10
Merchant sailing vessels. Per net ton, Panama Canal measurement:			
For docking and undocking.....		.25	.15
For each lay day.....		.15	.10
Minimum charge, when dock is pumped for exclusive benefit of one vessel and occupied by a single vessel:			
For docking and undocking.....		200.00	75.00
For lay days.....		120.00	45.00

NOTE—When a vessel whose tonnage is below the amount which at regular rates would equal the minimum rate above is docked at Cristobal with one or more other vessels, she will be charged \$60 for docking and undocking and \$30 for each lay day. When a vessel under the same conditions is docked at Balboa with one or more other vessels, or under other circumstances which involve no additional cost for pumping, a special rate will be charged dependent on circumstances but in no case less than the actual cost, exclusive of pumping, plus 10 per cent.

WORK PERFORMED.

As indicated by the facilities noted, the shops of the Canal are fitted to perform practically all classes of ship repair and construction, and are currently carrying on such work. The largest job performed by the shops has been the overhaul of five former German ships, brought to the Canal from Peru, where they had deteriorated considerably during internment and had suffered extensive damage at the hands of their crews. The extent and completion of this job have been noted in THE PANAMA CANAL RECORD. The aggregate gross tonnage of these ships was 32,831. The next largest job has been the remodelling of the steamship *Cristobal* of the Panama Railroad Steamship Line, with change from coal to oil burning and extension of passenger accommodations, as well as the overhaul of hull and machinery.

During the fiscal year 1919, a coast guard cutter, the *Manhattan*, 120 feet 3 inches in length, over all, by 24 feet in molded breadth, was completed at Balboa shops, materials and machinery for the vessel having been sent from the United States. The *Konigin der Nederlanden* was converted into a troopship. The *Santa Isabel* was repaired after having been on a reef, and extensive changes to the propelling machinery were made. The *Heina*, which had been recovered after being ashore, was given a general overhauling, which included the renewal of several bottom plates, straightening other plates, and a thorough cleaning out of the condenser. Old boilers were removed and new boilers installed on the steamship *Quoque*. Three new furnaces were installed in the U. S. S. *Yorktown*. Extensive work was done on the motor schooners *Elizabeth Ruth* and *Evelyn*, including the gas engines. Fifty 1,800-pound cast steel anchors were made for the United States Navy.

At the Cristobal shops extensive repairs were made to the steamships *Allianca*, *Balboa*, *Clairmont*, *Advance*, and *Colon* and the dredges *No. 83*, and *No. 86*, in addition to many running repairs made on the variety of ships calling at Cristobal.

Marine work amounted to 54.14 per cent of the work performed by Balboa shops during the last fiscal year. Work for the Panama Railroad was 26.56 per cent of the total, manufacturing work 10.50 per cent, and sundry work, 8.80 per cent. During the preceding fiscal year the percentages were: Marine, 46.12; Panama Railroad, 23.11; manufacturing, 16.19; miscellaneous, 14.58.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

A Little Ship on a Long Voyage.

The British motor schooner *Percival S. Parks*, of 100 net tons, Panama Canal measurement, passed through the Canal on October 29 on the way from New York to Tahiti. The voyage is 6,503 miles—1,974 miles from New York to Cristobal, 43 miles through the Canal, 4,486 miles from Balboa to Tahiti. The *Percival S. Parks* is 96 feet in length by 25 feet beam and had a salt water draft of 12 feet 6 inches at the time of transit. She was carrying 208 tons of machinery and general cargo and paid tolls of \$125.

This ship saved 4,844 miles by using the Canal, or over two-fifths of the 11,347 miles from New York to Tahiti via Rio de Janeiro, Montevideo, and the Strait of Magellan. The voyage by way of St. Vincent, the Cape of Good Hope, and Wellington would have been 15,744 miles, or by Gibraltar, Suez, Torres Strait, and Levuka about 16,664 miles.

New Record for Tolls Collections.

A new high record for monthly collections of tolls on ships passing through the Canal was established in October, with the collection of \$661,307.74. The previous record was \$644,499.23, in May, 1918, and prior to that the record was \$606,316.56, for March, 1915. These three months are the only ones in which collections of tolls have exceeded \$600,000. In October, 1919, the tolls averaged \$3,356.89 per ship for the 196 ocean-going commercial vessels and 1 launch which made the transit. The average of ships per day was 6.35.

Revision of Telephone Directory.

The copy for a revised telephone directory, to be issued as of December 15, 1919, will go to the printer December 1. All changes or corrections in the present directory should be forwarded to the Supervisor of Telephones, Balboa Heights, not later than December 1. Proof corrections will be made to December 6.

Distribution of Victory Loan Notes.

The Liberty Loan Committee are now engaged in mailing the Victory Loan notes where the last payment on subscriptions have been completed.

On account of the recent strike at New York and the consequent refusal of insurance companies to assume the risk involved in transportation, a part of the bonds have been delayed but are expected within the next few days.

Conversion of First and Second Issue Bonds.

Governor Harding has directed the committee to make some arrangement whereby employees can send their first and second issue Liberty Bonds to Washington for exchange or conversion. The last coupon on first issue bonds is payable on December 15. The last coupon on second issue bonds was payable on November 15 and before further interest can be collected it is necessary that the bonds be exchanged for those bearing the subsequent coupons or converted to registered bonds.

First and second issue bonds carrying all subsequent coupons will not be ready for issue by the United States Treasury before March, 1920. In the meantime the Liberty Loan Committee will make necessary arrangements for insurance and transportation of bonds which have been subscribed for through the Panama Canal committee.

Canal Medal Holders' Memorial to Roosevelt.

A Canal Zone memorial to Theodore Roosevelt is being prepared by men and women who earned the Canal medal by two or more years of service on the Panama Canal during construction days, who are still on the Isthmus. It is to be in the form of a tablet, hand drawn on parchment of suitable design, framed in an especially designed frame of native wood, and to be presented to the family of Colonel Roosevelt. Under an appropriate inscription the tablet will bear the names of the medal holders who participate. Copies of the incompleting design, with some of the names on it, have been posted in Canal clubhouses and in the rotunda of the Administration Building, and employees who are qualified to take part whose names are not on the tablet, or are incorrectly spelled, are requested to forward their names to the Architect, Balboa Heights. Costs are being defrayed by payment of 10 cents by each participant.

Election of Officers of the Red Cross.

In an election held on October 29, the following were chosen as officers for the Canal Zone Chapter of the American Red Cross for the ensuing year: Chairman, Mr. S. W. Heald; vice-chairman, Mr. R. B. Walker; secretary, Mrs. Louise W. Fulton; treasurer, Mr. R. W. Glaw; executive committee, Mr. Harry Dockery, Mr. Roy R. Watson, Dr. C. A. Hearne, and Mr. R. T. Martin.

School for Employees Working at Night.

In connection with the night school being conducted at the Balboa High School, inquiry has been received from an employee working at night whether classes in mechanical drawing and shop mathematics can be given in the afternoon for employees who are unable to attend the night classes. The Superintendent of Schools advises that this can be arranged for Saturday afternoons, if enough employees wish to attend, and suggests that all who are interested communicate with the high school principal (telephone Balboa 48, postal address, Balboa; office, room 43, Balboa High School).

Local Civil Service Examinations.

The following examinations for The Panama Canal Service will be held at Balboa Heights, C. Z., on the dates set opposite the titles thereof:

Clerk, December 21, 1919.

Postal clerk, December 14, 1919.

Stenographer and typist, December 14, 1919.

The usual entrance salaries are: Clerk, \$106 a month; postal clerk, \$100 to \$125 a month; stenographer and typist, \$137 for males and \$116 for females.

Full information in regard to the scope and the character of the examinations is contained in pamphlet, form 1424, "Information for Applicants for Stenographer and Typewriter Examination," a copy of which may be obtained from the Secretary, Board of Civil Service Examiners, Administration Building, Balboa Heights, C. Z. Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are: First, typewriting; second, bookkeeping; third, general business training and experience; fourth, time-keeping training and experience. If the third optional is taken, three letters of recommendation from former employers should accompany the application.

Applicants for the examination for postal clerk must show that they have had at least one year's experience as clerk in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and they are familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Application form No. 1312 must be filled out, including the medical certificate but excluding the county officer's certificate, and should be filed promptly with the Board of Civil Examiners at Balboa Heights, C. Z.

Applicants must have reached their twentieth but not their forty-fifth birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs taken within two years, securely pasted in the place provided on the admission cards sent them after their applications are filed.

Applicants for the clerk examination in answer to question No. 1 and on the outside of the form should state the optional subject taken in addition to the name of the examination required.

In answer to question No. 4, applicant must show residence in some State or territory of the United States from the time of taking up residence therein to December, 1919, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States. The same must be shown as to the county.

This examination is scheduled on the dates shown especially to provide for the examination of soldiers, sailors, marines, field clerks, and enlisted Army and Navy nurses who were unable to compete after April 6, 1917, and who are allowed 60 days from August 1, 1919, to do so, if they have been discharged prior to that date. Those discharged later will be allowed 60 days after discharge to compete; but, owing to our distance from the United States and the delay in receiving questions, all such persons should compete if possible on the date above mentioned.

These examinations will also be open to any other applicants desiring to be examined for the Panama Canal Service.

In addition to the examinations listed above, examinations for Stenographer, Typist and Stenographer-Typist in the Departmental Service in Washington, or elsewhere, will be held at Balboa Heights, C. Z. on December 7, 1919. These examinations are substantially the same as those for like positions with the Panama Canal Service, except that the minimum age limit is lower, namely 18 years. The entrance salary for typist is usually \$1,100 and that for stenographer \$1,200, in the United States, but for employment in civilian positions with the U. S. Army on the Isthmus, the same salaries may be paid as in the Panama Canal Service.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service.

Airplane test pilot (male); \$3,000 a year; No. 559, December 16, 1919; form 1312; age, no limits.* Assistant auditor (male and female); Grade I, \$1,400 to \$1,800 a year; Grade II, \$2,000 to \$2,500 a year; No. 492-amended; December 14, 1919; form 1312; age, at least 20 years, but under 45 years.

Electrical and mechanical engineer (male); \$14 per diem; No. 549; December 16, 1919; form 1312; age, under 45 years.*

Fish pathologist (male); \$2,500 a year; No. 544; December 16, 1919; form 2118; age, at least 24 years but under 45 years.*

Laboratorian qualified in photography (male); \$4.80 per diem; No. 548; December 16, 1919; form 1312; age, at least 18 years but under 45 years.*

Mechanical aid (male); \$10 per diem; No. 547; December 16, 1919; form 1312; age, no limits.* Meteorologist (male); Grade 1, \$1,600 to \$2,200 a year; grade 2, \$2,200 to \$3,000 a year; No. 553; December 23, 1919; form 1312; age, no limits.*

Preparator in entomology (male and female); \$900 a year; No. 1, January 11 and 12, 1920, and April 11 and 12, 1920; form 304; age, 18 years and over.

Resident dentist (male); \$2,000 to \$2,500 a year; No. 540; December 9, 1919; form 1312; age, at least 25 years but under 35 years.*

Town manager (male and female); \$2,400 a year; No. 571; December 16, 1919; form 1312; age, at least 25 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Deceased and Insane Employees.

The estates of the following deceased or insane employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

DECEASED.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Alfonso Regist (Regis)	174695	Grenada.....	Colon.....	Building Division.....	July 3, 1919.
Henry Bennett.....	21105	Jamaica.....	Corozal.....	Health Department.....	October 5, 1919.
David Dixon.....	164279	Jamaica.....	Colon.....	Health Department.....	October 20, 1919.
Peter Modest.....	169313	Jamaica.....	Panama.....	Section of Surveys.....	October 27, 1919.
John Marcelle.....	50630	Bonaire, D.W.I.	Colon.....	R. & F. Agent.....	October 30, 1919.
Frank R. Jay.....	1586	U. S. A.....	Gatun.....	Commissary Division.....	November 3, 1919.
Alexander Forth.....	39177	Jamaica.....	Colon.....	Building Division.....	November 8, 1919.
Reginald T. McCalla.....	28193	Jamaica.....	Colon.....	Building Division.....	November 9, 1919.
Alfred Bowra.....	21755	Jamaica.....	Cristobal.....	Supply Department.....	November 11, 1919.

INSANE.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of commitment.
Solustiani Fernandez.....	39803	Spain.....	Panama.....	Building Division.....	August 23, 1919.
John Sargent.....	37557	Barbados.....	Colon.....	Cattle Industry.....	September 17, 1919.
Samuel McKinney (McKinley).....	42040	Jamaica.....	Panama.....	Cattle Industry.....	October 8, 1919.

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast	\$2.00
Employees	per day.. 2.75
Children under 12 years of age	per day.. 1.25
Servants of employees	per day.. 1.50
Employees for stay of 7 days	per day.. 2.00
Reduction of 10 per cent on above rates for stay of 30 days. Reduction of 10 per cent for families of four or more for over 7 days' stay.	
Nonemployees	per day.. 3.50
Children of nonemployees (under 12 years of age)	per day.. 1.50
Servants of nonemployees	per day.. 1.75
Meals:	
Breakfast	1.00
Luncheon	1.25
Dinner	1.25

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster, or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station	Leave on the hour and half hour.
Administration Building	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary	Leave 10 minutes and 40 minutes after the hour.
Balboa Shops	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa Shops	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary	Leave 20 minutes and 50 minutes after the hour.
Administration Building	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station	Arrive on the hour and half hour.

Official Circulars.

Act of Congress.—Prohibition of Intoxicating Liquors in the Canal Zone.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 6, 1919.

CIRCULAR No. 600-66:

The extracts from the Act of Congress quoted below are published for information of all concerned.

CHESTER HARDING,
Governor.

AN ACT To prohibit intoxicating beverages, and to regulate the manufacture, production, use, and sale of high-proof spirits for other than beverage purposes, and to insure an ample supply of alcohol and promote its use in scientific research and in the development of fuel, dye, and other lawful industries.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the short title of this Act shall be the "National Prohibition Act."

* * * * *

TITLE III.

* * * * *

SEC. 20. That it shall be unlawful to import or introduce into the Canal Zone, or to manufacture, sell, give away, dispose of, transport, or have in one's possession or under one's control within the Canal Zone, any alcoholic, fermented, brewed, distilled, vinous, malt, or spirituous liquors, except for sacramental, scientific, pharmaceutical, industrial, or medicinal purposes, under regulations to be made by the President, and any such liquors within the Canal Zone in violation hereof shall be forfeited to the United States and seized: *Provided*, That this section shall not

apply to liquor in transit through the Panama Canal or on the Panama Railroad.

That each and every violation of any of the provisions of this section shall be punished by a fine of not more than \$1,000 or imprisonment not exceeding six months for a first offense, and by a fine not less than \$200 nor more than \$2,000 and imprisonment not less than one month nor more than five years for a second or subsequent offense.

That all offenses heretofore committed within the Canal Zone may be prosecuted and all penalties therefor enforced in the same manner and to the same extent as if this Act had not been passed.

SEC. 21. Titles I and III and sections 1, 27, 37, and 38 of Title II of this Act shall take effect and be in force from and after the passage and approval of the Act. The other sections of Title II shall take effect and be in force from and after the date when the eighteenth amendment of the Constitution of the United States goes into effect.

Effective October 28, 1919.

Use of Roads in Ancon Hospital Grounds.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 13, 1919.

CIRCULAR No. 717-2 (superseding Circular No. 717):

1. By virtue of authority contained in Executive Order of the President, dated September 5, 1916, Circular No. 601-55), Section 3 of which authorizes the Governor by public notice to prohibit motor vehicles of any or all kinds from operating on such portions of the roads in the Canal Zone as he may designate, when, in his judgment, the public interest requires it, or permit any of said vehicles to be operated in any areas or districts designated by him, upon such conditions as he may deem necessary and convenient for the welfare of The Panama Canal, the following order

is hereby established effective November 20, 1919:

2. The road through the Ancon Hospital grounds is hereby declared a one-way road, and no vehicles of any kind will be permitted to use this road in the direction from Panama to the top of the hill except such vehicles as it may be necessary to admit to the grounds on hospital business.

3. Passenger automobiles will be permitted to pass through the Hospital grounds from the top of the hill toward Panama provided the engines are cut off and no unnecessary noise is made while passing through the grounds. Trucks, motorcycles, or horse-drawn vehicles will not be permitted to use the road in either direction unless they have business within the hospital grounds.

4. The entrance to the Hospital grounds will be indicated by suitable signs. The entrance from the Panama side is just beyond the steps leading to the Hospital Administration Building.

5. Violation of this order is punishable under the provisions of the Executive Order above referred to, and offenders are subject to arrest.

CHESTER HARDING,
Governor.

Requests for Work.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 1, 1919.

CIRCULAR NO. 642-2 (superseding Circulars Nos. 642 and 642-1):

Requests for work to be performed, made between departments and divisions of The Panama Canal or between The Panama Canal and the Panama Railroad Company, covering manufacture, repairs, alterations, and special services which can not conveniently be executed by the department making request, or which are specific functions of the department on which the request is made, and for work to be performed by The Panama Canal and Panama Railroad for outside interests, will be governed by the following:

1. Work requests, made between departments and divisions or between The Panama Canal and Panama Railroad, will be submitted on Form 159, for authorization by the Governor, when the estimated cost exceeds \$500, except for maintenance and repair work as covered by paragraph 5. When the estimated cost is less than \$500, the approval of the head of department or division only is required.

2. Work requests covering allotments from appropriations for special work will be submitted on Form 159, for the authorization of the Governor, when the estimated cost exceeds \$500. An allotment is not to be considered as authority to proceed with work, until it has been approved on regular work request.

3. Work requests from outside interests will be submitted on Form 5172-1. Work may be performed for ships transiting the Canal or making Canal ports, irrespective of cost, without the authority of the Governor. Work for other individuals and companies must be authorized by the Governor when the estimated cost exceeds \$500.

4. The division performing work for outside interests must ascertain that a deposit has been made to cover or that payment is otherwise satisfactorily secured in accordance with regulations, before the work is started.

5. Blanket work requests will be submitted on Form 159, and do not require the authorization of the Governor. They will be allowed to run until terminated or modified by the department or division making the request. Unless the work to be performed is specified on the blanket authority, individual jobs under blanket authorities must be requested on Form 3431, and will be limited to \$75.

6. Maintenance and repairs of floating equipment and rolling stock in operation, electrical equipment, *et cetera*, and regular routine work such as loading and shipping of scrap wood for kindling, inspection of boilers and scales, *et cetera*, for which blanket authority has been issued on Form 159, may be requested on Form 3431, irrespective of cost.

7. No manufacturing work or work other than that specified in paragraph 6, will be authorized on Form 3431, in excess of \$75, and when it is found that the cost of work requested will exceed this amount, Form 3431 must be returned for submission of regular work request, Form 159, for the approval of the head of the department or division. This shall not be construed however as giving authority to divide up work that would otherwise fall naturally under paragraph 1 of this circular into separate items.

8. Ordinary maintenance and repairs to Canal Zone waterworks, sewers, and roads may be made without work request. Ordinary maintenance to include minor repairs to pump stations, filtration plants, patching of roads or repairing breaks in water or sewer mains, *et cetera*; but all extensive repairs to waterworks, sewers, or roads, irrespective of cost, must be requested on Form 159 and authorized by the Governor. A monthly statement will be submitted to the Governor showing the expense, by towns, for all maintenance work.

9. These forms are intended to obviate requests or recommendations being made by letter covering work to be performed by another department or division, but in addition they will take the place of requests for special authority when the work is to be performed by the department or division making the request.

10. Estimates will be prepared and charges rendered in accordance with directions contained in the circular covering percentages and surcharges, or as it may be modified from time to time.

11. The estimated cost must be shown on all work requests. The division performing any work will advise the division for which the work is being performed when it is found that the estimated cost of any job will be materially exceeded.

12. Correspondence relating to any particular request shall give the number and date of same.

CHESTER HARDING,
Governor.

Rates for Use of Railroad Motor Cars.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,
BALBOA HEIGHTS, C. Z., November 10, 1919.

To all concerned—Circular No. RA-642, dated April 17, 1919, covering rates for use of railroad motor cars operated by The Panama Canal, is amended to read as follows:

Employees and those entitled to employees' rates per trip..... \$35.00
Individuals and companies, per trip..... 50.00

The above rates are to be charged regardless of the nature of the trip, with the proviso that the rates will pay for the use of the car by the occupants in one direction for not more than four hours from the time the car is ordered until the time it is released, and that \$5 additional will be charged for each half hour or fraction thereof in excess of four hours that the car is used or detained by the party.

Permission to use these cars for transportation of passengers must be obtained from the Executive Office. The Panama Canal will charge the Panama Railroad at the hourly rate for the number of hours that the cars are in use, from the time called until returned. The Panama Railroad will collect at the above rates.

Employees and those entitled to employees' rates will not be required to furnish any form of transportation. Outsiders will be required to purchase first-class tickets.

It is to be understood that these cars will only be used in emergency cases, such as making connections with steamers.

Ordinarily, when special transportation service is requested, the Panama Railroad will furnish special trains in accordance with Circular 536.

S. W. HEALD,
Superintendent.

Approved:
CHESTER HARDING,
Governor.

Scrap Grindstones.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., November 14, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

The Cattle Industry is in need of scrap grindstones for use of silver employees in sharpening machetes, incident to pasture-clearing work. It is respectfully requested, therefore, that all old pieces of grindstones not in use by the different departments and divisions be forwarded to Mr. L. A. Byrnes, Frijoles, where they can be made good use of. The Cattle Industry, of course, will pay freight charges on the grindstones.

In this connection, you are advised that grindstones are now carried as expendable material, the frames only being considered nonexpendable.

R. K. MORRIS,
Chief Quartermaster.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., November 17, 1919.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressees. Request may be made by telephone, calling No. 182, Balboa:

- | | |
|------------------------|------------------------------------|
| Bice, Mrs. Minnie | Hutchinson, Charles E.,
Box 93. |
| Blackan, Mrs. M. | Keating, Patrick |
| Bodden, Arlington | Levy, Mrs. Rose |
| Ceville, Mrs. Leonidas | Livingston, Robert R. |
| Cloke, Harold C. | Miller, Capt. A. I. |
| Davila, Jose, Box 537 | Peters, Edwin |
| Dougherty, Charles F. | Piper, Mrs. E. D. |
| Gowan, Mrs. John | Reid, C. |
| Grey, Egbert, Box 839 | Reeve, Mrs. A. L., Box
164 |
| Hallett, B. | Sitton, Moses, Box 289 |
| Hanson, George | Torrenzo, Miss Rose,
Box 235 |
| Hardrick, Eddie | |
| Harris, Claxton W. | |

October Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1919.
	1919	1918	1917			
<i>Pacific section—</i>						
Balboa	11.82	8.52	5.79	9.44	21	21
Balboa Heights	12.11	9.16	6.14	10.33	23	22
Miraflores	11.54	10.01	7.56	12.00	12	23
Pedro Miguel	11.25	10.57	6.01	11.79	12	24
Rio Grande	16.37	16.02	5.92	12.74	15	29
<i>Central section—</i>						
Culebra	15.62	16.81	5.56	11.56	31	27
Camacho	13.66	16.66	6.76	13.23	14	30
Empire	12.41	20.15	6.38	13.22	15	29
Gamboa	11.72	17.25	11.21	12.76	37	27
Juan Mina	14.57	16.77	11.75	14.81	10	22
Alhajuela	15.46	12.63	13.73	14.08	21	26
Vigia	12.01	13.81	16.88	15.86	12	27
Frijoles	18.92	19.36	9.20	16.28	8	...
Torredad	15.85	15.71	10.03	14.60	12	28
Monte Lirio	15.84	23.57	10.04	16.72	12	27
<i>Atlantic section—</i>						
Catun	17.46	22.73	10.05	16.56	15	27
Brazos Brook	20.65	27.30	10.50	17.24	14	25
Colon	21.94	27.07	7.87	15.03	50	26

Additions to Commissary Stock.

Dry Goods Section.

- | | |
|--|--------|
| Bags, shopping, Mochilas, ea. | \$0.73 |
| Braid, E. Z., trim, assorted colors, 2-yd. pc. | .25 |
| Pins, hair, invisible, bronze, 1 1/4", pkg. | .04 |
| Pins, hair, invisible, bronze, 2", pkg. | .04 |

Stationery:

- | | |
|-------------------------------------|--------|
| Pencils, Eversharp, ea. | \$0.89 |
| Pencils, Eversharp, ea. | 1.20 |
| Pencils, Eversharp, ea. | 1.40 |
| Pencils, Eversharp, ea. | 1.20 |
| Pencils, Eversharp, ea. | 1.40 |
| Pencils, Eversharp, ea. | 2.00 |
| Pencils, Eversharp, ea. | 2.40 |
| Suiting: | |
| Alpaca, men's, 54", yd. | 1.90 |
| Alpaca, men's, 54", yd. | 1.35 |
| Cotton and jute, tropical, 54", yd. | 1.80 |
| Cotton and jute, tropical, 54", yd. | 1.30 |
| Drill, union, bleached, 27", yd. | .86 |
| Drill, union, bleached, 27", yd. | 1.05 |
| Duck, union, tropical, 27", yd. | .49 |
| Serge, blue, 56", yd. | 4.80 |
| Serge, blue, 56", yd. | 4.95 |
| Serge, blue, 56", yd. | 4.95 |
| Serge, blue, 54", yd. | 3.85 |

Groceries Section.

- | | |
|--|-----|
| Aerated waters and beverages: | |
| Club soda, P. C., bot. | .09 |
| (5 cents refund for return of empty bottle.) | |
| Arrow root, powdered (for steamship trade only) 5-lb. tin, per lb. | .36 |
| Jam, Peachlade, 2s tin | .34 |
| Jelly, Guava, Cuba, 1/2-lb. box. | .14 |
| Paste, Guava, Cuban, 1-lb. box. | .19 |
| Peas, petit pois, French, 1s tin. | .38 |

Hardware Section.

- | | |
|---|------|
| Cases, key, pigskin, 6-hook, ea. | .56 |
| Forks, kitchen, ea. | .17 |
| Lamps, bicycle, Everitt, ea. | 1.80 |
| Pumps, bicycle, Crown, ea. | 1.35 |
| Shells, shotgun, smokeless powder, 16 gauge, No. 1-B shot, 25s box. | 1.05 |
| Shells, shotgun, smokeless powder, 16 gauge, No. 4 shot, 25s box. | 1.05 |
| Shells, shotgun, smokeless powder, 16 gauge, No. 6 shot, 25s box. | 1.05 |
| Shells, shotgun, smokeless powder, 16 gauge, No. 7 shot, 25s box. | 1.05 |

NOTE.—To be stocked at Cristobal, Balboa, Ancon, Gatun, and Pedro Miguel Commissaries only.

- | | |
|---|---------|
| Automobile and motorcycle accessories: | |
| Batteries, motorcycle, No. 4-N, ea. | \$17.00 |
| Fluid, tire, Neverlark, tube. | .19 |

Rainfall from Oct. 1 to 31, 1919, Inclusive.

STATIONS.	Maximum in one day.	Date.	Total.
<i>Pacific section—</i>			
Tabago	2.00	10 & 15	10.35
Balboa	1.90	18	11.82
Balboa Heights	2.02	18	12.11
Miraflores	2.18	18	11.54
Pedro Miguel	1.98	18	11.25
Rio Grande	3.33	24	16.37
<i>Central section—</i>			
*Culebra	2.15	24	15.62
*Camacho	2.76	19	13.66
Empire	2.16	18	12.41
Gamboa	2.29	18	11.72
*Juan Mina	4.04	10	14.57
Alhajuela	3.43	22	15.46
Vigia	2.00	24	12.01
Darien	1.95	10	11.57
*Trinidad	2.74	31	15.85
*Monte Lirio	2.36	11	15.84
<i>Atlantic section—</i>			
Catun	2.10	9	17.46
*Brazos Brook	3.51	9	20.65
Colon	3.51	24	21.94
†Bocas del Toro	1.20	23	7.52
Porto Bello	3.41	22	15.71

* Standard rain gauge—readings at 5 p. m. daily.
Automatic rain gauge at unstarred stations—values, midnight to midnight.
† Standard rain gauge—readings at 8 a. m. daily.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
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The Panama Canal, Washington, D. C.

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at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., November 26, 1919. No. 15.

Sailing Ships through the Canal.

The 3-masted bark *Georgette*, loaded with lumber, arrived at Balboa from Seattle on November 23, on her way to Alexandria, Egypt. Thirty-five thousand feet of her cargo of 882 tons had gone overboard in a storm. The *Georgette* is 187 feet 8 inches in length by 36 feet beam, and has Panama Canal net tonnage of 757. She carries a crew of 13, including the wife and two children of the master, who are signed on. The distance from Seattle to Alexandria by the routes of steamships is 10,279 miles by way of the Canal.

On the same day the 4-masted bark *Annie M. Reid* came in from San Francisco, on the way to the United Kingdom with a cargo of 3,220 tons of barley. She is 291 feet 3 inches long by 42 feet 2 inches beam, and her Canal net tonnage is 2,079.

From July 1, 1917, to November 1, 1919, 111 sailing ships have made the transit of the Canal. During the same period 4,677 other commercial ships passed through. The sailing ships were, accordingly, 2.37 per cent of the steam and motor ships. Their aggregate net tonnage was 208,568 tons, Panama Canal measurement, 1.41 per cent of the net tonnage of the other commercial ships. The sailing ships had an average net tonnage of 1,879 tons.

The numbers of sailing ships passing through the Canal each month in the period, with their aggregate net tonnages, are given below:

Month.	Vessels.	Net tons P. C.	Vessels.	Net tons, P. C.	Total.	
					Vessels.	Net tons, P. C.
July, 1917.....	2	3,183	1	1,041	3	4,224
August.....	1	835	1	835	1	835
September.....	1	533	1	533	1	533
October.....	2	3,121	3	3,121	2	3,121
November.....						
December.....	1	2,166				
January, 1918.....			2	5,325	2	5,325
February.....			4	9,731	4	9,731
March.....			2	2,467	2	2,467
April.....	4	5,463	3	7,861	7	13,324
May.....	5	10,683	1	2,324	6	13,007
June.....	3	5,762	2	4,379	5	10,141
July.....	5	8,891	5	12,778	10	21,669
August.....	3	4,124	5	9,827	8	13,951
September.....	1	2,658	4	4,948	5	7,606
October.....	1	2,667	5	11,049	6	13,716
November.....	5	10,597	4	7,413	9	18,010
December.....	3	4,788	1	2,658	4	7,446
January, 1919.....	5	10,225	2	4,991	7	15,216
February.....	1	2,345	1	2,206	2	4,551
March.....			2	5,648	2	5,648
April.....	2	4,063	5	7,936	7	11,999
May.....			1	1,630	1	1,630
June.....	1	875	3	4,725	4	5,600
July.....			1	1,171	1	1,171
August.....			4	6,162	4	6,162
September.....			6	8,665	6	8,665
October.....			1	634	1	634
Total.....	42	78,490	69	130,078	111	208,568

For the 28 months the average number of sailing ships per month from Atlantic to Pacific was 1.5, and from Pacific to Atlantic, 2.46, average total of 3.96. The average aggregate net tonnage per month was 7,448.8 tons.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, November 22, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Water draft	Salt	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour											Gross	Net
Glymont.....	15	9 40	16	6 15	16	13 34	16	14 16	American.....	United States Shipping Board.	289.0	44.1	18.9		Baltimore.....	Valparaiso.....	Coke.....	2,545	2,039	1,999
Acajula.....	13	15 07	16	6 17	16	13 35	16	14 16	British.....	Pacific Steam Navigation Co.	215.7	39.5	13.6		Cristobal.....	Mantta.....	General.....	1,373	1,272	706
Balboa.....	15	9 55	17	6 40	17	13 22	17	21 47	American.....	Columbian Maritime Company.	100.0	29.1	14.3		Crataeo.....	Esmeraldas.....	General.....	232	1,754	359
Bologna.....	15	9 55	17	13 07	17	19 27	17	21 32	Italian.....	La Voece Steamship Line.	380.3	56.8	17.6		Genoa.....	Valparaiso.....	General.....	451	5,192	3,583
Aymoca.....	16	5 37	18	6 18	18	13 04	18	19 15	Brazilian.....	French Government.	450.0	60.0	15.0		Norfolk.....	Iquique.....	Coal and general.....	9,061	6,576	6,576
Hualaba.....	16	02 07	18	6 30	18	14 20	18	16 10	Peruvian.....	Peruvian Steamship Line.....	360.0	46.0	23.9		Glasgow.....	Callao.....	General.....	2,028	4,514	2,336
Saint Andrew.....	17	17 05	18	7 26	18	13 04	18	15 45	British.....	Rankin Gilmore & Co.	400.5	53.0	26.8		New York.....	Hongkongs.....	General.....	8,000	5,727	4,109
Gorata.....	18	6 31	18	11 19	18	13 58	18	15 52	British.....	British India Steam Nav. Co.	400.0	52.0	24.0		New York.....	Wellington.....	General.....	4,770	5,762	4,097
Delt.....	17	8 33	19	10 28	19	16 43	19	17 22	Dutch.....	Royal Netherland Steamship Co	370.0	50.0	15.1		Rotterdam.....	Guayaquil.....	General.....	234	5,854	4,322
Victoria.....	18	14 46	19	10 48	19	17 40	19	19 05	British.....	Pacific Steam Navigation Co.	401.4	52.0	22.4		Liverpool.....	Valparaiso.....	General.....	2,264	6,887	4,575
City of Para.....	16	17 20	19	11 12	19	18 35	19	23 08	American.....	Pacific Mail Steamship Co.	360.0	38.6	21.1		Habana.....	San Francisco.....	General.....	1,439	3,739	2,459
Kentuckian.....	20	6 18	20	6 50	20	14 03	20	17 28	American.....	United States Shipping Board.	273.0	49.0	24.9		Norfolk.....	Callao.....	Coal.....	2,480	3,072	1,839
U.S.S. Houston.....	12	18 55	20	7 07	20	16 33	20	17 28	American.....	United States Navy.	375.0	51.0	25.6		New York.....	San Francisco.....	General.....	3,400	6,656	4,880
West Mahomet.....	19	10 02	20	8 15	20	17 27	20	19 15	American.....	United States Shipping Board.	409.6	54.2	24.4		Baltimore.....	Kobe.....	Steel plates, iron.....	7,065	6,236	4,595
Alfonso Perez.....	20	21 46	21	12 03	21	14 19	21	19 53	Spanish.....	Anel P. Perez.	410.6	54.1	17.0		Cardiff.....	Caleta Buena.....	General.....	843	4,731	2,853
Mantaro.....	16	17 38	22	8 57	22	15 33	22	21 48	Peruvian.....	Peruvian Steamship Line.	360.0	46.0	19.6		Cristobal.....	Callao.....	General.....	900	1,582	1,023
Cauca.....	14	21 30	22	10 07	22	16 31	22	20 42	British.....	Pacific Steam Navigation Co.	246.0	35.0	16.0		Cristobal.....	Guayaquil.....	General.....	3,018	2,239	2,239
Santa Clara.....	22	13 10	22	13 58	22	20 10	23	14 22	American.....	Atlantio-Pacific Steamship Co.	404.6	53.0	16.6		New York.....	Iquique.....	General.....	3,018	2,239	2,239

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Deva.....	14	15 15	16	6 28	16	13 50	16	14 20	American.....	United States Shipping Board.	294.0	46.7	19.0		Honolulu.....	New York.....	Pineapples, can d.....	2,450	3,011	1,910
Bantu.....	15	23 00	16	7 30	16	15 08	16	18 15	American.....	United Steel Products Co.	360.0	47.0	25.0		Caleta Buena.....	Wilmingon.....	Nitrates.....	5,700	4,605	3,047
Wakiki.....	15	3 00	16	9 30	16	16 20	21	11 50	American.....	United States Shipping Board.	266.6	46.1	23.5		Portland.....	United King.....	Railroad ties.....	1,380	2,641	1,693
Mantaro.....	16	1 10	16	10 29	16	17 38	22	8 57	Peruvian.....	Peruvian Line.....	360.0	46.0	21.6		Callao.....	Cristobal.....	General.....	2,812	4,731	2,853
Dockton (M.S.).....	2	11 20	16	14 54	17	9 50			Norwegian.....	Egal Nashheim & Co.	232.0	45.6	21.0		Seattle.....	Genoa, Italy.....	Douglas fir lum.....	1,736	1,625	1,302
Orani.....	16	15 30	17	6 38	17	14 45	18	8 20	American.....	United States Shipping Board.	402.5	53.1	24.0		Seattle.....	Hops, general.....	General.....	6,291	6,577	4,948
Mexico.....	17	9 45	17	0 38	17	14 12	17	23 00	British.....	Pacific Steam Navigation Co.	400.9	52.3	24.6		Talcahuano.....	Liverpool.....	General.....	3,560	6,551	4,205
Lt. David Putman (a).....	15	15 00	17	10 25	17	17 35			American.....	United States Army.					Balboa.....	Cristobal.....	General produce.....	5,636	6,440	4,890
Kenia.....	17	21 00	18	7 41	18	15 12	18	16 45	British.....	Pacific Steam Navigation Co.	401.3	52.9	23.6		Punta Arenas.....	Liverpool.....	Nitrates.....	3,800	3,042	2,170
Bara-Bi.....	18	9 30	18	9 13	18	16 34	18	19 08	Spanish.....	Navyera Paracaido.....	313.0	45.9	17.0		Caleta Buena.....	Bilbao.....	Ballast.....	7,020	5,042	5,042
San Joaquin.....	18	9 30	18	10 07	18	17 20	18	19 25	Norwegian.....	W. Wilhelmson.....	425.5	57.1	17.8		Talca.....	Tampico.....	Nitrates.....	4,108	2,352	2,011
Rosario.....	19	12 10	19	7 53	19	15 35	20	16 20	Spanish.....	Cia Naviera Guipuzcoana.....	310.0	42.9	21.3		Caleta Buena.....	Passage.....	Pineapples, can d.....	4,619	4,398	3,659
Calvert.....	19	17 00	20	6 35	20	14 43	20	15 13	American.....	United States Shipping Board.	339.3	49.1	19.0		Honolulu.....	New York.....	Pineapples, can d.....	4,619	4,398	3,659
Corcovado.....	19	18 30	20	7 32	20	16 17	20	21 25	British.....	Pacific Steam Navigation Co.	390.0	47.2	25.0		Talcahuano.....	Liverpool.....	Nitrate sugar, gen.....	4,984	4,797	3,273

(a) Launch.

	19	23	00	20	8	14	20	15	21	24	10	10	Chilean.	Chilean Line.	370	6	44	3	Valparaiso.	Cristobal.	General	970	4	505	2	977
Aysen.....	19	23	00	20	8	14	20	15	21	24	10	10	Chilean.	Chilean Line.	370	6	44	3	Valparaiso.	Cristobal.	General	970	4	505	2	977
Tasmania.....	19	23	00	20	8	37	20	16	11	20	20	39	British.	British Government.	482	2	62	7	Adelaide.	Palmouth.	Wheat.	9,173	9	416	6	373
Nokaway.....	20	2	25	20	9	55	20	18	16	21	6	27	American.	United States Shipping Board.	402	6	53	0	San Francisco.	New York.	Flour.	7,960	6	580	4	822
Gray Cloud.....	20	9	00	20	11	13	20	19	18	22	5	35	American.	United States Shipping Board.	273	6	49	1	Bellingham.	Philadelphia.	Fir lumber.	2,263	3	113	1	915
Laura C. Hall.....	19	14	00	20	12	38	20	20	05	20	20	05	British.	Pacific Metals Corporation.	81	0	25	6	Buenaventura.	Cristobal.	Coffee.	61	1	187	6	69
Jamaica.....	20	13	15	20	14	45	20	22	00	20	20	00	British.	Pacific Steam Navigation Co.	220	0	34	0	San Francisco.	Cristobal.	General.	693	1	187	6	22
San Juan.....	20	13	35	21	6	41	21	14	15	22	12	50	American.	Pacific Mail Steamship Co.	283	0	37	0	San Francisco.	Cristobal.	General.	1,249	2	379	1	953
West Pocasset.....	21	4	30	21	7	44	21	16	28	22	12	50	American.	United States Shipping Board.	409	8	54	2	Portland.	New York.	Flour.	7,722	2	379	1	953
Dertona.....	20	14	45	21	8	14	21	15	33	21	15	44	American.	United States Shipping Board.	294	0	45	7	Portland.	New York.	Railroad ties.	1,870	3	011	1	910
Salvador.....	22	3	00	22	8	57	22	14	53	21	17	23	British.	Pacific Steam Navigation Co.	215	0	33	5	Champerico.	Cristobal.	General.	155	1	213	6	692
Sherman.....	22	9	20	22	10	10	22	17	31	22	19	20	American.	Sherman Steamship Co.	400	3	45	3	Valparaiso.	Baltimore.	Copper.	4,000	5	087	3	492
S. C. 284.....	14	12	10	22	11	21	22	18	28	22	18	20	American.	United States Navy.	364	5	51	4	Balboa.	Cristobal.	General.	5,350	5	371	3	969
Valparaiso.....	22	7	00	22	11	50	22	18	36	22	19	30	Swedish.	Johnson Line.	364	5	51	4	Valparaiso.	Gothenberg.	General.	5,350	5	371	3	969

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

Date	Vessels	*ARRIVALS			*DEPARTURES		
		Vessels	From	Date	Vessels	Line	For
Nov. 17.....	Ulysses.	Panama Railroad Steamship Line.	Norfolk.	Nov. 19.....	Tivives.	United Fruit Company.	Port Limon.
Nov. 17.....	Alliance.	Panama Railroad Steamship Line.	New York.	Nov. 19.....	Metapan.	United Fruit Company.	New Orleans and wayports
Nov. 17.....	Metapan.	United Fruit Company.	New Orleans.	Nov. 20.....	Ulysses.	Panama Railroad Steamship Line.	Norfolk.
Nov. 18.....	Gen. O. H. Trust.	Panama Railroad Steamship Line.	New York via Haiti.	Nov. 20.....	Abangarez.	United Fruit Company.	Colombian ports.
Nov. 18.....	Mecklenburg.	Shipping Controller.	Cartagena.	Nov. 21.....	Nomecki.	United States Shipping Board.	Cartagena.
Nov. 18.....	Tivives.	United Fruit Company.	New York and Habana.	Nov. 22.....	Metapan.	Panama Railroad Steamship Line.	New Orleans and wayports
Nov. 19.....	Abangarez.	United States Shipping Board.	Norfolk.	Nov. 22.....	Alliance.	Panama Railroad Steamship Line.	New York via Haiti.
Nov. 19.....	Nomecki.	United States Shipping Board.	New York via Kingston.	Nov. 22.....	Middlebury.	Panama Railroad Commissary.	Cartagena.
Nov. 20.....	Auleo.	United States Shipping Board.	Norfolk.				
Nov. 20.....	Senator.	Harrison Steamship Line.	Liverpool and wayports.				
Nov. 21.....	Metapan.	United Fruit Company.	Port Limon.				
Nov. 21.....	Middlebury.	Panama Railroad Commissary.	Cartagena.				
Nov. 21.....	Colon.	Panama Railroad Steamship Line.	New York via Haiti.				
Nov. 21.....	Tillamook.	United States Shipping Board.	Bluefields.				
Nov. 22.....	Puerto Rico.	French Line.	San Nazaire and wayports.				

PORT OF BALBOA.

Date	Vessels	*ARRIVALS			*DEPARTURES		
		Vessels	From	Date	Vessels	Line	For
Nov. 10.....	Donostia.....	Cia Anon de Nav.....	Sea.	Nov. 17.....	Donostia.....	Cia Anon de Nav.....	Arica.

*Other than ships passing through the Canal.

Coal and Laundry Prices.

The Panama Canal has issued the following Supplement No. 2 to Tariff No. 3:

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., November 8, 1919.

The following amendments are made to Tariff No. 3, Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at the Panama Canal:

ITEM 21.—COAL.

Effective November 16, 1919.

	Cristobal- Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants or alongside of vessels in lighters or in cars on the wharves and trimmed in bunkers, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$13.50	\$15.50
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting transit.....		13.50
3. To steamships taking less than carload lots from plants, or less than 25 tons from lighters.....	15.00	17.00
4. When request is made by commander of vessel, chief engineer, or agent, for trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, an additional charge of 60 cents per ton will be made for extra handling.		
5. For lump coal for galley use, delivered in sacks, additional charge per ton, \$10. Should the vessel furnish satisfactory sacks, the price will be only \$3 per ton additional. Not more than 5 tons will be supplied to a vessel.		
6. For coal for cargo which will be delivered only in exceptional cases after special authority is given by the Governor.....	16.00	18.00

ITEM 26.—LAUNDRY.

Effective October 15, 1919.

1. For laundry called for and delivered to ship, where the total bill exceeds \$10 the following rates plus 25 per cent will obtain, subject to change without republication in this circular:

Aprons.....	\$0.01	Napkins.....	\$0.01
Bedspreads.....	.15	Nightshirts.....	.05
Blankets.....	.15	Operating gowns.....	.10
Bolster cases.....	.01	Pajama suits.....	.10
Caps, cooks'.....	.01	Pants, colored.....	.05
Cloths, table.....	.02	Pillowcases.....	.02
Cloths, table, extra large.....	.05	Sheets.....	.02
Coats, white.....	.13	Towels, bath.....	.02
Covers, furniture.....	.15	Towels, bath, extra large.....	.05
Covers, mattress.....	.05	Towels, brown.....	.02
Curtains.....	.15	Towels, glass.....	.02
Dollies.....	.01	Towels, roller.....	.02
Gowns, convalescent.....	.10	Towels, room.....	.02
Jumpers.....	.05	Towels, side.....	.02
Mosquito bars.....	.10	Trousers, white (cook's, etc.).....	.10

CHESTER HARDING,

Governor The Panama Canal.
President Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 22, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
City of Para.....	Pacific Mail Steamship Co.....	November 19.	November 19.		10
Laura C. Hall.....	Pacific Metals Corporation.....	November 19.	November 20.	4	
San Juan.....	Pacific Mail Steamship Co.....	November 20.	November 21.	205	21
Salvador.....	Pacific Steam Navigation Co.....	November 22.	November 22.	4	

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending November 22, 1919.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Acajutla.....	Pacific Steam Navigation Co.....		November 16..		(†)
Bologna.....	La Veloce Steamship Line.....		November 17..		(†)
City of Para.....	Pacific Mail Steamship Line.....	November 16.	November 19.	(*)	1,521
Mantaro.....	Peruvian Steamship Line.....	November 16.	November 22.	2,812	887
Allianca.....	Panama Railroad Steamship Line..	November 17.	November 22.	1,802	2,349
Metapan.....	United Fruit Company.....	November 17.	November 19.	1,041	100
Delit.....	Royal Netherland Steamship Line..	November 17.	November 19.	242	(†)
Ulysses.....	Panama Railroad Steamship Line..	November 17.	November 20.	12,243	(†)
Victoria.....	Royal Mail Steam Packet Co.....	November 18.	November 19.	(*)	440
Gen. O. H. Ernst.....	Panama Railroad Steamship Line..	November 18.		2,345	
Tivives.....	United Fruit Company.....	November 18..	November 19.	35	37
Namecki.....	United States Shipping Board.....	November 19.	November 21.	2,748	(†)
Abangarez.....	United Fruit Company.....	November 19.	November 20.	1,109	152
Houston.....	United States Navy.....	November 19.	November 20.	7	(†)
Acuelo.....	United States Shipping Board.....	November 20.		2,934	
Senator.....	Harrison Line.....	November 20.		930	
Aysen.....	South American Steamship Line..	November 20.		978	
Laura C. Hall.....	Pacific Metals Corporation.....	November 20.		61	
Jamaica.....	Pacific Steam Navigation Co.....	November 20.		693	
Cauea.....	Pacific Steam Navigation Co.....		November 22.		1,001
Middlebury.....	Panama Railroad Commissary.....	November 21.	November 22.	500	5
Metapan.....	United Fruit Company.....	November 21.	November 22.	850	(†)
Colon.....	Panama Railroad Steamship Line..	November 21.		2,822	
San Juan.....	Pacific Mail Steamship Line.....	November 21.		1,267	
Puerto Rico.....	French Line.....	November 22.		438	
Salvador.....	Pacific Steam Navigation Co.....	November 22.		155	
Fort Gaines.....	Caribbean Steamship Co.....	November 22.		1	

*No cargo discharged.

† No cargo laded.

Italian Line in West Coast Trade.

With the passage of the steamship *Bologna* through the Canal on November 17, on the way from Genoa to Valparaiso, the La Veloce Navigazione Italiana a Vapore ("La Veloce" Line) has begun a regular service between Italy and Ecuadorian, Peruvian, and Chilean ports, in which a steamer will sail about every 60 days. This is an extension through the Canal of the line which has been operating for a number of years between Italian and Caribbean ports, by way of Marseilles, Barcelona, and Teneriffe, and the line will continue its former service both ways while operating on the west coast as well.

Gatun Lake Storage for Dry Season.

Gatun Lake has been allowed to fill to the level of 87 feet above sea level, in preparation for the coming dry season. Ordinarily the surface is raised to 87 feet about the middle of December, but on account of relatively scanty rainfall over the watershed during the early part of November, with the possibility of an early dry season, it was decided to store the customary reserve without delay. A maximum elevation of 87.06 feet at Gatun was reached on November 19, since which date the surface has been controlled at approximately 87. With the surface 87 feet above sea level the depth of water in the Cut is approximately 47 feet.

Sale of the Dredge "Corozal."

The ladder dredge *Corozal*, built at Renfrew, Scotland, in 1911, and used in digging the Canal from April, 1912, to February, 1919, has been transferred to the Engineering Department of the United States Army. The price was \$190,000, and spare parts were listed at \$125,000. The original cost of the *Corozal* was \$449,000. The dredge is to be towed to Philadelphia by a Navy collier.

Panama Railroad Steamship Line Tariff Changes.

The Panama Railroad Steamship Line has issued Supplement No. 2 to Freight Classification and Tariff No. 28, publishing class and commodity rates from New York, N. Y., to Pacific ports in Colombia, Ecuador, Peru, and Chile, effective November 15, 1919.

It affects rates on cement, newsprint paper, and lubricating oil, and publishes the following concerning storage charges:

The Panama Railroad Steamship Line will collect from shippers storage charges at the rate of 10 cents per day per bill of lading ton or fraction thereof, or 5 cents per package per day, at steamer's option, on all packages for which shipping documents (bills of lading, and, when required, consular papers) are not presented at this office in time to be forwarded by the steamer carrying the cargo. The charge will be counted from the date of departure of steamer carrying the cargo up to and including the date of departure of the subsequent steamer upon which the bills of lading are actually forwarded.

Comparative Wind Records.—Cape Mala, Sosa Hill, and Balboa Heights, October, 1919.

The total wind movement for the month of October, 1919, was practically the same at Cape Mala and Sosa Hill, and 59 per cent greater than the wind movement at Balboa Heights. The average hourly velocities were: Sosa Hill, 9.6 miles, Cape Mala, 9.6 miles, and Balboa Heights 6.1 miles.

Northwest winds prevailed at Balboa Heights and Sosa Hill and southwest winds at Cape Mala.

The maximum velocities recorded during the month were: Sosa Hill, 33 miles from the southeast on the 24th; Balboa Heights, 31 miles from the south on the same date; and Cape Mala, 40 miles from the east on the 4th.

NOTE—Elevation of anemometers: Sosa Hill, 35 feet above ground and 405 feet above mean sea level; Balboa Heights, 97 feet above ground and 231 feet above sea level; and Cape Mala, 110 feet above ground and 150 feet above sea level.

December Weather Probabilities.

The following weather conditions may be expected at the Canal entrances during the month of December, 1919. Predictions are based on Colon and Ancon-Balboa Heights records for the past 12 and 13 years, respectively:

Winds—With the approach of the dry season, there will be an acceleration of the wind movement at both Canal entrances. North and northeast winds will prevail over the Atlantic Coast, with an average hourly velocity of from 9 to 14 miles an hour, the higher velocity occurring from noon to 5 p. m. The maximum velocity for a 5-minute period is not likely to exceed 35 miles an hour.

Northwest winds will continue over the interior and at the Pacific entrance, the average hourly velocity being from 6 to 9 miles an hour. Here, too, a maximum velocity of 35 miles an hour may occur during occasional wind squalls.

Rain—The month of December usually marks the transition from rainy season to dry season conditions. Occasionally the dry season begins as early as the 1st of the month, while in other years rainy season weather has continued until the end of the month. The tendency is for the rains to linger later in the season along the Atlantic Coast than on the Pacific, and for the percentage of daytime rainfall to be greater on the Pacific side. The average rainfall for the month is 11.69 inches at the Atlantic entrance, and 4.28 inches at the Pacific entrance. These averages are for periods of 48 and 22 years, respectively. About 21 days with rain may be expected on the Atlantic Coast and about 15 on the Pacific side, while the average number of days with heavy rain (1 inch or more) is 3 and 2, respectively.

Fogs—No fogs are likely to occur at either Canal entrance, but night and early morning fogs may be expected over the interior. The average number of fogs during the month over the Gaillard Cut section of the Canal is 15. All of the fogs that occur may be expected to lift or become dissipated before 8.30 a. m.

Temperature—The average shade air temperature will be close to 80° F. over both coasts. On the Atlantic Coast the temperature is not likely to rise above 90° F., or fall lower than 66° F., while on the Pacific side a maximum temperature as high as 94° F. may occur. The minimum record on both coasts is 66° F. The mean daily range in temperature should be about 8° F. on the Atlantic Coast, and 16° on the Pacific.

Barometric pressure—Atmospheric pressure over the Isthmus is remarkably constant and uniform, and except for the well-marked diurnal changes, local fluctuations in pressure are so slight that they have little value as indicators of future weather conditions. The average sea level pressure will continue close to 29.85 inches. The maximum reading for the month is not likely to exceed 30 inches, nor the minimum to fall lower than 29.65 inches.

Relative humidity—With the approach of the dry season there will be a decrease in the percentage of moisture in the air. The humidity should average about 85 per cent over both coasts. The daily range, however, is greater on the Pacific Coast.

Storms—The so-called "northers" occasionally reach as far south as the Atlantic entrance to the Canal during the period from October or November to April, inclusive. These storms are characterized by brisk, northerly winds, ranging in velocity up to 30 or more miles an hour. The winds alone are of insufficient force seriously to affect navigation, but they are usually accompanied by a heavy sea or swell that may at times prove very troublesome. Local thunderstorms will not be so frequent during the month of December. The average number of thunderstorms during the month is 4 on the Atlantic Coast, and 5 on the Pacific.

Generally smooth seas may be expected throughout the month at the Pacific entrance to the Canal.

Tides—Tidal fluctuations at Colon are so slight that they need not be considered in navigating the Atlantic entrance to the Canal.

Panama tide predictions for the month are given below:

Day of- W. Mo.		Time and Height of High and Low Water.				Day of- W. Mo.		Time and Height of High and Low Water.				Day of- W. Mo.		Time and Height of High and Low Water.							
M	1	3:33	9:13	3:54	9:49	F	12	1:09	7:17	1:30	7:49	Tu	23	4:08	10:39	4:43	10:53	14.2	1.3	14.1	2.4
		3.8	12.9	3.6	13.8			0.7	16.0	0.3	16.1										
Tu	2	4:35	10:17	4:55	10:52	S	13	2:02	8:08	2:22	8:39	W	24	4:47	11:15	5:22	11:31	14.3	1.1	14.4	2.0
		3.7	12.8	3.6	14.0			1.5	15.1	1.3	15.3										
W	3	5:37	11:28	6:00	11:57	S	14	2:59	9:00	3:16	9:30	Th	25	5:25	11:50	5:57	.....	14.3	1.1	14.6	.....
		3.2	13.1	3.4	14.6			2.3	14.1	2.4	14.5										
Th	4	6:40	12:34	7:04	.....	M	15	3:58	9:55	4:13	10:25	F	26	0:08	6:02	12:26	6:32	2.1	14.3	1.3	14.6
		2.5	13.8	2.8	.....			3.0	13.2	3.3	13.8										
F	5	0:59	7:41	1:35	8:04	Tu	16	4:57	10:56	5:13	11:24	S	27	0:46	6:38	1:04	7:08	2.1	14.2	1.5	14.6
		15.3	1.5	14.6	2.0			3.5	12.5	4.0	13.3										
S	6	1:55	8:38	2:32	9:00	W	17	5:56	12:01	6:12	.....	S	28	1:28	7:17	1:44	7:46	2.3	14.0	1.9	14.6
		16.1	0.5	15.5	1.1			3.7	12.2	4.3	.....									
S	7	2:50	9:30	3:28	9:52	Th	18	0:23	6:55	12:59	7:10	M	29	2:13	7:59	2:30	8:29	2.5	13.7	2.3	14.5
		16.7	-0.5	16.2	0.3			13.2	3.6	12.3	4.4										
M	8	3:45	10:20	4:23	10:41	F	19	1:15	7:49	1:51	8:05	Tu	30	3:04	8:43	3:22	9:18	2.6	13.4	2.6	14.4
		17.2	-1.1	16.8	0.2			13.2	3.3	12.6	4.1										
Tu	9	4:40	11:07	5:18	11:30	S	20	2:02	8:39	2:37	8:52	W	31	4:00	9:45	4:21	10:17	17.3	-1.4	17.0	-0.3
		17.3	-1.4	17.0	-0.3			13.4	2.7	13.0	3.6										
W	10	5:34	11:53	6:10	.....	S	21	2:45	9:22	3:20	9:36										
		17.2	-1.2	17.0	.....			13.7	2.2	13.4	3.2										
Th	11	0:19	6:27	12:40	7:00	M	22	3:26	10:02	4:03	10:16										
		0.0	16.7	-0.6	16.7			14.0	1.7	13.8	2.7										

The tides are placed in the order of their occurrence; the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Increased Charges for Moving Pictures.

The Governor has approved the following prices to be charged for moving pictures in the Panama Canal clubhouses, effective December 1:

Gold clubhouses—Children under 12 years of age, 10 cents; all others, 15 cents.

Silver clubhouses—Children and adults, 10 cents.

These increases are made on account of the increased prices which are being charged for films.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service.

Specialist in cotton classing or marketing (male and female); \$2,700 to \$3,600 a year; December 23, 1919; form 2118; age, 25 years but not 45 years.*

Mechanical engineer, qualified in internal combustion engine work (male); \$3,000 to \$3,600 a year; December 23, 1919; form 2118; age, no limits.*

Field and laboratory aid in plant nutrition (male and female); \$1,200 a year; January 11, 1920; form 1312; age, 20 years but not 45 years.

Assistant biologist qualified in economic ornithology (male and female); \$1,440 to \$1,800 a year; January 11, 1920; form 1312; age, under 45 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Charles Dixon.....	51039	Barbados.....	Camp Biedr....	R. & F. Agent.....	October 23, 1919.
Wm. S. Horn.....	2657	U. S. A.....	Balboa.....	Mechanical Division...	November 23, 1919.
Clarence Cordice <i>alias</i> Cortez.....	35562	St. Vincent.....	Panama.....	Supply Department....	November 19, 1919.

Official Circulars.

Acting Captain of the Port, Balboa, and Acting Member of Board of Local Inspectors.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 24, 1919.

To all concerned—Effective this date and during the absence on leave of Lieut.-Com. Chas. Svensson, U. S. N., R. F., Capt. L. A. Helliksen will act as Captain of the Port, Balboa, and Member of the Board of Local Inspectors.

CHESTER HARDING,
Governor.

Handling of Scrap.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., November 13, 1919.

To all concerned—Effective December 1, miscellaneous scrap operations previously handled by the Storekeeper, Cristobal, will be discontinued and in the future handled by the General Storekeeper at Balboa.

On and after December 1 all miscellaneous scrap, including aluminum, babbitt, bags and burlap, brass, canvas, copper, crucibles, nose, lead, leather, rope, rubber, zinc, etc., should be collected and forwarded to the General Storekeeper, Balboa, for handling and credit.

Until further notice iron and steel scrap should be collected and forwarded to the Storekeeper, Cristobal, for handling and credit.

R. K. MORRIS,
Chief Quartermaster.

Purchase of Reduced Rate Tickets.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., November 21, 1919.
CIRCULAR NO. 1423:

Conductors, collectors, and agents—Please be informed that photo-metal checks Nos. 1 to 19999, inclusive, are assigned to gold employees, and any holder of a photo-metal check of the above series is entitled to the privileges of a gold roll employee when purchasing reduced rate tickets provided for in Circular RA-660.

W. F. FOSTER,
Master of Transportation.

School Holiday.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., November 18, 1919.
CIRCULAR NO. 1421:

To conductors and collectors—Canal Zone schools will be closed Thanksgiving Day, November 27, and Friday, November 28.

School passes are not to be honored on those dates.

W. F. FOSTER,
Master of Transportation.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., November 24, 1919.

The following insufficiently addressed letters have been received in the office of the Director of Posts, and may be obtained upon request of the addressees. Request may be made by telephone, calling No. 182, Balboa:

Dwyer, John Gordon	Macdonald, Robert C.
Goodyear, D. P.	Nieset, Joe. H., Box 528
Hammond, Chas.	Rousseau, S. W., Box
Hubble, Mrs. C. W.	154
Kipping, Victor, Box	Veager, Frank

Joint Commission.

Rules of Dismissal.

In the matter of the claim of R. S. Arcia, Eusebio Morales, Ricardo Arias, et al., for lands known as Rio Indio and Mindi, Rule of Dismissal No. 432, docket No. 3277, November 13, 1919—At the request of Carmen Bracho, one of the claimants in claim docket No. 3277 who has filed a statement to the effect that she has made settlement direct with representatives of the United States Government, the above-entitled claim is hereby dismissed insofar as any interest the said Carmen Bracho may have had therein.

JULIO J. FABREGA, BURT NEW, JORGE E. BOYD, GEORGE A. CONNOLLY, Commissioners.

In the matter of the claim of Leonardo F. Solorzano for property located in the city of Panama, Rule of Dismissal No. 433, docket No. 3503, November 13, 1919—At the request of counsel for claimant, and in accordance with his motion filed with the Commission on November 10, 1919, the claim of Leonardo F. Solorzano, docket No. 3503 is hereby dismissed.

GEORGE A. CONNOLLY, JORGE E. BOYD, JULIO J. FABREGA, BURT NEW, Commissioners.

Stages of the Chagres and the Lakes.

The maximum elevations of the Chagres River, Gatun Lake, and Miraflores Lake, in feet above mean sea level, during the three weeks ending at midnight of Saturday, November 22, were as follows:

Date	Chagres River		Gatun Lake		Miraflores Lake
	Vigia	Alhajuela	Gatun	Gatun	
Sun., Nov. 2	129.00	93.94	86.61	86.57	54.24
Mon., Nov. 3	129.45	94.11	86.58	86.59	54.40
Tues., Nov. 4	128.20	93.77	85.82	86.79	54.10
Wed., Nov. 5	137.95	101.30	86.86	86.82	54.26
Thurs., Nov. 6	131.55	96.95	86.75	86.76	54.22
Fri., Nov. 7	130.05	94.52	86.58	86.58	54.40
Sat., Nov. 8	129.25	94.52	86.59	86.58	54.10
Sun., Nov. 9	130.25	94.69	86.57	86.58	54.10
Mon., Nov. 10	129.00	93.55	86.77	86.61	54.26
Tues., Nov. 11	129.00	93.72	86.87	86.75	54.27
Wed., Nov. 12	127.99	92.75	86.81	86.75	54.90
Thurs., Nov. 13	127.55	92.41	86.85	86.69	53.94
Fri., Nov. 14	127.35	92.18	86.90	86.70	53.75
Sat., Nov. 15	127.20	92.06	86.90	86.74	53.70
Sun., Nov. 16	127.20	92.08	86.85	86.85	53.71
Mon., Nov. 17	127.25	92.10	86.94	86.94	53.97
Tues., Nov. 18	127.20	92.10	86.99	86.99	53.80
Wed., Nov. 19	127.50	92.05	87.05	87.06	53.90
Thurs., Nov. 20	128.25	93.16	86.97	87.06	53.80
Fri., Nov. 21	129.20	91.07	86.99	87.03	53.75
Sat., Nov. 22	128.05	93.63	87.10	87.03	53.85
Height of low water to nearest foot	125.0	91.0			

Current Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$13.50 per ton of 2,240 pounds at Cristobal and \$15.50 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$15 per ton at Cristobal, \$17 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$2.00 per barrel of 42 gallons.

Diesel oil is not sold by The Panama Canal, but may be obtained from private concerns at approximately \$3 per barrel. Cable arrangement should be made in advance of arrival of vessel.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. Prices quoted are United States currency, per pound net:

Beef hinds, 19 cents; beef fores, 14 cents; beef ribs, entire set, 20 cents; short loins, 25 cents. This beef is from Colombian cattle, slaughtered on the Isthmus.

Additions to Commissary Stock.

Groceries Section.	
Plums, egg, 2 1/2 tin	\$0.35
Hardware Section.	
Automobile and motorcycle accessories;	
Bars, handle, bicycle, Sure Grip, No. 4, ca.	2.80
Pedals, bicycle, Majestic, No. 20, pr.	1.10
Chinaware, Doulton, miscellaneous:	
Bowls, nursery rhyme, Clayton E-1441, ca.	.89
Bowls, E-4090, 36s, ea.	.51
Bowls, sugar, Rheims, E-8079, ea.	.36
Bowls, sugar, E-8079, ea.	1.05
Jars, jelly, covered, Cecil, E-8079, ea.	1.45
Jars, marmalade, covered, E-8079, ea.	2.30
Jugs, Clayton, nursery rhyme, E-1441, ca.	1.05
Jugs, Clayton, E-4090, ea.	1.10
Jugs, Daly, E-8079, ea.	1.40
Mugs, Rex, E-1441, ca.	.53
Mugs, Rex, E-4090, ea.	.54
Pitchers, cream, Rheims, E-8079, ea.	.41
Pitchers, cream, Milner, E-8079, ea.	1.25
Pots, tea, Rheims, E-8079, ea.	1.65
Stands, hatpin, E-8079, ea.	1.00
Sweets, E-8079, ca.	.88
Sweets, E-8079, ea.	.93
Tidies, hair, E-8079, ea.	.99

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Route Service Jitney—Cristobal-Mt. Hope.

The following is the schedule of the official jitney service between the Terminal building at Cristobal and Mount Hope. Cars stop at the office of the Commissary Division each way:

Leave Terminal Building.		Leave Mount Hope.	
A. M.	P. M.	A. M.	P. M.
8.00	12.30	8.15	12.45
8.30	1.00	8.45	1.15
9.00	1.30	9.15	1.45
9.30	2.00	9.45	2.15
10.00	2.30	10.15	2.45
10.30	3.00	10.45	3.15
	3.30		3.45

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast	\$2.00
Employees	per day.. 2.75
Children under 12 years of age	per day.. 1.25
Servants of employees	per day.. 1.50
Employees for stay of 7 days	per day.. 2.00
Reduction of 10 per cent on above rates for stay of 30 days. Reduction of 10 per cent for families of four or more for over 7 days' stay.	
Nonemployees	per day.. 3.50
Children of nonemployees (under 12 years of age)	per day.. 1.50
Servants of nonemployees	per day.. 1.75
Meals:	
Breakfast	1.00
Luncheon	1.25
Dinner	1.25

COMMISSARY NOTES.

Fruit Cake.

Fruit cakes are now being sold in the line commissaries and orders will also be accepted for Christmas and the holidays.

Handkerchiefs.

Ladies' embroidered handkerchiefs, in both linen and cotton, in a wide range of patterns and prices, and Jap silk handkerchiefs in fancy printed designs are now in stock in the line stores. A supply of men's linen and cotton handkerchiefs was also received and forwarded to the line commissaries.

Hosiery.

It is very hard to obtain clocked and fancy hosiery of any description as the manufacturers are reluctant to accept such orders. They have little difficulty selling all of the plain goods they can make and see no reason to retard deliveries by sending hose to be clocked or to reduce production by turning out a variety of styles.

Feather Pillows Laundered.

The laundries at Ancon and Cristobal are prepared to wash, sterilize, and dry feather pillows. This should be of considerable interest to commissary patrons as the method used separates the feathers, restores their fluffiness, and practically renews the pillows. The price for this service is 25 cents.

Ladies' Hats.

A shipment of a popular brand of ladies' sailor hats in a number of different straws and a good range of colors has recently been received by the Commissary Division and will be placed on sale at Ancon, Balboa, Cristobal, Gatun, and Pedro Miguel commissaries on Monday, December 1. They are of the season's latest models and are attractively priced at \$3.20, \$4.10, \$4.80, and \$6.45.

Japanese Goods.

Another shipment of Japanese goods has been received by the Commissary Division and forwarded to the line stores. This consists in part of white ivory beads—hand carved, plain, and in combinations of plain and carved; children's Japanese paper and silk parasols; ladies' pongee silk embroidered parasols, two-tone silk embroidered parasols, and parasols of silk lined with contrasting color; fans both large and small, of sandalwood and silk, hand embroidered of carved white bone and silk, hand embroidered, and of painted silks; men's natural color pongee silk pajamas; men's terry cloth kimono style robes, striped and figured, trimmed with contrasting colors; ladies' plain color cotton crepe kimonos, in assorted colors; an extensive selection of ladies' silk handbags, in practically every popular color; pink and white Kabi silk crepe, pink and white Habutai silk, and natural color pongee silk; and Akebi hand baskets, in a variety of sizes and styles.

Directory of The Panama Canal.

Executive Department.

Headquarters, Balboa Heights.

COLONEL CHESTER HARDING, U. S. A., Governor.

M. B. Stevens, Secretary.

C. A. McILVAINE, Executive Secretary.

JOHN H. SMITH, Chief Clerk, Executive Office.

GUY JOHANNES, Chief, Police and Fire Division.

CREDE H. CALHOUN, Chief, Division of Civil Affairs.

A. R. LANG, Superintendent, Division of Schools.

T. S. BOOZ, General Secretary, Bureau of Clubs and Playgrounds.

FRANK FEUILLE, Special Attorney, Ancon.

WALTER F. VAN DAME, Assistant to the Special Attorney and Land Agent, Ancon.

ALBERT C. HINDMAN, District Attorney, Ancon.

Department of Operation and Maintenance.

(Under immediate direction of the Governor as Head of the Department.)

Headquarters, Balboa Heights.

LT.-COL. J. J. MORROW, U. S. A., Engineer of Maintenance.

W. L. HERSH, Electrical Engineer, Electrical Division.

W. R. HOLLOWAY, Superintendent, Pacific Locks, Pedro Miguel.

E. D. STILLWELL, Superintendent, Gatun Locks, Gatun.

C. J. EMBREE, Office Engineer.

O. E. MALSBURY, Assistant Engineer, Section of Surveys.

R. Z. KIRKPATRICK, Chief Hydrographer, Section of Meteorology and Hydrography.

D. E. WRIGHT, Municipal Engineer, Division of Municipal Engineering.

JOEL M. PRATT, Superintendent, Dredging Division, Paraiso.

JOHN G. CLAYBOURN, Assistant Engineer, Dredging Division, Paraiso.

F. E. HOLLERAN, Assistant Engineer, Fortifications Division, Balboa Heights.

T. C. MORRIS, Resident Engineer, Building Division.

SAMUEL M. HITT, Architect.

CAPT. LEONARD R. SARGENT, U. S. N., Marine Superintendent, Marine Division.

LIEUT. COM. J. G. FELS, U. S. N. R. F., Captain of the Port, Cristobal.

LIEUT. COM. CHAS. SVENSSON, U. S. N. R. F., Captain of the Port, Balboa.

Board of Local Inspectors—LIEUT. COM. J. G. FELS, U. S. N. R. F., *Chairman*,

LIEUT. COM. CHAS. SVENSSON, U. S. N. R. F., and LIEUT. M. C. DAVIS, U. S. N.
George J. Vanderslice, Recorder.

F. KARIGER, Pilot in charge, Lighthouse Subdivision, Gatun.

COMDR. EDWIN G. KINTNER, Naval Constructor, U. S. N., Superintendent of Mechanical Division, Balboa.

———, Mechanical Engineer, Mechanical Division, Balboa.

WM. H. STONE, General Foreman, Cristobal Shops, Cristobal.

Supply Department.

Headquarters, Balboa Heights.

R. K. MORRIS, Chief Quartermaster.

ROY R. WATSON, Superintendent.

J. J. JACKSON, General Manager, Commissary Division, Cristobal.

M. D. SMITH, General Storekeeper, Balboa.

W. B. BROWN, Superintendent, Cattle Industry, Cristobal.

B. C. POOLE, District Quartermaster, Ancon-Balboa, Balboa Heights.

J. M. KING, District Quartermaster, Cristobal.

STANLEY FORD, District Quartermaster, Gatun.

C. PETERS, District Quartermaster, Pedro Miguel.

Accounting Department.

Headquarters, Balboa Heights.

H. A. A. SMITH, Auditor.

ELWYN GREENE, Assistant Auditor on the Isthmus.

R. W. GLAW, Paymaster.

T. L. CLEAR, Collector.

Health Department.

Headquarters, Balboa Heights.

- COL. H. C. FISHER, U. S. A., Chief Health Officer.
 DR. DALFERES P. CURRY, Assistant Chief Health Officer.
 SURGEON S. B. GRUBBS, U. S. P. H. S., Chief Quarantine Officer.
 COL. L. T. HESS, U. S. A., Superintendent, Ancon Hospital, Ancon.
 LT.-COL. GUY L. QUALLS, U. S. A., Superintendent, Colon Hospital, Cristobal.
 DR. LOUIS WENDER, Superintendent, Corozal Hospital, Corozal.
 MAJ. E. A. BOCOCK, Superintendent, Santo Tomas Hospital (Panama), Ancon.
 DR. HENRY GOLDTHWAITE, Health Officer of Panama, Ancon.
 DR. JESSE L. BYRD, Health Officer of Cristobal-Colon, Cristobal.

Courts.

- JOHN W. HANAN, District Judge, Ancon.
 MIGUEL A. OTERO, Marshal, Ancon.
 E. M. GOOLSBY, Clerk, Ancon.
 WM. B. CHEATHAM, Clerk, Cristobal.
 J. W. BLACKBURN, Magistrate, Balboa.
 JOHN W. THOMPSON, Magistrate, Cristobal.

The Panama Canal in the United States.

Headquarters, Washington, D. C.

- A. L. FLINT, General Purchasing Officer and Chief of Office, Washington, D. C.
 E. D. ANDERSON, Chief Clerk, Purchasing Department, Washington, D. C.
 RAY L. SMITH, Assistant to the Chief of Office, Washington, D. C.
 B. F. HARRAH, Assistant Auditor, Washington, D. C.
 R. E. RUTHERFORD, Assistant Purchasing Agent, 24 State Street, New York, N. Y.
 A. S. PERRY, Assistant Purchasing Agent, New Orleans, La.
 W. A. E. DOYING, Inspecting Engineer, Washington, D. C.

Panama Railroad Company.

- COL. CHESTER HARDING, U. S. A., President, Balboa Heights.
 LT.-COL. J. J. MORROW, U. S. A., Second Vice President, Balboa Heights.
 SAMUEL W. HEALD, Superintendent, Balboa Heights.
 ROBERT BEVERLEY, Assistant to Superintendent, Balboa Heights.
 W. F. FOSTER, Master of Transportation, Balboa Heights.
 M. B. CONNOLLY, Roadmaster, Balboa Heights.
 R. B. WALKER, Receiving and Forwarding Agent, Cristobal.
 T. W. McFARLANE, Superintendent, Coaling Plants, Cristobal.
 FRANK FEUILLE, Counsel, Ancon.
 WALTER F. VAN DAME, Assistant to the Counsel and Land Agent, Ancon.

Office in the United States, 24 State Street, New York City.

- E. A. DRAKE, First Vice President, New York, N. Y.
 SYLVESTER DEMING, Treasurer, New York.
 T. H. ROSSBOTTOM, Secretary, and Assistant to Vice President, New York.
 V. M. NEWTON, Auditor, New York.
 RICHARD REID ROGERS, General Counsel, New York.
 A. E. PATERSON, Freight Agent, New York.
 C. C. VAN RIPE, Passenger Agent, New York.
 H. I. BAWDEN, Terminal Superintendent, New York.
 R. E. RUTHERFORD, Commissary Purchasing Agent, New York.
 A. S. PERRY, Assistant Commissary Purchasing Agent, New Orleans, La.

Joint Commission.

- HON. MANUEL WALLS Y MERINO, Umpire, Panama City, and Ancon.
 FEDERICO BOYD, Member, Panama City.
 GEORGE A. CONNOLLY, Member, Ancon.
 JULIO J. FABREGA, Member, Panama City.
 BURT NEW, Member, Ancon.

Miss Genella Bliss, Secretary.

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LINES THROUGH THE CANAL.

Services in Fairly Regular Operation over the Great Trade Routes.

The following is a summary of the principal regular, or fairly regular, services through the Canal at present. War and post-war conditions have affected the regularity of the sailings, and with the release of more ships from government service new developments are taking place all the time. This summary endeavors to present the best approximation of present services:

From the Atlantic terminus to South and Central America—The Pacific Steam Navigation Company has services from Cristobal to west coast ports as far south as Valparaiso and Coronel and as far north as Champerico, calling at the principal wayports. Sailings for the Central American ports to the north are monthly. Sailings for Tumaco and Ecuadorian ports, as far as Guayaquil, are every few days; sailings to Valparaiso via Chilean and Peruvian ports are fortnightly; and a service between Cristobal and Buenaventura and Tumaco has a sailing every three weeks.

The Compañía Sud-Americana de Vapores (South American Steamship Co.). (Chilean Line), maintains practically a weekly service between Cristobal and Valparaiso, calling at all important Peruvian and Chilean ports. This company has just purchased an additional 5,000-ton steamer which should be in this service during January.

The Peruvian Steamship and Dock Company of Callao (Peruvian Line) maintains a service between Cristobal and Peruvian ports, going as far south as Mollendo and making its principal calls on the way at Paita, Eten, Pacasmayo, Salaverry, Callao, and southern ports. The line has sailings each way once a week.

The Pacific Metals Corporation operates a motor schooner between Cristobal and Buenaventura, Colombia, carrying cargo, making round voyages approximately twice a month.

The Colombian Maritime Steamship Company, Limited, operates a vessel in regular service between Cristobal and Buenaventura and Tumaco, making about two round voyages a month.

All of the lines named above, except the Pacific Metals Corporation, carry both passengers and cargo.

From the Atlantic terminus to Central and North America—The Pacific Mail Steamship Company is operating a line between Cristobal and San Francisco, with a sailing each way about every 15 days. Calls are made at ports of Central America and Mexico on the way, and passengers are carried.

From the Atlantic Coast of the United States to the Pacific Coast of South America—Many of the vessels plying over this route are in the petroleum or the nitrate trade and used exclusively by charterers; the following commercial lines maintain fairly regular services:

The Merchants' Line, operated by W. R. Grace and Company, plies between New York and ports of Ecuador, Peru, and Chile, with a sailing each way about every week, with calls at Buenaventura as cargo justifies.

The Pacific Steam Navigation Company has recently inaugurated a passenger and cargo service between New York and Valparaiso, calling at Callao, Mollendo, Arica, Iquique, and Antofagasta each way. The service is approximately fortnightly in both directions.

The United States Steel Products Company operates the New York and South America Line between New York and the west coast, as far south as Valparaiso, with a sailing each way about every third week.

The New Orleans and South America Steamship Company operates a monthly service from New Orleans to Ecuadorian, Peruvian, and Chilean ports. This service is in addition to a service from New Orleans to Cristobal, via Habana and Porto Rican ports, Trinidad, and Guadeloupe.

The Grace Line operates two passenger-carrying ships between New York and Peruvian and Chilean ports. Sailings are about every 20 days; with the addition of three new ships, a fortnightly service is to be established.

The West Coast Line (Wessels, Duval, and Company), plies between New York and Chile and Peru, with a vessel going each way about every third week.

The Merchants' Line, the United States Steel Products Company's Line, and the West Coast Line carry cargo only. The others named in this section carry both passengers and cargo.

From Europe to the Pacific Coast of South America—The East Asiatic Company has a line from Copenhagen, by way of Gothenburg and Christiania, to Valparaiso and intermediate ports, operating on a fortnightly schedule. Passengers are carried.

The Johnson Line plies between Swedish and other Scandinavian ports and the west coast, as far as Valparaiso, with a sailing each way about every 60 days. Passengers are carried.

The vessels of the Nautilus Steam Shipping Company (the old Gulf Line) sailing from Great Britain to the west coast of South America via the Strait of Magellan, and returning up the coast, make the home voyage through the Canal. The service has cargo steamers, monthly.

The Royal Dutch West India Mail Steamship Company has approximately a monthly service from Rotterdam to the west coast of South America and return. The ships handle cargo only.

The Pacific Steam Navigation Company has practically a weekly sailing from Great Britain to Peru and Chile; and vice versa, both via the Panama Canal and Straits of Magellan, the larger steamers using the latter route only.

Beginning in January, 1920, the Compagnie Generale Transatlantique (French Line) is to operate a monthly freight service between Havre and Valparaiso, via Ecuadorian, Peruvian, and Chilean ports.

The La Veloce Navigazione Italiana a Vapore ("La Veloce" Line) has a line from Genoa, Italy, to Valparaiso, calling at Marseilles, Barcelona, Tenerife, Barbados, Trinidad, Venezuela, Curaçao, Colombian ports, Port Limcn, Cristobal, and Ecuadorian, Peruvian, and Chilean ports each way, with a sailing every 60 days. Passengers and cargo are carried.

The transfer service at the Atlantic terminus of the Canal, referred to in the first section of this article, cares for a large part of European shipments through the Canal to the west coast of South America.

From Europe to the west coast of North America—The East Asiatic Company has a service between Scandinavian ports and San Francisco, operating a vessel each way about every fourth week. The ships carry passengers.

The Johnson Line has a service over this route, primarily between Sweden and San Francisco, with a vessel each way about every 60 days, with passengers.

The Norway-Pacific Line operates motor vessels, carrying a few passengers, between Scandinavian ports and the Pacific Coast of the United States.

The Harrison-Direct Line has a service between Great Britain and the west coast as far as Puget Sound, with a vessel each way approximately every sixth week. These are cargo ships.

The Maple Leaf Line plies from New York to Vancouver, to return to Europe by way of California ports and Santa Rosalia. Ships of this line are scheduled to sail every five weeks. They do not carry passengers.

From the Atlantic Coast of the United States to Japan, Siberia, China, and the Philippine Islands—The movements of vessels over this trade route have not been regular, as most of the ships load and clear as cargo offers and do not attempt a fixed schedule. The tendency to this practice is fostered by the length of the voyage and a general uncertainty as to the return voyage, with what cargo and by what route.

The principal lines operating in this service are the American and Oriental Line, the Barber Line, Shewan Tomes and Company, and Alfred Holt and Company, sending out a vessel, among them, about once every 10 days from New York; the American and Manchurian Line (Ellerman and Bucknall), about once in three weeks; the Nippon Yusen Kabushiki Kaisha, approximately semimonthly in each direction; and ships operated by Norton, Lilly, and Company sail at irregular intervals, approximately once a month.

The Osaka Shosen Kaisha has a line between Japan and New Orleans, via Cuba, with a ship in each direction every month.

It may be noted here that the East Asiatic Company sends an occasional vessel to the Far East direct through the Canal; and at irregular times the vessels of the company return from the Far East to Denmark through the Panama Canal.

The Panama Far East Line sends ships through the Canal, outward bound from New Orleans, Mobile, and other Gulf ports to Japan and will continue the service according to the availability of tonnage.

The Toyo Kisen Kaisha started in November a service between New York and the Orient, via Cuba, the Canal, and San Francisco, with a ship each way every 60 days.

The Prince Line uses the Canal for its service between the Far East and Boston and New York. Some of the ships have sailed to or from Vladivostok, others from Japan, others from Australia. The sailings are irregular, and passengers are not carried.

From the Atlantic Coast of the United States to Australia and New Zealand—The United States and Australia Line operates between New York and the ports of New Zealand and Australia, with a vessel out about every month.

The Ellerman Lines have a service from New York to Australia and New Zealand, with irregular sailings.

The Luckenbach line is operating a service to Australia and New Zealand, with irregular sailings.

The Federal Steam Navigation Company has established a line between New Zealand and New York, with a ship each way approximately every six weeks.

The American and Australian Line operates between New York and Australia, with a vessel each way about every 30 days.

The Commonwealth and Dominion Line serves these trade areas, with a ship about every fourth week.

The Stoomvarts Maatschappe Nederland, the Rotterdamsche Lloyd, and the Holland-American Line cooperate in a service between New York and Batavia, Surabaya, and Samarang.

From Europe to Australia and New Zealand—The New Zealand Shipping Company operates a line between New Zealand and Great Britain with possible way calls at Norfolk and New York. Sailings each way are every 28 days for mail boats, carrying passengers, with intermediate sailings of cargo ships.

The Commonwealth Government Line, operated by the Government of Australia, between Great Britain and Australia, via United States ports, has a large fleet of cargo and passenger steamers, with irregular sailings at present, averaging approximately a vessel outward every three weeks, returning by the Suez Canal or the Cape of Good Hope.

The Federal Steam Navigation Company operates over the same route, with a ship each way about once a month.

The Shaw, Savill and Albion Company, Limited, of London, has been sending all of its ships through the Canal on both the homeward and outward voyages between Great Britain and New Zealand. The service is irregular but is settling down to a mail and passenger steamer each way every month and a cargo vessel every two weeks.

The Swedish East Asiatic Company has an irregular service between Scandinavian ports and the Far East.

United States coastwise trade—At the present time the regular service in the United States coastwise trade is only the service of the Pacific Mail Steamship Company between Baltimore and San Francisco, via Habana and Puerto Colombia on the Atlantic, and via Central American ports on the Pacific side, with a vessel each way every three weeks, carrying cargo only.

CONNECTING LINES AT TERMINALS.

In connection with the traffic through the Canal, important business is carried on in the transfer of cargo and passengers between connecting carriers at the terminals of the Canal, especially Cristobal, at the Atlantic end. The following are the lines which call regularly at the terminals either with or without passing through the Canal:

The United Fruit Company operates a weekly service from New Orleans to Cristobal direct. These steamers return to New Orleans weekly, going via Bocas del Toro and Habana. This company operates a line from New York via Kingston to Cristobal, thence to Colombian ports, returning to Cristobal, sailing weekly to New York via Kingston. Also a line from New York via Habana to Cristobal, thence to Costa Rica, and direct to New York, sailing weekly.

The Panama Railroad Steamship Line maintains weekly sailings between New York and Cristobal, via Port au Prince, Haiti, carrying passengers and cargo, with supplementary sailings between New York and Cristobal direct, about every 10 days, of vessels carrying cargo only. A service is operated between Cristobal and Cartagena, Colombia, via Cispata, approximately weekly, carrying passengers and freight. A line handling coal to the coaling plants at Cristobal is operated from Norfolk, with sailings about fortnightly.

The service of La Veloce Line, noted under the section on lines between Europe and the west coast of South America, makes stops at Cristobal.

The Compañía Trasatlantica de Barcelona (Spanish Line) has a monthly service, carrying passengers and cargo, from Barcelona to Cristobal via Malaga, Valencia, Cadiz, Santa Cruz, and Las Palmas in the Canary Islands, San Juan, Porto Rico, and Habana; returning via Puerto Colombia, Curaçao, Puerto Cabello, La Guaira, San Juan, Porto Rico, Canary Islands, Cadiz, and Barcelona.

The Compagnie Generale Transatlantique (French Line) operates fortnightly service between Cristobal and Havre, Saint Nazaire, and Bordeaux, via ports of Colombia, Venezuela, Trinidad, and the French West Indies. Vessels carry both passengers and cargo. Services are now irregular, but it is expected, will be resumed punctually early in 1920.

The Leyland and Harrison Lines together maintain a service through Caribbean and Gulf of Mexico ports, coming out from Liverpool and making the circuit according to the cargo which offers. A ship comes out approximately every month, and calls are normally made at Cristobal.

Pacific terminal—The Rolph Mail Steamship Company's vessels call at Balboa in the coasting service which they maintain between San Francisco and Chilean ports, with a vessel each way every two months.

The Toyo Kisen Kaisha vessels in the service between the Orient and Valparaiso, via the West Coast, call at Balboa. The line runs from the Orient to San Francisco, thence via Salina Cruz and Balboa to Peruvian and Chilean ports, returning in reverse order, with a vessel every month in alternate directions.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 29, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Fort Gaines.....	A. E. Legancar.....	November 24.	November 24.	Tons.	Tons.
Achilles.....	Panama Railroad Steamship Line..	November 24.	In port.....	(*)	4
Laura C. Hall.....	Pacific Metals Corporation.....	November 25.	November 25.	12,006	.....
Newport.....	Pacific Mail Steamship Company..	November 25.	November 28.	(*)	40
Jamaica.....	Pacific Steam Navigation Co.....	November 25.	November 25.	706	157
Santa Paula.....	W. R. Grace.....	November 25.	November 25.	(*)	13
Chile.....	Pacific Steam Navigation Co.....	November 26.	November 28.	2	(†)
Manavi.....	Pacific Steam Navigation Co.....	November 27.	November 28.	30	(†)
Cripple Creek.....	United States Shipping Board.....	November 27.	November 29.	4	(†)
				52	(†)

* No cargo discharged.

†No cargo laded.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending November 29, 1919.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Senator.....	Harrison Steamship Line.....		November 23.		675
Orcus.....	United States Shipping Board.....	November 23.	November 25.	6,376	(†)
Tivives.....	United Fruit Company.....	November 24.	November 24.	101	(†)
Aysen.....	South American Steamship Line.....		November 24.		954½
Fort Gaines.....	Caribbean Steamship Company.....		November 24.		193
Laura C. Hall.....	Pacific Metals Corporation.....		November 25.		16
Jamaica.....	Pacific Steam Navigation Co.....		November 25.		779½
Puerto Rico.....	French Line.....		November 25.		200
Acajutla.....	Pacific Steam Navigation Co.....	November 24.	November 26.	1,005	(†)
The Lambs.....	United States Shipping Board.....	November 24.	November 26.	8,248	(†)
Colon.....	Panama Railroad Steamship Line.....		November 26.		3,688
Salvador.....	Pacific Steam Navigation Co.....		November 26.		1,091½
Heredia.....	United Fruit Company.....	November 25.	November 27.	1,736	70
Turrialba.....	United Fruit Company.....	November 25.	November 27.	289	173
Zacapa.....	United Fruit Company.....	November 26.	November 27.	988	280
Abangarez.....	United Fruit Company.....	November 27.	November 27.	1	3
Chile.....	Pacific Steam Navigation Co.....	November 27.		1,820	
Gen. O. H. Ernst.....	Panama Railroad Steamship Line.....		November 28.		3,484
Paul H. Harwood.....	Pan-Amer. Pet. and Transp. Co.....	November 28.		10,000	
Middlebury.....	Panama Railroad Cattle Industry.....	November 28.		500	
Manavi.....	Pacific Steam Navigation Co.....	November 28.		662	
Volga.....	Pacific Steam Navigation Co.....	November 29.		295	
Santa Leonora*.....	United States Government.....	November 29.		510	
Ucayali.....	Peruvian Steamship Line.....	November 29.		2,678	
Acuelo.....	United States Shipping Board.....		November 25.		(†)

* U. S. Army transport.

† No cargo laded.

Origin and Destination of Cargo Shipped through the Canal.

During the four months from the beginning of the current fiscal year to the end of October, 2,629,861 tons of cargo have passed through the Canal. Of this 1,184,902 tons went from Atlantic to Pacific and 1,444,949 from Pacific to Atlantic, the percentages of the two directions being approximately 45 and 55. A study has been made of the distribution of this cargo, and of the net tonnage of the ships carrying it, over the principal trade routes.

The heaviest movement of cargo has been from the Atlantic seaboard of the United States to the Far East, including Japan, China, and the Philippines. This has been 414,892 tons in the 4-month period, over 15.7 per cent of all cargo passing through the Canal and 35 per cent of the cargo from Atlantic to Pacific.

The next in quantity of cargo has been the United States coastwise trade from Pacific to Atlantic, aggregating 398,667 tons, over 22 per cent of all Pacific-to-Atlantic movements and nearly 15.2 per cent of all cargo. Coastwise shipments from Atlantic to Pacific amounted to 75,889 tons, about 6.4 per cent of all cargo handled from Atlantic to Pacific and 2.9 per cent of all cargo in both directions.

The only other routing over which passed as much as 10 per cent of all the cargo was that from the west coast of North America to Europe. These shipments were principally lumber, grain, and flour.

Shipments from Australia and New Zealand to Europe, principally Great Britain, were next in quantity, 229,954 tons, or 8.7 per cent of all cargo.

Cargo from the United States to the west coast of South and Central America was next in order, 178,962 tons, 6.8 per cent of the grand total. Shipments from Europe direct to the west coast in the same time were 41,984 tons, or 1.6 per cent.

The traffic along the west coast has been divided into four classes: With the United States direct, with Europe direct, with Mexico, and to

and from the Atlantic terminus of the Canal. There was also in the period 1 shipment to Cuba, of 1,502 tons. The aggregate shipments to the west coast from Atlantic ports were 408,868 tons, about 15.5 per cent of all cargo, slightly less than the 414,892 tons passing from Atlantic ports of the United States to the Far East. Shipments from the west coast through the Canal, to all destinations, aggregated 368,571 tons, 14 per cent of all cargo in the period. Shipments to the west coast from the United States, 178,962 tons, exceeded those from Europe, 41,984 tons, but from the west coast to Europe the cargo of 165,121 tons exceeded by 42 per cent the 116,070 tons sent to the United States. From Mexico to the west coast the cargo was 139,000 tons of petroleum products, most of the vessels returning to Mexico in ballast. Transfer shipments from Cristobal to the west coast of South and Central America totaled 48,922 tons in the period, and cargo arriving at Cristobal from the west coast for transshipment in the same time amounted to 85,978 tons.

Details of the distribution of the traffic through the Canal in the 4-month period are presented in the accompanying table:

	Ves- sels.	Panama Canal net tonnage.	Cargo.	Percent- age or net ton- nage.	Percent- age of cargo.	Percent- age of all net tonnage.	Percent- age of all cargo.
<i>Atlantic to Pacific.</i>							
United States coastwise.....	11	49,197	75,889	4.531	6.405	2.090	2.885
United States to Australia and New Zealand.....	23	127,342	137,862	11.734	11.635	5.411	5.242
United States to Far East.....	57	261,769	414,892	24.112	35.015	11.122	15.776
United States to west coast of South America.....	51	143,399	178,962	13.208	15.103	6.093	6.805
Cristobal to west coast, North America.....	9	15,467	13,810	1.424	1.165	.657	.525
Cristobal to west coast, South America.....	69	97,950	48,922	9.022	4.129	4.162	1.860
Europe to Australia and New Zealand.....	18	123,769	57,056	11.400	4.815	5.259	2.169
Europe to west coast, North America.....	8	32,896	12,432	3.030	1.049	1.398	.473
Europe to west coast, South America.....	23	101,386	41,984	9.339	3.543	4.308	1.596
Mexico to west coast, North America.....	7	31,618	57,145	2.912	4.823	1.343	2.173
Mexico to west coast, South America.....	16	84,162	139,000	7.794	11.731	3.576	5.285
Cuba to west coast, South America.....	2	6,911	.....	.636	.....	.294	.....
Miscellaneous.....	6	9,764	6,948	.899	.586	.415	.264
Total.....	300	1,085,630	1,184,902	100.000	100.000	46.128	45.053
<i>Pacific to Atlantic.</i>							
United States coastwise.....	81	283,644	398,667	22.377	27.590	12.052	15.159
Australia and New Zealand to east coast, United States.....	3	14,295	18,182	1.127	1.258	.607	.691
Canada to east coast, United States.....	1	1,454	2,725	.115	.188	.062	.104
Far East to east coast, United States.....	14	62,046	94,979	4.895	6.573	2.636	3.611
West coast, South America to east coast, United States.....	34	88,439	116,070	6.977	8.033	3.758	4.413
Australia and New Zealand to Europe.....	37	243,231	229,954	19.188	15.914	10.335	8.744
Far East to Europe.....	2	5,797	6,636	.457	.459	.246	.253
West coast, South America to Europe.....	30	115,025	165,121	9.074	11.427	4.887	6.278
West coast, North America to Europe.....	97	206,303	290,321	16.275	20.092	8.766	11.039
West coast, South America to Cristobal.....	71	101,428	85,978	8.002	5.950	4.309	3.269
West coast, North America to Cristobal.....	8	13,889	8,984	1.096	.622	.590	.342
West coast, South America to Mexico.....	15	75,735	(*)	5.975	.....	3.218	.....
West coast, North America to Mexico.....	4	23,067	(*)	1.819	.....	.980	.....
West coast, South America to Cuba.....	1	1,502	2,357	.118	.163	.063	.093
West coast, North America to Cuba.....	5	8,156	9,884	.643	.684	.346	.376
Miscellaneous.....	9	23,564	15,091	1.859	1.044	1.001	.574
Total.....	412	1,267,575	1,444,949	100.000	100.000	53.856	54.946
Grand total.....	712	2,353,205	2,629,861	.....	.....	100.000	100.000

*Ballast.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, November 29, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Lake Glasco...	22	16	23	6	23	13	23	14	American...	United States Shipping Board...	251	0	43	0	New York	Talcahuano...	3,250	2,866	1,832
East Wind...	23	7	23	7	23	14	23	13	American...	United States Shipping Board...	384	0	51	0	Newport News	San Diego...	6,782	5,906	4,442
Fort Gaines...	22	19	24	8	24	12	24	22	Norwegian...	A. E. Leisner	225	2	30	1	New York	Tumaco...	600	1,128	650
Achilles...	24	8	24	8	24	14	24	22	American...	Panama Railroad Steamship Line	514	0	65	0	Norfolk	Balboa...	12,006	11,519	7,008
Aysen...	20	15	21	10	21	16	21	17	Chilean...	South American Line...	378	8	41	0	Cristobal	Valparaiso...	955	4,505	2,977
Samana (a)...	24	21	24	10	24	16	24	17	Panaman...	J. Toulot	36	0	14	0	Colon	Panama...	14	130	69
Laura C. Hall (b)...	20	0	25	5	25	17	25	18	Panaman...	Pacific Metals Corporation...	81	0	25	0	Cristobal	Buenaventura...	4,697	3,516	
Taurus...	25	6	25	6	25	13	25	16	Norwegian...	W. Wilhelmsen	355	0	50	0	New York	Caleta Colosa...	2,885	1,795	
Mineola...	24	23	25	8	25	15	25	18	American...	W. R. Grace & Co.	298	6	40	0	New York	Salaverry...	1,187	622	
Jomaira...	20	22	20	8	25	16	25	21	British...	Pacific Steam Navigation Co.	220	0	35	1	Cristobal	Buenaventura...	1,187	622	
Oreus...	23	7	25	9	25	16	25	17	American...	United States Shipping Board...	380	0	53	0	Norfolk	Antofagasta...	5,667	4,220	
Santa Paula...	25	10	25	10	25	17	25	17	American...	W. R. Grace & Co.	404	6	53	0	New York	Callao...	6,805	4,759	
Acajutla...	24	15	26	6	26	13	26	13	British...	Pacific Steam Navigation Co.	215	0	33	0	Cristobal	Manta...	1,273	706	
Henry T. Scott...	23	11	26	6	26	13	26	13	British...	Alaska Steamship Company...	234	0	43	0	Baltimore	Antofagasta...	1,705	1,814	951
Cascade...	25	20	26	6	26	11	26	13	American...	United States Shipping Board...	380	0	53	0	New York	Valparaiso...	4,801	5,376	3,883
Salvador...	22	14	26	9	26	16	26	18	British...	Pacific Steam Navigation Co.	215	0	33	0	Cristobal	Champertou...	1,080	1,213	692
City of Bombay...	25	22	26	10	26	17	26	18	British...	Ellerman Hall Line...	401	0	51	0	New York	Melbourne...	4,714	5,865	4,430
Upo-Mendi...	26	10	26	10	26	18	26	20	Spanish...	Cia. Naviera Sota y Azana...	350	0	50	2	Baltimore	Arica...	5,914	4,295	
Rozan Maru...	26	9	26	12	26	19	26	20	Japanese...	Hashimoto Kisen Kaisha...	400	0	53	0	Talcahuano	Talcahuano...	5,914	4,295	
Evona (c)...	26	6	26	6	26	16	26	17	Panaman...	Colon Import & Export Co.	28	0	9	6	Colon	Panama...	14	12	
The Lambs...	24	20	26	15	27	11	27	14	American...	United States Shipping Board...	395	6	55	0	New York	Talcahuano...	7,285	5,207	
Arahan...	26	16	27	6	27	13	27	14	British...	Australian Government...	420	0	55	0	New York	Hobart...	7,000	6,221	4,484
Ogre (a)...	26	12	27	6	27	11	27	14	British...	Ralph Stock...	478	15	15	5	Norfolk	Ballast...	6,350	4,682	
Andijk...	26	15	27	6	27	14	27	14	Dutch...	Holland-American Line...	410	0	52	0	London	Iquique...	1,000	5,014	3,669
Vancouver...	26	16	27	6	27	14	27	14	British...	Gow Harrison...	375	0	50	0	London	Talcahuano...	9,740	7,411	5,052
Strinda...	27	11	27	14	28	11	28	14	Norwegian...	J. L. Mowinkel	439	5	57	0	New Orleans	Steel rails, etc...	4,441	5,052	
Mirinda (c)...	27	17	28	6	28	13	28	14	American...	United States Army...	448	9	60	2	New York	San Francisco	7,404		
Walkawa...	28	10	28	10	28	18	28	19	British...	Union S. S. Co. of New Zealand...	319	53	53	0	Newport News	Seattle...	7,404		
McDermit (d)...	27	22	28	12	28	19	28	19	American...	United States Navy...	300	31	31	10	Guantanamo	San Diego...			
Champlin (d)...	27	22	28	12	28	20	28	19	American...	United States Navy...	310	31	31	10	Guantanamo	San Diego...			
De Long (d)...	28	18	29	6	29	11	29	11	American...	The Panama Canal...	120	0	24	0	Brest	Balboa...	4,850	4,182	3,083
La Boca (e)...	28	18	29	6	29	11	29	11	American...	The Panama Canal...	120	0	24	0	Brest	Balboa...	4,850	4,182	3,083
Laurel Branch...	29	11	29	12	29	19	29	22	British...	Nauticus Steam Shipping Co.	360	2	40	0	London...	General...	4,850	4,182	3,083

(a) Sloop. (b) Schooner. (c) Transport. (d) Destroyer. (e) Tug.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

C-35	23	7.53	23	16.05	French	French Government	195.4	40.7	16.0	Victoria, San Francisco	Queenstown (G)	Speller, fir lum...	681	1,191
San Francisco	22	10.18	23	17.30	Swedish	Johnson Line	362.0	51.2	23.6	San Francisco	Gothenberg	General	5,265	6,298
H. C. Hansen (M. S.)	23	6.57	24	16.25	Norwegian	Persgrunds Motor & Sales Co.	240.8	45.0	22.0	Portland	W. Hartlepool	Fir ties	1,691	885
Georgette (J)	23	8.00	24	16.25	American	G. W. McNear, Inc.	287.8	36.1	17.1	Seattle	Lumber		882	775
Acapulca	24	6.45	24	15.02	British	Pacific Steam Navigation Co.	215.7	33.5	17.4	Mantua	Ivory nuts, rub.		1,005	1,273
Potosi	24	13.00	24	22.00	British	Pacific Steam Navigation Co.	381.4	49.0	24.0	Tacahuano	General		5,700	4,296
Alkmaar	24	6.46	25	14.52	Dutch	Royal Netherland S. S. Co.	447.0	62.0	27.0	Valparaiso	General		9,900	6,792
Orion	24	7.09	25	15.05	American	United States Navy	514.0	65.0	20.0	San Diego	Hampton Rds		190	
Annie M. Reid / Santa Barbara	23	7.53	25	17.06	American	James Rolph, Jr.	291.3	42.2	22.0	San Francisco	United King (G)	Barley	3,220	2,332
Tanka	15	13.35	25	21.08	American	W. R. Grace & Co.	404.6	53.9	28.6	New York	New York	Sugar, nitrate	8,808	6,843
Teenkai	15	7.40	26	15.40	American	United States Shipping Board	267.3	46.0	23.0	Shanghai	General	Nitrate of soda	2,650	2,618
Caddo	26	8.05	26	16.40	British	Alfred Holt & Co.	410.0	48.1	23.8	London	Tampico	Ballast	8,200	6,438
West Saghuaw	27	7.51	27	14.38	American	Standard Oil Company	409.8	54.2	24.09	New York	New York	Flour	7,356	4,391
Chile	26	8.25	27	16.35	British	United States Shipping Board	350.3	43.1	20.02	Cristobal	General	General	1,820	4,010
Coalinga	27	14.14	27	21.12	American	Pacific Steam Navigation Co.	331.0	46.0	20.5	Cristobal	Nitrates	Nitrates	4,530	3,508
Manay	27	6.34	28	13.52	Spanish	Cantabrica de Navigacion	471.0	48.0	20.0	Tampico	Ballast	Ballast	6,762	1,241
Maple Branch	28	7.58	28	16.18	British	Union Oil Co.	280.4	35.1	14.0	Cristobal	General	General	662	759
Cripple Creek	27	10.04	28	17.42	American	Pacific Steam Navigation Co.	216.0	35.1	14.0	Guayaquil	Liverpool	Nitrate, general	8,340	6,931
Uyali	29	8.17	29	15.48	Peruvian	F. & W. Ritson	374.0	46.3	21.6	Callao	Cristobal	Flour	2,978	4,278
Monte Cenis	29	9.10	29	16.30	French	United States Shipping Board	492.0	51.6	26.0	Valparaiso	New York	General	8,340	6,931
	29	7.30	29	16.30	French	Peruvian Steamship Line	365.7	49.1	22.0	Vancouver	Cristobal	Flour	2,978	4,278
	29	8.10	29	16.30	French	Societe Generale de Transp.	365.7	49.1	22.0	Vancouver	Genoa	General	5,320	

(J) Sail. (G) For orders. (h) Household effects and empty drums. (i) General, copper, cotton, sugar, and hides. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

		*ARRIVALS			*DEPARTURES		
Date	Vessels	Line	From	Date	Vessels	Line	For
Nov. 24	Tivives	United Fruit Company	Port Limon.	Nov. 23	Senator	Harrison Steamship Line	Galveston and wayports.
Nov. 25	Iberia	United Fruit Company	New Orleans.	Nov. 24	Twines	United Fruit Company	New York.
Nov. 25	Turrialba	United Fruit Company	New York via Habana.	Nov. 25	Puerto Rico	French Line	Puerto Colombia.
Nov. 26	Zacapa	United Fruit Company	New York and Kingston.	Nov. 26	Apuelo	United States Shipping Board	Bluefields.
Nov. 26	Tillamook	United Fruit Company	High seas for repairs.	Nov. 26	Colon	Panama Railroad Steamship Line	New York and Haiti.
Nov. 27	Abangarez	United Fruit Company	Colombian ports.	Nov. 26	Tillamook	United States Shipping Board	Pensacola.
Nov. 27	Paul Harwood	Pan-American Pet. and Transp. Co.	Tampico.	Nov. 27	Hercida	United Fruit Company	New Orleans and wayports.
Nov. 28	Middlebury	Panama Railroad Cattle Industry	Cartagena.	Nov. 27	Turrialba	United Fruit Company	New York via Limon.
Nov. 29	Santa Leonora (J)	United States Army	New Orleans.	Nov. 27	Abangarez	United Fruit Company	New York and Kingston.
				Nov. 27	Zacapa	United Fruit Company	Colombian ports.
				Nov. 28	Gen. O. H. Ernst	Panama Railroad Steamship Line	New York.

PORT OF BALBOA.

		*ARRIVALS			*DEPARTURES		
Date	Vessels	Line	From	Date	Vessels	Line	For
Nov. 25	Newport	Pacific Mail Steamship Co.	San Francisco.	Nov. 25	Newport	Pacific Mail Steamship Co.	San Francisco.

(J) U. S. Army Transport. *Other than ships passing through the Canal.

Shiploads of Canned Pineapples from Honolulu.

Two whole cargoes of canned pineapples, shipped from Honolulu, have passed through the Canal this month. The first was 2,450 tons on the steamship *Deva*, bound for New York, and the second 4,619 tons, on the *Calvert*, also bound for New York. In October there was 1 whole cargo of canned pineapples, 3,115 tons, from Honolulu for Boston, on the steamship *Glymont*.

Bond Conversion.

The Liberty Loan Committee advises that blank forms to be filled out for the exchange and conversion of Liberty Bonds of the first and second issues will be ready for distribution during the coming week. The new bonds bearing the higher rate of interest and with all subsequent coupons attached will not be ready for issue by the Treasury Department at Washington until after March 1, 1920.

Appreciation of Courtesies to Troops.

The Acting Prime Minister of New Zealand has transmitted through official channels thanks of the Dominion for the hospitality extended by the communities at the American ports at which drafts of New Zealand troops have called. His letter follows:

DOMINION OF NEW ZEALAND, PRIME MINISTER'S OFFICE,
WELLINGTON, August 6, 1919.

DEAR SIR: Now that the demobilization of our Expeditionary Force is approaching completion, and the trooping period is drawing to a close, I wish to express on behalf of the Government and the people of the Dominion our deep gratefulness for the hospitality extended by the authorities and communities of the American ports at which drafts of our troops have called when en route to the front or returning to the Dominion. In this connection I may mention Newport News, Norfolk (Va.), Richmond and the Panama Canal Zone. In the case of the latter, I have had extreme pleasure in conveying through His Britannic Majesty's Consul, Colon, our heartfelt appreciation of the hospitality and courtesies extended to our troops when passing through the Canal by the authorities and American citizens, with a request that same might be fully conveyed to all concerned.

I may say that the generosity and kindness of the communities mentioned to our troops has been deeply valued by them, and has been the subject of appreciative comment in the voyage reports of the drafts concerned. The most friendly receptions accorded, and kindness and courtesies extended to our soldiers have very materially relieved the tedium of their long voyage from and to the Dominion, and the remembrance of same will remain with our men long after their recollection of the rigors of active service has become dimmed by time.

I shall, therefore, be grateful if you will kindly convey to the authorities and citizens of the cities indicated our heartfelt thanks and lasting gratitude.

We regret earnestly that no opportunity has occurred here during the war when we could have reciprocated somewhat the kindness of the American public to our boys, but, no doubt, some occasion will come to pass in the future when the opportunity will present itself to enable us to show our appreciation of the sailor sons of our great Ally, whose Naval Forces have played a gallant part in the "policing" of the seas, and ensuring safe transport for our troops.

I have the honor to be, Sir,

Your obedient servant,

(Signed) J. ALLEN,

Acting Prime Minister.

THE CONSUL-GENERAL,

UNITED STATES OF AMERICA, Auckland.

Whole Cargo of Sulphur.

Six thousand nine hundred tons of sulphur made up the cargo of the steamship *Mount Berwyn*, passing through the Canal on November 2, on the way from Sabine, Texas, to Fremantle, Australia, by way of Adelaide. This is the first whole cargo of sulphur to have passed through the Canal.

Increased Charges for Moving Pictures.

The Governor has approved the following prices to be charged for moving pictures in the Panama Canal clubhouses, effective December 1:

Gold clubhouses—Children under 12 years of age, 10 cents; all others, 15 cents.
Silver clubhouses—Children and adults, 10 cents.

These increases are made on account of the increased prices which are being charged for films.

Automobile and Motorcycle License Tags.

Automobile and motorcycle license tags for 1920 for personal and commercial vehicles are now being issued by the Division of Civil Affairs, room 301, Administration Building, Balboa Heights. The official automobile and motorcycle licenses in use at the present time need not be renewed.

Annual license rates for residents of the Canal Zone are as follows: Automobile for personal use, \$5; automobile for hire, 29-horsepower or under, \$20; automobile for hire, over 29-horsepower, \$30; truck or omnibus, over 3 tons, \$40; motorcycle, \$2. Residents of Panama or Colon (which includes Colon Beach and New Cristobal), must first obtain licenses from their respective municipalities and upon presentation of the proper receipts from Colon or Panama will be accorded the special reciprocal rates of \$1 for automobiles for personal use and motorcycles; \$12.50 for automobiles for hire; and \$15 for trucks and omnibuses. Receipts must be presented covering the payment of fees for the current month to Colon or Panama before a reciprocal license can be renewed.

When applying for 1920 licenses the applicant should be prepared to furnish the number of the 1919 Canal Zone license, or, in the case of a new car, the name of the car and its engine number as well as the free entry number under which the car was imported. If a license is desired in the name of a person other than the last owner of record in the license bureau, the applicant must present evidence of the transfer of ownership from the last licensee to himself. When a car which has been imported on a free entry is transferred to a nonemployee or is to be licensed as a commercial vehicle, the receipt for the payment of customs duties to the Government of Panama must be presented.

Remittance for license fees should be drawn in favor of the Collector, The Panama Canal, and forwarded to the Division of Civil Affairs. The post-office address of the applicant should always be given.

Hotel Aspinwall Launch Schedule.

Following is the schedule of regular launch service between Balboa and the Hotel Aspinwall on Taboga Island:

<i>Daily.</i>	
Leave Taboga.....	7.00 a. m.
Leave Port Captain's boat landing, near dock 19.....	9.40 a. m.
<i>Sundays and holidays.</i>	
Leave dock 19, Balboa.....	9.40 a. m.
Leave Taboga.....	11.00 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga.....	6.00 p. m.
<i>Saturdays and days preceding holidays.</i>	
Leave Balboa.....	6.00 p. m.
Leave dock 19, Balboa.....	9.40 a. m.
Leave Taboga returning.....	11.00 a. m.
Returning from Taboga the following day.....	7.30 a. m.
<i>Fares (each way)</i> —Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.	

Class in Cooking.

A night school class in cooking will be offered at the Balboa household arts building on Mondays or Wednesdays from 7 to 9 p. m. for women of Balboa and Ancon, if there is a sufficient demand for the course. A tuition fee of \$4 per month will be payable in advance. Those interested should advise the high school principal, telephone 48, Balboa; post office, Balboa.

Private Telephones.

Notice was published in THE PANAMA CANAL RECORD of October 29, 1919, that no applications for private telephones would be accepted until further notice, on account of exhausted stock of telephone instruments.

The Electrical Division is now in receipt of a limited number of instruments, and applications for private telephones will be accepted. Applications should be made in writing to the Electrical Engineer, Balboa Heights, giving metal check number, post-office address, and house address.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

- Laboratory assistant (male); \$5.20 and \$6 a day; January 7 and 8, February 4 and 5, and March 3 and 4, 1920; No. 2; form 1312; age, 20 years but not 35 years.
- Scientific assistant (male and female); \$1,320 to \$1,620 a year; January 7 and 8, 1920; No. 3; form 1312; age, 20 years and over.
- Associate physicist qualified in physical metallurgy (male); \$2,000 to \$2,800 a year; No. 1492-amended; form 1312; age, 22 years but not 45 years.†
- Assistant physicist qualified in physical metallurgy (male and female); \$1,400 to \$1,800 a year; No. 1492-amended; form 1312; age, 22 years but not 45 years.†
- Investigator in marketing fruits and vegetables (male); \$1,800 to \$2,760 a year; No. 1985-supplemental; closed November 18, 1919.
- Blue printer (male and female); \$4.80 a day; No. 441-amended; supplemental.†
- Assistant biologist qualified in economic ornithology (male and female); \$1,440 to \$1,800 a year; January 7, 1920; No. 8; form 1312; age, under 45 years.
- Assistant for fishery food laboratory (male); \$2,000 to \$2,400 a year; December 25, 1919; No. 556; form 2118; ages, no limits.*
- Field and laboratory aid in plant nutrition (male and female); \$1,200 a year; January 7, 1920; No. 9; form 1312; age 20 years but not 45 years.
- Inspector of gyroscopic compasses (male and female); \$7.04 a day; December 23, 1919; No. 562; form 1312; age, 20 years and over.*
- Laboratory helper (male and female); \$900 to \$1,200 a year; December 23, 1919; No. 570; form 1312; age, 18 years and over.*
- Mechanic qualified as scale repairer (male and female); \$5 a day plus 10 per cent; December 16, 1919; No. 563; form 1800; age, 18 years and over.*
- Plant pathologist for small fruit disease investigations (male); \$2,520 a year; December 23, 1919; No. 555; form 2118; age, 25 years but not 50 years.*
- Radio operator (male and female); \$960 to \$1,200 a year with \$1 a day additional for subsistence; December 23, 1919; No. 507-amended; form 1312; age, 21 years but not 40 years.*
- Shot firer (male and female); \$840 a year; December 23, 1919; No. 567; form 1800; age, 23 years but not 50 years.*
- Specialist in land-grant college statistics (male); \$1,800 a year; December 16, 1919; No. 554; form 2118; age, under 50 years.*
- Stacker operator (male and female); \$1,440 a year; December 23, 1919; No. 564; form 1312; age, over 20 years.*
- Superintendent of forest pathological field station (male and female); \$1,440 to \$1,620 a year; January 7, 1920; No. 7; form 1312; age, 21 years but not 45 years.
- Graphotype operator (male and female); \$660 to \$1,200 a year; December 14, 1919, and January 11, 1920; No. 63-amended; form 304; age, 18 years and over.
- F-1 addressograph operator (male and female); \$900 to \$1,200 a year; December 14, 1919, and January 11, 1920; No. 63-amended; form 304; age, 18 years and over.
- Automatic 3 Addressograph operator (male and female); \$1,200 to \$1,600 a year; December 14, 1919, and January 11, 1920; No. 63-amended; form 304; age, 18 years and over.
- Mimeograph operator (male and female); \$720 to \$1,200 a year; December 14, 1919, and January 11, 1920; No. 63-amended; form 304; age, 18 years and over.
- Proof reader (male and female); \$900 to \$1,200 a year; December 14, 1919, and January 11, 1920; No. 63-amended; form 304; age, 18 years and over.
- Junior gas chemist (male and female); \$1,500 a year; December 30, 1919; form 1312; age, under 40 years.*

Structural steel inspector (male and female); \$7.04 a day; December 23, 1919; No. 566; form 1312; age, 25 years and over.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employee.

The estate of the following deceased employee of The Panama Canal is now in process of settlement, and any claims against this estate, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due him, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. This name will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Harry Bryan.....	26938	Jamaica.....	Colon.....	Mechanical Division....	November 18, 1919.

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster, or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station..... Leave on the hour and half hour.
 Administration Building..... Leave 7 minutes and 37 minutes after the hour
 Balboa Commissary..... Leave 10 minutes and 40 minutes after the hour
 Balboa Shops..... Arrive 15 minutes and 45 minutes after the hour

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa Shops..... Leave 15 minutes and 45 minutes after the hour
 Port Captain's Office..... Leave 18 minutes and 45 minutes after the hour
 Balboa Commissary..... Leave 20 minutes and 50 minutes after the hour
 Administration Building..... Leave 25 minutes and 55 minutes after the hour
 Ancon Police Station..... Arrive on the hour and half hour

Official Circulars.

Accountable Official.

THE PANAMA CANAL,
 ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., November 28, 1919.
 CIRCULAR No. 220:

Effective November 24, 1919, Mr. L. A. Hellikson is designated an accountable official of the Marine Division, and as such will account for all nonexpendable property in use by the Captain of the Port, Balboa.

H. A. A. SMITH,
Auditor, The Panama Canal.
 Approved: CHESTER HARDING,
Governor.

Employees' Freight Shipments on Transports.

THE PANAMA CANAL,
 EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 28, 1919.

To all concerned—The Department Transportation Officer at Ancon advises that in the past considerable annoyance has been experienced on account of employees waiting until shortly before sailing time to attend to their freight shipments on Army transports, and it is requested that in the future all such shipments be handled in accordance with the following procedure.

Whenever employees of The Panama Canal or Panama Railroad have been authorized by the Transportation Officer, Panama Canal Department, Ancon, to ship freight from the Isthmus to the United States on Army transports on which they intend to travel, it is necessary that such freight shipments be delivered to Capt. D. L. Decker,

Port Transportation Officer, Cristobal, together with two copies of Panama Railroad bill of lading and one copy of Customs clearance not later than noon of the day before the sailing date of the transport on which the freight is to be shipped.

C. A. McILVAINE,
Executive Secretary.

Transportation of Army and Navy Laborers on Fort Randolph Trains.

PANAMA RAILROAD COMPANY,
 OFFICE OF MASTER OF TRANSPORTATION,
 BALBOA HEIGHTS, C. Z., November 28, 1919.

CIRCULAR No. 1428:

To conductors—Army and Navy laborers will be carried without transportation in the second-class labor coach on Fort Randolph trains Nos. 51 and 58 on presentation of identification card giving the laborer's name and stating that the bearer is entitled to a round-trip between Cristobal and Fort Randolph once each day and only on trains Nos. 51 and 58.

W. F. FOSTER,
Master of Transportation.

Joint Commission.

Award.

In the matter of the claim of Dolores Icaza de Arias, for property designated as Punta Mala, award No. 269, in docket No. 1470, November 25, 1919.—An award is hereby made against the United States of America in the sum of \$1,479.53, United States currency, together with interest thereon at the rate of 6 per centum per annum from December 5, 1912, until payment or tender

of payment of this award is made, for all right, title, and interest that Dolores Icaza de Arias, or Alberto B. de Obarrio, or Elisa A. de Diaz, or Isabel Diaz de Jimenez, or Domingo Diaz A., or any other person or persons, may possess or may have possessed in or to 5,479 1/2 square meters of the Punta Mala estate described in claim docket No. 1470, which portion was excluded from consideration at the time the claim for the Punta Mala tract, docket No. 1470, was tried, this award to include any and all damages sustained by the owner or owners of this property on account of the expropriation thereof by the United States of America.

It being made to appear to the Joint Commission that there is an action pending and undetermined in the District Court of the Canal Zone, Balboa Division, involving the respective claims of the said Dolores Icaza de Arias, and of Alberto B. de Obarrio, Elisa A. de Diaz, Isabel Diaz de Jimenez, and Domingo Diaz A., in and to the lands involved herein, or the value thereof, the amount of this award is hereby ordered to be deposited in the District Court of the Canal Zone, Balboa Division, to await the determination of that court as to its disposition.

JORGE E. BOYD, BURT NEW, GEORGE A. CONNOLLY, R. J. ALFARO, *Commissioners.*

Misdirected Letters.

BALBOA HEIGHTS, C. Z., December 1, 1919.

The following insufficiently addressed letters have been received in the office of the Director of Posts, and may be obtained upon request of the addressees. Request may be made by telephone, calling No. 182, Balboa:

Anderson, J., Box 237	Mangnall, John N.
Batte, Leonard	Miller, Capt. Sterling P.
Blanchard, Leo	Montgomery, Miss Margaret
Bowman, S. S.	Revit, Mrs. V. B.
Crawford, Jesse F.	Sterling, Mrs. G. H.
Davis, H. A.	Sturges, Mrs. M. L., Box 634
Deelle, William R.	Swanson, Frank
Delavergne, Miss A. M.	Whitney, C. Dayton, Box 507
Drake, Henry	Wiseman, Samuel C. L.
Hensan, C. P.	
Herlihy, Mrs. G. H.	
Howard, Capt. G. E. L.	
McKinney, Mrs. G. L.	

Sale of Twelve Second-hand Wicker Parlor Car Chairs.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10 a. m., December 10, 1919, and then opened, for the purchase of the above-mentioned chairs. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Dental Equipment Formerly Used in Canal Dental Office over Ancon Dispensary.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10 a. m., December 11, 1919, and then opened, for the purchase of a complete dental set located at Ancon dispensary. A few of the more important items are as follows: 1 bench, dental; 1 cabinet, instrument; 1 chair, dental, "Diamond;" 1 compressor, air, electric, with tank; 1 cuspidor, fountain; 1 engine,

electric; 1 lathe, electric; 1 sterilizer, electric. A complete list of all items for sale and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Current Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$13.50 per ton of 2,240 pounds at Cristobal and \$15.50 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$15 per ton at Cristobal, \$17 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$1.50 per barrel of 42 gallons.

Diesel oil is not sold by The Panama Canal, but may be obtained from private concerns at approximately \$3 per barrel. Cable arrangement should be made in advance of arrival of vessel.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. Prices quoted are United States currency, per pound net:

Beef hinds, 19 cents; beef fores, 14 cents; beef ribs, entire set, 20 cents; short loins, 25 cents. This beef is from Colombian cattle, slaughtered on the Isthmus.

Additions to Commissary Stock.

Dry Goods Section.

Blouses, middy, ea.....	\$2.80
Boxes, soap, ea.....	.23
Brushes, nail, ea.....	.10
Chemise, envelope, ea.....	4.00
Chemise, envelope, ea.....	1.30
Chemise, envelope, ea.....	1.50
Kimonos, crepe, cotton, plain, ea.....	1.95
Kimonos, cloth, embroidered cotton terry, ea.....	3.10
Kimonos, cloth, plain cotton terry, ea.....	3.30
Nightgowns, ladies', ea.....	4.35
Nightgowns, ladies', ea.....	2.70
Nightgowns, ladies', ea.....	4.00
Sheeting, rubber, white, double coated, 27", yd.....	.67
Skirts, children's, ea.....	2.50
Skirts, children's, ea.....	2.20
Soap, nursery, Williams's, cake.....	.09
Soap, oatmeal, Williams's, cake.....	.13
Soap, Jergsen cream, Williams's, cake.....	.13
Soap, pine tar, Williams's, cake.....	.11
Soap, lilac, Williams's, cake.....	.09
Soap, sandalwood, Williams's, cake.....	.09
Soap, English lilac, Williams's, cake.....	.14
Soap, cucumber cream, Williams's, cake.....	.11
Soap, almond flower, Williams's, cake.....	.11
Soap, Dream Rose, Williams's, cake.....	.09
Soap, Carnation, Williams's, cake.....	.09
Soap, honey, Williams's, cake.....	.11
Soap, violet, glycerine, cake.....	.09
Soap, sulphur, Jergsen's, cake.....	.09
Soap, carbolic, cake.....	.09
Stationery:	
Albums, post card, ea.....	.38
Books, memo., ea.....	.15
Books, memo. No. 3, ea.....	.04
Envelopes, pkg.....	.03
Sticks, walking, ea.....	.67
Vaseline, jar.....	.06

COMMISSARY NOTES.

Cigars.

Jamaican cigars, in special gift boxes for the Christmas trade, are now obtainable in the line stores.

Beds and Bed Springs.

Double beds and springs, which have been out of stock for some time, are again obtainable in the line commissaries.

COMMISSARY NOTES.**Porch Shades.**

A shipment of ventilating porch shades, in two sizes, at \$5.15 and \$6.85, has recently been received and forwarded to the line stores.

Chinaware.

Notice of another slight increase in price has been received from the manufacturers of Minton chinaware.

Crash Shortage.

The textile company from which the Commissary Division purchases a large quantity of crash has written that it will not be possible to fill our orders for some time. Their mills have a capacity of about 75,000 pieces per annum but prevailing conditions have reduced their output greatly and they can not supply any material for the Canal Zone for several months to come.

Hand Bags.

The Commissary Division has recently received and distributed to the line stores a shipment of leather hand bags. These range in prices from \$1.35 to \$4 and although the majority of them are of black leather, there are some of blue, gray, tan, and brown. All are silk lined, some being fitted with small mirrors. They are very good values and are meeting with ready sale.

Ladies' Blouses.

Another shipment of georgette and crepe de chine blouses, including some of the latest models, has been received by the Commissary Division. These comprise blue, gray, white, and flesh georgette blouses, some elaborately beaded, some embroidered, and others trimmed with lace edged frills, at \$7.45, and tailored crepe de chine, embroidered crepe de chine, and georgette blouses in white and flesh, at \$6.30.

Candy.

According to a letter recently received from the commissary purchasing agent, chocolate cream cakes now on order can not be supplied at present, the manufacturers advising that due to the Federal sugar regulations they have discontinued the manufacture of this candy. Shipments will be resumed, however, when they again manufacture them. There will also be some delay in the shipments of milk chocolate now on order.

Leather Novelties.

In a shipment of leather goods recently received by the Commissary Division were men's black leather tourist cases, leather lined, fitted with comb, brush, tooth-brush holder, etc., at \$5.35; women's black leather tourist cases, leather lined, with the usual fittings, at \$6.05; and black leather portfolios, fitted with calendar, writing pad, and small memorandum book, at \$2. Any of the above would make desirable Christmas gifts.

Books.

Shipments of books for the Christmas trade have been made to the line commissaries. Included in these consignments were gift books of almost every description and a wide range of children's books.

Books received:

"The Moon and Sixpence," by W. Somerset Maugham; "Ramsey Milholland," by Booth Tarkington; "The Inheritors," by Joseph Conrad and Ford M. Hueffer (leather edition); "The Young Visitors," by Daisy Ashford; "Tales of Fishes," by Zane Grey; "Ireland's Fight for Freedom," by George Creel; "The Squire's Daughter" and "The Eldest Son," by Archibald Marshall; "Opportunities in the Newspaper Business," by James Melvin Lee; "A Tramp Abroad" and "Huckleberry Finn," by Mark Twain; "An American Idyll," by Cornelia Stratton Parker; Kipling's Prose Works; "The Passionate Pilgrim," by Samuel Merwin; "Poems," by Maurice Maeterlinck; "A Guide to the West Indies and Panama," by F. A. Ober; "Their Mutual Child," by P. G. Wodehouse; "Polished Ebony," by O. R. Cohen; "The Secret of the Tower," by Anthony Hope; "Spriggles," by E. Lawrence Dudley; "The Taker," by Daniel Carson Goodman; "The Groper," by Henry G. Aiken; "Tarzan of the Apes" and "Tarzan and the Jewels of Opar," by Edgar Rice Burroughs; "More E. K. Means," by the author of "E. K. Means"; "Yellow Men Sleep," by Jermy Lane; "The Lion's Mouse," C. N. and A. M. Williamson; "Squaw Point," by Arland D. Weeks; "A Woman's Woman," by Nalbro Bartley; "The Happy End," by Joseph Hergesheimer; "The Little Moment of Happiness," by C. B. Kelland; "Old Christmas and Bracebridge Hall," from "The Sketch Book" of Washington Irving.

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE No. 29, EFFECTIVE SEPTEMBER 7, 1919.

	MAIN LINE STATIONS.					MAIN LINE STATIONS.					DAILY.					Sat'day only.		Sunday only.	
	DAILY.		Daily except Sat'day		Sat'day only.		DAILY.		Daily except Sat'day		Sat'day only.		DAILY.		Sat'day only.		Sunday only.		
	3	5	7	101	9	11	4	6	8	10	12	4	6	8	10	12	4	12	
Leave																			
Colon	7.10	11.00	5.00	11.15	11.30	9.35	7.10	11.00	5.00	11.30	9.35	7.10	11.00	5.00	11.30	9.35			
Mount Hope	7.15	11.05	5.05	11.20	11.35	9.40	7.15	11.05	5.05	11.35	9.40	7.15	11.05	5.10	11.41	9.46			
New Gatun							7.21	11.12				7.26	11.17						
Gatun	7.27	11.17	5.17	11.40	11.49	9.52	7.30	11.17	5.19	11.46	9.51	7.30	11.17	5.19	11.49	9.54			
Monte Lirio	7.42	11.32	5.32	11.55	12.04	10.07	7.34	11.23	5.23	11.58	10.07	7.34	11.23	5.23	11.58	10.07			
Frijoles	7.53	11.43	5.43	12.10	12.15	10.18	7.46	11.35	5.35	12.05	10.10	7.46	11.35	5.35	12.05	10.10			
Darien	8.00	11.50	5.50	12.18	12.22	10.25	7.58	11.47	5.47	12.17	10.22	8.07	11.57	5.57	12.28	10.32			
Gamboa	8.14	12.02	6.02	12.30	12.33	10.37													
Summit	8.30	12.14	6.14	12.42	12.45	10.49													
Pedro Miguel	8.44	12.26	6.24	1.00	12.57	11.01													
Red Tank							8.14	12.04				8.14	12.04						
Miraflores Locks	8.50	12.32	6.30	1.06	1.09	11.04													
Corozal	8.54	12.36	6.34	1.10	1.14	11.14													
Balboa Heights	9.00	12.45	6.40	1.15	1.19	11.20													
Panama	9.05	12.50	6.45	1.20	1.20	11.25													
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	

All trains stop where time is shown except f indicates stop on signal only.

	LAS CASCADAS BRANCH STATIONS					DAILY.					Sat'day only.		Sunday only.					
	DAILY.		Daily except Sat'day		Sat'day only.		DAILY.		Daily except Sat'day		Sat'day only.		Sunday only.					
	35	37	35	33	31	35	33	31	30	32	34	36	38	30	32	34	36	38
Las Cascadas																		
Leave																		
Empire	12.30	11.30	7.05	9.25	6.45													
Culebra	12.35	11.35	7.10	9.30	6.55													
Paraiso	12.47	11.47	7.23	9.43	7.07													
Pedro Miguel	12.50	11.50	7.24	9.46	7.11													
Red Tank																		
Miraflores Locks	12.56	11.57	7.30	9.53	7.19													
Corozal	1.00	12.01	7.34	9.58	7.24													
Balboa Heights	1.05	12.09	7.40	10.05	7.30													
Panama	1.10	12.15	7.45	10.10	7.35													
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.													
Leave																		
Arrive	39	37	35	33	31	35	33	31	30	32	34	36	38	30	32	34	36	38

THE PANAMA CANAL RECORD

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Volume XIII. Balboa Heights, C. Z., December 10, 1919. No. 17.

CANAL WORK IN OCTOBER.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of October, 1919:

BALBOA HEIGHTS, C. Z., November 20, 1919.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of October, 1919.

CANAL TRAFFIC.

Traffic exceeded that of any previous month in net tonnage of commercial ships, and tolls collected, but not in number of ships or tonnage of cargo. The number of ocean-going commercial vessels passing through the Canal in October was 196, exclusive of 17 United States Government vessels, as follows: One cruiser, 3 destroyers, 3 tugs, 1 mine-sweeper, 2 transports, 1 collier, 2 scout patrols, and 3 merchant ships with coal for the Navy, from Atlantic to Pacific; and 1 subchaser, from Pacific to Atlantic. The total number of ocean-going vessels was 213, in addition to which 1 launch went from Pacific to Atlantic.

Classifications of the traffic are shown in the following tabulations. The net tonnage of 196 commercial ships aggregated 670,100 tons, Panama Canal measurement, and was 83,914 tons more than that of commercial ships passing through the Canal in September, when 170 ships of 586,186 tons made the transit. Their registered gross tonnage was 873,006 tons, and their registered net tonnage was 551,825 tons. The cargo carried totaled 705,881 tons of 2,240 pounds, and was 67,611 tons more than that handled in September. Of that in October, 1919, 7,271 tons were carried as deck load. Ships of 12 different nationalities were included in the month's traffic.

The United States coastwise trade was made up of 19 vessels, aggregating 62,082 tons, Panama Canal measurement, and carried 94,517 tons of cargo. From Atlantic to Pacific, 2 slips with a total net tonnage of 6,651 tons, Panama Canal measurement, made the transit, carrying 9,749 tons of cargo. From the Pacific to the Atlantic there were 17 vessels of 55,431 net tons, Panama Canal measurement, carrying 84,768 tons of cargo.

The United States Shipping Board operated all of the westbound ships in the coastwise trade, with a net tonnage of 6,661 tons, Panama Canal measurement, carrying 9,749 tons of cargo, and 16 of the 17 vessels eastbound. The net tonnage of the 16 ships from Pacific to Atlantic aggregated 52,583 tons, Panama Canal measurement, and their cargo amounted to 80,568 tons.

PRINCIPAL COMMODITIES.

The bulk shipments from Atlantic to Pacific were: Crude oil, 25,928 tons, of which 8,500 tons were from Tampico to Balboa, 7,923 tons from Tampico to Pisagua, and 9,500 tons from Puerto Lobos to Antofagasta; petroleum, 21,315 tons, of which 9,000 tons were from Puerto Lobos to Tocopilla, 6,784 tons from Beaumont to Shanghai, and 5,531 tons from Puerto Lobos to Taltal; case oil, 12,920 tons, of which 6,020 tons were from New York to Honolulu, and 6,900 tons from New York to Brisbane; fuel oil, 21,080 tons from Puerto Lobos, of which 12,000 tons were consigned to Antofagasta and 9,080 tons to San Francisco; coal, 12,017 tons from Norfolk to Balboa; mixed cargoes, 55,694 tons, of which 2,630 tons were from Baltimore to San Francisco, 3,370 tons from Baltimore to Guayacan, 4,967 tons from England to Corral, 208 tons from New York to Tahiti, 7,521 tons from New York to Valparaiso, 6,319 tons from New York to Talcahuano, 8,000 tons from New York to Honolulu, 5,879 tons from New York to Kobe, 7,300 tons from New York to Shanghai, 5,300 tons from New Orleans to Tacoma, and 4,200 tons from Savannah to Honolulu; 39 cargoes described as "general" amounted to 113,223 tons.

From Pacific to Atlantic the principal commodities were: Nitrate of soda, 75,927 tons in 14 whole cargoes, from Chilean ports, 11,200 tons to Halifax, 10,970 tons to Belgian ports, 8,575 tons to La Pallice, 2,357 tons to Havre, 4,150 tons to Nantes,

8,426 tons to Dunkirk, 7,350 tons to Rotterdam, 2,875 tons to Valencia, 7,700 tons to Savannah, 7,509 tons to Wilmington, N. C., and 4,815 tons to New Orleans; flour, in 10 whole cargoes, 67,577 tons, from Pacific ports in the United States to New York; lumber, 15 whole cargoes, aggregating 30,172 tons; 11 ships carrying 22,831 tons for Great Britain, 2 ships carrying 3,629 tons to Atlantic ports of the United States, and 2 ships carrying 3,712 tons to Cuba, all from the west coast of North America; railroad ties, of which 10 whole cargoes passed through the Canal, aggregating 18,094 tons, 7 ships carrying 11,847 tons for Great Britain, and 3 ships carrying 6,247 tons to Atlantic ports of the United States, from the west coast of the United States; sugar, 2 whole cargoes, aggregating 10,503 tons, of which 3,603 tons were from Callao, Peru, to Havre, France, and 6,900 tons from Salaverry to Queenstown; lubricating oil, 1 whole cargo, 4,200 tons from San Francisco to Philadelphia; canned pineapples, 3,115 tons from Hawaii to Boston; copra, 799 tons from Levuka to Norfolk. Twenty-six cargoes, containing several commodities in each, and described as "mixed," aggregated 103,321 tons, and 32 contained the variety designated as "general," amounting to 122,038 tons.

Ships in ballast numbered 1 from Atlantic, with a net tonnage of 2,011 tons, Panama Canal measurement, and 10 from Pacific to Atlantic, of 51,715 net tons, a total of 11 ships of 53,726 net tons.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal on their way to the west coast of Central and South America during October, were, by nationalities, as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
British.....	17	60,418	35,823	44,263	<i>Tons.</i> 30,364
Chilean.....	2	8,303	6,086	6,043	679
Peruvian.....	2	7,922	3,941	5,097	1,930
Norwegian.....	3	20,587	12,942	16,467	14,531
Dutch.....	2	13,368	8,645	11,532	300
Spanish.....	3	8,613	5,376	6,442	.....
Swedish.....	1	3,302	2,839	3,969	1,500
Italian.....	1	5,283	3,189	3,760	920
United States.....	13	63,253	39,986	46,413	67,163
Total.....	44	191,549	118,827	143,996	117,387

Of the 44 vessels, 17 with 10,549 tons of cargo originated at the Atlantic terminus of the Canal; 9 with 42,143 tons came from United States ports; 2 with 14,531 tons of petroleum, from Tampico; 3, with 25,928 tons of crude oil, from Tampico, and 1, with 12,000 tons of fuel oil, from Puerto Lobos to Antofagasta, 10, with general cargo from Europe, amounting to 12,236 tons, and 2, with no cargo, from Habana.

Shipments from the west coast of Central and South America through the Canal during October were carried by 56 vessels. Nineteen were bound for Europe, with 116,301 tons of cargo from Chilean and Peruvian ports; 12 with 41,402 tons were bound for the east coast of the United States; 5 in ballast were bound for Tampico; 1, with 2,357 tons of nitrate, from Taltal to Habana; and 19 completed the voyage at the Atlantic terminus of the Canal, discharging 2,361 tons of mixed cargo and 21,511 tons of general cargo.

By nationalities, the ships from the west coast of South and Central America were as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
British.....	22	67,691	37,802	62,717	67,691
Peruvian.....	3	12,632	7,583	8,364	9,656
Chilean.....	3	10,341	6,192	8,518	4,883
Norwegian.....	3	16,653	10,470	13,400	4,150
Dutch.....	2	13,323	8,645	11,413	17,361
United States.....	23	101,148	61,857	72,952	80,191
Total.....	56	221,788	132,552	177,364	183,982

PRINCIPAL TRADE ROUTES.

The distribution of the traffic through the Canal in October, 1919, according to the principal trade routes, was as follows:

	Ves- sels.	Panama Canal net tonnage.	Cargo. Tons.
<i>Atlantic to Pacific.</i>			
United States coastwise.....	2	6,651	9,749
United States to Australia and New Zealand.....	6	31,882	32,542
United States to Far East.....	12	47,916	73,549
United States to west coast of South America.....	9	31,679	42,143
Cristobal to west coast of South America.....	17	25,776	10,549
Cuba to west coast of South America.....	2	6,911	.....
Europe to Australia and New Zealand.....	4	32,453	19,866
Europe to west coast of North America.....	3	13,934	5,750
Europe to west coast of South America.....	10	46,542	12,236
Mexico to west coast of North America.....	1	4,971	9,080
Mexico to west coast of South America.....	6	33,088	52,459
Miscellaneous.....	1	100	208
Total.....	73	281,903	268,131
<i>Pacific to Atlantic.</i>			
United States coastwise.....	17	55,431	84,768
Australia and New Zealand to Europe.....	14	82,190	86,098
Far East to Europe.....	1	266	406
West coast, North America to Europe.....	22	39,042	46,654
West coast, South America to Europe.....	19	74,952	116,301
Far East to east coast of United States.....	5	20,777	28,511
West coast, South America to east coast of United States.....	12	33,242	41,402
West coast, North America to Mexico.....	3	16,682	(*)
West coast, South America to Mexico.....	5	26,267	(*)
West coast, South America to Cristobal.....	19	28,960	23,872
West coast, North America to Cuba.....	3	5,302	5,657
West coast, South America to Cuba.....	1	1,502	2,357
Miscellaneous.....	2	3,584	1,724
Total.....	123	388,197	437,750

* Ballast.

SERVICES TO CANAL SHIPPING.

Repairs were made on 128 vessels during the month, 78 at Cristobal and 50 at Balboa. Six vessels were dry docked at Cristobal, and 7 at Balboa. Sales of fuel oil to ships from stock of The Panama Canal were 6,145 barrels to 1 vessel at Cristobal, and 3,823 barrels to 3 vessels at Balboa. Coal sales were 39,028 tons to 114 vessels at Cristobal, and 8,093 tons to 28 vessels at Balboa, a total of 142 vessels receiving 47,121 tons. Water sold included 7,973,015 gallons to 152 vessels at Cristobal, and 2,145,000 gallons to 132 vessels at Balboa, a total of 284 vessels receiving 10,118,015 gallons. Sales of commissary supplies to commercial ships, of lines other than that of the Panama Railroad, aggregated \$90,699.18, including \$2,089.44 for laundry supplied at Cristobal, \$39.83 at Pedro Miguel, and \$609.65 from Ancon laundry, delivered at Balboa. Laundry service for all ships amounted to \$3,408.03. Tug service performed for vessels using the Canal and the terminal ports was charged at \$26,878.90, of which \$20,342.65 was collected through the office of the Captain of the Port at Cristobal, and \$6,536.25 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulations:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	73	123	196
Net tonnage of commercial ships, Panama Canal measurement.....	281,903	388,197	670,100
United States equivalent net tonnage of commercial ships.....	229,238	316,617	545,855
Registered gross tonnage of commercial ships.....	363,369	509,637	873,006
Registered net tonnage of commercial ships.....	232,696	319,129	551,825
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	268,131	437,750	705,881
Deck load cargo, included in above.....	714	6,557	7,271
Nationality of commercial ships through Canal:			
British.....	32	38	70
Norwegian.....	5	3	8
Peruvian.....	2	3	5
Chilean.....	2	3	5
Belgian.....	1	1	2
French.....	.....	8	8
Swedish.....	2	.....	2
Japanese.....	6	2	8
Dutch.....	2	2	4
Spanish.....	3	.....	3
Italian.....	1	.....	1
United States.....	18	63	81
Total.....	73	123	196

Item.	Cristobal.	Balboa.	Total.
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	125,723	143,566	269,289
Norwegian.....	26,841	13,400	40,241
Peruvian.....	5,097	8,364	13,461
Chilean.....	6,043	8,518	14,561
Belgian.....		266	266
French.....		8,428	8,428
Swedish.....	7,970		7,970
Japanese.....	24,782	8,793	33,575
Dutch.....	11,552	11,413	22,965
Spanish.....	6,442		6,442
Italian.....	3,750		3,750
United States.....	63,703	185,449	249,152
Total.....	281,903	388,197	670,100
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	101,737	112,159	213,896
Norwegian.....	23,019	10,696	33,715
Peruvian.....	3,345	6,874	10,219
Chilean.....	3,675	5,237	8,912
Belgian.....		271	271
French.....		7,848	7,848
Swedish.....	4,572		4,572
Japanese.....	20,645	7,789	28,434
Dutch.....	8,592	8,460	17,052
Spanish.....	5,430		5,430
Italian.....	3,239		3,239
United States.....	51,684	157,283	212,267
Total.....	229,238	316,617	545,855
Registered gross tonnage of commercial ships through the Canal:			
British.....	163,886	178,050	341,936
Norwegian.....	31,485	16,653	48,138
Peruvian.....	7,922	12,672	20,594
Chilean.....	8,303	10,241	18,544
Belgian.....		373	373
French.....		13,992	13,992
Swedish.....	7,547		7,547
Japanese.....	31,114	11,905	43,019
Dutch.....	13,368	11,323	24,691
Spanish.....	8,613		8,613
Italian.....	5,283		5,283
United States.....	85,848	252,363	338,216
Total.....	363,369	599,637	963,006
Registered net tonnage of commercial ships, through the Canal:			
British.....	103,527	112,096	215,623
Norwegian.....	19,678	10,470	30,148
Peruvian.....	3,941	7,573	11,514
Chilean.....	6,086	6,192	12,278
Belgian.....		277	277
French.....		8,349	8,349
Swedish.....	5,697		5,697
Japanese.....	21,535	7,712	29,247
Dutch.....	8,645	8,648	17,293
Spanish.....	5,376		5,376
Italian.....	3,189		3,189
United States.....	55,022	157,822	212,824
Total.....	232,606	319,129	551,825
Cargo carried by ships of various nationalities:			
British.....	109,442	165,866	275,308
Norwegian.....	25,531	4,150	29,681
Peruvian.....	1,930	9,656	11,586
Chilean.....	679	4,873	5,552
Belgian.....		406	406
French.....		11,323	11,323
Swedish.....	1,750		1,750
Japanese.....	36,566	15,072	51,638
Dutch.....	300	17,361	17,661
Italian.....	920		920
United States.....	91,013	209,013	300,026
Total.....	268,131	437,750	705,881
Vessels passing through the Canal free of tolls:			
U. S. Navy cruisers.....	1		1
U. S. Navy destroyers.....	3		3
U. S. Navy tugs.....	3		3
U. S. Navy mine-sweepers.....	1		1
U. S. Navy transports.....	2		2
U. S. Navy collier.....	1		1
U. S. Navy scout patrols.....	2		2
Merchant ships with coal for Navy.....	3		3
U. S. Navy subchaser.....		1	1
Total.....	16	1	17

Item.	Cristobal.	Balboa.	Total.
Launches:			
Net tonnage of launches, Panama Canal measurement.....		2	2
Total ocean-going ships transiting Canal.....	89	124	213
Cargo on which no tolls were charged..... tons.	34,793		34,793
Commercial ships passing through Canal without cargo, but not in ballast.....	1		1
Net tonnage of above, Canal measurement.....	3,065		3,066
Commercial ships through Canal in ballast.....	9	10	19
Net tonnage of above, Canal measurement.....	23,593	51,715	75,308
Total commercial ships without cargo, transiting Canal.....	10	10	20
Net tonnage of above, Canal measurement.....	26,659	51,715	78,374
Motor ships through the Canal.....	5	3	8
Net tonnage of motor ships, Canal measurement.....	13,866	494	14,270
Sailing ships through the Canal.....		1	1
Net tonnage of sailing ships, Canal measurement.....		654	654
Tolls levied on laden ships through the Canal.....	\$259,851.95	\$342,064.30	\$601,916.25
Tolls levied on ships without cargo, but not in ballast.....	\$2,297.50		\$2,297.50
Tolls levied on ships in ballast.....	\$16,926.84	\$37,281.15	\$54,207.99
Tolls on launches.....		\$2.40	\$2.40
Total tolls levied.....	\$279,076.29	\$379,347.85	\$658,424.14
Total ships entering port, including Canal transit.....	241	215	456
Total ships clearing port, including Canal transit.....	239	220	459
Total ships handled.....	480	435	915
Net registered tonnage of vessels entering port.....	682,950	584,363	1,267,313
Net registered tonnage of vessels clearing port.....	693,987	595,546	1,289,533
Total for vessels entering and clearing.....	1,376,937	1,179,909	2,556,846
Registered gross tonnage of vessels entering.....	1,105,430	931,597	2,037,027
Registered gross tonnage of vessels clearing.....	1,123,379	951,218	2,074,597
Total registered gross tonnage of vessels entering and clearing.....	2,228,809	1,882,815	4,111,624
Vessels entering port, but not passing through the Canal.....	41	6	47
Net tonnage of above.....	120,000	12,526	132,526
Gross tonnage of above.....	196,292	17,849	214,141
Vessels clearing port, but not passing through the Canal.....	46	4	50
Net tonnage of above.....	131,404	13,750	145,154
Gross tonnage of above.....	215,761	21,469	237,230
Vessels passing through Canal, and handling passengers or cargo at port entered.....	27	39	66
Net tonnage of above.....	54,929	71,710	129,639
Gross tonnage of above.....	99,216	132,460	231,676
Vessels passing through Canal, and handling passengers or cargo at port cleared.....	26	39	65
Net tonnage of above.....	58,113	74,710	132,823
Gross tonnage of above.....	105,102	132,460	237,562
Transit cargo arriving..... tons.	719,368	701,915	1,421,283
Transit cargo cleared..... tons.	701,018	722,530	1,423,548
Local cargo arriving..... tons.	35,351	24,875	60,226
Local cargo shipped..... tons.	3,230	1,447	4,677
Total local cargo handled..... tons.	38,581	26,322	64,903
Total local and transit cargo arriving..... tons.	754,719	726,790	1,481,509
Total local and transit cargo cleared..... tons.	704,248	723,977	1,428,225
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	50,436	3,600	54,036
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	31,686	422	32,108
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.	3,807	2,871	6,678
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	85,929	6,893	92,822
Cargo stevedored, included in above..... tons.	36,648	168	36,816
Commercial vessels other than P. R. R. supplied with bunker coal.....	106	24	130
Coal supplied to commercial vessels other than Panama Railroad..... tons.	38,050	6,781	44,831
Panama Railroad vessel supplied with bunker coal.....	1		1
Coal supplied Panama Railroad Steamship Line..... tons.	250		250
U. S. Navy vessels supplied with bunker coal.....	3	1	4
Coal supplied U. S. Navy vessels..... tons.	108	1,184	1,292
U. S. Army vessels supplied with bunker coal.....	4	3	7
Coal supplied to U. S. Army vessels..... tons.	620	128	748
Total vessels supplied with bunker coal.....	114	28	142
Total coal furnished to vessels..... tons.	39,028	8,093	47,121
Coal supplied Panama Railroad departments..... tons.	877	40	917
Coal supplied Army, excepting vessels..... tons.	143		143
Coal supplied The Panama Canal..... tons.	2,326	746	3,072
Coal supplied individuals and companies..... tons.	519		519
Total coal furnished..... tons.	42,893	8,879	51,772
Coal received during October..... tons.	24,036	12,017	36,053
Coal on hand, November 1..... tons.	42,010	12,204	54,214
Vessels supplied with water.....	152	132	284
Water sold to ships..... gals.	7,973,015	2,145,000	10,118,015
Vessels dry-docked.....	6	7	13
Commercial vessels furnished commissary supplies.....	148	75	223
Panama Railroad vessels furnished commissary supplies.....	11	1	12
Other U. S. Government vessels furnished commissary supplies.....	16	17	33
Total vessels furnished commissary supplies.....	175	93	268

Item.	Cristobal.	Baltoa.	Total.
Commissary sales to commercial vessels:			
Ice.....	\$1,349 20	\$617.85	\$1,967.05
Wholesale groceries.....	10,386 76	5,952 85	16,339.61
Wholesale cold storage.....	41,402 03	24,740 92	66,142.95
Laundry.....	2,089 44	617.35	2,706.79
Miscellaneous.....	2,063 26	1,439.67	3,502.95
Total.....	\$57,290.71	\$33,368.64	\$90,659.35
Commissary sales to Panama Railroad vessels:			
Ice.....	\$166 20		\$166.20
Wholesale groceries.....	1,747 06	212.08	1,959.14
Wholesale cold storage.....	5,846 39	622.67	6,469.06
Laundry.....	642.87		642.87
Miscellaneous.....	1,286 07		1,286.07
Total.....	\$9,688 59	\$834.75	\$10,523.34
Commissary sales to other Government vessels:			
Ice.....	\$163 55	\$307.28	\$470.83
Wholesale groceries.....	10,307.45	4,032 83	14,340.28
Wholesale cold storage.....	6,962 45	14,305.11	21,267.56
Laundry.....	46 47	11.90	58.37
Miscellaneous.....	1,066.02	1,023.26	2,089.28
Total.....	\$18,545.94	\$19,680.38	\$38,226.32
Total commissary sales to vessels.....	\$85,555 24	\$53,883.77	\$139,409.01
Fuel oil sold to commercial vessels..... barrels.....	6,145	3,157	9,302
Fuel oil issued to U. S. Navy..... barrels.....	205		205
Fuel oil issued to U. S. Army..... barrels.....		666	666
Fuel oil issued to Canal departments..... barrels.....	5,780	22,688	28,418
Total furnished from Canal tanks..... barrels.....	12,080	26,511	38,591
Fuel oil on hand November 1..... barrels.....	64,046	110,906	174,952
Other oil pumped..... barrels.....	233,842	129,801	363,643
Diesel oil on hand November 1..... barrels.....		1,499	1,499
Passengers arriving, including transit passengers:			
First cabin.....	2,697	1,854	4,551
Other than first cabin.....	3,316	3,798	7,114
Total.....	6,013	5,652	11,665
Passengers departing, including transit passengers:			
First cabin.....	2,931	1,877	4,808
Other than first cabin.....	3,794	3,801	7,595
Total.....	6,725	5,678	12,403
Total movements of passengers.....	12,738	11,330	24,068
Passengers disembarking:			
First cabin.....	1,338	149	1,487
Other than first cabin.....	675	64	739
Total.....	2,013	213	2,226
Passengers embarking.....			
First cabin.....	1,384	172	1,556
Other than first cabin.....	504	67	571
Total.....	1,888	239	2,127
Services to American seamen:			
Seamen shipped.....	129	177	306
Seamen paid off.....	96	145	239
Seamen deserted.....	11	9	20
Seamen deceased.....		2	2
Seamen lodged, subsisted, and repatriated.....	30		30
Total seamen handled.....	266	331	597
Wages of American seamen:			
Total amount earned.....	\$9,556 41	\$15,322 27	\$24,878 68
Deductions approved by Deputy Shipping Commissioners.....	770.34	4,169.61	4,939.95
Balance due seamen.....	8,786.07	11,152.66	19,938.73
Paid to seamen.....	3,244 69	6,745.94	9,990.63
Received on deposit for seamen.....	5,541.38	4,406.72	9,948.10
Services to American vessels:			
Crews shipped.....	2		2
Crews paid off.....	2		2
Shipping articles written.....	2	4	6
Marine notes of protest noted.....	5	10	15

LOCK OPERATION:

Lockages of commercial vessels were made during the month as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	120	71	191	124	76	200
Pedro Miguel.....	123	77	200	123	78	201
Miraflores.....	118	76	194	123	78	201

Lockages of Army and Navy vessels, vessels operated by The Panama Canal, and of commercial vessels, are included in the following summary of all lockages during the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	192	200	194
Noncommercial, United States Army and Navy.....	14	12	11
Canal equipment.....	5	26	24
Total.....	211	238	229
Vessels:			
Commercial vessels.....	200	201	201
Noncommercial, United States Army and Navy and Canal.....	48	78	81
Total.....	248	279	282

Water consumed for all lockages amounted to 1,629,870,000 cubic feet, that used at Pedro Miguel becoming available for second use at Miraflores Locks.

Consumption of water by the locks during the month was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	881,220,000	748,650,000	704,900,000
Leakage.....	20,000,000	30,500,000	15,000,000
Maintenance.....			14,010,000
Total.....	901,220,000	779,150,000	733,910,000

METEOROLOGY.

Rainfall during the month ranged from 10.21 inches at the Culebra station on the Pequeñi River to 23.22 inches at the Gatun River station. The greatest precipitation recorded in any one day was 4.04 inches, at Juan Mina on the 10th.

Seismic disturbances were recorded at Balboa Heights on the 9th and 26th of the month. The shock of the 9th was of near-by origin and though of small amplitude was generally felt.

The Chagres River discharge at Alhajuela was 26 per cent below the 18-year October average, or 2,512 c. f. s. against a mean of 3,386 c. f. s. and furnished 24 per cent of the Gatun Lake total yield. The maximum October discharge in the 18 years was 5,135 c. f. s. in 1914, and the minimum discharge 2,031 c. f. s. in 1904. The maximum momentary discharge for October, 1919, was 9,375 c. f. s. at elevation of 96.60 on the 11th, and the minimum momentary discharge was 1,613 c. f. s. at elevation 91.93, on the 30th and 31st. There were no freshets in the Chagres River during the month with a rise of more than 5 feet at Alhajuela.

The elevation of Gatun Lake on October 31 was 86.30, as compared with 85.47 at the close of the prior month.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The net output of the hydroelectric station for the month of October was 5,228,924 kilowatt-hours, and the computed water consumption was 3,997,672,200 cubic feet.

Miraflores steam plant—The net output of the steam plant was minus 156,190 kilowatt-hours, and the oil consumption was 2,218.06 barrels. This station handled all the load on the south end of the system for about three and one-half hours on October 11, on account of the removal of a span of Gamboa Bridge.

Total power output—The total power output for both generating stations was 5,072,734 kilowatt-hours, and the total amount of power distributed to feeders by substations and generating plants was 4,550,994 kilowatt-hours, representing an energy loss of 10.2 per cent.

Transmission line—There was one interruption to transmission line service during the month, caused by breaking of a switch solenoid arm casting at the Gatun substation. Service was interrupted at Miraflores 3 minutes and Balboa 2 minutes.

Marine work—Repairs and additions of electric equipment, embracing 38 items, were made at Cristobal on the following vessels: *Nobles*, tug *Engineer*, *Middlebury*, *Cyrus W. Field*, U. S. M. P. *Graham*, *Kenosha*, *Balboa*, Gen. W. C. *Gorgas*, *Lake Como*, *Achilles*, *Aysen*, *Winnipeg*, *Deroche*, C-46, *Cabeza*, *Ontario*, *Guatemala*, A. G. *Forse*, *Imlay*, *Colon*, launch *Rodman*, and dredge *Gamboa*. Work was in progress at the end of the month on the C-44, C-45, *Balboa*, *Caribbean*, and tug *Tavernilla*. At Balboa, electrical work was done on the following vessels: *Paita*, *Cristobal*, barges Nos. 13 and 29, *Orotina*, *Okiya*, dredge *Corozal*, tug *Gorgona*, *Bonifay*, *Melville*, *Asolin*, tug *Gatun*, *Buhisan*, *Lima*, *Sewickley*, dredge *Cascadas*, *Dardania*, *Butte*,

Navy target raft *No. 50, Goodspeed, Ludlow, Aspenhill, War Company, Ulysses, C-40, U. S. M. P. Graham, dredge No. 84, Tanka, crane Hercules, Minnesotan, Castle Point, C-40, Guatemala, Bonham, Santa Elena, and Colindo.*

SHOPS, FOUNDRY, AND DRY DOCK WORK.

The *Paita*, formerly the *Anubis*, the last of the 5 ex-German vessels brought from Peru, was completed and delivered. These vessels had their machinery completely wrecked by the Germans before they were seized, and the work performed on them was of such a character that its successful accomplishment places the Canal shops on a parity with first-class shipyards in the continental United States. The *Paita* was formally turned over to the Shipping Board on October 6, and on the 9th left for Chile to take on a cargo of nitrate for the United States. The vessel made slow speed on her trial runs, due to the use of coal which had lain in her bunkers for four years, and was probably poor when mined, but with Pocohontas coal the ship made better speed than her log book indicates she made while under German ownership.

The main engines of the *Cristobal*, which had been removed from the vessel and thoroughly overhauled during the process of hull repairs in the engine space, were replaced and new boilers were hoisted into the vessel. The steel work advanced considerably and the cargo cold storage spaces were nearly completed except for the refrigeration system. Construction of the passenger accommodations was advanced and the work on the woodwork for them was begun.

The oil-burning parts of the *Melville* were received from the United States, repairs to the vessel were effected, and it departed for the Pacific Coast.

The extensive repairs on the wooden steamers *Okiya, Bonifay, Asotin, and Sewickley*, were completed.

The Chilean cruiser *Lima* was dry docked; the rudder was removed, and new pintles and gudgeons were fitted. On account of the construction of the vessel, this work was more difficult than the ordinary rudder job.

The docking of the *Huasco* marks the docking of a second ship for the Compañía Sud-Americana de Vapores (Chilean Line), the company hitherto having dry docked its ships at Callao.

The *Guatemala* of the Pacific Steam Navigation Company was dry-docked for painting and cleaning only, but examination disclosed an urgent necessity for rudder repairs. As the ship was on a passenger run, with mails, continuous night and day work was resorted to and the repairs were effected within 4 days.

Toward the end of the month the wooden steamship *Bonham* was towed to the plant and placed in dry dock. Her rudderpost had been carried away at sea, together with the lower portion of her sternpost and the after-portion of her keel. In addition, the rudder stock was bent, steering engine completely wrecked, and her propeller broken beyond repair. Repairs were in progress at the end of the month.

At the Cristobal Shops the following vessels arrived for repair: *A. G. Forse, Cauca, Balboa, Ulysses, Culebra, Gen. W. C. Gorgas, Lake Como, Dakotan, Urubamba, Nobles, Aspenhill, Alda, Guatemala, Ontario, Mantaro, Cabeza, Alliauca, Colon, Advance, Panama, Caribbean, Achilles, Middlebury, Gen. Geo. W. Goethals, Zarembo, Himoto, Antillan, Ebro, Imlay, Moosabee, Peru, Alkmaar, Stuyvesant, Manavi, Chimo, Costigan, Deroche, Colorado Springs, Metapan, Poe, Cyrus W. Fields, Percival Parks, Bradford, Kenosha, Chile, Capimee, Bottineau, Blue Eagle, Jamaica, Cranenest, Montcalm, Holbrook, Salvador, Ady, tug Tavernilla, derrick barge No. 157, subchaser No. 284, tugs *Mariner* and *Porto Bello, C-31, C-33, C-40, C-44, C-45, C-46, launch Capron, U. S. A. T. Marica, U. S. A. T. Madawaska, launch Wilhelm, Bald Hill, Lake Elk Water, Memphis, Hattorville, Belle Buckle, Asotin, Winnipeg, and Bosworth.**

Of the above, the following were in dry dock during the month: *Cauca, A. G. Forse, Balboa, Ady, tug Tavernilla, and subchaser No. 284.*

At the Cristobal Shops 194 individual and company job orders were issued during the month, 1 of which was for work on a submarine, and 4 on other Navy craft. Of the remaining 189, 84 covered repairs to ships making Cristobal or in transit through the Canal, exclusive of Panama Railroad ships. The overhauling of the *Culebra* was continued during the month. The extension of an air line to and on Pier No. 6, Cristobal, was completed during the month and the manufacture of a wharf bunker for the Cristobal coaling station was started during the latter part of the month.

Work was performed at the Balboa Shops during the month for the following vessels: *Bonham, Huasco, Fassett, Cristobal, Paita, Delfina, Minnequa, Brasher, Buhisan, Asotin, Coalinga, Bonifay, Okiya, Bushrod, Sewickley, Dardania, Guatemala, Castle Point, La Habra, Butte, Mexico, Balboa, Goodspeed, San Joaquin, Tanka, Matetua, Aspenhill, El Segundo, War Company, Acajulla, Imlay, Bradford, C-40, Minnesotan, Colindo, Bald Butte, Melville, Iroquois, U. S. M. P. Graham, tug*

Slocum, destroyers *Bailey* and *Chew*, collier *Ulysses*, cruiser *Lima*, dredge *Corozal*, *Ludlow*, *Almirante*, *Orolina*, *Santa Elena*, and *Chiriqui*.

Of the above, the following were in dry dock during the month: *Cristobal*, *Gorgona*, *Guatemala*, *Huasco*, *Bonham*, and *Lima*.

Patterns made and foundry output, compared with September, were as follows:

	October.		September.	
	Patterns.	Pounds.	Patterns.	Pounds.
Iron.....	59	134,067½	64	117,173
Steel.....	19	24,093	19	27,361
Brass.....	39	15,985½	62	27,097½

Equipment was hosted as follows: Locomotives, 1,599; cranes, 235; making a total of 1,834. Three hundred and thirty shop and 1,517 field repairs were made on cars, 803 freight cars were repacked, and 3,166 passenger coaches were packed, cleaned, oiled, and inspected.

BUILDING CONSTRUCTION.

Erection of the Puerto Obaldia radio station was 90 per cent completed at the end of the month.

Demolition of the old storehouse at Mount Hope was completed.

Construction of an oil storage shed for the Balboa store was 25 per cent completed.

The office building for the Central and South American Telegraph Company at Balboa was brought to 95 per cent of completion.

Work on the tuberculosis ward at Corozal Hospital continued held up, pending the arrival of material.

Work was begun on converting the old Section "F" of Ancon Hospital into family quarters, and was 20 per cent completed at the end of the month.

Terminal construction.—In the reconstruction of the Royal Mail pier, Colon, the placing of concrete floor slab was 90 per cent completed during the month. On Pier No. 6, Cristobal, the doors and washing walls were completed, and the cranes were advanced to 90 per cent of completion.

DREDGING DIVISION.

The total excavation by dredges during the month of October was 340,150 cubic yards, as follows:

Cubic yards.	Classified as:		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
<i>a</i> 47,250	30,000	17,250	Maintenance....	<i>East Culebra Slide.</i> 1774-00 to 1790-00.....	Gamboa.
<i>a</i> 91,600	41,600	50,000	Maintenance....	<i>Cucaracha Slide.</i> 1821-00 to 1806-00.....	Cascadas.
<i>b</i> 76,700	76,700	.....	Maintenance....	2203-00 to 2239-00.....	No. 84.
<i>b</i> 20,800	20,800	.....	Original.....	Miraflores P. I.....	No. 86.
<i>b</i> 9,200	9,200	.....	Maintenance....	Miraflores P. I.....	No. 86.
<i>b</i> 30,000	30,000	.....	Maintenance....	<i>Canal Prism.</i> 2079-50 to 2097-50.....	No. 86.
<i>b</i> 800	800	.....	Original.....	Canal Prism.....	No. 86.
<i>c</i> 49,200	9,000	40,200	Aux. Const.....	Area No. 10, Cristobal.....	Gamboa.
<i>c</i> 8,500	.....	8,500	Aux. Const.....	Area No. 11, Cristobal.....	Gamboa.
<i>d</i> 6,100	6,100	.....	Maintenance....	Balboa Inner Harbor..... Sta. 1-75 to 2-25..... Base line A, Sta..... 2231-00 and 2339-50.....	Cascadas.
340,150	224,200	115,950	Total for month		

(a) Gaillard Cut. (b) Pacific entrance. (c) Atlantic terminal. (d) Balboa inner harbor.

The following disposition was made of the excavated material: Seventy-six thousand seven hundred cubic yards were dumped in the San Juan fill; 6,100 cubic yards at sea beyond the Pacific entrance; 60,800 cubic yards in the flats west of the Canal at Balboa; 138,850 cubic yards in Gatun Lake, north of Gamboa; and 57,700 cubic yards between the end of the East Breakwater and Margarita Point.

Slide movement.—On October 3, Cucaracha slide became active and the movement continued during the remainder of the month. It is estimated that 150,000 cubic yards of material moved into the Canal area during the month. The dredge *Cascadas* dredged in front of this area throughout the period and kept the situation well in hand. There was no interference with Canal traffic and a reliable channel was maintained at all times.

On October 16, East Culebra slide, between stations 1775-00 and 1788-00 became active and continued for two days. Since then, there has been no general movement. This movement brought an estimated quantity of 125,000 cubic yards

of material into the Canal area. The dredge *Gamboa* was immediately put in operation at this area and continued dredging the remainder of the month. There was no interference with Canal traffic and a reliable channel was maintained at all times.

The excavation remaining to be done in the Canal prism, on November 1, was 172,400 cubic yards of earth and rock, and from the Cristobal coaling station and Balboa inner harbor, 2,100 and 167,800 cubic yards, respectively.

MUNICIPAL ENGINEERING DIVISION.

The circulating water system for the cold storage plant at Mount Hope was completed; 170 linear feet of pipe were placed and 21 cubic yards of concrete poured during October.

In grading and filling for the new silver townsite, Mount Hope, grading was 75 per cent completed, water lines 10 per cent completed, and sewers 2 per cent completed. Fourteen thousand three hundred cubic yards of fill were placed and graded.

At the new Panama Railroad stables in Colon, the grading, rolling, drains, and water lines were completed, and the placing of concrete is 50 per cent completed.

No work was performed during the month on the sewer and water lines for the Central and South American Telegraph Company's building at Balboa.

The sewer from North Avenue, Panama, to the beach was 60 per cent completed at the end of October.

Water pumped in the northern district amounted to 225,337,000 gallons, and in the southern district to 580,752,030 gallons, making a total of 806,089,030 gallons, as compared with 786,879,500 gallons in September. Colon was furnished with 55,074,600 gallons, Panama with 85,503,000 gallons, and 10,118,015 gallons were sold to 284 ships. The incinerator at Gavilan Island burned 2,065 tons of garbage and 53 dead animals in October.

WORKING FORCE.

Effective October 22, 1919.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	40	45	85
Building Division.....	347	1,940	2,287
Electrical Division.....	249	313	562
Municipal Engineering Division.....	121	1,894	2,015
Lock Operation.....	159	560	719
Dredging Division.....	145	882	1,027
Mechanical Division.....	976	1,772	2,748
Marine Division.....	141	420	561
Fortifications.....	61	223	284
Total.....	2,239	8,049	10,288
Supply Department:			
Quartermaster.....	160	1,926	2,086
Subsistence.....	28	410	438
Commissary.....	215	1,585	1,800
Cattle Industry—Plantations.....	29	504	533
Accounting.....	241	11	252
Health.....	242	1,007	1,249
Executive.....	534	283	817
Panama Railroad:			
Superintendent.....	45	509	554
Transportation.....	145	269	414
Receiving and Forwarding Agent.....	75	766	841
Coaling Station.....	85	804	889
Hotel Washington.....	5	101	106
Grand total.....	4,043	16,224	20,267

The total gold force at work on October 22 was 7 less than the 4,050 at work on September 24, and the silver force was 2,029 less than the 18,253 then at work. As compared with the gold force for the corresponding month of last year, reported as of October 25, 1918, the gold force was an increase of 1,197 over the 2,846 at work on that date, and the silver force a decrease of 440 over the 16,664 of that date.

The occupation of quarters on October 31 was as follows:

Occupants.	Men.	Women.	Children.	Total.
Americans.....	3,462	2,134	2,589	8,185
Europeans.....	191	41	58	290
West Indians.....	5,329	1,995	3,763	11,087
Total.....	8,982	4,170	6,410	19,562

PUBLIC HEALTH.

Sixty cases of malaria were reported during the month of October as compared with 112 cases during the month of September. One death occurred from malaria; 7 cases of influenza were discharged from Canal Zone hospitals; no new cases were reported and no deaths occurred from influenza in October.

Pneumonia cases reported numbered 4 and there was 1 death from pneumonia, as compared with 15 cases and 2 deaths during the preceding month.

Typhoid fever caused 3 admissions and 1 death, as compared with 5 admissions and 1 death during September.

One case of smallpox was admitted from the interior of Panama. There were no deaths from smallpox.

Two cases of leprosy were admitted to Ancon Hospital and transferred to the colony at Palo Seco.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material received during the month on United States requisitions was \$471,902.50, as compared with \$499,551.88 in September. Of that received in October, \$389,870.64 was chargeable to operation and maintenance; \$75,833.80 to construction and equipment; and \$6,198.06 to miscellaneous departments. Isthmian cash sales from storehouses and obsolete store amounted to \$36,475.53, of which \$34,365.65 was for stock, \$596.12 for scrap, and \$1,513.76 for obsolete and second-hand material. The more important sales made in the United States were the ladder dredge *Corozal*, for \$190,000; spares for the *Corozal* for \$125,000; one Lidgerwood hoisting engine and boiler for \$2,000; and 1,458 exhausted storage battery elements for \$556.37.

The total sales of material from storehouses to steamships for the month, including fuel oil, but excluding sales by the Commissary Division, which amounted to \$139,409.01, were \$18,411.70. Sales of commissary supplies to all purchasers for the month aggregated \$1,002,311.47, made up as follows: To steamships, other than United States naval vessels and those of the Panama Railroad Steamship Line, \$90,766.40; to The Panama Canal, \$120,088.71; to the United States Government, including sales to the Army and Navy, \$189,066.87; to individuals and companies, principally through charge accounts in the retail stores, \$20,298.46; to the Panama Railroad, including its steamships and the Hotel Washington, \$25,187.03; and to individuals purchasing with coupons, \$556,904.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on October 31, exclusive of fortifications was \$16,129,405.75; the balance in fortifications was \$8,386,387.63. Payments from appropriations by Disbursing Clerk in Washington amounted to \$650,192.31, and by the Paymaster on the Isthmus to \$1,428,774.82. Purchases of commissary books from the Panama Railroad Company amounted to \$341,655.16. Collections of tolls totaled \$661,307.74. Deposits of \$227,643.77 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,533,044.07, and collections by the Disbursing Clerk, Washington, \$67,773.57. Receipts from the Canal Zone and miscellaneous funds were \$178,508.36, and disbursements from the same source amounted to \$157,978.34. October payrolls on the Isthmus aggregated \$1,247,252.09, as compared with \$1,204,943.99 for September, a difference of \$42,308.10.

Respectfully,

CHESTER HARDING,

Governor.

Fuel Oil at \$1.50 a Barrel.

Crude fuel oil from tanks of The Panama Canal is being delivered to vessels at Cristobal and Balboa for \$1.50 per barrel of 42 gallons. This is Mexican oil, with a calorific value exceeding 140,000 British thermal units per United States gallon, specific gravity not exceeding 0.96 at 15° Centigrade, viscosity not exceeding 35° Engler at 150° F., and sulphur content not exceeding 4.5 per cent. These prices have been effective since October 15, 1919.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, December 6, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Volga	29	9 14	30	6 13	30	15 20	30	16 03	British	Gow Harrison & Co	368.9	49.8	23.6	Glasgow	San Francisco	General mdse.	5,203	4,857	3,554
Hatimura	29	15 12	30	6 18	30	14 05	30	14 46	British	British India Steam Nav. Co.	412.0	55.0	23.6	New York	Lyttelton	General	7,534	6,750	4,861
Eurydamas	29	11 35	30	6 26	30	13 01	30	13 38	British	Alfred Holt & Co.	410.1	49.0	20.9	London	Seattle	General	700	5,697	4,186
Panayama	30	10 28	30	6 56	30	16 45	30	17 24	American	American-Hawaiian Line	407.7	53.7	16.5	New York	Mejillones	General	7,206	5,103	1,967
San J. An.	29	14 15	30	12 43	30	19 13	30	17 08	American	Pacific Mail Steamship Co.	283.0	37.0	18.8	Cristobal	San Francisco	General	1,713	2,379	1,583
Point Lobos.	29	16 40	12-1	6 03	12-1	14 30	12-1	7 08	American	Pacific Mail Steamship Co.	283.0	37.0	18.8	Baltimore	San Pedro	General	3,400	2,895	1,967
Republic.	30	6 12	1-1	6 14	12-1	14 52	12-1	15 32	American	Chile Steamship Co.	345.1	49.1	21.0	Baltimore	Valparaiso	General	4,117	4,623	3,372
Aviles	28	13 02	1-1	6 17	12-1	13 41	12-1	14 27	Spanish	General Navigation Co.	370.0	41.0	14.0	Huelva	Mejillones	Ballast	3,637	2,467	
Lake Gitano.	30	20 13	1-1	6 20	12-1	14 40	12-1	23 50	American	United States Shipping Board.	251.0	44.0	25.2	New York	Yokohama	General	3,100	2,866	1,892
Tiger	12-1	20 58	1-1	6 27	12-1	13 36	12-1	21 14	American	Standard Transportation.	410.0	56.0	28.6	New York	San Francisco	Oil and general.	8,500	8,243	6,312
Lompop	28	16 36	1-1	6 35	12-1	2 30	12-1	21 51	British	C. T. Bowring & Co.	435.3	55.0	19.3	Tampico	San Francisco	Crude oil	7,000	7,488	5,342
Manayo	29	1 18	1-1	6 37	12-1	3 13	12-1	3 17	British	Pacific Steam Navigation Co.	216.0	35.0	14.6	Cristobal	Guayaquil	General	5,000	4,687	3,494
Scotia Maiden a	12-2	17 58	1-1	6 39	12-1	3 14	12-1	3 14	British	Ellerman Wilson Line	380.0	49.0	26.0	New York	Yokohama	General	2,550	533	492
Liberty	12-2	21 43	1-1	6 39	12-1	4 11	12-1	4 17	British	Scotia Maiden Co.	149.0	33.0	12.0	New York	Auckland	General	7,509	7,980	5,170
Agamenon	12-4	8 29	1-1	6 35	12-1	4 15	12-1	5 7	American	United States Shipping Board	395.5	55.0	24.0	New York	Yokohama	General	3,083	6,921	4,873
Lake Festina.	12-4	8 50	1-1	6 05	12-1	4 15	12-1	5 14	American	United States Shipping Board	248.0	44.0	23.0	New York	Yokohama	General	8,009	6,850	1,725
West Cheswald.	12-4	9 10	1-1	6 07	12-1	4 17	12-1	4 31	American	United States Shipping Board.	409.8	44.0	25.0	Port Arthur	Shanghai.	Coal.			
Chile.	27	21 12	1-4	10 37	12-4	19 35	12-4	22 51	British	Pacific Steam Navigation Co.	550.3	43.1	19.0	Cristobal	Valparaiso.	Case oil	361	4,040	2,628
Northern Pacific	12-4	11 12	1-1	6 11	12-1	4 18	12-1	4 40	American.	United States Army.	509.0	63.0	24.0	New York	Balboa	General	45		
Greene (c)	12-3	13 52	1-4	12 55	12-4	19 50	12-4	21 50	American.	United States Navy	311.0	37.0	13.0	Key West.	San Diego.	General			
Murford (c)	12-3	14 00	1-4	13 13	12-4	21 26	12-4	23 06	American.	United States Navy	310.7	37.0	10.6	Newport, R. I.	San Diego.	General			
Richard Delphy (c)	12-3	13 47	1-4	13 13	12-4	21 52	12-4	23 06	American.	United States Navy	315.0	31.0	12.6	Boston.	San Diego.	General			
Gen. W. M. Graham (d).	12-4	10 25	1-1	6 12	12-1	4 17	12-1	4 36	American.	United States Army.	380.0	53.0	16.0	Cristobal	Balboa	General	5,364	3,809	
Sacramento.	12-4	8 57	1-1	6 12	12-1	4 21	12-1	4 21	American.	Sacramento Steamship Co.	190.0	29.0	12.6	Cristobal	Buenaventura.	General	100	734	350
Balboa	12-4	11 50	1-1	6 13	12-1	4 21	12-1	4 21	American.	Columbian Maritime Co.	425.4	51.7	26.8	New York	Liquique.	Crude oil	9,500	7,020	5,042
San Joaquin	12-4	11 56	1-1	6 20	12-1	5 15	12-1	5 19	Norwegian	Chinese Government	416.0	52.0	24.6	Puerto Lobos.	San Francisco.	General	6,200	6,166	3,998
Hwah Jih	12-4	11 41	1-1	6 24	12-1	5 19	12-1	5 14	Chinese	Chinese Government	400.0	49.0	23.6	New York	San Francisco.	General	3,400	4,968	4,590
Nankai Maru	12-4	21 31	1-1	6 28	12-1	5 14	12-1	5 14	Japanese.	Meiji Kaifu Kaisha	359.0	45.0	23.0	New York	Yokohama	General	3,635	4,028	2,893
Kirin Maru	12-5	6 35	1-1	6 30	12-1	5 15	12-1	5 14	Japanese.	Nippon Yusen Kabushiki Kaisha	415.0	53.7	28.6	New York	San Francisco	General	8,172	7,050	4,862
Cape May	12-5	9 00	1-1	6 35	12-1	5 16	12-1	5 16	American	Standard Oil Company	410.0	56.0	26.0	New York	Shanghai.	Case oil	8,800	5,243	3,266
Eagle.	12-5	12 50	1-1	6 31	12-1	5 16	12-1	5 16	American	Grand Gulf Klotterud	390.0	54.0	1.5	Baltimore.	Talala.	Ballast.			
Herakles.	12-5	12 50	1-1	6 31	12-1	5 16	12-1	5 16	Norwegian	United States Navy	180.0	33.0	9.9	Norfolk.	San Diego	General	1,273	706	
Pigeon (d)	30	11 26	1-1	6 06	12-1	6 13	12-1	6 19	American.	Pacific Steam Navigation Co.	215.7	33.5	11.4	Cristobal.	Balboa	General	880	4,278	2,244
Acayula	12-4	19 20	1-1	6 06	12-1	6 14	12-1	6 20	British.	Peruvian Steamship Line.	374.0	46.0	18.6	Cristobal	Callao.	General			
Ucayali	29	15 48	1-1	6 22	12-1	6 14	12-1	6 19	Peruvian	United States Navy	251.8	43.2	14.6	Norfolk.	San Diego.	General			
R. L. Barnes.	30	11 24	1-1	6 26	12-1	6 12	12-1	6 15	American.	United States Navy	425.0	56.0	29.6	New York	Tacoma	General	9,476	7,905	5,664
Andes Maru.	12-6	6 24	12-1	6 11	12-1	5 14	12-1	6 21	Japanese.	Osaka Shosen Kabushiki Kaisha.	425.0	56.0	29.6	New York	Tacoma	General			

(a) Auxiliary schooner. (b) Transport. (c) Destroyer. (d) Tug. (e) Returned north through Canal. December 5. (f) In port

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Date	Origin	Destination	Agent	Remarks		
Honorata	29	17, 10, 30	7, 18, 30	14, 52, 30	19, 26	British	
Byfield	30	14, 30, 12-1	6, 27, 12-1	114, 40, 12-1	22, 30	American	
Path	30	23, 00, 12-1	7, 45, 12-1	15, 25, 12-1	18, 40	American	
Salboa	30	18, 00, 12-1	9, 0, 12-1	15, 40, 12-1	13, 19	American	
S. G. Wilder (t)	30	15, 00, 12-1	11, 54, 12-1	19, 55, 12-1	6, 10, 44	American	
Loran	12-2	18, 44, 12-2	7, 50, 12-2	18, 15, 12-2	23, 35	American	
Dewey	12-2	6, 25, 12-2	8, 02, 12-2	20, 18, 12-2	3, 40	American	
Wysteria	30	16, 13, 12-2	11, 01, 12-2	21, 19, 12-2	31, 50	British	
Ebro	12-2	13, 15, 12-2	14, 25, 12-2	30, 00, 12-2	3, 11	British	
Cathlamet	12-3	9, 15, 12-3	7, 57, 12-3	16, 00, 12-3	18, 10	American	
Huasco	12-3	9, 15, 12-3	10, 09, 12-3	16, 00, 12-3	18, 10	American	
Bonham	10-25	15, 05, 12-3	14, 55, 12-3	3, 22	28, 12-4	7, 25	American
Maipo	12-1	21, 00, 12-4	6, 45, 12-4	47, 17, 12-4	17, 26	Chilean	
Santa Olivia	12-1	22, 00, 12-4	7, 42, 12-4	47, 17, 12-4	5, 12-38	American	
Minnesota	12-4	6, 47, 12-4	9, 18, 12-4	18, 17, 12-4	5, 11, 15	American	
Acapulca	12-4	8, 35, 12-4	9, 54, 12-4	19, 20, 12-4	6, 06	British	
Northern Pacific (t)	12-4	18, 40, 12-5	7, 11, 12-5	14, 08, 12-5	7, 05	American	
H. K. Hall (t)	12-1	11, 15, 12-5	7, 57, 12-5	20, 15, 12-5	7, 25	American	
Western Glen	12-4	18, 48, 12-5	8, 10, 12-5	16, 12, 12-5	6, 13	American	
Jupiter	12-5	20, 00, 12-5	8, 45, 12-5	16, 30, 12-5	2, 91, 05	American	
Fua buca	12-5	2, 00, 12-5	8, 55, 12-5	17, 29, 12-5	3, 09	American	
Archited	12-5	21, 00, 12-6	7, 42, 12-6	6, 15, 06	12, 6, 16, 34	Peruvian	
Urubamba	12-6	2, 00, 12-6	8, 35, 12-6	6, 15, 57		American	
Santa Ana	12-6	2, 00, 12-6	8, 25, 12-6	6, 16, 20	12, 6, 17, 03	American	

(g) Sail. (h) Sailing schooner. (i) For orders. (j) Coffee, hides, ivory nuts, and rubber. (k) Fustic dyewood. (l) Chronic ore, and general. (m) Nitrates, sugar and general. (n) Nitrates, sugar and general. (o) 22,582 tons.

*ARRIVALS		*DEPARTURES	
Date	Vessels	Date	Vessels
Nov. 30	Gen. W. C. Gorgas...	Nov. 30	Middlebury...
Nov. 30	Kiwa	Nov. 30	Paul Harwood
Dec. 1	Parismina	Nov. 30	Tillamook
Dec. 2	Ulysses	Dec. 3	Santa Leonora
Dec. 3	Santa Marta	Dec. 3	Parismina
Dec. 3	Ellerdale	Dec. 4	Zacapa
Dec. 3	W. S. Rheem	Dec. 4	Santa Marta
Dec. 3	Atenas	Dec. 5	Ulysses
Dec. 4	Panama	Dec. 5	Gen. W. C. Gorgas
Dec. 4	Zacapa	Dec. 6	W. S. Rheem
Dec. 5	Middlebury	Dec. 6	Ellerdale
Dec. 6	Ancón	Dec. 6	C-44

*ARRIVALS		*DEPARTURES	
Date	Vessels	Date	Vessels
Dec. 3	La Habra	Dec. 5	Georgina Rolph
Dec. 3	Georgina Rolph		
Dec. 5	Liberty		

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending December 6, 1919.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Paul Harwood.....	Pan.-Amer. Pet. & Transp. Co.....		November 30.		(*)
Middlebury.....	Panama Railroad Cattle Industry.....		November 30.		(*)
Volga.....	Pacific Steam Navigation Co.....		November 30.		(*)
General Gorgas.....	Panama Railroad Steamship Line..	November 30.	December 6..	2,793	4,305
Manavi.....	Pacific Steam Navigation Co.....		December 2..		544
Santa Leonora.....	United States Army.....		December 3..		13
Parismina.....	United Fruit Company.....	December 1..	December 3..	2,109	81
Chile.....	Pacific Steam Navigation Co.....		December 4..		458½
Balboa.....	Colombian Maritime Co.....	December 1..	December 4..	652	123
Santa Marta.....	United Fruit Company.....	December 3..	December 4..	193	848
Ulysses.....	Panama Railroad Steamship Line..	December 2..	December 5..	12,379	(*)
W. S. Rheem.....	United States Shipping Board.....	December 3..	December 6..	10,000	(*)
Atenas.....	United Fruit Company.....	December 3..	December 5..	1,212	192
Ellerdale.....	Royal Mail Steamship Line.....	December 3..	December 6..	160	1,386
Huasco.....	Chilean Steamship Line.....	December 3..		1,843	
Panama.....	Panama Railroad Steamship Line..	December 4..		3,119	
Zacapa.....	United Fruit Company.....	December 4..	December 4..	5	1
Ucayali.....	Peruvian Steamship Line.....		December 6..		882½
Acajutla.....	Pacific Steam Navigation Co.....	December 4..	December 6..	959	(*)
Middlebury.....	Panama Railroad Cattle Industry.....	December 5..		300	
Northern Pacific.....	United States Army.....	December 5..		45	
Ancon.....	Panama Railroad Steamship Line..	December 6..		10,379	
Urubamba.....	Peruvian Steamship Line.....	December 6..		2,028	

* No cargo laded.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending December 6, 1919.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
San Juan.....	Pacific Mail Steamship Co.....	November 30.	November 30.		56
Point Lobos.....	Pacific Mail Steamship Co.....	December 1..	December 2..	137	50
Georgina Rolph.....	Rolph Navigation Co.....	December 4..	December 5..	68	
Lake Festina.....	United States Shipping Board.....	December 4..	December 6..	3,083	
San Jose.....	Pacific Mail Steamship Co.....	December 6..		91	
Balboa.....	Colombian Maritime Co.....	December 1..	December 1..	1	
Ebro.....	Pacific Steam Navigation Co.....	December 2..	December 2..	1	
Chile.....	Pacific Steam Navigation Co.....	December 4..	December 4..		4
Balboa.....	Colombian Maritime Co.....	December 4..	December 5..		21
Manavi.....	Pacific Steam Navigation Co.....	December 3..	December 3..		13
Huasco.....	Chilean Steamship Line.....	December 3..	December 3..	1	
Ucayali.....	Peruvian Steamship Line.....	December 6..	December 6..		7

Bark Towed from San Francisco into Atlantic Ocean.

The 4-masted bark *Golden Gate* arrived at Balboa early in the morning of December 9 in tow of the tug *Storm King*, from San Francisco via Salina Cruz. The *Golden Gate* is on the way to Leith with a cargo of 3,163 tons of barley. The tug is to tow her about 300 miles offshore from Cristobal, drop her, and return to San Francisco by way of the Canal. Both vessels are owned by the Rolph Navigation and Coal Co., of San Francisco, which has used this same method of handling sailing ships several times before.

Visit of Secretary of War.

The Honorable Newton D. Baker, Secretary of War, and party, including Gen. Peyton C. March, Chief of Staff of the United States Army, and Maj.-Gen. John L. Chamberlin, Inspector General, arrived from New York on December 4, on the transport *Northern Pacific*, and departed on the same ship for San Juan, Porto Rico, on December 8. During his four days' visit on the Isthmus the Secretary of War made an inspection of the Canal and its terminal adjuncts, military posts, and fortifications.

Relief of Passenger Congestion on Panama Railroad Steamship Line.

Advice has been received from the United States that the congestion in traffic of Canal employees returning to the Isthmus on ships of the Panama Railroad Steamship Line having been relieved, it is possible to begin making assignments to these ships of nondependent relatives at the \$45 rate. At the time the congestion ended about 140 applications were filed on a waiting list, some dated as far back as June, but it is thought that a considerable proportion will have given up the idea of coming to the Isthmus at this time, and it is accordingly believed that those who wish to make the trip can be accommodated without further delay. The \$45 rate is not accorded on Army transports, assignments to which on Canal and Panama Railroad account are limited to employees and their dependents.

Prices of Certain Supplies.

The following are prices of supplies to individuals and companies, including the 25 per cent surcharge, and were effective December 1, 1919:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.50
Brass, sheet.....	Lb.	.75
Bronze, Tobin.....	Lb.	.4375
Cement, at Panama:		
Department of United States Government (includes surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.705
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Department of United States Government (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.53
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	.9375
Copper, bar.....	Lb.	.4375
Gasoline, in drums (motor grade).....	Gal.	.4375
Lead, sheet.....	Lb.	.125
Lead, pig.....	Lb.	.10
Lumber, yellow pine or fir (except ceiling).....	M ft. B.M.	81.25
Lumber, ceiling, 1" by 6".....	M ft. B.M.	92.50
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B.M.	96.25
Metal, yellow.....	Lb.	.50
Nuts, iron, machine, hexagonal.....	Lt.	.225
Nuts, iron, machine, square.....	Lb.	.1875
Nails, common, wire.....	Lt.	.0625
Nails, galvanized.....	Lb.	.19
Oakum, Navy, spun.....	Lb.	.2125
Oakum, Navy, unspun.....	Lb.	.2125
Fuel oil, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same.....	42-gal. bbl.	*1.50
Commercial vessels and individuals and companies.....	42-gal. bbl.	*1.50
Individuals and companies from tank No. 116, Balboa.....	42-gal. bbl.	*1.54
Fuel oil, at Balboa and Cristobal—in drums or barrels:		
United States Army and Navy and vessels operated by same.....	42-gal. bbl.	*1.75
Commercial vessels and individuals and companies.....	42-gal. bbl.	*1.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.625
Oil, ammonia cylinder.....	Gal.	.4375
Oil, burning, "Colza".....	Gal.	1.375
Oil, cylinder, dark marine, "Texas".....	Gal.	.875
Oil, cylinder, ice machine, steam, "Garnett".....	Gal.	1.00
Oil, engine, "Arctic".....	Gal.	.7875
Oil, engine, "Cetus"—in tins.....	Gal.	.6575
Oil, engine, "Cetus"—in barrels.....	Gal.	.5625
Oil, gas engine, "Texas" heavy—in drums.....	Gal.	.5375
Oil, gas engine, "Ursa"—in barrels.....	Gal.	.8125
Oil, gas engine, "Ursa"—in cases.....	Gal.	.8725
Oil, gas engine, "Algol"—in drums.....	Gal.	.5625
Oil, kerosene—in drums.....	Gal.	.25
Oil, kerosene—in tins.....	Gal.	.3125
Oil, linseed, boiled.....	Gal.	2.1875
Oil, linseed, raw.....	Gal.	2.5625
Oil, locomotive, engine.....	Gal.	.35
Oil, lard.....	Gal.	2.375
Oil, marine engine, "Gargoyle".....	Gal.	1.125

*No surcharge.

Commodity.	Unit.	Price.
Oil, marine engine, "Atlas".....	Gal	\$0.825
Oil, marine, dark, cylinder, "Vacuum," W. L.....	Gal	1.125
Oil, marine, engine, "Dolphin".....	Gal	.4375
Oil, marine, engine, "Texas".....	Gal	.75
Oil, "Mineral Seal".....	Gal	.3125
Oil, nonliquid.....	Lb	.10
Oil, stationary engine.....	Gal.	.375
Oil, sperm.....	Gal.	2.875
Oil, signal.....	Gal.	1.375
Oil, valve.....	Gal.	.50
Oil, car.....	Gal.	.225
Vaseline.....	Lb	.20
Wax, lamp.....	Lb	.1125
Grease, black, gear.....	Lb	.075
Grease, yellow, cup, No. 3.....	Lb	.125
Grease, yellow, cup, No. 5.....	Lb	.1375
Grease, rod, special.....	Lb	.225
Grease, tunnel, bearing.....	Lb	.20
Tallow.....	Lb	.225
Turpentine.....	Gal.	2.50
Turpentine substitute.....	Gal.	.4625
Vaseline.....	Lb	.1125
Paint, lead, white, dry.....	Lb	.125
Paint, lead, white, in oil.....	Lb.	.15
Paint, zinc, white, dry.....	Lb	.225
Paint, zinc, white, in oil.....	Lb.	.1875
Paint, zinc, white leaded, 35 per cent in oil.....	Lb	.1875
Rivets.....	Lb.	.10
Rope, Manila, 1/4" diameter.....	Cft	.75
Rope, Manila, 1/2" diameter.....	Cft	1.625
Rope, Manila, 3/4" diameter.....	Cft	2.50
Rope, Manila, 1" diameter.....	Cft	4.0625
Rope, Manila, 1 1/4" diameter.....	Cft	4.375
Rope, Manila, 1 1/2" diameter.....	Cft	6.25
Rope, Manila, 1 3/4" diameter.....	Cft.	7.50
Rope, Manila, 2" diameter.....	Cft	12.1875
Rope, Manila, 2 1/4" diameter.....	Cft	16.5625
Rope, Manila, 2 1/2" diameter.....	Cft	26.25
Rope, Manila, 2 3/4" diameter.....	Cft	31.25
Rope, Manila, 3" diameter.....	Cft.	47.50
Rope, Manila, 3 1/2" diameter.....	Cft.	77.50
Rope, Manila, 3 3/4" diameter.....	Cft.	102.50
Steel, bar.....	Lb.	.0625
Steel spring.....	Lb.	.1375
Steel, cold rolled, rd.....	Lb.	.0875
Steel, sheet.....	Lb.	.0675
Steel, structural (angles, beams, etc.).....	Lb.	.0675
Tin, block.....	Lb.	.75
Tin, Banca.....	Lb.	1.10
Tin, sheet.....	Lb.	.25
Washers, cut.....	Lb.	.10
Waste, colored.....	Lb.	.2125
Waste, white.....	Lb.	.20
Zinc, boiler plate, 1/2" by 6" by 12".....	Lt.	.15

Item now on hand purchased at a cost over the price shown above will be given the purchase price.

Act of Congress.—Entrance of Aliens into the United States.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., November 28, 1919.

CIRCULAR NO. 600-68:

The Act of Congress quoted below is published for the information of all concerned

CHESTER HARDING,
Governor.

An Act To regulate further the entry of Aliens into the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That if the President shall find that the public safety requires that restrictions and prohibitions in addition to those provided otherwise than by this Act be imposed upon the entry of aliens into the United States, and shall make public proclamation thereof, it shall, until otherwise ordered by the President or Congress, be unlawful—

(a) For any alien to enter or attempt to enter the United States except under such reasonable rules, regulations, and orders, and subject to such passport, visé, or other limitations and exceptions as the President shall prescribe;

(b) For any person to transport or attempt to transport into the United States another person with knowledge or reasonable cause to believe that the entry of such other person is forbidden by this Act;

(c) For any person knowingly to make any false statement in an application for a passport or other permission to enter the United States with intent to induce or secure the granting of such permission, either for himself or for another;

(d) For any person knowingly to furnish or attempt to furnish or assist in furnishing to another a viséed passport or other permit or evidence of permission to enter, not issued and designed for such other person's use;

(e) For any person knowingly to use or attempt to use any viséed passport or other permit or evidence of permission to enter not issued and designed for his use;

(f) For any person to forge, counterfeit, mutilate, or alter, or cause or procure to be forged, counterfeited, mutilated, or altered, any passport, visé or other permit or evidence of permission to enter the United States;

(g) For any person knowingly to use or attempt to use or furnish to another for use any false, forged, counterfeited, mutilated, or altered passport, permit, or evidence of permission, or any passport, permit, or evidence of permission which, though originally valid, has become or been made void or invalid.

SEC. 2. That any person who shall willfully violate any of the provisions of this Act, or of any order or proclamation of the President promulgated, or of any permit, rule, or regulation issued thereunder, shall, upon conviction, be fined not more than \$5,000, or, if a natural person, imprisoned for not more than five years, or both; and the officer, director, or agent of any corporation who knowingly participates in such violation shall be punished by like fine or imprisonment, or both; and any vehicle or any vessel, together with its or her appurtenances, equipment, tackle, apparel, and furniture, concerned in any such violation, shall be forfeited to the United States.

SEC. 3. That the term "United States" as used in this Act includes the Canal Zone and all territory and waters, continental or insular, subject to the jurisdiction of the United States.

The word "person" as used herein shall be deemed to mean any individual, partnership, association, company, or other unincorporated body of individuals, or corporation, or body politic.

SEC. 4. That in order to carry out the purposes and provisions of this Act the sum of \$600,000 is hereby appropriated.

SEC. 5. That this Act shall take effect upon the date when the provisions of the Act of Congress approved the 22d day of May, 1918, entitled "An Act to prevent in time of war departure from and entry into the United States, contrary to the public safety," shall cease to be operative, and shall continue in force and effect until and including the 4th day of March, 1921.

Received by the President, October 29, 1919.

[NOTE BY THE DEPARTMENT OF STATE—The foregoing act having been presented to the President of the United States for his approval, and not having been returned by him to the house of Congress in which it originated within the time prescribed by the Constitution of the United States, has become a law without his approval.]

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Scientific assistant, Lighthouse Service (male and female); \$1,500 a year; January 11, 1920; No. 4; form 1312; age, 18 years but not 35 years.

Aid, Division of Reptiles (male and female); \$1,200 a year; January 11, 1920; No. 6; form 1312; age, not given.

Senior cost accountant (male and female); and junior cost accountant (male and female); No. 155-amended, supplemental. This examination closed December 2, 1919.

Minor clerk, Bureau of the Census (male and female); No. 477-amended, supplemental; January 7, 1920; age, between 18 years and 45 years.

Artist (male and female); \$1,800 a year; December 30, 1919; No. 465-amended; form 1312; age, 20 years and over.*

Special assistant, Legal Unit (male and female); \$1,800 to \$3,500 a year; December 16, 1919; No. 537-amended, supplemental.*

Specialist in cotton classing or marketing (male and female); \$2,700 to \$3,600 a year; December 23, 1919; No. 561; form 2118; age, 25 years but not 50 years.*

Mechanical engineer, qualified in internal combustion engine work (male and female); \$3,000 to \$3,600 a year; December 23, 1919; No. 568; form 2118; age, no limits.*

Vocational adviser (male and female); \$1,500 to \$3,000 a year; December 30, 1919; No. 569; age, 21 years but not 65 years.*

Civil engineer (male); \$2,500 to \$3,000 a year; No. 574; age, 25 years but not 40 years; form B. I. A. 2.†

Junior gas chemist (male and female); \$1,500 a year; No. 576; form 1312; December 30, 1919; age, under 40 years.*

Mechanical and electrical engineer (male); \$2,500 to \$3,000 a year; No. 574; age, 25 years but not 40 years; form B. I. A. 2.

Mine inspector (male and female); \$2,000 to \$3,500 a year; No. 577; December 30, 1919; form 1312; age, 25 years but not 50 years.*

Field assistant in insect control (male and female); \$900 to \$1,800 a year; No. 578; form 2118; age, under 60 years.†

Mechanical draftsman, Patent Office (male and female); \$1,000 a year; No. 582; December 30, 1919; form 1312; age, 18 years and over.*

Cotton technologist (male and female); \$3,000 to \$4,000 a year; December 30, 1919; form 2118; age, 30 years but not 45 years.*

Physician (male and female); Panama Canal Service, \$150 to \$200 a month; January 11, 1920; form 1312; age, 22 years but not 31 years.

Bacteriologist (male and female); \$130 to \$180 a month; January 6, 1920; form 1312; age, 18 years and over.*

Junior bacteriologist (male and female); \$70 to \$90 a month; January 6, 1920; form 1312; age, 18 years and over.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Deceased and Insane Employees.

The estates of the following deceased or insane employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claim- should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

DECEASED.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Daniel E. Barkley <i>alias</i> Barelay	21825	Jamaica.....	Colon.....	Supply Dept.....	November 18, 1919.
George Newman	35932	Jamaica.....	La Boca.....	Coaling Station.....	November 17, 1919.

INSANE.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of commitment.
Edwin Young	143611	Jamaica.....	Colon.....	Building Division....	March 28, 1918.

Danger in Filtering Gasoline through Chamois Skin.

The Physiologist of the Division of Municipal Engineering has transmitted to THE PANAMA CANAL RECORD the following reply received from an inquiry which he addressed to the Bureau of Mines:

Your letter of September 20, asking for information on the danger of filtering gasoline through chamois skin has been received.

† The possibility of gasoline generating static electricity on being poured through chamois skin has been well substantiated by a number of accidents in different parts of the country. One of the Bureau chemists was present at a gasoline filling station when one of these fires occurred, and there is no question but that the fire originated from static electricity. It is therefore unsafe to use chamois skin for filtering gasoline. The only advantage of this filtration would be to remove sediment and water from the gasoline, and this can be accomplished by the use of a properly constructed storage tank in practically all cases. Water and sediment will separate out of gasoline in a very few hours, and storage tanks for gasoline are at present being constructed so that the outlet for the gasoline is two or three inches above the bottom of the tank, thus allowing the water and sediment to settle out. At intervals of three to six months the tanks are drained and the water and sediment which have accumulated are removed. If this procedure is followed there is no need of using any form of strainer for the gasoline.

It undoubtedly would be found true that atmospheric conditions and the grade of gasoline would have some influence on the fire risk, but the use of chamois skin is certainly a dangerous and unnecessary practice.

Postal and Cable Addresses of The Panama Canal.

☐ The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Official Circulars.

Act of Congress.—Deficiency Appropriation, 1920.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 26, 1919.
CIRCULAR No. 600-67:

The extract from an Act of Congress quoted below is published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations to supply deficiencies in appropriations for the fiscal year ending June 30, 1920, and prior fiscal years, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums are appropriated out of any money in the Treasury not otherwise appropriated, to supply deficiencies in appropriations for the fiscal year ending June 30, 1920, and prior fiscal years, and for other purposes, namely:

* * * * *
PANAMA CANAL.

For civil government of The Panama Canal and Canal Zone, salaries of district judge \$7,500, district attorney, \$5,000, marshal \$5,000, and for gratuities and necessary clothing for indigent discharged prisoners, \$150,000, to continue available until expended.

* * * * *
SEC. 6. That this Act hereafter may be referred to as the "First Deficiency Appropriation Act, fiscal year 1920."

Approved, November 4, 1919.

Services of Employees as Jurors and Witnesses.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., November 26, 1919.
CIRCULAR No. 701-1:

1. An employee of The Panama Canal or Panama Railroad Company who attends a court of the Canal Zone as a juror or as a witness in a criminal case, or who testifies before a court-martial in the Canal Zone or who serves on a coroner's jury or as a witness in a coroner's case, is entitled to the time actually present in court and the necessary time in traveling to and from court, taking into consideration the means of transportation available, without charge against such employee's leave or compensation.

2. In like manner, an employee summoned as a witness for The Panama Canal or Panama Railroad Company, or other branch of the United States Government, in any civil suit shall also be entitled to his time without loss of leave or compensation. If summoned as a witness in any civil suit for the benefit of any other interest than those named, the time absent from his regular work shall be charged to the employee. An employee shall receive no pay for time consumed in traveling to and from court which is not a portion of his regular working hours.

3. Magistrates, clerks of district courts, coroners, judge advocates or trial officers of the court in the case of court-martial, will issue a certificate of attendance, in duplicate, in accordance with the facts in each case, showing the time the employee is actually in attendance, forwarding the original certificate to Bureau of Payrolls at Balboa Heights and delivering duplicate to the employee for presentation by him to his immediate superior.

4. Employees who are attending court and are entitled to time in accordance with the above instructions are to be shown as absent in the time book, by the timekeeper or the foreman who keeps the time, and the clerk who makes out the time roll will, upon presentation of proper certificate, credit the employee on the time roll

with the actual time shown on the certificate and the time consumed going to and from court, attaching the certificate to the time roll as his authority for allowing this time. No explanation of this time shall be given on the payroll.

CHESTER HARDING,
Governor.

Acting General Secretary, Bureau of Clubs and Playgrounds.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 8, 1919.
To all concerned—Effective this date, and during the absence on leave of Mr. T. S. Booz, Mr. A. J. Scott will act as General Secretary, Bureau of Clubs and Playgrounds, in addition to his regular duties.

C. A. McILVAINE,
Executive Secretary.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., December 8, 1919.

The following insufficiently addressed letters have been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Requests may be made by telephone, calling No. 182, Balboa:

Archie, Frank	Joyce, John W.
Baumgardner, Miles	Kilfoyle, Charles
Bello, John, Box 206	Knapp, Victoria
Bovee, Elmer	Leonard, Miss Ruth
Brodman, Mrs. M. A.	McLean, Miss Margaret
Brown, Mrs. M. Mc-	Mertz, Henry A.
Neil	Redmond, Glenn William
Brown, V. R.	Reynolds, Mrs. F.
Cullen, Joe M., Box 636	Samuels, H. A.
Cummings, E. O. II.	Shirley, W. H., Box 641
Dedementie, Walter	Welter, Theodore
	Wickham, Rhemus

Examination for Colored Teachers.

An examination will be held at the office of the Superintendent of Schools, Administration Building, Balboa Heights, Friday and Saturday, January 9 and 10, 1920, for colored teachers who desire to qualify for consideration for teaching positions in the Canal Zone colored schools as openings may occur from time to time.

All interested should forward their credentials and applications for taking examination to the Division of Schools, Balboa Heights, C. Z., and be on hand for the examination on those two days, as another examination for this purpose is not being planned for this school year.

Stages of the Chagres and the Lakes.

The maximum elevations of the Chagres River, Gatun Lake, and Miraflores Lake, in feet above mean sea level, during the two weeks ending at midnight of Saturday, December 6, were as follows:

Date	Chagres River		Gatun Lake		Mira- flores Lake
	Vigia	Alhajuela	Gamb- boa	Gatun	
Sun., Nov. 23	128.05	92.97	87.12	87.05	53.85
Mon., Nov. 24	127.55	92.79	87.27	87.10	53.94
Tues., Nov. 25	127.35	92.12	87.13	87.05	54.30
Wed., Nov. 26	127.21	92.01	87.15	87.04	53.95
Thurs., Nov. 27	132.41	96.25	87.15	87.08	54.00
Fri., Nov. 28	130.10	95.30	87.10	87.06	53.79
Sat., Nov. 29	128.80	94.22	87.10	87.06	53.77
Sun., Nov. 30	128.50	93.43	87.18	87.11	54.60
Mon., Dec. 1	129.00	93.80	87.08	87.06	54.29
Tues., Dec. 2	129.50	94.36	87.18	87.11	54.12
Wed., Dec. 3	125.20	92.80	87.22	87.16	54.12
Thurs., Dec. 4	130.50	95.05	87.06	87.11	54.49
Fri., Dec. 5	132.80	96.85	87.06	87.02	54.21
Sat., Dec. 6	128.80	93.57	87.10	87.01	54.00
Height of low water to nearest foot . . .	126.0	91.0			

Hotel Aspinwall Launch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10.00 a. m.
Leave Taboga.....	8.00 a. m.

Sundays and holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6.00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

COMMISSARY NOTES.

Ladies' Blouses.

Philippine hand-embroidered, hand-sewn white blouses, made of fine material and in a number of beautiful patterns, will be placed on sale in the commissaries this week at \$5.35 each.

Linen.

There is now on sale at Ancon, Balboa, Cristobal, Gatun, and Pedro Miguel commissaries a shipment of linens, part of those now on order in England. Another shipment is expected to arrive before Christmas. Of the lot on hand, special bargains are offered in separate cloths.

Foodstuffs from U. S. Navy.

There were received on the steamship *Panama*, foodstuffs purchased from the U. S. Navy, consisting of the following: 300 cases apricots, 300 cases string beans, 500 cases corn, 500 cases peas, 200 cases pineapple, 200 cases prunes, 500 cases tomatoes, 300 cases peaches, 100 cases pears, 1,500 cases milk, 100 kegs mackerel, 20 barrels vinegar, 2,000 bags rice.

Ribbons.

There has recently been received by the Commissary Division a shipment of ribbons ranging in prices from 35 cents to \$1.05 per yard. Inasmuch as these comprise Dresden flowered, Scotch plaid, and combination satin taffeta ribbons, they are desirable, not only for hair bows and sash ribbons, but for use in the making of bags and other accessories.

Serviceable Christmas Gifts.

Among the items recently received by the Commissary Division, which will be of considerable interest to the Christmas trade, are electric percolators, two styles, at \$12.85 and \$11.70; tea-ball teapots, silver-plated, at \$3.60, silver-plated olive dishes and bonbon dishes, at \$3.40 and \$3.25, respectively, mayonnaise sets, two styles, at \$3.60, round nickel-plated trays at \$2.30, and mahogany trays at \$4.50, \$4.85, and \$6.30. These are now on sale at Ancon, Balboa, Cristobal, Gatun, and Pedro Miguel commissaries.

Smoker's Accessories.

Of particular interest to the shopper who is desirous of obtaining some gift for the man of the family is the announcement that a shipment of smoking accessories has been received and placed on sale. These consist of tobacco jars of glass, with mahogany bases and decorated brass tops, priced at \$3.90, ash trays in a good variety of styles and colors, ranging in prices from \$1.20 to \$8.95, and smoking sets consisting of cigarette jars and ash trays on mahogany bases, priced at \$5.35. Ancon, Balboa, Cristobal, Gatun, and Pedro Miguel commissaries now have these for sale.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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The Panama Canal, Washington, D. C.

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Volume XIII. Balboa Heights, C. Z., December 17, 1919. No. 18.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 13, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Middlebury.....	Panama Railroad Cattle Industry.....	.....	December 7.....	.....	7
Huasco.....	Chilean Steamship Line.....	.....	December 8.....	.....	756½
Northern Pacific.....	United States Army.....	.....	December 8.....	.....	2
Crynsen.....	Royal Dutch West India Mail.....	December 8.....	December 10.....	196	432
San Jose.....	Pacific Mail Steamship Line.....	December 8.....	.....	520	.....
Laura C. Hall.....	Pacific Metals Corporation.....	December 8.....	December 13.....	7	61
Metapan.....	United Fruit Company.....	December 8.....	December 11.....	993	118
Point Judith.....	Pacific Mail Steamship Line.....	December 8.....	December 10.....	25	65
Panama.....	Panama Railroad Steamship Line.....	.....	December 11.....	.....	3,465
Cauca.....	Pacific Steam Navigation Co.....	December 9.....	.....	1,090	.....
Gen. Geo. W. Goethals	Panama Railroad Steamship Line.....	December 9.....	.....	2,001	.....
Carrillo.....	United Fruit Company.....	December 10.....	December 11.....	1,121	129
Atenas.....	United Fruit Company.....	December 11.....	December 11.....	2	½
Jamaica.....	Pacific Steam Navigation Co.....	December 11.....	.....	632	.....
Imperial.....	Chilean Steamship Line.....	December 11.....	.....	1,616	.....
Middlebury.....	Panama Railroad Cattle Industry.....	December 12.....	.....	450	.....
Allianca.....	Panama Railroad Steamship Line.....	December 13.....	.....	2,226½	.....
Urubamba.....	Peruvian Steamship Line.....	.....	December 13.....	.....	748½

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 13, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
San Jose.....	Pacific Mail Steamship Company.....	December 6.....	December 8.....	.....	531
Laura C. Hall.....	Pacific Metals Corporation.....	December 7.....	December 8.....	49	.....
Vulcan.....	United States Navy.....	December 8.....	December 11.....	.....	1,000
George Washington...	Norway-Pacific Line.....	December 9.....	December 10.....	200	.....
Jamaica.....	Pacific Steam Navigation Co.....	December 10.....	December 10.....	230	.....
Laura C. Hall.....	Pacific Metals Corporation.....	December 13.....	December 13.....	.....	23

Distribution of Cargo in October.

In the publication last week of the Governor's report to the Secretary of War of Canal operations in October, tables showing the ports from which cargo was shipped and to which it was destined were omitted to make room for other matter, and are published this week, on pages 236, 237, 238, and 239.

The "Advance" Aground Off Aux Cayes.

The steamship *Advance* of the Panama Railroad Steamship Line went ashore off Aux Cayes, on the southern coast of Haiti, on December 11, and has not been floated. The steamship *Alliance* of the same line, sailing from Cristobal, December 10, for New York, has been ordered to make for the *Advance*, and the tug *Albatross*, which was due to arrive in Habana December 17, to tow the back breaker *Vulcan* sold by The Canal to dredging interests there, has been ordered to proceed with all speed from Habana to Aux Cayes. The *Advance* has been plying between New York and Haitian ports.

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, December 13, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Lake Fielding	6	7:56	7	7:00	7	14:00	8	7:28	American	United States Shipping Board	248.6	43.7	23.1	New York	San Francisco	General	2,844	2,805	1,701
Nicolos	7	8:20	7	8:50	7	15:47	8	19:15	Italian	Nac. Navigation Company	346.6	50.1	13.0	Genoa	Colon	General	3,954	3,954	2,661
West Cavalan	7	4:57	7	13:28	7	20:26	7	10:17	American	United States Shipping Board	410.5	54.3	24.6	New York	Honolulu	Steel and acid	6,850	6,567	4,999
Roamer (a)	7	7:00	7	10:40	7	20:40	7	10:40	American	Bell & Dexter	375.0	52.5	17.0	Cristobal	Genoa	General	12	12	8
Wabana	7	6:30	8	6:20	8	12:48	8	14:50	British	Lowden Connell & Company	395.5	53.0	27.0	Sydney, N. S.	Panama	Coal	5,257	3,374	3,374
Duquesne	7	21:32	8	10:18	11	21:15	9	21:57	American	United States Shipping Board	277.0	42.0	16.0	Norfolk	Honolulu	Coal	8,211	7,285	5,346
James Rolph (b)	8	9:55	8	10:14	8	16:43	9	12:50	Chilean	Rolph Nav. and Coal Co.	379.7	41.3	22.3	Ipswich	Honolulu	Coal	2,164	1,947	1,947
Huasco	3	16:37	8	10:35	8	17:55	9	12:50	American	South American S. S. Line	401.0	54.0	23.6	New York	Valparaiso	General	7,566	4,508	3,066
Intan	7	16:05	8	11:47	8	19:41	8	21:25	American	Osaka Shosen Kaisha	425.0	56.0	30.6	New York	Yokohama	General	6,963	6,529	4,690
Amur Maru	8	11:20	8	11:47	8	19:41	8	21:25	Japanese	United States Shipping Board	251.0	43.6	16.0	Pernambuco	Yokohama	General	9,500	7,901	5,629
Lake Farrar	29	9:10	9	6:05	9	14:14	9	15:00	American	United States Shipping Board	407.7	53.7	16.0	Newport News	Iquique	General	2,845	1,741	1,741
Ohioan	9	1:00	9	6:40	9	14:57	9	15:35	American	American-Hawaiian Line	460.5	59.1	15.7	Norfolk	Antofagasta	General	7,106	5,066	3,066
Fernahyba	5	17:29	9	11:00	9	18:37	9	21:25	Brazilian	Brazilian Government	385.0	48.0	28.1	Savannah	Kobe	General, cotton	8,885	6,294	6,294
Ceylon Maru	9	10:43	9	11:20	9	19:36	10	12:15	Japanese	Nippon Yusen Kabushiki Kaisha	460.5	59.1	15.7	Norfolk	Antofagasta	General	8,885	6,294	6,294
Cuzco	1	17:11	10	6:25	10	16:33	10	16:25	Italian	American-Hawaiian Line	375.0	50.0	24.0	New York	Hongkong	Case oil	5,400	5,169	3,570
August	9	9:20	10	6:25	10	16:15	10	17:08	Norwegian	Pacific Mail Steamship Co.	289.0	44.0	18.11	Baltimore	Iquique	General	2,975	2,895	1,982
Point Judith	8	23:53	10	6:41	10	17:23	10	18:05	American	J. Christensen	410.0	54.0	15.0	Baltimore	Iquique	General	6,517	5,520	4,712
Mercedes	9	19:55	10	8:21	10	18:22	10	19:20	Spanish	Ricardo Orbs	340.0	53.0	24.0	Bilbao	Calata Butea	Steel, cotton	3,808	2,786	2,786
Minckan Maru	10	1:56	10	10:20	10	18:22	10	19:20	Japanese	Mitsui Bussan Kaisha	380.0	46.0	13.0	Bilbao	Calata Butea	Steel, cotton	4,003	4,453	3,216
Maiko Maru	10	16:25	11	6:25	11	19:14	11	7:26	Japanese	Ricardo Orbs	340.0	53.0	24.0	Bilbao	Calata Butea	Steel, cotton	3,808	2,786	2,786
Norlita	10	16:25	11	6:25	11	19:14	11	7:26	Japanese	Ricardo Orbs	340.0	53.0	24.0	Bilbao	Calata Butea	Steel, cotton	3,808	2,786	2,786
Avaha Maru	8	7:38	11	6:27	11	18:07	11	18:34	American	Meiji Kaum Kaisha	345.0	51.0	17.0	Baltimore	Yokkachi	Steel, cotton	6,517	5,520	4,712
Whakatane	10	17:10	11	6:40	11	19:06	11	20:40	British	Garland Steamship Company	490.0	54.5	16.1	London	Corral	Coke and general	4,003	4,453	3,216
Anwa	10	19:35	11	7:57	11	20:01	11	20:51	American	Tatsumi Steamship Company	385.0	48.0	21.6	Baltimore	Yokkachi	Steel, cotton	6,517	5,520	4,712
Minnesota	11	5:25	12	6:12	12	20:48	12	13:12	American	New Zealand Shipping Company	420.5	54.0	27.3	Montreal	Auckland	General	7,000	7,146	5,532
Lake Onawa	11	21:35	12	6:25	12	10:10	14	9:47	American	United States Shipping Board	490.0	54.0	27.3	Montreal	Auckland	General	7,000	7,146	5,532
Grayson	12	6:40	12	13:13	12	10:10	13	10:07	American	American-Hawaiian Line	420.5	54.0	27.3	Norfolk	Pearl Harbor	Coal	7,234	6,565	4,862
Benj. Brewster	12	21:35	13	6:15	13	14:43	13	20:10	American	United States Shipping Board	253.5	43.7	16.0	Dunkirk	Mejillones	Coal	3,611	2,987	2,074
Buffalo, U. S. S.	12	18:18	13	6:25	13	14:43	13	20:10	American	Garland Steamship Company	247.0	43.7	16.0	New York	Talcahuano	Coal	468	468	1,832
Atholl	13	12:42	13	7:27	13	16:05	13	18:05	American	Standard Oil Company	411.6	53.4	26.0	Tuxpan	Panama	Gen., gas, naph a	868	2,773	1,832
Laura C. Hall (c)	8	15:05	13	8:16	13	17:24	14	6:33	British	United States Navy	406.0	48.0	21.6	Newport, R. I.	San Diego	Crude oil	7,135	6,193	4,193
Coalinga	13	8:02	13	8:56	13	18:40	14	9:00	British	Austral Steamship Company	385.5	48.7	24.0	Sabine	Melbourn	Sulphur	5,900	4,825	3,601
Urubamba	6	15:57	13	9:32	13	19:30	13	22:21	Peruvian	Pacific Metals Corporation	471.0	55.0	10.0	Cristobal	Buenaventura	General	81	130	69
Uruguay (d)	10	15:05	13	9:32	13	19:30	13	22:21	Uruguayan	Union Oil Company	81.0	25.0	10.0	Cristobal	Buenaventura	General	10,388	8,108	5,877
Santa Luisa	12	23:50	13	11:50	13	20:51	13	21:45	American	Uruguayan Government	285.0	46.1	20.0	Port Limon	Montevideo	General	732	5,018	3,215
										W. R. Grace & Company	360.2	51.6	28.8	New York	Valparaiso	General	3,042	5,694	3,173

(a) Launch. (b) Sailing ship. (c) Power schooner. (d) Cruiser.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Date	Vessels	Line	From	Date	Vessels	Line	For
24	14, 53	7 13, 18	American	514 0	65 2	Norfolk	Ballast
6	18, 00	7 17, 40	British	471 9	61 0	Liverpool	Cotton, sugar
6	18, 20	7 18, 46	American	402 5	53 2	New York	Flour
6	18, 00	8 15, 10	American	283 0	37 0	Cristobal	General
6	13, 00	8 6, 41	British	81 0	25 0	Cristobal	General (k)
7	17, 50	8 16, 32	American	414 5	53 7	Genoa	Nitrates
7	23, 00	8 16, 29	French	219 8	32 0	Queenstown	Lumber
8	15, 05	8 8, 09	American	267 1	46 2	W. Hartlepool	Lumber, ties
8	15, 05	9 21, 20	American	260 0	45 0	Philadelphia	Ballast
11	7, 15, 20	9 12, 49	British	246 0	35 2	Cristobal	Ballast (l)
9	11, 30	9 11, 30	American	125 6	30 6	Cristobal	Ballast (l)
9	2, 00	9 13, 31	American	140 3	29 6	Cristobal	Ballast (i)
9	15, 50	10 6, 45	Norwegian	425 4	55 2	Bergen	General
9	2, 00	10 17, 10	Norwegian	293 3	42 8	San Francisco	Barley
9	22, 00	10 18, 35	American	449 0	21 0	San Francisco	General
10	9, 35	10 10, 17	British	395 5	55 0	New York	General
10	9, 35	10 10, 17	American	225 2	30 1	New York	Sugar and pine
10	10, 35	10 15, 10	Norwegian	220 0	34 0	New York	Sugar (m)
10	9, 30	11 6, 38	British	338 8	41 2	Cristobal	General
10	13, 00	11 13, 48	Chilean	383 0	53 0	Cristobal	Gen., hay, wine
8	13, 00	11 20, 05	American	324 2	53 0	Notfolk	Navy supplies
10	22, 30	11 8, 43	British	410 6	54 1	New York	General
11	2, 30	11 9, 42	British	324 0	47 1	Liverpool	Frozen meal, gen
10	10, 30	11 9, 59	British	424 8	57 0	United King.	Spruce and fir
11	11, 00	11 11, 59	Spanish	267 8	47 8	Portugal	Nitrate
3	16, 45	11 14, 00	Norwegian	267 8	47 8	Tampico	Ballast
7	17, 50	12 7, 27	American	475 0	56 1	Redwood, barley	Redwood, barley
10	13, 45	13 13, 12	American	475 0	56 1	Ipswich, Eng.	Flr, railway ties
6	15, 13	7 32, 13	British	435 0	56 0	Falmouth (n)	Frozen, general
12	20, 00	13 8, 54	American	216 3	42 5	Tampico	Ballast
8	50, 13	10 13, 20	American	409 8	54 2	New York	Nitrate of soda
13	9, 17	13 19, 03	American	409 8	54 2	Sabine, Tex.	Ballast

(e) Collier. (f) Dredge. (g) Tug. (h) Sail. (i) Towing sailing ship Golden Gate 800 miles offshore from Cristobal, then return to San Francisco. (j) For orders. (k) Coffee, ivory nuts, and sugar. (l) Cocoa, hats, hides, and nuts. (m) Coffee, hides, nuts, and spices. (n) 62,750 tons. (o) 3,850,000 ft. B. M. (p) Redwood, 58,708 ft. B. M.; barley, 3,500 tons.

*ARRIVALS

*DEPARTURES

Date	Vessels	Line	From	Date	Vessels	Line	For
Dec. 7	H. K. Hall	George Davis & Co.	High seas	Dec. 7	Middlebury	Panama Railroad	Cariacena
Dec. 8	Crijnsen	Royal Dutch West India Mail Co.	Amsterdam	Dec. 9	H. K. Hall	George Davis & Co.	London
Dec. 8	C-47 (q)	French Government	High seas	Dec. 11	Crijnsen	Royal Dutch West India Mail Co.	Puerto Colombia
Dec. 9	Metapan	United Fruit Company	New Orleans	Dec. 11	Panama	Panama Railroad Steamship Line.	New York and Haiti
Dec. 9	C-35 (q)	French Government	High seas	Dec. 11	United Fruit Co.	United Fruit Co.	Columbian ports
Dec. 9	C-35 (q)	Panama Railroad Steamship Line.	New York via Haiti.	Dec. 11	Metapan	United Fruit Co.	New Orleans and wayports
Dec. 10	Gen. G. W. Goethals	United Fruit, Company	New York and Kingston.	Dec. 11	Atenas	United Fruit Co.	New Orleans and Kingston.
Dec. 10	Carrillo	United Fruit, Company	New York and Kingston.				

(q) Returned from high seas for repairs.

(Continued on page 239, column 2.)

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, October, 1919.

From —	Amsterdam.	Antwerp, Belgium.	Avonmouth, England.	Baltimore, Md.	Ireland.	Birkenhead, England.	Boston, Mass.	Cardiff, Wales.	Cienfuegos, Cuba.	Cristobal, C. Z.	Dunkirk, France.	Ghent, Belgium.	Glasgow, Scotland.	Grimsby, England.	Hallifax, N. S.	Havana, Cuba.	Havre, France.	
Aberdeen, Wash.								1,529										
Antofagasta, Chile.																		
Astoria, Oreg.																		
Auckland, New Zealand.										685								
Buenaventura, Colombia.										6,033								
Callao, Peru.										1,066								
Champetico, Guatemala.															11,200			
Columbia River, Wash.													1,944	1,568				
Coronel, Chile.																		
Dalay, Manchuria.																		
Eureka, Cal.																		
Gray's Harbor, Wash.																		
Guayaquil, Ecuador.										3,598								
Iquique, Chile.											8,426							
Junin, Chile.																		
Kahului, Hawaii.							3,115											
Kobe, Japan.																		
Levuka, Fiji Islands.																		
Los Angeles, Cal.																		
Lyttelton, New Zealand.																		
M'vina, Philippine Islands.																		
Manilleo, Wash.			1,579															
Namimo, British Columbia.																		
New Westminster, British Columbia.																		
Portland, Oreg.															1,721			
Port Napier, Australia.																		
Punta Arenas, Chile.																		
Salaverry, Peru.																		
San Francisco, Cal.																		
Seattle, Wash.				1,919					917									
Sura, Fiji Islands.									1,724									2,752
Sydney, Australia.																		
Tacoma, Wash.																		
Talcahuano, Chile.																		
Talca, Chile.	10,011																	
Toopilla, Chile.																		
Tumaco, Colombia.		6,500																
Valparaiso, Chile.										1,154								
Vancouver, British Columbia.										11,316								
Victoria, British Columbia.																		
Wellington, New Zealand.																		
Total.	10,011	6,500	1,579	1,919	1,619	1,547	3,115	1,529	2,641	23,872	8,426	4,470	1,944	5,383	11,200	5,109		3,603

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, October, 1919.—Continued.

From—	Hull, England.	La Pallice, France.	Liverpool, England.	London, England.	Nantes, France.	New Orleans, La.	New York, N. Y.	Norfolk, Va.	Nuevitas, Cuba.	Philadelphia, Pa.	Queenstown, Ireland.	Rotterdam, Netherlands.	Savannah, Ga.	Southamp- ton, England.	Valencia, Spain.	Wilmington, N. C.	Total.
Aberdeen, Wash.			1,639	2,690			2,289					7,350	2,900		2,875	2,802	8,147
Antofagasta, Chile.																	15,927
Astoria, Oreg.				1,950													1,950
Auckland, New Zealand.				25,566													25,566
Buenaventura, Colombia.																	685
Callao, Peru.							3,117										12,773
Champetico, Guatemala.																	1,066
Columbia River, Wash.																	1,547
Coronel, Chile.																	11,200
Dalay, Manchuria.							8,320										8,320
Eureka, Cal.																	1,944
Gray's Harbor, Wash.																	1,568
Guayaquil, Ecuador.							2,200										2,200
Guayaquil, Ecuador.																	3,598
Iquique, Chile.			13,934		4,150	4,815	2,468						4,800				30,167
Jumb, Chile.																	8,426
Kahului, Hawaii.																	3,115
Kobe, Japan.							9,492										9,492
Levuka, Fiji Islands.								799									799
Los Angeles, Cal.							6,600										6,600
Lyttelton, New Zealand.																	6,080
Manila, Philippine Islands.							9,900										9,900
Mukilteo, Wash.																	1,579
Nauaimo, British Columbia.																	718
New Westminster, British Columbia.																	2,209
Portland, Oreg.				1,696			24,680										2,209
Port Napier, Australia.				3,287													3,958
Punta Arenas, Chile.																	718
Salaverry, Peru.																	2,209
San Francisco, Cal.																	6,900
Seattle, Wash.							8,868	7,483		4,200							32,246
Sura, Fiji Islands.							9,200	1,988						1,609			16,440
Sydney, Australia.				406													406
Tacoma, Wash.				4,370													7,870
Talcahuano, Chile.							12,436										14,550
Taltal, Chile.																	34,587
Tocopilla, Chile.																	20,169
Tumaco, Colombia.																	6,500
Valparaiso, Chile.																	1,154
Vancouver, British Columbia.							13,533										29,849
Victoria, British Columbia.																	12,536
Wellington, New Zealand.																	8,394
																	23,751
Total.	11,506	8,575	61,388	70,464	4,150	4,815	113,123	8,282	1,988	8,158	23,731	7,350	7,700	1,609	2,875	7,569	437,750

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, October, 1919.—Continued.

From—	New Zealand.	Peru.	Pisagua, Chile.	San Francisco, Cal.	Shanghai, China.	Tacoma, Wash.	Tabiti, Society Is.	Tabuano, Chile.	Talca, Chile.	Tocopilla, Chile.	Tumaco, Colombia.	Valparaiso, Chile.	Wellington, New Zealand.	Yokohama, Japan.	Total.
New York, N. Y.	6,645				14,911		208	6,319				14,974		7,399	105,565
Norfolk, Va.	4,769														16,788
Philadelphia, Pa.															9,054
Puerto Lobos, Mexico				9,080					5,531	9,000		300			45,111
Rotterdam, Netherlands.															4,200
Savannah, Ga.															2,400
Southampton, England.			7,928												16,428
Tampico, Mexico.															
Total.	11,414	2,273	7,928	14,960	21,695	11,402	208	6,319	5,531	9,000	1,082	19,210	15,040	7,399	268,131

MOVEMENTS OF OCEAN VESSELS.—Continued from page 235.

PORT OF CRISTOBAL.—Continued.

Date	*ARRIVALS.			*DEPARTURES.			
	Vessels	Line	From	Date	Vessels	Line	For
Dec. 11.	Atenas.	United Fruit Company	Cartagena.				
Dec. 11.	Fassett.	United States Shipping Board.	Bahfields.				
Dec. 11.	R-24, 22, 21, and 37 (r)	United States Navy.	Kingston.				
Dec. 11.	U. S. Eagle (s)	United States Navy.	Kingston.				
Dec. 12.	Port 851	United States Shipping Board.	St. Thomas.				
Dec. 12.	Shenandoah.	United States Shipping Board.	Port Arthur.				
Dec. 12.	Middlebury.	Panama Railroad Cattle Industry.	Cartagena.				
Dec. 12.	C-44 (g)	French Government.	High seas.				
Dec. 13.	Alliance.	Panama Railroad Steamship Line.	New York.				
Dec. 13.	Kentuckian (g)	American-Hawaiian Line.	High seas.				

(g) Returned from high seas for repairs. (r) Submarines. (s) Submarine tender.

PORT OF BALBOA.

Date	*ARRIVALS.			*DEPARTURES.			
	Vessels	Line	From	Date	Vessels	Line	For
Dec. 7.	Lake Elkwater.	United States Shipping Board.	Coquimbo.	Dec. 13.	U. S. Cleveland (d)	United States Navy.	Amapala.
Dec. 10.	U. S. S. Cleveland (d)	United States Navy.	Amapala.				

*Other than ships passing through the Canal.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

A New Issue of Metal Checks.

A new metal check, octagonal in shape, is being issued to all employees of The Panama Canal and the Panama Railroad and change of records will be effective January 1, 1920.

December pay receipts will, however, bear the old metal check numbers and employees should retain their old metal checks until after next pay day.

Weather Conditions in November, 1919.

The rainfall for the month was decidedly below normal, Taboga Island and the Quipo station on the Trinidad River being the only stations where an excess occurred. Many of the stations had the lowest November rainfall for years of record. Totals ranged from 3.50 inches at Gamboa to 15.35 inches at the Quipo station. The greatest amount of rainfall on any one day was 2.71 inches, at Pedro Miguel on November 30.

The estimated rainfall over the Gatun Lake watershed was 9.60 inches, compared with a 9-year mean of 14.97 inches, and over the Chagres River basin above Alhajuela it was 9.15 inches, as compared with an 18-year mean of 18.41 inches.

The air temperature was approximately normal everywhere except at Colon, where it was above normal. The relative humidity and daytime cloudiness were below normal, while the evaporation and temperature of the sea were generally above normal. The atmospheric pressure was above normal on the Pacific Coast and below on the Atlantic, while the wind movement was just the reverse.

A number of fogs were observed at interior stations, all of which lifted or were dissipated by 8.30 a. m.

Three seismic disturbances of close origin were recorded at Balboa Heights during the month, 2 on the 1st and 1 on the 10th. The quake recorded on the evening of the 1st was of sufficient intensity to be felt locally.

Gatun Lake hydrology.—Mean elevation of Gatun Lake was 86.81 feet above sea level; maximum 87.11 feet, on the 30th; minimum 86.30 feet, on the 1st; evaporation from Gatun Lake surface, 4,558 inches; rainfall on Gatun Lake drainage basin, 9.60 inches; total yield of Gatun Lake watershed, 7.33 inches on the watershed. The total yield amounted to 76 per cent of the rainfall.

A summary of the weather conditions for the month is given in the following table:

Stations.	Pressure (reduced to mean of 24 hours.)	Temperature.					Mean relative humidity.	Precipitation.			Wind.				
		Mean.	Maximum.	Date.	Minimum.	Date.		Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa Heights...	29.846	79.1	90	Nov. 12	70	Nov. 14	84.5	4.97	10.10	17	4,327	N.	32	N. E.	Nov. 21
Colon.....	29.844	80.0	89	Nov. 8	72	Nov. 8	80.6	6.63	21.04	22	7,197	N.	33	N.	Nov. 23
Gamboa.....	.....	78.9	90	Nov. 26*	68	Nov. 14	.....	3.50	11.87	20	3,329	N. E.	26	N. E.	Nov. 21
Gatun.....	.....	80.0	87	Nov. 8	73	Nov. 16	.....	7.19	19.64	25	4,463	N.	23	S.	Nov. 3

* And other dates.

Average Daily Attendance by Years—Canal Zone Public Schools.

The average daily attendance at the public schools of the Canal Zone has been as follows:

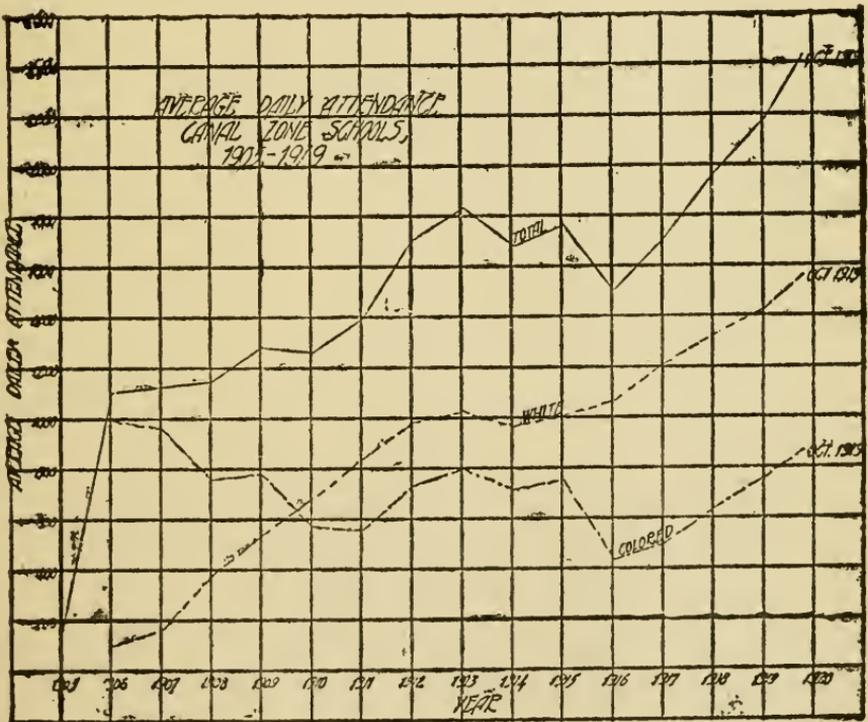
School year ending June 30.	White.	Colored.	Total.
1905.....			150
1906.....	107	1,000	1,107
1907.....	167	971	1,138
1908.....	385	765	1,150
1909.....	539	784	1,287
1910.....	682	577	1,259
1911.....	838.8	556.1	1,394.9
1912.....	979.9	733.7	1,713.6
1913.....	1,029.1	799.0	1,828.1
1914.....	967.7	715.2	1,682.9
1915.....	1,006.3	755.9	1,762.2
1916.....	1,065.1	436.3	1,501.4
1917.....	1,212.6	496.6	1,709.2
1918.....	1,322.9	640.3	1,963.2
1919.....	1,423.3	756.2	2,179.5
October, 1919.....	1,565.8	870	2,435.8

The attendance has been charted, as shown below. The Superintendent of Schools has supplied the following explanatory notes:

The average daily attendance is the average number of pupils in actual attendance at school each school day. It is found by dividing the total number of days that all pupils have attended school by the total number of days taught. It is always less than the number of pupils enrolled. For instance, the net enrollment for October, 1919, was: White, 1,657; colored, 973; total, 2,630; whereas the average daily attendance was: White, 1,565.8, colored, 870; total, 2,435.8. The difference is caused by irregular attendance.

It will be noted that the graphs for both white and colored schools for 1911, 1912, 1913, 1914, and 1915 and for 1917, 1918, and 1919 to date are very similar and almost parallel. Except for the drop in 1914, due to reduction of force consequent to establishment of the permanent organization on April 1, 1914, the line for white schools takes a constant upward direction due to children of employees becoming of school age and to the provision of additional family quarters.

For the same cause the line for colored schools from 1916 to date takes a constant upward direction. Up to 1916 the line for colored schools takes a very erratic course. The high point for colored schools for 1906 is due principally to compulsory attendance ordinances enacted at that time by the municipalities. The slight decline in 1907 is due to decreased effectiveness of the attendance ordinances and the more marked decline in 1908 to no attempt to enforce them. The decline in 1910 is not accounted for unless it is the result of depopulation. The slight decline in 1911 is due to the Cristobal colored school being destroyed by fire on March 23, 1911. The decline in 1914 is due, in common with that in the white schools, to reduction of force consequent to establishment of permanent organization April 1, 1914. The marked decline in 1916 is due to withdrawal of the privilege of free tuition for children of alien employees, not residents of the Canal Zone.



Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Notaries Public.

The following is a list of the Notaries Public in the Canal Zone:

BALBOA.

Adams, R. H., Balboa shops, August 18, 1922.
Attaway, E. F., Clubhouse, Balboa, October 28, 1921.
Hyde, W. H., Port Captain's office, June 14, 1920.
Illwitzer, P. G., Balboa storehouse, October 11, 1920.
Kalar, John D., Port Captain's office, July 21, 1920.

BALBOA HEIGHTS.

Pender, W. I., Administration Building, room 237, July 30, 1922.
Hammer, H. H., Property and Requisition Bureau, March 31, 1920.
LeMire, G., post office, April 30, 1920.
Margon, C. C., Administration Building, room 237, August 8, 1920.
Murray, P. E., Claims Bureau, Administration Building, June 25, 1920.
Wang, Frank H., Bureau of Posts, April 30, 1920.
Stephens, Fred H., survey office, April 30, 1920.
Taylor, Richard G., survey office, January 8, 1921.
Vanderslice, Geo. J., Administration Building, room 237, November 6, 1921.
Wempe, Henry J., Administration Building, room 204, November 30, 1921.
Woodruff, B. C., Accounting Department, February 6, 1921.
Singleton, C. C., District Quartermaster's office, April 26, 1922.

ANCON.

Boyd, Oscar S., Municipal Engineering Division, July 30, 1922.
Dwelle, R. L., Clubhouse, Ancon, October 28, 1921.
Ohlson, Elmer F., Ancon Hospital, April 30, 1920.
Sheibley, F. H., District Court, November 1, 1920.
Sherrit, Nye B., Ancon post office, April 21, 1921.
Williams, H. E., public stenographer, Tivoli, January 10, 1921.
Woolworth, P. T., Clubhouse, Ancon, October 28, 1921.

COROZAL.

Ilgen, W. F., station agent, December 3, 1922.

PEDRO MIGUEL.

Kinaman, Frank, station agent, April 8, 1920.

PARAISO.

Kennedy, L. F., post office, April 21, 1921.

CULEBRA.

Thornton, H. C., station agent, December 3, 1922.

EMPIRE.

Cooper, H. J., station agent, December 3, 1922.

SUMMIT.

Wood, A. C., station agent, December 3, 1922.

GAMBOA.

Frechan, P. A., station agent, December 3, 1922.

MONTE LIRIO.

Collins, E. G., station agent, December 3, 1922.

GATUN.

Hanrahan, T. J., station agent, December 3, 1922.

Davis, Lee, Clubhouse, Gatun, October 28, 1921.

DeLange, William, Electrical Division, December 12, 1922.

CRISTOBAL.

Cheatham, W. B., District Court, October 22, 1921.

Daniels, W. L., Building Division, March 25, 1921.

Dwyer, J. W., Commissary Division, September 27, 1921.

Hansli, A. J., coaling plant, October 16, 1921.

Hearne, Dr. C. A., quarantine office, March 22, 1920.

Hulsebosch, P. C., Cristobal shops, August 28, 1921.

Jackson, J. J., Commissary Division, April 30, 1920.

MacSparran, E. S., Receiving and Forwarding Agency, October 16, 1921.

McCarthy, J. S., Cattle Industry, Cristobal, February 10, 1922.

Mitchell, J. A., customs office, March 31, 1922.

Rattiner, W. H., Commissary Division, February 18, 1921.

Tyson, Arthur E., Clubhouse, Cristobal, October 28, 1921.

Yearick, G. L., Commissary Division, March 22, 1920.

Stone, W. H., Mechanical Division, September 4, 1922.

Flood, Arthur, customs office, November 15, 1922.

Victory Bonds for Sale.

The Liberty Loan Committee is in a position to accept a limited number of additional applications for 4 $\frac{3}{4}$ per cent notes of the Victory Liberty Loan, to replace cancellations by employees leaving the service.

Payment at par value, plus the accrued interest, may be made in cash, either to the Collector, Balboa Heights, or the Deputy Collector, Cristobal. No applications for payroll deduction can be accepted.

Children Insufficiently Nourished.

The Chief Health Officer of The Panama Canal makes the following statement:

It is a fact worthy of consideration by every parent, that a large proportion of school children are underweight and malnourished. Investigation shows that at least a third of the children of the United States are so afflicted, and the recent physical examination of school children of the Canal Zone discloses that even the children of Government employees here are too frequently below par because of improper feeding.

It need not cost any more to feed your children the food they should have than it is now costing, and a careful attention to their requirements may result in a better balanced ration and a quick change to a condition of normal health and growth.

Employees' Free Entry Requests.

Employees in submitting request for free entry and reduced freight rate on form No. 164 sometimes type their names on the requests and neglect to sign the originals, making it necessary to return requests for written signature. The original of these requests must always be signed in ink.

Visit of the "New Zealand" and the "Uruguay."

The British battle cruiser *New Zealand* arrived at Balboa in the morning of December 13 from San Diego, and tied up at Pier 18 until the morning of December 16, when she started through the Canal on her way to the island of Jamaica. The Uruguayan torpedo boat *Uruguay* arrived at Cristobal on December 10 from Port Limon, passed through the Canal to Balboa, and tied up, clearing for the south on December 16, bound for Montevideo, via Magellan. During the stay of the vessels the personnel were entertained by the people of the Isthmus, and receptions were given aboard the ships.

Contagious Diseases to be Reported.

In connection with the appearance of cases of chicken pox, whooping cough, and other contagious diseases in the Balboa district, the Chief Health Officer calls attention to the necessity of reporting such diseases promptly. The following is quoted from the Executive Order governing this matter:

"Every physician, druggist, school teacher, clergyman, midwife, nurse, head of a family, or other person in attendance on or in charge of any one sick or injured, having knowledge of the existence in any district of the Canal Zone of any of the diseases hereinafter named, shall immediately report the same to the District Physician or Sanitary Inspector. The diseases required to be so reported are:

Anthrax	Plague
Chicken pox	Puerperal septicemia
Cholera, Asiatic	Relapsing fever
Diphtheria (croup)	Rubella (Rotheln)
Dysentery	Scarlet fever
Epidemic cerebrospinal meningitis	Smallpox
Erysipelas	Tetanus
Glanders	Tuberculosis (of any organ)
Infectious diseases of the eye	Typhus fever
Leprosy	Typhoid fever
Malarial fever	Whooping cough
Measles	Yellow fever

"Any person who fails to make due report, as required by this order, of any of the above-enumerated diseases shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding \$25, or by imprisonment in jail not exceeding 30 days, or by both fine and imprisonment in the discretion of the court."

Quarters and Land at Las Cascadas.

Carpenters are now engaged in renovating buildings at Las Cascadas for rental to West Indians, and applications for assignment to quarters and land may be placed through the district quartermaster in any of the quartermaster districts. The supervision of the settlement is to be vested in the district quartermaster at Pedro Miguel, who has so far received 4 applications for assignment. The conditions of assignment are set forth in the following circular and appended form of revocable license:

Assignments to Houses in Las Cascadas.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., November 21, 1919.

To all concerned—For the purpose of providing homes for silver employees who are temporarily out of work, where they can support their families at a nominal expense and will not be subject to the general rules in regard to vacating quarters when employment is terminated, assignments will be made to houses in Las Cascadas under the following conditions:

1. Assignments will be made by the district quartermaster at Pedro Miguel. Applications will be accepted at any of the district quartermaster's offices and forwarded by the district quartermaster to the district quartermaster at Pedro Miguel.

2. Assignments will be made in the following order:

(a) To employees with families who have been laid off within the last 6 months and who hold satisfactory clearances.

(b) To employees who are not now occupying Panama Canal quarters but who have filed applications for quarters and who have five members in the family. Assignments will be made in accordance with date of application for regular quarters.

(c) To employees whose occupation is of a temporary nature. Assignment in this case will be made in accordance with date of application for quarters at Las Cascadas.

(d) To nonemployees who are physically capable of performing work on the Canal.

3. Before assignment is made the applicant will be required to sign a form of revocable license, copy of which is published below.

4. Forms of revocable license may be obtained from the district quartermaster at Pedro Miguel, who will see that they are properly filled out and witnessed, and copies forwarded to the Auditor, the Executive Secretary for general files, and a copy retained for his file.

5. Assignments will be made to apartments selected by the district quartermaster. Such apartments will contain a minimum of 300 square feet of floor space. Rental will be charged at the rate of \$2.50 United States currency per month, per apartment and 50 cents United States currency per month for the rental of 1 hectare of land. Each lessee must rent and cultivate a minimum of 1 hectare of land. Additional land may be secured at a rental of 50 cents per month per hectare on condition that it will be cultivated by the lessee and that it can not be sublet to other persons.

6. All lessees will be granted commissary privileges to the amount of \$20 per month. Such privileges will be covered by special authority cards issued by the Auditor of The Panama Canal and subject to such conditions as will be made by him and approved by me.

7. Revocable licenses will be granted to such businesses as are considered necessary by the Police Department and will be subject to regulations which will be published later.

8. It is expected that train service will be discontinued within the next year. After the discontinuance of this service communication with the west side will only be possible by a boat at Gamboa, or by road from Miraflores and Pedro Miguel Locks, when the military road is open for traffic.

CHESTER HARDING,
Governor.

The form of revocable license is as follows:

This revocable license made by and between the Chief Quartermaster of The Panama Canal, acting by and under the authority conferred by the Governor of The Panama Canal, party of the first part, and party of the second part, WITNESSETH:

That for and in consideration of the fact that party of the second part, agrees to perform at least 20 days' labor for The Panama Canal or the Panama Railroad Company during each of any four months of any one year, or a total of at least 80 days' labor per year, if and when the said second party may be called upon by The Panama Canal or the Panama Railroad Company to do so and for which labor the party of the second part is to be compensated at current rates of pay applicable to the class of labor performed by the party of the second part, and in further consideration of the monthly payment by the party of the second part to The Panama Canal of the sum of three and no/100 dollars (\$3) United States currency, The Panama Canal, party of the first part, grants the use and occupancy, under the herein revocable license, of the following-described building or part of building, and of the following-described plot of land, both situate in or in the vicinity of the village of Las Cascadas, Canal Zone, to the said party of the second part, under the conditions, rules, and regulations hereinafter set out or to be hereafter promulgated by the Chief Quartermaster of The Panama Canal and which are to be considered further and additional conditions governing the use and occupancy of the said building or part of building and plot of land by the party of the second part, to wit:

1. Apartment A in the building numbered 1, situate in the village of Las Cascadas, Canal Zone, together with one (1) hectare of agricultural land in the vicinity of said village, and which 1 hectare of land is situate and described as follows:

2. The 1 hectare of land herein assigned to the party of the second part shall be fully cultivated and kept under full cultivation by him, and shall not be sublet to a third party. Additional acres of agricultural land, 1 hectare in extent, may be assigned the party of the second part upon condition that such additional land will be fully cultivated and kept under cultivation, at an additional rental of fifty cents (\$0.50) United States currency per month. In the event of cancellation of the herein license, the party of the second part shall not be entitled to reimbursement or damages for or on account of any crops or trees with which the plot or plots of land assigned to said second party may be or may have been planted.

3. The herein license covering both the use and occupancy of building or part of building and 1 hectare of agricultural land herein referred to and described is revocable upon ten (10) days' written notice to the party of the second part from the Chief Quartermaster or his representative, the district quartermaster at Pedro Miguel.

4. The monthly payment by way of rental, above referred to, in the sum of three dollars (\$3) United States currency, shall be payable monthly in advance, on the 12th day of each month, to a representative of the Collector of The Panama Canal at the police station in the village of Las Cascadas.

5. The privilege of making purchases to the extent of twenty dollars (\$20) United States currency per month at the Gamboa commissary will be granted to said party of the second part, which privilege will be extended by special authority cards to be issued by the Auditor of The Panama Canal and the Chief Quartermaster and under such rules and regulations as may be formulated by them.

6. The apartment occupied by the party of the second part is to be kept in good condition and repair at the expense of and by said party of the second part. General repairs to the building which are not confined to any one apartment may be made by the occupants and the cost of labor divided in any way satisfactory to them, but in the event repairs are not made by the occupants, such repairs will be made by the quartermaster department and the cost of such repairs will be charged to and divided equally among the occupants of the building. The grounds immediately adjacent to the apartment occupied by the party of the second part and allotted to him by the District Quartermaster at Pedro Miguel, shall be kept clear of excessive vegetation and otherwise maintained in a sanitary condition, as directed by the Health Department.

7. The plot of agricultural land or lands assigned to the party of the second part shall be designated by The Panama Canal representative stationed in the village of Las Cascadas, and shall be monumented in a way suitable to said Panama Canal representative by and at the expense of the party of the second part.

8. The party of the second part shall faithfully observe the sanitary and police rules and regulations now in force and to be promulgated in and for the village of Las Cascadas.

Done this day of A. D. 1919, at Las Cascadas, Canal Zone.

R. K. MORRIS,
Chief Quartermaster of The Panama Canal,
Party of the First Part.

Witnesses:

.....
.....

By.....
.....
Party of the Second Part.

Indexes and Bound Volumes.

Indexes and title pages for Volumes XI and XII of THE PANAMA CANAL RECORD have been issued, and the customary distribution made. Additional copies may be secured on request of The Panama Canal, Washington, D. C., or Balboa Heights, C. Z. Bound sets of the volumes are being prepared in Washington, and the usual distribution of official copies will be made in due course. Copies of the bound volumes may be purchased for \$1 each.

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast	\$2.00		
Employees	per day.. 2.75		
Children under 12 years of age	per day.. 1.25		
Servants of employees	per day.. 1.50		
Employees for stay of 7 days	per day.. 2.00		
Reduction of 10 per cent for employees on above rates for stay of 30 days.			
Further reduction of 10 per cent for families of four or more.			
Nonemployees	per day.. 3.50		
Children of nonemployees	per day.. 1.50		
Servants of nonemployees	per day.. 1.75		
Meals without room	{ Breakfast	1.00	
		Luncheon	1.25
		Dinner	1.25

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Rene de Beauville, (alias Boville)	173410	Martinique.....	Panama.....	Dredging Division...	November 30, 1919
James McLean.....	34087	Barbados.....	Panama.....	Panama Railroad....	December 4, 1919.

Official Circulars.

Acting Governor.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 13, 1919.

To all concerned—Effective December 15, 1919, and during my absence on leave, Lieut. Col. Jay J. Morrow, U. S. A., Engineer of Maintenance, will be Acting Governor.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., December 6, 1919

CIRCULAR NO. 223:

Effective December 5, 1919, Mr. B. C. Poole, District Quartermaster, is designated an accountable official of The Panama Canal, *vice* Mr. R. C. Shady, and as such will account for all non-expendable property in use by the District Quartermaster, Balboa.

H. A. A. SMITH,
Auditor, *The Panama Canal*.

Approved: CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., December 8, 1919.

CIRCULAR NO. 224:

Effective December 5, 1919, Mr. L. J. Stapleton is designated an accountable official of The Panama Canal, *vice* Mr. W. R. Smith, and as such will account for all storehouse stock at the Cristobal Store.

H. A. A. SMITH,
Auditor, *The Panama Canal*.

Approved: CHESTER HARDING,
Governor.

Employees with 120 Days or More Leave Due February 1.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 10, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

Attention is called to paragraph 35 of Circular 601-59, which reads as follows:

"After accumulating leave of all kinds amounting to 120 days, an employee ceases to earn additional leave until he is granted all or part of the cumulative leave already earned, unless he shall enter on cumulative leave within two months thereafter, or be ordered by the Governor to defer taking leave for official reasons."

A number of employees will have earned leave amounting to 120 days and over on February 1, 1920, and in order to continue to earn cumulative leave it will be necessary for the employee to reduce such leave to a number of days less than 120 by entering on leave of absence within two months after the expiration of his current service year. Information regarding amount of leave due can be procured by calling up the Leave Clerk, Personnel Bureau, telephone Balboa 168.

By direction of the Governor.

C. A. McILVAINE,
Executive Secretary.

Proposals for Furnishing Green Coffee.

THE PANAMA CANAL, SUPPLY DEPARTMENT,
COMMISSARY DIVISION,

CRISTOBAL, C. Z., December 1, 1919.

Sealed proposals are invited for furnishing the Commissary Division of the Supply Department, The Panama Canal, with 250,000 pounds of green

coffee in accordance with the following specifications:

Coffee to be a good medium bean, good body, soft, good roast and free from all foreign matter, and to be packed in closely woven burlap bags.

Bids will be received for all or any part of the 250,000 pounds called for, until 4 p. m., Thursday, January 1, 1920, at the office of the General Manager, Commissary Division, Cristobal, Canal Zone, enclosed in a sealed envelope, addressed to the General Manager, Commissary Division, and marked "Proposal for furnishing Green Coffee, to be opened January 15, 1920." A 2-pound sample of the coffee offered must be submitted with bid.

Coffee supplied on this contract will be received subject to final inspection on delivery at warehouse of the Commissary Division, Cristobal, Canal Zone; samples will be taken from each consignment by the General Manager for the purpose of testing and comparing with original sample submitted with the bid. The decision of the General Manager as to whether the coffee complies with the standard of sample submitted shall be final and conclusive on both parties.

Deliveries to be made on dock at Balboa or Cristobal, Canal Zone, free of all charges. The total quantity awarded will be accepted in one or not more than two shipments of equal quantities, but the first in no event later than 30 days after acceptance of bid, balance 30 days later.

Bids must be accompanied by a guaranty bond with satisfactory sureties, or by a certified check on or certificates of deposit in a bank or trust company acceptable to the General Manager and made payable to the order of the Collector of The Panama Canal in an amount not less than 5 per cent of the bid. Such check or certificate may be held, deposited, or collected by the Collector of The Panama Canal, as may be directed by the General Manager. The same, or their proceeds, will be returned to the unsuccessful bidders on rejection of their bids.

Should the successful bidder, if requested to do so, fail to enter into a formal contract within thirty (30) days after the acceptance of his bid by the Commissary Division, such bond, check or certificates of deposit, or the proceeds thereof, shall be forfeited as liquidated damages for such failure. The bond, certificates of deposit or certified check submitted by the successful bidder shall stand as security for the performance of the bidder's proposal, or as a guarantee for the faithful performance thereof in case a formal contract is not required.

Time is the essence of any agreement that may be entered into hereunder, and if the contractor fails to make deliveries as required, there shall be deducted from the contract price the sum of 5 cents U. S. currency, for each 100 pounds of coffee for each day the contractor fails to make delivery after the date fixed for delivery or until the General Manager is able to purchase the same quantity and quality of coffee elsewhere; provided that no deduction shall be made for delays caused by fires, floods, perils of the sea or other causes which the General Manager determines are beyond control of the contractor. If the contractor fails, neglects, or refuses to make delivery in the manner provided for by the contract, the right is reserved through the General Manager to terminate the contract at any time.

The Commissary Division reserves the right to reject any and all bids, or to accept any bid in part, in its discretion.

J. J. JACKSON,
General Manager.

Sale of Tug De Lesseps.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., January 5, 1920, and then opened, for the purchase of the tug *De Lesseps*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Stages of the Chagres and the Lakes.

The maximum elevations of the Chagres River, Gatun Lake, and Miraflores Lake, in feet above mean sea level, during the week ending at midnight of Saturday, December 13, were as follows:

Date	Chagres River		Gatun Lake		Miraflores Lake
	Vigia	Alhajuela	Gamboa	Gatun	
Sun., Dec. 7	129.15	93.99	87.13	87.07	54.02
Mon., Dec. 8	128.45	93.23	87.08	87.01	54.05
Tues., Dec. 9	127.75	92.58	87.10	87.01	54.28
Wed., Dec. 10	128.70	93.62	87.12	87.01	54.20
Thurs., Dec. 11	127.85	92.85	87.13	87.06	54.53
Fri., Dec. 12	127.55	92.38	87.12	87.06	54.15
Sat., Dec. 13	127.30	92.17	87.18	87.02	54.74
Height of low water to nearest foot..	128.0	91.0			

Rainfall from Nov. 1 to 30, 1919, Inclusive.

STATIONS.	Maximum in one day.	Date.	Total.
Pacific section—			
Taboga	1.50	30	7.14
Balboa	1.28	30	5.10
Balboa Heights	.92	30	4.97
Miraflores	2.01	30	5.47
Pedro Miguel	2.71	30	6.02
Rio Grande	1.98	4	6.66
Central section—			
•Culebra	2.40	4	7.40
•Camacho	2.20	4	6.00
Empire	2.26	4	6.65
Gamboa	.84	4	3.50
•Juan Mina	1.76	30	7.59
Alhajuela	2.49	30	9.79
•Vigia	1.26	5	5.99
Frijoles	1.76	19	11.11
•Trinidad	.97	8	7.56
•Monte Lirio	1.50	5	9.09
Atlantic section—			
Gatun	.78	4	7.19
•Brazos Brook	.87	29	5.22
Colon	1.43	8	6.63
†Bocas del Toro	1.05	28	4.44
Porto Bello	.91	29	7.74

•Standard rain gauge—readings at 5 p. m. daily.
 Automatic rain gauge at unstarred stations—values, midnight to midnight.
 †Standard rain gauge—readings at 8 a. m. daily.

Additions to Commissary Stock.

Hardware Section.

Bats, cricket, Ctenell, ea.....	\$7.75
Bags, hand, 18", ea.....	33.30
Beds, three-quarter size, ea.....	5.75
Bowls, mayonnaise, silver plated, (32859, 32861) ea.....	3.60
Dishes, olive, silver plated, ea.....	3.40
Dishes, bonbon, silver plated, (32863, 32864) ea.....	3.25

Hammer, steak, ea.....	\$0.18
Jap-a-lac, aluminum, 1/2-pint tin.....	.27
Masks, catchers', ea.....	2.15
Oil, typewriter, special, 1/2-pint bot.....	.28
Percolator, coffee, electric, silver plated, 110-v., ea.....	12.85
Percolator, coffee, electric, silver plated, 110-v., ea.....	11.70
Pots, tea, silver plated, with tea-ball attachment, ea.....	3.60
Springs, three-quarter size, ea.....	5.75
Toasters, bread, plain tinned wire, ea.....	.15
Trays, mahogany, brass handles, ea.....	6.30
Trays, mahogany, brass handles, ea.....	4.50
Trays, mahogany, brass handles, ea.....	4.85
Trays, waiters', round, nickel plated, ea.....	2.30

Grocery Section.

Candy:	
Chocolate, nut milk, Cadbury's, 6-oz. cake.....	.32
Chocolate, milk, plain, Auerbach, cake..	.06
Olives, Queen, 14-oz. bot.....	.26
Powder, whole, milk, Klim, 1-lb. tin.....	.99
Pickles, whole (sour), 95-lb. keg, lb.....	.15
Pickles, whole (medium sour), 95-lb. keg, lb.....	.15
Pickles, sliced (medium sour), 95-lb. keg, lb (Above prices are for a special lot of 21 kegs prepared at industrial laboratory.)	.15
Parsnips, case 24, 28, tin.....	.16
Pate de Foie Gras, case 50, 2-oz. tin.....	.70

November Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1919.
	1919	1918	1917			
Pacific section—						
Balboa	5.10	8.62	13.33	9.11	21	17
Balboa Heights	4.97	9.61	13.77	10.10	23	17
Miraflores	5.47	5.88	14.65	10.42	12	21
Pedro Miguel	6.02	7.16	19.38	10.82	12	21
Rio Grande	6.66	7.75	24.79	11.27	15	22
Central section—						
Culebra	7.40	7.28	21.62	12.26	31	20
Camacho	6.00	8.63	25.37	12.87	14	19
Empire	6.65	7.19	23.79	11.53	15	28
Gamboa	3.50	5.86	22.05	11.87	37	20
Juan Mina	7.59	6.78	22.23	12.42	10	15
Alhajuela	0.79	6.94	19.83	14.13	21	25
Vigia	5.99	8.40	20.89	14.15	12	28
Frijoles	11.11	14.14	28.10	13.26	7	28
Trinidad	7.56	7.73	28.84	17.03	12	25
Monte Lirio	9.09	15.37	27.04	20.49	12	25
Atlantic section—						
Gatun	7.19	11.49	30.94	19.64	15	25
Brazos Brook	5.22	15.04	24.86	21.17	14	21
Colon	6.63	14.23	20.49	21.04	49	22
Porto Bello	7.74			27.35	8	23

COMMISSARY NOTES.

New Christmas Goods.

Items for the Christmas trade are still arriving. On the steamship *Allianza* were received toys and children's vehicles, Christmas nuts, gift books, and a number of other articles.

Blouses.

A shipment of ladies' white voile waists, ranging in prices from \$2.95 to \$6.50, has been received and is now on sale in the line commissaries. Of the shipment, the blouses priced at \$6.50 each, are a particularly good value inasmuch as they are of fine voiles, hand embroidered.

COMMISSARY NOTES.

Lingerie.

There has recently been received by the Commissary Division a shipment of ladies' silk undergarments, consisting of chemises, knickers, etc. Made of a good quality crepe de chine, trimmed with lace, ribbon flowers, and hemstitching, these garments are good values at the price, \$4.70. These will be on sale at Ancón, Balboa, Cristobal, Gatun, and Pedro Miguel commissaries.

Jellies.

Jellies of any kind, according to latest advices from New York, are in demand and stocks are becoming low. The reason for this is said to be the present sugar situation, which will explain why certain brands of jellies will not be obtainable in the line commissaries for some time to come.

Straw Hats.

Typical of conditions in many markets is the instance of a marked advance on the commissaries' latest requisition for straw hats from a United States manufacturer. For China split straws, this will bring the retail price, when the new shipment is received, to approximately \$4.25.

Rice.

The rice situation throughout the Orient is reported as being very serious at present, with little hope of betterment for some time to come because the summer crops in many important rice-growing centers are but 50 per cent normal. Naturally prices will remain high until production is greatly increased and transportation facilities are improved.

Shirts.

The Commissary Division has been fortunate in having procured for its patrons a line of men's reglisse shirts of a popular brand, which are on sale at all gold commissaries at the price of \$1.40 each. The line covers a range of neat patterns in fine colored stripes, the garments being made with French cuffs. These are the nearest to pre-war values on sale for some time. Sizes run 14 to 17½.

Fancy Dress Goods.

A shipment of dress materials consisting of fine French cotton voiles in floral patterns, at \$1.20 the yard, woven silk stripe voiles, at \$1.15, silk and cotton crepes, in white, blue, and pink, at 81 cents, silk checked voiles at \$1.35 and \$1.30, and printed voiles at 55 cents and 71 cents was received and forwarded to the line commissaries and will be placed on sale this week. These are all 1920 patterns and are good values at the prices quoted.

Books.

Books received:

"Sherry," by Geo. Barr McCutcheon; "Transplanted," by Gertrude Atherton; "The Water Babies," by Charles Kingsley; "The Command is Forward," by Sergt. Alexander Woolcott; "The Black Drop," by Alice Brown; "The Siamese Cat," by Henry M. Rideout; "Sonnica," "The Dead Command," by Blasco Ibañez; "Dictionary of Musical Terms," by Baker; "The Ne'er Do Well," by Rex Beach; "The Lost Road," by Richard Harding Davis; "The Perfect Gentleman," by Ralph Bergengren; "Peace in Friendship Village," by Zona Gale; "The Chinese Puzzle," by Marian Bower and Leon M. Lion; "The Old Madhouse," by Wm. de Morgan; "The Girl and the Job," by Helen C. Hoerle and B. Saltzberg; "Short Stories of the New America," by Mary A. Laselle; "Winesburg, Ohio," by Sherwood Anderson; "Poems," by Sidney Lanier; "Poems," by Eugene Field; "Six Best Cellars," by Holsworthy Hall; "Behind the Motion Picture Screen," by A. G. Lescarboura; "Deep Waters," by W. W. Jacobs; "Fifth Avenue," by Arthur Bartlett Maurice; "The New Decameron," "Limehouse Nights," by Thomas Burke; "Banked Fires," by E. W. Savi; "St. Joan of Arc," by Mark Twain; "Theodore Roosevelt," by W. R. Thayer; "In Ole Virginia," by Thomas Nelson Page; "The Man Who Found Christmas," by Walter Prichard Eaton; "Honorable Gentleman and Others," by Achmed Abdullah; "Uncle Tom's Cabin," by Harriet Beecher Stowe; "Arrow of Gold," by Joseph Conrad; "Lamp in the Desert," by Ethel M. Dell; "Sailor's Knots," by W. W. Jacobs; "Principals of Rhetoric," by Hill; "Autumn Loiterers," by Chas. Hanson Towne; "Two Years in the Forbidden City," by Princess Der Ling; "Her Golden Hours," Anonymous; "Panama and Other Poems," by Stephen Phillips; "Others," by Alfred Kreymborg; "The Name of Old Glory," by James Whitcomb Riley; "Who Built the Panama Canal," by Leon Pepperman; "Lovers, The Free Women, They," by Maurice Donnay; "The Rib of the Man," by Charles Rann Kennedy; "The Marriage Game," by Anne Crawford Flexner; "Complete Prose Works," by Walt Whitman; "The Merchant of Venice," by Shakespeare; "The Night Side of London," by Robert Machray; "The Story of a Lover," Anonymous; "River's End," by James Oliver Curwood; "Position of Peggy Harper," by Leonard Merrick; "Idle Days in Patagonia," and "The Purple Land," by W. H. Hudson; "El Supremo," by Edward Lucas White; "Amalia," by José Marmol; "The Son of Tarzan," by Edgar Rice Burroughs.

THE PANAMA CANAL RECORD

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Volume XIII. Balboa Heights, C. Z., December 24, 1919. No. 19.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 20, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Middlebury.....	Panama Railroad Cattle Industry..	.....	December 14..	.....	53
San Jose.....	Pacific Mail Steamship Line.....	.....	December 14..	.....	2,299
Gen. G. W. Goethals..	Panama Railroad Steamship Line..	.....	December 15..	.....	4,253
Jamaica.....	Pacific Steam Navigation Co.....	.....	December 15..	.....	682
Cauca.....	Pacific Steam Navigation Co.....	.....	December 15..	.....	1,474
Imperial.....	Chilean Steamship Line.....	.....	December 15..	.....	702
National Bridge.....	United States Shipping Board.....	December 14..	December 16..	4,759	(*)
Achilles.....	Panama Railroad Steamship Line..	.....	December 17..	.....	13,187
Ancon.....	Panama Railroad Steamship Line..	.....	December 17..	.....	9,533
Heredia.....	United Fruit Co.....	December 15..	December 17..	1,660	108
Allianca.....	Panama Railroad Steamship Line..	.....	December 18..	.....	1,794
Nessian.....	Leyland Line.....	December 15..	December 19..	1,180	1,188
Salvador.....	Pacific Steam Navigation Co.....	.....	December 16..	.....	241
Palena.....	Chilean Steamship Line.....	.....	December 17..	.....	1,970
Abangarez.....	United Fruit Co.....	.....	December 17..	December 19..	967
Balboa.....	Colombian Maritime Co.....	.....	December 17..	.....	652
Carrillo.....	United Fruit Co.....	.....	December 18..	December 18..	3 ¹ / ₂
Tivives.....	United Fruit Co.....	.....	December 18..	December 18..	80
Levisa.....	United Fruit Co.....	.....	December 18..	December 19..	30
Almelo.....	Royal Netherlands Steamship Line	.....	December 18..	December 20..	165
Guatemala.....	Pacific Steam Navigation Co.....	.....	December 18..	.....	1,913
Colon.....	Panama Railroad Steamship Line..	.....	December 19..	.....	3,409
Middlebury.....	Panama Railroad Cattle Industry..	.....	December 19..	.....	510
Manavi.....	Pacific Steam Navigation Co.....	.....	December 20..	.....	618

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 20, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Lake Onawa*.....	United States Shipping Board.....	December 12..	December 14..	*3,611	.....
San Jose.....	Pacific Mail Steamship Co.....	December 14..	December 14..	.....	32
Cauca.....	Pacific Steam Navigation Co.....	December 15..	December 15..	.....	6
Suecia.....	Johnson Line.....	December 15..	December 16..	136	.....
Jamaica.....	Pacific Steam Navigation Co.....	December 15..	December 15..	.....	42
West Jaffrey.....	United States Shipping Board.....	December 15..	December 20..	1,862	.....
Salvador.....	Pacific Steam Navigation Co.....	.....	December 16..	.....	62
Poinj Bonito.....	Pacific Mail Steamship Co.....	.....	December 16..	.....	122
Guatemala.....	Pacific Steam Navigation Co.....	.....	December 18..	.....	21
Manavi.....	Pacific Steam Navigation Co.....	.....	December 20..	.....	6
Lake Fairfax.....	United States Shipping Board.....	.....	December 19..	.....	3,205
Lighter No. A., L.....	Pacific Steam Navigation Co.....	.....	December 18..	.....	13

* Omitted in report of December 13.

Employees' Free Entry Request.

The delivery of personal shipments consigned to employees is often delayed because free entry requests have not been submitted by the employees prior to the arrival of the shipments. These requests have to be approved by the head of the division in which the employee is employed, the Executive Secretary, and a representative of the Republic of Panama; and it usually takes about three days for a request to be accomplished. Delay may be avoided if employees will submit free entry requests before the arrival of the shipments.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, December 20, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
San Jose.....	8	15.10	14	6.13	14	13.26	14	18.56	American..	Pacific Mail Steamship Co.	283.0	37.0	18.1	Cristobal..	San Francisco.	General.....	2,258	2,352	1,602
Caddo.....	14	8.00	14	8.25	14	15.30	14	18.56	American..	Standard Oil Co.	414.5	55.0	30.0	Tampico...	Pisagua.....	Crude petroleum	3,000	6,438	4,391
Lake Fanbush..	14	6.40	14	11.16	14	18.25	14	21.01	American..	United States Shipping Board	251.0	43.6	23.6	New Orleans	Valparaiso..	General.....	3,200	2,681	1,812
Meeklenburg...	c	1813.36	14	12.35	14	19.54	14	21.01	British...	Shipping Controller	291.0	44.0	17.2	Cristobal..	Callao.....	General.....	2,721	2,721	1,944
Cauca.....	9	21.35	15	6.11	15	13.27	15	14.43	British...	Pacific Steam Navigation Co.	246.0	35.0	12.6	Cristobal..	Guayaquil...	General.....	1,390	1,582	1,023
Middlesex.....	14	14.05	15	6.25	15	13.25	15	18.38	American..	Coastwise Transportation Co.	369.0	50.0	22.8	Newport News	Iquique.....	General.....	4,876	3,250	2,560
Inwich.....	15	3.22	15	7.40	15	14.58	15	18.32	American..	Shawmut Steamship Co.	400.7	54.0	16.0	New York...	Taltal.....	General.....	6,616	4,569	3,622
Swedia.....	15	6.38	15	7.45	15	14.58	15	18.32	Swedish...	Johnson Steamship Line	359.4	51.6	21.0	New York...	Callao.....	General.....	4,200	5,275	4,001
Jamaica.....	11	13.38	15	9.00	15	16.10	19	22.38	Swedish...	Pacific Steam Navigation Co.	220.0	33.1	13.0	Cristobal..	Buenaventura	General.....	6,607	1,187	602
American.....	15	4.40	15	10.15	15	17.23	15	22.01	British...	American-Hawaiian Line	406.8	51.8	15.1	Guantanamo	Toconilla...	General.....	5,986	4,226	2,245
Imora King (d)	11	15.38	15	10.18	15	18.36	15	22.32	Chilean...	South American Steamship Line	336.8	41.2	23.6	Cristobal..	Valparaiso..	General.....	708	3,634	2,475
Spencer.....	15	10.43	15	11.03	15	18.27	15	22.32	American..	Rolph Nav. and Coal Co.	140.0	29.0	18.0	High seas..	Balboa.....	General.....	708	3,634	2,475
Tokutoku Maru	15	6.13	15	12.30	15	19.38	15	10.25	American..	Mitsui & Co.	385.0	51.0	16.6	New York...	Taltal.....	General.....	5,956	5,956	4,471
Tenpisan Maru	15	17.12	16	6.06	16	15.24	16	16.03	Japanese..	Mitsui Bussan Kaisha	380.7	53.0	18.0	Baltimore..	Antofagasta	General.....	5,560	3,698	2,698
Masonia.....	15	17.06	16	6.16	16	18.03	16	18.39	Japanese..	Matson Navigation Co.	480.0	58.1	30.0	New York...	Honolulu...	General.....	6,100	10,245	6,872
Franklin.....	15	15.01	16	6.35	16	18.31	16	19.18	American..	Coastwise Transportation Co.	368.6	55.2	18.0	Baltimore..	Taltal.....	General.....	3,747	3,672	2,672
Boxley.....	16	12.03	16	7.30	16	19.46	17	20.51	American..	United States Shipping Board	266.0	46.1	19.0	Galveston..	Chile.....	General.....	2,605	2,605	1,614
National Bridge	14	13.11	16	7.58	16	19.55	16	20.46	American..	United States Shipping Board	324.0	46.0	13.3	Norfolk....	Antofagasta	General.....	3,959	2,628	1,614
Prometheus...	16	7.42	16	13.03	16	21.15	17	12.15	British...	Alfred Holt & Co.	435.0	49.0	24.3	New York...	Yokohama...	General.....	5,700	5,748	4,049
Kaisho Maru...	16	15.27	17	6.25	17	14.43	17	15.35	Japanese..	Kaisuda Kisen Kaisha	507.0	60.0	26.0	New Orleans	San Francisco	General.....	7,048	6,108	4,714
Armaaz.....	16	9.28	17	7.30	17	15.58	17	16.45	British...	Union S. Co. of New Zealand	369.0	51.2	27.0	New York...	Wellington..	General.....	8,210	12,857	8,665
Easterling...	16	15.10	17	9.11	17	17.11	17	17.55	American..	United States Shipping Board	384.3	51.2	27.0	New York...	San Francisco	Oil and general	6,967	5,967	4,449
Hokkai Maru	16	14.16	17	10.32	17	18.31	17	19.26	Japanese..	Fusho Kaifu Kaisha	369.0	50.0	24.0	Savannah..	Honolulu...	General.....	5,579	4,823	3,467
Breakwater (d)	d	16.16	17	8.09	17	17.11	17	17.20	American..	United States Navy	100.0	22.0	12.0	Cape May...	Balboa.....	Coal.....	3,205	2,866	1,832
Lake Fairfax...	18	20.15	19	6.09	19	14.15	19	17.20	American..	United States Shipping Board	251.0	43.6	24.6	Norfolk....	Caldera....	Coal.....	3,205	2,866	1,832
Rodney.....	17	17.08	19	6.30	19	13.50	19	16.56	American..	Russian Government	212.0	42.2	17.0	New York...	Vladivostok	R. R. material	720	2,037	949
Gharinda.....	19	10.09	19	10.43	19	18.08	20	19.56	British...	British Indian Steam Nav. Co.	400.0	52.0	24.0	New York...	Lyttleton...	General.....	5,200	5,841	4,170
Calcutta Maru	19	6.15	19	11.16	19	14.14	19	20.06	Japanese..	Nippon Yusen Kaishiki Kaisha	400.0	52.0	24.0	Savannah..	San Francisco	General.....	6,957	5,790	4,183
Almeida.....	18	18.30	20	6.20	20	14.20	20	15.00	Dutch....	Royal Netherland S. S. Co.	440.0	62.5	19.6	Amsterdam	Talcahuano	General.....	539	9,403	6,653
Howick Hall...	20	13.31	20	14.05	20	21.58	21	7.27	American..	United States Steel Products	400.8	51.5	25.0	New York...	San Francisco	Cotton, etc.	6,778	6,095	4,311

(c) Tag. (b) U. S. S. scout patrol. (c) November. (d) October.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage		
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net	
Crisfield.....	c	28	9.00	14	6.53	14	16.33	14	23.07	American..	United States Shipping Board	402.6	54.8	25.0	Seattle....	New York...	Flour.....	9,000	6,932	5,046
Saint Andrews.	14	5.00	14	8.15	14	16.44	15	1.05	Norwegian..	W. Wilhelmsen	325.0	46.8	19.0	Iquique....	Cristobal (G)	Nitrate.....	4,208	4,208	4,208	
Toyohashi...	14	8.45	14	9.29	14	17.35	15	6.10	Japanese..	Nippon Yusen Kaisha	445.0	58.0	24.0	Kobe.....	New York...	General.....	9,390	7,066	5,529	
Maru.....	13	7.00	16	6.49	16	14.18	18	9.10	British...	British Government	890.0	80.0	29.0	San Diego	Jamaica...	Ballast....	9,390	7,066	5,529	

(c) Crises. (G) For orders.

Date	Vessels	Line	From	Date	Vessels	Line	For
16	8.05	16	15.57	17	17.37	Canadian	British
16	9.11	16	18.33	17	18.20	American	French
16	5.30	16	11.11	16	19.17	British	Spanish
15	12.01	16	19.17	17	8.00	British	British
16	5.00	16	12.10	16	19.45	22	6.13
16	10.50	16	13.56	16	21.25	17	17.37
16	9.11	17	6.26	17	14.21	18	2.20
16	12.01	17	7.48	17	16.06	18	12.17
17	12.15	17	7.55	17	17.11	18	1.40
17	6.05	17	8.13	17	16.10	Chilean	French
17	5.00	17	9.08	17	18.30	French	French
17	6.00	17	9.32	17	19.07	17	23.19
17	22.30	17	10.52	17	19.26	17	19.06
17	15.10	18	6.36	18	14.26	18	14.26
17	3.00	18	8.09	18	15.25	18	15.25
18	6.30	18	10.25	18	19.14	18	21.30
18	1.00	18	11.56	18	19.45	British	British
18	5.00	19	7.26	19	16.36	19	17.31
18	23.15	19	7.52	19	16.36	19	20.41
18	9.11	19	15.04	19	22.55	20	5.54
18	5.10	20	6.43	20	15.05	20	18.35
19	16.00	20	6.56	20	16.21	French	French
18	21.30	20	7.35	(h)	Chilean	Chilean	Chilean
19	16.30	20	8.35	20	19.32	British	British
19	18.00	20	8.56	20	20.25	20	22.45
19	22.00	20	9.53	20	18.32	21	1.11
Westmoreland	20	3.00	20	10.08	20	10	20
Manavi	20	14.15	20	15.24	20	22.27	21
Los Angeles	20	14.15	20	15.24	20	22.27	21

Date	Vessels	Line	From	Date	Vessels	Line	For
Dec. 15	Heredia	United Fruit Company	New Orleans	Dec. 14	Middlebury	Panama Railroad	Cartagena
Dec. 15	Nessian	Black Star Line	Manchester and wayports	Dec. 15	Gen. G. W. Goethals	Panama Railroad	New York
Dec. 17	Yarmouth	Black Star Line	New York via Kingston	Dec. 17	Heredia	United States Shipping Board	Puerto Cabello
Dec. 17	Alvarez	United Fruit Co.	New York via Kingston	Dec. 17	Ancón	United Fruit Co.	New Orleans and wayports
Dec. 18	Leviarez	United Fruit Co.	New York	Dec. 17	Heredia	Panama Railroad	New York
Dec. 18	Carrillo	United Fruit Co.	Cartagena	Dec. 17	Carrillo	United Fruit Co.	New York
Dec. 18	Tivives	United Fruit Co.	New York and Habana	Dec. 18	Alliance	Panama Railroad	New York via Kingston
Dec. 18	Middlebury	Panama Railroad	Cartagena	Dec. 18	Tivives	United Fruit Co.	New York
Dec. 19	Colon	Panama Railroad	New York via Haiti	Dec. 19	Leviarez	United Fruit Co.	Cartagena
				Dec. 19	Fort Sill	United States Shipping Board	Cartagena
				Dec. 19	Nessian	Black Star Line	Bluefields
				Dec. 19	Yarmouth	Black Star Line	New Orleans, and wayports Kingston

*DEPARTURES

*ARRIVALS

PORT OF CRISTOBAL

(g) Sailer. (h) Anchored in Gatun Lake. (i) Scrap steel and lumber. (j) Wool, case meat, and hides. (k) Coffee, ivory nuts, and hides. (l) Wheat, wool, and frozen meat. (m) Cold storage products. (n) 652.97. (o) Lumber, 529,360 B. F.; iron, 110,300 pounds.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

*Other than ships passing through the Canal.

Fires in Ships.

The steamship *Crown of Galicia* arrived at Cristobal shortly after noon, December 20, with fire in the forward hold. She was met by Canal firemen in the outer harbor and taken alongside Pier 6 where, with the use of several lines of hose, the fire was extinguished by 6 o'clock that evening. The fire occurred among bales of rags, on which linseed oil had leaked. The extent of the damage has not been determined by the representatives of the underwriters. The ship was on the way from Glasgow to San Francisco with a general cargo.

While the steamship *Balboa* was alongside the pier at Cristobal, loading with general cargo for Buenaventura, fire broke out at about 10 o'clock in the night of December 21 and continued until approximately 3 o'clock the next morning. It originated in a shipment of phosphorus said to have been improperly packed and to have been ignited through leakage of cans. The damage was not extensive.

Extensive Italian Services on West Coast.

Two Italian steamship lines are now operating between Italy and the West Coast of South America as far south as Valparaiso by way of the Canal, with calls at numerous wayports. The 60-day sailings of "La Veloce" Line, by way of Marseilles, Barcelona, Teneriffe, and Caribbean ports to ports of Ecuador, Peru, and Chile, with stops at the Canal, were noted in THE PANAMA CANAL RECORD of November 26. Beginning in August was the joint service of the "Transatlantica Italiana," and "Societa Nazionale di Navigazione" operating vessels approximately every 45 days over this trade route.

The vessels of the "Transatlantica Italiana" and "Societa Nazionale di Navigazione," sail from Genoa, calling at Marseilles, Barcelona, and Cadice, thence to Trinidad, Curaçao, Venezuelan and Colombian ports, and to the Canal; and on the West Coast call at Colombian, Ecuadorian, Peruvian, and Chilean ports as far as Valparaiso. On the homeward voyage the course is approximately the same, such calls being made as conditions warrant. Vessels of this service which have passed through the Canal are the *Ansaldo San Giorgio I*, *Ansaldo San Giorgio II*, *Ansaldo I*, and *Nicolaos*, and two others are due within a short time. For the present passengers are not carried but it is expected to begin a passenger service about March, 1920, with new steamers now under construction in the shipping yards owned by the named companies, which will be provided with the latest devices for the safety and comfort of passengers.

Proclamation.—Abrogating Regulations Governing the Flying of Civilian Aircraft.

WHEREAS, under and by virtue of the authority vested in me by the Constitution of the United States as Commander-in-Chief of the Army and Navy of the United States and of the militia of the several States when called into actual service of the United States, I declared and established as a war measure by proclamation No. 1432 of February 28, 1918,* rules and regulations governing flying by aircraft within the whole of the United States and its territorial waters and of the insular possessions and of the Panama Canal Zone, declaring said territory a zone of military operation and of military preparation:

And whereas, the necessity, as a war measure, for the continuance in effect of said rules and regulations has come to an end, now therefore:

I, WOODROW WILSON, President of the United States of America, do hereby proclaim to all whom it may concern that the Presidential proclamation No. 1432 of February 28, 1918* and the rules and regulations therein contained and the power

and authority therein and thereby conferred upon military and naval commanders and forces are hereby abrogated, withdrawn and annulled from and after the date hereof.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE in the District of Columbia this thirty-first day of July, in the year of our Lord one thousand nine hundred and nineteen and of the independence of the United States the one hundred and fourty-fourth.

WOODROW WILSON

[SEAL]

By the President:

ROBERT LANSING,
Secretary of State.

*Published as Panama Canal circular No. 601-72. The Proclamation above has been published as Canal circular No. 601-97.

Traffic Restriction in Ancon Hospital Grounds.

The Health Department authorizes the following:

Owing to unnecessary noises and other nuisances resulting from unrestricted traffic within Ancon Hospital grounds which has disturbed patients and interfered with the proper examination of the sick by the physicians, it has been necessary to restrict this traffic to the minimum considered essential for the best interest of the service.

The Governor's circular No. 717-2 has designated the main road from Panama, through the hospital grounds as a 1-way road down hill from the steps at main entrance to hospital to the top of the hill just beyond the bachelor quarters.

Only the following classes of vehicles are allowed on the interior road of the hospital grounds, the entrances to which are plainly indicated by warning signs, viz:

"This entrance only for Ancon Hospital vehicles, Health Department and military ambulances having patients for admission to hospital or removing them therefrom and Panama Canal trucks when delivering supplies, removing garbage and those required for repair or construction work pertaining to hospital. No other vehicles, jitneys, or horses allowed within. Violations will be subject to prosecution.

Vehicles having visitors or patients for clinics will discharge passengers at entrance to hospital on main road. Vehicles other than ambulance having patients for admission to hospital will apply at admitting office.

By order of the Superintendent."

Patients coming to the hospital in vehicles other than ambulances, as designated above, will go to the admitting office, located in Dispensary-Admitting Office Building, from whence patient will be sent to hospital by ambulance, or if no ambulance is available and case is emergency in character, a special permit will be given authorizing the vehicle with patient to use the interior road of the hospital for the purpose of conveying patient to his proper section.

Patients for the clinics who are too sick to come up to the clinics by walking up steps of main entrance to the hospital, will apply at admitting office, where provisions have been made for taking them to Administration-Clinics Building in ambulance or, in emergency cases, permit will be given authorizing vehicle to enter the interior hospital road.

Medical Treatment in Hospitals and Elsewhere.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., November 18, 1919.

CIRCULAR No. 618-16 (superseding all previous Circulars of the 618 series and modifying Circular 624).

The following rates and regulations governing medical and hospital services are effective on and after December 1, 1919.

1. Employees of The Panama Canal and the Panama Railroad Company in case of illness or injury will receive free treatment in the hospitals of The Panama Canal except in cases of alcoholism or venereal disease. Those who have been employed on the silver roll will be considered as employees if not more than 30 days have elapsed since date they were last actually on duty. Time spent as dispensary or hospital patient, and on authorized leave, will be considered as on duty.

2. An employee who is not ill or injured, but who desires hospital treatment or a surgical operation for his own convenience or for cosmetic or other reasons, when such hospital treatment or operation is not considered necessary to preserve or maintain

the employee's health or efficiency, will be charged for hospital care and treatment and for surgical operation or X-ray examination at the rates specified for families of employees.

3. Employees will be admitted to the hospitals of The Panama Canal upon request made by a physician in the employ of the Health Department.

4. Form 8821-1, "Request for Medical Treatment," properly filled out, will be required before sending silver employees or members of their families to hospitals. The necessities of patients will be given first consideration, and no one in urgent need of hospital care will be refused admission.

5. Officials who issue "Requests for Medical Treatment," will see that they bear not only the check number but the name of the employee as it appears on the pay roll. Special care should be used to obtain the full name of patient, as much difficulty is experienced in identifying employees on account of incomplete or incorrect names being given.

6. Employees who, in the opinion of the visiting physician, can not safely or conveniently report at the dispensary for treatment, will not be charged for the first home visit of the physician. All home visits after the first will be charged for, and if the employee desires to remain in quarters, the physician may allow him to do so unless convalescence would be retarded thereby.

7. The family of a responsible party shall be understood to include those persons who are members of his immediate household, and dependent upon him. Babies born in hospital will not be charged for as long as the mother remains continuously a patient in the hospital.

8. Employees holding family quarters will be held responsible for the payment of the hospital bills of any nonemployees allowed to live in their quarters with them, and will be required to see that no nonemployees are allowed to live in their quarters unless they are willing to be responsible for the hospital treatment of such nonemployees in case it should at any time be necessary to send them to the hospital.

9. District physicians who send nonemployees to the hospital will ascertain if the patient has been occupying Canal quarters and if so will secure and furnish the superintendent of the hospital the name of the employee holding the quarters, his check number, and the division for which he works, so that pay roll deduction can be made unless bill is otherwise settled.

10. The members of families of employees may consult their district physician and be given medicine free of charge. On the recommendation of their district physician they may also consult hospital physicians free of charge.

11. Persons having, or suspected of having chicken pox, cerebrospinal fever, cholera, diphtheria, leprosy, measles, plague, poliomyelitis, scarlet fever, smallpox, typhus fever, or yellow fever, will not be charged for first home visit, and when sent to the hospital for treatment for the protection of the public, shall receive treatment without charge to themselves. Such patients of the Army, Navy, Marine Corps, Public Health Service, American and foreign seamen, will be charged for. Patients non-resident of the Canal Zone, if treated in Panama Canal hospital *at their own request* (instead of Santo Tomas Hospital) will be charged regular rates.

12. A charge of \$2 will be made for physical examination for insurance for fraternal orders, for employees, and their families. Five dollars will be charged for all other physical examinations for insurance.

13. Companions to patients will be charged the same rates as if patients, but in no case less than \$2.25 per day in the ward. For a mother accompanying sick breast-nursing child, or a well breast-nursing child with sick mother, rates may be reduced or remitted by superintendents of hospitals.

14. In case of emergency, or where humanity or the public good requires it, a physician may depart from these regulations, but in each such case a written report shall be made immediately to the Chief Health Officer. The superintendents of Ancon and Colon Hospitals may make such reductions, not to exceed 50 per cent, from the minimum charges for operations and hospital treatment, as may be necessary on account of lack of means of the patient. A written report of all such cases shall be made immediately to the Chief Health Officer, and a copy forwarded to the Auditor. The Chief Health Officer may, in case of destitution, remit the charges entirely.

15. The charges for treatment shall be as shown in the accompanying tables. Where the charges in any case are not specifically provided for in the accompanying tables, the charges shall be fixed by the Chief Health Officer, based on the charges herein prescribed.

CHESTER HARDING,
Governor.

SCHEDULE OF CHARGES IN HOSPITALS OF THE PANAMA CANAL.

	Ordinary care and treatment in hospital ward per day.	Private room, when requested by patient, per day in addition to ward charges. (†) (‡) (¶)	Care of alcoholism or venereal disease in hospital ward per day.	Care of alcoholism or venereal disease in private room or cell room per day.	Ordinary care and treatment in insane ward per day.	Special nurse in hospital each per day, when requested by patient. (‡)	Special maid or attendant in hospital each per day, when requested by patient. (‡)	Obstetrical case, including ten days' ward charges (complications charged surgical rates in addition).	Obstetrical case, including ten days' private room charges (complications charged surgical rates in addition).	Obstetrical case, outside of hospital (complications charged surgical rates in addition).	Surgical operations.	Office consultation at hospital or dispensary. (¶)	Home visit. (¶)
1.													
Employees of The Panama Canal or the Panama Railroad, whose pay is:													
\$50 a month or less (24c or less per hour) ..	Free	\$2.00	\$0.50	\$2.50	Free	\$5.00	\$2.00	.....	.....	.....	Free	Free	\$0.50
\$50.01 to \$60 per month (25c to 28c per hour)	Free	2.00	.75	2.75	Free	5.00	2.00	.....	.....	.....	Free	Free	.50
\$60.01 and over per month (29c and over per hour).....	Free	2.00	2.25	4.25	Free	5.00	2.00	.....	.....	.....	Free	Free	1.50
2.													
Families of employees; other employees of the United States and their families¹⁶; persons engaged solely in charitable and religious work in the Canal Zone, and their families¹⁶; when pay of employee is:													
\$40 or less per month (19c or less per hour)	\$0.50	2.00	.50	2.50	\$0.50	.....	2.00	\$10.00	.....	\$10.00	(¶)	Free	.75
\$40.01 to \$60 per mo. (20c to 28c per hr.)...	.75	2.00	.75	2.75	.75	.....	2.00	15.00	.....	10.00	(¶)	Free	.75
\$60.01 to \$100 per mo. (29c to 48c per hr.)...	1.00	2.00	1.00	3.00	1.00	.....	2.00	20.00	.....	10.00	(¶)	Free	.75
\$100.01 to \$130 per mo. (49c to 62c per hr.)...	1.75	2.00	1.75	3.75	1.75	5.00	2.00	30.00	\$50.00	20.00	(¶)	Free	1.50
\$130.01 and over per mo. (63c and over per hr):													
Male and children under six	2.25	2.00	2.25	4.25	1.75	5.00	2.00	.....	.....	.....	(¶)	Free	1.50
Female.....	3.00	2.00	3.00	5.00	1.75	5.00	2.00	45.00	65.00	20.00	(¶)	Free	1.50
3.													
Servants of all employees of the United States, and their children:													
Black.....	.50	2.00	1.00	3.00	.50	.....	2.00	15.00	.....	10.00	(¶)	Free	.75
White.....	1.00	2.00	2.25	4.25	1.00	.....	2.00	25.00	.....	15.00	(¶)	Free	.75
4.													
Nondependent visitors of employees of The Panama Canal and Panama Railroad, and, White employees—of companies—who work in the Canal Zone, and their families¹⁶.....													
	3.50	2.50	4.50	7.00	2.50	6.00	2.50	50.00	75.00	30.00	(¶)	\$2.50	3.00
5.													
Laborers and artisans regularly employed by the Army, or by individuals or companies in the Canal Zone¹⁶.....													
	2.00	2.00	2.00	4.00	1.50	5.00	2.00	.....	.....	.....	(¶)	2.50	3.00
Families of above¹⁶.....													
	2.00	2.00	2.00	4.00	1.50	5.00	2.00	25.00	45.00	15.00	(¶)	2.50	3.00

SCHEDULE OF CHARGES IN HOSPITALS OF THE PANAMA CANAL—Continued.

	Ordinary care and treatment in hospital ward per day.	Private room, when requested by patient per day in addition to ward charges. (1) (2) (3)	Care of alcoholism or venereal disease in hospital ward per day.	Care of alcoholism or venereal disease in private room or cell room per day.	Ordinary care and treatment in insane ward per day.	Special nurse in hospital each per day, when requested by patient. (4)	Special maid or attendant in hospital each per day, when requested by patient. (5)	Obstetrical case, including ten days' ward charges (complications charged surgical rates in addition).	Obstetrical case, including ten days' private room charges (complications charged surgical rates in addition).	Obstetrical case, outside of hospital (complications charged surgical rates in addition).	Surgical operations.	Office consultation at hospital or dispensary. (14)	Home visit. (15)
6. Army, Navy, Marine Corps, and Public Service:													
Officers and enlisted men (both active and retired), and white civilian employees.....	\$2.25	\$2.00	\$2.25	\$4.25	\$2.25	\$5.00	\$2.00				(16)	(12)	\$1.50
Families of officers:													
Male and children under six.....	2.25	2.00	2.25	4.25	1.75	5.00	2.00				(6)	\$1.00	\$1.50
Female.....	3.00	2.00	3.00	5.00	1.75	5.00	2.00	\$45.00	\$65.00	\$20.00	(6)	\$1.00	\$1.50
Families of enlisted men:													
Male or female.....	1.00	2.00	1.00	3.00	.75	5.00	2.00	15.00	35.00	10.00	(6)	(12)	1.50
7. American and foreign seamen.....	2.25	2.00	2.25	4.25	2.25	5.00	2.00				(16)	1.00	5.00
8. Patients of the Republic of Panama.....	1.75				.75						Free		
9. Physicians and nurses not in employ of The Panama Canal and their families¹⁴.....	3.00	2.00	5.00	7.00	1.00	5.00	2.00	45.00	65.00	20.00	(16)	Free	1.00
10. Private pay patients¹⁵.....	5.00	2.50	5.00	7.50	2.50	6.00	2.50	75.00	100.00	30.00	(16)	3.00	5.00

(1) Free when not requested by patient but certified to by attending physician as necessary. (2) See paragraph 2 of text. (3) When a private bathroom, used by one patient only, is furnished, a charge of \$2 per day will be made to private pay patients, and \$1 per day to all other patients. (4) When a private bathroom, used by two patients occupying rooms connecting with common bathroom, is furnished, a charge of \$1 per day will be made to private pay patients, and 50 cents per day to all other patients. (5) Telephone service in private rooms at Ancon Hospital, when desired by patients, will be charged for at the rate of \$1 per week or fraction thereof. (6) First visit free; see paragraph 6 of text. (7) At Colon Hospital, average per capita daily cost for this class of patients during preceding month. (8) No charge after first 30 days for demented member of employee's family, when physician in charge of asylum certifies that continued treatment is necessary. (9) Charges for operations will be made on the basis of 1 per cent of the approved charge for the particular operation for each \$10 of monthly salary received by the person responsible for the charges, with a minimum charge of \$1 when they receive \$75 or less, and \$2 when they receive more than \$75. The maximum charge for operation will be \$50. (10) Ten per cent of charge on schedule. (11) Charge will be made of 1 per cent of schedule price for each \$10 of servant's pay, as in case of employee's family. (12) Regular charge shown on schedule. (13) Free when Army medical officer is not available. No charge for home visits to members of families of such officers on duty with, but receiving no extra compensation from, The Panama Canal. (14) Surgical dressings without consultation, half price of consultation fee. (15) For visit to two or more in same family, full price for first and half price for each additional patient. Where calls are made upon vessels not alongside dock or locks—in harbor at anchor, or transiting the Canal—\$2.50 added to regular charge. (16) Deposit sufficient to cover 30 days' charges required on admission, or an acceptable guarantee from responsible official.

SCHEDULE OF OPERATIONS

Abscess, liver.....	\$400.00	Appendectomy, complicated.....	\$500.00
Adenectomy, cervical, simple.....	50.00	Breast, enucleation of tumors.....	100.00
Adenectomy, cervical, radical.....	200.00	Breast, excision or amputation.....	150.00
Adenectomy, inguinal incision.....	25.00	Breast, excision, radical.....	500.00
Adenectomy, inguinal radical.....	100.00	Bunion.....	100.00
Amputation, cervix.....	150.00	Cancer, lip.....	100.00
Amputation, finger, toe.....	25.00	Cancer, tongue.....	200.00
Amputation, foot, hand.....	200.00	Cancer, rectum.....	500.00
Amputation, leg, forearm, arm.....	250.00	Cholecystectomy.....	400.00
Amputation, thigh.....	300.00	Cholecystotomy.....	300.00
Amputation, shoulder.....	350.00	Circumcision.....	25.00
Amputation, hip.....	400.00	Circumcision (babies).....	10.00
Anesthesia (for examination purposes).....	10.00	Colostomy.....	200.00
Appendectomy, simple, chronic.....	150.00	Colles fracture (See Dislocations).....	
Appendectomy, acute.....	300.00	Craniotomy, exploratory.....	400.00

SCHEDULE OF CHARGES FOR X-RAY EXAMINATIONS.

Parts.	Class 1.	Class 2.	Class 3.	Parts.	Class 1.	Class 2.	Class 3.
Dental.....	*\$2.00	\$3.00	\$5.00	Kidneys.....	\$3.00	\$4.50	\$15.00
Fingers.....	1.00	1.50	10.00	Ureter.....	3.00	4.50	15.00
Hand.....	1.00	1.50	10.00	Bladder.....	3.00	4.50	15.00
Wrist.....	1.00	1.50	10.00	Chest, fluoroscopic examination.....	3.00	4.50	15.00
Toes.....	1.00	1.50	10.00	Urinary tract, entire.....	4.00	6.00	20.00
Foot—metatarsals.....	1.00	1.50	10.00	Spine, two sections.....	4.00	6.00	20.00
Forearm.....	2.00	3.00	10.00	Pelvis—sterios, or two views.....	4.00	6.00	20.00
Elbow.....	2.00	3.00	10.00	Chest—sterios, or two views.....	4.00	6.00	20.00
Arm.....	2.00	3.00	10.00	Abdomen, entire.....	5.00	7.50	25.00
Ankle.....	2.00	3.00	10.00	Stomach, fluoroscopic examination.....	5.00	7.50	25.00
Knee.....	2.00	3.00	10.00	Gastro-intestinal, series, 6 to 8 plates.....	5.00	7.50	25.00
Thigh.....	2.00	3.00	10.00	Gastro-intestinal, two series of plates.....	10.00	15.00	30.00
Shoulder.....	3.00	4.50	15.00	Gastro-intestinal, 6-hour and 24-hour plates, each.....	1.00	1.50	5.00
Neck.....	3.00	4.50	15.00	Fluoroscopic examination in connection with above.....	1.00	1.50	5.00
Jaw.....	3.00	4.50	15.00	X-ray treatments.....	1.00	1.50	5.00
Head.....	3.00	4.50	15.00				
Spine, one section.....	3.00	4.50	15.00				
Chest, one view.....	3.00	4.50	15.00				
Pelvis, one view.....	3.00	4.50	15.00				
Gall bladder.....	3.00	4.50	15.00				
Liver.....	3.00	4.50	15.00				

*Dental X-ray examinations for employees (except for diagnostic purposes at the request of a physician, or on account of injury in line of duty) will be charged for at this rate.

All genito-urinary examinations requiring injection of bladder, ureters, or kidney; the charge of part plus \$2.

For localization of foreign bodies, the charge of part plus \$2.

Where two or more parts are examined, the charge will be sum of charges for each part.

For examination not listed, charge estimated.

Class 1 will include: *a.* Families of all employees of the United States Government. *b.* Persons engaged solely in charitable and religious work in the Canal Zone and their families. *c.* Servants of all employees of the United States Government, and their families. *d.* Families of laborers and artisans regularly employed by individuals or companies in the Canal Zone.

Class 2 will include: *a.* Laborers and artisans regularly employed by individuals or companies in the Canal Zone. *b.* All employees of the United States Government (except The Panama Canal). *c.* American and foreign seamen. *d.* Physicians and nurses not in the employ of The Panama Canal.

Class 3 will include: *a.* Nondependent visitors of employees of The Panama Canal and Panama Railroad. *b.* White employees—of companies—who work in the Canal Zone, and their families. *c.* Private pay patients.

SCHEDULE OF LABORATORY AND MISCELLANEOUS CHARGES.

	Coffins.		Cremation. (†)	Disinterment.	Embalming.	Funeral direction.	Hearse. (‡)	Interments.	Lining and sealing caskets.		Receptacles for ashes of cremated.	Ambulance service.
	Adult's.	Child's.							Adult's.	Child's.		
Employees of The Panama Canal or the Panama Railroad.....	\$4.00	\$2.00	Free	\$10.00	\$10.00	Free	(*)	\$4.00	\$30.00	\$20.00	Free	Free
Families of employees of The Panama Canal or Panama Railroad, when monthly pay of employee is \$75 or less (36c per hr. or less)....	4.00	2.00	\$2.50	10.00	10.00	Free	(†)	4.00	30.00	20.00	\$2.00	Free
\$75.01 and over per mo. (37c per hr. and over)	4.00	2.90	6.00	10.00	10.00	\$5.00	(†)	10.00	30.00	20.00	2.00	Free
Servants of all employees of the United States.	4.00	2.00	2.50	10.00	10.00	Free	(†)	4.00	30.00	20.00	2.00	Free
All classes of patients not listed in this schedule.....	4.00	2.00	6.00	10.00	10.00	5.00	(†)	10.00	30.00	20.00	2.00	Free
Private pay patients....	6.00	2.50	15.00	10.00	15.00	10.00	\$10.00	25.00	35.00	20.00	2.00	\$2.50-10

(†) Free for American employees only. (‡) Free for American employees only. For all other employees, from Ancon Hospital morgue to Corozal cemetery, \$5.00; from Ancon Hospital morgue to Panama cemetery, free. (†) From Ancon Hospital morgue to Corozal cemetery, \$5. From Ancon Hospital morgue to Panama cemetery, \$2.50. (†) Stillborn children free. (‡) Charge for hearse service at Colon is \$1 for each trip, for all classes of patients, except American employees; free for the latter class.

The following items are free to all classes of patients except private pay patients, who shall be charged the following rates:

Urine examinations.....	\$3.00	Tissue examinations.....	\$5.00
Wassermann test.....	6.00	Anti-typhoid vaccine, per dose.....	1.50
Anti-smallpox vaccination.....	1.50	This is free to all residents of the Canal Zone or Republic of Panama.	
Autogenous vaccine:		Tetanus anti-toxin, per dose.....	5.00
For first vial.....	6.00		
For each vial after first.....	3.00		

Charges will not be made for laboratory examinations for contagious, infectious, or quarantinable diseases, other than venereal diseases. For other laboratory work, charges will be made according to this schedule, except when certified to by the attending physician as necessary for diagnosis. Laboratory work not specified in this schedule will be charged for according to the time spent and materials used, with a surcharge for work requiring expert knowledge or skill.

School Holidays.

Canal Zone public schools will be closed for the Christmas holidays from Saturday, December 20, 1919, to January 4, 1920, inclusive.

Road Change between Corozal and Miraflores Hill.

The main road between Corozal and Miraflores Hill, passing through Fort Clayton, was closed on December 22, and traffic between these points is using the old Corozal-Pedro Miguel road to the east.

The road will be closed until approximately February 1, 1920. The closing was made in order to allow widening of the existing road, now 18 feet wide, to 25 feet in the section through Fort Clayton.

School for Apprentices.

An apprentice school, with the main room on the third floor of the Mechanical Division office building at Balboa and a branch at the Cristobal shops, is maintained to provide instruction in technical subjects to apprentices of all trades on the Canal Zone. Each apprentice is entitled to attend class in the school on one afternoon (four hours) each week, and receives his regular rate of pay while attending school. Classes are arranged by grouping the apprentices according to the nature of their shop or trade work, the aim being to bring together in the same class those trades which bear the closest relation or greatest similarity to each other. The following schedule shows the general grouping of apprentices for classwork:

- Monday, 12 to 4 p. m. (Balboa)—Sheet and plate metal workers. (Boiler makers, shipfitters, etc.)
- Tuesday, 12 to 4 p. m. (Balboa)—Machinists.
- Wednesday, 12 to 4 p. m. (Balboa)—Miscellaneous group, hot metal workers welders, molders, automobile repairmen, electricians, chemists, etc.
- Thursday, 12 to 4 p. m. (Balboa)—Woodworking and building trades.
- Friday, 12 to 4 p. m. (Cristobal)—All apprentices at Cristobal.

Some deviations from the above schedule are necessary in order to adjust the size of the group to the drafting equipment. In any case where a new apprentice is to report for Apprentice School work arrangement should be made by the supervising official with the apprentice instructor (telephone 516, Balboa) so that the apprentice may be directed to report with the proper group.

Instruction is given in mechanical drawing and blueprint reading, shop mathematics and mechanics, working principles of power machinery, and shop and business English. The subject matter in each subject is adapted to the shop needs of the apprentice. Thus, machine drawing is emphasized in the machinists' group, development of surfaces and laying out by triangulation, etc., is emphasized in the sheet metal working group, considerable attention is given to wiring diagrams with the electricians, and architectural drawing will be taught

to the building trades' apprentices. Likewise, in mathematics, the electricians are given electrical problems and are taught the essentials of direct and alternating current theory, while the mechanical trades are given problems based directly on their shopwork.

A definite record is kept of the work of the apprentice in both the shop and school throughout the entire four years of his apprenticeship. This is kept on an apprenticeship record card on which ratings or marks for his work in both shop and school are entered every three months, the mark for the shopwork being entered by the foreman under whom the apprentice is working. Promotion to the various classes of apprenticeship is contingent upon the attainment of a satisfactory rating for the work in shop and school for the class from which the apprentice is to be promoted. The minimum satisfactory rating is 70 per cent. The classes of apprentices are as follows:

First year.....	5th class apprentice
Second year.....	4th class apprentice
Third year, first 6 months.....	3d class apprentice
Third year, second 6 months.....	2d class apprentice
Fourth year.....	1st class apprentice

Bubonic Plague.

On account of the reported presence of bubonic plague among rats in New Orleans, the Health Department is taking special care at Colon and Cristobal to prevent the entrance of rats from ships, to work down the rat population, and to have premises, especially about warehouses, cleaned and arranged to afford the minimum of shelter and subsistence to rats. This sort of work goes on all the time, in Colon and Panama as well as the Canal Zone, and last year over 38,000 rats were destroyed. The possibility of the entrance of plague is regarded as the greatest health menace to which the Isthmus is now subject, and rats, as the most frequent carriers of the disease, are the object of the principal preventive measures. In the clean and open villages of the Canal Zone they have relatively small opportunities, but around warehouses and stores, and in the older and darker buildings of Panama and Colon they abound in numbers. They are fecund, producing from 10 to 14 young in a litter, and having two and three litters in a year.

Plague is reported by British medical authorities to have been responsible for over ten and a half million deaths in India since its invasion of India in 1896.

Mail for Quartermaster, Ancon-Balboa District.

The district quartermaster for the Ancon-Balboa district requests that mail for his office be addressed to Balboa Heights, and not to Ancon or Balboa post offices, to which the district quartermaster's office does not send messengers.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service.

Tariff Clerk (male and female); \$1,620 a year; January 7, 1920; form 1312; age, 21 years but not 50 years.

Special agent, Special Intelligence Unit, Bureau of Internal Revenue (male and female); \$1,500 to \$3,000 a year; January 7, 1920; form 1312; age 25 years but not 45 years.

- Superintendent (Director), Bureau of Fisheries (male and female); \$1,800 a year; December 30, 1919; form 1312; age, reasonable age limits.*
- Tinner (male and female); \$85 a month; January 6, 1920; form 1800; age, over 20 years.*
- Mechanical assistant in refrigeration (male and female); \$1,200 to \$1,400; No. 534-amended; January 6, 1920.*
- Trained nurse, change in age limit for positions in the Indian Service; No. 1952-amended—supplemental; age, 20 years, but not 45 years.
- Associate physicist qualified in aeronautics (male and female); No. 13; \$3,000 a year; January 6, 1920; form 1312; age, 22 years but not 45 years.*
- Mechanical engineer in experimental work (male and female); No. 14; \$7.28 per diem; January 6, 1920; form 2118; age, 25 years but not 40 years.*
- Bacteriologist, junior bacteriologist (male and female); No. 10; \$130 to \$180 per month, \$70 to \$90 per month; January 6, 1920; form 1312; age, over 18 years.*
- Tester of tractors (male and female); No. 583; \$3,000 a year; December 30, 1919; form 1312; age, over 25 years.*
- Cotton technologist (male and female); No. 584; \$3,000 to \$4,000 a year; December 30, 1919; form 2118; age, 30 years but not 45 years.*
- Accounting and statistical clerk (male and female); No. 11; \$1,500 a year; January 7, 1920, and February 18, 1920; form 1312; age, 21 years but not 50 years.
- Administrative assistant, chief clerk—administrative assistant, property officer—administrative assistant, mess officer—administrative assistant, pharmacist (male and female); \$1,200 to \$1,560 with bonus, and quarters, subsistence and laundry; January 7, 1920; form 1312; age, 25 years but not 50 years.
- Dietitian (male and female); \$960 a year; January 12, 1920; age, over 21 years.*
- Fire-prevention engineer (male and female); \$2,500 to \$4,000 a year; January 13, 1920; age, over 25 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death
Thomas Lescene.....	41553	Jamaica.....	Panama.....	Cattle Industry.....	December 9, 1919.
Charles W. H. Morrison.....	23262	Jamaica.....	Paraiso.....	M. and H. Sec.....	November 12, 1919.
Francisco Sepeda.....	26534	Nicaragua.....	Colon.....	Mechanical Division.....	December 13, 1919.

Official Circulars.

Substitution of Octagonal Metal Checks for Checks Previously Used.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 11, 1919.

CIRCULAR No. 722-3:

1. Effective January 1, 1920, or as soon thereafter as practicable, an octagonal metal check will replace all identification checks now in use.
2. Checks Nos. 1 to 20,000 will be reserved for gold employees.
3. Checks Nos. 20,001 upward, will be reserved for silver employees.
4. No metal checks of a special series will be assigned to any unit of the work.
5. Under no circumstances, will the original metal check issued be lifted.
6. In order that former employment may not be concealed, foreman or party employing, should make every effort to ascertain from each new employee whether he has a check of the current issue in his possession, before issuing him a new check.
7. A deduction of 50 cents for a lost or mutilated metal check will be made. Such charge is made to cover charge of records and will not be refunded, even though lost metal check may be subsequently found.
8. New metal checks will be substituted for old series to an entire gang simultaneously, and will be delivered personally by the time inspector on the job. Metal checks of obsolete series may be retained by employees.
9. After a gang has been supplied with new metal checks, when new employees are taken on, the party employing them will carefully fill out

employment cards, form No. 5607, for each silver employee and issue a metal check on the day the employee's services commence, provided such employee is not already in possession of a check of the current issue.

10. A supply of metal checks will be issued to foremen or others in charge of gangs, upon written request to the Auditor, The Panama Canal, or in case of emergency, upon telephoning Balboa 14.

11. With each supply of metal checks will be furnished a like number of employment cards, form No. 5607, which will bear (printed on reverse) instructions for use.

CHESTER HARDING,
Governor.

Rates for Motor Transportation.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., Decemober 16, 1919.

To all concerned—Effective January 1, 1920, the following motor transportation rates will be charged against departments and divisions of The Panama Canal:

	Per hour
Jitneys.....	\$1.00
Ford ½-ton delivery trucks.....	.65
Ford and Form A 1-ton trucks.....	.80
Ford 1-ton garbage trucks.....	1.00
One and one-half ton trucks.....	2.20
Two and one-half ton trucks.....	2.40
Three and one-half ton trucks.....	2.65

R. K. MORRIS,
Chief Quartermaster.
Approved:
J. J. MORROW,
Acting Governor.

Acting Chief Hydrographer.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 20, 1919.

To all concerned—Effective December 22, 1919, and during Mr. R. Z. Kirkpatrick's absence on leave, Mr. H. G. Cornthwaite will be Acting Chief Hydrographer.

JAY J. MORROW,
Acting Governor.

Ratings for Conduct and General Workmanship.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 20, 1919.

HEADS OF DEPARTMENTS AND DIVISIONS:

Attention is called to the following, which is contained in paragraph 6, Circular 604:

"Upon papers of transfer, promotion, demotion, change of rating, and termination of employment, the head of the department shall indorse a rating for 'conduct' and 'general workmanship.' The ratings authorized are 'excellent,' 'very good,' 'good,' 'mediocre,' and 'poor,' and only these terms shall be used."

Please be governed accordingly in forwarding papers to this office.

By direction of the Acting Governor.

C. A. MCLIVAIN,
Executive Secretary.

Panama Railroad Holiday Schedule.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., December 22, 1919.

All concerned—The Panama Railroad will operate Saturday schedule Wednesday, December 24, and Wednesday, December 31, and Sunday schedule Thursday, December 25 and Thursday, January 1, on the main line and Las Cascadas branch.

Local freights will not run December 25 nor January 1.

W. F. FOSTER,
Master of Transportation.

Approved: S. W. HEALD,
Superintendent.

Joint Commission.**Awards.**

In the matter of the claim of the American Trade Development Company, for property situated at Pueblo Nuevo, award No. 210, docket No. 3596, December 16, 1919—An award is hereby made against the United States in favor of the American Trade Development Company in the sum of \$6,500 United States currency, for all right, title, and interest the said American Trade Development Company may possess or may have possessed in and to the property situated at Pueblo Nuevo, subject of claim docket No. 3596, including buildings located thereon and any and all damages sustained on account of the expropriation of this property by the United States of America.

This award shall be paid on or before the 16th day of January, 1920, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum per annum until paid.

Done in the National Palace, Panama, on the 16th day of December, 1919.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, Commissioners.

In the matter of the claim of Ramon Arias Feraud, for property known as Isla de Tacho, award No. 211, docket No. 3595, December 16, 1919—An award is hereby made against the United States in favor of Ramon Arias Feraud

in the sum of \$3,150, United States currency, for all right, title, and interest the said Ramon Arias Feraud may possess or may have possessed in and to the property known as "Isla de Tacho," subject of claim docket No. 3595, including improvements of whatever nature located thereon and any and all damages sustained on account of the expropriation of this property by the United States of America.

This award shall be paid on or before the 16th day of January, 1920, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum per annum until paid.

Done in the National Palace, Panama, on the 16th day of December, 1919.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, Commissioners.

Rules of Dismissal.

In the matter of the claim of Robert Wilcox, administrator of the estate of A. B. Monteverde, deceased, rule of dismissal No. 436, docket No. 2696, December 15, 1919—After a complete hearing and argument of the above-entitled claim the Commission is of the opinion that the case presented comes within the purview of the decision heretofore rendered by the Commission in the matter of the claim of Agusta Dunlop, claim docket No. 7, on April 16, 1913, and upon the authority of the decision in that case the above-entitled claim is beyond the jurisdiction of the Commission and the same is therefore hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, BURT NEW, Commissioners.

I dissent from the above finding.

JULIO J. FABREGA, Commissioner.

In the matter of the claim of Eduardo Icaza, for property known as "Potrero y Manginga," rule of dismissal No. 437, docket No. 3047, December 19, 1919—With reference to the claim of Eduardo Icaza, docket No. 3047, a motion was filed by claimant on December 18, 1919, requesting that the Commission dismiss this claim for the reason that he has made settlement direct with the representatives of the United States Government.

In view of such settlement the above claim calls for no further action on the part of the Commission, and said claim is accordingly hereby dismissed.

FEDERICO BOYD, BURT NEW, JULIO J. FABREGA, GEORGE A. CONNOLLY, Commissioners.

In the matter of the claim of Martin Linczer, for property known as "Palanquilla" and "Frijol Grande," rule of dismissal No. 438, docket No. 3330, December 19, 1919—With reference to the claim of Martin Linczer, docket No. 3330, the Members of the Commission are of the unanimous opinion that the property for which claimant demands payment in this claim was covered by Award No. 4, of June 25, 1913, under docket Nos. 103, 122, and 124, and the above claim is therefore hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, Commissioners.

Examination for Colored Teachers.

An examination will be held at the office of the Superintendent of Schools, Administration Building, Balboa Heights, Friday and Saturday, January 9 and 10, 1920, for colored teachers who desire to qualify for consideration for teaching positions in the Canal Zone colored schools as openings may occur from time to time.

All interested should forward their credentials and applications for taking examination to the Division of Schools, Balboa Heights, C. Z., and be on hand for the examination on those two days, as another examination for this purpose is not being planned for this school year.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., December 22, 1919.

The following insufficiently addressed letters have been received in the office of the Director of Posts, and may be obtained upon request of the addressees. Requests may be made by telephone, calling No. 182, Balboa:

Berth, Chas. H.	Pagne, Mrs. G.
Cristo, Miss Elva	Paulson, Paul
Darcey, James	Pearson, Edward B.
Evans, John Ashby	Peck, H. P., Box 338
Forde, R. E.	Pfennig, Miss Elsa, Box 261
Gray, Anderson	Phillips, Mrs. Ester
Hart, Mrs. Jas. A., Box 234	Pilgrim, Alexander
Jensen, Fred H.	Rehberg, Louis, Box 646
McGill, Joseph E.	Reynolds, Albert
McIlroy, Wm. H.	Saunders, Peter, Box 916
Marvel, Mrs. George	Whitton, A. C.
Miller, Marion A.	Willings, Miss Mabel, Box 195.
Ott, V. L.	

Sale of Bumpers for Ford Cars.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., December 29, 1919, and then opened, for the purchase of fifty-four (54) bumpers for Ford cars. Bids may be made on the entire lot or on any number. The bumpers may be inspected at the Electrical Storehouse, Section "K," Balboa. Conditions

of sale and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Engine Lathe.

Sealed bids will be received at the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m. December 27, 1919, and then opened for the purchase of one engine lathe, which can be seen at the Instrument Repair Shop, Balboa. Description of lathe and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of New and Second-hand Farm Implements on hand at Cristobal Store.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10 a. m., February 16, 1920, and then opened, for the purchase of a miscellaneous lot of farm implements at Cristobal Store. Detailed information showing complete list of items for sale and form of proposal may be had upon application to the office of the Chief Quartermaster. Bids will be received on the entire lot, or any single item or group of items. The Panama Canal reserves the right to reject any or all bids.

COMMISSARY NOTES.**Books.**

Books received:

"The Miracle Man," by Frank Packard; "The War Lord of Mars," by Edgar Burroughs.

Christmas Decorations.

Mistletoe, holly, and evergreen for the Christmas trade have been received from the States.

Aprons.

Bungalow aprons, in percales and gingham, are now on sale in the line commissaries. These are in plain colors, figured designs, and plaids, and attractively trimmed with braid, pique, and contrasting colors. These range in price from \$1.40 to \$2.45.

Pillowcases.

The Commissary Division has recently received and forwarded to the line stores a shipment of good quality cotton pillowcases. These are embroidered in white, some with scalloped edges, and in the attractive blue bird designs. The prices are \$1.80 and \$2.20 per pair.

Hosiery.

The manufacturers of a brand of hosiery greatly favored by commissary patrons have advised that they will not be able to make deliveries on commissary requisitions before the early part of next year. They also state that they are not yet in position to fix their spring prices.

Notification of Inventory.

Commissaries will be closed for quarterly inventory all day on Tuesday, December 30. The grocery and cold storage sections will be opened not later than 10 a. m. on Wednesday, December 31, and other departments as soon as the check by the Auditor's representatives has been completed.

Fancy Goods.

Arriving somewhat late for the Christmas shopping season are scarfs, centerpieces, and doilies. These are of a good quality cotton material and attractively trimmed with flet lace. The scarfs, priced at \$1.10, \$1.25, \$1.50, and \$1.75 each, are unusual values, the centerpieces are in a wide range of sizes and prices, and the doilies, ranging in price from 20 cents to 31 cents, are equally desirable. These will be placed on sale Wednesday, December 24.

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE No. 30, EFFECTIVE DECEMBER 25, 1919.

MAIN LINE STATIONS.	DAILY.					Daily except Sat day	Sat'day only.			Sunday only.
	DAILY.						DAILY.			
	3	5	7	9	11		4	8	10		12
Leave	A. M.	A. M.	P. M.	P. M.	P. M.		A. M.	P. M.	P. M.	Sunday only.
Colon.....	7.10	11.00	5.00	11.15	9.35		7.10	11.00	11.30	P. M.
Mount Hope.....	7.15	11.05	5.05	11.20	9.40		7.15	11.05	11.35	P. M.
New Gatun.....	7.27	11.17	5.17	11.28	9.52		7.27	11.17	11.41	P. M.
Gatun.....	7.42	11.32	5.32	11.40	10.07		7.42	11.32	11.46	P. M.
Monte Lirio.....	7.53	11.43	5.43	11.55	10.18		7.53	11.43	12.05	P. M.
Frijoles.....	8.00	11.50	5.50	12.04	10.25		7.58	11.47	12.17	P. M.
Darien.....	8.14	12.02	6.02	12.18	10.37		8.07	11.57	12.28	P. M.
Summit.....	8.30	12.14	6.14	12.30	10.49		8.14	12.04	12.35	P. M.
Pedro Miguel.....	8.44	12.26	6.26	12.42	10.57		8.25	12.15	12.46	P. M.
Red Tank.....	8.50	12.32	6.30	1.00	11.01		8.40	12.30	1.01	P. M.
Miraflores Locks.....	8.58	12.36	6.34	1.05	11.09		8.50	12.40	1.10	P. M.
Corozal.....	9.05	12.45	6.40	1.10	11.14		8.55	12.45	1.15	P. M.
Balboa Heights.....	9.05	12.50	6.45	1.15	11.20		9.05	12.50	1.20	P. M.
Panama.....	A. M.	P. M.	P. M.	1.20	11.25		A. M.	P. M.	A. M.	P. M.
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Colon.....	12.30	11.30	7.00	12.15	10.18		7.46	11.35	12.05	10.10
Mount Hope.....	12.35	11.35	7.05	12.20	10.25		7.58	11.47	12.17	10.22
New Gatun.....	12.45	11.47	7.15	12.30	10.37		8.07	11.57	12.28	10.32
Gatun.....	12.50	11.50	7.21	12.35	10.49		8.14	12.04	12.35	10.39
Monte Lirio.....	11.53	7.24	5.19	1.59	11.09		8.25	12.15	12.46	10.50
Frijoles.....	11.57	7.28	5.23	2.03	11.14		8.40	12.30	1.01	11.05
Darien.....	12.01	7.33	5.28	2.08	11.19		8.50	12.40	1.10	11.15
Summit.....	12.09	7.40	5.35	2.15	11.25		8.55	12.45	1.15	11.20
Pedro Miguel.....	12.15	7.45	5.40	2.20	11.30		9.05	12.50	1.20	11.25
Red Tank.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Miraflores Locks.....	11.57	7.28	5.23	2.03	11.14		8.25	12.15	12.46	10.50
Corozal.....	12.01	7.33	5.28	2.08	11.19		8.40	12.30	1.01	11.05
Balboa Heights.....	12.09	7.40	5.35	2.15	11.25		8.50	12.40	1.10	11.15
Panama.....	12.15	7.45	5.40	2.20	11.30		8.55	12.45	1.15	11.20
Panama.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Colon.....	12.30	11.30	7.00	12.15	10.18		7.46	11.35	12.05	10.10
Mount Hope.....	12.35	11.35	7.05	12.20	10.25		7.58	11.47	12.17	10.22
New Gatun.....	12.45	11.47	7.15	12.30	10.37		8.07	11.57	12.28	10.32
Gatun.....	12.50	11.50	7.21	12.35	10.49		8.14	12.04	12.35	10.39
Monte Lirio.....	11.53	7.24	5.19	1.59	11.09		8.25	12.15	12.46	10.50
Frijoles.....	11.57	7.28	5.23	2.03	11.14		8.40	12.30	1.01	11.05
Darien.....	12.01	7.33	5.28	2.08	11.19		8.50	12.40	1.10	11.15
Summit.....	12.09	7.40	5.35	2.15	11.25		8.55	12.45	1.15	11.20
Pedro Miguel.....	12.15	7.45	5.40	2.20	11.30		9.05	12.50	1.20	11.25
Red Tank.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Miraflores Locks.....	11.57	7.28	5.23	2.03	11.14		8.25	12.15	12.46	10.50
Corozal.....	12.01	7.33	5.28	2.08	11.19		8.40	12.30	1.01	11.05
Balboa Heights.....	12.09	7.40	5.35	2.15	11.25		8.50	12.40	1.10	11.15
Panama.....	12.15	7.45	5.40	2.20	11.30		8.55	12.45	1.15	11.20
Panama.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.

All trains stop where time is shown except f indicates stop on signal only.

MAIN LINE STATIONS.	DAILY.					Daily except Sat day	Sat'day only.			Sunday only.
	DAILY.						DAILY.			
	30	32	34	35	38		40	42	42	
Leave	A. M.	P. M.	P. M.	P. M.	P. M.		A. M.	P. M.	P. M.	Sunday only.
Colon.....	6.25	9.10	12.55	4.00	6.50		6.50	11.23	12.23	P. M.
Mount Hope.....	6.15	9.05	12.50	3.55	6.40		6.40	11.19	12.20	P. M.
New Gatun.....	6.00	8.51	12.35	3.41	6.31		6.31	11.08	12.07	P. M.
Gatun.....	5.56	8.48	12.32	3.38	6.28		6.28	11.03	12.04	P. M.
Monte Lirio.....	5.49	8.41	12.29	3.35	6.25		6.25	11.00	12.01	P. M.
Frijoles.....	5.44	8.36	12.25	3.31	6.21		6.21	10.56	11.56	P. M.
Darien.....	5.35	8.30	12.15	3.20	6.10		6.10	10.45	11.45	P. M.
Summit.....	5.30	8.25	12.10	3.15	6.05		6.05	10.40	11.40	P. M.
Pedro Miguel.....	5.25	8.20	12.05	3.10	6.00		6.00	10.35	11.35	P. M.
Red Tank.....	5.20	8.15	12.00	3.05	5.55		5.55	10.30	11.30	P. M.
Miraflores Locks.....	5.15	8.10	11.55	3.00	5.50		5.50	10.25	11.25	P. M.
Corozal.....	5.10	8.05	11.50	2.55	5.45		5.45	10.20	11.20	P. M.
Balboa Heights.....	5.05	8.00	11.45	2.50	5.40		5.40	10.15	11.15	P. M.
Panama.....	5.00	7.55	11.40	2.45	5.35		5.35	10.10	11.10	P. M.
Panama.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Colon.....	12.30	11.30	7.00	12.15	10.18		7.46	11.35	12.05	10.10
Mount Hope.....	12.35	11.35	7.05	12.20	10.25		7.58	11.47	12.17	10.22
New Gatun.....	12.45	11.47	7.15	12.30	10.37		8.07	11.57	12.28	10.32
Gatun.....	12.50	11.50	7.21	12.35	10.49		8.14	12.04	12.35	10.39
Monte Lirio.....	11.53	7.24	5.19	1.59	11.09		8.25	12.15	12.46	10.50
Frijoles.....	11.57	7.28	5.23	2.03	11.14		8.40	12.30	1.01	11.05
Darien.....	12.01	7.33	5.28	2.08	11.19		8.50	12.40	1.10	11.15
Summit.....	12.09	7.40	5.35	2.15	11.25		8.55	12.45	1.15	11.20
Pedro Miguel.....	12.15	7.45	5.40	2.20	11.30		9.05	12.50	1.20	11.25
Red Tank.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Miraflores Locks.....	11.57	7.28	5.23	2.03	11.14		8.25	12.15	12.46	10.50
Corozal.....	12.01	7.33	5.28	2.08	11.19		8.40	12.30	1.01	11.05
Balboa Heights.....	12.09	7.40	5.35	2.15	11.25		8.50	12.40	1.10	11.15
Panama.....	12.15	7.45	5.40	2.20	11.30		8.55	12.45	1.15	11.20
Panama.....	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.		A. M.	P. M.	A. M.	P. M.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., December 31, 1919. No. 20.

Census of the Canal Zone.

A census of the Canal Zone will be taken during the month of January, in accordance with the law providing for such census, and following instructions from the United States Bureau of The Census. Officials and employees of The Panama Canal and Panama Railroad are urged to facilitate this work by all means in their power. A proclamation of the President on this subject follows:

Fourteenth Decennial Census of the United States.

By the President of the United States of America—A Proclamation:

WHEREAS, by the Act of Congress approved March 3, 1919, the Fourteenth Decennial Census of the United States is to be taken beginning on the second day of January, 1920; and

WHEREAS, a correct enumeration of the population every ten years is required by the Constitution of the United States for the purpose of determining the representation of the several States in the House of Representatives; and

WHEREAS, it is of the utmost importance to the interests of all the people of the United States that this Census should be a complete and accurate report of the population and resources of the Nation;

NOW, THEREFORE, I, Woodrow Wilson, President of the United States of America, do hereby declare and make known that, under the law aforesaid, it is the duty of every person to answer all questions on the census schedules applying to him and the family to which he belongs, and to the farm occupied by him or his family, and that any person refusing to do so is subject to penalty.

The sole purpose of the census is to secure general statistical information regarding the population and resources of the country and replies are required from individuals only to permit the compilation of such general statistics. No person can be harmed in any way by furnishing the information required. The Census has nothing to do with taxation, with military or jury service, with the compulsion of school attendance, with the regulation of immigration or with the enforcement of any national, state or local law or ordinance. There need be no fear that any disclosure will be made regarding any individual person or his affairs. For the due protection of the rights and interests of the persons furnishing information every employee of the Census Bureau is prohibited, under heavy penalty, from disclosing any information which may thus come to his knowledge.

I therefore earnestly urge upon all persons to answer promptly, completely and accurately all inquiries addressed to them by the enumerators or other employees of the Census Bureau and thereby to contribute their share toward making this great and necessary public undertaking a success.

IN WITNESS WHEREOF I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE in the District of Columbia this tenth day of November, in the year of our

[SEAL] Lord one thousand nine hundred and nineteen, and of the independence of the United States the one hundred and forty-fourth.

By the President:

WILLIAM PHILLIPS,
Acting Secretary of State.

WOODROW WILSON

[No. 1540.]

The information required of persons is as follows:

PLACE OF ABODE.

1. Street, avenue, road, etc. 2. House number (in cities or towns). 3. Number of dwelling house in order of visitation. 4. Number of family in order of visitation.

NAME.

5. Name of each person whose *place of abode* on January 1, 1920, was in this family. Enter surname first, then the given name and middle initial, if any. Include every person living on January 1, 1920. Omit children born since January 1, 1920.

RELATION.

6. Relationship of this person to the head of the family.

OWNERSHIP OF HOME.

7. Owned or rented. 8. Owned free or mortgaged. 9. Number of farm schedule.

PERSONAL DESCRIPTION.

10. Sex. 11. Color or race. 12. Age at last birthday. 13. Whether single, married, widowed, or divorced.

CITIZENSHIP.

14. Whether naturalized or alien. 15. Year of immigration to the United States.

EDUCATION.

16. Attended school any time since September 1, 1919. 17. Whether able to read. 18. Whether able to write.

NATIVITY AND MOTHER TONGUE.¹

(Place of birth of each person and parents of each person enumerated. If born in the United States, give the State or territory. If of foreign birth, whether the person, father, or mother, give the country and mother tongue.)

Person.

19. Place of birth. 20. Mother tongue.

Father.

21. Place of birth. 22. Mother tongue.

Mother.

23. Place of birth. 24. Mother tongue.

25. Whether able to speak English.

OCCUPATION.

26. Trade, profession, or particular kind of work done, as *spinner, salesman, laborer, etc.*

27. Industry, business, or establishment in which at work, as *cotton mill, dry goods store, farm, etc.*

28. Whether employer, wage earner, or working on own account.

(¹) By mother tongue is meant the language of customary speech in the homes of the immigrants before immigration. This inquiry was authorized by Congress in 1910, by amendment of main Census Act, after schedules and instructions had been printed, and is again provided for in Section 8 of the Fourteenth Census Act.

Dutch Service to the Isthmus and the West Coast.

The Royal Netherlands Steamship Company (Koninklijke Nederlandsche Stoomboot Maatschappij) is operating approximately a monthly service through the Canal between Amsterdam and Valparaiso. On the outward voyage the ships sail for Valparaiso direct; for the homeward voyage they receive orders at Valparaiso as to calls at ports between Valparaiso and the Canal, nitrates forming the bulk of the return cargo and determining the course of the ships. The line carries passengers.

Royal Dutch West India Mail.

The Royal Dutch West India Mail (Koninklijke West Indische Maildienst) is operating a service with two ships a month in each direction between Amsterdam and Caribbean ports, carrying cargo and passengers. On the outward voyage the calls are usually Trinidad, and regularly La Guaira, Curaçao, Puerto Colombia, Cartagena, Port Limon, and Cristobal, and returning the calls are as traffic warrants, normally Puerto Colombia, Curaçao, and La Guaira, with other calls depending on orders.

Postal and Cable Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 27, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Middlebury.....	Panama Railroad Cattle Industry.....	December 21..	December 21..	—	4
Salvador.....	Pacific Steam Navigation Co.....	December 21..	December 22..	—	936½
Huallago.....	Peruvian Steamship Line.....	December 21..	December 23..	2,688	822
Palena.....	Chilean Steamship Line.....	December 21..	December 23..	—	350
Balboa.....	Colombian Maritime Co.....	December 21..	December 23..	—	782
Guatemala.....	Pacific Steam Navigation Co.....	December 22..	December 24..	—	3,090
Colon.....	Panama Railroad Steamship Line.....	December 22..	December 25..	2,635	(†)
Bonnafon.....	Panama Railroad Steamship Line.....	December 22..	December 25..	9,900	(†)
Mendocino.....	Huasteca Petroleum Co.....	December 23..	December 24..	1,716	59
Parismina.....	United Fruit Co.....	December 23..	December 23..	2,628	—
Lake Wilson.....	Panama Railroad Steamship Line.....	December 23..	December 23..	1,660	—
Lake Hurst.....	Panama Railroad Steamship Line.....	December 23..	December 25..	15	19
Turrialba.....	United Fruit Co.....	December 23..	December 25..	347	54½
Manuel Calvo.....	Spanish Steamship Line.....	December 24..	December 25..	1,029	117
Zacapa.....	United Fruit Co.....	December 24..	December 26..	5,400	(†)
Norman Bridge.....	Pan.-Amer. Pet. & Transp. Co.....	December 25..	December 27..	173	(†)
Llay-Llay.....	Indies Nav. Co.....	December 25..	December 25..	25	23
Abangarez.....	United Fruit Co.....	December 25..	December 25..	582	—
Santa Leonora*.....	United States Army.....	December 25..	December 25..	943	—
Novian.....	Leyland Line.....	December 25..	December 26..	8,500	—
Silverbrook.....	Standard Oil Co.....	December 26..	December 26..	2,207½	(†)
Sag Harbor.....	Panama Railroad Steamship Line.....	December 26..	December 27..	—	728
Manavi.....	Pacific Steam Navigation Co.....	December 26..	December 27..	402	67
Middlebury.....	Panama Railroad Cattle Industry.....	December 26..	December 27..	2,063	—
Peru.....	Pacific Steam Navigation Co.....	December 27..	December 27..	215	—
Princess Matoika*.....	United States Army.....	December 27..	December 27..	3	—
Ansaldo III.....	National Navigation Society.....	December 27..	December 27..	—	—

*Transport.

† No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 27, 1919.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Lake Fairfax.....	United States Shipping Board.....	December 19..	December 21..	(*)	(†)
Balboa.....	Colombian Maritime Co.....	December 23..	December 23..	(†)	29
Valdez.....	Alaska Steamship Co.....	December 23..	December 23..	(†)	—
Guatemala.....	Pacific Steam Navigation Co.....	December 23..	December 23..	(†)	1
Lake Fitch.....	United States Shipping Board.....	December 22..	December 24..	3,638	(†)
Lake Fibre.....	United States Shipping Board.....	December 22..	December 24..	3,297	(†)
Olockson.....	United States Shipping Board.....	December 25..	December 27..	953	(†)
Peru.....	Pacific Steam Navigation Co.....	December 25..	December 25..	29	(†)
Anyo Maru.....	Toyo Kisen Kaisha.....	December 26..	December 26..	(†)	21

*Reported in issue of December 24, 1919.

†No cargo discharged.

‡No cargo laded.

Supplement No. 3 to Tariff No. 3.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., December 13, 1919.

The following amendments are made to Tariff No. 3, Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at the Panama Canal:

ITEM 28.—MEDICAL AND HOSPITAL TREATMENT.

Effective December 1, 1919.

1. Ward treatment for seamen, \$2.25 per day. Operations, 10 per cent of scheduled price, that is, from \$1 to \$50. X-ray examinations, \$1.50 to \$15. Office consultation at hospital or dispensary, \$1; surgical dressings without consultation, 50 cents.
2. Ward treatment for passengers and others, \$5 per day; private room, \$7.50 per day. Charges for operations, X-ray examinations, and other services are at scheduled prices and are in accordance with charges for the same services in other hospitals. Office consultation at hospital or dispensary, \$3; surgical dressings without consultation, \$1.50.

ITEM 29.—QUARANTINE.

Effective January 1, 1920.

1. Subsistence, etc., in quarantine, per day:
 - For cabin passengers..... \$3.00
 - For steerage passengers..... 1.00

CHESTER HARDING,
Governor The Panama Canal.
President Panama Railroad Company.

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, December 27, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
C astle of																			
Castile.....	20	13 05	21	6 20	21	15 42	21	16 28	British.....	Crown Steamship Co.....	400 0	52 0	15 6	Glasgow.....	San Francisco.....	Ballast.....	9 400	5 663	4 141
Godby Prince.....	20	16 54	21	6 22	21	17 57	21	21 06	British.....	Prince Line Ltd.....	448 0	57 0	28 1	New York.....	Kobe.....	General.....	2 135	8 648	6 217
Shadbury.....	20	16 19	21	6 30	21	16 40	21	17 23	British.....	Copper Alexander & Co.....	343 0	49 0	16 0	London.....	West coast.....	General.....	2 135	4 017	2 058
Mystad.....	20	23 27	21	7 20	21	18 44	21	19 46	American.....	Shawmut Steamship Co.....	400 0	54 0	13 6	New York.....	Antofagasta.....	General.....	2 982	6 623	4 623
Ortega.....	20	16 35	21	11 45	20	21 11	21	20 59	British.....	Pacific Steam Navigation Co.....	465 0	56 0	22 9	Liverpool.....	London.....	General Indse.....	2 982	8 345	4 993
Farmok.....	20	22 05	21	11 50	21	21 10	21	22 17	American.....	Coastwise Transportation Co.....	336 3	55 0	18 5	Norfolk.....	London.....	General.....	1 020	5 772	3 716
Salvador.....	16	19 48	22	6 13	22	14 52	22	16 10	British.....	Pacific Steam Navigation Co.....	215 0	33 0	15 6	Cristobal.....	Champerico.....	General.....	3 589	1 213	692
War Spray.....	21	17 35	22	6 21	22	14 17	22	18 03	British.....	Pacific Steam Navigation Co.....	331 0	46 0	15 6	Baltimore.....	Champerico.....	General.....	3 589	2 200	2 200
West Irma.....	21	16 49	22	6 27	22	15 58	22	16 40	American.....	General Maritime Transp.....	409 8	54 2	26 0	New Orleans.....	Iquique.....	General.....	6 900	6 753	4 798
Lake Fibro.....	22	6 37	22	13 10	22	22 09	25	7 30	American.....	Green Star Steamship Corp.....	248 6	43 7	25 3	Norfolk.....	Shanghai.....	Coal.....	3 297	2 805	1 725
Lake Fitch.....	22	15 22	22	13 18	22	21 40	24	23 55	American.....	United States Shipping Board.....	253 4	43 8	26 6	Norfolk.....	Junin-Balboa.....	Coal.....	3 638	2 939	2 017
Balboa.....	17	19 26	23	5 55	23	13 32	23	22 45	American.....	United States Shipping Board.....	190 0	29 0	14 2	Cristobal.....	Tumaco.....	General.....	650	741	350
Valdez.....	22	14 04	23	6 30	23	13 25	23	15 48	American.....	Alaska Steamship Co.....	244 0	43 0	16 0	Baltimore.....	San Francisco.....	Steel.....	950	2 544	1 927
Lake Shore.....	22	7 00	23	6 40	23	14 57	23	15 48	American.....	United States Shipping Board.....	252 0	43 5	12 6	New York.....	Majillones.....	General.....	5 223	3 994	3 994
Jupiter.....	21	15 25	23	6 41	23	15 03	23	15 48	Spanish.....	Compañia Maritime Union.....	389 2	52 1	14 6	Balboa.....	Antofagasta.....	General.....	6 008	4 955	3 523
Crafter Hall.....	22	18 26	23	7 48	23	16 01	23	16 47	American.....	United States Steel Products Co.....	380 0	50 0	24 1	New York.....	Valparaiso.....	General.....	781	4 267	2 790
Guatemala.....	17	19 26	23	9 38	23	17 14	24	7 17	British.....	Pacific Steam Navigation Co.....	359 0	48 0	18 3	Cristobal.....	Valparaiso.....	General.....	823	3 630	2 537
Palena.....	17	16 10	23	10 09	23	17 16	24	7 17	Chilean.....	South American Steamship Line.....	350 0	42 0	23 6	Cristobal.....	Valparaiso.....	General.....	823	3 630	2 537
Saint Mahyn(a).....	21	12 02	23	13 55	23	20 02	23	22 44	British.....	British Admiralty.....	135 0	29 0	13 0	Plymouth.....	Iquique.....	General.....	452	115	115
C rown of																			
Garcia.....	20	12 45	24	5 55	24	13 51	24	14 38	British.....	Peninsular Service & Henderson.....	400 0	52 0	18 0	Liverpool.....	Los Angeles.....	General.....	4 000	5 714	4 125
Ingraham (b).....	23	10 51	24	6 10	24	12 40	24	13 20	American.....	United States Navy.....	305 0	30 0	12 6	New York.....	San Diego.....	General.....	.....	.....	.....
Turner (b).....	23	10 53	24	6 10	24	12 45	24	13 20	American.....	United States Navy.....	305 0	30 0	12 6	New York.....	San Diego.....	General.....	.....	.....	.....
Dakota.....	23	13 31	24	7 00	24	16 31	24	16 15	American.....	American-Hawaiian Line.....	407 7	53 7	16 0	La Pallice.....	Iquique.....	General.....	7 156	5 102	5 102
Virginia.....	24	2 25	24	7 15	24	15 17	24	16 15	American.....	American-Hawaiian Line.....	491 5	58 2	17 5	Rotterdam.....	Antofagasta.....	General.....	10 468	7 857	7 857
Lake Licorno.....	4	6 55	24	8 40	24	16 45	25	9 05	American.....	United States Shipping Board.....	251 0	43 6	13 0	Tampa.....	Antofagasta.....	General.....	2 436	1 587	1 587
Suffolk.....	24	9 28	24	10 10	24	17 55	24	19 10	British.....	Federal Steam Navigation Co.....	460 0	58 0	27 6	Liverpool.....	Antofagasta.....	General.....	5 000	8 975	6 457
Port Caroline.....	24	12 43	24	13 10	24	20 19	25	3 35	American.....	Commonwealth & Dominion Line.....	480 0	62 4	25 6	Liverpool.....	Antofagasta.....	General.....	4 000	10 740	7 829
Sherman.....	24	21 25	25	6 09	25	14 45	25	15 44	American.....	Sherman Steamship Co.....	400 0	45 0	18 3	Baltimore.....	Antofagasta.....	General.....	1 073	5 037	3 492
Oitic.....	24	6 37	25	6 30	25	15 25	25	16 48	British.....	United Weir & Co.....	412 5	55 5	29 0	New York.....	Antofagasta.....	General.....	9 855	7 159	5 309
Iceland.....	24	9 23	25	6 30	25	19 34	25	21 15	American.....	United States Shipping Board.....	400 7	54 2	28 3	New York.....	Antofagasta.....	General.....	6 400	6 528	4 690
Manav.....	25	6 40	25	9 19	25	20 42	26	7 15	Spanish.....	Cia. Naviera Sotia y Aznar.....	365 0	50 3	12 6	Newport News.....	Antofagasta.....	General.....	4 632	3 341	3 341
Manav.....	20	20 10	26	6 08	26	14 27	26	16 50	British.....	Pacific Steam Navigation Co.....	216 0	35 1	14 0	Cristobal.....	Guayaquil.....	General.....	727 1/2	1 241	759
S an Francisco																			
Maru.....	25	14 03	26	6 30	26	14 17	27	16 17	Japanese.....	Kokusai Kisen Kaisha.....	385 0	51 0	18 0	Barry, Wales.....	Mejillones.....	General.....	5 919	4 400	4 400
Sazanarack.....	25	18 12	26	8 34	26	18 06	26	18 52	American.....	United States Shipping Board.....	390 0	54 0	26 4	New York.....	Yokohama.....	General.....	6 460	6 106	4 555
Atualha.....	25	18 40	26	12 54	26	19 24	26	20 00	Italian.....	Lloyd Pacific Shipping Board.....	440 0	53 0	16 6	Genoa.....	Arica.....	General.....	7 102	5 052	5 052
Sag Harbor.....	26	6 07	27	6 23	27	16 27	27	17 10	American.....	United States Shipping Board.....	264 0	42 2	24 6	Norfolk.....	Antofagasta.....	General.....	.....	.....	.....
S. C. 284.....	26	6 07	27	7 45	27	16 27	27	17 10	American.....	United States Navy.....	264 0	42 2	24 6	Norfolk.....	Antofagasta.....	General.....	.....	.....	.....
Lay-Lay.....	25	11 00	27	11 42	27	19 31	28	9 54	Chilean.....	Indes Navigation Co.....	274 5	37 0	22 0	New York.....	Pedro Miguel.....	General.....	2 500	2 129	1 451

(a) Tug. (b) Destroyer.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Date	Time	From	Date	Time	To	Remarks
Breakwater (c)	17	17 11 21	American	17	17 11 21	United States Navy	
Hudella	21	6 20 21	British	21	21 05 05	British India Steam Nav. Co.	
Nuñaga	21	8 04 21	Peruvian	21	16 12 20	Peruvian Line	
Lake Maurepas	21	11 20 21	American	21	10 40 20	United States Shipping Board	
Beldrige	22	8 15 22	Norwegian	22	23 05 22	W. Wilhelmsen	
Cherry Branch	22	10 30 22	British	22	17 05 22	F. & W. Risson	
Canada	3	4 30 25	French	25	18 00 25	French Government	
Pedro Christoferson (M.S.)	24	8 30 25	Swedish	25	15 47 25	Johnson Line	
Mineola	25	1 35 25	American	25	15 50 25	W. R. Grace & Co.	
Vancouver	25	10 35 25	British	25	19 45 25	Gow Harrison & Co.	
Ranera	25	13 45 25	British	25	20 10 25	New Zealand Shipping Co.	
Peru	25	14 40 25	British	25	3 54 25	Pacific Steam Navigation Co.	
Efria	25	19 30 25	American	26	21 50 25	United States Shipping Board	
Monteag	26	3 30 26	French	26	17 25 26	French Government	
Ohioan	26	4 00 26	American	26	17 30 26	American-Hawaiian S. S. Line	
Goredijk	26	15 25 27	Dutch	27	14 28 27	Holland-American Line	
San Joaquin	26	16 15 27	Norwegian	27	17 17 27	Pacific Steam Navigation Co.	
Victoria	27	4 30 27	British	27	23 20 27	Shaw Saville Albion & Co.	
Karama	26	23 30 27	British	28	1 19 28	New Zealand Shipping Co.	
Paparoa	27	12 30 27	British	28	4 28 28	British	

(c) Mine sweeper. (d) For orders.

*ARRIVALS.				*DEPARTURES.			
Date	Vessels	Line	From	Date	Vessels	Line	To
Dec. 21	Saint Mabyn (a)	British Admiralty	Plymouth	Dec. 21	Middlebury	Panama Railroad	Catagena.
Dec. 22	Bonafon	United States Shipping Board	Norfolk	Dec. 22	Saint Mabyn (a)	British Admiralty	High seas.
Dec. 22	Mendozino	W. Wilhelmsen	Tampico	Dec. 24	Colon	Panama Railroad Steamship Line.	New York and Haiti.
Dec. 23	Parissima	United Fruit Co.	New York.	Dec. 25	Parissima	United Fruit Co.	New Orleans and waypoints.
Dec. 23	Lake Hurst	United States Shipping Board	Bluefields	Dec. 25	Mendozino	W. Wilhelmsen	Tampico.
Dec. 23	San Juan (a)	Bluefields Fruit Co.	New York.	Dec. 25	Turrialba	United Fruit Co.	New York and Limon.
Dec. 23	Lake Wilson	United States Shipping Board	New York.	Dec. 25	Mannuel Calvo	Spanish Line	Puerto Colombia.
Dec. 23	Turrialba	United Fruit Co.	Habana.	Dec. 25	Bonafon	United States Shipping Board	New York and Jamaica.
Dec. 24	Mannuel Calvo	Spanish Line	Habana.	Dec. 25	Salmon	United States Shipping Board	Bluefields.
Dec. 24	Zacapa	Pan-American Pet. & Trans. Co.	New York and Kingston.	Dec. 26	Zacapa	United Fruit Co.	Habana.
Dec. 24	Norman Bridge	United Fruit Co.	Tampico.	Dec. 26	Fassett	United States Shipping Board	Columbian ports.
Dec. 25	Abangarez	Leeward Line	Columbian ports.	Dec. 27	Norman Bridge	Pan-American Pet. & Transp. Co.	Bluefields.
Dec. 25	Novian	United States Army	Liverpool	Dec. 27	Middlebury	Panama Railroad	Catagena.
Dec. 25	Santa Leonora	United States Shipping Board	Cispatia	Dec. 27	Middlebury	Panama Railroad Cattle Industry.	Catagena.
Dec. 25	Salmon	United States Army	Cispatia				
Dec. 26	Middlebury	Panama Railroad Cattle Industry.	Catagena.				
Dec. 27	Princess Matoika	United States Army	New York.				

PORT OF BALBOA.

*ARRIVALS.				*DEPARTURES.			
Date	Vessels	Line	From	Date	Vessels	Line	To
Dec. 26	Anyo Maru	Toyo Kisen Kaisha	Valparaiso.	Dec. 27	Anyo Maru	Toyo Kisen Kaisha	Hongkong.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Largest Cargo through the Canal.

The steamship *Orca* of the Pacific Steam Navigation Company, passing through the Canal from Pacific to Atlantic on December 18, carried the largest cargo which has been taken through the Canal on any one vessel. It amounted to 15,753 tons, weight and space measurement, and consisted of general cargo from Chilean and Peruvian ports for Liverpool. The *Orca* is a ship of 15,120 tons gross and 9,449 tons net, registry measurement; her Canal gross and net tonnage are 15,931 and 10,846, respectively. Her length is 550 feet 3 inches, beam 67 feet 3 inches, and her draft in salt water at time of transit through the Canal was 33 feet 4 inches. Tolls paid for transit of the Canal amounted to \$11,816.25.

The following is a list of ships which have passed through the Canal carrying over 12,000 tons of cargo:

Direction.	Date.	Vessel.	Nationality.	Cargo.	Kind of cargo.
				<i>Tons.</i>	
Pacific to Atlantic..	June 25, 1915.....	Alaskan.....	American...	12,040	General.
Pacific to Atlantic..	August 17, 1915.....	Arizonan.....	American...	12,043	Sugar and general.
Atlantic to Pacific..	August 4, 1916.....	P rt Nicholson.....	British.....	14,000	Cement.
Pacific to Atlantic..	August 21, 1916.....	Orari.....	British.....	13,000	General.
Pacific to Atlantic..	April 20, 1917.....	Raranga.....	British.....	15,000	General.
Atlantic to Pacific..	June 3, 1917.....	Opawa.....	British.....	12,458	General.
Atlantic to Pacific..	June 17, 1917.....	Northumberland.....	British.....	13,700	General.
Pacific to Atlantic..	June 24, 1917.....	Geo. W. Henry.....	American...	13,632	Gasoline.
Pacific to Atlantic..	September 13, 1917.....	Standard Arrow.....	American...	12,240	Fuel oil.
Pacific to Atlantic..	September 29, 1917.....	Appele.....	American...	13,000	General.
Atlantic to Pacific..	October 23, 1917.....	Mahia.....	British.....	13,500	General.
Pacific to Atlantic..	October 5, 1917.....	Edg. F. Luckenbach.....	American...	12,240	Nitrate.
Atlantic to Pacific..	November 5, 1917.....	Ixion.....	British.....	13,500	General.
Atlantic to Pacific..	November 19, 1917.....	Armagh.....	British.....	14,765	General.
Atlantic to Pacific..	November 24, 1917.....	Ulysses.....	American...	12,045	Coal.
Pacific to Atlantic..	March 4, 1918.....	West Wind.....	American...	12,056	Flour and general.
Pacific to Atlantic..	March 21, 1918.....	A. C. Bedford.....	American...	13,067	Gasoline.
Pacific to Atlantic..	June 10, 1918.....	Tjisondari.....	American...	12,300	Naval supplies.
Atlantic to Pacific..	February 13, 1919.....	Achilles.....	American...	12,041	Coal.
Atlantic to Pacific..	May 16, 1919.....	Altai Maru.....	Japanese.....	12,500	General.
Pacific to Atlantic..	June 9, 1919.....	Eclipse.....	American...	12,398	Rice and sugar.
Atlantic to Pacific..	September 15, 1919.....	Ulysses.....	American...	12,113	Coal.
Atlantic to Pacific..	September 29, 1919.....	Caddo.....	American...	12,496	Petroleum.
Atlantic to Pacific..	November 8, 1919.....	Achilles.....	American...	12,034	Coal.
Atlantic to Pacific..	November 25, 1919.....	Achilles.....	American...	12,006	Coal.
Pacific to Atlantic..	December 18, 1919.....	Orca.....	British.....	15,753	General.

Repair Shop and Ship Chandlery Supply House.

Plans have been prepared for the construction on the mole at Cristobal, between the ends of Piers 8 and 9, of a building 250 feet long and 75 feet wide, to serve as a shop for light repairs on vessels docked at Cristobal, and as a storehouse for ship's chandlery.

The section devoted to the shop will occupy 100 feet of the length of the building and will be one story in height. A traveling crane, which has a span of 36 feet, will traverse the length of the building and extended beyond one end sufficiently far to command a roadway on which trucks may bring materials for repairs. The shop will be equipped with lathes, steam hammer, forges, and other adjuncts for light repair work. This feature is an extension of the small shop now operated at the end of Pier 9.

The remainder of the building will be two stories in height. The ground floor will be used for storage of various items of supplies for ships and the second floor will be available for offices and store-rooms for steamship lines which wish to rent spaces for storing their own supplies.

The building will be constructed of reinforced concrete with poured walls. The walls will be constructed in slabs 5½ inches thick, on the

ground, and raised into place. Columns will be poured afterwards between adjacent slabs completing the walls and affording sufficient strength to carry the roof structure. The estimated cost of the building is about \$70,000.

EXECUTIVE ORDER.

Amending Section 3 of the Executive Order of February 2, 1914, Providing Conditions of Employment for the Permanent Force for The Panama Canal.

By virtue of the authority vested in me by law, Section 3 of an Executive Order providing conditions of employment for the permanent force of the Panama Canal, issued February 2, 1914, is hereby amended so as to read as follows:

"3. The compensation and conditions of employment of persons employed in the United States will be specified in the appointments. The compensation of such persons will begin upon date of embarkation at port of departure from the United States, and they will be granted free transportation from port of departure, including meals on the steamer, but no compensation or expenses for the journey to the port; but former employees from the United States whose services were terminated other than on account of reduction of force, and whose next preceding service with The Panama Canal was less than one year, shall be paid only from date of entry into the service on the Isthmus, and will be allowed only such reduced rates of transportation to the Isthmus as may be available for Government employees. Employees appointed at an hourly rate will be paid for the period of transit to the Isthmus on the basis of an 8-hour day exclusive of Sundays. Except in case of discharge or other separation from the service beyond the employee's control, payment of salary from date of embarkation to date of arrival on the Isthmus will not be made unless service on the Isthmus continues for 30 days."

This order shall take effect on and after this date.

WOODROW WILSON

THE WHITE HOUSE,
25 November, 1919.

[No. 3182.]

The above has been published as Canal circular No. 601-96.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service.

Chief of police (male and female); \$1,800 a year; January 13, 1920; form 1312; age, 25 years and over*

Dietitian (male and female); \$960 a year; January 13, 1920; form 2118; age, 21 years and over.*
Draftsman, architectural and structural steel (male and female); \$1,560 a year; January 6, 1920; form 1312; age, 18 years, but not 45 years.*

Fire-prevention engineer (male and female); \$2,500 to \$4,000 a year; January 13, 1920; form 1312; age, 25 years and over.

Internist (male and female); \$2,500 to \$4,000 a year; January 20, 1920; form 2118; age, 21 years, but not 35 years.*

Physician (male and female); \$150 a month; January 7, 1920; form 1312; age, 22 years, but not 31 years.

Railway mail clerk (male and female); \$1,300 a year; January 17, 1920; form 304; age, 18 years, but not 35 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Addition to List of Notaries Public.

The following addition should be made to the list of notaries public in the Canal Zone, published in THE PANAMA CANAL RECORD of December 17, 1919:

Cristobal—Weaver, Henry D., Port Captain's office; commission expires May 11, 1922

Deceased Employees.

The estates of the following deceased employees of The Panama Canal are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Juan Tunon..... Joseph (alias James)	178526	Panama.....	Panama.....	Cattle Industry.....	December 8, 1919.
Ince.....	26251	Barbados.....	La Boca.....	Mechanical Division...	December 15, 1919.

Official Circulars.**Issue of Commissary Books to Silver Employees.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 22, 1919.

CIRCULAR No. 663-8:

The issue of \$2.50 commissary coupon books will be restricted so far as practicable. No \$2.50 commissary coupon book will be issued for payroll deduction when the employee has sufficient credit on the roll to cover a \$5 book, unless a memorandum approved by the employee's foreman, giving a good and sufficient reason for such issue, accompanies the time book in which the order for such book is placed.

JAY J. MORROW,
Acting Governor.

Exportation of Panaman Silver Coins.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 23, 1919.

To all concerned—Attention is called again to the fact that by Decree No. 17, of August 30, 1917, the President of the Republic of Panama prohibited the exportation of Panaman silver coins or bar silver made therefrom, excepting with the permission of the Secretary of Finance and Treasury.

It is desired to cooperate with the Government of Panama, and failure to respect and obey this decree, on the part of employees of The Panama Canal or the Panama Railroad Company, will result in their discharge from the service.

A circular was issued on this subject on September 24, 1918, covering similar provisions which have been continuously in effect, and, in order that there may be no misunderstanding, it is pointed out that the provision of the circular issued under date of July 15, 1919, relating to the cancellation of all restrictions on the exportation of coin, bullion, and currency is limited to U. S. currency and has no bearing on the preceding.

JAY J. MORROW,
Acting Governor.

Service Conditions for Conductors and Locomotive Engineers, Panama Railroad.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,

BALBOA HEIGHTS, C. Z., December 15, 1919.

Conductors and engineers—The following conditions will apply to main line and inside service for conductors and locomotive engineers on the Panama Railroad, effective January 1, 1920:

MAIN LINE SERVICE.

No. 1. Eight (8) hours or less shall constitute a day—time to start and end at midnight.

No. 2. Thirty (30) minutes time will be allowed for preparatory time and will start thirty (30) minutes before listed leaving time as shown by

call book. Ten (10) minutes will be allowed engineers after arrival at ash pit, and ten (10) minutes from time of arrival at Colon, Mount Hope, Diablo cabin, and Panama to ash pit. Ten (10) minutes will be allowed conductors after arrival at Mount Hope and Diablo cabin.

No. 3. Conductors and engineers will be called and sign book not less than one (1) hour before listed leaving time.

No. 4. There will be two classes of service—assigned and chain gang. The oldest applicant for an assigned run will be assigned to same.

No. 5. Chain gang crews will run first in and first out.

No. 6. Conductors and engineers called and relieved or train annulled will receive a minimum of one and one-half (1½) hours and stand first out.

No. 7. A round trip between the terminals of Colon and Panama in assigned service will be considered as a day, but conductors and engineers on assigned runs can be used in an emergency, the first one in to be called.

No. 8. In using an assigned crew regular hours will be used, and will be stated in the bulletin asking for bids. Article No. 2 will be adhered to in making up the run so as to conform to the 8-hour law.

No. 9. Regular assigned main line work trains may be tied up one (1) hour for the noon meal, and one (1) hour's time deducted, but crew must be given the full hour off.

No. 10. Main line conductors and engineers will receive main line rate of pay and conditions, regardless of class of service performed.

INSIDE SERVICE.

(a) Eight (8) hours or less shall constitute a day, counted continuously from time first required for duty. No preparatory or tie-up time allowed, except that on inside work other than that performed inside the yard limits established at south end of Mount Hope yard, and at mile 44½, one (1) hour may be deducted for the noon meal, but in such cases the crew must be given the full hour off.

(b) Inside work is all work done on other than the main line and on the main line inside the above-mentioned limits, of whatever class.

(c) Inside conductors and engineers required to go on main line for any cause will receive main line rate of pay for that day.

(d) Inside runs will be put up for bid and the oldest applicant will be given the run.

S. W. HEALD,
Superintendent.

Approved:

JAY J. MORROW,
Acting Governor.

Annual Passes on Panama Railroad.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,

BALBOA HEIGHTS, C. Z., December 26, 1919.

To all concerned—Annual passes for the year ending December 31, 1919, will be honored thereafter until further notice.

S. W. HEALD,
Superintendent.

Joint Commission.

Rules of Dismissal.

*In the matter of the claim of Pablo Arosemena for property located at the foot of Ancon Hill, rule of dismissal No. 439, docket No. 2515, December 26, 1919—*With reference to the claim of Dr. Pablo Arosemena, docket No. 2515, a motion was filed by claimant on December 23, 1919, requesting that the Commission dismiss this claim for the reason that he has made settlement direct with the representatives of the United States Government.

In view of such settlement the above claim calls for no further action on the part of this Commission, and the said claim is therefore hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, *Commissioners.*

*In the matter of the claims of Tracy Robinson, docket No. 1624; Mrs. Simeon A. Clark, docket No. 2690; John Uriah Simpson, docket No. 2691; T. B. Lawrence, docket No. 2692; Estate of A. James, deceased, A. Sange and J. H. Stilson, administrators, docket No. 2902; Mrs. Marion W. Clark, docket No. 2904; J. H. Stilson and M. A. de Leon, co-partners, docket No. 2905; J. H. Stilson, docket No. 2906; A. James and J. H. Stilson, docket No. 2907; W. F. Rathbun and J. H. Stilson, docket No. 2908; F. S. Higbid and Clarence Alberga, docket No. 3490; rule of dismissal No. 440, December 23, 1919—*On the 11th day of August, 1913, Tracy Robinson filed his claim, docket No. 1624, in the office of the Joint Commission; on the 17th day of November, 1914, Mrs. Simeon A. Clark filed her claim, docket No. 2690; on the 17th day of November, 1914; John Uriah Simpson filed his claim, docket No. 2691; on the 17th day of November, 1914, T. B. Lawrence filed his claim, docket No. 2692; on the 11th day of December, 1914, claim docket No. 2902 was filed by the estate of A. James, deceased, represented by J. H. Stilson and A. Sange, administrators; on the 11th day of December, 1914, Mrs. Marion W. Clark filed her claim, docket No. 2904; on the 11th day of December, 1914, J. H. Stilson and M. A. de Leon, copartners, filed their claim, docket No. 2905; on the 11th day of December, 1914, J. H. Stilson filed his claim, docket No. 2906; on the 11th day of December, 1914, A. James and J. H. Stilson filed their claim, docket No. 2907; on the 11th day of December, 1914, W. F. Rathbun and J. H. Stilson filed their claim, docket No. 2908; on the 28th day of December, 1914, F. S. Higbid and Clarence Alberga filed their claim, docket No. 3490.

All these claims are for damages alleged to have been sustained by the respective claimants in making and installing certain improvements upon lots of land in the City of Colon in accordance with the requirements of the United States health authorities in charge of the sanitation of that city.

Answers were filed in all of these 11 cases by counsel for the Government of the United States. Among other things a plea was interposed challenging the jurisdiction of the Joint Commission, under the treaty, to pass upon claims for damages arising out of the administrative acts of the United States sanitary officials in the performance of their duty in the City of Colon.

By the unanimous order of the Joint Commission these cases were set down for hearing on the 22d day of December, 1919, and the Commission devoted all that day to argument by counsel for both sides on the question: "Has the Joint Commission jurisdiction of these cases?"

We are of the opinion that all of these 11 cases come squarely within the purview of the decision of the Joint Commission rendered on the 28th day of February, 1918, in the matter of the claim of Carlos Delgado, claim docket No. 749, which decision reads as follows:

"On February 2, 1911, a certain house situated at Marafon, in the Guachapali District, within the limits of the City of Panama, and claimed by

Carlos Delgado, the claimant above named, to be his property, was destroyed by the officers of the Sanitary Department of the Canal Zone. The case was called to the attention of the Commission by Felix E. Porter, Esquire, attorney for the claimant, on February 1, 1918, and set down for argument on February 4, 1918. On the latter date, and on February 6, 1918, the Commission heard extensive argument from counsel, both for the claimant and for the United States, which argument was, by order of the Commission, limited to the single question: "Has the Commission jurisdiction of the claim?"

The argument of counsel and the records of the Commission disclose the following facts:

The house in question was within the City of Panama and was destroyed by the Sanitary officers on February 2, 1911; the claim was filed with the Secretary of this Commission by Carlos Delgado on May 9, 1913; on April 21, 1915, the attorneys for the United States filed their plea to the jurisdiction of this Commission, in which they challenged the Commission's jurisdiction to hear and determine the claim on two grounds:

*First—*Because the allegations of the claim submitted to this Commission show that the house in question was destroyed by the Sanitary Department of the Isthmian Canal Commission, acting under the sanitary ordinances prescribed by the United States for the cities of Panama and Colon, in conformity with Article VII of the Canal Treaty, and the agents of the United States, acting within their governmental functions, removed the house in question, because it was a nuisance and a menace to public health and was an unlawful structure, all of which was done in conformity with the said ordinances so prescribed for the cities of Panama and Colon.

*Second—*Because the alleged rights asserted by claimant arise under Article VII of the Canal Treaty and do not come within any of the provisions of said Treaty, which confer jurisdiction upon this Commission.

No decision has ever been given or made by the Commission on the plea to its jurisdiction so interposed by the attorneys for the United States. On June 19, 1915, in pursuance of a practice which the Commission has frequently sanctioned, the Commission met for the purpose of hearing and perpetuating the testimony of one of the claimant's witnesses who was about to leave the Isthmus, so that his evidence might be available at the trial of the case. On this occasion, counsel for the United States insisted that the Commission should decide the question as to its jurisdiction, before proceeding to take the witness's testimony. But the Chairman announced that the Commission was not prepared to pass upon the matter of jurisdiction and would reserve its decision on that point until after the hearing of the case on the merits.

The case came on regularly for trial on September 7, 1915, and trial and argument consumed all of September 7, 9, and 10, 1915. The case was submitted to the Commission for decision on September 10, 1915, and it has never been decided. It would appear that the members of the Commission had grave doubts of their jurisdiction. We are informed that both the Panaman and American members of the Commission expressed the intention of communicating with their respective Governments, and that the case became the subject of some diplomatic negotiations. Meanwhile the personnel of the Commission has changed, and three of its present members, Judge Alfaro, Judge New, and Judge Connolly—knew nothing of the case until the Commission's attention was called to it, as above set forth, on February 1, 1918, by Mr. Porter, counsel for the claimant. With the contention of claimant's counsel that he is entitled to a prompt and final decision, one way or the other, the Commission is in entire accord.

In addition to the pleadings and briefs which are found among the records, a careful examination has been made of the transcript containing the evidence adduced at the trial of the case and the arguments of counsel made at its conclusion.

After a careful and conscientious consideration of the points involved, this Commission is of the

unanimous opinion that it has no jurisdiction of the case at bar. The Commission is of the unanimous opinion that it is not necessary to pass upon all of the legal points raised by counsel in their briefs and arguments, and that for the purpose of deciding the sole question of jurisdiction in the case at bar, the statement of the following principles, which are hereby unanimously agreed to, is amply sufficient:

1. Under the terms of the Treaty between the Republic of Panama and the United States, dated November 18, 1903, there are two methods, and only two, by which the United States may acquire property in the cities of Panama or Colon, namely: First, by purchase, or secondly, by the exercise of the right of eminent domain, that is to say, by condemnation proceedings before the courts of Panama.

2. Every sovereign government has the undoubted right, as part of its general police power, to abate and destroy, without compensation or liability for compensation, any building or other structure which it finds to be a public nuisance and a menace to the public health.

3. The sanitary authorities of the United States acting under the Treaty between the Republic of Panama and the United States, dated November 18, 1903, and under numerous laws and decrees enacted by the Republic of Panama in pursuance of that Treaty, have the right and power of sovereignty so far as sanitary matters within the cities of Panama and Colon are concerned, and may, without compensation or liability for compensation, abate and destroy any building or other structure which is a public nuisance and a menace to the public health.

4. This Commission has no jurisdiction to pass upon the administrative acts of the employees, or officials of the United States, whether in the Canal Zone, or in the cities of Panama or Colon.

The Commission further believes in this connection that claims for damages arising out of alleged arbitrary or unjustified acts of the sanitary authorities of the United States Government on duty in the cities of Panama and Colon may only be made the subject of diplomatic negotiations.

For the reasons above set forth the Commission has decided that it has no jurisdiction of the claim presented by Carlos Delgado and it is, therefore, ordered that said claim be, and the same is hereby dismissed.

Upon the authority of the above-quoted decision in the Delgado case all of the above-mentioned 11 cases are beyond the jurisdiction of this Commission, and the same are therefore hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, BURT NEW, Commissioners.

I dissent from the above finding.

JULIO J. FABREGA, Commissioner.

Award.

In the matter of the claim of Thomas Baynes, for a portion of the property known as "Ensenada de las Minas," award No. 212, docket No. 3597, December 22, 1919—An award is hereby made against the United States of America in favor of Thomas Baynes in the sum of \$300 United States currency, for all the right, title, and interest that the said Thomas Baynes may possess or may have possessed in and to a portion of the property known as "Ensenada de las Minas" situated in the Republic of Panama, subject of claim docket No. 3597, including all improvements located thereon and any and all damages sustained on account of the expropriation of this property by the United States of America.

This award shall be paid on or before the 22d day of January, 1920, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum per annum until paid.

FEDERICO BOYD, BURT NEW, JULIO J. FABREGA, GEORGE A. CONNOLLY, Commissioners.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., December 29, 1919.

The following insufficiently addressed letters have been received in the office of the Director of Posts and may be obtained upon request of the addressee. Requests may be made by telephone, calling No. 182, Balboa:

Anderson, Mrs. Jas. W.	Levy, E.
Berry, Mrs. Frances M.	Lux, F. L.
Boggs, Roy G.	Miles, Herman
Brackman, Louis D.	Molino, Miss Magdalena, Box 292
Brown, Mrs. U. S.	Monroe, Mrs. Richard
Cursea, Clementina	Newcomb, H. G.
Declementie, Walter	Nickolas, Dewitt
DeGraw, Edwin B.	Payne, Mrs. M.
Dorsey, James	Phillips, Earl
Dorton, H. T., Box 101	Schneekloth, Edward
Figueroa, Mrs. Rosa	Shaffer, Miss L.
Flanagan, J. J.	Smith, Miss Frances
George, Edward M.	E. B.
Hanzlick, James	Tilton, Charles H.
Hepburn, Miss Inez, Box 52	Vestoh, Richard
Hinke, Hazel, Box 541	Weaver, Lucas Edward
Hogan, E. L.	West, John Stanley, Sr.
Hyde, Mrs. Geo. L.	Wills, Mrs. William,
Kennedy, W. J.	Box 475

Transport Schedule.

The following is the tentative sailing schedule for the turn around of the U. S. A. T. *Santa Leonora* between New Orleans, La., Cristobal, C. Z., San Juan, P. R., and return to New Orleans:

Leave.	Date.	Arrive.	Date.
New Orleans.	December 20	Cristobal...	December 25
Cristobal....	December 30	San Juan...	January 2
San Juan....	January 3*	New Orleans	January 8
New Orleans.	January 15	Cristobal...	January 19
Cristobal....	January 24	San Juan...	January 27
San Juan....	January 29	New Orleans	February 2

*To sail from San Juan, P. R., Saturday evening, January 3, 1920.

The following is the tentative sailing schedule for the turn around of the U. S. A. T. *Princess Matoika* between New York, Cristobal, C. Z., San Juan, P. R., and then around to New York:

Leave.	Date.	Arrive.	Date.
New York...	December 19	Cristobal...	December 25
Cristobal....	December 30	San Juan...	January 2
San Juan....	January 3*	New York...	January 8
New York...	January 15	Cristobal...	January 21
Cristobal....	January 26	San Juan...	January 29
San Juan....	January 31	New York...	February 4

*To sail from San Juan, P. R., Saturday evening, January 3, 1920.

Shipping Commissioner's Sale.

BALBOA HEIGHTS, C. Z., December 29, 1919.

The Shipping Commissioner, Room 305, Administration Building, Balboa Heights, C. Z., will accept bids up to noon, January 20, 1920, for the purchase of portions of the personal effects belonging to the estate of G. V. Doval, deceased American seaman. The property to be offered for sale consists of 2 suitcases, an assortment of wearing apparel, toilet articles, and miscellaneous personal effects, a complete list of which will be found at each clubhouse, each Zone post office, and at the offices of the Deputy Shipping Commissioners at Balboa and Cristobal. Bids may be made for the entire lot of the effects of the decedent, or be limited to individual articles. Prospective bidders, desiring to examine the effects, should apply to the Commissioner's office on any business day. Bids should be in writing and submitted in sealed envelopes addressed to the Shipping Commissioner, Balboa Heights, C. Z. The cover should be marked "Bid on effects of (insert name of seaman) deceased." The Shipping Commissioner reserves the right to reject any or all bids.

C. H. CALHOUN, Shipping Commissioner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Volume XIII. Balboa Heights, C. Z., January 7, 1920. No. 21.

Record for a Month Broken in December.

More ships passed through the Canal during the month of December, 1919, than in any preceding month and new records were established for net tonnage, tolls, and cargo. A total of 281 ocean-going ships made the transit, with an aggregate net tonnage of 957,109 plus 12,875 displacement tons, and a total cargo of 953,901 tons. The commercial ships numbered 261, of 916,956 net tons, with 931,203 tons of cargo, and the United States Government ships numbered 20, of 40,153 net and 12,875 displacement tons, carrying 22,698 tons of coal and supplies. The total tolls collected amounted to \$891,375.70, of which \$448,541.58 was on traffic bound from Atlantic to Pacific and \$442,834.12 on that from Pacific to Atlantic.

The month of greatest commercial traffic previous to this was May, 1918, with 200 ships of 664,827 net tons, carrying 775,357 tons of cargo, and the month of the greatest number of ships, commercial and Government combined, prior to December, was July, 1919, with 234 ships. Further comparisons are afforded by the tabulated statements in this issue.

First German Vessels through the Canal.

The first ocean-going German vessels to pass through the Canal under the German flag were the tugs *Einigkeit* and *Schelde*, which made the transit from Atlantic to Pacific on January 2, on their way from Hamburg to Valparaiso. They were manned by German crews but traveling under orders of the British Admiralty, and are to tow disabled ex-German vessels from Valparaiso to Liverpool for overhauling.

Prior to the passage of these tugs the only vessel to have passed through the Canal under the German flag was the launch *Germania*, of 5 tons, net, which made the transit from Cristobal, where 4 ships of the Hamburg-American Line were interned, to Balboa, on February 19, 1915.

The "Gorredijk" Brings Crew of Burned Steamship "Firwood."

The steamship *Gorredijk*, of the Holland-American Line, arrived at Balboa in the evening of December 26, bringing the master and 27 members of the crew of the wooden steamship *Firwood*, which was burned at sea on December 18. This occurred in latitude 16° 18' S., and longitude 73° 39' W., off the coast of lower Peru. Fire broke out at 8 o'clock in the morning, due to the bursting of an oil pipe under pressure of 120 pounds to the square inch, close to the boilers. Within fifteen minutes, while the flames were shooting fifty feet in the air, the crew had left the ship in two lifeboats, being unable to get the others overboard on account of the fire. The men were picked up at sea 26 hours after leaving the vessel, and in latitude 16° 55' S. and longitude 73° 21' W. Several of the men were severely burned and were sent to Ancon Hospital after being taken off at Balboa.

MOVEMENTS OF OCEAN VESSELS.

Week ending at Midnight, January 3, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Gozan Maru	27	14 08	28	6 25	28	15 13	28	16 03	Japanese	Hashimoto Steamship Co.	305.0	44.0	22.1	New York	Valparaiso	General	2,700	3,240	2,287
La Habra	28	4 37	28	6 48	28	18 52	28	23 34	Norway	W. Wilhelmsen	430.0	57.0	29.6	Pt. Lobos	Tocopilla	Crude oil	9,000	7,235	5,767
Hobbrook	27	22 20	28	6 52	28	15 05	28	23 34	American	United States Shipping Board	272.9	46.0	15.0	New Orleans	Iquique		3,093	1,961	
Begonia No. 2	28	6 45	28	8 17	28	20 13	29	7 10	Spanish	Jose M. Urquye & Cia.	300.0	42.0	15.0	Valencia	Antofagasta		2,844	2,116	
Pelix Taussig	28	4 50	28	9 55	28	20 07	28	30 57	American	Crowell & Thurlow	390.0	55.0	18.0	Norfolk	Antofagasta		6,530	4,472	
Ansaldo III	27	17 12	28	10 14	28	21 40	31	7 05	Italian	National Navigation Co.	365.0	48.0	19.0	Genoa	Valparaiso	General	1,100	3,461	3,572
Luallaga	21	17 10	28	10 40	28	21 55	29	7 05	Peruvian	Peruvian Steamship Line	360.0	44.7	26.0	Cristobal	Callao	General	1,003	4,514	2,886
Armuru	28	1 25	29	6 10	29	13 29	29	14 25	Spanish	Cia. Naviera Vasconcel	319.0	46.0	11.1	Norfolk	Pisagua		3,250	2,348	
Hoyosan Maru	28	16 44	29	6 25	29	14 36	29	15 35	Japanese	Mitsui Bussan Kaisha	445.0	51.0	18.0	Barry	Iquique	Cotton, general	8,931	7,656	5,405
Toha Maru	28	13 41	29	6 37	29	15 47	29	16 35	Japanese	Nippon Yusen Kabushiki Kaisha	365.2	50.0	25.0	New York	Yokohama		4,831	3,375	
Kangaroo	28	23 38	29	7 20	29	17 20	29	18 27	British	Australian Government	253.5	43.8	14.0	Norfolk	Mojilones		2,392	1,518	
Lake Pearl	28	21 46	29	9 43	29	17 17	29	20 31	American	United States Shipping Board	399.0	50.1	22.6	Norfolk	Iquique		4,885	3,221	
Hampden	29	6 20	29	11 37	29	18 32	29	19 26	American	Coastwise Transportation Co.	345.0	40.0	23.0	Port Talbot	Mollendo	Briquettes	5,137	4,454	3,169
Hojjin Maru	26	11 50	30	6 05	30	15 45	30	16 47	Japanese	Taiyo Kisen Kaisha	350.0	43.0	17.0	Cristobal	Guayaquil	Ballast	4,100	2,646	
Peru	29	13 08	30	6 12	30	17 05	30	16 55	British	Pacific Steam Navigation Co.	339.0	53.0	18.0	New-Castle-on-Tyne	Vancouver		6,128	4,415	
Wahemo	29	6 47	30	6 15	30	19 14	30	20 08	Spanish	Cia. Naviera Mundoca	340.0	41.0	13.11	Gibraltar	Antofagasta		3,256	2,102	
Navarra	29	14 53	30	6 25	30	17 06	30	17 55	Japanese	Mitsui Bishi Gomei Kaisha	345.0	50.0	23.0	New Orleans	San Francisco	General	4,901	4,112	2,849
Tomura Maru	28	22 58	30	6 45	30	18 19	30	19 13	American	United States Shipping Board	425.8	57.0	25.8	Amsterdam	Seattle	Crossed oil	8,092	7,177	5,564
Imlay	30	7 36	30	12 05	30	30 47	30	31 42	Japanese	Taiyo Kisen Kaisha	345.0	49.0	23.6	New York	Yokohama	General	5,100	4,440	3,185
Heinan Maru	30	7 00	30	12 37	30	21 01	31	13 20	American	United States Shipping Board	287.3	46.0	18.5	New York	Tocopilla		7,200	5,838	4,165
Alarthus	30	22 12	31	6 24	31	15 18	31	16 42	Japanese	Tatsuma Steamship Co.	400.0	54.5	26.0	New Orleans	Honohli	General	7,200	5,838	4,165
Oridono Maru	8-29	15 22	31	6 15	31	13 57	4	19 08	American	Panama Railroad Steamship Line	125.0	18.9	13.6	Hamburg	Balboa (9)		2,354	478	
Caribbean	1	13 43	2	6 0	2	15 00			German	German Government	154.0	27.6	13.0	Hamburg	Chile	Wireless apparatus	5	576	231
Schelde (a)	1	18 08	2	6 21	2	15 07			Spanish	Yasco Cantabrica	806.0	44.0	13.0	Norfolk	Calela Colosa		24	130	64
Einigkeit (a)	1	18 08	2	6 21	2	15 07			British	Pacific Metals Corporation	81.0	25.6	9.8	Cristobal	Buenaventura	General	2,002	8,842	4,150
Mouro	29	16 25	30	11 45	30	16 36	4	5 00	American	W. R. Grace & Co.	800.2	51.6	22.0	New York	Valparaiso	General	6,000	5,206	3,667
Laura C. Hall	2	20 42	3	6 18	3	18 17	3	18 57	American	United States Shipping Board	377.0	52.0	21.6	New York	Talcahuano	General	2,802	1,720	
Santa Ana	2	20 42	3	6 35	3	18 41	3	19 20	Spanish	F. Samz & Inchausti	303.1	43.0	14.0	Newport News	Antofagasta		8,407	6,499	4,764
Morrison	3	9 25	3	9 15	3	18 41	3	20 26	Spanish	Sota y Aznar	365.0	50.3	13.6	Norfolk	Iquique		8,407	6,499	4,764
Sebastian	3	9 25	3	10 40	3	19 33	3	20 43	American	United States Shipping Board	402.5	53.0	24.0	Philadelphia	Anoy	Case oil, gasoline	8,407	6,499	4,764
Eretas-Mendi	29	7 21	3	11 28	3	20 43	3	21 39	American	United States Shipping Board	402.5	53.0	24.0	Philadelphia	Anoy	Case oil, gasoline	8,407	6,499	4,764
Hatche	29	7 21	3	11 28	3	20 43	3	21 39	American	United States Shipping Board	402.5	53.0	24.0	Philadelphia	Anoy	Case oil, gasoline	8,407	6,499	4,764

(a) Tug. (b) For orders.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Date	Vessels	Line	From	Date	Vessels	Line	For
Admore	11 16 00 28	6 43	14 47	28	17 47	American	Standard Oil Co.	San Francisco
The Lamb	8 12 01 28	18 16	21 28	14 47	28	American	United States Shipping Board	Tampico
Sham (c)	28 12 30 28	9 02	28 16	53 28	17 32	Danish	East Asiatic Co.	Charleston
Carolinian	28 1 00 28	11 38	28 20	42 28	22 55	American	Garland Steamship Co.	Copenhagen
Bologna	28 10 00 28	13 59	28 22	38 29	16 50	Spanish	La Veloz Steamship Co.	Genoa
Upo Mend	28 13 30 28	14 47	28 23	34 29	6 20	American	Gia Naviera Sora y Aznar	Cristobal (b)
Eglestine	24 22 37 29	6 37	29 14	05 30	22 60	American	United States Shipping Board	New York
Olochon	28 16 45 29	8 17	29 16	28 2	11 45	British	United States Shipping Board	New York
Laura C. Hall (c)	29 7 15 29	8 21	29 16	35 30	3 45	American	Pacific Metals Corporation	Talata
Eastern Breeze	29 9 55 29	10 37	29 18	03 29	21 19	Spanish	United States Shipping Board	Tacoma
Arives	30 5 58 30	7 41	30 15	35 31	15 10	Chilean	General Navigation Co.	New York
Lautaro	30 6 00 30	7 48	30 16	30 30	20 07	American	Borques & Co	Cristobal
Lake Pastina	30 4 00 30	9 28	30 17	27 4	6 14	Peruvian	Peruvian Line	Cristobal (b)
Mantaro	30 10 15 30	11 07	30 18	30 30	20 25	Japanese	Hashimoto Kisen Kaisha	Charleston
Roazan Maru	30 10 15 30	11 07	30 18	30 30	20 25	Japanese	Hashimoto Kisen Kaisha	Charleston
Scottish Mon-	30 10 15 30	12 19	30 20	42 31	6 30	British	Monarch Steamship Co	Cristobal (b)
Can	29 22 00 31	6 50	31 15	43 31	17 53	American	French Government	Queenstown
P-41	30 18 35 31	7 50	31 15	45 31	17 53	American	American-Hawaiian Line	Nitrate
Panam	30 19 30 31	8 46	31 17	00 31	18 54	American	Standard Oil Co.	Nitrate
D. G. Schofield	31 2 15 31	9 45	31 18	43 31	18 16	Norwegian	W. Wilhelmsen	Labracing oil
Tyros	31 12 30 31	14 00	31 21	30 4	6 19	British	Chilean Line	Aarbus, Den
Aysen	31 18 30 1	17 55	1 14	55 4	6 19	British	Pacific Steam Navigation Co.	General
Jamaica	1 10 15 1	12 16	1 20	35 2	17 35	American	Atkins Kroll & Co	Cristobal
Palawan (d)	1 7 00 2	9 33	2 17	35 3	18 37	American	United States Shipping Board	Copra
Edingham	2 1 10 2	11 59	2 18	56 3	6 20	American	Standard Oil Co.	Marselles
Benjamin	2 12 35 2	13 57	2 23	25 3	10 32	French	French Government	General mdse.
Brewster	2 13 00 2	15 08	3 12	47 3	17 30	British	Kaeborn & Vred	Ballast
Ayruco	2 13 00 2	15 08	3 12	47 3	17 30	British	Kaeborn & Vred	Nitrate
Polish Monarch	31 22 28 3	6 27	3 14	48 3	8 35	American	Pacific Mail Steamship Co.	Dunkerque
Point Adams	1 21 41 3	7 40	3 16	30 3	20 39	American	United States Shipping Board	Liverpool
Evermont	3 2 30 3	7 40	3 17	15 3	6 50	American	Alaska Steamship Co.	Baltimore
Henry T. Scott	2 22 30 3	11 27	4 12	45 3	11 27	American	Anglo-Norwegian Shipping Agcy.	New York
Margaret (c)	3 9 10 3	12 21	3 20	30 3	16 47	Italian	Soc. Nazionale Nav.	Seattle
Vancouver	2 12 40 3	13 21	3 21	30 3	16 47	Italian	Soc. Nazionale Nav.	Seattle
Ansaldo L.	2 12 40 3	13 21	3 21	30 3	16 47	Italian	Soc. Nazionale Nav.	Seattle

Ship	Date	Vessels	Line	From	Date	Vessels	Line	For
Ulysses	Dec. 28	.....	Panama Railroad Steamship Line	Norfolk	Dec. 29	Lake Hurst	United States Shipping Board	New York
Cartago	Dec. 30	.....	United Fruit Co.	Norfolk	Dec. 29	Norvan	Iceland Line	Galveston
Stuyvesant	Dec. 30	.....	Royal Dutch West India Mail Co	Amsterdam and waypoints	Dec. 30	Santa Leonora (b)	United States Army	N. O. via Porto Rico
Triton	Dec. 31	.....	Hall Brothers Steamship Co.	Port Limon	Dec. 30	Princess Matoika	United States Army	N. Y. via Porto Rico
Atenas	Dec. 31	.....	United Fruit Co.	New York and Kingston	Dec. 31	United States Army	Panama Railroad Steamship Line	Norfolk
Fort Hill	Dec. 31	.....	United States Shipping Board	Bluefields	Dec. 31	Silver Brook	United States Shipping Board	Bluefields

*ARRIVALS.

PORT OF CRISTOBAL.

*DEPARTURES.

(c) Motor schooner. (d) Gasoline schooner. (e) Cocoa, ivory nuts, rubber, and coffee. (f) Nitrate, sugar, and wool. (g) Nitrate, sugar, and general.

(Continued on page 287, column 2.)

Record Traffic in 1919.

Traffic through the Canal during the calendar year 1919 exceeded that in any previous year.

The total number of ocean-going vessels making the transit in 1919 was 2,394, as compared with 2,233 in 1918; 2,081 in 1917; 1,278 in 1916; 1,171 in 1915; and 357 for the 4½ months from August 15, 1914, the date of the opening of the Canal, to the end of the year 1914. The grand total to January 1, 1920, was 9,514 vessels.

The foregoing figures include ships in commercial service and vessels of the United States Government, exclusive of those in the service of The Panama Canal. The Government ships were practically all vessels of the Navy and Army, with a few belonging to other departments of the Government, such as the Coast Survey and the Bureau of Fisheries. Shipping Board ships pay tolls and are otherwise handled as commercial ships. "Commercial" ships, in the sense of this classification, include merchantmen in commercial service and the transports or naval vessels of other nations, as well as yachts—everything, in short, contributing to the traffic of the Canal other than United States Government ships. The proportions of commercial and noncommercial traffic are shown in this table:

YEAR	COMMERCIAL VESSELS.			GOVERNMENT VESSELS.				TOTAL.			
	Ves-sels.	P. C. net tonnage.	Tons cargo.	Ves-sels.	P. C. net tonnage.	Displace-ment.	Tons cargo.	Ves-sels.	P. C. net tonnage.	Displace-ment.	Tons cargo.
1914*	351	1,251,119	1,745,334	6	21,139	.....	8,600	357	1,302,258	.....	1,753,934
1915.	1,149	3,873,512	4,894,134	22	74,968	73,104	72,426	1,171	3,948,480	73,104	4,966,560
1916.	1,222	3,834,112	4,838,496	56	94,902	54,770	93,415	1,278	3,929,014	54,770	4,931,911
1917.	1,960	6,223,833	7,427,680	121	138,554	240,930	130,032	2,081	6,362,387	240,930	7,557,712
1918.	2,072	6,415,522	7,294,502	161	69,082	131,256	40,008	2,233	6,484,604	131,256	7,334,510
1919.	2,134	6,919,149	7,468,167	260	209,348	826,938	234,581	2,394	7,128,497	826,938	7,702,748
Total	8,888	28,547,247	33,668,313	626	607,993	1,326,998	579,062	9,514	29,155,240	1,326,998	34,247,375

*Four and one-half months.

The vessels in Government service have amounted to 7 per cent of the commercial ships, or 6.6 per cent of the total number of vessels. Their net tonnage, plus one-third of the displacement of those not measured for net tonnage, which is considered to give a fair equivalent in terms of net tonnage, has amounted to slightly less than 4 per cent of the aggregate net tonnage. The cargo carried on them, principally coal, ordnance, and other supplies for the Navy, has amounted to about 1.7 per cent of the total cargo.

The traffic of commercial vessels in each direction by months, with their aggregate net tonnage and cargo, from the opening of the Canal to January 1, 1920, is shown in table published on pages 279 and 280. The movement of Government vessels in each direction, with their aggregate net tonnage and aggregate displacement of the vessels not measured for net tonnage, is presented in the table on pages 280 and 281.

The traffic of Government vessels was rather evenly distributed in the first three years, 1914, 1915, and 1916, with approximately equal traffic in both directions. In 1917 and 1918, during which the United States was engaged in the war, there was a heavy preponderance of movement from the Pacific to the Atlantic, in the two years, exactly twice as many Government ships, mostly vessels of the Navy, went from Pacific to Atlantic as in the counter direction. In 1919, however, with the release of ships from naval operations in the Atlantic the tide set back, and four and a half times as many Government ships went from Atlantic to Pacific as in the opposite direction. During the

entire time of Canal operation, a fourth more ships in Government service have passed from Atlantic to Pacific through the Canal than from Pacific to Atlantic.

In commercial traffic there was a similar evenness during the first three years, and a similar preponderance of traffic from Pacific to Atlantic during the years 1917 and 1918, but in 1919 the heavier movement continued to come from the Pacific, though in less excess than in 1918. Some of the causes for the heavier movement from Pacific to Atlantic have been the building of ships on the Pacific Coast of North America for Atlantic traffic during the war, heavy shipments of nitrates during the war in tramp steamers sent from other Pacific ports to the nitrate ports for cargo but not sent back to the Pacific after delivering the nitrate at Atlantic ports of the United States or Europe, and the practice of several lines of making their outward voyages by other routes and their homeward voyages by the Canal.

The average net tonnage of the 8,888 commercial ships passing through the Canal to January 1, 1920, was 3,212 tons, Panama Canal measurement. The average cargo per ship, including the ships in ballast, was 3,788 tons. The average net tonnage was greater in 1919 than in the three years immediately preceding, but was less than in 1914 and 1915. The average cargo in 1919 was 3,500 tons, which was less than the average in any preceding year. The following statement shows the average tonnages and cargoes of the commercial ships in each direction by years:

YEAR.	ATLANTIC TO PACIFIC.			PACIFIC TO ATLANTIC.			TOTAL.		
	Vessels.	Average net tonnage	Average cargo.	Vessels.	Average net tonnage	Average cargo.	Vessels.	Average net tonnage	Average cargo.
1914.....	177	3,577	4,159	174	3,734	5,743	351	3,650	4,972
1915.....	572	3,418	3,620	577	3,325	4,893	1,149	3,371	4,260
1916.....	611	3,187	3,353	611	3,088	4,566	1,222	3,138	3,959
1917.....	922	3,101	3,334	1,038	3,239	4,194	1,960	3,175	3,790
1918.....	850	2,920	2,610	1,222	3,219	4,154	2,072	3,096	3,521
1919.....	969	3,449	3,577	1,165	3,079	3,436	2,134	3,247	3,500
Total....	4,101	3,222	3,319	4,787	3,204	4,187	8,888	3,212	3,788

SUMMARY OF TRAFFIC THROUGH THE CANAL.

The traffic through the Canal, exclusive of Government vessels and launches, from its opening to January 1, 1920, by ships, P. C. net tonnage, and tons of cargo handled each way each month, is summarized in the following table:

DATE.	ATLANTIC TO PACIFIC.			PACIFIC TO ATLANTIC.			TOTAL.		
	Ves-sels.	P. C. net tonnage.	Tons cargo.	Ves-sels.	P. C. net tonnage.	Tons cargo.	Ves-sels.	P. C. net tonnage.	Tons cargo.
1914.									
August.....	13	41,931	49,106	11	44,027	62,178	24	85,958	111,284
September.....	27	109,684	141,762	29	107,843	180,276	56	217,527	322,038
October.....	44	174,472	168,069	39	147,639	253,288	83	322,111	421,357
November.....	51	163,054	199,910	38	149,906	242,291	89	312,960	442,201
December.....	42	143,945	177,235	57	198,618	271,219	99	342,563	448,454
Total, 1914.....	177	633,086	736,082	174	648,033	1,009,252	351	1,281,119	1,745,334
1915.									
January.....	42	155,957	187,035	53	174,452	240,925	95	330,409	427,960
February.....	39	147,339	150,987	53	175,523	276,078	92	322,862	427,065
March.....	56	181,222	211,447	79	286,685	416,110	135	467,907	627,557
April.....	59	199,213	237,384	60	205,326	285,457	119	404,539	522,841
May.....	67	240,098	246,534	71	229,211	328,374	138	469,309	574,908
June.....	82	294,906	317,919	60	201,116	282,561	142	496,022	600,480
July.....	89	290,579	306,773	76	244,653	380,196	165	535,232	686,969
August.....	87	278,475	230,770	68	213,725	325,688	155	492,200	556,458
September.....	49	166,751	181,380	51	178,619	274,937	100	345,370	456,317
October.....									
November.....									
December.....	2	705	671	6	8,957	12,908	8	9,662	13,579
Total, 1915.....	572	1,955,245	2,070,900	577	1,918,267	2,823,234	1,149	3,873,512	4,894,134

DATE.	ATLANTIC TO PACIFIC.				PACIFIC TO ATLANTIC.				TOTAL.			
	Ves- sels.	P. C. net tonnage.	Displace- ment.	Tons cargo.	Ves- sels.	P. C. net tonnage.	Displace- ment.	Tons cargo.	Ves- sels.	P. C. net tonnage.	Displace- ment.	Tons cargo.
May.....					4	22,814		3,800	4	22,814		3,800
June.....	1	2,172		2,700					1	2,172		2,700
July.....	4	6,749	36,552	10,000	1	5,388		8,500	5	12,137	36,552	18,500
August.....	2	9,719		18,349	4	3,042	36,552	530	6	12,761	36,552	18,879
September.....												
October.....												
November.....												
December.....	1	204							1	204		
Total, 1915	11	38,416	36,552	58,096	11	36,507	36,552	14,330	22	74,968	73,104	72,420
1916.												
January.....	5	190	1,505		4		1,505		9	190	3,010	
February.....	1		785		4	394	4,365		5	394	5,150	
March.....					4	14,076		7,000	4	14,706		7,000
April.....	3	3,736	785	2,000	2		15,285		5	3,736	16,070	2,000
May.....	2	5,369		11,025	3	408	9,700		5	5,777	9,700	11,025
June.....	2	11,039		18,805	1	6,522		466	3	17,561		19,271
July.....	3	510			2	6,832		7,000	5	7,342		7,000
August.....	6	7,685	10,420	14,361	2	9,878		106	8	17,563	10,420	14,467
September.....	1	6,346		10,000	4		10,420		5	6,346	10,420	10,000
October.....	3	11,242		19,852	2				3	11,242		19,852
November.....					1	204			1	204		
December.....	2	3,722			1	6,749		2,800	3	10,471		2,800
Total, 1916	28	49,839	13,495	76,043	28	45,063	41,275	17,273	56	94,902	54,770	93,415
1917.												
January.....	3	18,217		29,426	2	3,722		3,154	5	21,939		32,580
February.....	4	14,319		17,769	1	406			5	14,725		17,769
March.....	8	691	10,853	80	11	7,037	9,166	10,239	19	7,728	20,019	10,319
April.....	9	15,221	5,129		6	9,647	13,766	400	15	24,868	18,895	400
May.....	7	11,968	8,443	20,762	17	8,917	94,162		24	20,885	102,605	20,762
June.....	2	2,698	408	4,004	5	8,507	9,435	7,452	7	11,205	9,843	11,456
July.....	2	4,868	408	8,319	10	9,946	16,494	3,869	12	14,814	16,902	12,183
August.....	1	190			4	3,387	9,530	4,085	5	3,577	9,530	4,085
September.....	2	190	279		1	6,763		12,240	3	6,953	279	12,240
October.....	1		3,225		3	13	9,225		4	13	12,450	
November.....	3	4,828	420	8,233	6	566	12,567		9	5,394	12,987	8,233
December.....	3	6,453	14,080		10		23,340		13	6,453	37,420	
Total, 1917	45	79,643	43,245	88,593	76	58,911	197,685	41,439	121	138,554	240,930	130,032
1918.												
January.....	2	190	420		10	9,306	16,885		12	9,496	17,305	
February.....	4	354			4	6,435	4,305		4	6,435	4,305	
March.....	2		5,140		16	10,452	6,664		18	10,836	6,664	
April.....	1		3,504		15	4,326	1,025		16	4,326	6,165	
May.....	5	564	16,069		5	2,901	8,785		7	2,901	12,289	
June.....	1		270		4		5,156		9	564	21,216	
July.....	5	1,438	195	1,920	30	11,265	19,525	12,680	31	11,265	19,504	12,680
August.....	3		1,265		4		1,549		9	1,438	1,544	1,920
September.....	2	204	65		6		3,650		9		4,915	
October.....	6	9,705	584	9,300	3	4,624	2,370		6	1,935	2,450	1,100
November.....	2		15,008		4		10,419		9	14,329	2,954	9,300
December.....	20	5,537	21,226		11				31	5,537	31,645	15,008
Total, 1918	49	18,042	48,738	26,228	112	51,040	82,518	13,780	161	69,082	131,256	40,005
1919												
January.....	15	15,281	38,400	21,440	6		23,050		21	15,281	61,450	21,440
February.....	3	3,122	15	3,735	3	7,050	1,185	4,096	6	10,172	1,200	7,831
March.....	30	10,134	2,384	14,359	5		13,709		35	10,134	16,993	14,359
April.....	6	204	9,110	4,112	2	3,143	1,185	2,400	8	3,347	10,295	6,512
May.....	5	180	2,625		2		1,425		7	180	4,050	
June.....	5	2,907	11,112	3,491	2		2,339		7	2,907	13,451	3,491
July.....	62	17,840	429,299	27,959	13	3,143	80,286	4,000	75	20,983	509,585	31,989
August.....	31	27,605	105,038	39,922	3	2,172	3,265		34	29,777	108,303	39,922
September.....	12	16,243	24,773	22,295	1	180			13	16,423	24,773	22,295
October.....	16	32,507	29,073	34,793	1		65		17	32,507	29,138	34,793
November.....	13	27,304	16,345	29,151	4	180	19,380	100	17	27,484	35,725	29,251
December.....	15	20,956	12,875	21,902	5	19,197		736	20	40,153	12,875	22,695
Total, 1919	213	174,283	681,049	223,249	47	35,065	145,889	11,332	260	209,348	826,938	234,581
Total to Jan- 1, 1920.....	350	371,770	823,079	480,809	276	236,223	503,919	98,253	626	607,993	1,326,998	579,062

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 3, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Huallago.....	Peruvian Steamship Line.....		December 28.		1,003
Lake Hurst.....	Panama Railroad Steamship Line.....		December 29.		2,359
Novian.....	Leyland Line.....		December 29.		866
*Santa Leonora.....	United States Army.....		December 30.		308
*Princess Matoika.....	United States Army.....		December 30.		588
Silverbrook.....	Standard Oil Co.....		December 31.		(†)
Lake Wilson.....	Panama Railroad Steamship Line.....		December 31.		2,889
Ulysses.....	Panama Railroad Steamship Line.....	December 28.	December 31.	12,206	(†)
Bologna.....	Italian Steamship Line.....	December 28.	January 1.	(†)	50
Laura C. Hall.....	Pacific Metals Corporation.....	December 29.	January 2.	68	23
Cartago.....	United Fruit Co.....	December 30.	January 1.	1,155	60
Mantaro.....	Peruvian Steamship Line.....	December 30.		3,296	
Stuyvesant.....	Royal Dutch West India Mail.....	December 30.		141	
Atenas.....	United Fruit Co.....	December 31.	January 1.	722	321
Trident.....	Royal Mail Steam Packet Co.....	December 31.	January 1.	11	1,125
Aysen.....	Chilean Steamship Line.....	December 31.		2,175	
Zacapa.....	United Fruit Company.....	January 1.	January 1.	5	20
Jamaica.....	Pacific Steam Navigation Co.....	January 1.		678	
Santa Marta.....	United Fruit Company.....	January 2.	January 2.	331	32
Middlebury.....	Panama Railroad Cattle Industry.....	January 3.		450	
Haiti.....	French Line.....	January 3.		152	
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....	January 3.		3,015	

*United States Army transport.

†No cargo discharged.

‡No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 4, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Llay-Llay.....	Chilean Steamship Co.....	December 27.	December 27.		60
Ansaldo III.....	Societa Nazionale Navigazione.....	December 28.	December 28.	145	12
Point Adams.....	Pacific Mail Steamship Co.....	December 31.	January 3.	229	
Valdez.....	Alaska Steamship Co.....	(*)	January 1.	(*)	2,137
Effingham.....	United States Shipping Board.....	January 1.	January 2.	850	
Seiyo Maru.....	Toyo Kisen Kaisha.....	January 2.	January 4.	911	
Ansaldo.....	Societa Nazionale Navigazione.....	January 2.	January 4.		15
Laura C. Hall.....	Pacific Metals Corporation.....	January 2.	January 3.		22

*In last week's report.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Administrative assistant, chief clerk, administrative assistant, property officer; administrative assistant, mess officer; administrative assistant, pharmacist (male and female); No. 23, \$1,200 to \$1,560 a year; January 21, 1920; form 1312; age, 25 years, but not 50 years.

Meteorologist (male and female); \$1,600 to \$3,000 a year; No. 553—amendment. The announcement is made of the postponement from December 23, 1919, to January 6, 1920, of the close of receipt of applications for the open competitive nonassembled examination for meteorologist.*

Laboratory assistant (male and female); No. 2—amendment; January 7-8, February 4-5, and March 3-4, 1920. It is announced that the entrance salary of the position of laboratory assistant in the U. S. Navy Yard, Washington, D. C., to be filled from this examination, is \$6.40 per diem, instead of \$6 per diem, as stated in the original announcement of this examination.

Gas inspector (male and female); \$1,500 to \$1,800 a year; No. 26; January 20, 1920; form 2118; age, 20 years but not 45 years.*

Automatic sprinkler inspector (male and female); No. 35; \$1,200 a year; January 20, 1920; form 1312; age, at least 20 years.*

Mechanical engineer in experimental work (male and female); No. 24; \$10.80 per diem; January 20, 1920; form 2118; age, 25 years, but not 45 years.*

Laboratorian qualified in metallography (male and female); No. 22; \$4.40 per diem; January 13, 1920; form 1312; age, 18 years, but not 30 years.*

Warehouse supervisor (male and female); No. 21; \$2,000 to \$3,000 a year; January 13, 1920; form 1312; reasonable age limits.*

Ordinance engineer (male and female); No. 20; \$3,000 to \$5,000 a year; January 13, 1920; form 1312; reasonable age limits.*

Tank expert (male and female); No. 30; \$1,800 a year; January 13, 1920; form 1312; age, 21 years and over.*

- Assistant aeroplane inspector (male and female); \$7.20 a day; January 20, 1920; No. 45; form 1312; age, 20 years and over.*
- Assistant agricultural economist, farm management (male and female); \$2,000 to \$3,000 a year; January 20, 1920; No. 34; form 2118; age, 25 years but not 45 years.*
- Assistant physicist, qualified in aeronautics (male and female); \$2,100 a year; January 20, 1920; No. 29; form 1312; age, within reasonable age limits.*
- Camouflage expert, air service (male and female); \$2,100 to \$3,600 a year; January 20, 1920; No. 36; form 1371; age, 21 years but not 55 years. Must be filed with the Secretary of the Sixth Civil Service District, Post Office, Cincinnati, Ohio, prior to the hour of closing business on January 20, 1920.
- Oil gauger (male and female); \$1,200 a year; February 3, 1920; No. 50; form 1312; age, 20 years and over.*
- Steel plate transferrer (male and female); \$2,600 a year; No. 2269-supplemental, form 1800.†
- Technician (hydrophones); technician (shop mechanic), (male and female); \$7.68 a day; January 20, 1920; No. 28; form 1312; age, 21 years and over.*
- Textile expert (male and female); \$3,500 a year; No. 33; form 1312; January 20, 1920; age, within reasonable age limits.*
- Telephone and telegraph engineer, Naval Communication Service (male and female); \$4,000 a year; No. 37; form 1312; January 20, 1920; age, within reasonable age limits.*
- Assistant in plant histology (male and female); \$1,620 to \$1,800 a year; February 4, 1920; form 1312; age, 20 years but not 45 years.
- Assistant explosives chemist (male and female); \$1,800 to \$2,400 a year; January 27, 1920; age, within reasonable age limits.*
- Civilian aid for purchasing; civilian aid for shipping; civilian aid for salvage; civilian aid for steel and metal; civilian aid for stock upkeep; civilian aid for electrical stock; civilian aid for ordnance stock; civilian aid for fuel supply; storehouse superintendent (male and female); \$11.36 per day; January 27, 1920; form 1312; age within reasonable age limits.*
- Clerk with knowledge of greenhouse practices (male and female); \$1,500 a year; January 21, 1920; form 1312; age, under 45 years.
- Micronalyst (male and female); \$1,200 to \$1,800 a year; February 3, 1920; age, 22 years and over.*
- Purchase agent (male and female); \$2,000 a year; February 4, 1920; form 1312; age, 21 years and over.
- Topographic and subsurface draftsman (male and female); \$5.20 to \$7.20 a day.*

*Nonassembled. Date given for nonassembled examination is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge which covers handling and storage. They are effective January 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.50
Brass, sheet.....	Lb.	.625
Bronze, Tobin.....	Lb.	.375
Cement, at Panama:		
Department of United States Government (includes surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Department of United States Government (includes surcharge and bags).....	Bag	1.0476
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.56
Credit for empty bags returned.....	Bag	.25
Cwt.....	Cwt	9375
Charcoal.....	Lb.	.50
Copper, bar.....	Gal.	4375
Gasoline, in drums (motor grade).....	Lb.	125
Lead, sheet.....	Lb.	10
Lead, pig.....	M ft. B.M.	95.19
Lumber, ceiling, siding, and flooring 1" by 6".....	M ft. B.M.	100.00
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B.M.	83.56
Lumber, yellow pine or fir (except ceiling).....	Lb.	4375
Metal, yellow.....	Lb.	.225
Nuts, iron, machine, hexagonal.....	Lb.	1875
Nuts, iron, machine, square.....	Lb.	0825
Nails, common, wire.....	Lb.	10
Nails, galvanized.....	Lb.	2125
Oakum, Navy, spun.....	Lb.	2125
Oakum, Navy, unspun.....		
Fuel oil, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same.....	42-gal. bbl.	*1.50
Commercial vessels and individuals and companies.....	42-gal. bbl.	*1.50
Individuals and companies from tank No. 116, Balboa.....	42-gal. bbl.	*1.54
Fuel oil, at Balboa and Cristobal—in drums or barrels:		
United States Army and Navy and vessels operated by same.....	42-gal. bbl.	*1.76
Commercial vessels and individuals and companies.....	42-gal. bbl.	*1.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.625
Oil, ammonia cylinder.....	Gal.	4375
Oil, burning, "Colza".....	Gal.	1.375
Oil, cylinder, dark marine, "Texas".....	Gal.	.876
Oil, cylinder, ice machine, steam, "Garnett".....	Gal.	1.00

Commodity.	Unit.	Price.
Oils, greases, and lubricants—continued:		
Oil, engine, "Arctic".....	Gal	\$0.7875
Oil, engine, "Cetus"—in tins.....	Gal	.6875
Oil, engine, "Cetus"—in barrels.....	Gal	.5625
Oil, gas engine, "Texas," heavy—in drums.....	Gal	.5375
Oil, gas engine, "Ursa"—in barrels.....	Gal	.8125
Oil, gas engine, "Ursa"—in cases.....	Gal	.8725
Oil, gas engine, "Algol"—in drums.....	Gal	.5625
Oil, kerosene—in drums.....	Gal	.25
Oil, kerosene—in tins.....	Gal	.3125
Oil, linsed, boiled.....	Gal	2.1875
Oil, linsed, raw.....	Gal	2.5625
Oil, locomotive, engine.....	Gal	.35
Oil, lard.....	Gal	2.375
Oil, marine engine, "Gargoyle".....	Gal	1.125
Oil, marine engine, "Atlas".....	Gal	.625
Oil, marine, dark, cylinder, "Vacuum,".....	Gal	1.125
Oil, marine, engine, "Dolphin".....	Gal	.4375
Oil, marine, engine, "Texas".....	Gal	.75
Oil, "Mineral Seal".....	Gal	.3125
Oil, nonliquid.....	Lb	.10
Oil, stationary engine.....	Gal	.375
Oil, sperm.....	Gal	2.875
Oil, signal.....	Gal	1.375
Oil, valve.....	Gal	.50
Oil, car.....	Gal	.225
Vaseline.....	Lb	.20
Wax, ismp.....	Lb	.1125
Grease, black, gear.....	Lb	.075
Grease, yellow, cup No. 3.....	Lb	.125
Grease, yellow, cup, No. 5.....	Lb	.1375
Grease, rod, special.....	Lb	.225
Grease, tunnel bearing.....	Lb	.20
Tallow.....	Lb	.225
Turpentine.....	Gal	2.50
Turpentine substitute.....	Gal	.4625
Vaseline.....	Lb	.1125
Paint, lead, white, dry.....	Lb	.125
Paint, lead, white, in oil.....	Lb	.15
Paint, zinc, white, dry.....	Lb	.225
Paint, zinc, white, in oil.....	Lb	.1875
Paint, zinc, white leaded, 35 per cent in oil.....	Lb	.1875
Qlvete.....	Lb	.10
Rope, Manila, 1" diameter.....	Cft	.75
Rope, Manila, 1 1/4" diameter.....	Cft	1.625
Rope, Manila, 1 1/2" diameter.....	Cft	2.50
Rope, Manila, 1 3/4" diameter.....	Cft	4.0625
Rope, Manila, 2" diameter.....	Cft	4.375
Rope, Manila, 2 1/4" diameter.....	Cft	6.25
Rope, Manila, 2 1/2" diameter.....	Cft	7.50
Rope, Manila, 2 3/4" diameter.....	Cft	12.1875
Rope, Manila, 3" diameter.....	Cft	16.5625
Rope, Manila, 3 1/4" diameter.....	Cft	26.25
Rope, Manila, 3 1/2" diameter.....	Cft	31.25
Rope, Manila, 3 3/4" diameter.....	Cft	47.50
Rope, Manila, 4" diameter.....	Cft	77.50
Steel, bar.....	Lb.	102.50
Steel, spring.....	Lb.	.0625
Steel, cold rolled, rd.....	Lb.	.1375
Steel, sheet.....	Lb.	.0875
Steel, structural (angles, beams, etc.).....	Lb.	.0675
Tin, block.....	Lb.	.750
Tin, banca.....	Lb.	1.10
Tin, sheet.....	Lb.	.25
Washers, cut.....	Lb.	.10
Waste, colored.....	Lb.	.2125
Waste, white.....	Lb.	.20
Zinc, boiler plate, 5/8" by 6" by 12".....	Lb.	.10

*No surcharge.

Item now on hand purchased at a cost over the price shown above will be given the purchase price.

Route Service Jitney—Cristobal-Mt. Hope.

The following is the schedule of the official jitney service between the Terminal building at Cristobal and Mount Hope. Cars stop at the office of the Commissary Division each way:

Leave Terminal Building.		Leave Mount Hope.	
A. M.	P. M.	A. M.	P. M.
8.00	12.30	8.15	12.45
8.30	1.00	8.45	1.15
9.00	1.30	9.15	1.45
9.30	2.00	9.45	2.15
10.00	2.30	10.15	2.45
10.30	3.00	10.45	3.15
	3.30		3.45

Deceased and Insane Employees.

The estates of the following deceased or insane employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

DECEASED.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Frederick Elias.....	23463	Grenada.....	Cristobal.....	Panama Railroad.....	December 27, 1919.
Samuel Grant.....	28524	Jamaica.....	Red Tank.....	Dredging Division.....	December 21, 1919.
Isaac Appleton.....	22561	Jamaica.....	Panama.....	Supply Department.....	December 19, 1919.
Robert McKenzie.....	26686	Jamaica.....	Colon.....	Mechanical Division.....	December 27, 1919.

INSANE.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of commitment.
Estimias (Ernest) Adolph.....	20758	Martinique.....	Colon.....	Health Department.....	December 13, 1919.
Chas. Griffith.....	31808	Barbados.....	Colon.....	Coaling Station.....	December 18, 1919.

Official Circulars.

Executive Order.—Acquisition of Vessels of Hostile Nations.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., December 20, 1919.
CIRCULAR NO. 601-98.

The Executive Order quoted below is published for the information of all concerned.

JAY J. MORROW,
Acting Governor.

WHEREAS the following Joint Resolution adopted by Congress was approved by the President May 12, 1917:

"Joint Resolution Authorizing the President to take over for the United States the possession and title of any vessel within its jurisdiction, which at the time of coming therein was owned in whole or in part by any corporation, citizen, or subject of any nation with which the United States may be at war, or was under register of any such nation, and for other purposes.

"Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That the President be, and he is hereby, authorized to take over to the United States the immediate possession and title of any vessel within the jurisdiction thereof, including the Canal Zone, and all territories and insular possessions of the United States except the American Virgin Islands, which at the time of coming into such jurisdiction was owned in whole or in part by any corporation, citizen, or subject of any nation with which the United States may be at war when such vessel shall be taken, or was flying the flag of or was under register of any such nation or any political subdivision or municipality thereof; and, through the United States Shipping Board, or any department or agency of the Government, to operate, lease, charter, and equip such vessel in any service of the United States or in any commerce, foreign or coastwise.

"SEC. 2. That the Secretary of the Navy, be, and he is hereby, authorized and directed to appoint, subject to the approval of the President, a board of survey, whose duty it shall be to ascertain the actual value of the vessel, its equipment, appurtenances, and all property contained therein at the time of its taking, and to make a written report of their findings to the Secretary of the Navy, who shall preserve such report with the

records of his department. These findings shall be considered as competent evidence in all proceedings on any claim for compensation."

AND WHEREAS from time to time during the period of the war, vessels which were at the time of coming into the jurisdiction of the United States owned in whole or in part by a corporation, citizen or subject of the Empire of Germany, a nation with which the United States is now at war, or vessels which were flying the flag or under the register of the Empire of Germany or of a political subdivision or municipality thereof, or of any nation with which the United States is at war, have been taken over and operated by the United States or in the service of the United States.

NOW THEREFORE, the possession and title of the United States in all such vessels is taken over in accordance with Joint Resolution adopted by Congress and approved by the President May 12, 1917.

WOODROW WILSON

THE WHITE HOUSE,
November 24, 1919.

*See The Panama Canal circular No. 601-65

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE

BALBOA HEIGHTS, C. Z., January 5, 1920
CIRCULAR NO. 661-81:

Effective this date, Mr. Robert W. Glaw is appointed Paymaster of The Panama Canal and Mr. John H. McLean, resigned.

JAY J. MORROW
Acting Governor

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., December 27, 1919
CIRCULAR NO. 226:

Effective December 26, 1919, Mr. H. G. Corntwaite is designated an accountable official of The Panama Canal, and as such will account for all nonexpendable property in use by the Division of Meteorology and Hydrography.

H. A. A. SMITH,

Approved: *Auditor The Panama Canal*
JAY J. MORROW,
Acting Governor.

Census of the Canal Zone.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., December 31, 1919.

To all concerned—A census of the Canal Zone will be begun on January 2, in accordance with the provisions of Public Law No. 235 of the 65th Congress, and instructions from the Bureau of the Census at Washington.

The law places upon all persons over 18 years of age the duty of answering correctly all questions on the census schedules applying to themselves and the families to which they belong, under penalty of a fine of \$100.

For purposes of enumeration the Canal Zone is divided into the following districts: District No. 1, Balboa; District No. 2, Ancon and Balboa Heights; District No. 3, Corozal, Red Tank, and Pedro Miguel; District No. 4, Paraiso and all points on either side of the Canal to Gatun; district No. 5, Gatun and Cristobal.

Only persons actually domiciled in the Canal Zone will be enumerated. This excludes all employees who work in the Canal Zone but live in the terminal cities; but includes all persons who live in the Canal Zone whose work may be in the terminal cities.

No enumeration will be made of Army and Navy posts, either for service personnel or for civilians domiciled within the posts or reservations.

Enumerators shall be paid at the rate of 4 cents a name or \$6 a day in the judgment of the Supervisor.

The Chief of the Bureau of Statistics is designated Supervisor for the Canal Zone.

JAY J. MORROW,
Acting Governor.

Cement Sweepings.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,

BALBOA HEIGHTS, C. Z., December 30, 1919.

All concerned—The Panama Railroad has on hand 251 sacks of cement received on the Steamship *Lake Wilson*, December 21, 1919.

This cement is known as sweepings, or loose cement picked up after the discharge of steamer. There is very little foreign substance to be found in it, and for almost any concrete work, it is just as good as any cement.

We will be glad to have you bid on this lot of cement before 3 p. m., Thursday, January 8, 1920. Please make your bids on the basis of keeping the bags, and also returning the bags to us.

A charge of 10 cents per bag will be collected when the cement is delivered. This charge will be refunded when bags are returned in usable condition.

S. W. HEALD,
Superintendent.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., January 5, 1920.

The following insufficiently addressed letters and parcels have been received in the office of the Director of Posts and may be obtained upon request of the addressees. Requests for forwarding may be made by telephone, calling No. 182, Balboa:

Babbitt, Mrs. Josephine	Holstein, Mrs. O.,	Box
H.	165	
Brooks, Austin	Hulig, B. H.,	Box 32
Claybourne, Wm.	King, Lewis	
*Connell, Miss Pasty,	*Lane, Mrs. S. A.,	Box
Box 307	114	
Daniel, Mrs. A. E.	Nancis, James	
Daniels, Edgar	Pearson, Eustaclo	
*Dillon, Mrs. M.	Ryan, F. J.	
Emia, Omer	Sharples, J. H. M.,	Box
Goodger, Donnan P.	511	
Hinkey, Charles, Box 541	Waller, Mrs. Helen A.	
Hollis, Dr. D. T.	Wheeler, D. W.	

*Parcel.

Cable Notice.

PANAMA RAILROAD COMPANY,

OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., January 2, 1920.

To agents and operators—The following information has been received from the Central & South American Telegraph and Cable Company: "Western Union advises that normal route to British West Indies south to Jamaica and to British Guiana interrupted increasing rates quoted in tariff book by 32 cents per word."

W. F. FOSTER,
Master of Transportation

Joint Commission.

Rule of Dismissal.

In the matter of the claim of Mrs. Ignacia C. de Hunt, Viuda de S. Salvador, docket No. 2901: J. H. Stilson and Ruben S. Arcia, docket No. 2909: Martha Burat de Veaux, docket No. 2910. H. A. Melville and Florence Melville, docket No. 3590, rule of dismissal No. 441, December 29, 1919—On the 11th day of December, 1914, Mrs. Ignacia C. de Hunt, Viuda de S. Salvador, filed her claim, docket No. 2901, in the office of the Joint Commission, in which she asked for a judgment of \$3,995; on the 11th day of December, 1914, J. H. Stilson and Ruben S. Arcia filed their claim, docket No. 2909, in which they asked for a judgment of \$800; on the 11th day of December, 1914, Martha Burat de Veaux filed her claim, docket No. 2910, in which she asked for a judgment of \$12,450; on the 27th day of March, 1915, H. A. Melville and Florence M. Melville filed their claim, docket No. 3590, in which they asked for a judgment of \$6,000.

These four cases came on for hearing by the Joint Commission on the 22d day of December, 1919. It appears to the Commission that all of these cases are beyond the jurisdiction of the Joint Commission as that jurisdiction is laid down in the Treaty of November 18, 1903. It appears that the dispute in each of these cases is one between the respective claimants, on the one hand, and the Panama Railroad Company on the other hand, with reference to lands located within the city of Colon, and no reason is apparent why the Joint Commission would attempt to assume jurisdiction of cases of this character when the courts of the Republic of Panama are open to the claimants, and when such courts are vested with full jurisdiction to adjudicate such disputes.

The four cases above enumerated are therefore hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, *Commissioners.*

Shipping Commissioner's Sale.

BALBOA HEIGHTS, C. Z., December 29, 1919.

The Shipping Commissioner, Room 305, Administration Building, Balboa Heights, C. Z., will accept bids up to noon, January 20, 1920, for the purchase of portions of the personal effects belonging to the estate of G. V. Doval, deceased American seaman. The property to be offered for sale consists of 2 suitcases, an assortment of wearing apparel, toilet articles, and miscellaneous personal effects, a complete list of which will be found at each clubhouse, each Zone post office, and at the offices of the Deputy Shipping Commissioners at Balboa and Cristobal. Bids may be made for the entire lot of the effects of the decedent, or be limited to individual articles. Prospective bidders, desiring to examine the effects, should apply to the Commissioner's office on any business day. Bids should be in writing and submitted in sealed envelopes addressed to the Shipping Commissioner, Balboa Heights, C. Z. The cover should be marked "Bid on effects of (insert name of seaman) deceased." The Shipping Commissioner reserves the right to reject any or all bids.

C. H. CALHOUN, *Shipping Commissioner.*

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall.

Employees: Dinner, lodging, and breakfast.....	\$2.00
Employees..... per day..	2.75
Children under 12 years of age..... per day..	1.25
Servants of employees..... per day..	1.50
Employees for stay of 7 days..... per day..	2.00

Reduction of 10 per cent for employees on above rates for stay of 30 days.
Further reduction of 10 per cent for families of four or more.

Nonemployees..... per day..	3.50
Children of nonemployees..... per day..	1.50
Servants of nonemployees..... per day..	1.75
Meals without room.....	{ Breakfast..... 1.00 Luncheon..... 1.25 Dinner..... 1.25

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

Hotel Aspinwall Launch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10 00 a. m.
Leave Taboga.....	8 00 a. m.

Sundays and holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6 00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster, or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station.....	Leave on the hour and half hour.
Administration Building.....	Leave 7 minutes and 37 minutes after the hour
Balboa Commissary.....	Leave 10 minutes and 40 minutes after the hour.
Balboa Shops.....	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa Shops.....	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office.....	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary.....	Leave 20 minutes and 50 minutes after the hour.
Administration Building.....	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station.....	Arrive on the hour and half hour.

Locations of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the new Ancon Hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Present number of beds.	Visiting hours.	
Section "A"—White American, male:			
Ward No. 1, Medical, Eye and Ear.....	44	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. Sundays and holidays, 9.30 to 11 a. m. and 2.30 to 4.30 p. m.	
Ward No. 2, Medical, Eye and Ear.....	41		
Ward No. 3, Surgical.....	44		
Ward No. 4, Surgical.....	41		
Cells (2).....	2		
	172		
Section "B":			
White American, female.....	23	{ Daily except Sunday, 2 to 4.30 p. m.; 6.30 to 8 p. m. Sundays and holidays, 10 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m. No visitors permitted.	
White foreign, female.....	15		
Nursery.....	16		
Private Rooms (40).....	46		
Cells (2).....	2		
	102		
Section "C":			
Ward No. 9, White foreign, male.....	39	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.	
Ward No. 10, Colored, eye and ear, convalescent medical.....	39		
Ward No. 11, Colored Acute surgical.....	39		
Ward No. 12, Colored Acute medical.....	39		
Ward No. 13, Colored Convalescent surgical.....	39		
Ward No. 14, Colored Convalescent surgical.....	39		
Cells (6).....	6		
Rooms (7).....	7		
	247		
Section "D":			
Ward No. 15.....	41	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m. Daily, 9.30 to 10 a. m.; 2 to 4 p. m.	
Ward No. 16.....	39		
Ward No. 17, Colored children.....	32		
Ward No. 18, White children.....	30		
Ward No. 19, Colored female medical.....	41		
Ward No. 20, Colored female surgical.....	34	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.	
Rooms (6).....	6		
Cells (6).....	6		
	229		
Isolation:			
Floor No. 1.....	14	No visitors permitted	
Floor No. 2.....	29		
Floor No. 3.....	28		
Floor No. 4.....	28		
	99		
Total number of beds.....	849		

Emergency passes are issued only by and in the discretion of the section nurse.

COMMISSARY NOTES.

Music.

Some new numbers of sheet music comprising titles for concert and recital work have recently been received and are on sale in the line stores.

Grape Juice.

It is difficult to obtain from the United States at present certain brands of grape juice in request by commissary customers as stocks in some cases are exhausted and delivery can not be made until the latter part of January when the new juice from the crop just harvested will be ready.

Electrical Goods.

Electric grills and flat irons are still very difficult to obtain. The manufacturer with whom a commissary award was placed some time since has written that owing to the abnormal demands received for these appliances during the past year, especially for the irons, he has fallen very far behind in production. Another reason given is the fact that it is becoming increasingly hard to get the necessary raw materials. It is stated that a partial shipment will probably be made some time in January but it is doubtful whether it will be entirely completed before March, 1920.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
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The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., January 14, 1920. No. 22.

Notice to Mariners.—Obstructions to Navigation.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., January 9, 1920.

CIRCULAR No. 643-68:

The following obstructions have this date been reported from the Naval Radio Station at Arlington:

(a) On January 6, 1920 (3 p. m.), in latitude 26° 50' North, longitude 86° 0' West; a spar buoy, painted red, with figure "18" in black.

(b) On January 6, 1920 (5.15 a. m.), in latitude 33° North, longitude 41° 43' West; hull of large wooden vessel, awash.

JAY J. MORROW,
Acting Governor.

CANAL WORK IN NOVEMBER.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of November, 1919:

BALBOA HEIGHTS, C. Z., December 26, 1919.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of November, 1919:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal for the month was 180, exclusive of 18 United States Government vessels, as follows: Seven destroyers, 1 fuel ship, 1 transport, 2 subchasers, 1 mine-planter, 5 merchant ships with supplies for Army and Navy, and 1 tug. The total number of ocean-going vessels was 198, in addition to which 1 launch went from Pacific to Atlantic.

Classifications of the traffic are shown in the following tabulations. The net tonnage of 180 commercial ships aggregated 597,148 tons, Panama Canal measurement, and was 72,952 tons less than that of commercial ships passing through the Canal in October, when 196 ships of 670,100 tons made the transit. Their registered gross tonnage was 772,521 tons, and their registered net tonnage 483,827 tons. The cargo carried totaled 575,480 tons of 2,240 pounds, and was 130,403 tons less than that handled in October. Of that in November, 1919, 4,095 tons were carried as deck load. Ships of 14 different nationalities were included in the month's traffic.

The aggregate length of the 180 commercial ships using the Canal in November was 61,417 feet; the aggregate beam and draft were 8,467 feet and 3,741 feet, respectively. The average measurements of the commercial ships were as follows: Length, 341 feet; beam, 47 feet; draft, in salt water, 21 feet; Panama Canal net tonnage, 3,317; United States equivalent net tonnage, 2,716; registered gross tonnage, 4,292; and registered net tonnage, 2,688 tons.

The United States coastwise trade was made up of 15 vessels, aggregating 55,146 tons, Panama Canal measurement, and carrying 76,307 tons of cargo. From Atlantic to Pacific, 3 ships with a total net tonnage of 11,296 tons, Panama Canal measurement, made the transit, carrying 17,455 tons of cargo. From Pacific to Atlantic there were 12 vessels of 43,850 net tons, carrying 58,852 tons of cargo.

The United States Shipping Board operated 2 of the westbound ships in the coastwise trade, with a net tonnage of 9,329 tons, Panama Canal measurement, carrying 14,255 tons of cargo, and 11 of the 12 vessels eastbound. The net tonnage of the 11 ships from Pacific to Atlantic aggregated 38,654 tons, and their cargo amounted to 58,852 tons.

PRINCIPAL COMMODITIES.

The bulk shipments from Atlantic to Pacific were: Four whole cargoes of coal, amounting to 30,335 tons, of which 24,041 tons were from Norfolk to Balboa, 3,814 tons from Newport News to Callao, and 2,480 tons from Norfolk to Peru; 3 whole

cargoes of coke, amounting to 6,504 tons, of which 4,622 tons were from Baltimore to Valparaiso, and 1,882 tons, from Baltimore to Antofagasta; 2 whole cargoes of crude oil, 18,276 tons, of which 9,276 tons were from Tuxpan to Pisagua, and 9,000 tons from Puerto Lobos to Tocopilla; 2 cargoes of cement, 1,180 tons, of which 1,000 tons were from London to Coronel, and 180 tons from Cristobal to Callao; 1 cargo of petroleum, 7,753 tons from Tampico to Pisagua; 1 cargo of sulphur, 6,900 tons from Sabine to Freemantle; 1 cargo of case oil, 6,892 tons, from Port Arthur to Freemantle; 1 cargo of kerosene, 6,192 tons, from New York to Shanghai; 1 cargo of crude naphtha, 4,200 tons, from Tampico to San Francisco; 1 cargo of steel plates, 3,200 tons, from Baltimore to San Francisco; 36 cargoes classified as "general" amounted to 85,652 tons; and 7 cargoes known as "mixed," contained 38,470 tons; and 28 vessels made the transit without cargo.

From the Pacific to the Atlantic the principal commodities were: Eleven whole cargoes of lumber, amounting to 19,747 tons, of which 5,123 tons were from Portland to Great Britain, 2,006 tons from Hoquiam to Great Britain, 1,861 tons from Vancouver to Great Britain, 2,160 tons from Portland to New York, 1,627 tons from Aberdeen to New York, 2,571 tons from Bellingham to Philadelphia, 1,864 tons from Seattle to Genoa, 1,056 tons from Seattle to Alexandria, and 1,479 tons from Aberdeen to Habana; 12 whole cargoes of nitrate, amounting to 63,489 tons, of which 8,050 tons were from Antofagasta to New York, 6,850 tons from Valparaiso to Philadelphia, 7,100 tons from Iquique to Alexandria, 3,567 tons from Iquique to Bilbao, 2,650 tons from Iquique to Santander, 6,660 tons from Tocopilla to Liverpool, 5,770 tons from Pisagua to Charleston, 5,700 tons from Caleta Buena to Wilmington, 4,709 tons from Taltal to Canary Islands, 4,530 tons from Iquique to Newport News, 4,103 tons from Caleta Colosa to Pasages, Spain, and 3,800 tons from Caleta Buena to Bilbao; 6 whole cargoes of flour, 45,425 tons, of which 21,778 tons were from Portland to New York, 15,657 tons from Tacoma to New York, and 7,990 tons from San Francisco to New York; 2 cargoes of canned pineapples, 7,069 tons, from Honolulu to New York; 1 cargo of wheat, 9,173 tons, from Adelaide to Falmouth; 1 cargo of "produce," 6,680 tons, from Auckland to London; 1 cargo of barley, 3,220 tons, from San Francisco to Great Britain; 1 cargo of sugar, 1,074 tons, from Salaverry to Cristobal; 1 cargo of copra, 469 tons, from Vavau Island to New Orleans; 1 cargo of coffee, 61 tons, from Buenaventura to Cristobal; 25 cargoes of "general," amounting to 81,117 tons; 23 cargoes of "mixed," amounting to 122,402 tons; and 7 ships made the transit in ballast.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal on their way to the west coast of Central and South America during November were, by nationalities, as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	21	109,106	67,595	79,759	<i>Tons.</i> 70,038
British.....	17	45,206	28,796	32,587	19,580
Spanish.....	6	22,623	14,686	16,682	.....
Peruvian.....	6	17,273	8,160	10,742	3,543
Norwegian.....	4	15,489	9,731	12,396	13,414
Dutch.....	3	17,123	10,917	13,787	233
Chilean.....	3	9,096	5,521	7,989	1,419
Italian.....	2	10,603	6,406	7,882	1,048
Japanese.....	2	10,020	6,267	7,469	.....
Brazilian.....	1	6,872	4,245	6,576	.....
Panaman.....	2	30	24	24	.....
Total.....	67	263,441	162,348	195,893	109,681

Of the 67 vessels, 28 with 57,191 tons of cargo, came from United States ports; 17 with 7,581 tons of cargo originated at the Atlantic terminus of the Canal; 5 with 15,339 tons of general cargo came from England; 5 with no cargo from Spain; 3 with 26,029 tons of oil from Mexico; 2 with 1,048 tons of general cargo from Italy; 1 with 2,028 tons of general cargo from Scotland; 1 with 233 tons of general cargo from Holland; 1 with 232 tons of general cargo from Curaçao; 1 with no cargo from Barbados; 1 with no cargo from the Azores Islands; and 2 with no cargo from Colon.

Shipments from the west coast of Central and South America through the Canal, during November, were carried by 45 vessels. Nine were bound for United States ports with 50,170 tons of cargo, 7 were bound for Great Britain with 39,543 tons of cargo from Chilean ports; 5 were bound for Tampico in ballast; 4 for Spain with 14,120 tons of cargo; 1 for Holland with 9,900 tons of cargo; 1 for Egypt with 7,100 tons of cargo; 1 for Sweden with 5,350 tons of cargo; 1 for the Canary Islands with

4,709 tons of nitrate; and 16 completed the voyage at the Atlantic terminus of the Canal, discharging 1 bulk cargo of sugar, 1,074 tons, 1 bulk cargo of coffee, 61 tons, and 14 cargoes amounting to 18,631 tons.

By nationalities the ships from the west coast of South and Central America were as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
British	19	57,899	34,650	45,678	<i>Tons.</i> 53,266
United States	12	69,646	42,984	50,754	43,800
Spanish	4	11,719	7,170	8,633	17,142
Peruvian	3	11,227	5,455	7,341	7,133
Chilean	3	9,734	6,244	7,800	6,017
Norwegian	2	13,565	8,504	10,698	8,050
Dutch	1	6,944	4,414	6,792	9,900
Swedish	1	3,802	2,839	3,969	5,350
Total	45	184,536	112,260	141,665	150,658

PRINCIPAL TRADE ROUTES.

The distribution of the traffic through the Canal in November, 1919, according to the principal trade routes, was as follows:

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America	28	97,596	<i>Tons.</i> 57,191	13	48,119
Cristobal to west coast of South America	19	24,931	7,551	5	1,505
Europe to west coast of South America	15	52,982	18,648	6	17,224
United States to Australia and New Zealand	7	32,017	45,562	.....	.....
Miscellaneous	*2	5,183	232	1	4,833
United States to Far East	4	14,674	27,932	.....	.....
United States coastwise	3	11,296	17,455	.....	.....
Europe to west coast of United States	3	13,043	7,572	.....	.....
Mexico to west coast of South America	3	15,616	26,029	.....	.....
Mexico to west coast of United States	1	2,818	4,200	.....	.....
Cuba to west coast of United States	1	2,459	1,439	.....	.....
Cristobal to west coast of United States	1	1,593	1,713	.....	.....
Europe to Australia and New Zealand	1	13	.....	1	13
Total	88	274,251	215,554	26	71,694
<i>Pacific to Atlantic.</i>					
West coast, South America to Cristobal	16	24,087	19,766	.....	.....
West coast, South America to Europe	14	49,468	73,622	.....	.....
Australia and New Zealand to Europe	12	84,240	76,906	.....	.....
United States coastwise	12	43,850	58,852	1	5,196
West coast, United States to Europe	11	28,345	36,199	.....	.....
West coast, South America to east coast of United States	9	36,883	50,170	1	7,068
West coast, South America to Mexico	5	26,665	.....	5	26,665
Canada to Europe	5	7,258	9,859	.....	.....
Far East to east coast of United States	2	8,518	15,700	.....	.....
West coast, United States to Cuba	2	3,241	3,944	.....	.....
Miscellaneous	†1	4,562	7,100	.....	.....
Hawaii to Europe	1	3,789	6,000	.....	.....
West coast, United States to Cristobal	1	1,593	1,249	.....	.....
South Sea Islands to east coast of United States	1	398	469	.....	.....
Total	92	322,897	359,926	7	38,869

*The routings from Atlantic to Pacific classified as "miscellaneous" included 1 vessel of 350 net tons with 232 tons of cargo from Curacao to Buenaventura, and 1 vessel of 4,833 tons with no cargo from Barbados to Mejillones.

†The routing from Pacific to Atlantic classified as "miscellaneous" was a vessel of 4,562 net tons, with 7,100 tons of cargo, from Iquique to Alexandria, Egypt.

Tables showing the ports from which cargo was shipped and to which it was destined are attached to this report. (See pages 302 and 303.)

SERVICES TO CANAL SHIPPING.

Repairs were made on 96 vessels during the month, 59 at Cristobal and 37 at Balboa. Five vessels were dry docked at Cristobal, and 6 at Balboa. There were no sales of fuel oil to ships from the Canal tanks. Coal sales were 29,144 tons to 95 vessels at Cristobal and 4,984 tons to 18 vessels at Balboa, a total of 113 vessels receiving 34,128 tons. Water sold included 7,092,247 gallons to 155 vessels at Cristobal and 2,379,500 gallons to 82 vessels at Balboa, a total of 237 vessels receiving 9,471,747 gallons. Sales of commissary supplies to commercial ships, of lines other than that of the

Panama Railroad, aggregated \$70,169.82, including \$3,517.15 for laundry supplies at Cristobal, and \$348.66 from Ancon Laundry. Laundry for all ships amounted to \$3,866 71. Tug service performed for vessels using the Canal and the terminal ports was charged at \$17,254.60, of which \$11,046.25 was collected through the office of the Captain of the Port at Cristobal, and \$6,208.45 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulations:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	88	92	180
Net tonnage of commercial ships, Panama Canal measurement.....	274,251	322,897	597,148
United States equivalent net tonnage of commercial ships.....	224,538	264,295	488,833
Registered gross tonnage of commercial ships.....	363,523	408,998	772,521
Registered net tonnage of commercial ships.....	223,888	259,939	483,827
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	215,554	359,926	575,480
Deck load cargo, included in above.....	471	3,624	4,095
Nationality of commercial ships through Canal:			
British.....	29	35	64
Brazilian.....	1		1
Chilean.....	3	3	6
Danish.....	1		1
Dutch.....	3	1	4
French.....		5	5
Italian.....	2		2
Japanese.....	2		2
Norwegian.....	5	4	9
Panamanian.....	2		2
Peruvian.....	6	3	9
Spanish.....	6	4	10
Swedish.....		3	3
United States.....	28	34	62
Total.....	88	92	180
Panama Canal net tonnage of commercial ships through the Canal:			
Brazilian.....	6,576		6,576
British.....	80,174	147,421	227,595
Chilean.....	7,989	7,800	15,789
Danish.....	5,303		5,303
Dutch.....	13,787	6,792	20,579
French.....		7,258	7,258
Italian.....	7,882		7,882
Japanese.....	7,469		7,469
Norwegian.....	17,448	13,341	30,789
Panamanian.....	24		24
Peruvian.....	19,742	7,341	18,083
Spanish.....	17,097	8,633	25,730
Swedish.....		11,870	11,870
United States.....	99,760	112,441	212,201
Total.....	274,251	322,897	597,148
United States equivalent net tonnage of commercial ships through the Canal:			
Brazilian.....	6,536		6,536
British.....	64,464	119,924	184,388
Chilean.....	4,927	5,923	10,850
Danish.....	4,228		4,228
Dutch.....	10,945	4,394	15,339
French.....		6,909	6,909
Italian.....	5,981		5,981
Japanese.....	6,287		6,287
Norwegian.....	14,711	11,121	25,832
Panamanian.....	24		24
Peruvian.....	6,963	4,438	11,401
Spanish.....	15,072	7,288	22,360
Swedish.....		6,889	6,889
United States.....	84,400	97,409	181,809
Total.....	224,538	264,295	488,833
Registered gross tonnage of commercial ships through the Canal:			
Brazilian.....	6,872		6,872
British.....	106,708	179,394	286,102
Chilean.....	9,696	9,734	18,830
Danish.....	6,636		6,636
Dutch.....	17,123	6,944	24,067
French.....		10,839	10,839
Italian.....	10,603		10,603
Japanese.....	10,020		10,020
Norwegian.....	21,758	16,820	38,578
Panamanian.....	26		26
Peruvian.....	17,273	11,273	28,500
Spanish.....	22,023	11,719	34,342
Swedish.....		11,314	11,314
United States.....	134,785	151,007	285,792
Total.....	363,523	408,998	772,521

Item.	Cristobal.	Balboa.	Total.
Registered net tonnage of commercial ships, through the Canal:			
British.....	67,810	113,041	180,851
Brazilian.....	4,245		4,245
Chilean.....	5,521	6,244	11,765
Danish.....	4,222		4,222
Dutch.....	10,917	4,414	15,331
French.....		7,136	7,136
Italian.....	6,406		6,406
Japanese.....	6,267		6,267
Norwegian.....	13,216	11,101	24,317
Panamanian.....	24		24
Peruvian.....	9,160	5,455	14,615
Spanish.....	14,686	7,170	21,856
Swedish.....		7,902	7,902
United States.....	84,414	97,476	181,890
Total.....	226,888	259,939	486,827
Cargo carried by ships of various nationalities:			
British.....	85,662	151,962	237,624
Chilean.....	1,419	6,017	7,436
Danish.....	1,650		1,650
Dutch.....	233	9,900	10,133
French.....	1,048	9,859	10,907
Norwegian.....	23,154	11,979	35,133
Peruvian.....	3,543	7,133	10,676
Spanish.....		17,142	17,142
Swedish.....		16,315	16,315
United States.....	98,845	129,619	228,464
Total.....	215,554	359,926	575,480
Vessels passing through the Canal free of tolls:			
U. S. Navy destroyers.....	7		7
U. S. Navy fuel ship.....		1	1
U. S. Navy transport.....	1		1
U. S. Navy subchasers.....		2	2
U. S. Army mine-planter.....		1	1
Merchant ships with coal and supplies for Army and Navy.....	5		5
Panama Canal tug.....	1		1
Total.....	14	4	18
Launch.....	7	1	7
Net tonnage of launch, Panama Canal measurement.....	1		1
Total ocean-going ships transiting Canal.....	102	96	198
Total vessels transiting the Canal.....	103	96	199
Cargo on which no tolls were charged..... tons.....	39,151	100	39,251
Commercial ships passing through Canal without cargo, but not in ballast.....	2		2
Net tonnage of above, Panama Canal measurement.....	9,623		9,623
Commercial ships through Canal in ballast.....	26	7	33
Net tonnage of above, Panama Canal measurement.....	71,694	38,869	110,563
Total commercial ships without cargo, transiting Canal.....	28	7	35
Net tonnage of above, Panama Canal measurement.....	81,317	38,869	120,186
Motor ships through the Canal.....	2	5	7
Net tonnage of motor ships, Panama Canal measurement.....	138	10,682	10,820
Sailing ships through the Canal.....	3	3	6
Net tonnage of sailing ships, Panama Canal measurement.....	37	3,261	3,298
Tolls levied on laden ships through the Canal.....	\$203,128.90	\$288,292.85	\$491,421.75
Tolls levied on ships in ballast.....	51,866.55	27,985.68	79,852.23
Tolls on launches.....	8.40		8.40
Total tolls levied.....	\$255,003.85	\$316,278.53	\$571,282.38
Total ships entering port, including Canal transit.....	233	200	433
Total ships clearing port, including Canal transit.....	230	195	425
Total ships handled.....	463	395	858
Net registered tonnage of vessels entering port.....	637,103	527,356	1,164,459
Net registered tonnage of vessels clearing port.....	632,722	515,372	1,148,094
Total for vessels entering and clearing.....	1,269,825	1,042,728	2,312,553
Registered gross tonnage of vessels entering.....	1,013,766	830,230	1,843,996
Registered gross tonnage of vessels clearing.....	1,009,069	811,284	1,820,353
Total registered gross tonnage of vessels entering and clearing.....	2,022,835	1,641,514	3,664,349
Vessels entering port, but not passing through the Canal.....	50	4	54
Net tonnage of above.....	127,533	9,878	137,411
Gross tonnage of above.....	223,211	15,644	238,855
Vessels clearing port, but not passing through the Canal.....	40	5	45
Net tonnage of above.....	111,304	9,938	121,242
Gross tonnage of above.....	184,760	15,704	200,464
Vessels passing through Canal, and handling passengers or cargo at port entered.....	36	37	73
Net tonnage of above.....	79,336	63,497	142,833
Gross tonnage of above.....	132,122	109,648	241,770
Vessels passing through Canal, and handling passengers or cargo at port cleared.....	37	34	71
Net tonnage of above.....	79,440	53,695	133,135
Gross tonnage of above.....	121,085	93,506	214,591

Item.	Cristobal.	Balboa.	Total.
Transit cargo arriving..... tons.	644,072	592,164	1,236,236
Transit cargo cleared..... tons.	627,538	576,946	1,204,484
Local cargo arriving..... tons.	23,572	17,569	41,090
Local cargo shipped..... tons.	2,881	488	3,369
Total local cargo handled..... tons.	26,408	18,057	44,465
Total local and transit cargo arriving..... tons.	667,599	609,733	1,277,332
Total local and transit cargo cleared..... tons.	630,419	577,434	1,207,853
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	50,572	4,745	55,317
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	31,235	856	32,091
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.	788	2,565	3,353
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	82,595	8,166	90,761
Cargo stevedored, included in above..... tons.	27,701	462	28,163
Commercial vessels other than P. R. R. supplied with bunker coal.....	94	16	110
Coal supplied to commercial vessels other than Panama Railroad..... tons.	29,014	4,657	33,671
Panama Railroad vessel supplied with bunker coal.....	1	1	2
Coal supplied Panama Railroad Steamship Line..... tons.	30	1	30
U. S. Navy vessel supplied with bunker coal.....	5	1	6
Coal supplied U. S. Navy vessels..... tons.	100	306	306
U. S. Army vessels supplied with coal.....	5	1	6
Coal supplied to U. S. Army vessels..... tons.	100	21	121
Total vessels supplied with coal.....	95	18	113
Total coal furnished to vessels..... tons.	29,144	4,984	34,128
Coal supplied Panama Railroad departments..... tons.	838	80	918
Coal supplied Army, excepting vessels..... tons.	133	1	133
Coal supplied The Panama Canal..... tons.	1,501	641	2,142
Coal supplied individuals and companies..... tons.	339	1	339
Total coal furnished..... tons.	32,055	5,705	37,760
Coal received during November..... tons.	36,363	24,040	60,403
Coal on hand, December 1..... tons.	42,011	12,204	54,215
Vessels supplied with water.....	155	82	237
Water sold to ships..... gals.	7,092,247	2,379,500	9,471,747
Vessels dry docked.....	5	6	11
Commercial vessels furnished commissary supplies.....	133	78	211
Panama Railroad vessels furnished commissary supplies.....	7	1	8
Other U. S. Government vessels furnished commissary supplies.....	20	12	32
Total vessels furnished commissary supplies.....	160	91	251
Commissary sales to commercial vessels:			
Ice.....	\$1,383.36	\$544.21	\$1,927.57
Wholesale groceries.....	13,649.42	3,898.47	17,547.89
Wholesale cold storage.....	31,815.57	12,903.47	44,719.04
Laundry.....	2,666.06	.90	2,666.96
Miscellaneous.....	2,398.63	909.73	3,308.36
Total.....	\$51,913.04	\$18,256.78	\$70,169.82
Commissary sales to Panama Railroad vessels:			
Ice.....	\$257.40	\$12.60	\$270.00
Wholesale groceries.....	1,724.95	95.22	1,820.17
Wholesale cold storage.....	5,282.34	158.49	5,440.83
Laundry.....	494.42	.....	494.42
Miscellaneous.....	462.78	2.28	465.06
Total.....	\$8,221.89	\$268.59	\$8,490.48
Commissary sales to other Government vessels:			
Ice.....	\$129.67	\$70.79	\$200.46
Wholesale groceries.....	1,281.50	1,118.22	2,399.72
Wholesale cold storage.....	9,971.46	4,283.81	14,255.27
Laundry.....	356.67	.....	356.67
Miscellaneous.....	368.10	12.14	380.24
Total.....	\$12,107.40	\$5,484.96	\$17,592.36
Total commissary sales to vessels.....	\$72,242.33	\$24,010.33	\$96,252.66
Fuel oil issued to U. S. Navy..... barrels.	205	1,148	1,353
Fuel oil issued to U. S. Army..... barrels.	420	54	474
Fuel oil issued to Canal departments..... barrels.	9,358	21,613	30,971
Other sales, issues, and consumption at plant..... barrels.	267	172	439
Total furnished from Canal tanks..... barrels.	10,250	22,987	33,237
Fuel oil on hand December 1..... barrels.	53,795	85,659	142,454
Other oil pumped..... barrels.	180,558	13,768	194,326
Diesel oil on hand December 1..... barrels.	.....	1,499	1,499
Passengers arriving, including transit passengers:			
First cabin.....	2,578	1,329	3,907
Other than first cabin.....	1,531	1,024	2,555
Total.....	4,109	2,353	6,462
Passengers departing, including transit passengers:			
First cabin.....	2,168	1,192	3,360
Other than first cabin.....	1,320	972	2,292
Total.....	3,488	2,164	5,652
Total movements of passengers.....	7,597	4,517	12,114

Item.	Cristobal.	Balboa.	Total.
Passengers disembarking:			
First cabin.....	1,703	303	2,006
Other than first cabin.....	1,044	150	1,194
Total.....	2,747	453	3,200
Passengers embarking.....			
First cabin.....	1,294	166	1,460
Other than first cabin.....	833	98	931
Total.....	2,127	264	2,391
Services to American seamen:			
Seamen shipped.....	211	112	323
Seamen paid off.....	141	93	234
Seamen deserted.....	12	1	13
Seamen lodged, subsisted, and repatriated.....	13	26	39
Total seamen handled.....	377	232	609
Wages of American seamen:			
Total amount earned.....	\$7,434.63	\$9,060.75	\$16,495.38
Deductions approved by Deputy Shipping Commissioners.....	559.12	1,773.15	2,332.27
Balance due seamen.....	\$6,875.51	7,287.60	\$14,163.11
Paid to seamen.....	1,334.13	5,817.06	7,151.19
Received on deposit for seamen.....	5,541.38	*1,703.06	7,244.44
Services to American vessels:			
Crews shipped.....	2		2
Crews paid off.....	2		2
Shipping articles written.....	2		2
Marine notes of protest noted.....	18	4	22

*Includes \$232.52 immigration deposit.

LOCK OPERATION.

Lockages of commercial vessels were made during the month as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	89	83	172	92	92	184
Pedro Miguel.....	92	87	179	92	92	184
Miraflores.....	92	83	175	92	92	184

Lockages of Army and Navy vessels, vessels operated by The Panama Canal, and of commercial vessels, are included in the following summary of all lockages during the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	172	179	176
Noncommercial, United States Army and Navy.....	11	11	11
Canal equipment.....	9	21	17
Total.....	192	211	203
Vessels:			
Commercial vessels.....	184	184	184
Noncommercial, United States Army and Navy and Canal.....	45	72	69
Total.....	229	256	253

Water consumed for all lockages amounted to 1,556,010,000 cubic feet, that used at Pedro Miguel becoming available for second use at Miraflores Locks.

Consumption of water by the locks during the month was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	861,850,000	704,160,000	629,880,000
Leakage.....	20,000,000	35,420,000	15,000,000
Maintenance.....		39,970,000	57,810,000
Total.....	881,850,000	779,550,000	702,690,000

METEOROLOGY.

Rainfall during the month ranged from 3.50 inches at Gamboa to 15.35 inches at the Quipo station. The greatest precipitation recorded in any one day was 2.71 inches, at the Pedro Miguel station on November 30.

Three seismic disturbances were recorded, 2 on the 1st, and 1 on the 10th. All were of close origin, the quake on the 1st being the only one generally felt. All were comparatively small movements.

The Chagres River discharge at Alhajuela was 47 per cent below the 18-year November average, or 2,455 c. f. s. against a mean of 4,649 c. f. s. The maximum momentary discharge for November was 23,800 c. f. s. at elevation 101.30 on the 5th and the minimum momentary discharge was 1,503 c. f. s. at elevation 91.83 on the 18th. There was one freshet in the Chagres River during the month with a rise of more than 5 feet at Alhajuela.

The elevation of Gatun Lake on November 30 was 86.06, as compared with 86.30 at the close of the prior month.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The net output of the hydroelectric station for the month was 5,128,111 K. W. H. The computed water consumption was 3,702,970,000 cubic feet.

Miraflores steam plant—The net output of the steam plant was minus 670,100 K. W. H. and the oil consumption was 2,124.91 barrels.

Total power output—The total power output for both generating stations was 5,128,000 K. W. H., and the total amount of power distributed to feeders by substations and generating plants was 4,370,432 K. W. H., representing an energy loss of 14.77 per cent.

Transmission line—There was one interruption to transmission line service during the month. Line No. 1 was out at 12.08 a. m. on the 19th, caused by a train wreck at Diablo cabin, demolishing tower 45-1 and breaking line No. 2, interrupting service at Cristobal, 2½ minutes; Darien, 10 minutes, Gamboa, 3 minutes; and Balboa, 2½ minutes.

Marine work—Repairs and additions to electric equipment, embracing 24 items were made at Cristobal on the following vessels: *San Juan, Allianca, Wakiki*, launch *Sylph II, Princess Matoika*, tug *Engineer, West Katan, Ulysses, Balboa, Middlebury, C-44, C-45, Colon, Aculeo*, and *H. C. Hansen*. Work was in progress at the end of the month on the *Ottawa, Delft, Middlebury*, rock crusher *Vulcan*, tug *Taverilla*, and *Caribbean*. At Balboa, electrical work was done on the following vessels: *Cristobal*, barge *No. 29*, cruiser *Lima, Sewickley, Fassett, Benham, Santa Helena*, dredge *No. 84, Colindo*, supply boat *No. 2*, tug *Miraflores, Lompoc, Paita*, dredge *Corozal*, tug *Cocoli*, destroyer *Shubrick, Dockton, Lake Maurepas, Cyrus W. Field*, tug *Rimac*, tug *Nepen, Ansaldo San Giorgio, Donastia, Coalinga, Tanka, Faulk, East Wind, Jamaica, Achilles, Salazar*, and tug *Empire*.

SHOPS, FOUNDRY, AND DRY DOCK WORK.

Work on the *Cristobal* was carried forward during the month with all the available force. The machinery installation was well advanced; a large portion of the remaining steel work was placed; a portion of the decking laid, and the woodwork for the passenger accommodations begun.

Repairs to the *Benham* were completed; these included fitting of a new rudderpost, the lower portion of her sternpost, and the after 25 feet of her keel, together with the manufacture and installation of a new propeller; the general overhaul of her main engines and boilers, the straightening and welding of her rudder stock, and the manufacture of new steering gear. The repairs to the stern of this vessel required very large timbers and would have been delayed for several weeks had it not been for the development of the native lumber industry, which had placed the Mechanical Division in a position to secure excellent timbers on short notice. For the rudderpost a stick of guayacan 18 by 24 inches by 37 feet long was used; for the sternpost a piece of almendra 22 inches by 36 inches by 22 feet long, and for the keel a piece of amargo 18 inches by 22 inches by 40 feet long.

The Peruvian cruiser *Lima* has remained at the plant, and during the month a general overhaul was requested and entered upon. This includes, among other things, the removal of boilers and their partial rebuilding, and the renewal of floors and reverse bars under the boiler room.

The *Paita* stopped at the Balboa plant for running repairs during the month after a voyage to Chile. This is the first ex-German ship repaired at the Balboa plant to return to the Canal Zone. The officers of the vessel reported the ship to be very satisfactory thus far.

Additional stiffening was fitted between the frames of the *Achilles*, either side of the keel, in the deep tanks, and numerous rivets were redriven in these tanks and the forepeak, excessive working having been found to be taking place in these compartments.

The first sand crane for the gravel plant at Gamboa was rebuilt and shipped for erection. Both of the gravel cranes were recently blown over and wrecked by a wind

storm, and the construction of the first crane was carried forward as emergency work on account of the necessity of again providing means for obtaining sand and gravel for building operations.

At the Cristobal shops the following vessels arrived for repair: Tug *Tavernilla*, *Lake Graphite*, *Balboa*, *Memphis*, *Jamaica*, *West Katan*, *Dockton*, *Mecklenburg*, *Parismina*, *Brookland*, *Laura C. Hall*, *City of Para*, *Mantaro*, *Middlebury*, *Geo. W. Goethals*, *Ulysses*, *Caribbean*, *Culebra*, *Allianca*, *O. H. Ernst*, *Colon*, *Alda*, *Gualamola*, *Peru*, *Botsford*, barge *No. 56*, *Henry T. Scott*, *Carrillo*, *Ottawa*, *Puerto Rico*, *Bologna*, *Namecki*, *San Juan*, *A. G. Forse*, launch *Capron*, *Santa Leonora*, *Princess Matoika*, *Lake Fanar*, *Salvador*, *Urubamba*, *Himoto*, *Chataugua*, *Osakis*, *Tollamock*, *Chile*, *Nokatay*, *Aviles*, *Tanka*, *Orcus*, *Aculeo*, *Senator*, *Wakiki*, *C-35*, *C-44*, *C-45*, *C-47*, *C-49*, and rock breaker *Vulcan*.

Of the above the following were in dry dock during the month: *Vulcan*, barge *No. 56*, *Caribbean*, *San Juan*, and *Mecklenburg*.

At the Cristobal shops 147 individual and company job orders were issued during the month, one of which was for a naval vessel. Of the remaining 146, 62 covered repairs to ships making this port or in transit of the Canal, exclusive of Panama Railroad ships.

Work was performed at the Balboa shops during the month on the following vessels: *Cristobal*, *Colinda*, *Bonham*, *Fassett*, *Donostia*, *Sewickley*, *Lompoc*, *West Karitans*, *Achilles*, *Paiza*, *Coalinga*, *Lake Maurepas*, *Gorredijk*, *La Habra*, *Ansaldo San Giorgio II*, *Deva*, *Lake Faulk*, *Tanka*, *Ayuruoca*, *East Wind*, *Santa Clara*, *Salazar*, *Crisfield*, cruiser *Lima*, *U. S. S. Shubrick*, *Lamb*, tug *Nepen*, tug *Rimac*, *Laura C. Hall*, *Santa Elena*, *Orotina*, *H. C. Hansen*, *Dockton*, *Ansaldo San Giorgio I*, *Sylph*, *Almirante*, and dredge *Corozal*.

Of the above, the following were in dry dock during the month: Dredge *No. 84*, supply Boat *No. 2*, tug *Miraflores*, steamships *Bonham*, *Coalinga*, and *Achilles*.

Patterns made and foundry output, compared with October, were as follows:

	November.		October.	
	Patterns.	Pounds.	Patterns.	Pounds.
Iron.....	58	93,296	59	134,067½
Steel.....	4	23,691	19	24,093
Brass.....	40	29,961	39	15,985½

Equipment was hosted as follows: Locomotives, 1,523; cranes, 208; making a total of 1,731. One hundred and ninety-six shop and 1,484 field repairs were made on cars, 825 freight cars were packed, and 825 passenger coaches were packed, cleaned, oiled, and inspected.

BUILDING CONSTRUCTION.

Erection of the Puerto Obaldia radio station was 95 per cent completed.

The office building for the Central and South American Telegraph Company at Balboa was completed.

Moving three type-18 houses from Las Cascadas to Balboa was 12 per cent completed. Moving seven type-15 houses and one type-7 house were 15 per cent completed.

Terminal construction—In the reconstruction of the Royal Mail pier, Colon, the placing of concrete floor slab was completed, and the erection of steel roof trusses was 40 per cent completed.

Pier No. 6, Cristobal, was completed during the month.

DREDGING DIVISION.

The total excavation by dredge during the month of November was 407,835 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment
	Earth.	Rock.			
a 82,900	52,900	30,000	Maintenance....	<i>Cucaracha Slide.</i> 1806-00 to 1821-00	Cascadas.
a 7,350	4,850	2,500	Maintenance....	<i>West Culebra Slide.</i> 1774-00 to 1778-00 W	Cascadas.
a 124,085	93,085	31,000	Maintenance....	<i>East Culebra Slide.</i> 1774-00 to 1790-00 E	Paraiso.
a 3,500	3,500	.....	Maintenance....	<i>Barge Repair Slide.</i> 1740-00 to 1741-00 W	Paraiso.
b 180,000	180,000	.....	Maintenance....	<i>Pacific Entrance.</i> 2153-00 to 2189-50 E	No. 86.
b 5,000	5,000	.....	Original.....	2153-00 to 2189-50 E	No. 86.
b 5,000	5,000	.....	Maintenance....	2203-30 to 2202-50	No. 83.
407,835	344,335	63,500	Total for month		

(a) Gaillard Cut.

(b) Pacific entrance.

The following disposition was made of the excavated material: Five thousand cubic yards were dumped in San Juan fill; 185,000 cubic yards in Rio Grande East Division; and 217,835 cubic yards in Gatun Lake, north of Gamboa.

Slide movement—Cucaracha slide showed a slight general movement from the 1st to the 10th of the month. During the remainder of the month there was some small movement near the top of the slide. This latter movement brought no additional material into the Canal area. At the Barge Repair Slide the surface movement continued throughout the month. The effectiveness of the channel was not threatened at any time.

The excavation remaining to be done in the Canal prism on December 1 was 167,400 cubic yards of earth and rock, and from the Cristobal coaling station and Balboa inner harbor, 2,100 and 167,800 cubic yards, respectively.

MUNICIPAL ENGINEERING DIVISION.

In grading and filling for the new silver townsite, Mount Hope, grading was 95 per cent completed; water lines were 15 per cent completed; streets and roads, 5 per cent completed; sanitary sewers, 50 per cent completed, and storm sewers, 65 per cent completed.

The sewer from North Avenue, Panama, to the beach was 75 per cent completed.

Water pumped in the northern district amounted to 231,743,000 gallons, and in the southern district to 569,968,620 gallons, making a total of 801,711,620 gallons, as compared with 806,089,030 gallons in October. Colon was furnished with 56,916,800 gallons, Panama with 79,706,000 gallons, and 9,471,747 gallons were sold to 237 ships.

The incinerator at Gavilan Island burned 2,175 tons of garbage and 53 dead animals in November.

WORKING FORCE.

Effective November 19, 1919.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	41	54	95
Building Division.....	328	1,585	1,913
Electrical Division.....	240	306	552
Municipal Engineering Division.....	120	1,586	1,706
Lock Operation.....	162	506	758
Dredging Division.....	148	905	1,053
Mechanical Division.....	979	1,907	2,886
Marine Division.....	140	398	538
Fortifications.....	70	210	280
Total.....	2,234	7,547	9,781
Supply Department:			
Quartermaster.....	160	1,955	2,115
Subsistence.....	28	401	429
Commissary.....	214	1,560	1,774
Cattle Industry—Plantations.....	29	668	697
Accounting.....	262	11	273
Health.....	242	958	1,200
Executive.....	542	284	826
Panama Railroad:			
Superintendent.....	57	558	615
Transportation.....	128	198	326
Receiving and Forwarding Agent.....	76	1,632	1,708
Coaling Stations.....	86	955	1,041
Supply—Hotel Washington.....	5	93	98
Grand total.....	4,063	16,820	20,883

The total gold force at work on November 19, was 20 more than the 4,043 at work on October 22, and the silver force was 596 more than the 16,224 then at work. As compared with the gold force for the corresponding month of last year, reported as of November 20, 1918, the gold force was an increase of 851 over the 3,212 at work at that date, and the silver force a decrease of 1,157 over the 17,977 of that day.

The occupation of quarters on November 30 was as follows:

Occupants.	Men.	Women.	Children.	Total.
Americans.....	3,440	2,124	2,514	8,078
Europeans.....	188	44	60	292
West Indians.....	5,076	1,957	3,751	10,802
Total.....	8,704	4,143	6,325	19,172

PUBLIC HEALTH.

Seventy-three cases of malaria were reported during the month of November as compared with 60 cases during the month of October. No deaths occurred from malaria. Thirteen cases of influenza were admitted but there were no deaths from influenza.

There were 5 cases of pneumonia and 1 death, as compared with 4 cases and 1 death during October. Typhoid fever caused 4 admissions and no deaths, as compared with 3 admissions and 1 death during the preceding month. One case of smallpox was admitted, a hospital physician on duty in the isolation ward. He is now the only smallpox patient in the hospital, all others having been discharged well.

One case of leprosy was admitted to the colony at Palo Seco.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material received during the month on United States requisitions was \$452,243.12, as compared with \$471,902.50 in October. Of that received in November, \$412,555.74 was chargeable to operation and maintenance; \$33,499.17 to construction and equipment; and \$6,188.21 to miscellaneous departments. Isthmian cash sales from storehouses and obsolete store amounted to \$48,271.69, of which \$29,961.21, was for stock, \$2,091.42 for scrap, and \$16,219.06 for obsolete and second-hand material.

There were no important sales made in the United States during the month.

The total sales of material from storehouses to steamships, for the month, including fuel oil, but excluding sales by the commissary division, which amounted to \$71,284.20 were \$17,350.07. Sales of commissary supplies to all purchasers for the month aggregated \$859,316.75, made up as follows: To steamships, other than United States Government vessels and those of the Panama Railroad Steamship Line, \$71,284.20; to The Panama Canal, \$106,132.33; to the United States Government, including sales to the Army and Navy, \$113,913.56; to individuals and companies, principally through charge accounts in the retail stores, \$25,271.05; to the Panama Railroad, including its steamships and the Hotel Washington, \$21,846.03, and to individuals purchasing with coupons, \$520,869.58.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on November 30, exclusive of fortifications, was \$15,215,115.76; the balance in fortifications was \$8,331,091.88. Payments from appropriations by the Disbursing Clerk in Washington amounted to \$760,814.77, and by the Paymaster on the Isthmus to \$1,564,138.64. Purchases of commissary books from the Panama Railroad Company amounted to \$352,580.13. Collections of tolls totaled \$571,282.38. Deposits of \$241,338.75 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$1,891,883.32, and collections by the Disbursing Clerk, Washington, \$25,963.82. Receipts from the Canal Zone and miscellaneous funds were \$168,893.04, and disbursements from the same source amounted to \$157,170.85. November pay-rolls on the Isthmus aggregated \$1,115,780.92, as compared with \$1,249,718.06 for October, a difference of \$93,937.14.

Respectfully,

JAY J. MORROW,
Acting Governor.

Freight Classification.

Effective December 18, 1919.

The Panama Railroad Steamship Line has announced the following changes in Supplement No. 2 to freight classification and Tariff No. 30, class and commodity rates from New York to Central American and Mexican ports:

CHANGES AND ADDITIONS.

Item 21. (Amends Item 1.)

Fuse, safety, from Class D to.....	1
Roofing, asbestos covered metal.....	4
Milk, powdered.....	3

LIGHTERAGE CHARGES, AMAPALA, HONDURAS.

Item 22. (Amends Item 18.)

On all cargo for Amapala, Honduras, lighterage charges at rate of \$2 per ton weight or measurement must be prepaid in addition to freight charges

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, November, 1919.

From—	Alexandria, Egypt.	Netherlands.	Baltimore, Md.	Bergen, Norway.	Bilbao, Spain.	Charleston, S. C.	Cristobal, Canal Zone.	Falmouth, England.	Genoa, Italy.	Göteborg, Sweden.	Havana, Cuba.	Las Palmas, Canary Isls.	Liverpool, England.	London, England.	New Orleans, La.	Newport News, Va.	New York, N. Y.	Passages, Spain.	Philadelphia, Pa.	Queensdown, Ireland.	Santander, Spain.	West Hartle- pool, Eng.	Wilmington, N. C.	Total.	
Aberdeen, Wash.											1,479						1,627							3,106	
Adelaide, Australia.								9,173																9,173	
Antofagasta, Chile.													13,930				8,050								8,050
Buckland, New Zealand.																									13,930
Bellingham, Wash.							1,447												2,571						2,571
Buenaventura, Colombia.					3,800																				3,800
Caleta Buena, Chile.																									4,103
Caleta Colosa, Chile.																									4,103
Callao, Peru.																									7,133
Champerio, Guatemala.																									155
Cheamatus, B. C.																									7,136
Dunedin, New Zealand.																									7,136
Genoa Bay, B. C.																									4,643
Guayaquil, Ecuador.													6,000												6,000
Honolulu, Hawaii.																									5,674
Honolulu, Wash.	7,100				3,567																				3,567
Liquine, Chile.																									1,027
Los Angeles, Cal.																									6,180
Maaga, Ecuador.																									3,038
Mejillones, Chile.						5,770																			5,770
Pisagua, Chile.																									3,038
Portland, Oreg.																									6,180
Puntarenas, Chile.																									5,697
Salaverry, Peru.																									23,938
San Francisco, Cal.				5,700																					23,938
Seattle, Wash.								1,804																	1,804
Shanghai, China.																									3,220
Singapore Sls. Settlements.	1,056																								6,291
Sydney, Australia.																									7,500
Tacoma, Wash.																									14,480
Talcahuano, Chile.																									14,480
Taltal, Chile.																									15,657
Timaru, New Zealand.																									15,657
Toronilla, Chile.																									15,698
Valparaiso, Chile.																									15,698
Valparaiso, B. C.		9,900																							9,900
Vancouver, B. C.																									4,709
Varau Island.																									6,660
Victoria, B. C.																									6,660
Wellington, New Zealand.																									42,157
Total.	8,156	9,900	6,200	5,700	7,367	5,770	21,015	9,173	7,184	10,615	3,944	4,079	57,342	76,273	489	4,530	93,101	4,103	9,421	4,539	2,650	2,065		5,700	359,926

MOVEMENTS OF OCEAN VESSELS.
Week ending at Midnight, January 10, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Mantaro.....	30	17 27	4	6 14	4	13 25	4	16 30	Peruvian.	Peruvian Line	360 0	46 2	20 0	Cristobal	Callao.....	General.....	350	4 731	2 853
Jamaica.....	1	14 55	4	6 19	4	14 30	4	17 00	British.	Pacific Steam Navigation Co.	220 0	34 0	12 11	Cristobal	Buenaventura.	General.....	816	1 187	6 922
Lake Yagui.....	3	20 06	4	6 22	4	14 40	4	15 30	British.	United States Shipping Board.	251 0	43 5	17 6	New York	Iquique.....	New York	2 789	1 725	5 741
British Isles.....	3	8 33	4	6 35	4	15 52	4	16 40	British.	British Tanker Company	400 0	57 0	25 0	New York	San Francisco	General.....	5 982	5 733	4 015
Bogota.....	3	23 18	4	8 15	4	16 30	5	7 14	British.	Pacific Steam Navigation Co.	430 2	52 0	20 6	Liverpool	Valparaiso.	General.....	3 999	2 924	2 924
Unita.....	4	12 37	4	11 23	4	19 00	4	20 09	Norwegian.	H. M. Wagnell	338 1	48 0	15 0	Newport News	Junin.....	General.....	.....	.....	.....
Gillis (a).....	4	12 52	5	6 10	5	13 10	11	10 54	Norwegian.	United States Navy	340 0	42 0	11 0	New York	San Diego.	General.....	.....	.....	.....
Aulick (a).....	4	12 53	5	6 12	5	13 10	11	10 54	American.	United States Navy	310 0	30 0	11 6	Pensacola.	San Diego.	General.....	.....	.....	.....
Tungey (a).....	4	12 54	5	6 12	5	13 11	11	10 54	American.	United States Navy	315 0	29 0	11 0	Boston.	San Diego.	General.....	.....	.....	.....
Lake Buckeye.....	5	6 55	5	6 55	5	17 53	7	10 10	American.	United States Shipping Board.	251 0	43 6	12 0	Norfolk	Caleta Buena.	General.....	.....	.....	.....
Dillwyn.....	5	10 20	5	Noon	5	20 17	5	23 05	American.	United States Shipping Board.	435 0	56 0	28 0	Tampico	San Francisco	Crude naphtha.	10 300	7 441	5 680
Arroyo.....	5	16 48	6	6 20	6	15 20	6	16 12	Norwegian.	Kluyver & Co.	295 0	40 5	12 3	Baltimore.	Tocopilla.	General.....	2 505	1 611	1 611
Westerner.....	5	7 45	6	6 25	6	15 27	6	16 15	American.	United States Shipping Board.	400 0	58 0	25 1	New York	Yokohama.	General.....	6 623	4 832	4 832
Santa Olivia.....	6	6 03	6	6 03	6	16 30	6	17 15	American.	W. R. Grace & Co.	405 0	54 0	15 0	New York	Mejillones.	General.....	7 500	6 745	4 708
Hesperos.....	6	6 40	6	7 45	6	17 32	7	22 20	Norwegian.	Brunsgaard Kiostaruds.	389 0	54 0	15 0	Norfolk	Chile	General.....	.....	5 678	4 214
Stephen R.....	6	6 55	6	8 35	6	18 40	6	19 27	American.	Crowell & Thurlow	354 0	49 0	19 0	San Juan	Iquique	General.....	4 627	3 277	3 277
Basis.....	6	6 58	6	9 15	6	18 55	6	19 55	Norwegian.	Christian Haaland	240 0	45 0	15 0	Newport News	Talca	General.....	3 639	2 610	2 610
Los Angeles.....	6	10 37	6	11 00	6	19 35	7	1 35	American.	South American Steamship Line.	335 0	56 0	29 0	Pto. Lobos.	Antofagasta.	Crude oil.	10 000	7 300	5 205
Aysen.....	31	21 30	6	11 25	6	21 00	6	11 42	Chilean.	Union Oil Co.	364 5	40 0	23 3	Cristobal	Valparaiso.	General.....	1 762	4 505	2 977
Saint Louis.....	5	7 23	7	6 38	7	14 48	7	15 40	French.	French Line.	405 0	46 0	16 0	Bordeaux	Valparaiso.	General.....	300	5 857	4 166
Elena (b).....	7	6 50	7	6 50	7	17 31	8	7 24	Chilean.	John Sloman	105 0	20 3	11 0	Cristobal	Paita	Coal.	251	101	101
Causunnet.....	7	11 43	8	10 18	8	18 42	9	2 10	Chilean.	United States Shipping Board.	402 0	53 0	28 0	Norfolk	Pearl Harbor.	General.....	7 943	6 521	4 861
Lucerri.....	7	16 43	8	6 44	8	15 14	8	16 18	British.	Andrew Weir & Co.	412 5	55 5	27 1	New York	Shanghai.	General.....	9 700	6 895	4 863
Asbland County.....	7	16 58	8	6 05	8	15 01	8	15 47	American.	United States Shipping Board.	251 0	43 6	12 6	Norfolk	Iquique	General.....	2 857	1 767	1 767
Cauca.....	4	16 25	9	6 02	9	16 09	9	17 50	British.	Pacific Steam Navigation Co.	246 1	32 2	16 1	Cristobal	Guayaquil.	General.....	1 290	1 582	1 023
Lake Lesa.....	8	13 33	9	6 48	9	16 15	9	17 28	American.	United States Shipping Board.	251 0	43 7	15 0	Philadelphia	Iquique	General.....	2 505	1 622	1 622
Balboa.....	6	19 06	9	9 15	9	17 14	9	22 20	American.	Colombian Maritime Co.	190 0	29 0	13 2	Cristobal	Buenaventura.	General.....	330	741	350
Cowee.....	9	7 00	9	9 20	9	17 26	11	20 06*	American.	United States Shipping Board.	253 0	43 0	22 9	Norfolk	Lyttleton.	General.....	2 746	1 789	1 789
Kansas.....	9	7 00	9	13 00	9	20 17	9	21 40	British.	Ellerman & Bucknall	400 6	60 0	22 9	New York	Lyttleton.	General.....	2 300	5 644	4 113
Andrew Jackson.....	9	7 50	9	13 20	9	21 30	11	9 05	American.	United States Shipping Board.	439 6	60 0	28 6	New York	Yokohama.	General.....	11 523	8 973	6 694
Agarista.....	5	17 27	10	6 10	10	17 05	10	17 53	American.	United States Shipping Board.	267 5	46 0	23 9	Hull	Yokohama.	Cotton and iron.	9 453	.....	.....
Gracia Maru.....	9	19 28	10	6 20	10	16 68	10	17 45	Japanese.	Nippon Yusen Kabushiki Kaisha	425 0	54 0	27 4	London	Wellington.	General and iron	5 628	.....	.....
Sussex.....	9	19 55	10	6 30	10	18 08	10	18 47	British.	Federal Steam Navigation Co.	253 0	43 6	25 0	Norfolk	Valparaiso.	General.....	.....	.....	.....
Cowanahamook.....	6	9 05	10	9 52	10	18 11	11	8 47	American.	United States Shipping Board.	253 0	43 6	25 0	Norfolk	Valparaiso.	General.....	.....	.....	.....
Omsk.....	2	23 30	10	10 00	10	20 13	10	21 14	Russian.	Russian Volunteer Fleet Ass'n.	470 0	57 0	24 0	New York	Vladivostok.	General.....	12 000	.....	.....
Ucayal.....	4	16 08	10	10 22	10	20 11	11	21 13	Peruvian.	Peruvian Line.	375 0	46 0	18 1	Cristobal	Callao.	General.....	580	4 278	2 244

(a) Destroyer. (b) Tug.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Date	Vessels	Line	From	Date	Vessels	Line	For
4 5 00	4 8 20	9 6 02	British	246 0	35 2 15 1	Guayaquil	General
4 1 10	4 8 35	10 16 25	Peruvian	374 7	46 3 21 6	Callao	General
5 3 00	5 7 53	4 16 08	Dutch	370 0	50 0 25 6	Valparaiso	General
5 12 45	5 11 30	6 22 46	American	380 0	53 1 23 6	Tacoma	Flour
5 12 45	5 13 27	6 17 43	American	397 4	46 1 22 0	Seattle	Lumber
6 11 49	6 11 49	9 9 15	American	200 0	49 1 11 1	Buenaventura	General
6 19 11	7 8 26	8 13 13	American	272 8	40 1 26 0	Lingue	Nitrate
7 7 15	7 8 05	7 16 33	American	402 6	54 8 23 3	Hongkong	Rice
7 8 35	7 10 07	8 19 00	Norwegian	410 0	54 0 23 8	Balboa	Nitrate
7 9 15	7 10 54	8 17 17	British	251 0	43 4 22 0	Caleta Colosa	Nitrate
7 16 00	8 4 41	8 19 50	American	450 0	53 2 26 0	Singapore	General
7 17 30	8 7 19	8 15 48	Spanish	289 6	40 0 20 6	Iquique	Nitrate
8 21 00	8 8 09	8 17 30	American	410 6	54 0 25 0	Caleta Buena	Nitrate
8 18 00	8 9 11	8 21 35	British	514 0	65 0 20 0	San Diego	Naval stores
8 15 10	8 15 14	9 14 20	French	197 0	62 0 26 0	Valparaiso	Produce, etc
9 9 15	9 10 10	9 16 43	American	360 5	40 7 15 0	Vancouver	Lumber
9 11 00	9 11 46	9 19 56	Japanese	400 0	51 5 24 6	Valparaiso	General
9 12 03	9 13 13	9 21 08	American	409 7	54 2 24 0	Iquique	Nitrate
9 11 15	10 6 42	10 14 12	American	326 0	38 2 16 4	Tacoma	Flour
9 18 15	10 7 03	10 15 57	American	410 0	52 2 24 0	Antofagasta	General
9 15 20	10 7 55	10 17 07	American	408 8	51 1 28 7	Toopilla	Nitrate
10 21 00	10 8 20	10 19 10	British	400 0	58 8 26 8	Sydney	C.S. and general
10 11 11	10 11 25	10 21 15	French	195 6	40 6 15 0	Vancouver	Lumber
10 13 39	10 13 39	10 23 00	British	375 0	52 0 24 8	Mellillones	Nitrate
10 13 39	10 13 39	10 23 00	Panamanian	213 0	30 0 16 0	Port Angeles	Lumber

PORT OF CHIRIQUIL.

Date	Vessels	Line	From	Date	Vessels	Line	For
January 3	Bonnafon	United States Shipping Board	Bluefields	January 4	C-35	French Government	San Juan
January 5	Heredia	United Fruit Co	New Orleans	January 5	Middlebury	Panama Railroad Cattle Industry	Cartagena
January 5	Panama	Panama Railroad Steamship Line	New York and Haiti	January 6	Fort Hill	United States Shipping Board	Bluefields
January 7	Trident	Royal Mail Steam Packet Co.	Cartagena	January 6	Suyvesant	Royal Dutch West India Mail Co.	Puerto Colombia
January 7	Carrillo	United Fruit Co	New York and Kingston	January 7	Lake Catherine	United States Shipping Board	Bluefields
January 8	Arenas	United Fruit Co	Cartagena	January 7	Genoa	United Fruit Co	New Orleans and waypts
January 8	Mendocino	W. Wilhelmsen	Tampico	January 8	Haiti	French Line	Havre and wayports
January 8	Alliance	Panama Railroad Steamship Line	New York	January 8	Arenas	United Fruit Co	New York and Jamaica
January 9	Storm King (b)	Rolph Navigation and Coal Co.	Punta Arenas	January 9	Carrillo	United Fruit Co	Cartagena
January 10	Storm King (b)	Rolph Navigation and Coal Co.	Punta Arenas	January 9	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York
January 10	Storm King (b)	Rolph Navigation and Coal Co.	Punta Arenas	January 10	Panama	Panama Railroad Steamship Line	New York and Haiti

PORT OF BALBOA.

Date	Vessels	Line	From	Date	Vessels	Line	For
January 4	Storm King (b)	Rolph Navigation and Coal Co.	Punta Arenas	January 4	Seijo Maru	Toyo Kisen Kaisha	Valparaiso
January 6	Storm King (b)	Rolph Navigation and Coal Co.	Punta Arenas	January 6	Storm King (b)	Rolph Navigation and Coal Co.	San Francisco

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

*ARRIVALS.

(c) Schooner. (d) Collier. (e) Motor schooner. (f) For orders.

*DEPARTURES.

(g) Lumber, 545,013 ft., steel ingots, 95. (h) Nitrate, sugar, and general. (i) 1,771,856

Crew of Three Blown to Sea.

The steamship *Lake Lesa* arrived at the Canal on January 9, on her way from Philadelphia to Iquique and discharged at Balboa the master and crew of 2 of the auxiliary yacht *Rosina*, whom she had picked up at sea in latitude 32° 50' North, and longitude 75° 18' West, about 200 miles off Cape Fear after the *Rosina* had been drifting nearly four days without a rudder and was about to sink.

The *Rosina* is an auxiliary schooner yacht, 29 gross tons, 51 feet in length by 17.4 feet beam and 6.6 feet depth. She was filling rapidly at the time the crew was rescued by the *Lake Lesa* and as she was dangerous to navigate, was deserted. The crew are being returned to the United States by the Shipping Commissioner at the Canal.

Capt. John Crapo, the master, summarized their experiences concisely:

"We were on our way," he said, "from New York to Miami, Florida, with the *Rosina* under charter. We were going to hire her out to the rich people, who go to Florida, for the winter as a pleasure yacht. When we were about 24 hours out of Buford, North Carolina, a stiff breeze springs up and away goes the rudder. We began to bounce around with no way to steer. She loosened up and began to leak and we had to pump her all the time to keep her afloat. There were just three of us—one of us a one-legged man—and we had our hands full trying to keep her up. I'd take a shift pumping an hour and lay off two hours—the other men the same way. We had plenty of water and food, but very poor facilities for cooking. The roof of the galley leaked and water kept slopping down the stovepipe. The only way we could cook anything was with a gasoline torch like the plumbers use, holding a pot or frying-pan in one hand and turning the torch on it with the other. The sea was pretty rough and kept breaking over the *Rosina* all the time.

"On December 31, New Year's Eve, about dark, we sighted a steamer off on the horizon. She saw our distress signals—we had the flag up upside down—and came over and got us. The *Rosina* looked like she was about to go down any minute and they didn't try to tow her because it would have meant keeping a man aboard her all of the time. We were mighty glad to see that steamer because the way we were drifting, if we had gone over another night we would have been clear out of the lane and God knows when we would have seen another boat."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 10, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Mantaro.....	Peruvian Line.....		January 4.....		351
Jamaica.....	Pacific Steam Navigation Co.....		January 4.....		783
Middlebury.....	Panama Railroad Cattle Industry.....		January 5.....		(*)
Aysen.....	Chilean Steamship Line.....		January 6.....		1,762
Stuyvesant.....	Royal Dutch West India Mail.....		January 6.....		613
Cauca.....	Pacific Steam Navigation Co.....	January 4.....	January 9.....	1,175	1,290
Ucayali.....	Peruvian Line.....	January 4.....	January 10.....	1,772	765
Haiti.....	French Line.....		January 7.....		412
Saint Louis.....	French Line.....	January 5.....	January 7.....	157	(*)
Heredia.....	United Fruit Co.....	January 5.....	January 7.....	1,492	47
Lake Catherine.....	Panama Railroad Steamship Line.....	January 5.....	January 7.....	2,303	(*)
Panama.....	Panama Railroad Steamship Line.....	January 5.....	January 10.....	2,932	3,566
Agarista.....	United States Shipping Board.....	January 5.....	January 10.....	2,911	(*)
Ashland County.....	United States Shipping Board.....	January 6.....	January 8.....	3,507	(*)
Balboa.....	Colombian Maritime Co.....	January 6.....	January 9.....	673	340
Cowan-shannock.....	United States Shipping Board.....	January 6.....	January 10.....	2,614	(*)
Carrillo.....	United Fruit Co.....	January 7.....	January 9.....	653	879
Atenas.....	United Fruit Co.....	January 8.....	January 8.....	10	2
General Gorgas.....	Panama Railroad Steamship Line.....		January 9.....		4,242
Men de Ino.....	Pan.-Amcr. Pet. & Transp. Co.....	January 8.....	January 10.....	9,990	(*)
Ajancaca.....	Panama Railroad Steamship Line.....	January 8.....		1,735	
Cevalta.....	Panama Railroad Steamship Line.....	January 10.....		3,080	
Newport.....	Pacific Mail Steamship Line.....	January 10.....		1,008	

*No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 10, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded
				Tons.	Tons.
Balboa.....	Colombian Maritime Co.....	January 6.....	January 6.....	1	(*)
Newport.....	Pacific Mail Steamship Co.....	January 9.....	January 9.....	45	(*)
Ansaldo San Giorgio II	National Navigation Society.....	January 9.....		2	

*No cargo laded.

Weather Conditions in December, 1919.

The rainfall for the month was generally well below normal, totals ranging from 1.10 inches at Taboga to 7.73 inches at Monte Lirio. The greatest amount of precipitation recorded on any one day was 3.62 inches, at Colon on December 3.

The estimated rainfall over Gatun Lake watershed was 5.07 inches, compared with a 9-year mean of 4.96 inches, and over the Chagres River basin above Alhajuela it was 3.96 inches, compared with an 18-year mean of 9.25 inches.

The air temperature, daytime cloudiness, and temperature of the sea water were approximately normal. The atmospheric pressure was slightly above normal and the relative humidity was below normal. The wind movement was slightly above normal everywhere except at Sosa Hill and Pedro Miguel, while the evaporation was above normal on both coasts and below at interior stations.

A few fogs were observed at interior stations, all of which lifted or were dissipated by 8.30 a. m.

A seismic disturbance of light intensity was recorded at Balboa Heights on December 3.

Gatun Lake hydrology—Mean elevation of Gatun Lake was 86.99 feet; maximum 87.16 feet, on the 3d; minimum, 86.86, on the 31st; evaporation from Gatun Lake surface was 4.742 inches. Rainfall on Gatun Lake drainage basin, was 5.07 inches. The total yield of Gatun Lake watershed was 4.76 inches on the watershed. The total yield amounted to 94 per cent of the rainfall.

The following table summarizes the weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.				
		Mean.	Maximum.	Date.	Minimum.	Date.		Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa Heights...	29.856	79.8	92	Dec. 8	68	Dec. 13	80.8	1.81	4.17	12	5,622	N.	25	N. W.	Dec. 17
Colon.....	29.864	80.4	87	Dec. 10	71	Dec. 13	78.6	7.37	11.61	23	9,778	N.E.	30	N. E.	Dec. 30
Gamboa.....	.....	78.4	91	Dec. 9	66	Dec. 13	.....	3.69	6.54	17	4,315	N.E.	23	N. E.	Dec. 29
Gatun.....	.....	80.1	89	Dec. 9	70	Dec. 13	.....	6.62	10.09	24	5,177	N.	21	W.	Dec. 3

January Weather Probabilities.

The following weather conditions may be expected during the month of January, 1920. Predictions are based on the weather records at Colon and Balboa Heights for the past 12 and 14 years, respectively:

Winds—January is normally a dry season month. Fresh northerly trade winds will prevail, and there will be an increase in the average wind velocity on both coasts, compared with December conditions. The hourly wind velocity will average from 12 to 16 miles on the Atlantic Coast, north and northeast winds prevailing. The maximum velocity is not likely to exceed 35 miles an hour.

The prevailing winds will continue from the northwest on the Pacific Coast, and the average hourly velocity will range from about 8 to 12 miles. The maximum velocity on the Pacific side may not be expected to exceed 30 miles an hour.

Rain.—January is a dry season month, but occasional light showers may be expected. The dry season rainfall is usually heavier on the Atlantic side. The average January rainfall at Colon for the past 49 years is 3.81 inches, and the January average at Balboa Heights for the past 21 years is 1 inch. No heavy rains are likely to occur during the month on the Pacific side, and probably none on the Atlantic Coast.

Fogs—No fogs are likely to occur during the month on either coast, but occasional night and early morning fogs may be expected over the interior. All fogs should lift or become dissipated by 8.30 a. m.

Temperature—There is little change in the average air temperature on the Isthmus from month to month. The average shade temperature should be about 80° F. on both coasts.

On the Atlantic Coast the temperature is not likely to rise higher than 88° F. nor fall lower than 70° F. while on the Pacific side the maximum temperature may be as high as 93° F. and the minimum may be as low as 63° F.

The average daily range in temperature is about 18° F. on the Pacific Coast and over the interior, and but approximately 7° F. on the Atlantic Coast. The small daily range in temperature on the Atlantic Coast is due to the effects of the prevailing equable trade winds.

Barometric pressure—The atmospheric pressure during the month of January should be slightly higher than the pressure in December. The average sea-level pressure will be about 29.88 inches. The maximum pressure for the month is not likely to exceed 30.04 inches, nor the minimum to be lower than 29.7 inches.

Relative humidity—The relative humidity of the atmosphere will be lower with the arrival of settled dry season weather conditions. The humidity should average about 80 per cent over both coasts, but the daily range will be greater on the Pacific Coast, where the nighttime humidity is higher and the daytime humidity much lower than on the Atlantic Coast.

Storms—No severe general storms are likely to occur during the month, although so-called "Northers" occasionally reach as far south as the Atlantic entrance of the Canal at this season of the year. Few, if any, local thunderstorms are likely to occur on either coast, and smooth seas and fair weather may be expected at the Pacific entrance.

Tides—Tidal fluctuations need not be considered in navigating the Atlantic entrance to the Canal, as the average tidal range on the Atlantic side is but about 1 foot and the maximum range approximately 2 feet.

Panama (Balboa) tide tables are given below:

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of		Time and Height of High and Low Water.			
W.	Mo.	Time		Height		W.	Mo.	Time		Height		W.	Mo.	Time		Height	
Th	1	5:00	11:06	5:22	11:37	M	12	2:29	8:35	2:44	8:58	F	23	5:12	11:28	5:41	11:47
		2.5	12.9	2.9	14.2			1.5	14.0	1.8	14.3			14.3	0.3	14.9	0.8
F	2	6:04	12:17	6:28	.....	Tu	13	3:21	9:22	3:34	9:47	S	24	5:53	12:05	6:17	.....
		2.2	13.3	2.7	.....			2.3	13.0	2.8	13.4			14.5	0.2	15.1	.....
S	3	0:42	7:09	1:21	7:36	W	14	4:13	10:15	4:26	10:42	S	25	0:24	6:30	12:41	6:54
		14.6	1.6	14.0	2.1			3.0	12.1	3.6	12.7			0.8	14.5	0.4	15.2
S	4	1:43	8:13	2:20	8:39	Th	15	5:08	11:20	5:22	11:42	M	26	1:04	7:09	1:23	7:31
		15.2	0.7	14.9	1.3			3.5	11.6	4.2	12.3			0.9	14.4	0.8	15.1
M	5	2:40	9:10	3:18	9:36	F	16	6:07	12:25	6:23	.....	Tu	27	1:49	7:49	.....	8:14
		15.8	-0.3	15.6	0.4			3.7	11.5	4.5	.....			1.1	14.1	1.2	14.9
Tu	6	3:37	10:03	4:14	10:27	S	17	0:42	7:07	1:23	7:24	W	28	2:38	8:35	2:58	8:01
		16.3	-1.1	16.3	-0.3			12.3	3.5	11.7	4.3			1.4	13.6	1.7	14.4
W	7	4:32	10:50	5:08	11:16	S	18	1:36	8:05	2:13	8:21	Th	29	3:34	9:31	3:55	10:01
		16.6	-1.5	16.7	-0.6			12.5	3.0	12.3	3.8			1.7	13.1	2.2	13.9
Th	8	5:26	11:37	5:59	.....	M	19	2:24	8:53	2:59	9:11	F	30	4:35	10:40	4:57	11:12
		16.6	-1.5	16.8	.....			12.9	2.4	12.8	3.1			1.9	12.7	2.5	13.8
F	9	0:03	6:16	12:21	6:47	Tu	20	3:08	9:36	3:42	9:54	S	31	5:38	11:55	6:07	.....
		-0.5	16.4	-1.1	16.6			13.3	1.7	13.4	2.4			1.9	12.8	2.8	.....
S	10	0:50	7:04	1:07	7:31	W	21	3:52	10:16	4:23	10:32						
		-0.1	15.9	-0.3	16.1			13.4	1.1	13.9	1.7						
S	11	1:39	7:49	1:54	8:16	Th	22	4:33	10:53	5:02	11:10						
		0.7	15.1	0.8	15.3			14.0	0.6	14.5	1.2						

The tides are placed in the order of their occurrence; the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight. *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Breeding of Yellow Fever Mosquitoes in Canal Zone Quarters.

The Chief Health Officer authorizes the following

Yellow fever was stamped out of Panama solely by efforts directed against the one mosquito that conveys that disease, *Aedes calopus* also called *stegomyia* or *Aedes argenteus*, which almost invariably breeds in or very near human habitations, in artificial containers provided by man. While the chances of a case of yellow fever originating on the Zone are few, and daily become more remote, there is still a possibility of the introduction of the disease from infected ports of neighboring countries, and the fight upon the disease-carrying mosquito is still prosecuted with unremitting care.

Aedes calopus have recently been found breeding in a flower vase on the parlor table of a girls' bachelor quarters from which complaints of mosquitoes were received. They were also found in a flower vase on a restaurant table. A complaint of mosquitoes in quarters usually means one of two things—defective screening or breeding within the house in flowerpots or other neglected water containers.

From the time the egg is laid until an adult mosquito emerges over a week must elapse, and if a housekeeper will see that every water container is emptied and rinsed at least once a week she can with certainty prevent mosquito-breeding in them. Even though there be no yellow fever to carry, the *Aedes calopus* is a persistent, annoying biter after nightfall and its presence in the house means disturbed slumber and lack of rest, especially for children.

New Blue Print Machine.

A new blue print machine was recently installed in the blue print room of the Administration Building at Balboa Heights. It can make prints up to 60 inches in width, as compared with 42 inches on the previous machine, and can print at the rate of 20 linear feet per minute, which is about six times as fast as the earlier machine.

Local Civil Service Examinations.

The following examinations for The Panama Canal service will be held at Balboa Heights, Canal Zone, on the following dates:

Clerk, February 15, 1920.

Postal Clerk, February 8, 1920.

Stenographer and typist, February 8, 1920.

(Stenographer-typist, Departmental service, will be held March 14, 1920.)

Usual entrance salaries are clerk \$106 a month, clerk-typist \$116 a month for males and \$106 a month for females, postal clerk \$100 to \$125 a month, stenographer and typist \$137 a month for males and \$116 a month for females. Full information in regard to the scope and character of examinations is contained in leaflets, forms 2203 and 2206, copies of which including sample questions may be obtained from the Secretary, Board of Civil Service Examiners, Room 244, Administration Building, Balboa Heights, Canal Zone, telephone Balboa 286.

Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are typewriting, book-keeping, general business training and experience, time-keeping, training and experience. If the third optional is taken three letters of recommendation from former employers written on the business letterhead of the firm and signed by the persons recommending the applicants should accompany the application.

Applicants for the postal clerk examination must have had at least one year's experience in a United States or Canal Zone post office or as postmaster or as navy mail clerk and must be familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmaster.

Applicants for The Panama Canal service must have reached their 20th but not their 45th birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the day of the examination their photographs, taken within two years, securely pasted on the admission card which will be sent to them after their applications have been filed and the questions have been received from the United States.

Applicants for the clerk examination should state on the outside cover and also in answer to question No. 1, the optional subject desired in addition to the name of the examination.

In answer to question No. 4, applicants must show residence in some *State or territory of the United States* from the time of taking up residence therein to February, 1920, on account of temporary employment on the Canal Zone and their retention of legal residence in the United States and the same must be shown as to *country*.

In addition to the examinations for The Panama Canal service an examination for stenographer-typist in the Departmental service will be held at Balboa Heights, Canal Zone, on March 14, 1920. This examination is substantially the same as the one held for stenographer and typist for The Panama Canal service except that the minimum age limit is lower, *i. e.*, 18 years. The entrance salary for typist is usually \$1,100 per annum, for stenographer \$1,200 per annum in the United States but for employment in civilian positions with the United States Army on the Isthmus of Panama, which positions are in the Departmental service, the same salaries may be paid as are paid on the Isthmus of Panama in The Panama Canal service.

Application form No. 1312 for The Panama Canal service and No. 304 for the Departmental service must be filled out including the medical certificate but excluding the county officer's certificate and should be filed promptly with the Board of Civil Service Examiners, Balboa Heights, Canal Zone.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Assistant biologist (male and female); \$1,600 to \$2,000 a year; January 27, 1920; No. 43; form 2118 age, 25 years but not 45 years.*

Assistant explosives chemist (male and female); \$1,800 to \$2,400 a year; January 27, 1920; No. 44; form 2118; age, within reasonable age limits.*

Civilian aid for purchasing; civilian aid for shipping; civilian aid for salvage; civilian aid for steel and metal; civilian aid for stock upkeep; civilian aid for electrical stock; civilian aid for ordnance stock; civilian aid for fuel supply; storehouse superintendent (male and female); \$11.36 a day; February 3 1920; No. 49; form 1312; age, within reasonable age limits.*

Clerk with knowledge of greenhouse practices (male and female); \$1,500 a year; January 25, 1920. No. 46; form 1312; age, under 45 years.

Instrument maker (male and female); \$6.40 a day and \$1,260 a year; January 27, 1920; No. 42; form 1312; age, 21 years and over.*

Mining accountant (male and female); \$2,400 to \$4,200 a year, for Grade I, and \$4,200 to \$6,000 for Grade II; February 4, 1920; No. 48; form 2118; age, under 60 years.*

Specialist in marketing cotton seed and its products (male and female); \$2,400 to \$3,240 a year; January 27, 1920; No. 41; form 2118; age, 25 years but not 45 years.*

Superintendent of docks (male and female); \$1,800 to \$2,400 a year; February 10, 1920; No. 54; form 1312; age, under 50 years.

Assistant superintendent of docks (male and female); \$1,500 to \$1,800 a year; February 10, 1920. No. 54; form 1312; age, under 50 years.*

Topographic and subsurface draftsman (male and female); \$5.20 to \$7.20 a day; January 27, 1920. No. 47; form 1312; age, 21 years and over.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Evaristo Mack, (alias Possair, alias Mark).	178763	Panama.....	Monte Lirio...	Cattle Industry.....	December 24, 1919
Jose Patrocinio, Ureña (alias J. Patricino).	185567	Panama.....	Panama.....	Cattle Industry.....	December 30, 1919.
Joseph Worrell.....	29802	Barbados.....	Colon.....	Electrical Division....	January 4, 1920.

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast	\$2.00	
Employees	per day.. 2 75	
Children under 12 years of age	per day.. 1.25	
Servants of employees	per day.. 1.50	
Employees for stay of 7 days	per day.. 2.00	
Reduction of 10 per cent for employees on above rates for stay of 30 days.		
Further reduction of 10 per cent for families of four or more.		
Nonemployees	per day.. 3.50	
Children of nonemployees	per day.. 1.50	
Servants of nonemployees	per day.. 1.75	
Meals without room	} Breakfast	
		Luncheon
		Dinner

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

Official Circulars.

Photo-metal Checks Superseded for Ticket Identification.

PANAMA RAILROAD COMPANY,
OFFICE OF AUDITOR,
BALBOA HEIGHTS, C. Z., January 6, 1920.

CIRCULAR NO. RA-671 (Amendment to Circular No. RA-660, October 16, 1919):

To all concerned—Commencing at once and until further notice, employees of The Panama Canal and the Panama Railroad will use their 24-trip pass book (instead of the photo-metal checks, the use of which has been discontinued) or commissary identification card of the latest issue as a means of identification to ticket agents, conductors, and collectors when purchasing and using reduced rate transportation over the Panama Railroad under conditions of Circular RA-660.

H. A. A. SMITH
Auditor, The Panama Canal.

Approved:
S. W. HEALD,
Superintendent.

Mail on Las Cascadas Branch.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., January 9, 1920.

To station agents and train baggagemen—Effective Monday, January 12, United States mail on Las Cascadas branch trains will be handled under the following arrangement:

The present practice of billing of all mail packages will be discontinued. Billing of mail will be limited to lead sealed sacks and pouches only, sacks to be used only in case of shortage of pouches. Valuable mail matter of all classes will be protected by the postal service to the extent of dispatching it under seal or lock, and hand to hand receipt will be taken. Ordinary mail, such as letters of no commercial value, and papers and magazines mailed locally will be delivered to train baggagemen, who will in turn deliver to post-office messenger at destination. All such articles will be securely tied up in one single package, or will be placed in an envelope plainly addressed or labeled so that there will be no confusion. Dispatches will be restricted to trains as follows:

- Nos. 32, 33, 34, 36, and 37 daily except Sundays and holidays.
- No. 31 on Mondays and days following holidays.
- No. 37 between Empire and Pedro Miguel only.

W. F. FOSTER,
Master of Trans portation

Joint Commission.

Rules of Dismissal.

In the matter of the claim of Placido Montez, in which rule of default has been entered, rule of dismissal No. 446, docket No. 3481, January 7 1920—On April 13, 1916, the Joint Commission with the approval of the two Governments parties to the Treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within 60 days from said first publication their claims will be considered as having been either settled or abandoned and the same will be dismissed and forever barred."

In the claim of Placido Montez, docket No. 3481, set for hearing October 31, 1919, there was no appearance on the part of claimant nor counsel for claimant, and a rule of default was accordingly entered against him.

Due notice having been given as provided for in the above-quoted section of the rule of the Commission, and there having been no appearance by claimant in person or by counsel during the 60-day period fixed in the rule referred to, which began on November 7, 1919, the foregoing claim against the United States is hereby dismissed and forever barred.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, Commissioners.

In the matter of the claims of Mariana Barsallo, Josefa J. R. Aizpurn, et al, Antonio Andrade, also called Andrades, also called Andrades, for property located near Gorgona known as Cansaloma and Waterloo, rule of dismissal No. 442, docket Nos. 2767, 2998, and 3087, January 2, 1920—The three above-numbered and styled claims were consolidated and tried together. The Commission is of the unanimous opinion that all of the property involved in these claims was included in the award of \$90,000, made by the Commission to Antonio Andrade, also called Andrades, also called Andrades, one of the claimants above named, on the eighth day of August, 1908.

It further appears that subsequent to the making of said award for \$90,000, and prior to its payment, legal proceedings were instituted in the courts of the Canal Zone, in which the other claimants above named sought to secure \$15,000 out of said award of \$90,000. These proceedings resulted in a judgment in favor of the claimant Andrade, and the Commission feels that it has no right to question or review this judgment.

In the judgment of the Commission there is absolutely no evidence of whatsoever character which would justify it in making any other or further awards for any of this property. The said claims are, therefore, hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, R. J. ALFARO, BURT NEW, Commissioners.

In the matter of the claims of Samuel Miller and Eusebio A. Morales, for property known as Buena Vista and Agua Salud, rule of dismissal No. 443, docket Nos. 590 and 210, January 5, 1920—The claims of Samuel Miller and Eusebio A. Morales, docket Nos. 590 and 210, respectively, are hereby dismissed for lack of evidence sufficient to justify an award against the United States.

FEDERICO BOYD, JULIO J. FABREGA, GEORGE A. CONNOLLY, BURT NEW, Commissioners.

In the matter of the claim of Espiridión Julio and Ildefonso Pinto, for land located near Gatun, rule of dismissal No. 444, docket No. 3489, January 5, 1920—The claim of Espiridión Julio and Ildefonso Pinto, docket No. 3489, is hereby dismissed for lack of evidence sufficient to justify an award against the United States.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO I. FABREGA, BURT NEW, Commissioners.

In the matter of the claims of Sara de Urriola and Eusebio A. Morales, for property known as Juan Grande, rule of dismissal No. 445, docket Nos. 574 and 1872, January 2, 1920—The above-styled and numbered claims were consolidated and tried together. The claim in the Urriola case stands upon the same footing as that in the Morales case, in which the claimant seeks an award against the United States on the theory of his ownership of certain lands known by the name as Juan Grande and situated in the old Gorgona District.

It is claimed that Eusebio A. Morales acquired the property by purchase from Mrs. Juana Francisca de Alonzo, the claimant Morales having stated in a letter that was filed in court by Attorney C. P. Fairman, that $\frac{1}{3}$ of the property bought by him belongs to Narciso Barsallo; $\frac{1}{3}$ to the heirs of Juana Francisca de Alonzo, and the remaining $\frac{1}{3}$ to himself. The interest of Sara de Urriola arises from her father, Rufino Urriola, who purchased one-half of the $\frac{1}{3}$ interest alleged to belong to Narciso Barsallo.

In support of the claim of Eusebio A. Morales his counsel presented a deed of protocolization from which it appears that certain *ex parte* declarations under oath were made by several witnesses in the year 1904. In the opinion of the Commission the evidence of the witnesses given in these declarations and so protocolized has no probative value whatever and is absolutely worthless.

We had occasion in the trial of the Mendescowan case, claims docket Nos. 1543, 2884, and 3113, to consider the question of *ex parte* declarations of witnesses, similar to those offered in the present case, and we desire to quote the following from our decision in that case:

* * * No provision of the law authorized the taking of *ex parte* depositions as a valid means of reconstituting a lost title.

* * * Under the law of Panama no depositions of witnesses are valid, even when there is a contention between parties litigant, unless the depositions have been ratified before the court taking cognizance of the case.

* * * No law of the Republic of Colombia provided a method of creating title to real property by means of depositions of witnesses in *ex parte* proceedings: (*declaraciones fuera de juicio.*)

"Article 683 of the Judicial Code refers to the taking of depositions to prove title only when there is a contention between parties litigant as to the ownership of real property.

"Even in this case the depositions must be taken during the probatory term of the suit, with citation of the contending party.

"Depositions of witnesses taken in *ex parte* or summary proceedings are not valid in an ordinary action unless they are ratified before the court which takes cognizance of the case.

"The depositions themselves, by the manner in which they were rendered are not satisfactory to this court, even if they were legally valid."

On the 8th day of April, 1904, under instrument No. 58 executed before the Judge of the Second Circuit of Panama, Juana Francisca Alonzo conveyed to Dr. Eusebio A. Morales the land of Juan Grande for which he makes claim in the present case. No other or further muniment of title than this deed and the *ex parte* declarations above mentioned was offered by the attorney for the claimant Morales.

Counsel for the Government contended, and has fully proven by maps filed during the trial, that the major portion of the land claimed by Morales was located within the Juan Grande tract which was acquired by the United States from the French Canal Company, which company had bought the same tract many years previously from the owners of said lands, who had been in possession thereof since 1856, as shown on the Harrison-Arosemena map; and the remaining portion of the land forms part of the public lands comprised within the so-called Lot No. 6 which were never appropriated by private parties in any manner recognized or authorized by Colombian law, and which were therefore comprised within the grants contained in the Canal Treaty.

The owner of the property of Juan Grande, as appears on the Harrison-Arosemena map, was Santiago Posada, and on February 21, 1863, he sold to Evaristo Rodriguez all of the Juan Grande property lying north of the Chagres River. On February 23, 1884, the heirs of the said Evaristo Rodriguez conveyed the same property to the French Canal Company, and it is a matter of common knowledge of which we have repeatedly taken judicial notice, that all of the property of the French Canal Company on the Isthmus of Panama passed to the Government of the United States in 1904.

It thus appears, without contradiction, that the Government of the United States has a record title to the major part of the property for which the claimants in this case are making claim, extending back to the year 1856, and that to the small remaining portion the claimants have shown no valid title.

In the judgment of the Commission there is a total lack of evidence which would justify it in making any award whatever in either of the above-styled and numbered claims, and they are both therefore hereby dismissed.

FEDERICO BOYD, R. J. ALFARO, GEORGE A. CONNOLLY, BURT NEW, Commissioners.

Additions to Commissary Stock.

Dry Goods Section.

Cases, pillow, cotton, embroidered, scalloped, 45/36", pr.	\$1.80
Cases, pillow, cotton, embroidered, H. S., 45/36", pr.	1.80
Cases, pillow, cotton, embroidered, H. S., 45/36", pr.	2.20
Cases, pillow, cotton, embroidered, bluebird, H. S., 45/36", pr.	2.20
Centerpieces, filet, 18", ea. ....	.81
Centerpieces, filet, 26", ea.	1.35
Centerpieces, filet, 46", ea.	3.25
Centerpieces, filet, 18", ea. ....	.89
Centerpieces, filet, 26", ea.	1.25
Centerpieces, filet, 18", ea.	1.10
Centerpieces, filet, 52", ea.	4.45
Centerpieces, lace, 45", ea.	3.60
Centerpieces, lace, 54", ea.	4.55
Centerpieces, lace, 36", ea.	2.00
Centerpieces, lace, 54", ea.	3.2

Chemise, crepe de chite, silk, pink, ea.	\$4.70
Doylies, filet, lace trimmed, 6", ea. . . . .	.20
Doylies, filet, lace trimmed, 9", ea. . . . .	.26
Doylies, filet, lace trimmed, 7", ea. . . . .	.24
Doylies, filet, lace trimmed, 10", ea. . . . .	.31
Nightgowns, ladies', ea.	2.85
Nightgowns, ladies', ea.	3.45
Nightgowns, ladies', ea.	5.35
Nightgowns, ladies', ea.	5.05
Scarfs, filet, lace trimmed, 18/54", ea.	1.50
Scarfs, filet, lace trimmed, 18/54", ea.	1.75
Scarfs, lace, 18/54", ea.	1.10
Scarfs, lace, 18/54", ea.	1.25
Soap, mange, cake. . . . .	.17
Ties, Windsor, polka dot, ea. . . . .	.56

Hardware Section.

Cages, bird, No. 264, ea.	2.75
Chinaware, Doulton, miscellaneous;	
Bowls, flower, Selby, D-3416, 11", ea.	4.05
Cups and saucers, E-8079, set. . . . .	.56
Plates, E-4090, 6", ea. . . . .	.69
Plates, E-8079, 7", ea. . . . .	.63
Pots, coffee, Cecil, E-8079, 30s, ea.	2.45

Current Prices on Coal, Fuel Oil, and Beet.

Coal is being supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$13.50 per ton of 2,240 pounds at Cristobal and \$15.50 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$15 per ton at Cristobal, \$17 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$1.50 per barrel of 42 gallons.

Diesel oil is not sold by The Panama Canal, but may be obtained from private concerns at approximately \$3 per barrel. Cable arrangement should be made in advance of arrival of vessel.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. Prices quoted are United States currency, per pound net:

Beef hinds, 19 cents; beef fores, 14 cents; beef ribs, entire set, 20 cents; short loins, 25 cents. This beef is from Colombian cattle, slaughtered on the Isthmus.

December Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1919.
	1919	1918	1917			
<i>Pacific section—</i>						
Balboa	1.13	1.42	4.49	5.30	21	11
Balboa Heights	1.81	.55	4.09	4.17	23	12
Miraflores	4.11	1.93	6.13	6.36	12	8
Pedro Miguel	3.22	1.09	7.00	5.42	12	10
Rio Grande	5.90	.31	7.41	5.35	15	11
<i>Central section—</i>						
Culebra	3.42	.39	5.84	6.78	30	13
Camacho	3.67	.35	8.70	5.46	11	7
Empire	2.43	.38	7.71	4.81	16	13
Gamba	3.69	1.25	8.31	6.54	37	17
Juan Mina	4.39	.48	7.06	4.70	10	10
Alhajuela	2.44	.27	6.41	5.77	21	17
Vigia	1.82	.13	4.21	4.34	12	21
Frijoles	5.92	1.35	10.18	5.66	8	..
Trinidad	5.64	.91	9.14	7.78	12	21
Monte Lirio	7.73	1.04	9.97	8.78	13	18
<i>Atlantic section—</i>						
Gatun	6.62	1.92	11.50	10.09	15	24
Brazos Brook	6.79	1.73	11.93	10.80	14	15
Colon	7.37	1.90	11.66	11.61	49	23

Rainfall from Dec. 1 to 31, 1919, Inclusive.

STATIONS	Maximum in one day.	Date	Total
			Inch.
<i>Pacific section—</i>			
Balboa . . . . .	.54	12	1.13
Balboa Heights . . . . .	.51	12	1.81
Miraflores	1.44	4	4.11
Pedro Miguel	1.46	4	3.22
Rio Grande	2.52	1	5.90
<i>Central section—</i>			
*Culebra	1.38	15	3.42
*Camacho	1.71	15	3.67
Empire . . . . .	.91	1	2.43
Gamba	1.87	1	3.69
*Juan Mina	2.43	1	4.39
Alhajuela	1.26	1	2.44
*Vigia . . . . .	.53	1	1.82
Darwin . . . . .	.96	13	4.90
*Trinidad	2.10	3	5.64
*Monte Lirio	2.42	4	7.73
<i>Atlantic section—</i>			
Gatun	2.38	3	6.62
*Brazos Brook	2.40	3	6.79
Colon	3.62	3	7.37
†Bocas del Toro	4.64	10	18.42
Porto Bello	1.40	15	6.18

*Standard rain gauge—readings at 5 p. m. daily.
 Automatic rain gauge at unstarred stations—Values midnight to midnight.
 †Standard rain gauge—readings at 8 a. m. daily.

List of the Diplomatic and Consular Corps. Accredited to the Republic of Panama.

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Panama.
 Bruno Cittadini, Consul General.
 Rafael Gutieri, Acting Consul General.
- BELGIUM.
Guatemala.
 Alberto Moulart (resides in Guatemala). Acting Charge d'Affaires.
- Panama.*
 B. D. Fidanque, Consul.
 Joseph Fidanque, Acting Consul (in charge.)
- Colo.
 J. J. Henriquez, Vice-Consul.
- BOLIVIA.
Panama.
 Samuel Boyd, Consul General
- Colo.
 Isidoro Hazera, Consul.
- BRAZIL.
Habana, Cuba.
 Luis Guinaraes, Charge d'Affaires
- Panama.*
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 Jorge Domingo Arias Ferand, Consular Agent
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- Panama.*
 Ramon Arias F., Jr., Consul Agent.
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Panama.
 Woo Pei Kuang, Consul General
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Juan B. Cobo y Calero, Vice-Consul.
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José Dominguez Romay, Consul.
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- FRANCE.
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E. S. Humber, Proconsul.
- COLON.
Alexander B. Hutcheon, Acting Consul. Eff.
April 1, 1919.
George Goodall, Vice-Consul.
Frederick Woodcock, Proconsul.
- Bocas del Toro.
William H. Ponton, Vice-Consul.
- DAVID.
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- SWITZERLAND
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José Misteli, Consul.
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- UNIT D STATES.
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Clarence B. Hewes, Secretary of Legation
Col. Fred T. Cruse, F. A., Military Attaché
Alban G. Snyder, Consul General.
Gustave J. Barrett, Vice-Consul.
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Dr. Julius D. Dreher, Consul.
Theodore M. Fisher, Vice-Consul.
- Bocas del Toro.
Paul Osterhout, Consular Agent.
- DAVID.
.....
Santiago de Veraguas.
.....
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Panama.
Virgilio Capriles, Vice-Consul.
- COLON.
Isaias Garbiras, Consul General
- COLOMBIA.
(No diplomatic or consular representative.)
Panama.
Ernesto Losada, Private Postal Agent.
- COLON.
Miguel Vargas, Private Postal Agent.

THE PANAMA CANAL RECORD

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Status of Former German Vessels Overhauled at the Canal Shops.

The following information regarding two of the ex-German vessels overhauled by the Mechanical Division, The Panama Canal, will be of general interest:

(a) *Callao* (ex *Sierra Cordoba*)—The New York Navy Yard has received a contract from the United States Shipping Board for recon-ditioning this vessel, converting her from a transport to a passenger steamer. The *Callao* was completely overhauled and her damaged boilers repaired at the Balboa shops, this work having been completed on April 5, 1919, when the vessel was turned over to the Superintendent, Marine Division, representing the United States Shipping Board, for dispatching to the United States. During the intervening time she has been in the service as a transport.

(b) *Eten* (ex *Rhakotis*)—It has been noted from a recent New York maritime notice that this vessel is on the mail route between New York and Cape Town, South Africa. The general overhaul of the *Eten* at the Balboa shops was completed on April 10, 1919, when she was turned over to the United States Shipping Board representative and dispatched to the United States.

Commercial Woods Native of Canal Zone and Republic of Panama and in Structural Use by The Panama Canal.

The following report on native woods in structural use by The Panama Canal has been made by Mr. T. W. Braddy, Lumber Inspector of The Panama Canal:

There are more than 50 species of timber of from fair to excellent commercial value growing within the Canal Zone and Republic of Panama, which also occur in greater or less abundance throughout all Central America and in most of the islands of the British West Indies.

From this unusually large field, The Panama Canal has been able to develop but 14 different kinds of useful lumber, for the reason that only the timber growing in the marginal lands of Gatun Lake has been accessible with the logging equipment in use and the fact that several of the most valuable species appear confined entirely to the lower coastal country where logging operations have not been carried on.

The data accompanying the 14 species submitted, while perhaps of little scientific value, are fairly reliable in so far as they relate to the life and adaptability of the lumber or concern its physical appearances and characteristics.

DISTRIBUTION.

While some of the timbers listed below show an inclination to grow in pure stands, such tendency appears never to be thoroughly accomplished, perhaps because of interference during early life by the nonlumber-producing trees of more rapid growth. So far as is known, all the timbers of this country grow in mixed stands, the slight separation incident to elevation and soil being the only notable exception to the rule. This peculiarity of growth, applying to all in common, will not be mentioned in connection with each separate species.

ALMENDRA.

Appearances and characteristics.—In color the wood is dark brown with a closely interlocking grain, and very dense. The trees reach a height of 140 feet and attain a size of 60 inches in diameter; they carry sapwood only in negligible quantity. The tree has certain irregularities in trunk growth and, while not so pronounced as is found in other similar species, is still more or less damaging in adapting the logs to the manufacture of lumber. The bark of the tree is 1 to 1½ inches in thickness, very brittle and full of pits and valleys. The lumber from Almendra has a weight when green of 72.5 pounds per cubic foot; when dry 65.3 pounds per cubic foot. Belongs to genus *Hamocharia*.

Uses.—Lumber from this species has been used with very satisfactory results for ship and dredge fenders, keels, stem and stern posts, and other heavy ship construction. It has also given very satisfactory service as fenders for the Canal locks, resisting teredo attack more stubbornly than imported woods and may be used as a general substitute for iron bark or tallow wood.

AMARGO.

Appearances and characteristics.—This wood is of a deep yellowish color, with an unusually contorted grain, and ordinarily porous. It contains a yellow resin or cretaceous substance, extremely bitter and highly inflammable. The trees reach the lofty height of 150 feet and attain a diameter of as much as 65 inches; is very stately in growth, and perhaps of the best timber form of any tropical tree. It is among the lightest of the hard woods of this country, containing almost enough buoyancy to float. The lumber stands this climate well, showing very little tendency to check when exposed to the alternate sunshine and rain common to this latitude. The bark is thick, corrugated, and tough. The lumber weighs when green 63.8 pounds to the cubic foot, and when dry 59 pounds; it belongs to the natural order *Leguminosæ*.

Uses.—Lumber from this species has been used for ships' keels, dredge construction, and to some extent in light construction work such as vehicle and small boat building and repairs.

ALCARETO.

Appearances and characteristics.—The Alcareto tree, which has a very deep ring of sapwood, reaches a height of from 120 to 140 feet without showing a limb, developing but very few branches, which are closely assembled at the very top. It does not reach a very large diameter, a 30 to 36-inch tree at the base being an unusual instance. It has a thick crumbly bark, gray in color, which adheres tightly even when on seasoned logs. The wood possesses a marked ability to change hue in process of seasoning without showing any evidences of decomposition. The heartwood, being of a deep purple, and the sapwood, of a very light yellow when green, changes into light brown and deeper yellow when dry. The lumber weighs 65.6 pounds per cubic foot when green and 59.4 pounds when dry. Not determined; is apparently of second growth.

Uses.—This class of native lumber has been used as a general substitute for white oak in the construction of railroad cars, locomotive tender frames, and to some extent for vehicle work. It apparently possesses a greater living power than oak; is equally as strong, and withstands local climatic conditions much better.

ALCAVU.

Appearances and characteristics.—Alcavu is light yellow in color, very similar in color to the tuplo or yellow poplar of the United States, although it is not so dense; has a thin, tough, stringy bark, and peels easily. The tree is fairly symmetrical in growth; reaches a height of 100 feet; attains a diameter of no more than 30 inches, and contains no trace of sapwood. It weighs when green 35 pounds per cubic foot; when dry, 31 pounds. Genus unknown.

Uses.—This lumber has been used as a general substitute for poplar in sash and door work, vehicle work, and coach siding for railroad passenger coaches. The wood can not be subjected to any unusual strain, but it possesses long life and takes a reasonably high polish and in ordinary work makes a showing equal to yellow poplar or bay poplar (Tuplo).

BATTEO.

Appearances and characteristics.—The Batteo is very irregular in growth; almost every tree from this species being elliptical in shape, having two heart centers in most instances, which makes it difficult to utilize the entire body of the tree for board stock. The variations in color of the heartwood and sapwood are inconsequential. The heartwood, in color, texture, grain and general formation, is almost identical with Caoba Blanca. The bark is very similar but the leaves are altogether different; they are much larger, thicker and of a different shape and of a vastly darker green in color. The wood is of a very dry nature and ordinarily very light, though individual pieces may be hard, much darker in color and somewhat heavier than the average of either species. The wood is very much stronger structurally than Caoba Blanca but the relationship is so striking in the physical appearances of the lumber that there can be but little doubt that the tree belongs to the family of Central American mahoganies. The tree grows to a large size but not so lofty as other large trees of the tropics, its branches usually leaving the body of the tree at from 30 to 40 feet from the ground. The lumber from this species weighs when green 40.6 pounds per cubic foot, and 34 pounds per cubic foot when dry. Family, *Meliaceæ*.

Uses.—Batteo is used as a general construction lumber and for such special work as car decking, box car siding, ceiling and wainscoting in interior finish.

CEDRO AMARGO.

Appearances and characteristics.—In color the wood is of a reddish brown with a narrow band of white sapwood which contains a small amount of resin. Occasionally a clear white drop resembling turpentine may be seen collected at a given point on the surface of a freshly sawn board. It possesses a strong, not unpleasant odor; has a long, shiny grain; is extremely harsh or brittle, frequently splitting or breaking in small pieces when felled in rough and uneven country. The tree varies in height from 60 to 90 feet and reaches the extreme diameter of 6 feet at the ground. The taper is fairly uniform and as a rule is carried well into the limbs. The bark of the tree resembles the genuine mahogany, native of Honduras and Nicaragua, slightly thinner and more corrugated in structure, however, and with a shorter, less stringy fiber present. The leaves of this species of cedar are comparatively small, oval in shape, very thin, and of a fragile formation generally. In color they are not of so rich a green as the foliage of other trees believed to belong to this family, *i. e.* Maria and Batteo; neither are they so thick, so large or fibrous, which, together with the highly pungent nature of the wood, almost totally absent in Batteo and Maria, does not strongly denote the relationship to the mahogany family, at least not to the true mahogany, but the lumber manufactured from Cedro Amargo coming from like localities, and even the Honduran and Nicaraguan product makes the proper separation of the two kinds extremely difficult in many cases by the ordinary process employed in the inspection of lumber. Indeed, Cedro Amargo lumber has been used successfully by unscrupulous dealers as a grade adulterant of the true mahogany. This lumber takes a nice finish; possesses long life, and but for its extreme brittleness would be equally as valuable as the true mahogany for panel work and interior finish. The lumber when green weighs 32.5 pounds per cubic foot; when dry 29.4 pounds. Family, *Meliaceae*.

Uses.—This lumber has been applied to certain interior finish, cabinet and coach work.

CAOBA BLANCA.

Appearances and characteristics.—The heartwood and sapwood of Caoba Blanca varies very little in color, although there is a very marked difference in the life and strength of the two. The tree carries a very light sapwood, however, measuring never more than 2 inches in thickness and frequently as thin as $\frac{3}{4}$ -inch. It reaches an altitude under certain soil conditions of 70 to 80 feet, and it is usually 40 to 50 feet to the first branches; attains a diameter in rare instances of as much as 40 inches, but the average diameter is approximately 26 inches. The taper of the tree is not so uniform as Cedro Amargo nor is it nearly so symmetrical in growth. The wood possesses an unusual beauty in both figure of grain and color, and being of a soft absorbent nature, together with a total absence of resin, the lumber offers an ideal surface for the most artistic finish. The bark is approximately 1 inch thick, adheres closely to the tree and is very crumbly. It breaks abruptly, leaving no stringy fibers at the break. The leaves are very small, light green in color, and pointed. The wood weighs when green 40 pounds to the cubic foot; when dry, 33.6 pounds per cubic foot. Family, *Meliaceae*.

Uses.—The lumber manufactured from this species of timber is now being used exclusively for both the siding and inside finish of passenger coaches for service on the Panama Railroad. It is also used with satisfactory results for ships' furniture and other cabinet, panel, and sash and door work. It was never used prior to 1917 and further than local consumption it is not now known commercially.

ESPAVE.

Appearances and characteristics.—The Espave tree is one of the most massive of Central America. It reaches a diameter of as much as 75 inches and a height in extreme cases of only 100 feet. It is of fair timber form and carries an unusual amount of sapwood, which is very subject to insect attack. The contrast in color of the sapwood and heartwood is very marked, as is also the structural strength, the sapwood being very much tougher and taking a more beautiful finish than the heartwood. The heartwood is a very dark brown in color and inclined to be soft or spongy, while the sapwood is very much firmer and white in color when green, taking a gradually increasing brownish hue in process of seasoning until it reaches what is called a mahogany color. It is the most abundant lumber-producing tree of the Panamanian Republic, and while it is very inferior from a structural standpoint, it possesses a living power equal to any of the perishable tropical growths. The lumber weighs 42.5 pounds per cubic foot when green; when dry 34.3 pounds. Family, *Meliaceae*.

Uses.—This lumber is not used extensively by The Panama Canal for the reason that the mill equipment is not adequate for handling, but for ceiling, siding, wainscoting and wide panels, its beauty is perhaps unexcelled by any lumber in the world.

GUAYACAN.

Appearances and characteristics.—The Guayacan tree is very irregular in growth, presenting flutes, valleys, and corrugations which make it extremely difficult to overcome in the manufacture of lumber, and maintain a constant ratio between log measurement and saw product. The wood is very dark in color, of a very dense structure, and extremely hard. The tree reaches a diameter of 50 inches and frequently attains a height of as much as 130 feet. The limbs are well scattered and in no way affect its adaptability to the manufacture of lumber. The weight of the wood when green is 79.8 pounds per cubic foot; when dry, 76.3 pounds. It is of the family *Lignum-vitæ*.

Uses.—This lumber has been used for all manner of heavy construction work on the Isthmus, and has been found of special service for heavy ship timbers and as a successful competitor of true lignum-vitæ for stern bushings and bearings for ships. The bark of the tree is long and stringy, with a very thick tough felon between the outer bark and the tree. It is very similar to the true lignum-vitæ. There are examples extant where this wood has been in use for more than a century and showing no unusual signs of deterioration other than ordinary mechanical and weather wear.

MARIA.

Appearances and characteristics.—The heartwood is light red in color, with a negligible amount of sapwood closely resembling the heartwood in texture and strength, with but slight difference in color. A resin or gum exudes from it when tapped, or an abrasion occurs on the surface of a log, which seems to be confined almost entirely to the bark. The gum is of an extremely tough and adhering nature. The tree is one of the loftiest of the local forest, reaching a height of from 110 to 160 feet and a diameter of as much as 50 inches. Trees of this size are unusual, however, the average being approximately 30 inches in diameter. The bark is very tough, and corrugated in appearance, resembling very much the bark of the red oak tree indigenous to the United States. The branches of the tree are well assembled at the top and seldom show lower than 50 to 60 feet from the ground on the body of the tree. The leaves are stoutly woven, oval in shape, and cup very easily, resembling somewhat the leaf of the Magnolia, although not so large or rich in coloring. The appearance of Maria lumber, when finished, is very similar to Caoba Blanca, Batteo, Cedro Amargo, and other members of the mahogany family; its weight when green is 35 pounds to the cubic foot; when dry, 30 pounds per cubic foot. Family, *Meliaceæ*.

Uses.—The lumber of this tree has been used for general building and car decking, as a rule, but it is capable of taking a very high finish, and on occasions has been used for door panels and cabinet work with gratifying results.

NISPERO.

Appearances and characteristics.—The wood of the Nispero is a dark red in color, very hard and compact in formation and yields a high grade of rubber called "Balata," used in the manufacture of chewing gum and for the insulation of electric wires. It is also a fruit-bearing tree and is much prized for the delectable apple which it bears. The tree carries a very thin sap, white in color, with a comparatively thin bark, long, stringy, and scaly in its formation. It does not grow enormously large; a 40-inch diameter and 80-foot body being the exception. It is of fairly uniform growth and taper, and but for its tendency to split open in seasoning, is very well adapted to lumber purposes. The weight of the lumber when green is 81.9 pounds per cubic foot; when dry 79.4 pounds per cubic foot. It is known to dendrologists as the bully tree. Of the species *Dipholis*.

Uses.—This class of native timber has not been used extensively by The Panama Canal, chiefly because there are other timbers less difficult to handle, more easily available. It may, however, be used for any heavy construction work with the assurance of practically limitless life.

NOGALON.

Appearances and characteristics.—The Nogalon tree has very little sapwood. The heart, light gray in color, is unusually porous for tropical hardwood, possesses a very great structural strength and is very beautiful when appearing in finished work. The tree grows to an immense diameter, but long logs can not be cut from it for the reason that the tree is subject to very abrupt crooks and reverse curves in the body. The bark of the tree is very similar to white oak bark, somewhat more stringy and much tougher. When green, the lumber weighs 68.6 pounds per cubic foot; when dry 62.4 pounds per cubic foot. Believed to belong to family *Juglandaceæ*.

Uses.—A small amount of this lumber has been used for panel work, and stepping, giving satisfactory service.

PONULO.

Appearances and characteristics.—The Ponulo tree is of medium size and height, never reaching a diameter greater than 30 inches or a greater height than 90 feet. The body is subject to the same irregularities of growth as the black Guayacan, although such defects are not so numerous in this species. So far as is known it is the only tree of the country having a perfectly smooth thin bark; this bark is perhaps not over $\frac{3}{8}$ -inch thick in extreme cases; adheres very closely to the body of the tree and resembles in color and general appearance the bark of the Sycamore tree of the United States, even to the extent of presenting the same light colored spots or splotches appearing at irregular intervals on the body of Sycamore trees. The lumber weighs when green 43.1 pounds per cubic foot; when dry, 34.3 pounds per cubic foot. Genus, unknown.

Uses.—The timber is one of the latest exploited and data are very meager in regard to its proper uses. So far it has only been used for car stakes, car decking, box building, and other inferior work. It is not thought that the lumber from this species possesses sufficient life or strength to be of any important use here on the Canal or of particular interest to commerce.

ROBLE.

Appearances and characteristics.—Roble, a Spanish word meaning oak, is very much lighter than the American white oak, having an oak bark and taking a very similar finish to the American product, although very much more porous and greatly inferior in structural strength. The foliage of the tree consists of single leaves of oval shape and not palmated as the leaf of the American white oak. It is perhaps the hardest of tropical timbers to adapt to lumber uses, for the reason that its trunk and body formation is so irregular and presents so many variations in shape when in the log. A log having as many as 5 valleys of from 10 to 14 inches in depth, is not unusual in this timber; the extreme diameter, measured from the two opposite flutes, is not more than 26 to 35 inches, thus presenting a star shape at either end with practically no body proper from which to manufacture lumber. Perhaps 80 per cent of the logs of this species furnished are affected in this manner. The lumber when green weighs 53.7 pounds per cubic foot; when dry, 48.6 pounds per cubic foot. Genus, *Quercus*.

Uses.—Roble has been in use for a long time among the natives in general carpentry work and special furniture making. It produces, so far as quality is concerned, a very pretty and lasting lumber, but owing to defects mentioned above and its apparent scarcity in the vicinity of present logging operations it is not used extensively on the Canal.

Name.	Moisture condition.	Specific gravity.	Pounds sq. in. (a)	Pounds sq. in. (b)
Guayacan.....	Air-dry.....	1.22	20,650	13,770
Alcareto.....	Green.....	1.05	16,200	8,930
Almendra.....	Green.....	1.16	13,050	10,900
Nispero.....	Green.....	1.31	11,700	8,130
Alcazu.....	Green.....	.56	10,100	5,600
Roble.....	Green.....	.86	8,280	4,500
Amargo.....	Green.....	1.02	7,510	4,580
Maria.....	Green.....	.56	6,300	4,490
Espave.....	Green.....	.68	5,130	2,580
Cedro Amargo.....	Green.....	.52	5,040	4,300
Caoba Blanca.....	Green.....	.64	3,820	3,420
Batteo.....	.....	.65	3,860	3,500
Ponulo.....	.....	.69	4,520	1,660
Nogalon.....	Air-dry.....	.97	7,280	4,700

(a) Transverse strength modulus of rupture pounds per square inch, center load across edge of grain.

(b) Compressive strength pounds per square inch. Compression parallel to grain.

The foregoing table, showing specific gravity, transverse and compressive strength of the woods under discussion, was used in computing weights furnished under the different heads, and whenever an actual check has been made against them have held up with practical uniformity.

The following are the local names applied to some of the other beautiful, long-lived, and valuable woods native of Panama and other Central American countries:

Alcornoque	Corotu	Olivo	Amarillo, real
Gauchipali	Pilon	Guava	Algorrobo
Quira	Aguacatillo	Guarguro	Mangle, colorado
Laurel	Cacique	Mora	Mangle, blanco.
Cedro macho	Nazareno	Caracucho	Marmacillo
Cedro cebollo	Cedro espinoso	Alfajia	

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, January 17, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt Water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Santa Barbara	11	9:32	11	6:20	11	16:15	11	17:00	American	W. R. Grace & Co.	406.6	51.0	25.6	New York	Talcahuano	General	6,474	6,843	4,756
Covatl	10	7:05	11	6:30	11	18:31	11	19:25	American	United States Shipping Board	253.0	41.0	22.9	Norfolk	Chile		2,751	1,749	
Heron (a)	10	10:11	11	6:35	11	17:11	11	16:55	American	United States Navy	189.0	36.0	14.0	Charleston	San Diego				
Hiyeyan Maru	9	10:10	11	6:40	11	17:25	11	18:19	Japanese	Kokusa Kisen and Co.	360.0	51.0	17.0	Baltimore	Antofagasta				
Cawker	11	7:15	11	8:11	11	18:34			American	United States Shipping Board	417.0	46.0	19.0	Norfolk	Pisagua				
West Coyote	3	18:45	12	6:20	12	16:32	12	16:48	American	United States Shipping Board	240.0	54.0	18.6	Newport News	Seattle	General	590	6,567	4,899
Saint Joseph	7	14:36	12	6:21	12	16:46	12	20:16	French	Cia. Naval de L'Oceania	214.0	31.3	15.6	Bordeaux	Genoa	General	1,000	1,202	728
Erattingsboek	12	6:37	12	7:18	12	18:10	12	19:15	Danish	C. K. Hansen	325.2	47.0	21.0	Norfolk	Caleta Colosa	Coal	4,225	3,326	2,389
Kenkon Maru 8	12	8:26	12	9:08	12	18:03	12	11:45	Japanese	Junto Kisen Kaisha	370.0	51.0	20.6	Norfolk	Iquique	Case oil	8,625	5,228	3,912
Bensalan	11	12:45	12	9:15	12	19:08	12	20:35	American	United States Shipping Board	401.0	54.0	25.6	New York	Yokohama				
Cravcroft	41	2:57	12	9:53	12	19:11	12	20:24	American	United States Shipping Board	253.5	43.8	12.3	Norfolk	Chile				
Askawa	11	17:50	12	10:58	12	20:10	12	21:15	American	United States Shipping Board	401.9	53.1	25.10	Port Arthur	Honolulu	Case oil, general	7,285	6,571	4,944
Kaian Maru	12	10:00	12	11:18	12	21:25	12	22:45	Japanese	Kansuda Kisen Kaisha	490.0	51.5	24.0	Yokohama	San Francisco	Phosphate	6,774	5,816	4,160
Gaehle Prince	12	8:03	12	12:25	12	22:27	12	23:45	British	Prince Line Limited	449.5	57.3	25.11	New York	Shanghai	General, case oil	9,000	9,157	6,658
West Loquass	12	11:58	13	6:18	13	17:00	13	20:30	American	United States Shipping Board	409.0	51.0	24.0	New York	Manila	Case oil, general	7,000	6,656	4,880
Avocet (a)	10	10:07	12	6:10	13	15:26	17	15:50	American	United States Navy	189.0	36.0	14.0	Charleston	San Jago				
Thrush (a)	10	10:20	13	6:19	13	15:28	13	16:55	American	United States Navy	189.0	36.0	14.0	Charleston	San Diego				
Oriole (a)	10	10:20	13	6:19	13	15:30	13	16:55	American	United States Navy	189.0	36.0	13.5	Charleston	San Diego				
Lake Panyan	12	15:28	13	6:30	13	17:52			American	United States Shipping Board	251.0	43.6	16.6	Port Arthur	Mexipones				
Santa Flavia	12	18:22	13	6:38	13	17:54	13	14:45	American	W. R. Grace & Co.	225.0	43.0	22.0	Baltimore	San Francisco	General	2,000	2,122	1,447
Sorata	13	6:33	13	11:44	13	18:57	13	22:50	British	Pacific Steam Navigation Co.	390.0	47.0	20.0	Liverpool	Valparaiso	General	4,633	4,782	3,336
Swasey (b)	11	18:55	14	6:25	14	14:01	16	14:27	American	United States Navy	315.0	31.0	11.6	Guantanamo	San Diego				
Wellies (b)	11	18:56	14	6:25	14	14:03	16	14:27	American	United States Navy	315.0	31.0	11.6	Guantanamo	San Diego				
Jacob Jones (b)	11	18:50	14	6:25	14	14:09	16	14:27	American	United States Navy	315.0	31.0	11.6	Guantanamo	San Diego				
Winyah	12	7:29	14	6:30	14	16:40	14	17:23	American	United States Shipping Board	400.7	54.2	26.0	New York	Yokohama	Iron and general	7,205	6,529	4,739
Sea Gull (a) and Barge No. 30	14	8:58	14	13:40	14	21:06	15	15:17	American	United States Navy	186.0	36.0	12.0	Charleston	San Diego				
Fort Gaines	14	15:54	15	6:20	15	15:14	15	16:00	Norwegian	A. F. Lezanger	225.2	34.0	14.6	New York	Buenaventura	General	309	1,128	650
Lake Ontario	15	1:06	15	7:15	15	15:15	17	12:45	American	United States Shipping Board	107.0	23.0	10.0	Marblehead	Chile	Coal	3,000	2,246	1,404
Ajax (a)	11	9:32	15	7:25	15	16:05	17	18:17	American	South Sea Pacific Co.	250.5	43.0	23.0	Norfolk	Samoa				
Cowboy	13	6:32	15	7:45	15	20:11	15	23:54	American	United States Shipping Board	253.4	43.6	24.0	Norfolk	Iniquique				
Newport	10	14:12	16	10:50	15	17:48	15	23:20	American	Pacific Mail S. Co.	326.0	38.0	18.2	Cristobal	San Francisco	General	1,873	3,173	2,163
Finch (a)	11	20:50	17	6:13	17	16:25	16	16:10	American	United States Navy	187.0	35.5	13.0	Charleston	San Diego				
Peru	11	20:50	17	6:13	17	17:50	17	18:15	British	Pacific Steam Navigation Co.	350.0	43.0	17.6	Charleston	Valparaiso	General	4,100	2,646	
Tulsa	11	6:20	17	6:10	17	17:50	17	18:39	American	United States Shipping Board	390.0	54.2	19.0	New York	Talcahuano	General	2,643	6,106	4,355

(a) Mine sweeper. (b) Destroyer. (c) Auxiliary yacht.

Astoria (d).....	14	7.13	17	6.22	17	10.00	17	19.56	American.....	United States Navy.....	319.7	46.0	18.0	San Diego.....	Navy stores.....	2,500
Orion (e).....	16	8.02	17	6.42	17	20.21	17	21.07	American.....	United States Navy.....	514.0	65.2	29.3	San Diego.....	Coal, navy sup.....	7,500
Elvador.....	16	7.19	17	7.26	17	21.35	18	0.40	British.....	Pacific Steam Navigation Co.....	450.0	57.0	25.3	Coronel.....	General.....	4,072
Saihor.....	12	16.45	17	8.24	17	22.40	18	7.33	British.....	Pacific Steam Navigation Co.....	215.0	33.0	15.7	Champertico.....	General.....	1,213
Crown of Toledo.....	17	8.00	17	11.40	17	22.46	17	23.40	British.....	Prentice Service & Henderson.....	455.4	56.0	20.6	Vancouver.....	General.....	1,200

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

West Yaca.....	10	22.20	11	8.05	11	16.30	18	6.45	American.....	United States Shipping Board.....	401.5	54.0	23.0	San Francisco.....	Flour.....	8,000
Cyrus W. Fields.....	11	8.23	11	16.05	11	17.28	12	6.27	American.....	United States Army.....	133.0	32.5	22.0	New York.....	General.....	6,625
Oak Branch.....	10	21.00	11	8.36	11	17.05	12	6.27	American.....	F. & W. Ritson.....	383.0	49.8	22.0	Cristobal.....	General.....	6,259
Parnahiba.....	10	22.00	11	9.15	11	18.55	12	12.36	Brazilian.....	Brazilian Government.....	460.5	53.1	29.0	Liverpool.....	Nitrate.....	8,916
Ansaldo San Giorgio II.....	9	12.05	11	10.16	11	22.50	12	7.55	Italian.....	Soc. Nazionale de Navigazione.....	377.5	49.2	25.8	Dunkirk.....	General.....	7,092
Parravilla (f).....	10	19.15	11	11.20	11	20.50	17	6.13	British.....	Pacific Steam Navigation Co.....	350.0	43.1	18.1	Genoa.....	General.....	5,886
Laura C. Hall (g).....	11	23.00	12	8.30	12	16.40	18	7.32	American.....	Tabernilla Hunting Club.....	81.0	25.6	10.0	Cristobal.....	General.....	2,024
Geneva (h).....	11	7.00	12	9.58	12	16.45	17	8.24	British.....	Pacific Metals Corporation.....	215.0	33.5	12.8	Gatun.....	Coffee.....	70
Caddo.....	6	17.00	12	12.50	12	20.10	13	10.17	American.....	Pacific Steam Navigation Co.....	150.0	36.3	18.0	Cristobal.....	General.....	1,213
Cockaponset.....	12	13.05	13	6.58	13	15.30	13	11.11	American.....	Standard Oil Co.....	415.0	53.0	17.0	Mobile.....	Ballast.....	524
Tokufuku Maru.....	13	11.30	13	12.20	13	20.20	13	24.00	American.....	United States Shipping Board.....	402.5	53.0	25.3	Tampico.....	Ballast.....	6,438
Santa Paula.....	13	16.20	14	6.45	14	14.20	14	17.30	Japanese.....	Mitsui & Co.....	385.0	51.0	26.6	Havre.....	General.....	8,206
Bakersfield.....	13	18.28	14	8.33	14	16.33	15	14.45	American.....	W. R. Grace & Co.....	410.7	53.7	18.8	Savannah.....	Nitrate.....	8,180
Itasca.....	14	12.20	14	12.53	14	20.30	19	9.27	Chilean.....	United States Shipping Board.....	379.7	44.3	23.2	Philadelphia.....	General.....	8,675
Manavi.....	15	1.00	15	8.01	15	15.22	19	6.18	British.....	Chilean Line.....	216.0	35.1	13.6	Swansey.....	General.....	5,496
Urubamba.....	15	10.00	15	11.38	15	19.10	16	8.31	Peruvian.....	Pacific Steam Navigation Co.....	381.9	45.9	20.0	Cristobal.....	General.....	2,919
Neptune (e).....	16	21.00	17	7.40	17	16.17	18	7.04	American.....	United States Shipping Board.....	266.3	49.1	24.3	Cristobal.....	General.....	714
Mercedes.....	17	7.45	17	8.30	17	17.25	18	6.16	Spanish.....	R. Orte.....	320.0	63.0	22.6	Cristobal.....	General.....	2,388
Norina.....	16	22.00	17	9.50	17	18.25	18	6.23	American.....	Garland S. S. Corporation.....	340.0	46.0	24.0	Norfolk.....	Nitrate.....	3,348
Brookwood.....	17	9.00	17	9.39	17	18.35	18	11.05	American.....	United States Shipping Board.....	385.0	51.1	23.6	Alicante, Spain.....	Nitrate.....	5,500
Manlian.....	17	10.00	17	10.49	17	19.50	18	13.18	American.....	United States Shipping Board.....	472.6	49.4	14.4	Caleta Buena.....	Nitrate.....	6,700
Yamata.....	16	20.30	17	11.57	17	21.07	18	22.38	British.....	Pacific Steam Navigation Co.....	220.0	34.0	13.9	Aberdeen.....	Lumber.....	2,225
War Spray.....	17	11.30	17	13.17	17	21.10	18	22.38	British.....	R. W. J. Sutherland.....	331.3	46.7	22.0	Seattle.....	Flour.....	8,263
Bradford.....	17	11.30	17	13.58	17	22.12	18	22.12	American.....	Standard Oil Co.....	428.0	54.8	23.0	Tampico.....	General.....	802

(d) Supply ship. (e) Collier. (f) Launch. (g) Motor schooner. (h) Sail. (i) port of embarkation. (j) For orders. (k) Nitrate, sugar, and general. (l) Spare parts for ships.

		ARRIVALS.			DEPARTURES.				
Date.	Vessels.	Line.	From.	Date.	Vessels.	Line.	For.		
January 11.....	R-23 R-25 R-26 (f)	United States Navy	Quantanamo.	January 11.....	Mendozino	W. Wilhelmsen	Tampico.		
January 11.....	Fasset	United States Shipping Board	Bluefields.	January 13.....	Bonatom	United States Shipping Board	Bluefields.		
January 12.....	Salmo	United States Shipping Board	Havana.	January 13.....	Centocuban	American-Hawaiian Line	Gibraltar.		
January 12.....	John W. Wells (m)	Pacific Freighters Co.	High seas.	January 13.....	Trident	Royal Mail Steam Packet Co.	Newport News.		
January 12.....	Paribonina	United Fruit Co.	New Orleans.	January 13.....	Salmon	United States Shipping Board	Port Limon.		

(l) Submarines. (m) Bark. (Continued on page 329, column 2.)

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending January 17, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Covalt.....	Panama Railroad Steamship Line..	.....	January 11.....	.....	(*)
Craycroft.....	Panama Railroad Steamship Line..	.....	January 12.....	2,480	(*)
Trident.....	Royal Mail Steam Packet Co.....	.....	January 13.....	.....	2,946
Peru.....	Pacific Steam Navigation Co.....	.....	January 11.....	2,024½	751
Alianza.....	Panama Railroad Steamship Line..	.....	January 14.....	.....	2,272
Parismina.....	United Fruit Co.....	.....	January 12.....	1,600	37
Newport.....	Pacific Mail Steamship Line.....	.....	January 15.....	.....	2,053
Salvador.....	Pacific Steam Navigation Co.....	.....	January 12.....	93	1,120
Laura C. Hall.....	Pacific Metal Corporation.....	.....	January 12.....	70	.....
Sorata.....	Royal Mail Steam Packet Co.....	.....	January 13.....	3	(*)
Cowboy.....	W. R. Grae & Co.....	.....	January 13.....	2,679	(*)
Middlebury.....	Panama Railroad Cattle Industry..	.....	January 13.....	600	.....
Lake Gebhart.....	United States Shipping Board.....	.....	January 14.....	3,428	.....
Tivives.....	United Fruit Co.....	.....	January 14.....	890	96
Battonville.....	United States Shipping Board.....	.....	January 14.....	2,523	.....
Huasco.....	Chilean S. S. Line.....	.....	January 14.....	2,219	.....
Gen. G. W. Goethals.....	Panama Railroad Steamship Line..	.....	January 15.....	2,629	.....
Carrillo.....	United Fruit Co.....	.....	January 15.....	2	1
Lake Frenchton.....	United States Shipping Board.....	.....	January 15.....	3,474	.....
Manavi.....	Pacific Steam Navigation Co.....	.....	January 15.....	714	.....
Urubamba.....	Peruvian S. S. Line.....	.....	January 15.....	2,388	.....
Asian.....	Leyland Line.....	.....	January 15.....	1,056	.....
Ebro.....	Pacific Steam Navigation Co.....	.....	January 16.....	850	(*)
Colon.....	Panama Railroad Steamship Line..	.....	January 17.....	3,800	.....

*No cargo laded.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending January 17, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ansaldo San Giorgio II.....	National Navigation Society.....	.....	January 9.....	.....	73
Peru.....	Pacific Steam Navigation Co.....	.....	January 11.....	1	.....
Salvador.....	Pacific Steam Navigation Co.....	.....	January 11.....	15	.....
Caribbean.....	Panama Railroad Cattle Industry..	.....	January 12.....	250	.....
Cockoponset.....	United States Shipping Board.....	.....	January 12.....	672	.....
Lake Ontario.....	United States Shipping Board.....	.....	January 15.....	3,000	.....
Manavi.....	Pacific Steam Navigation Co.....	.....	January 15.....	2	76
Newport.....	Pacific Mail Steamship Co.....	.....	January 15.....	.....	.....
Jamaica.....	Pacific Steam Navigation Co.....	.....	January 17.....	15	.....
Geo. W. Elder.....	Duncan Fox & Co.....	.....	January 17.....	3	.....

*Reported in last issue.

**Notice to Mariners.—U. S. Naval Radio Station Puerto Obaldia in
Operation.**

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 12, 1920.

CIRCULAR NO. 643-69.

1. The U. S. Naval Radio Station Puerto Obaldia, located at Puerto Obaldia, on the Atlantic Coast of the Republic of Panama, two miles from the Colombian border (latitude 8° 56' north, longitude 77° 40' west), is now in operation. The station call is NRK.

2. Puerto Obaldia is operated by the U. S. Naval Communication Service and is prepared to handle U. S. and Panaman Government despatches free of charge. The station also handles commercial traffic at rates which may be obtained from the Naval Radio Station, Balboa, C. Z.

3. The following daily schedule of watches will be maintained by Puerto Obaldia Radio; 6 to 8 a. m.; 12 noon to 2 p. m.; 6 to 8 p. m. All messages for this station will be handled via Balboa Radio on above schedules, and those received at Balboa at any time outside of schedule can not be transmitted until the following schedule.

4. Messages for Puerto Obaldia, or other U. S. Naval Radio Stations in the Republic of Panama, may be filed at any of the Panama Railroad or Panama National Telegraph offices.

JAY J. MORROW,
Acting Governor.

Notice to Mariners.—Speed of Vessels in Canal.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 13, 1920.

CIRCULAR No. 643-70 (superseding Circular No. 643-42):

1. By virtue of the authority conferred on me by paragraph 102 of the Executive Order of July 9, 1914, establishing Rules and Regulations for the Operation and Navigation of the Panama Canal and Approaches thereto, including all waters under its jurisdiction, vessels transiting the Panama Canal hereafter shall not exceed the following speeds:

	Knots per hour
Colon to Gatun Locks.....	6
Gatun Lake, in the 1,000-foot channels.....	15
Gatun Lake, in the 800-foot channels.....	12
Gatun Lake, in the 500-foot channels.....	10
Rounding Bohio and Darien Bends.....	6
Gaillard Cut:	
Straight Reaches: Vessels 250 feet or more in length.....	8
Vessels less than 250 feet in length.....	8
Rounding Bends: (all vessels) Slowest speed at which steerage way can be maintained.	
Miraflores Lake:	
Slowest speed at which steerageway can be maintained.	
Vessels 360 feet or less in length and less than 20 feet draft shall not cross Miraflores Lake in less than 15 minutes.	
Larger vessels shall not cross Miraflores Lake in less than 20 minutes.	
Vessels of exceptional size or displacement shall not cross Miraflores Lake in less than 25 minutes.	
Miraflores Locks to Pacific entrance to Canal.....	6
Entering or leaving port.....	6

2. Increase to 8 knots in speed in Gaillard Cut, in the case of vessels less than 250 feet long, does not alter the obligation imposed by regulations upon all vessels to reduce to lowest speed at which vessel can be steered, on occasion of approaching and passing vessels under way in narrow reaches, or vessels or other floating equipment when tied up, or under other circumstances, where a higher speed might introduce risk of damage.

JAY J. MORROW,
Acting Governor.

Conversion of Liberty Bonds of First and Second Series.

The Liberty Loan Committee announce that forms for the exchange or conversion of Liberty Bonds of the first and second issues are ready for distribution. A supply has been sent to all departments and divisions. Additional copies can be obtained from the office of the Collector at Balboa Heights or from the Deputy Collector at Cristobal.

The cost of exchanging or converting is 50 cents for each \$100, this charge to cover all incidental expenses including insurance at par value to and from Washington.

Bond owners who are using the privilege afforded them through the Liberty Loan Committee to have their bonds exchanged or converted should carefully read and comply with the instructions printed on the form, otherwise the bonds will be returned.

The privilege of exchange or conversion of bonds by the Liberty Loan Committee is provided exclusively for employees of The Panama Canal or Panama Railroad Company.

District Dentist at Colon Hospital.

Dr. R. S. Morris (who has been acting as district dentist at Gatun during Doctor Urwiler's absence on leave) has been appointed district dentist at Colon Hospital, and is opening an office there.

Executive Order.

The area of land hereinafter described, to be known as Quarry Heights Reservation, situated in the Canal Zone, is hereby set apart and assigned to the uses and purposes of a military reservation under the jurisdiction of the Secretary of War; but said area shall be subject to the civil control and jurisdiction of the Governor of the Panama Canal, in conformity with the Panama Canal Act.

The boundaries of said reservation are described as follows:

The point of beginning is a brass plug in concrete monument #10, which is N. 1° 51' W., 711.4 feet, more or less, from Ancon triangulation station; the coordinates of Ancon station are Lat. 8°-57' plus 2,572.76 feet, Long. 79°-33' plus 883.65 feet; thence,

1. S. 76°-05' E., 833 feet, more or less, to a brass plug in concrete monument #11; thence,

2. S. 12°-40' E., 500 feet, more or less, to a brass plug in concrete monument #1; thence,

3. S. 55°-39' E., 546 feet, more or less, to a copper plug in concrete monument #2, thence,

4. Along a line parallel with and 5.60 feet back from the curb line of the westerly side of Fourth of July Avenue, to a copper plug in concrete monument #3; direct bearing and distance, #2 to #3, S. 38°-19' W., 1,369 feet, more or less; thence,

5. Along a line parallel with and 5.60 feet back from the curb line of the northerly side of the continuation of Fourth of July Avenue towards East Balboa, to monument #4, which is a copper plug set in the concrete roadway leading to the Truck Company barracks; direct bearing and distance, #3 to #4, S. 87°-03' W., 1,080 feet, more or less; thence,

6. N. 74°-03' W., 505 feet, more or less, to a brass plug in concrete monument #5; thence,

7. N. 18°-09' E., 214 feet, more or less, to a brass plug in concrete monument #6; thence,

8. Along the contour of 150 feet elevation to a brass plug in concrete monument #7; direct bearing and distance, #6 to #7, N. 3°-27' W., 867 feet, more or less; thence,

9. Along the contour of 150 feet elevation to a brass plug in concrete monument #8; direct bearing and distance, #7 to #8, N. 48°-21' W., 569 feet, more or less; thence,

10. Along the contour of 150 feet elevation to a brass plug in concrete monument #9; direct bearing and distance, #8 to #9, N. 39°-36' E., 971 feet, more or less; thence,

11. S. 75°-58' E., 861 feet, more or less, to the point of beginning.

All bearings refer to the true meridian.

WOODROW WILSON.

THE WHITE HOUSE,
22 December, 1919.

[No. 3202.]

The above has been published as Panama Canal circular No. 601-100.

New Supply of Safety Deposit Boxes.

The Collector advises that 250 additional safety deposit boxes have been received and are now available for assignment. The boxes rent for \$1.50 a year, payable in advance and are available only to employees of The Panama Canal or Panama Railroad Company.

It is expected that employees who now have bonds on deposit for safe keeping in the Collector's office will rent these boxes for the safe keeping of their bonds and other valuable papers, and in the assignments such depositors will be given the preference.

Applications should be made to the Collector at Balboa Heights.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan Canal, Panama;" in the United States, "Pan Canal, Washington."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Facilities for Repair of Vessels at the Panama Canal.

The principal manufacturing and repair plant of The Panama Canal is located at Balboa, the Pacific terminal of the Canal. It is adjacent to an inner harbor, which has an area sufficient to permit access to docks, which aggregate 7,500 feet in length, including commercial docks, repair wharves, and coaling docks.

A much smaller plant is located at Cristobal, the Atlantic terminal, about one and one-half miles from the main commercial docks. The following is a brief description of the plants:

THE BALBOA PLANT.

Dry dock and repair wharves—The dry dock is 1,000 feet long by 110 feet wide, with a depth of 35 feet over the blocks at mean tide. High tide varies from 3 to 11 feet above mean tide. The dock is served by a 50-ton traveling crane with an outside reach of 5 feet beyond the center line of the dock. This crane is also capable of traveling along the face of some of the repair wharves, thus facilitating the prosecution of repairs to vessels. At regular intervals along the coping of the dock are outlets for air, water, and electric service; either direct current or alternating current can be supplied, thus furnishing power for the auxiliary motors of ships in dry dock.

For ships which do not require dry docking, there are adjacent to the shops approximately 3,500 feet of repair wharves.

Repair shops—The repair shops are centrally located with respect to the dry dock and repair wharves. Ample track and crane service provide for handling work between shops and ships.

The main metal working shops (machine, smithery, and boiler shop) are provided with 60-ton overhead traveling cranes, while the foundry has a 25-ton overhead crane. As all the shops are equipped with as complete a line of power tools as are generally found in an up-to-date repair shop, only the larger tools will be given special mention so as to give an idea of the maximum capacity of each department.

The machine shop is provided with a vertical boring mill capable of working 18 feet in diameter, with an open side extension planer 16 feet by 32 feet, and with a lathe 120-inch swing by 65 feet between centers.

The smithery is provided with a 500-ton forging press with the necessary furnaces to handle any work that the press is capable of.

The boiler and ship fitting shops have a set of rolls capable of bending plates $\frac{3}{4}$ -inch by 30 feet 1 inch by 24 feet, or 2 inches by 6 feet.

The pipe shop is outfitted for plumbing work and for pipe, copper, and sheet metal work of the highest classes.

The foundry is equipped with a 2-ton troenas converter and one 2-ton and one 1-ton cupola, and the usual brass furnaces. It can turn out castings as follows: Bronze, brass or composition, $\frac{1}{4}$ -pound to 1,000 pounds; iron, $\frac{1}{4}$ -pound to 26,000 pounds; steel, $\frac{1}{4}$ -pound to 10,000 pounds.

The planing mill and joiner shop is outfitted with the usual woodworking machines, including a sawmill capable of handling timbers likely to be used in connection with ship work.

The oxy-acetylene plant has portable electric-welding and oxy-acetylene cutting outfits capable of handling emergency repairs. The plant develops approximately 400 cubic feet of acetylene per hour, 5,000 cubic feet of oxygen per day, and 10,000 cubic feet of hydrogen per day.

The storehouses (under the control of the Supply Department) carry on hand a large stock of steel shapes, pipe, ship fittings, and supplies of every description. Steel plate is carried in stock in all thicknesses up to and including 2 inches. Plates smaller than $\frac{5}{8}$ -inch vary by sixteenths and plates larger than $\frac{5}{8}$ -inch vary by eighths. The largest plates in stock are 72 inches by 10 feet by 2 inches thick. A large amount of steel billets is kept on hand in all sizes up to and including 24 inches by 24 inches by 19 feet. Structural shapes are carried as follows: Eyebeams, all sizes up to 27 inches; channels, all sizes up to 15 inches; ship channels, all sizes up to 12 inches; and angles, all sizes up to 8 inches by 8 inches by $\frac{3}{4}$ -inch.

In addition to the crane service heretofore mentioned, the services of two floating cranes with a capacity of 250 tons each are available at any time or place in the Canal or terminal harbors.

CRISTOBAL PLANT.

This plant has less capacity than the Balboa plant and is intended for repairs of less importance. The activities of these shops are confined to three buildings, of somewhat temporary construction; one of which houses the machine shop, smithery,

pipe shop, and power plant; another the boiler and shipfitter's shop; and the third, the wood-working shop. The tools are of less modern construction and of smaller capacity than those in use at the Balboa plant, few steps having been taken to modernize the plant pending more definite information as to exactly what the demands upon it will be. It is, however, capable of undertaking routine repairs to vessels; and, in emergencies, such parts as require larger tools than are available here can be shipped to Balboa to be machined.

There is available at this plant a small dry dock, originally constructed by the French and later extended by the Americans. This dock is now 300 feet in length, 50 feet in width, and has a depth over the blocks of 13 feet 6 inches at ordinary mean high tide. Adjacent to the shops and dry dock are approximately 2,000 feet of repair wharves.

WORKING FORCE.—COST OF REPAIRS.—DOCKING CHARGES.

Practically all skilled mechanics on the Isthmus come from the United States, the unskilled labor being performed almost exclusively by West Indians. About 775 skilled men and 1,427 silver employees are employed at Balboa Shops, and about 180 skilled and 460 silver men at Cristobal shops.

The actual cost of repairs, as billed, compares favorably with that to be found in the United States. No contracts are made for work performed in the Canal shops. The charges are at actual shop costs plus a moderate percentage for general administrative expense and profit, and the total cost is believed to be less than in Asiatic or South American establishments, while in many cases it compares favorably with costs in the United States.

Charges for docking are in accordance with the following rates:

	Balboa.	Cristobal.
Men-of-war. Per displacement ton for docking and undocking.....	\$0.25	\$0.15
For each lay day.....	.15	.10
Army and Navy transports, colliers, hospital ships, and supply ships, per gross ton, Panama Canal measurement:		
For docking and undocking.....	.25	.15
For each lay day.....	.15	.10
Merchant steamers. Per gross ton, Panama Canal measurement:		
For docking and undocking.....	.25	.15
For each lay day.....	.15	.10
Merchant sailing vessels. Per net ton, Panama Canal measurement:		
For docking and undocking.....	.25	.15
For each lay day.....	.15	.10
Minimum charge, when dock is pumped for exclusive benefit of one vessel and occupied by a single vessel:		
For docking and undocking.....	200.00	75.00
For lay days.....	120.00	45.00

NOTE—When a vessel whose tonnage is below the amount which at regular rates would equal the minimum rate above is docked at Cristobal with one or more other vessels, she will be charged \$60 for docking and undocking and \$30 for each lay day. When a vessel under the same conditions is docked at Balboa with one or more other vessels, or under other circumstances which involve no additional cost for pumping, a special rate will be charged dependent on circumstances but in no case less than the actual cost, exclusive of pumping, plus 10 per cent.

WORK PERFORMED.

As indicated by the facilities noted, the shops of the Canal are fitted to perform practically all classes of ship repair and construction, and are currently carrying on such work. The largest job performed by the shops has been the overhaul of five former German ships, brought to the Canal from Peru, where they had deteriorated considerably during internment and had suffered extensive damage at the hands of their crews. The extent and completion of this job have been noted in THE PANAMA CANAL RECORD. The aggregate gross tonnage of these ships was 32,831. The next largest job has been the remodeling of the steamship *Cristobal* of the Panama Railroad Steamship Line, with change from coal to oil-burning and extension of passenger accommodations, as well as the overhaul of hull and machinery.

During the fiscal year 1919, a coast guard cutter, the *Manhattan*, 120 feet 3 inches in length, over all, by 24 feet in molded breadth, was completed at Balboa shops, materials and machinery for the vessel having been sent from the United States. The *Konigin der Nederlanden* was converted into a troopship. The *Santa Isabele* was repaired after having been on a reef, and extensive changes to the propelling machinery were made. The *Heina*, which had been recovered after being ashore, was given a general overhauling, which included the renewal of several bottom plates, straightening other plates, and a thorough cleaning out of the condenser. Old boilers were removed and new boilers installed on the steamship *Quoque*. Three new furnaces were installed in the U. S. S. *Yorktown*. Extensive work was done on the motor schooners *Elizabeth Ruth* and *Evelyn*, including the gas engines. Fifty 1,800-pound cast steel anchors were made for the United States Navy.

At the Cristobal shops extensive repairs were made to the steamships *Allianca*, *Balboa*, *Clairmont*, *Advance*, and *Colon*, and the dredges No. 83 and No. 86, in addition to many running repairs made on the variety of ships calling at Cristobal.

Marine work amounted to 54.14 per cent of the work performed by Balboa shops during the last fiscal year. Work for the Panama Railroad was 26.56 per cent of the total, manufacturing work 10.50 per cent, and sundry work, 8.80 per cent. During the preceding fiscal year the percentages were: Marine, 46.12; Panama Railroad, 23.11; manufacturing, 16.19; miscellaneous, 14.58.

Ancon District Dentist.

Dr. John L. Richards has been appointed District Dentist, Ancon, and has opened his office over the Ancon Dispensary.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified positions on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

- Captain of the civilian guard or chief of police (male and female); \$1,800 to \$2,400 a year; February 3, 1920; No. 25-amended; form 1312; age, 20 years but not 55 years.*
- Purchase agent (male and female); \$2,000 a year; February 18, 1920; No. 57; form 1312; age, 21 years and over.
- Chief of road survey party (male and female); \$1,800 to \$2,100 a year; February 10, 1920; No. 58; form 1312; age, 25 years but not 55 years.*
- Transitman for road surveys (male and female); \$1,200 to \$1,800 a year; February 10, 1920; No. 58; form 1312; age, 22 years but not 55 years.*
- Highway draftsman (male and female); \$1,200 to \$1,800 a year; February 10, 1920; No. 58; form 1312; age, 20 years but not 55 years.*
- Plate printer (male and female); \$900 to \$1,200 a month; February 10, 1920; No. 71; form 1800; age, 20 years and over.*
- Mechanical draftsman (male and female); Grade 1, \$800 to \$1,400 a year; form 1312; age, 18 years and over.†
- Mechanical draftsman (male preferred); Grade 2, \$1,400 to \$1,800 a year; form 1312; age, 18 years and over.†
- Mechanical draftsman (male preferred); Grade 3, \$1,800 to \$2,500 a year; form 1312; age, 18 years and over.†
- Special instructor in occupational therapy (male and female); Grade 1, \$1,200 to but not including \$2,000; Grade 2, \$2,000 to \$3,500 a year.†
- Reconstruction aide (male and female); \$720 to \$960 a year with temporary increase of \$20 a month granted by Congress; form 1312; age, 22 years but not 45 years.†
- Field supervisor of reconstruction aides in occupational therapy (male and female); \$1,800 a year; February 17, 1920.*
- Superintendent of aides in occupational therapy (male and female); \$2,400 a year; February 17, 1920.*
- Technical instructors (male and female); February 24, 1920; form 1312; age, 21 years and over*: Chief Machinist instructor, \$2,000 to \$2,200 a year; instrument maker instructor, \$2,000 to \$2,200 a year; blacksmith instructor, \$2,200 to \$2,400 a year; welder instructor, \$2,000 to \$2,400 a year; woodworking instructor, \$2,000 to \$2,200 a year; electrical instructor, \$1,800 to \$2,000 a year; carburetor instructor, \$1,800 to \$2,000 a year; librarian instructor, \$1,200 to \$2,300 a year; armament and machine gun instructor, \$2,200 to \$2,400 a year; small arms instructor, \$1,800 to \$2,000 a year; artillery armorer instructor, \$2,000 to \$2,400 a year; saddlery instructor, \$1,800 to \$2,000 a year; explosives instructor, \$1,800 to \$2,000 a year; accountant instructor, \$1,800 to \$2,000 a year; chief draftsman instructor, \$2,000 to \$2,400 a year; painting instructor, \$2,000 to \$2,400 a year.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Goldburne Callendar..	51911	Barbados.....	Colon.....	Panama Railroad.....	January 1 1920.
James Chambers.....	36044	Jamaica.....	Colon.....	Municipal Engineering.	January 14, 1920.
Nicanore Kiros or Quiros.....	186414	Panama.....	Bohio.....	Cattle Industry.....	December 30, 1919.
Joseph Robinson.....	22627	Jamaica.....	Panama.....	Supply Department....	December 28, 1919
Albert Romain alias Homey.....	134989	Guadeloupe.....	Panama.....	Cattle Industry.....	January 3, 1920.
Samuel Charles.....	52555	Antigua.....	Colon.....	R. & F. Agent.....	September 22, 1919.

Official Circulars.

Absence from Quarters.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., January 6, 1920.

To all concerned—Attention is called to paragraph 19 of Circular No. 627-24, dated June 3, 1919, reading as follows:

"Periods of less than 10 days will not be charged against absence from quarters. Employees will be required to notify the district quartermaster at expiration of leave period and on date they re-occupy quarters of the total time absent during that period."

It has been brought to the attention of this office that employees have not been complying with this regulation, and in order to make sure of its enforcement in future, form postcards with blanks for the desired information will be handed to employees returning from leave of absence by the District Quartermaster at Cristobal. This form should be filled out and immediately forwarded to the proper district quartermaster.

JAY J. MORROW,
Acting Governor.

Railroad Tickets for Baseball Clubs.

PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,

BALBOA HEIGHTS, C. Z., January 17, 1920.

To all concerned—Authority is granted for the sale of reduced rate second-class transportation on the Panama Railroad for not to exceed 15 members of a duly organized baseball club for use on Sundays and holidays only when competitive public games are to be played.

Two special tickets, form AI-566-Revised, will be sold on this authorization at the following rates for the two tickets:

	U. S. C.
Between Colon and Panama and return	\$ 1.00
Between Colon and west side stations and return	1.00
Between Colon and Gatun and return	.25
Between Panama and Paraiso and return	.25
Between Panama and Las Cascadas and return	.50

Special written authority, signed by the Executive Secretary must be presented to the agent each time when transportation is purchased by the manager or captain of the team, whose signature will appear thereon, and who must countersign the transportation when issued, and likewise countersign the agent's stub.

S. W. HEALD,
Superintendent.

Joint Commission.

Rules of Dismissal.

In the matter of the claim of Tomas Reina, Luis Reina, Alfonso Bracho, Nicolas Bracho, et al, in which rule of default has been entered, rule of dismissal No. 447, in docket No. 3277, January 13, 1920—On April 13, 1916, the Joint Commission, with the approval of the two Governments, parties to the Treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing, or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default, notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such

default should be set aside, and take active steps to prosecute their claims, and failing to so appear within 60 days from said first publication their claims will be considered as having been either settled or abandoned, and the same will be dismissed and forever barred."

In the claim of R. S. Arcia, Eusebio Morales, Ricardo Arias, et al., docket No. 3277, the evidence before the Commission is that direct settlement has been made with all the claimants in this case with the exception of Tomas Reina, Luis Reina, Alfonso Bracho, and Nicolas Bracho. The claim of the said Tomas Reina, Luis Reina, Alfonso Bracho, and Nicolas Bracho was therefore set for hearing on November 12, 1919. There was no appearance on the part of claimants nor counsel for claimants, and a rule of default was accordingly entered against them.

Due notice having been given as provided for in the above-quoted section of the rule of the Commission, and there having been no appearance by claimants in person or by counsel during the 60-day period fixed in the rule referred to, which began on November 13, 1919, the foregoing claim against the United States is hereby dismissed and forever barred.

JULIO J. FABREGA, BURT NEW, FEDERICO BOYD, GEORGE A. CONNOLLY, Commissioners.

In the matter of the claim of Juan Dutary de Alba, in which rules of default have been entered, rule of dismissal No. 448, docket Nos. 2,65, and 2766, January 16, 1920—On April 13, 1916, the Joint Commission, with the approval of the two Governments, parties to the Treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing, or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within sixty days from said first publication their claims will be considered as having been either settled or abandoned and the same will be dismissed and forever barred."

In the claims of Juan Dutary de Alba, docket Nos. 2765 and 2766, set for hearing on November 14, 1919, there was no appearance on the part of claimant nor counsel for claimant, and a rule of default was accordingly entered against him.

On January 6, 1920, counsel representing the claimant in the above-entitled claims filed a motion to set aside the default in the two cases in question, but in view of his failure to show good and sufficient cause why these defaults should be set aside, his motion was denied.

Due notice having been given as provided for in the above-quoted section of the rule of the Commission, and there having been no appearance on the part of claimant during the 60-day period fixed in the rule which began on November 16, 1919, and counsel for claimant having failed to show good and sufficient cause why the default should be set aside as provided for in the rule referred to, the foregoing claims against the United States are hereby dismissed and forever barred.

FEDERICO BOYD, BURT NEW, R. J. ALFARO, GEORGE A. CONNOLLY, Commissioners.

Certificate of Disagreement.

In the matter of the claim of Joseph Lefevre, as attorney in fact for Francisco de la Ossa, Mario Ossa de Amador, Amelia Ossa de Lefevre, Manuela Ossa de Levis, and Mrs. A. B. de la Ossa, and Marrio Galindo, for property known as "La Isca," certificate of disagreement, rule No. 435, docket

Stages of the Chagres and the Lakes.

The maximum elevations of the Chagres River, Gatun Lake, and Miraflores Lake, in feet above mean sea level, during the four weeks ending at midnight of Saturday, January 10, were as follows:

Date	Chagres River		Gatun Lake		Mira- flores Lake
	Vigia	Alha- juela	Gam- boa	Gatun	
Sun., Dec. 14.....	127.25	92.06	87.17	87.05	53.88
Mon., Dec. 15.....	127.70	92.45	87.18	87.09	54.29
Tues., Dec. 16.....	127.75	92.57	87.18	87.00	54.50
Wed., Dec. 17.....	127.30	92.10	87.16	87.00	54.10
Thurs., Dec. 18.....	127.20	92.07	87.09	87.00	54.05
Fri., Dec. 19.....	127.10	91.92	87.14	87.00	54.20
Sat., Dec. 20.....	127.45	92.23	87.12	87.00	54.40
Sun., Dec. 21.....	127.20	92.00	87.14	87.00	54.40
Mon., Dec. 22.....	127.10	91.92	87.13	87.00	54.17
Tues., Dec. 23.....	126.90	91.83	87.11	87.00	54.48
Wed., Dec. 24.....	126.90	91.74	87.13	87.00	54.54
Thurs., Dec. 25.....	126.85	91.74	87.15	86.99	54.54
Fri., Dec. 26.....	126.80	91.64	87.12	86.98	54.15
Sat., Dec. 27.....	126.80	91.60	87.08	86.99	54.18
Sun., Dec. 28.....	126.75	91.60	87.12	86.98	54.70
Mon., Dec. 29.....	126.75	91.56	87.07	86.97	54.09
Tues., Dec. 30.....	126.75	91.59	87.07	86.94	54.40
Wed., Dec. 31.....	126.70	91.51	87.00	86.91	53.80
Thurs., Jan. 1.....	126.65	91.52	86.98	86.89	53.75
Fri., Jan. 2.....	126.60	91.46	87.00	86.88	53.95
Sat., Jan. 3.....	126.60	91.40	86.96	86.86	54.23
Sun., Jan. 4.....	126.55	91.39	86.95	86.80	54.39
Mon., Jan. 5.....	126.50	91.39	86.90	86.76	54.00
Tues., Jan. 6.....	126.80	91.50	86.86	86.76	54.50
Wed., Jan. 7.....	127.25	92.00	86.82	86.73	54.22
Thurs., Jan. 8.....	126.80	91.71	86.85	86.70	54.27
Fri., Jan. 9.....	126.60	91.52	86.78	86.68	54.32
Sat., Jan. 10.....	126.60	91.85	86.75	86.63	54.60
Height of low water to nearest foot..	126.0	91.0			

Sale of Tug "Miraflores."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., March 22, 1920, and then opened, for the purchase of the tug *Miraflores*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Additions to Commissary Stock.

<i>Dry Goods Section.</i>	
Bedspreads, cotton, hemmed, 70" x 90", ea	\$2.03
Bedspreads, cotton, hemmed, 70" x 90", ea	2.13
Chemises, envelope, embroidered Philippine, ea.....	2.20
Damask, table, unbleached, 63", yd.....	1.23
Damask, table, unbleached, 63", yd.....	1.05
Damask, table, unbleached, 63", yd.....	1.55
Handkerchiefs, ladies', fancy, 3s, pkg.....	.40
Napkins, linen damask, H. S., 15" x 15", ea.....	.49
Napkins, linen damask, H. S., 15" x 15", ea	.75
Napkins, linen damask, H. S., 15" x 15", ea	.69
Napkins, damask 1/2 size, ea.....	.83
Napkins, linen damask, H. S., 15" x 15" . ea	.84
Nightgowns, embroidered Philippine, ea..	3.45
Sheeting, linen, 80", yd.....	2.95
Sheeting, linen, 54", yd.....	1.70
Stationery:	
Paper, writing, with envelopes, box....	.55
Paste, library, photo, jar.....	.21
Pens, stylographic, No. 4, ea.....	1.05
<i>Grocery Section.</i>	
Carrots, 2s, tin.....	.15
Cigarettes, Chesterfield, 20s, pkg.....	.14
Oil, olive, pure Heinz, pt. tin.....	.50
Prunes in syrup, 10s, tin.....	.74
Tongue, beef, 2s, tin.....	.55

Hotel Aspinwall Lunch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10.00 a. m.
Leave Taboga.....	8.00 a. m.

Sundays and holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6.00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

CCOMMISSARY NOTE.

Lingerie.

Advices recently received from the Commissary Purchasing Agent are to the effect that on items of lingerie on requisition in the United States, deliveries can not be made as promised. The manufacturers state that this delay is caused by shortages of raw material and labor trouble.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., January 28, 1920. No. 24.

Visit of the "Jeanne d'Arc."

The French cruiser *Jeanne d'Arc*, an active participant in naval operations during the world war, arrived at Cristobal on January 26. On the following day the officers were taken to Gatun Locks on a special train, and later brought through the Canal from Gatun to Balboa on two subchasers, furnished by the Commandant, 15th Naval District, as guests of the United States. Other entertainments by the Government and the Government of Panama are planned for January 28; on the 29th a reception will be given aboard the cruiser at Cristobal, and her departure is scheduled for the 30th.

Steamship Sunk by Submarines to Extinguish Fire in Cargo.

The most spectacular and costly marine accident which has occurred at the Canal since it has been in operation, resulted from an explosion in the number 3 hold of the American steamship *Marne* on the afternoon of January 24, while she was reloading part of her cargo at pier 11, Cristobal. The explosion was immediately followed by fire. On her way to the Canal the *Marne* had experienced trouble with her telegraph and on arrival made application to discharge part of her cargo at one of the terminal piers in order that the trouble might be located and remedied. She carried 8,000 tons of general cargo, bound from New York to Melbourne. In the cargo was 160,000 cases gasoline and benzine and in her tanks about 1,700 tons of fuel oil. The fire of this inflammable material being beyond the control of the terminal fire engines and fire tugs, the ship was towed away from the pier and sunk in shallow water. The great heat made it impossible to sink the vessel by opening cocks below the water line and she was sunk by shots from two of the Navy submarines. Fifty-four shots were fired from 3-inch guns. Armor-piercing shells were used first, fired into the vessel amidships. The holes they made were not large enough to admit water rapidly, and about 6 shrapnel shells were fired into the stern which pierced the hull and the *Marne* settled and sank in about 40 feet of water, inside the breakwater, about a mile from the outer end. After sinking, her decks were awash and the oil floating on the top continued to burn, protected against the action of the monitors on the fire tugs by the ship's superstructure. Cases of gasoline and benzine on fire floated away from the ship and spread out over the harbor for a distance of half a mile. At night, these were a lurid and unusual sight. The fire continues but is gradually exhausting itself and is causing no danger to other property.

The *Marne* is a vessel of 6,869 gross and 4,885 net tons, 395.5 feet in length by 55 feet beam, with a depth of 31.4 feet, and was built in 1919 for the United States Shipping Board by the Federal Ship Building Company at Kearny, New Jersey. She was in the service of the New York and Australia Line. Investigation is being made of the extent of damage and the probabilities of salvage.

CANAL WORK IN DECEMBER.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of December, 1919:

BALBOA HEIGHTS, C. Z., January 26, 1920.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of December, 1919.

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal during the month was 260, not including 14 United States Government vessels, as follows: Five destroyers, 2 colliers, 1 Navy tender, 1 Navy tug, 1 mine sweeper, 1 fuel ship, 2 transports, 1 Army dredge; also 7 merchant ships with coal and supplies for the Army and Navy and The Panama Canal.

The month's traffic is classified in the tabulation following. The net tonnage of the 260 commercial vessels totaled 927,726 tons, Panama Canal measurement, 330,588 tons in excess of the previous month's traffic, when 180 commercial vessels aggregated 597,148 tons. Their registered gross tonnage was 1,203,316 tons, and registered net tonnage, 759,699 tons. The cargo carried aggregated 924,479 tons of 2,240 pounds, exceeding the November cargo by 348,999 tons. Of this month's traffic, 4,129 tons were carried as deck cargo.

New records for a month's business in total number of vessels passing through the Canal, the number of commercial vessels, tolls, tonnage, and cargo carried, were established this month. Previously the month of greatest commercial traffic was May, 1918, when 200 vessels of 664,827 net tons with 775,357 tons of cargo passed through. A previous high record for the total number of ships transiting the Canal, including both commercial and government owned vessels, was July, 1919, with 234 ships. This month the total number of all vessels was 281.

The aggregate length of the 260 commercial ships through the Canal in December was 91,954 feet; aggregate beam, 12,651 feet; and draft, 5,466 feet. The average length of these vessels was 354 feet, average beam 49 feet, and average draft in salt water 21 feet; their average tonnage was: Panama Canal net, 3,658; net United States equivalent, 3,008; registered gross, 4,630; and registered net, 2,923 tons.

The United States coastwise trade was made up of 22 vessels aggregating 102,314 tons, Panama Canal net measurement, carrying 133,773 tons of cargo. That from the Atlantic to the Pacific Coast comprised 9 vessels with a total Panama Canal net tonnage of 39,436, carrying 52,764 tons of cargo. From the Pacific to the Atlantic this trade was carried in 13 vessels with a total Panama Canal net tonnage of 62,878 with 81,009 tons of cargo.

PRINCIPAL COMMODITIES.

Bulk shipments consisting of whole cargoes of the different principal commodities included in the month's traffic were as follows:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Crude oil.....	2	17,388	.....	Puerto Lobos.....	San Francisco.
Crude oil.....	1	9,500	.....	Puerto Lobos.....	Iquique.
Crude oil.....	1	9,000	.....	Puerto Lobos.....	Tocopilla.
Crude oil.....	1	8,000	.....	Tampico.....	Pisagua.
Crude oil.....	1	7,135	51,023	Tuxpan.....	Pisagua.
Case oil.....	2	15,767	.....	New York.....	San Francisco.
Case oil.....	1	5,400	.....	New York.....	Hongkong.
Case oil.....	1	8,000	29,167	Port Arthur.....	Honolulu.
Coal.....	3	10,546	.....	Norfolk.....	Balboa.
Coal.....	1	3,083	.....	Norfolk.....	Valparaiso.
Coal.....	1	3,205	.....	Norfolk.....	Caldera.
Coal.....	1	8,211	.....	Norfolk.....	Honolulu.
Coal.....	1	7,234	32,379	Norfolk.....	Pearl Harbor.
Coke.....	1	.....	4,003	Baltimore.....	Caldera.
Sulphur.....	1	.....	5,900	Sabine.....	Melbourne.
Creosote oil.....	1	.....	8,002	Amsterdam.....	Seattle.

FROM PACIFIC TO ATLANTIC.

Nitrate.....	3	16,308	.....	Iquique.....	Cristobal (for orders).
Nitrate.....	1	6,200	.....	Iquique.....	Antwerp.
Nitrate.....	1	8,800	.....	Iquique.....	Gibraltar.
Nitrate.....	1	8,566	.....	Iquique.....	Rotterdam.
Nitrate.....	1	2,686	.....	Iquique.....	Queenstown.
Nitrate.....	1	6,329	.....	Iquique.....	Dunkirk.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	1	2,716		Iquique.....	Alicante.
Nitrate.....	1	7,022		Taltal.....	Baltimore.
Nitrate.....	2	16,203		Taltal.....	Charleston.
Nitrate.....	1	5,906		Taltal.....	Cristobal (for orders).
Nitrate.....	1	6,450		Taltal.....	Valencia.
Nitrate.....	2	14,574		Mejillones.....	Cristobal (for orders).
Nitrate.....	1	4,100		Mejillones.....	Bilbao.
Nitrate.....	1	8,500		Mejillones.....	Antwerp.
Nitrate.....	1	6,661		Mejillones.....	Aarhus.
Nitrate.....	1	4,422		Antofagasta.....	Cristobal (for orders).
Nitrate.....	1	8,651		Antofagasta.....	Philadelphia.
Nitrate.....	1	8,200		Antofagasta.....	Dunkirk.
Nitrate.....	1	5,336		Antofagasta.....	San Juan, P. R.
Nitrate.....	1	1,800		Valparaiso.....	New York.
Nitrate.....	1	2,712		Caleta Buena.....	New Orleans.
Nitrate.....	1	7,650		Caleta Colosa.....	Rotterdam.
Nitrate.....	1	3,500	163,272	Tocopilla.....	Cristobal (for orders).
Flour.....	3	25,229		Tacoma.....	New York.
Flour.....	2	15,488		Seattle.....	New York.
Flour.....	2	13,128		Portland.....	New York.
Flour.....	2	13,364	67,209	San Francisco.....	New York.
Lumber.....	2	2,953		Portland.....	United Kingdom.
Lumber.....	1	1,521		Seattle.....	Neuvas.
Lumber.....	1	1,803		Seattle.....	West Hartlepool.
Lumber.....	1	1,841		Seattle.....	Nipa, Cuba.
Lumber.....	1	2,822		Vancouver.....	Norfolk.
Lumber.....	3	9,178		Vancouver.....	Queenstown.
Lumber.....	1	5,917		Frazer Mills.....	Queenstown.
Lumber.....	1	2,205		Nanoose.....	Queenstown.
Lumber.....	1	779		San Diego.....	Queenstown.
Lumber.....	1	2,653	31,972	Alberni.....	Queenstown.
Lubricating oil.....	1		11,000	San Francisco.....	Philadelphia.
Barley.....	1	6,210		Valparaiso.....	Inswich.
Barley.....	1	3,163	9,373	San Francisco.....	Leith.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	41	159,468	99,109	118,352	<i>Tons.</i> 50,287
British.....	17	44,005	25,151	31,658	10,736
Japanese.....	8	40,495	26,045	29,702	12,110
Spanish.....	6	21,212	14,045	16,687	.....
Norwegian.....	4	23,603	14,830	19,540	18,500
Chilean.....	4	11,035	6,729	9,529	4,917
Peruvian.....	3	12,468	6,677	7,845	2,615
Italian.....	3	15,584	9,657	11,285	1,190
Brazilian.....	1	6,692	4,126	6,294	.....
Swedish.....	1	3,769	2,853	4,001	4,200
Dutch.....	1	6,899	4,417	6,653	539
Total.....	89	345,230	213,639	261,546	105,634

Of the 89 vessels above, 47 passed through the Canal in ballast; 27 from the United States, 5 from Great Britain, 5 from Spain, 5 from the Atlantic terminus of the Canal, 2 from France, 1 from Canada, 1 from Holland, and 1 from Italy. The remaining 42 laden vessels were en route from, and carried the following cargo: Seventeen from the United States with 49,751 tons of general cargo; 16 from the Atlantic terminus of the Canal with 11,192 tons of general cargo; 4 from Mexican ports with 33,635 tons of fuel oil; 2 from Great Britain with 5,127 tons; 1 from Italy with 1,190 tons; 1 from Norway with 4,200 tons; and 1 from Holland with 539 tons, all general cargo.

This trade from the west coast of Central and South America for the month is shown as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	19	87,630	56,557	65,965	<i>Tons.</i> 102,039
British.....	17	72,320	43,713	54,927	66,325
Chilean.....	7	21,237	13,832	18,845	19,308
Norwegian.....	7	32,961	20,900	25,385	17,066
Spanish.....	5	17,138	10,815	12,778	24,546
Peruvian.....	3	13,783	7,590	8,454	8,060
Dutch.....	2	12,755	8,191	9,465	16,216
Japanese.....	1	5,447	3,406	4,295	7,500
Italian.....	1	4,680	2,850	3,593	2,312
Total.....	62	267,960	167,854	203,707	263,372

Four of the above 62 vessels were in ballast and 58 with cargo. Twelve were en route to United States ports with 62,599 tons of cargo, 36,388 tons of nitrate and 26,211 tons of general commodities; 7 to Great Britain with 49,335 tons of general cargo; 4 to Spain with 22,066 tons of nitrate; 2 for France with 14,529 tons of nitrate; 2 for Belgium with 14,700 tons nitrate; 2 for Holland with 16,216 tons nitrate; 1 for Denmark with 6,661 tons nitrate; 1 for Italy with 2,312 tons nitrate; 1 for Porto Rico with 5,336 tons nitrate; 16 completed voyages at Cristobal discharging 21,496 tons of general cargo for transshipment; 10 others, 8 with 44,710 tons of nitrate and 2 with 3,418 tons of general cargo, received sailing orders at this point for different ports. The 4 vessels in ballast were all oil tankers en route to Tampico.

Fifty-one vessels controlled by the United States Shipping Board passed through the Canal during the month; these had a total Panama Canal net tonnage of 175,876 and carried 222,257 tons of cargo. Twenty-nine passed from the Atlantic to the Pacific with an aggregate net tonnage of 87,897 with 99,800 tons of cargo; 22 passed through from the Pacific to the Atlantic with a total net tonnage of 87,979 carrying 122,457 tons of cargo. Two were northbound in ballast and 10 southbound.

PRINCIPAL TRADE ROUTES.

Traffic for the month was distributed according to the principal trade routes as follows:

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo. Tons.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America.....	36	110,881	30,863	24	80,380
Cristobal to west coast of South America.....	19	31,047	10,172	4	5,774
Europe to west coast of South America.....	21	80,535	16,193	15	55,183
United States to Australia and New Zealand.....	5	26,296	33,210	.....	.....
United States coastwise.....	9	39,436	52,764	.....	.....
United States to Far East.....	18	65,784	104,273	.....	.....
United States to Honolulu.....	11	47,955	75,829	.....	.....
Europe to west coast of United States.....	3	13,830	12,092	1	4,141
Mexico to west coast of South America.....	4	19,932	33,635	.....	.....
Mexico to west coast of United States.....	2	11,219	17,388	.....	.....
Europe to Australia and New Zealand.....	2	14,286	9,000	.....	.....
West Indies to west coast of South America.....	2	9,598	.....	2	9,598
Canada to west coast of South America.....	1	3,374	.....	1	3,374
Canada to Australia and New Zealand.....	1	5,532	7,000	.....	.....
Europe to Canada (British Columbia).....	1	4,415	.....	1	4,415
Cristobal to west coast of United States.....	1	1,602	2,258	.....	.....
Cristobal to west coast of Central America.....	1	692	1,020	.....	.....
Miscellaneous*.....	3	700	.....	3	700
Total.....	140	487,114	405,697	51	163,565
<i>Pacific to Atlantic.</i>					
West coast, South America to Cristobal.....	26	56,589	69,422	1	2,151
West coast, South America to Europe.....	19	83,307	125,819	.....	.....
United States coastwise.....	13	62,878	81,009	2	12,064
West coast, South America to east coast of United States.....	13	49,319	62,599	1	7,000
West coast, United States to Europe.....	13	36,110	52,708	.....	.....
Canada to Europe.....	7	15,397	21,465	.....	.....
Australia and New Zealand to Europe.....	9	55,175	50,315	.....	.....
West coast, South America to Mexico.....	4	21,148	.....	4	21,148
Far East to east coast of United States.....	2	10,398	17,396	.....	.....
Australia and New Zealand to United States.....	2	10,447	12,511	.....	.....
West coast, United States to Cuba.....	2	3,961	3,662	.....	.....
West coast, United States to Mexico.....	2	12,065	.....	2	12,065
Australia and New Zealand to Canada (east coast).....	1	5,431	7,403	.....	.....
West coast, South America to Porto Rico.....	1	2,813	5,336	.....	.....
Honolulu to east coast of United States.....	1	5,298	7,392	.....	.....
West coast, United States to Cristobal.....	1	1,602	565	.....	.....
West coast, Central America to Cristobal.....	1	692	223	.....	.....
West coast, Central America to United States.....	1	531	954	.....	.....
Miscellaneous.....	2	7,451	.....	2	7,451
Total.....	120	440,612	518,782	12	61,887

*"Miscellaneous" includes 2 tugs, 1 of American and 1 of British registry, of 175 and 115 tons, Panama Canal net measurement, respectively, the *Storm King* and *St. Mabyn*; also the Uruguayan cruiser, *Uruguay*, of 410 tons, same measurement.

†Includes 8 vessels of 22,554 tons, Panama Canal net measurement, carrying 44,710 tons of nitrate, routed to Cristobal for orders to proceed from there to ultimate destination.

‡Includes the *New Zealand* of the British Navy and the tug *Storm King*.

Tables showing the ports from which cargo was shipped and to which it was destined are attached to this report. (See pages 344 to 347 inclusive.)

SERVICES TO CANAL SHIPPING.

Repairs were made on 130 vessels during the month, including both those entering the ports only and those passing through the Canal; 69 at Cristobal and 61 at Balboa.

Thirteen vessels were dry docked, 7 at Cristobal and 6 at Balboa. Coal sales were 48,808 tons to 141 vessels at Cristobal, and 3,949 tons to 24 vessels at Balboa; a total of 52,757 tons to 165 vessels. There were 317 ships supplied with 10,925,727 gallons of water; 191 at Cristobal with 7,922,077 gallons, and 126 at Balboa with 3,003,750 gallons. Sales of commissary supplies to ships other than those of the Panama Railroad Steamship Line, aggregated \$102,556.87, including \$3,338.74 for laundry service at Cristobal. Charges for tug service to vessels using the Canal and the terminal ports amounted to \$32,776.80, of which \$17,871.80 was collected at Balboa and \$14,905 at Cristobal.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulations:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	140	120	260
Net tonnage of commercial ships, Panama Canal measurement.....	487,114	440,612	927,726
United States equivalent net tonnage of commercial ships.....	402,873	379,321	782,194
Registered gross tonnage of commercial ships.....	632,917	570,399	1,203,316
Registered net tonnage of commercial ships.....	397,904	361,795	759,699
Cargo through the Canal in commercial ships, tons of 2,240 pounds.....	405,697	518,782	924,479
Deck load cargo, included in above.....	856	3,273	4,129
Nationality of commercial ships through Canal:			
British.....	33	32	65
Brazilian.....	1		1
Chilean.....	4	7	11
Chinese.....	1		1
Danish.....		1	1
Dutch.....	1		3
French.....		8	8
Italian.....	3	1	4
Japanese.....	21	2	23
Norwegian.....	4	8	12
Peruvian.....	3	3	6
Russian.....	1		1
Spanish.....	7	5	12
Swedish.....	1		2
United States.....	59	50	109
Uruguayan.....	1		1
Total.....	140	120	260
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	110,299	143,057	253,356
Brazilian.....	6,294		6,294
Chilean.....	9,529	18,845	28,374
Chinese.....	3,998		3,998
Danish.....		5,303	5,303
Dutch.....	6,653	9,465	16,118
French.....		10,425	10,425
Italian.....	11,285	3,593	14,878
Japanese.....	83,608	9,824	93,432
Norwegian.....	19,540	31,012	50,552
Peruvian.....	7,845	8,454	16,299
Russian.....	949		949
Spanish.....	19,154	12,778	31,932
Swedish.....	4,001	4,013	8,014
United States.....	203,549	183,843	387,392
Uruguayan.....	410		410
Total.....	487,114	440,612	927,726
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	92,023	111,942	203,965
Brazilian.....	5,436		5,436
Chilean.....	6,389	14,625	21,014
Chinese.....	3,741		3,741
Danish.....		4,228	4,228
Dutch.....	4,262	8,185	12,447
French.....		9,719	9,719
Italian.....	9,686	2,643	12,334
Japanese.....	73,179	7,900	81,079
Norwegian.....	14,947	27,057	42,004
Peruvian.....	4,655	5,814	10,469
Russian.....	919		919
Spanish.....	17,207	10,784	27,991
Swedish.....	2,322	3,566	5,878
United States.....	166,936	132,075	319,011
Uruguayan.....	1,172		1,172
Total.....	402,874	358,533	761,407
Registered gross tonnage of commercial ships through the Canal:			
British.....	145,399	183,397	328,796
Brazilian.....	6,692		6,692
Chilean.....	11,035	21,237	32,272
Chinese.....	6,026		6,026

Item.	Cristobal.	Balboa.	Total.
Registered gross tonnage of commercial ships through the Canal—Continued:			
Danish.....		6,636	6,636
Dutch.....	6,599	12,755	19,654
French.....		16,367	16,367
Italian.....	15,584	4,680	20,264
Japanese.....	110,968	12,478	123,446
Norwegian.....	23,603	40,054	63,657
Peruvian.....	12,468	13,783	26,251
Russian.....	1,265		1,265
Spanish.....	24,670	17,138	41,808
Swedish.....	3,769	4,952	8,721
United States.....	263,992	236,922	500,914
Uruguayan.....	547		547
Total.....	632,917	570,399	1,203,316
Registered net tonnage of commercial ships, through the Canal:			
British.....	90,480	114,712	205,192
Brazilian.....	4,126		4,126
Chilean.....	6,729	13,832	20,561
Chinese.....	3,871		3,871
Danish.....		4,222	4,222
Dutch.....	4,417	8,191	12,608
French.....		10,249	10,249
Italian.....	9,657	2,850	12,507
Japanese.....	70,662	7,761	78,423
Norwegian.....	14,830	25,379	40,209
Peruvian.....	6,677	7,590	14,267
Russian.....	822		822
Spanish.....	16,204	10,815	27,019
Swedish.....	2,853	3,973	6,826
United States.....	166,220	152,221	318,441
Uruguayan.....	356		356
Total.....	397,904	361,795	759,699
Cargo carried by ships of various nationalities:			
British.....	94,769	152,273	247,042
Chilean.....	4,917	19,308	24,225
Chinese.....	7,400		7,400
Danish.....		7,582	7,582
Dutch.....	539	16,216	16,755
French.....		15,468	15,468
Italian.....	1,190	2,312	3,502
Japanese.....	99,805	16,896	116,701
Norwegian.....	18,500	26,066	44,566
Peruvian.....	2,615	8,081	10,696
Russian.....	720		720
Spanish.....		24,552	24,552
Swedish.....	4,209	5,837	10,037
United States.....	171,042	224,191	395,233
Total.....	405,697	518,782	924,479
Vessels passing through the Canal free of tolls:			
U. S. Navy destroyers.....	5		5
U. S. Navy fuel ship.....	1		1
U. S. Navy tug.....	1		1
U. S. Navy tender.....	1		1
U. S. Navy mine sweeper.....	1		1
U. S. Navy colliers.....		2	2
U. S. Army transport.....	1	1	2
U. S. Army dredge.....		1	1
Merchant ships with coal and supplies for the Army and Navy and The Panama Canal.....	6	1	7
Total.....	16	5	21
Launches.....	3		3
Net tonnage of launches, Panama Canal measurement.....	16		16
Total ocean-going ships transiting Canal.....	156	125	281
Total vessels transiting the Canal.....	159	125	284
Cargo on which no tolls were charged..... tons	29,241	736	29,977
Commercial ships through Canal in ballast.....	51	11	62
Net tonnage of above, Panama Canal measurement.....	163,565	54,611	218,176
Total commercial ships without cargo, transiting Canal.....	51	11	62
Net tonnage of above, Panama Canal measurement.....	163,565	54,611	218,176
Motor ships through the Canal.....	2	6	8
Net tonnage of above, Panama Canal measurement.....	491	16,400	16,891
Sailing ships through the Canal.....	1	5	6
Net tonnage of above, Panama Canal measurement.....	1,047	7,834	9,781
Tolls levied on laden ships through the Canal.....	\$324,236.03	\$393,081.20	\$717,317.23
Tolls levied on ships in ballast.....	\$124,288.19	\$49,752.92	\$174,041.11
Tolls on launches.....	\$15.36		\$15.36
Total tolls levied.....	\$448,539.58	\$442,834.12	\$891,373.70
Total ships entering port, including Canal transit.....	323	282	605
Total ships clearing port, including Canal transit.....	322	285	607
Total ships handled.....	645	567	1,212
Net registered tonnage of vessels entering port.....	971,127	833,657	1,804,784
Net registered tonnage of vessels clearing port.....	964,896	842,886	1,807,782
Total for vessels entering and clearing.....	1,936,023	1,676,543	3,612,566

Item.	Cristobal.	Balboa.	Total.
Registered gross tonnage of vessels entering.....	1,501,093	1,294,952	2,796,035
Registered gross tonnage of vessels clearing.....	1,493,157	1,309,348	2,802,505
Total registered gross tonnage of vessels entering and clearing.....	2,994,240	2,604,300	5,598,540
Vessels entering port, but not passing through the Canal.....	62	6	68
Net tonnage of above.....	169,924	17,057	186,981
Gross tonnage of above.....	272,555	25,852	298,407
Vessels clearing port, but not passing through the Canal.....	57	4	61
Net tonnage of above.....	159,767	11,591	171,358
Gross tonnage of above.....	255,918	17,003	272,921
Vessels passing through Canal, and handling passengers or cargo at port entered.....	32	56	88
Net tonnage of above.....	74,811	111,551	186,362
Gross tonnage of above.....	131,911	187,470	319,381
Vessels passing through Canal, and handling passengers or cargo at port cleared.....	31	56	87
Net tonnage of above.....	71,582	114,425	186,007
Gross tonnage of above.....	128,354	192,895	321,249
Transit cargo arriving..... tons.	993,566	951,925	1,945,491
Transit cargo cleared..... tons.	992,870	951,287	1,944,157
Local cargo arriving..... tons.	99,477	21,174	120,651
Local cargo shipped..... tons.	4,371	3,988	8,359
Total local cargo handled..... tons.	103,848	25,162	129,010
Total local and transit cargo arriving..... tons.	1,093,043	973,099	2,066,142
Total local and transit cargo cleared..... tons.	997,241	955,275	1,952,516
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	82,135	7,781	89,916
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	67,970	3,506	71,476
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.	3,853	3,222	12,105
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	153,988	14,509	173,497
Cargo stevedored, included in above..... tons.	94,039	6,636	100,675
Commercial vessels other than P. R. R. supplied with bunker coal.....	133	21	154
Coal supplied to commercial vessels other than Panama Railroad..... tons.	48,391	3,842	52,233
Panama Railroad vessels supplied with bunker coal.....	5		5
Coal supplied Panama Railroad Steamship Line..... tons.	332		332
U. S. Army vessels supplied with coal.....	3	3	6
Coal supplied to U. S. Army vessels..... tons.	85	107	192
Total vessels supplied with coal.....	141	24	165
Total coal furnished to vessels..... tons.	48,808	3,949	52,757
Coal supplied Panama Railroad departments..... tons.	1,115	60	1,175
Coal supplied Army, excepting vessels..... tons.	178		178
Coal supplied The Panama Canal..... tons.	2,490	655	3,145
Coal supplied individuals and companies..... tons.	394		394
Total coal furnished..... tons.	52,985	4,664	57,649
Coal received during December..... tons.	29,428		29,428
Coal on hand, January 1..... tons.	22,762	25,875	48,637
Vessels supplied with water.....	191	126	317
Water sold to ships..... gals.	7,922,077	3,003,750	10,925,827
Vessels dry docked.....	7	6	13
Commercial vessels furnished commissary supplies.....	187	109	296
Panama Railroad vessels furnished commissary supplies.....	10	1	11
Other U. S. Government vessels furnished commissary supplies.....	20	15	35
Total vessels furnished commissary supplies.....	217	125	342
Commissary sales to commercial vessels:			
Ice.....	\$1,836.18	\$963.25	\$2,799.43
Wholesale groceries.....	14,416.68	6,139.59	20,556.27
Wholesale cold storage.....	44,384.46	25,753.49	70,137.95
Laundry.....	3,338.74		3,338.74
Miscellaneous.....	3,964.18	1,760.30	5,724.48
Total.....	\$67,940.24	\$34,616.63	\$102,556.87
Commissary sales to Panama Railroad vessels:			
Ice.....	\$146.10		\$146.10
Wholesale groceries.....	2,583.10	\$80.92	2,664.02
Wholesale cold storage.....	7,214.01	292.40	7,506.41
Laundry.....	1,188.87		1,188.87
Miscellaneous.....	630.45		630.45
Total.....	\$11,759.53	\$373.32	\$12,132.85
Commissary sales to other Government vessels:			
Ice.....	\$163.71	\$203.55	\$367.26
Wholesale groceries.....	2,804.51	9,267.84	12,072.35
Wholesale cold storage.....	10,315.20	11,899.35	22,214.55
Laundry.....	325.51	90.18	415.69
Miscellaneous.....	684.05	1,028.47	1,712.52
Total.....	\$14,292.98	\$22,489.39	\$36,782.37
Total commissary sales to all vessels.....	\$93,992.75	\$57,479.34	\$151,472.09
Fuel oil sold to commercial vessels..... barrels.	39	4,874	4,913
Fuel oil sold to P. R. R. vessels..... barrels.	13,281	3,865	17,146

Item.	Cristobal.	Balboa.	Total.
Fuel oil issued to U. S. Navy.....	barrels.. 308	1,187	1,495
Fuel oil issued to U. S. Army.....	barrels.. 156	1,129	1,285
Fuel oil issued to Canal departments.....	barrels.. 5,589	19,580	25,169
Total fuel oil furnished.....	barrels.. 19,373	30,635	50,008
Fuel oil received during month.....	barrels.. 52,591	1,281	53,872
Balance on hand, January 1, 1920.....	barrels.. 87,013	59,306	146,319
Other oil pumped.....	barrels.. 386,232	19,333	405,565
Diesel oil issued during month.....	barrels..	66	66
Diesel oil on hand, January 1, 1920.....	barrels..	1,433	1,433
Passengers arriving, including transit passengers:			
First cabin.....	3,016	1,411	4,427
Other than first cabin.....	1,230	694	1,924
Total.....	4,246	2,105	6,351
Passengers departing, including transit passengers:			
First cabin.....	2,518	1,308	3,826
Other than first cabin.....	1,139	749	1,888
Total.....	3,657	2,057	5,714
Total movement of passengers.....	7,903	4,162	12,065
Passengers disembarking:			
First cabin.....	1,749	244	1,993
Other than first cabin.....	895	49	944
Total.....	2,644	293	2,937
Passengers embarking.....			
First cabin.....	1,330	141	1,471
Other than first cabin.....	866	104	970
Total.....	2,196	245	2,441
Services to American seamen:			
Seamen shipped.....	253	152	405
Seamen paid off.....	230	132	362
Seamen deserted.....	8	3	11
Seamen lodged, subsisted, and repatriated.....	16	14	30
Total seamen handled.....	507	301	808
Wages of American seamen:			
Total amount earned.....	\$44,479.25	\$15,054.29	\$59,533.54
Deductions approved by Deputy Shipping Commissioners.....	\$12,848.63	\$5,552.45	\$18,401.08
Balance due seamen.....	\$31,630.62	\$9,501.84	\$41,132.46
Paid to seamen.....	\$15,687.45	\$3,738.68	\$19,426.13
Received on deposit for seamen.....	\$15,943.17	*\$5,498.16	\$22,441.33
Services to American vessels:			
Crews shipped.....	3		3
Crews paid off.....	3		3
Shipping articles written.....	3	2	5
Marine notes of protest noted.....	20	9	29
Bills of health issued.....	167	158	325
Clearances issued.....	147	146	293

* Includes \$735 immigration deposit.

LOCK OPERATION.

Lockages of commercial vessels during the month were as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total
Gatun.....	114	138	252	121	148	269
Pedro Miguel.....	115	144	259	120	146	266
Miraflores.....	108	124	232	120	146	266

Army and Navy vessels, those of the Panama Railroad and Panama Canal, and commercial vessels, are included in the following summary of all lockages during the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	252	259	232
Noncommercial, United States Army and Navy.....	10	11	11
Canal equipment.....	6	21	14
Total.....	268	291	257
Vessels:			
Commercial vessels.....	269	266	266
Noncommercial, United States Army and Navy.....	21	18	18
Canal equipment.....	22	57	60
Total.....	312	341	344

The total consumption of water for all lockages was 2,146,890,000 cubic feet. The consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	1,115,900,000	1,039,990,000	769,740,000
Leakage.....	20,000,000	48,800,000	15,000,000
Total.....	1,135,900,000	1,078,990,000	784,740,000

METEOROLOGY.

The December rainfall was below normal everywhere except at Rio Grande and Chillibrillo, the totals ranging from 1.10 inches at Taboga to 7.73 inches at Monte Lirio. The greatest daily precipitation was 3.62 inches at Colon on the 3d. The estimated rainfall over Gatun Lake watershed was 5.07 inches, compared with a 9-year mean of 4.96 inches; and over the Chagres River basin above Alhajuella it was 3.96 inches, compared with an 18-year mean of 9.25 inches. The elevation of Gatun Lake was 86.88 on the 31st. There was a decrease in storage of 900,000,000 cubic feet for the month.

One seismic disturbance of light intensity was recorded at Balboa Heights on December 3. Its recorded amplitude was 7 millimeters; the probable direction northwest.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The gross output of the hydroelectric station for the month was 5,667,700 K. W. H. on a computed water consumption of 3,987,600,000 cubic feet. No service interruptions occurred; and on but one occasion, on the 29th, this station carried the entire load of the power system. On this date a load of 14,000 KW necessitated the Miraflores steam plant carrying 300 KW.

Miraflores steam plant—This plant consumed 149,160 K. W. H. in excess of its output, with generators floating on line service for standby purposes. The oil consumption was 2,402 barrels.

Total power output—The total gross output was 5,667,700 K. W. H.; the total power distributed to consumers, 4,829,153 K. W. H.; the total loss in power plant auxiliaries, transmission, transformation, and operation of steam plant generators, 838,547 K. W. H., or 17.36 per cent of the gross output.

Substations—All substation service was without other than minor interruptions. The installation of the 60,000 KV testing transformer at the Gatun Substation was completed and preliminary test made.

Marine work—This division, in addition to its usual maintenance and repair work of Panama Canal plant and equipment, installed and repaired the various items of electrical equipment on 75 vessels during the month, 32 at Cristobal and 43 at Balboa.

SHOP, FOUNDRY, AND DRY DOCK WORK.

Installations in the machinery and boiler room spaces of the steamship *Cristobal* were brought to within about 6 per cent of total completion. The installation of auxiliary machinery and connections outside of these spaces and refrigerating equipment was begun. The fuel oil compartments have been completed with the exception of the heating grids to be installed, and all steel work erected except that for the smoking room and small pieces of a minor nature. Decking of the boat deck has been completed and the staterooms on the lower deck are being built.

The value of the native wood industry was again demonstrated in the repairs made to the wooden steamship *Canada* belonging to the French Government. This vessel arrived with a broken rudder stock. A native timber of suitable size and character was readily obtained and the rudder stock quickly replaced, thereby saving a long delay had it been necessary to obtain the timber from the United States.

The Balboa shops completed a new furnace for the steamship *Kentuckian*, undergoing repairs at the Cristobal shops. This replaced a furnace which had collapsed and disabled the vessel. The furnace was constructed in three pieces; the longitudinal seams were electric welded; flanges were turned at the ends of each section, and the section next to the combustion chamber was of a truncated elliptical inclined cone in addition to being flanged at the ends, making an unusually difficult job. It was satisfactorily completed and tested to withstand a pressure of 210 pounds.

The steamship *Elkwater* was dry docked and found to have two blades of her propeller broken off, the stern bush and stern tube lock nut loose, and the stern tube partly revolved and cracked. The stern tube was removed and welded and its fit in the vessel properly made by building up loose parts by electric welding and machining to a fit. The spare propeller carried on board was installed in place of the broken one.

The steamship *Crisfield* arrived at Balboa with her high pressure cylinder cracked. Acting upon instructions from the owners, the engine was temporarily compounded to cut out the high pressure cylinder, and the vessel proceeded to the United States in this condition under her own steam for permanent repairs.

The more important marine repair jobs at the Cristobal shops, in addition to those on the *Kentuckian*, referred to, were: The completion of the overhauling of the steamship *Caribbean*; the overhauling of the steamship *Culebra*, which was continued during the month; and the renewal of the greater portion of the planking, framing, and stern log of the tug, *San Juan*.

An unusual number of ships were at the Balboa shops during the month for repairs. On one day there were 26 ships under repair; this exceeds the highest number at the plant on any previous occasion.

There were 191 special individual and company job orders issued at Cristobal during the month; two of which were for work on naval vessels, exclusive of submarines; 68 covered repairs to ships making call at Cristobal or in transit of the Canal, not including Panama Railroad vessels. The following vessels were at the Cristobal shops for repairs during the month: U. S. S. *Barnes*, U. S. S. *Pigeon*; steamships *Virginian*, *Ucayali*, *Lake Farrar*, *Bologna*, *Balboa*, *Parnahyba*, *Point Judith*, *Achilles*, *Cauca*, *Gen. Goethals*, *National Bridge*, *Salvador*, *Middlebury*, *Guatemala*, *Manavi*, *Imley*, *Santa Leonora*, *Gen. Gorgas*, *Ottawa*, *Culebra*, *Ulysses*, *Allianca*, *Panama*, *Stuyvesant*, *Ancon*, *Crynssen*, *Trois Rivieres*, *Masula*, *Belle Brook*, *Shenandoah*, *Kentuckian*, *Victoria*, *Saverne*, *Crown of Galacia*, *Bonnafon*, *Lake Wilson*, *Norman Bridge*, *Princess Matoika*, *Montnagny*, *Chile*, *Jamaica*, *Middleburg*, *Caribbean*, *C-35*, *C-42*, *C-44*, *C-47*, *Cuzco*, *Kuwa*, *Pisco*, *Hattie*, *Urubamba*, *Ayaba Maru*, *Fort Sill*, *Fassett*, *Colon*, *Jupiter*, *Huallaga*, *Lake Hurst*, *Llay Llay*, and *Frontenac*; schooners *S. G. Wilder* and *John M. Wells*; tugs *Porto Bello*, *San Juan*, and *Tavernilla*; gunboat *Uruguay*. Of these vessels the following were dry docked: steamships *Kuwa*, *Mecklenburg*, *Ottawa*, *Fassett*, and *Caribbean*; and tugs *Porto Bello* and *San Juan*.

The Balboa shops had the following vessels for miscellaneous repairs during December: U. S. S. *Cleveland*, *W. M. Graham*, *Ingraham*, *Turner*, *Greene*, *Richard Delphy*, *Cyrus W. Field*, submarine chaser No. 280, cruiser *Lima*; steamships *Lompoc*, *Cristobal*, *Crisfield*, *Achilles*, *Bonham*, *Wisteria*, *Lake Gitano*, *Lake Elkwater*, *Lake Onawa*, *Lake Fairfax*, *Lake Fitch*, *Lake Fibre*, *Canada*, *Caddo*, *La Habra*, *Georgian Rolph*, *Sacramento*, *Cheswald*, *Balboa*, *Ardmore*, *Acajula*, *West Cavanel*, *Huasco*, *Gen. Goethals*, *Liberty*, *Belle Brook*, *Grayson*, *Minnesotan*, *Donostia*, *Point Bonita*, *Boxley*, *Dahlia*, *Dakotan*, *Olackson*, *Holbrook*, *Los Angeles*, *Ansaldo III*, *Egremont*, *Ansaldo San Giorgio I*, *Belin Quezada*, *Suecia*, *Barnes*; motorships *Santa Elena*, *Sierra*, *Chiriqui*, *Almirante*, and *H. K. Hall*; collier *Vulcan*, tug *Storm King*, dredge *Corozal*, and launch *Grace*. Of these the following were in dry dock at Balboa: U. S. S. *Ingraham*, subchaser No. 280, *Achilles*, *Ardmore*, *La Habra*, and *Lake Elkwater*.

The output of the Mechanical Division in patterns made and foundry production is shown as follows:

	December.		November.	
	Patterns.	Pounds.	Patterns.	Pounds.
Iron.....	57	129,358	58	98,296
Steel.....	14	26,114	4	29,691
Brass.....	43	13,356	40	29,961

The routine repair and inspection work of the Division for December comprised the following items:

Cars repaired.....	1,789
Locomotives, cranes, and miscellaneous equipment repaired.....	853
Passenger coaches packed, cleaned, oiled, and inspected.....	3,175
Freight cars repacked.....	790
Locomotives hosted.....	1,612
Cranes hosted.....	229
Locomotives ridden.....	58
Locomotives inspected.....	66
Crews instructed in handling locomotives.....	15
Crews instructed in oil and fuel economy.....	22

BUILDING CONSTRUCTION.

The Building Division had the following items of construction under way during December, with the progress indicated:

	Per cent completed.
Puerto Obaldia Radio station.....	100
Tuberculosis ward, Corozal Hospital.....	90
Reconstruction, Royal Mail Pier:	
Steelwork.....	90
Wood trusses.....	20
Roof.....	60
Moving 3 type-18 houses from Las Cascadas to Balboa:	
Moving.....	100
Erection.....	40

	Per cent completed
Moving 7 type-15 houses and 1 type-7 house from Las Cascadas to Pedro Miguel.....	100
All houses moved.....	70
Erection of 3 houses.....	50
Erection of 5 houses.....	(*)
Installation of third unit, Gavilan Island incinerator.....	(*)
Colon stables:	
Footings for stables.....	75
Concrete columns.....	50

(*) Erection started.

Preliminary work in connection with the construction of Colon stables was started during the month. The project will comprise six stables, five wagon sheds, latrine, feed room, quarters, and a shop building. In addition to these items of construction and its work for the Army and Navy, a separate report for which is submitted, the Building Division carried on its ordinary repair and maintenance work of Panama Canal buildings, including painting, installation of plumbing, and the removal and conversion of several other buildings into different types of quarters as required, completed one 10-stall and one 4-stall garages, and began the erection of 2 other 6-stall garages. This division also produced 4,400 feet of sectional cement drain tile at its tile manufacturing plant.

DREDGING DIVISION.

The total excavation by dredges of earth, rock, and gravel during December was 474,400 cubic yards, as shown below:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
(a) 10,800	9,800	1,000	Maintenance....	<i>Cucaracha slide.</i> 1809-00 to 1817-00 E.....	<i>Cascadas.</i>
(a) 25,900	23,300	2,600	Maintenance....	1813-00 to 1820-00 E.....	<i>Paraiso.</i>
(a) 7,200	4,300	2,900	Maintenance....	<i>West Culebra slide.</i> 1783-00 to 1780-50 W.....	<i>Cascadas.</i>
(a) 29,000	21,800	7,200	Maintenance. {	1742-00 to 1747-00 W.....	<i>Paraiso.</i>
				1773-50 to 1792-50 W.....	<i>Paraiso.</i>
(a) 100,700	60,400	40,300	Maintenance....	<i>East Culebra slide.</i> 1777-00 to 1789-00 E.....	<i>Paraiso.</i>
(b) 15,900	15,900		Maintenance....	<i>Balboa Inner Harbor.</i> Balboa inner harbor.....	<i>Cascadas.</i>
(b) 9,400	9,400		Construction....	Balboa inner harbor.....	<i>Cascadas.</i>
(c) 85,000	85,000		Maintenance....	<i>Pacific Entrance.</i> 2141-50 to 2166-00 W.....	<i>No. 83.</i>
(c) 15,000	15,000		Maintenance....	2197-50 to 2202-50 W.....	<i>No. 83.</i>
(c) 90,000	90,000		Maintenance....	2189-00 to 2198-75 E.....	<i>No. 86.</i>
(c) 75,000	75,000		Maintenance....	2167-50 to 2197-50 W.....	<i>No. 86.</i>
(c) 5,000	5,000		Construction....	2167-50 to 2197-50 W.....	<i>No. 86.</i>
(d) 2,600	2,600		Aux. constr'n....	<i>Chagres River gravel bed.</i> Chagres River.....	<i>Marmot.</i>
(d) 2,900	*2,900		Aux. constr'n....	Channel to gravel bed.....	<i>Marmot.</i>
474,400	420,400	54,000	Total for month		

(a) Gaillard Cut. (b) Balboa inner harbor. (c) Pacific entrance. (d) Gravel beds.

*Two thousand nine hundred cubic yards of mud were excavated in constructing a navigable channel to the sand and gravel beds.

The following disposition was made of the material excavated: All from Gaillard Cut, 173,600 cubic yards, was dumped in Gatun Lake north of Gamboa; 90,000 yards from the Pacific entrance were deposited in the Rio Grande diversion, and 80,000 yards on San Juan dump, 100,000 yards on the flats west of the Canal; all that from Balboa inner harbor, 25,300 yards, was dumped at sea; 2,600 yards of gravel were stored at the gravel pits, and the 2,900 yards of mud excavated were thrown along the channel to the gravel bed.

No unusual slide movements occurred during the month. A small surface movement near the top of Cucaracha slide brought no additional material into the Canal area. The barge repair slide had a surface movement continuous throughout the month, but without disturbing the Canal channel in any way.

The excavation remaining to be done on January 1 was as follows:

Location.	Earth.	Rock.	Total.
	<i>Cu. yds.</i>	<i>Cu. yds.</i>	<i>Cu. yds.</i>
Gaillard Cut.....		25,000	25,000
Pacific entrance.....	50,500	86,900	137,400
Total Canal prism.....	50,500	111,900	162,400
Cristobal coaling station.....		2,100	2,100
Balboa inner harbor.....	145,000	13,400	158,400
Total, ocean to ocean.....	195,500	127,400	322,900

MUNICIPAL ENGINEERING DIVISION.

This Division had the following items of construction under way in the Northern District during December, with the progress on January 1 as shown:

	Per cent completed.
Roads, water lines, and sewers, ten 12-family silver quarters, Mount Hope:	
Water lines.....	100
Sewer lines.....	100
Roads and sidewalks.....	5
Grading, fill, and general municipal work for new silver townsite, Mount Hope:	
Fill and grading.....	99
Water lines.....	80
Streets and roads.....	8
Sewers, sanitary.....	90
Sewers, storm.....	90
Municipal work, Block 54, Colon:	
Water lines.....	25
Sanitary sewers.....	60
Storm sewers.....	99
Municipal work, Panama Railroad stables, Colon.....	99
Municipal work, area between 7th and 9th streets and "G" and "K" streets, Colon.....	2
Concrete roadway to substation, Gatun.....	30

Construction work in the Southern District progressed as shown below:

	Per cent completed.
Replacing 4-inch oil line, Balboa.....	100
Municipal work for 3 type-18 houses, Balboa.....	60
Industrial track between buildings 8 and 14, Balboa shops.....	99
Municipal work and concrete work for new garages, Ancon and Balboa.....	100
Sewer, Northern Avenue to beach.....	75
Municipal work for 8 houses, Pedro Miguel.....	75
Storm sewer, Javillo fill.....	(*)
Sewer and water lines for C. & S. A. Tel. Co., Balboa.....	(*)

(*) No work done.

All pumping stations were operated continuously during the month with a total output of 856,009,000 gallons, of which 95,991,000 gallons were furnished to Panama, 49,602,925 gallons to Colon, and 10,925,727 gallons to vessels. A total of 528,564,000 gallons was filtered for domestic purposes.

The Gavilan Island incinerator consumed 2,647 tons of garbage and 21 dead animals during the month.

WORKING FORCE.

Effective December 24, 1919.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	38	53	91
Building Division.....	349	1,843	2,192
Electrical Division.....	242	333	575
Municipal Engineering Division.....	114	1,578	1,692
Lock Operation.....	177	660	837
Dredging Division.....	149	934	1,083
Mechanical Division.....	972	1,904	2,876
Marine Division.....	137	404	541
Fortifications.....	52	188	240
Total.....	2,230	7,857	10,127
Supply Department (see Hotel Washington also):			
Quartermaster.....	160	1,908	2,063
Subsistence.....	28	373	401
Commissary.....	235	1,613	1,848
Cattle Industry—Plantations.....	29	1,375	1,404
Total.....	452	5,264	5,716
Accounting.....	247	11	258
Health.....	237	957	1,194
Executive.....	536	281	817
Total.....	1,020	1,249	2,269
Panama Railroad:			
Superintendent.....	70	515	585
Transportation.....	142	196	338
Receiving and Forwarding Agent.....	73	1,878	1,958
Coaling Stations.....	84	763	847
Total.....	374	3,352	3,726
Hotel Washington—Supply Department.....	5	97	102
Grand total.....	4,081	17,859	21,940

The total gold force employed on December 24 was 18 more than the 4,063 at work on November 19, and the silver force was 1,039 more than the 16,820 working on that

date. As compared with the gold force for the corresponding month of last year, reported as of December 18, 1918, the present force is an increase of 262 over the 3,819 employed on that date; and the silver force an increase of 200 over the 17,659 of the same date.

Panama Canal and Panama Railroad quarters had the following occupants on December 31:

Occupants.	Men.	Women.	Children.	Total.
Americans.....	3,462	2,141	2,537	8,140
Europeans.....	191	46	62	299
West Indians.....	5,149	1,975	3,735	10,859
Total.....	8,802	4,162	6,334	19,298

PUBLIC HEALTH.

There were 43 cases of malaria reported among employees during the month, as compared with 23 cases for November. Of the 43 cases this month, 27 were employees of the cattle pastures and plantation camps of the Supply Department. The total number of cases of malaria, including employees and nonemployees, was 95, as compared with 73 for November. One nonresident died from malaria. Eighteen cases of influenza were admitted to hospitals, as compared with 13 cases last month; no deaths resulted in December. There were 12 cases of pneumonia and 3 deaths this month; the November record being 5 cases and 1 death. There were 5 cases of typhoid fever during December, 3 of whom were nonresidents, and 1 death; in November there were 4 cases and no deaths from typhoid. No cases of smallpox were reported this month. One case of leprosy was admitted to the Palo Seco leper asylum.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

Material ordered on United States requisitions was received during the month in the total amount of \$1,144,336.24. Same receipts for November were \$452,243.12. Of the December receipts, \$989,211.32 was chargeable to operation and maintenance; \$132,993.81 to construction and equipment; and \$22,131.11 to miscellaneous departments. Cash sales on the Isthmus from storehouses and obsolete store amounted to \$69,766.28, of which \$59,409.08 was for miscellaneous storehouse stock, \$7,731.06 for fuel oil, \$2,655.72 for scrap, and \$330.42 for obsolete material. There were no important sales of material in the United States during December.

The total sales of material from storehouses to steamships during the month was \$42,437.91, of which \$35,126.76 was for miscellaneous stock material, and \$7,311.15 for fuel oil. Sales of commissary supplies to all purchasers for the month aggregated \$1,148,513.92, made up as follows: To steamships, other than United States Government vessels and those of the Panama Railroad Steamship Line, \$105,618.76; to The Panama Canal, \$126,486.86; to the United States Government, including sales to the Army and Navy, \$186,270.41; to individuals and companies, principally through charge accounts in the retail commissaries, \$25,190.80; to the Panama Railroad, including its steamships and the Hotel Washington, \$40,512.21; and to individuals purchasing coupons, \$664,434.88.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on December 31, exclusive of Fortifications, was \$14,528,951.48; the balance in Fortifications was \$7,756,247.48. Payments from appropriations by the Disbursing Clerk, Washington, amounted to \$576,803.79, and by the Paymaster on the Isthmus to \$1,501,576.21. Purchases of commissary books from the Panama Railroad Company amounted to \$344,063.91.

Collections of tolls on the Isthmus amounted to \$891,375.70. Deposits of \$223,350 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,273,230.10, and collections by the Disbursing Clerk, Washington, \$95,879.50. Receipts from Canal Zone and miscellaneous funds were \$211,141.47; disbursements from the same source were \$36,467.08. December payrolls on the Isthmus aggregated \$1,248,505.17, as compared with November payrolls of \$1,155,800.72, an increase of \$92,704.45.

Respectfully,

CHESTER HARDING,

Governor.

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, December, 1919.

From—	Aarhus, Denmark.	Alicante, Spain.	Antwerp, Belgium.	Baltimore, Md.	Bergen, Netherlands.	Bilbao, Spain.	Charleston, S. C.	Copenhagen, Denmark.	Cristobal Canal Zone.	Dunkirk, France.	Falmouth, England.	Genoa, Italy.	Gibraltar, Spain.	Hull, Nova Scotia.	Ipswich, Great Britain.	Leith, Scotland.	
Albernia, British Columbia																	
Antofagasta, Chile									4,422	8,200							
Arica, Peru									2,226								
Brisbane, Australia									8,081								
Buenaventura, Colombia																	
Callao, Peru									223								
Caleña Buena, Chile																	
Caleña Colosa, Chile																	
Champenco, Guatemala																	
Coronel, Chile							8,710										
Corral, Chile																	
Frazier Mills, British Columbia																	
Guayaquil, Ecuador									1,713								
Honolulu, Hawaii																	
Louique, Chile		2,716	6,200						16,308	6,329			8,800				
Kobe, Japan																	
La Union, Salvador																	
Lyttleton, New Zealand																	
Manila, Ecuador									1,000								
Manila, Chile	6,661		8,500						14,574								
Melbourne, Australia																	
Nanosee, British Columbia																	
Oamaru, New Zealand																	
Portland, Oreg.											1,154						
Port Pirie, Australia																	
Punta Arenas, Argentine																	
Salaverry, Peru																	
San Diego, Cal.				2,800	9,000												
San Francisco, Cal.																	
Seattle, Wash.																	
Singapore, China																	
Sydney, Australia			4,000														
Tacoma, Wash.										7,582							
Tacabuanu, Chile																	
Talca, Chile																	
Tecopilla, Chile				7,022													
Valparaiso, Chile																	
Vancouver, British Columbia																	
Wellington, New Zealand																	
Totals	6,661	2,716	18,700	9,822	9,000	4,100	24,913	7,582	70,213	14,629	1,154	2,312	8,800	7,403	10,450		3,163

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, December, 1919—Continued

From—	London, England.	Liverpool, England.	Mobile, Ala.	Neuvas, Cuba.	New Orleans, La.	New York, N. Y.	Nipe, Cuba.	Norfolk, Va.	Philadelphia, Pa.	Queenstown, Ireland.	Rotterdam, Holland.	San Juan, Porto Rico.	Stockholm, Sweden.	United Kingdom.	Valencia, Spain.	W. Hartlepool, England.	Total
Albernia, British Columbia.....										2,653							2,653
Antofagasta, Chile.....									8,651			5,336					26,609
Arica, Peru.....						5,500											5,500
Brisbane, Australia.....						8,201											8,201
Buenaventura, Colombia.....						861											3,087
Callao, Peru.....																	8,081
Caleta Buena, Chile.....					2,712												2,712
Caleta Colosa, Chile.....																	7,650
Champerico, Guatemala.....																	7,650
Coronel, Chile.....		5,330															5,330
Corral, Chile.....																	8,210
Frazers Mills, British Columbia.....										5,917							5,917
Guayaquil, Ecuador.....																	7,718
Honolulu, Hawaii.....						7,302											7,302
Iquique, Chile.....						9,396											9,396
Kobe, Japan.....																	954
La Union, Salvador.....																	4,310
Lytelton, New Zealand.....						4,310											4,310
Manila, Ecuador.....																	1,000
Mejillones, Chile.....																	33,835
Melbourne, Australia.....	1,800																1,800
Nanose, British Columbia.....	4,800									2,205							2,205
Oamaru, New Zealand.....						13,128								1,799			16,081
Portland, Oreg.....																	4,800
Port Pirie, Australia.....																	6,490
Punta Arenas, Argentine.....		6,400															6,400
Salaverry, Peru.....		6,400															3,113
San Diego, Cal.....						3,113											779
Seattle, Wash.....						13,304											57,554
Singapore, China.....						13,488			11,000				5,837			1,803	97,360
Sydney, Australia.....				1,821		8,000	1,841										8,000
Tacoma, Wash.....						25,229											11,940
Talcahuano, Chile.....						3,851											23,229
Taltal, Chile.....																	36,111
Toconilla, Chile.....															6,450		35,681
Valparaiso, Chile.....		6,900				5,976											3,500
Vancouver, British Columbia.....		6,841						2,822									22,658
Wellington, New Zealand.....	18,444									11,912							21,634
Total.....	31,451	68,630	954	1,821	2,712	123,809	1,841	2,822	19,651	26,132	16,216	5,336	5,837	1,799	6,450	1,803	518,782

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, December, 1919.

From—	Australia.	Auckland, New Zealand.	Antofagasta, Chile.	Buenaventura, Colombia.	Caldera, Chile.	Callao, Peru.	Champetico, Guatemala.	Chile.	Coronel, Chile.	Dunedin, New Zealand.	Guayaquil, Ecuador.	Hongkong, China.	Honolulu, Hawaii.	Iquique, Chile.	Japan.	Kobe, Japan.	Los Angeles, Cal.
Amsterdam, Holland.....						539											
Baltimore, Md.....			1,073		4,273			64	4,000								
Belfast, Ireland.....						4,200											
Christiana, Norway.....						2,615	1,020										
Christiana, Canal Zone.....				1,472				110			2,117						
Galveston, Tex.....																6,517	
Genoa, Italy.....																	
Liverpool, England.....									2,992								
London, England.....																	
Manchester, England.....	5,000																
Montreal, Canada.....		7,000															
New Orleans, La.....																	
New York, N. Y.....		7,500				6,008											
Norfolk, Va.....					3,083												
Port Arthur, Tex.....																	
Puerto Lobos, Mexico.....													7,200				
Port Talbot, Wales.....												5,400	60,774				
Sabine, Tex.....												8,000			6,778		
Savannah, Ga.....																	
Tampico, Mexico.....																	
Tuxpan, Mexico.....																	
Total.....	5,000	14,500	1,073	1,472	7,356	13,362	1,020	110	3,056	4,000	5,264	5,400	75,829	9,500	13,295	11,552	4,000

Distribution Among Ports of Cargo Passing Through the Canal, from Atlantic to Pacific, December, 1919.—Continued.

From—	Lytleton, New Zealand.	Melbourne, Australia.	Mollendo, Peru.	Pisagua, Chile.	San Francisco Cal.	San Pedro, Cal.	Seattle, Wash.	Tacoma, Wash.	Tahiti.	Tecpilla, Chile.	Townsville, Australia.	Tunaco, Colombia.	Valparaiso, Chile.	West Coast, New Zealand.	Yokohama, Japan.	Total
Amsterdam, Holland.....																8,651
Baltimore, Md.....						3,400	8,092						4,117			16,852
Belfast, Ireland.....					2,975		950									4,000
Christiania, Norway.....																4,200
Cristobal, Canal Zone.....					2,258							544	3,424			13,450
Galveston, Tex.....													1,190			6,627
Genoa, Italy.....													1,190			1,190
Liverpool, England.....														2,135		6,992
London, England.....																2,135
Manchester, England.....																5,000
Montreal, Canada.....																7,000
New Orleans, La.....					20,148								3,240			35,570
New York, N. Y.....	5,200				64,325		18,976		259		6,400		3,048	8,210	8,800	194,825
Norfolk, Va.....													2,700			5,783
Port Arthur, Tex.....																8,000
Puerto Lobos, Mexico.....					17,388					9,000						35,888
Port Talbot, Wales.....																5,137
Sabine, Tex.....		5,900														5,900
Savannah, Ga.....					6,957											23,373
Tampico, Mexico.....																8,000
Tuxpan, Mexico.....																7,135
Total.....	5,200	5,900	5,137	15,135	114,051	3,400	9,042	18,976	259	9,000	6,400	544	17,719	2,135	8,800	405,697

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, January 24, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Lake Elbert.	17	10 55	18	6 20	18	13 53	18	16 00	American.	United States Shipping Board.	251.0	43.6	15.6	Pensacola.	Iquique.	2,803	1,721		
Lake Frenchton	15	8 15	18	6 27	18	14 05	18	16 00	American.	United States Shipping Board.	251.0	43.6	14.6	Norfolk.	Chile.	2,706	1,778		
Quenesad.	17	6 16	18	6 30	18	17 32	18	18 25	Norwegian.	Bendix J. Grefstad.	290.5	42.5	19.6	New York.	Callao.	3,000	2,385	1,689	
Mont Cervin.	17	12 48	18	6 35	18	17 35	18	18 30	French.	Societe Gen. de T. Maritime.	340.0	50.0	20.1	Marseilles.	Vancouver.	4,909	4,070	2,933	
Laura C. Hall.	12	16 40	18	7 32	18	19 00	19	16 30	British.	Pacific Metals Corporation.	81.0	25.0	9.6	Cristobal.	General.	24	130	69	
San Joaquin.	18	8 45	18	10 19	18	19 14	18	20 30	Norwegian.	W. Wilhelmsen.	425.0	57.5	26.7	Tampico.	Tocopilla.	9,000	7,059	5,081	
Kongosan Maru	18	12 47	18	13 10	18	20 35	19	8 17	Japanese.	Mitsui & Co.	420.0	49.1	13.8	Taraco.	Crude oil.	4,616	5,656	4,707	
Manavi.	15	15 22	19	6 18	19	13 26	19	14 45	British.	Pacific Steam Navigation Co.	216.0	30.0	27.9	Cristobal.	Phosphate.	683	1,241	750	
Kongosan Maru	19	8 36	19	9 27	19	19 13	19	20 08	American.	United States Steel Products.	420.0	50.0	27.9	New York.	General.	6,440	5,696	4,207	
Charlton Hall.	14	20 30	19	9 27	19	19 13	19	20 08	Chilean.	South American Line.	273.7	44.3	20.7	Cristobal.	General.	584			
Huasco.	18	9 45	19	10 35	19	20 35	19	21 29	American.	W. R. Grace & Co.	404.0	54.0	16.0	Jacksonville.	Iquique.	6,759	4,598		
Chandler.	18	16 20	19	6 00	20	14 00	20	21 10	American.	United States Shipping Board.	251.0	43.6	12.1	Norfolk.	Coal.	2,060	2,472	1,557	
Babbitt (a).	19	7 40	20	6 12	20	12 35	24	9 26	American.	United States Navy.	315.0	30.0	13.0	Guantanamo.	San Diego.				
Kilty (a).	19	7 41	20	6 18	20	12 38	24	9 26	American.	United States Navy.	315.0	30.0	12.0	Guantanamo.	San Diego.				
Jamaica.	17	21 07	20	7 06	20	14 48	20	18 35	British.	Pacific Steam Navigation Co.	229.0	34.0	13.6	Cristobal.	Buenaventura.	716	1,187	622	
Lake Gebhart.	14	12 35	20	13 25	20	19 55	20	20 38	American.	United States Shipping Board.	381.2	46.1	19.8	Cristobal.	Iquique.	800	2,872	1,793	
Urubamba.	15	19 10	21	7 10	21	14 20	21	19 25	Peruvian.	Peruvian Line.	400.0	49.0	15.9	Cristobal.	Callao.	5,018	3,215		
Firthcliffe.	20	1 52	21	6 30	21	17 27	23	8 56	American.	United States Shipping Board.	449.0	59.0	27.0	Tampico.	Antofagasta.	6,566	4,765		
Armore.	20	7 00	21	6 30	21	18 56	24	11 06	American.	Standard Oil Co.	400.0	59.0	27.0	Tampico.	Fuel oil.	10,213	8,636	6,885	
Yarmouth (b).	20	13 11	22	6 38	22	13 22	25	15 05	British.	British Government.	453.0	46.1	19.6	Kingsston.	Salaverry.	2,637	1,688		
Barrington.	19	19 01	22	10 31	22	18 09	22	19 02	American.	United States Shipping Board.	266.9	46.1	20.8	Newport News.	Mejillones.	619	4,040	2,628	
Chile.	19	22 17	23	6 57	23	16 35	23	18 40	British.	Pacific Steam Navigation Co.	350.0	43.0	13.0	Cristobal.	General.	8,417	6,841	4,686	
Bellflower.	22	2 30	23	6 58	23	15 44	23	21 47	American.	United States Shipping Board.	434.8	56.0	27.6	Tampico.	Yokohama.	8,800	7,461	5,621	
Houma.	23	2 30	23	6 58	23	15 44	23	21 47	American.	United States Shipping Board.	434.8	56.0	27.6	Tampico.	Balboa.				
Meiwa Maru.	23	11 56	23	12 22	23	19 09	24	7 15	Japanese.	Taisho Kaifu Kaisha.	445.0	58.0	16.0	Portland.	Chile.				
S. V. Harkness.	23	6 30	24	8 45	24	15 45	24	20 48	American.	Standard Oil Co.	419.0	57.2	27.0	Tampico.	Crude oil.	8,904	7,443	5,545	
Grange Park.	23	6 30	24	8 45	24	16 40	24	17 45	British.	Pacific Steam Navigation Co.	400.0	52.0	20.0	New York.	Chile.	5,710	4,017		
St. Boswells (c).	24	6 30	24	11 25	24	17 24	24	18 07	British.	British Government.	135.0	29.0	14.0	Cardiff.	General.	445	1,102		
Hazel Branch.	24	6 35	24	12 34	24	19 41	24	20 48	British.	F. & W. Rison.	400.0	51.0	20.0	Liverpool.	Guayaquil.	4,000	5,137	3,582	

(a) Destroyer. (b) Cruiser. (c) Tug.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Middlesex.	17	14 40	18	6 48	18	14 42	19	6 15	American.	Coastwise Transportation Co.	369.0	50.0	26.0	Iquique.	Savannah.	7,049	4,876	3,250
National Bridge	15	16 45	18	8 33	18	10 55	19	6 57	American.	United States Shipping Board.	324.0	46.2	24.0	Talca.	Boston.	4,700	3,859	2,628
Minnesota.	18	3 00	18	9 32	18	18 55	19	10 14	American.	American-Hawaiian Line.	307.7	53.2	27.6	McMillones	Seniatare.	8,428	7,500	5,026
Glyndon.	18	8 45	18	10 51	18	19 20	19	11 25	American.	United States Shipping Board.	489.0	44.1	17.0	Seattle.	Lumber.	1,950	2,939	1,999
Tenpansai Maru	18	13 00	18	14 00	18	22 12	19	7 07	Japanese.	Mitsui Bussan Kaisha.	380.0	53.3	24.2	Iquique.	Charleston.	7,245	5,550	3,608

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 24, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Lanra C. Hall.....	Pacific Metals Corporation.....		January 18.....		27
Lake Frenchton.....	United States Shipping Board.....		January 18.....		(†)
Huasco.....	Chilean Steamship Line.....		January 19.....		640
Manavi.....	Pacific Steam Navigation Co.....		January 19.....		681
Lake Gebhart.....	United States Shipping Board.....		January 20.....		(‡)
Asian.....	Leyland Line.....		January 20.....		993
Jamaica.....	Pacific Steam Navigation Co.....		January 20.....		722
Chantier.....	United States Shipping Board.....	January 18.....	January 20.....	2,660	(†)
Urubamba.....	Peruvian Steamship Line.....		January 21.....		800
General Goethals.....	Panama Railroad Steamship Line.....		January 21.....		4,161
Chile.....	Pacific Steam Navigation Co.....	January 19.....	January 23.....	1,964½	615
Cartago.....	United Fruit Co.....	January 20.....	January 22.....	968	42
General Ernst.....	Panama Railroad Steamship Line.....	January 20.....	January 24.....	16	3,868
Turrialba.....	United Fruit Co.....	January 21.....	January 22.....	1,285	256
Imperial.....	Chilean Line.....	January 21.....	January 22.....	1,435	
Balboa.....	Colombian Maritime Co.....	January 21.....	January 21.....	687	
Tivives.....	United Fruit Co.....	January 22.....	January 22.....	1	2
Colon.....	Panama Railroad Steamship Line.....		January 23.....		3,444
Arabia.....	San Blas Trade Corporation.....	January 22.....	January 23.....	(†)	20
Santa Leonora*.....	United States Government.....	January 22.....	January 24.....	609	44
Ulysses.....	Panama Railroad Steamship Line.....	January 23.....	January 23.....	12,701½	
Grange Park.....	Pacific Steam Navigation Co.....	January 23.....	January 24.....	100	(‡)
Engineer.....	Harrison Line.....	January 23.....	January 24.....	745	
Puerto Rico.....	French Line.....	January 24.....	January 24.....	43	
Princess Matoika*.....	United States Government.....	January 24.....	January 24.....	150	

* Transport.

† No cargo discharged.

‡ No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 24, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Laura C. Hall.....	Pacific Metals Corporation.....	January 18.....	January 18.....		2
Diablo.....		January 19.....	January 23.....	1,268	
Jamaica.....	Pacific Steam Navigation Co.....	January 20.....	January 20.....		3
Chile.....	Pacific Steam Navigation Co.....	January 19.....	January 19.....	5	
Balboa.....	Colombia Maritime Co.....	January 20.....	January 21.....	1	
Panama Maru.....	Isaka Shosen Kaisha.....	January 21.....	January 22.....	171	
City of Para.....	Pacific Mail Steamship Co.....	January 23.....	January 23.....	267	
Houma.....	United States Shipping Board.....	January 23.....	January 23.....	3,800	

February Weather Probabilities.

The following weather conditions may be expected to prevail at the Canal entrances during the month of February, 1920. Predictions are based on the weather records at Colon and Balboa Heights for the past 12 and 14 years, respectively.

Winds—Fresh northerly dry season winds will prevail throughout the month. The average hourly velocity on the Atlantic Coast will be about 16 miles, north and northeast winds prevailing. The maximum velocity is not likely to exceed 35 miles an hour, although a maximum velocity of 39 miles an hour was recorded during the "Norther" of February, 1915.

North and northwest winds will prevail on the Pacific Coast and over the interior, with an average velocity of 10 or 12 miles per hour. The maximum velocity is not likely to exceed 32 miles per hour.

Rain—Dry season weather may be expected to prevail in February, but occasional light showers may be expected. The average February rainfall at the Pacific entrance is 0.80 inch, and the average on the Atlantic side is 1.65 inches.

Fogs—No fogs are likely to occur during the month at either Canal entrance, but occasional night and early morning fogs may be expected over the interior. The average number of nights in February with fogs over the Gaillard Cut section of the Canal has been 5. Practically all of these are light, and clear away before 8.30 a. m.

Temperature—Air temperatures should average about 80° F. on both coasts. The temperature at the Pacific entrance is not likely to exceed 94° F. or to fall below 65° F., while at the Atlantic entrance the maximum temperatures should not be above 90° F., nor the minimum below 70° F. The average daily range in temperatures is about 18° F. on the Pacific Coast and but 7° F. on the Atlantic side.

Barometric pressure—The sea-level atmospheric pressure averages slightly higher in the dry season. The average pressure should be about 29.90 inches in February. The maximum for the month is not likely to exceed 30.05 inches, nor the minimum to be lower than 29.70 inches.

Relative humidity—The relative humidity of the atmosphere is lower in the dry season. The humidity should average 80 per cent or under on both coasts, but the daily range will be greater on the Pacific side where the nighttime humidity is higher and the daytime humidity much lower than on the Atlantic Coast.

Storms—No severe general storms are likely to occur at either Canal entrance during the month, unless the Isthmus should be visited by storms of the "Norther" type, which occasionally reach as far south as Colon at this season of the year.

No local thunderstorms are likely to occur and generally fair weather may be expected at both Canal entrances. Smooth to moderate seas may be expected at the Pacific entrance.

Tides—Tidal fluctuations on the Atlantic side are too small to affect navigation. Panama (Balboa) tide predictions for the month are given below:

Day of- W. Mo.		Time and Height of High and Low Water.				Day of- W. Mo.		Time and Height of High and Low Water.				Day of- W. Mo.		Time and Height of High and Low Water.			
S	1	0:23	6:49	1:04	7:20	W	11	2:39	8:41	2:53	8:59	S	21	4:46	11:03	5:08	11:23
		13.8	1.6	13.4	2.1			1.9	12.7	2.6	13.0			14.4	-0.3	15.2	-0.3
M	2	1:28	7:56	2:08	8:25	Th	12	3:30	9:29	3:43	9:49	S	22	5:27	11:39	5:49	11:59
		14.3	0.8	14.2	1.3			2.7	11.8	3.5	12.1			14.7	-0.5	15.5	-0.4
Tu	3	2:29	8:54	3:05	9:23	F	13	4:25	10:28	4:40	10:51	M	23	6:07	12:17	6:27	12:47
		14.9	-0.1	15.0	0.4			3.4	11.1	4.1	11.6			14.8	-0.4	15.6	0.0
W	4	3:26	9:47	3:59	10:12	S	14	5:23	11:39	5:43	11:07	Tu	24	0:40	6:48	12:17	7:01
		15.5	-0.9	15.7	-0.4			3.7	10.9	4.4	11.0			-0.3	14.7	0.0	15.4
Th	5	4:16	10:33	4:50	10:55	S	15	0:01	6:27	12:47	6:49	W	25	1:25	7:31	1:44	7:52
		15.8	-1.4	16.1	-0.9			11.4	3.6	11.1	4.3			0.1	14.4	0.6	15.0
F	6	5:08	11:16	5:37	11:41	M	16	1:04	7:28	1:42	7:51	Th	26	2:16	8:18	2:38	8:42
		16.0	-1.4	16.2	-0.5			11.7	3.2	11.7	3.7			0.6	13.8	1.3	14.3
S	7	5:55	11:58	8:21	.....	Tu	17	1:57	8:21	2:29	8:43	F	27	3:12	9:14	3:38	9:43
		15.8	-1.1	16.1	.....			12.2	2.5	12.5	2.9			1.2	13.2	2.0	13.8
S	8	0:24	6:38	12:39	7:02	W	18	2:43	9:08	3:11	9:27	S	28	4:15	10:23	4:45	10:56
		-0.5	15.4	-0.4	15.6			12.8	1.7	13.2	1.9			1.6	12.7	2.4	13.1
M	9	1:07	7:20	1:22	7:41	Th	19	3:24	9:49	3:51	10:07	S	29	5:22	11:44	5:57	.....
		0.2	14.7	0.6	14.8			13.4	0.9	14.0	1.0			1.8	12.7	2.4	.....
Tu	10	1:52	8:01	2:05	8:18	F	20	4:04	10:26	4:30	10:45			.....	.....	.....	.....
		1.0	13.7	1.6	13.9			14.0	0.2	14.7	0.2			.....	.....	.....	.....

The tides are placed in the order of their occurrence; the *times* of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The *elevations* of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Executive Order.

Civil Service Rule IX, Paragraph I, Clauses (b), (c), and (d) are hereby amended to read as follows:

(b) A person honorably released from the active military or naval service of the United States after service in the Civil War or the War with Spain, or his widow, or an Army nurse of either war, separated heretofore from the competitive classified service, may be reinstated in the department or independent establishment from which separated without time limit. If hereafter separated, reinstatement may be made within five years from the date of separation.

(c) A soldier, sailor, marine, or Army nurse of the War with Germany formerly in the competitive classified service may be reinstated in any part of the competitive classified service within five years from the date of honorable cessation of active military service if he has the required fitness to perform the duties of the position to which his reinstatement is sought.

(d) The widow of a veteran of the War with Germany formerly in the competitive classified service who was the wife of such veteran while he was in the military service may be reinstated in any part of the competitive classified service within five years from the date of cessation of her husband's military service by death or otherwise without discredit.

This amendment is merely a change in phraseology to make the language of the reinstatement rule conform exactly to the long established practice of allowing reinstatements without regard to the year limit to persons whose military services terminated honorably in some other manner than by honorable discharge.

WOODROW WILSON

THE WHITE HOUSE,
November 28, 1919.

[No. 3184.]

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Editor (male and female); \$2,000 a year; February 24, 1920; form 1312; age, under 40 years.*
Physician (Panama Canal Service); \$200 a month; February 18, 1920 (male and female); No. 15-amended; form 1312; age, 22 years but not 31 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Charles, <i>alias</i> James, Rowe.....	23722	Jamaica.....	Gatun.....	Gatun Dam.....	January 4, 1920.
Cyril Hinds.....	23665	Barbados.....	Camp Bierd....	Coaling station, Cristobal	January 20, 1920.
James Lee, <i>alias</i> Chambers.....	36044	Jamaica.....	Colon.....	Mun. Eng. Div.....	January 14, 1920.
Reginald Phillips <i>alias</i> Reginaldo Felipe.....	184455	Panama.....	Colon.....	Commissary Div.....	December 1, 1919.

Official Circulars.

Civil Service Age Limit Lowered.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., January 21, 1920.

CIRCULAR No. 603-16:

1. The Civil Service Commission has approved reduction of the age limit from 20 to 18 years for admission to examinations on the Isthmus for the positions of clerk, postal clerk, stenographer and typist, and draftsman, for The Panama Canal service.

2. The minimum age limit specified in paragraph 2 of Circular No. 603 of April 1, 1914, is modified accordingly for such employment.

JAY J. MORROW,
Acting Governor

Pay Car Schedule.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., January 20, 1920.

The following approximate schedule for the pay car for all Panama Canal and Panama Railroad employees will be followed as closely as possible beginning with the payment for the month of February:

From Balboa Heights.

9th.—Leave Balboa station 6.45 a. m.	
Naos Island.....	7.00 to 7.10
Quarantine station.....	7.20 to 7.25
Balboa Hotel.....	7.35 to 8.05
La Boca Road.....	8.10 to 8.30
Foundry.....	8.35 to 8.50
Commissary.....	8.55 to 9.05
Balboa shops.....	9.10 to 10.20
Roundhouse.....	10.25 to 10.30
Pier No. 18.....	10.35 to 10.40
Material yard.....	10.45 to 10.50

9th.—Leave Balboa station 6.45 a. m.—Contd.		
Quartermaster's store.....	10.55	to 11.00
Ancon.....	11.05	to 12.30
Panama yard.....	12.35	to 12.40
New Army site, Miraflores	12.50	to 1.25
Corozal.....	1.30	to 1.35
Spillway.....	1.40	to 2.05
Arrive Balboa station.....	2.25	p. m.
10th.—Leave.....	6.45	a. m.
Cold Storage plant, Mount Hope.....	8.15	to 8.45
Printing plant.....	9.15	to 9.20
Cristobal shops.....	9.25	to 9.45
Coaling plant.....	9.50	to 10.30
Camp Bied commissary.....	10.35	to 10.40
Laundry, etc.....	10.45	to 11.05
Washington Hotel.....	11.15	to 11.25
Panama Railroad station.....	11.30	to 11.40
Siding back of commissary	12.30	to 1.30
Arrive Balboa.....	2.45	p. m.
11th.—Leave.....	6.45	a. m.
Red Tank.....	7.05	to 7.10
Pedro Miguel.....	7.15	to 7.40
Las Cascadas.....	8.00	
Empire.....	8.15	to 8.30
Culebra.....	8.35	to 8.40
Pumping station.....	8.45	to 8.50
Paraiso.....	9.00	to 9.15
Main line, Pedro Miguel to Gatun.....	9.20	to 10.40
New Gatun.....	10.45	to 11.30
Colon.....	12.00	
Gatun.....	1.00	to 1.15
Arrive Balboa.....	2.30	p. m.

All outside payments not scheduled above will be made on such dates as best suit all concerned. These dates are agreed upon as early as possible each month.

It is desired that all silver employees with regular pay tickets be paid from the pay car. Any employee missing the pay car will be paid at either of the pay offices after the 11th.

R. W. GLAW,
Paymaster, The Panama Canal

Approved:
JAY J. MORROW,
Acting Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT

BALBOA HEIGHTS, C. Z., January 17, 1920.

CIRCULAR NO. 227:

Effective January 14, 1920, Mr. R. Z. Kirkpatrick is designated an accountable official of The Panama Canal, and as such will account for all nonexpendable property in use by the Division of Meteorology and Hydrography.

H. A. A. SMITH,

Approved: Auditor, The Panama Canal
JAY J. MORROW,
Acting Governor.

Administrator's Sale.

The Administrator of Estates, room 301, Administration Building, Balboa Heights, will accept written bids up to 2 p. m. Saturday, February 7, 1920, for the purchase of a wooden tool box and a lot of electrician's tools belonging to the estate of Frank R. Jay, deceased American employee. Itemized lists of the articles offered for sale will be found posted at Canal Zone post offices and clubhouses, and persons desiring to examine the property may do so on business days, until 4.30 p. m., January 24, at room 203, Terminal Building, Cristobal, and after that date at the Administrator's office, Balboa Heights. Bids may embrace the entire collection, or be limited to single items. They should be submitted to the Administrator of Estates in sealed envelopes, marked "Bid on effects of Frank R. Jay, deceased." The Administrator reserves the right to reject any or all bids, and no advance deposit of money is required.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 349.

PORT OF CRISTOBAL—Continued.

*ARRIVALS.		*DEPARTURES.	
Date.	Vessels.	Date.	Vessels.
Jan. 23.....	W. M. Tupper	Jan. 23.....	Aralis (t)
Jan. 23.....	Ulysses	Jan. 23.....	Colon
Jan. 23.....	Talac	Jan. 24.....	Gen. O. H. Ernst
Jan. 23.....	Engineer	Jan. 24.....	Santa Leonora
Jan. 24.....	Schirmeck		United States Army
Jan. 24.....	Astmacho III		La Guayra
Jan. 24.....	Princess Matoka		New York and San Juan
Jan. 24.....	Puerto Rico		United States Army
			French Steamship Line
			San Nazaire, wayports.
			W. V. N. Powellson
			Panama Railroad Steamship Line
			New York and Haiti
			Panama Railroad Steamship Line
			New Orleans, Porto Rico
			United States Army

PORT OF BALBOA.

*ARRIVALS.		*DEPARTURES.	
Date.	Vessels.	Date.	Vessels.
Jan. 17.....	La Habra	Jan. 18.....	La Habra
Jan. 22.....	Guardao (t)	Jan. 23.....	Guardian (t)
		Jan. 24.....	Caribbean
			W. Wilhelmson
			Gen. & S. A. Tel. & Cable Co.
			Panama Railroad (active industry...)
			Port San Louis
			High seas.
			Corinto.

(t) Cable ship. *Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Joint Commission.

Rules of Dismissal.

*In the matter of the claim of Rudolph Werner, in which rule of default has been entered, rule of dismissal No. 449, docket No. 1617, January 19, 1920—*On April 13, 1916, the Joint Commission, with the approval of the two Governments, parties to the Treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing, or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default, notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within sixty days from said first publication their claims will be considered as having been either settled or abandoned, and the same will be dismissed and forever barred."

In the claim of Rudolph Werner, docket No. 1617, set for hearing on November 17, 1919, there was no appearance on the part of claimant, nor did any counsel for claimant appear, and a rule of default was accordingly entered against him.

Due notice having been given as provided for in the above-quoted section of the rule of the Commission, and there having been no appearance by claimant in person or by counsel during the 60-day period fixed in the rule referred to, which began on November 18, 1919, the foregoing claim against the United States is hereby dismissed and forever barred.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, *Commissioners.*

*In the matter of the claim of Mortimer Davis for property located in the City of Colon, rule of dismissal No. 450, docket No. 3563, January 20, 1920—*An examination of the claimant's statement of claim in this case shows that in accordance with the decision of the Joint Commission in the matter of the claim of Carlos Delgado, docket No. 749, rendered February 28, 1919, the above-entitled claim is beyond the jurisdiction of the Commission, and the same is therefore hereby dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, BURT NEW, *Commissioners.*

I dissent from the above finding.

JULIO J. FABREGA, *Commissioner.*

*In the matter of the claims of Santiago Samudio for property located in the District of Empire, rule of dismissal No. 451, docket Nos. 3095 and 3096, January 20, 1920—*After a full hearing of the above-numbered and described claims the Commission is of the opinion that no sufficient evidence has been presented to justify an award against the United States, and for that reason the two claims of Santiago Samudio, docket Nos. 3095 and 3096, together with the intervention filed by Vincente A. Avila, and also the inter-

vention filed by J. H. Stilson, Ruben S. Arcla, and Romano Emiliani, should be, and they are hereby, dismissed.

FEDERICO BOYD, GEORGE A. CONNOLLY, JULIO J. FABREGA, BURT NEW, *Commissioners.*

Sale of Motor Launch.

Sealed bids will be received at the office of the District Engineer, U. S. Army, Balboa Heights, C. Z., until 2 o'clock p. m., on Saturday, February 14, 1920, and then publicly opened, for the purchase of:

One (1) boat, gasoline; length 28 feet, beam 7 feet 8 inches, draft 3 feet 6 inches, 20 horsepower Lathrop 2-cycle engine. U. S. Navy No. 497.

Detailed information and form for bid may be had on application to office of District Engineer, Balboa Heights, C. Z. Boat may be inspected at Engineer Depot, Corozal, C. Z., between 8 a. m. and 4 p. m.

The right is reserved to reject any or all bids.

Pure Bred Poultry For Sale.

The Cattle Industry Division, The Panama Canal, has for sale the following poultry:

25 White Leghorn hens, ea. \$5.00
16 White Leghorn cockerels, ea. 9.00
25 Rhode Island hens, ea. 5.00

The poultry can be seen at Summit Poultry Farm. Prices quoted are f. o. b. Summit.

Additions to Commissary Stock.

Dry Goods Section.

Belts, sanitary, elastic, ea. \$0.45
Brushes, hair, wire, ea.67
Caps, men's, blue serge, ea. 1.00
Curtain, Swiss, Madras, white, 36", yd.58
Dress goods:
Batiste, white, 38", yd.65
Swiss, dotted, yd.62
Hose, ladies', white, pr.84
Powder, face, Java, white, flesh, or brunette, box.42
Puffs, powder, white swansdown, ea.36
Stationery:
Paper, writing tablets, linen finish, letter size, Cliesterfield, ea.21
Paper, writing tablets, linen finish, letter size, French Cheviot, ea.21
Pens, stylographic, No. 21, ea.80
Suiting:
Drill, union, bleached, 27", yd.76
Linen, shrunk, 27/28", yd.78
Serge, blue, 56/58", yd. 4.30
Serge, blue, 56/58", yd. 4.55
Serge, blue, 54", (16186) yd. 1.60
Serge, blue, 54", (16187) yd. 1.60
Suits, union, gauze, ladies', suit.95
Ties, fancy silks, 4-in-hand, ea. 1.40
Ties, fancy silks, 4-in-hand, ea.85
Towels, glass, 32" x 36", ea.51

Grocery Section.

Ginger beer, bot.13
Pickles, Panyan, 10-oz. bot.24
Raspberries, red, preserved, 2s, tin.44
Snuff, Copenhagen, 3-oz. tin.05
Strawberries, fancy, preserved in heavy syrup, 2s, tin.51

Hardware Section.

Bats, ea.74
Clocks, Baby Ben, ea. 2.35
Freezers, ice cream, 4-quart, ea. 5.40

COMMISSARY NOTE.

"Koumyss."

"Koumyss," a milk product, is now being manufactured by the Commissary Division and sold in the retail stores. It is made from fresh milk, yeast, and sugar.

Its use, in the United States and Europe, both as a beverage and in the sick room, is said to be largely increasing, as it is refreshing and nourishing.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.
PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., February 4, 1920. No. 25.

Visit of Japanese Naval Training Ship.

The Japanese cruiser *Yakumo*, in use as a training ship for the Japanese navy, arrived at Balboa in the morning of February 4, for a visit to the Canal and Panama. She has on board a total personnel of 741. Arrangements have been made to take the officers and midshipmen through the Canal as far as Gatun Locks and to take the enlisted men to Miraflores Locks, each party to be divided into two groups. Social entertainments have also been planned.

The "Marne" Still Burning.

Fire continues to burn in the oil aboard the American steamship *Marne*, which was sunk in the outer harbor at Cristobal on January 24 in order to extinguish fire in the hold, the result of an explosion in the cargo. The fire is now confined to the No. 3 hold, below the superstructure, which prevents access by the monitors on the fire tug. Arrangements are being made to try to smother the fire with steam on February 5.

Traffic Over the Principal Trade Routes.

The distribution of the traffic through the Canal, over the principal trade routes, in the 6-month period ending December 31, 1919, is presented in the following table:

	Ves- sels.	Panama Canal net tonnage.	Cargo.	Percentage of tonnage.	Percentage of cargo.	Percentage of all net tonnage.	Percentage of all cargo.
ATLANTIC TO PACIFIC.							
United States to west coast of South America.....	115	351,876	267,016	19.051	14.783	9.073	6.465
Cristobal to west coast of South America.....	107	153,928	66,675	8.334	3.691	3.969	1.614
United States to Far East.....	90	390,182	622,926	21.125	34.489	10.061	15.084
Europe to west coast of South America.....	59	234,903	76,825	12.718	4.253	6.057	1.860
United States to Australia and New Zealand.....	35	185,655	216,634	10.051	11.994	4.787	5.245
Mexico to west coast of South America.....	23	119,710	198,664	6.481	10.999	3.087	4.810
United States coastwise.....	23	99,929	146,108	5.410	8.089	2.577	3.533
Europe to Australia and New Zealand.....	21	138,068	66,056	7.475	3.657	3.560	1.599
Europe to west coast of North America.....	15	64,184	32,096	3.475	1.778	1.655	.777
Cristobal to west coast of North America.....	11	18,662	17,781	1.010	.984	.481	.430
Miscellaneous.....	*11	15,647	7,180	.847	.398	.403	.174
Mexico to west coast of North America.....	10	45,655	78,733	2.474	4.359	1.178	1.906
West Indies to west coast of South America.....	2	9,598	.....	.519	.....	.247	.....
Cuba to west coast of South America.....	2	6,911	.....	.375	.....	.178	.....
Canada to Australia and New Zealand.....	1	5,532	7,000	.299	.389	.143	.169
Canada to west coast of South America.....	1	3,374	.....	.184	.....	.087	.....
Cuba to west coast of North America.....	1	2,459	1,439	.134	.079	.063	.035
Cristobal to west coast of Central America.....	1	692	1,020	.038	.058	.018	.025
Total.....	528	1,846,995	1,806,153	100.000	100.000	47.624	43.731

	Ves- sels.	Panama Canal net tonnage.	Cargo.	Percentage of tonnage.	Percentage of cargo.	Percentage of all net tonnage.	Percentage of all cargo.
PACIFIC TO ATLANTIC.							
West coast of North America to Europe	133	293,413	410,552	14.447	17.668	7.566	9.941
West coast of South America to Cristobal	113	182,104	175,166	8.967	7.538	4.695	4.241
United States coastwise	106	390,372	538,528	19.219	23.176	10.006	13.040
West coast of South America to Europe	63	247,800	364,562	12.201	15.689	6.389	8.827
Australia and New Zealand to Europe	58	382,646	357,265	18.839	15.375	9.867	8.658
West coast of South America to east coast of United States	57	178,948	228,839	8.811	9.848	4.614	5.541
West coast of South America to Mexico	24	123,548	128,075	6.083	5.512	3.185	3.101
Far East to east coast of United States	18	80,962	128,075	3.987	5.512	2.087	3.101
Miscellaneous	*11	31,270	22,191	1.539	.955	.806	.537
West coast of North America to Cristobal	10	17,084	10,801	.842	.465	.440	.262
West coast of North America to Cuba	9	15,358	17,490	.757	.753	.396	.425
West coast of North America to Mexico	6	35,132		1.729		.907	
Australia and New Zealand to east coast of United States	5	24,742	30,693	1.249	1.321	.639	.744
Far East to Europe	2	5,797	6,636	.286	.285	.149	.162
Australia and New Zealand to east coast of Canada	1	5,431	7,403	.267	.319	.141	.179
Hawaii to east coast of United States	1	5,298	7,392	.260	.318	.137	.179
Hawaii to Europe	1	3,789	6,000	.186	.258	.099	.145
West coast of South America to Porto Rico	1	2,813	5,336	.138	.229	.073	.129
West coast of South America to Cuba	1	1,502	2,357	.073	.102	.039	.058
Canada to east coast of United States	1	1,454	2,725	.071	.117	.038	.067
West coast of Central America to Cristobal	1	692	223	.034	.009	.018	.008
West coast of Central America to east coast of United States	1	531	954	.026	.042	.014	.024
South Sea Islands to east coast of United States	1	398	469	.019	.021	.011	.012
Total	624	2,031,084	2,323,657	100.000	100.000	52.376	56.269
Grand total	1,152	3,878,079	4,129,810			100.000	100.000

*The vessels classified as on miscellaneous routings were as follows:

Atlantic to Pacific—July, 1 vessel of 5,443 net tons with no cargo from Rio de Janeiro to San Pedro; August, 1 vessel of 1,856 net tons with 4,300 tons of cargo from high seas to Balboa; 1 vessel of 587 net tons with no cargo from Puerto Plata to Salina Cruz and 1 vessel of 65 net tons with no cargo from Port Limon to Balboa; September, 1 vessel of 1,713 net tons with 2,440 tons of cargo from Brazil to Seattle; October, 1 vessel of 100 net tons with 208 tons of cargo from New York to Tahiti; November, 1 vessel of 350 net tons with 232 tons of cargo from Curacao to Buenaventura; 1 vessel of 4,833 net tons with no cargo from Barbados to Mejillones; December, 1 vessel of 1,172 displacement tons with no cargo from Port Limon to Montevideo; 1 vessel of 175 net tons with no cargo from high seas to Balboa, and 1 vessel 115 net tons with no cargo from high seas to Iquique.

Pacific to Atlantic—July, 1 vessel of 4,717 net tons in ballast from San Francisco to Beaumont; 1 vessel of 1,779 net tons in ballast from Mollendo to Bluefields; 1 vessel of 1,671 net tons with 2,805 tons of cargo from Hongkong to Habana, and 1 vessel of 5,414 net tons with 9,236 tons of cargo from Yokohama to Habana; September, 1 vessel of 1,609 net tons with 1,326 tons of cargo from Tacoma to Cuba, and 1 vessel of 433 net tons with passengers from Seattle to New York; 1 vessel of 1,856 net tons in ballast from Portland to Bluefields, and 1 vessel of 1,728 net tons with 1,724 tons of cargo from Seattle to Cienfuegos; November, 1 vessel of 4,562 net tons with 7,100 tons of cargo from Iquique to Alexandria; December 1 vessel of 20,788 displacement tons with no cargo from San Diego to Jamaica, and 1 vessel of 175 net tons in ballast from San Francisco to Cristobal.

Notice to Mariners.—Temporary Wreck Light Established in Cristobal Harbor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 29, 1920.

CIRCULAR NO. 643-71:

1. On January 27, 1920, an occulting green light, 180 candlepower, was established on the stern of the steamship *Marne* (destroyed by fire and sunk about 350 yards from the West Breakwater in 40 feet of water, upper works showing above water), on the following bearing:

West Breakwater Beacon 46° 30' true (NE 1-4 N. Mag.).

Washington Hotel, right tangent, 117° 30' true (SEx E 15-16 E. Mag.).

Toro Point Lighthouse 251° 45' true (WSW Mag.).

Characteristics: 1 second light; 0.5 second dark.

2. Vessels are cautioned not to pass between the wreck and the breakwater. The *Marne* lies in the following directions: 353° true (NxW Mag.), headed almost at right angles to the West Breakwater.

CHESTER HARDING,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 31, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Balboa.....	Colombian Maritime Co.....		January 25....		408
Imperial.....	Chilean Steamship Co.....		January 26....		399
Engineer.....	Harrison Line.....		January 26....		154
Point Adams.....	Pacific Mail Steamship Line.....		January 26....		2,137
Cote Blanche.....	United States Shipping Board.....	January 25....		3,466	
Edellyn.....	United States Government.....	January 25....	January 27....	15	
Aneon.....	Panama Railroad Steamship Line.....	January 25....		9,237	
Puerto Rico.....	French Line.....		January 27....		514
Craigsmere.....	United States Shipping Board.....	January 26....	January 27....	3,089	(†)
Princess Matoika.....	United States Government.....		January 28....		110
Sardegna.....	Italian Steamship Line.....	January 26....	January 29....	500	1
City of Para.....	Pacific Mail Steamship Line.....	January 26....		1,501	
Zacapa.....	United Fruit Co.....	January 27....	January 28....	432	17
Cauca.....	Pacific Steam Navigation Co.....	January 27....	January 31....	1,093	1,061
Heredia.....	United Fruit Co.....	January 28....	January 30....	1,286	48
Santa Marta.....	United Fruit Co.....	January 28....	January 30....	1,069	289
Ramapa.....	United States Government.....	January 28....	January 30....	6,353	(†)
Palena.....	Chilean Steamship Line.....	January 28....		1,804	
San Juan.....	Pacific Mail Steamship Line.....	January 28....		730	
Turrialba.....	United Fruit Co.....	January 29....	January 29....	8	1
Achilles.....	Panama Railroad Steamship Line.....	January 29....		12,025½	
Namecki.....	United States Shipping Board.....	January 29....	January 30....	2,749	(†)
Lake Stobi.....	United States Shipping Board.....	January 29....	January 31....	3,552	(†)
Huallazo.....	Peruvian Steamship Line.....	January 29....		2,260½	
West Harlan.....	United States Shipping Board.....	January 30....		7,652	
Nika.....	Hodge Shipping Co.....	January 30....		425	
Monsterrat.....	Spanish Steamship Line.....	January 30....		340	
Panama.....	Panama Railroad Steamship Line.....	January 31....		2,068	

(*) U. S. A. transport.

† No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 31, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
City of Para.....	Pacific Mail Steamship Co.....	January 23*....	January 26....		2
Houma.....	United States Shipping Board.....	January 23*....	January 26....	(*)	
Balboa.....	Colombia Maritime Co.....	January 25....	January 25....		14
Cauca.....	Pacific Steam Navigation Co.....	January 26....	January 27....	1	
San Juan.....	Pacific Mail Steamship Co.....	January 27....	January 29....	199	11
Georgina Rolph.....	Rolph Navigation Co.....	January 31....	(†)	1	(†)

* Shown in last week's report.

† In port.

Executive Order.

The area of land hereinafter described, situated in the Canal Zone, consisting of two parcels, which include Fort Clayton, The Panama Canal Arsenal, The Engineer Depot, and the Post of Corozal, is hereby set apart and assigned to the uses and purposes of a military reservation under the jurisdiction of the Secretary of War; but the said area shall be subject to the civil control and jurisdiction of the Governor of The Panama Canal, in conformity with the Panama Canal Act.

The boundaries of said reservation are described as follows: (Panama Canal Circular 601-102 contains these boundaries.)

* * * * *

No structure shall be constructed by the military authorities within two hundred (200) feet of the present banks of the Canal.

The transfer of the reservation including Fort Clayton, The Panama Arsenal, The Engineer Depot, and the Post of Corozal, is made subject to the continued right of the Supply Department of the Panama Canal to use areas not contiguous to barracks or quarters for pasturage of cattle for the supply of beef to the Canal Zone; the pasturage areas, however, to be available for use by the troops when required for military maneuvers or for target practice.

WOODROW WILSON

THE WHITE HOUSE,
December 30, 1919.

[No. 3207.]

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, January 31, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Balboa	21	16.15	25	6.19	25	13.53	25	19.06	American	Colombian Maritime Co.	190.0	29.0	13.0	Cristobal	Buenaventura.	General.	430	741	350
Dacre Castle	24	16.06	25	7.56	25	16.45	25	17.43	British	Lancashire Shipping Co.	400.1	52.4	26.3	New York	Singapore.	General.	8,080	5,837	4,112
Port Adams	22	6.35	26	8.05	26	18.18	26	20.16	American	Pacific Mail Steamship Co.	289.0	44.0	16.3	Chiemsees.	San Francisco.	General.	2,128	2,895	1,967
Imperial	21	21.35	26	11.02	26	18.08	28	21.52	Chilean	South American S. S. Line.	326.2	41.2	24.0	Cristobal	Valparaiso	General.	378	634	2,475
Conlee	26	8.35	26	11.21	26	19.01	28	13.00	American	United States Shipping Board.	253.4	43.7	22.0	Norfolk	Antofagasta.	General.	2,724	1,699	1,699
Oysteric.	23	19.43	27	6.20	27	15.32	27	16.00	British	Bank Line, Ltd.	420.3	54.6	26.6	New Orleans.	Shanghai.	Petroleum.	8,509	6,393	4,970
Edgdon (d)	25	11.15	27	6.26	27	18.04	27	18.55	British	United States Army.	473.0	60.0	29.2	New York.	San Diego.	General.	5,000	6,000	4,970
S. C. 284 & 287									American	United States Navy	175.0	16.0	13.3	Coco Solo.	Balboa.	General.			
R-26 (b)	11	14.57	27	7.30	27	18.37			American	United States Navy	175.0	16.0	13.3	Coco Solo.	Balboa.	General.			
R-27 (b)	11	14.55	27	7.30	27	18.41			American	United States Navy	175.0	16.0	13.3	Coco Solo.	Balboa.	General.			
R-22 (b)	*								American	United States Navy	175.0	16.0	13.3	Coco Solo.	Balboa.	General.			
R-21 (b)	*								American	United States Navy	175.0	16.0	13.3	Coco Solo.	Balboa.	General.			
Euryplus	27	13.30	27	14.00	27	21.24	28	8.17	British	Alfred Holt & Co.	430.0	54.0	27.6	New York.	Yokohama.	Cotton, steel, etc	7,500	6,875	4,703
Kent	27	16.57	28	6.24	28	14.24	28	15.15	British	Federal Steam Navigation Co.	460.0	62.0	27.0	New York.	Brishbane.	General.	6,466	10,503	8,121
Port Chalmers	27	17.45	28	6.34	28	15.30	28	16.30	British	Commonwealth & Dominion Line	450.3	55.3	28.8	London.	Sydney.	General.	8,356	8,313	5,981
Leake Yahara.	28	11.05	28	11.50	28	20.01	29	18.21	American	United States Shipping Board.	250.5	43.5	21.6	Norfolk	Iquique.	Coal.	2,311	2,500	1,582
Toyouhashi									American	United States Shipping Board.	250.5	43.5	21.6	Norfolk	Iquique.	Coal.	2,311	2,500	1,582
Maru	28	15.39	29	6.25	29	14.09	29	14.55	Japanese	Nippon Yusen Kaisha	445.0	57.0	26.0	New York.	San Francisco.	General.	8,300	7,666	5,529
Sardagna	26	12.53	29	11.08	29	18.31	29	20.16	Italian	La Voivre Steamship Line.	418.4	47.3	20.11	Genoa.	Guayaquil.	General.	363	5,782	3,756
Begonia No. 4	30	9.50	30	11.05	30	18.46	31	15.00	Spanish	Jose M. Wregullo	341.0	43.1	23.1	Valencia.	Chile.	General.	1,665	2,835	1,795
Minola	30	11.57	30	12.20	30	19.23	31	1.00	American	W. R. Grace & Co.	249.0	40.0	19.5	New York	Callao	General.	1,856	6,551	4,205
Mexico	30	18.43	31	6.10	31	14.09	31	19.10	British	Pacific Steam Navigation Co.	491.0	52.0	23.6	Liverpool	Colonel.	General.	1,856	6,551	4,205
Lake Stool	29	15.25	31	6.33	31	14.12			American	United States Shipping Board.	251.0	43.6	22.6	Newport News	Japan	General.	2,849	1,762	1,762
Cauca	27	17.00	31	9.36	31	17.49	31	21.31	British	Pacific Steam Navigation Co.	246.0	35.2	17.2	Cristobal	Guayaquil.	General.	1,582	1,023	1,023
Borland	31	9.47	31	10.14	31	18.04	31	20.05	Norwegian	Fred Olsen & Co.	362.0	51.5	17.6	Christiania.	San Francisco.	General.	1,700	5,274	3,886

(a) Transport. (b) Submarine. * December 11, 1919.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Junin	25	9.00	25	10.10	25	18.12	25	23.30	British	Pacific Steam Navigation Co.	391.5	50.2	25.0	Puntarcas	Liverpool	General.	5,500	5,030	4,395
Tokiva Maru	25	3.15	25	10.23	25	19.35	26	6.32	Japanese	Nippon Kisen Kaisha.	445.0	58.0	24.6	Shanghai.	New York	General.	9,775	7,657	5,346
Kangaroo (c)	22	9.00	23	13.42	23	21.15	26	6.22	British	West Australian Government.	365.2	50.1	24.0	Mexico.	Nantes, France	Nitrate.	6,018	4,831	3,375
City of Para	20	23.40	26	6.40	26	14.33	26	6.28	American	Pacific Mail Steamship Co.	345.0	38.6	19.9	San Francisco	Cristobal	General.	1,520	3,739	2,459
Unie Mendt	25	19.00	26	7.35	26	15.41	27	6.30	Spanish	Cia Naviera Seta y Azuar	305.0	50.8	22.3	Caleta Coloso	Cristobal (d)	Nitrate.	6,109	4,654	3,342
Hoyasen Maru	25	19.30	26	7.47	26	16.43	26	18.38	Japanese	Mitsui & Co.	407.2	50.8	26.9	Caleta Buena	Dunkirk	Nitrate.	7,778	6,189	4,440
Bampden	26	2.00	26	8.08	26	17.05	27	1.20	American	Coastwise Transportation Co.	369.0	51.1	26.6	Iquique.	Dunkirk	Nitrate.	7,323	4,885	3,221
Dakotan	26	8.15	26	10.06	26	19.00	27	2.19	American	American-Hawaiian Line.	407.7	53.7	26.0	Tocopilla.	Dunkirk	Nitrate.	9,200	7,461	5,012
Houma	23	18.10	26	10.33	26	19.35	26	19.35	American	United States Shipping Board.	434.8	56.0		Balboa.	Texas City.	Nitrate.	9,200	7,461	5,012
Attalita	26	11.20	26	12.07	26	21.27	27	6.30	Italian	Lloyd del Pacifico.	440.0	53.2	23.0	Caleta Buena	Genoa.	Fallast.	9,300	7,102	5,051
San Francisco									Japanese	Kokusai Kisen Kaisha.	385.0	51.0	26.6	Mexico.	Antwerp	Nitrate.	7,774	5,919	4,395

(c) Motor schooner. (d) For ordars.

Loek City (e)	26	13.30	27	6.40	27	14.30	27	17.42	American	W. C. Hylet	30.2	6.4	Taboga	Gatun Lake	Nitrate	3,511	2,709
Lake Figart	26	16.25	27	6.41	27	14.55	27	17.20	American	United States Shipping Board	251.0	43.6	Iquique	Norfolk	5,599	5,697	
Eurydamas	26	18.10	27	7.01	27	16.00	27	20.50	British	Alfred Holt & Co.	410.1	49.3	San Francisco	Liverpool	7,582	4,186	
Soestdijk	26	18.10	27	7.01	27	16.00	27	20.50	Dutch	Holland-American Line	400.4	52.1	Antofagasta	Rotterdam	1,093	1,582	
Caucia	26	21.00	27	11.55	27	17.00	31	9.36	British	Pacific Steam Navigation Co.	246.0	35.2	Guayaquil	Cristobal	2,770	1,023	
Lake Pearl	27	11.50	27	13.55	27	20.37	29	23.28	American	United States Shipping Board	253.5	43.8	Pisagua	Wilmington	2,770	1,516	
Republie	27	11.50	27	13.55	27	20.37	29	9.50	American	Chilean Steamship Co.	345.1	49.1	Antofagasta	New York	6,150	4,623	
Ortega	27	19.58	28	6.38	28	14.16	29	2.54	British	Pacific Steam Navigation Co.	465.5	56.3	Talcahuano	United King.	5,150	3,345	
Nauere	27	21.30	28	7.43	28	16.30	28	19.05	British	Andrew Wair & Co.	430.6	49.0	Santiago	New York	6,500	4,908	
Palena	28	6.00	28	8.01	28	17.03	29		Chilean	Chilean Steamship Line	350.0	42.1	Talcahuano	Cristobal	3,639	2,537	
W. H. Marston	27	20.35	28	10.15	28	22.00	29	21.00	American	J. M. Scott	219.0	42.5	Pisagua	Mobile	1,704	1,100	
S. C. No. 287	27	15.17	28	10.40	28	16.55	29		American	United States Navy	384.0	51.2	Balboa	Cristobal	7,131	5,966	
East Wind	28	12.45	28	13.40	28	23.50	29	4.51	American	United States Shipping Board	283.0	37.0	San Francisco	New York	2,379	1,563	
San Juan	27	12.10	28	13.30	28	22.23	29		American	Pacific Mail Steamship Co.	410.3	49.3	Shanghai	New York	6,000	5,689	
Eurymedon	29	3.00	29	8.05	29	16.03	29	19.46	British	Alfred Holt & Co.	360.0	44.7	Callao	Cristobal	2,960	4,514	
Hualdaga	29	6.30	29	9.07	29	17.17			Peruvian	Peruvian Line	291.5	44.0	Eten	Queenstown	3,400	2,721	
Moeklenburg	30	5.30	30	7.43	30	16.12	2-1	6.30	British	British Government	279.0	46.9	Victoria, B. C.	Sugar	1,968		
La Salle	30	3.00	30	7.54	30	16.13	30		French	French Government	369.2	51.6	Valparaiso	Lumber, iron rods	4,223	5,842	
Santa Ana	30	6.50	30	8.35	30	16.02	30	16.11	American	W. R. Grace & Co.	477.5	63.1	Wellington	General	7,558	11,329	
Pakeha	30	22.30	31	7.53	31	18.23			British	Shaw, Saville & Albion Co.	303.1	43.0	Antofagasta	General	3,550	8,576	
Sebastian	31	10.05	31	10.53	31	18.30	2-1	9.28	Spanish	F. Sainge Irlesantegui	360.0	46.0	Ostend, Belg.	Nitrate	5,133	4,182	
Laurel Branch	31	14.15	31	14.54	31	22.45	2-1	6.45	British	F. & W. Rulston	360.0	46.0	Caleita Buena	General	5,133	4,182	

(e) Launch. (f) Sailer. (g) Barley, lumber, and canned goods. (h) 1,805.537. (i) 722.53. PORT OF CRISTOBAL.

Date	Vessel	Line	From	Date	Vessel	Line	For
Jan. 25	Ancon	Panama Railroad Steamship Line	New York	Jan. 28	San Juan (f)	Bluefields Fruit Co.	Bluefields and Colon
Jan. 26	Jeanne D'Arc (j)	French Government	New Orleans	Jan. 28	Engineer	Harrison Line	Galveston, Texas
Jan. 26	Craismere	United States Shipping Board	Norfolk	Jan. 27	W. M. Tupper	Gulf & Southern Steamship Co.	Cleuthess
Jan. 27	Zacapa	United Fruit Co.	New York and Habana	Jan. 27	Puerto Rico	French Line	San Nazaire, waypoints
Jan. 28	Ramapo	United States Navy	Port Arthur	Jan. 28	Craismere	United States Shipping Board	Rhefelds
Jan. 28	Santa Maria	United Fruit Co.	New York and Kingston	Jan. 28	Princess Matoika	United States Army	New York and Porto Rico
Jan. 28	Craismere	United States Shipping Board	High seas (for repairs)	Jan. 28	Zacapa	United Fruit Co.	New York and Limon
Jan. 28	Ahilles	United Fruit Co.	New Orleans	Jan. 29	Turriabla	United Fruit Co.	New York and Kingston
Jan. 29	Turriabla	Panama Railroad Steamship Line	Norfolk	Jan. 30	Santa Maria	United Fruit Co.	Cartagena
Jan. 29	Nanecki	United Fruit Co.	Cartagena	Jan. 30	Heredia	French Government	New Orleans, waypoints*
Jan. 29	Aralca (c)	W. V. N. Powellson	Colon	Jan. 30	Jeanne D'Arc (j)	United States Navy	Martinique
Jan. 30	Montserrat	Spanish Steamship Line	Habana	Jan. 30	Ramapo	United States Shipping Board	Guantanamo
Jan. 30	West Hadlan	United States Shipping Board	Norfolk	Jan. 30	Nanecki	W. V. N. Powellson	Bluefields
Jan. 31	Panama	Panama Railroad Steamship Line	Norfolk	Jan. 31	Montserrat	Spanish Steamship Line	Colon
			New York	Jan. 31	Tallac	Alpa Steamship Corporation	Puerto Colombia Colon

(g) Cruiser. (h) Tug. *ARRIVALS. PORT OF BALBOA. *DEPARTURES. Meiko Maru, Meijo Kainu Kisen Kaisha, Iquique. Refinerie Agencia, Kobe, Valparaiso. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridiana. *Other than ships passing through the Canal.

Freight Tariff.

Effective February 1, 1920, the Panama Railroad Steamship Line has issued Freight Tariff No. 3 (canceling Freight Tariff No. 1) on general merchandise between Cristobal, C. Z., and Cartagena, Colombia. Rates published herein are subject to change.

RULES AND REGULATIONS.

Item 1. Prepayment of freight charges.

All freight and other charges must be prepaid.

Item 2—Minimum charges.

The minimum charge on any one bill of lading will be \$2 on freight, plus other charges.

Item 3—Heavy and bulky packages.

Rates published in this tariff do not apply on packages or pieces, the weight of each exceeding two tons. Such packages will be handled only by special agreement.

Item 4—Charges at Cartagena.

In addition to published rates herein to and from Cartagena, Colombia, the following charges will be assessed:

Shipments destined Cartagena:

Stamp duty on each set bills of lading.....	\$2.00
Tonnage dues per 1,000 kilos.....	2.00
Lighthouse dues per 1,000 kilos.....	.60
Manifest fee per \$100 on declared Consular invoice value.....	15

Shipments originating in Cartagena:

All commodities, except those carrying *ad valorem* rates, will be subject to tonnage taxes and wharfage dues of \$1.58 per ton of 40 cubic feet or 2,240 pounds as freight is paid.

Item 5—Consular fees and regulations.

Shippers should be especially careful to see that Consular and other documents are properly prepared. All expense thus incurred will be for account of shipper.

Item 6—Care of live stock.

Live stock is carried only at owner's risk of injury and death, the attendance and care of which will be handled entirely by shipper. Arrangements for handling must be made with the Cristobal office before shipments are accepted for transmission.

Item 7—Charges for delivering and receiving cargo at Cristobal.

In addition to the rates published in this tariff, the following charges applying per ton of 40 cubic feet or 2,000 pounds, as freight is paid, except as otherwise provided, will be assessed for delivery or for receiving, landing on dock or delivery to ship's side of cargo at Cristobal, which charges are provided for in Panama Canal Tariff No. 3 and supplements thereto:

	Rate.
General cargo, per 2,000 pounds or 40 cubic feet ton as freighted.....	\$0.85
Cotton, wool, Kopok, hemp, bark, leather hides and similar commodities:	
Per 40 cubic feet ton as freighted.....	.85
Per 2,000 pounds ton as freighted.....	1.50
Explosives, per 2,000 pounds or 40 cubic feet ton as freighted.....	2.00
Live stock:	
Horses and mules..... each..	1.00
Cows, bulls, steers..... each..	.75
Calves, goats, dogs, hogs, and sheep..... each..	.50
Other than above when crated, per ton of 2,000 pounds or 40 cubic feet as freighted.....	1.00
Poultry, birds, and small animals in crates, per ton of 2,000 pounds or 40 cubic feet as freighted.....	1.00
Specie, per ton of 2,000 pounds or 40 cubic feet as freighted, plus $\frac{1}{8}$ of 1 per cent <i>ad valorem</i>	1.25

Cargo for the city of Colon will be delivered at the option of the Panama Railroad Company either through its freight house or from cars on the team track. Panama Canal regulations provide that all outgoing cargo must be delivered through the local freight house at Cristobal.

Item 8—Owner's risk.

Gasoline, wines and other liquids are accepted only at owner's risk of leakage. Glassware, crockery and all fragile property, only at owner's risk of breakage. Perishable property only at owner's risk of heat and decay. Deck cargo only at owner's risk.

Commodities in sacks are accepted without responsibility as to weight on delivery to consignees, except when the entire cargo is weighed by the shipper in the presence of a representative of the carrier, the expense of which will be for account of shipper.

Item 9—Parcel receipts.

Parcel receipts value limited to \$5 each will be issued at \$1 on packages not exceeding two cubic feet.

Freight Tariff.

Effective February 1, 1920, the Panama Railroad Steamship Line has issued Freight Tariff No. 4 (canceling Freight Tariff No. 2) on commodities from Cartagena, Colombia to New York, N. Y. Rates published herein are subject to change.

RATES OF FREIGHT.

(In United States currency or its equivalent.)

Commodity.	Rate.
General merchandise, per 40 cubic feet or 2,000 pounds ship's option	\$6.38
Cattle, horses, etc. (<i>see</i> Item 5):	
Horses	each.. 15.00
Mules	each.. 15.00
Steers, beef	each.. 15.00
Bulls	each.. 15.00
Steers, lean	each.. 12.00
Cows	each.. 12.00
Yearlings	each.. 8.00
Calves	each.. 4.00
Sheep	each.. 3.00
Hogs	each.. 4.00
Launches, 20 feet in length or over, subject to special arrangement.	
Launches, under 20 feet in length, per running foot	9.56
Lumber, except hardwood, per 1,000 ft. B. M.	8.00
Pears, alligator, on dock at owner's risk, per cu. ft. . . . .	.58
Poultry and animals (<i>see</i> Item 6) in crates, ship's option:	
Per large crate	5.10
Per small crate	2.55
Rice, per 100 lbs. . . . .	.38
Rowboats and yawls 20 feet in length or over, subject to special arrangement.	
Rowboats and yawls under 20 feet in length, per running foot	3.82
Specie	<i>Ad valorem</i> 1½ per cent

FREIGHT TARIFF NO. 4.—RULES AND REGULATIONS.

Item 1—Payment of freight charges.

All freight and other charges will be collected in New York.

Item 2—Minimum charge.

The minimum charge on any one bill of lading will be \$5 on freight, plus all other charges.

Item 3—Heavy or bulky packages.

Rates published in this tariff do not apply on packages or pieces, the weight of each exceeding two tons. Such packages will be handled only by special agreement.

Item 4—Tonnage taxes and wharfage dues.

All commodities, except those carried at *ad valorem* rates are subject to tonnage taxes and wharfage dues of \$1.58 per 2,240 pounds, or 40 cubic feet, as freight is paid.

Item 5—Consular fees and regulations.

Shippers should be especially careful to see that Consular and other documents are properly prepared. All expenses thus incurred will be for account of shipper.

Item 6—Packages containing more than one commodity.

Packages containing commodities of more than one description will be charged at the tariff rate for the highest rated commodity contained therein.

Item 7—Special cargo.

Packages containing specie and other valuable commodities, such as hats, wines, liquors, cigars, cigarettes, etc., will be classed as special cargo and will not be accepted for transportation unless securely packed in cases and protected by metal straps or wires secured by lead seals at the ends, or some equally effective device.

Item 8—Application of rates.

Rates published herein apply per cubic foot per hundred pounds or *per centum ad valorem*, carrier's option, except as otherwise specified.

Where commodities are not specifically provided for herein, rates applicable between the ports named in the reverse direction will apply.

Item 9—Marine insurance.

Rates published herein do not include marine insurance.

Item 10—Owner's risk.

Oils and other liquids are accepted only at owner's risk of leakage.

Glassware, crockery and all fragile property in packages, only at owner's risk of breakage.

Perishable property only at owner's risk of frost, heat, or decay.

Deck cargo at owner's risk.

Commodities in single sacks only at owner's risk of sifting.

Item 11—Packages exceeding \$100 in value.

Packages on which the valuation is declared on shipping papers at time of shipment to be in excess of \$100 each, or \$8 per cubic foot, shall be charged at tariff rates, subject to minimum charge of \$5 plus 1 per cent of value declared, excepting articles at *ad valorem* rates which shall pay only tariff rates.

Important—The carrier or carriers will not be liable in the event of loss or damage resulting from faults or negligence, as detailed in shipping papers, for more than \$100 per package or \$8 per cubic foot, unless such valuation is shown in shipping papers and extra freight paid thereon.

Item 12—Parcel receipts.

Parcel receipts, value limited to \$5 each, will be issued at \$1 for the first cubic foot or fraction thereof, and 50 cents for each additional cubic foot or fraction thereof up to 9 cubic feet.

RATES OF FREIGHT.

(In United States currency or its equivalent.)

Commodity.	Per	Rate
Ashphalt.....	100 lbs..	\$0.41
Balata.....	100 lbs..	2.09
Balsam.....	100 lbs..	2.58
Bat guano.....	100 lbs..	.41
Birds and monkeys in crates.....	cu. ft..	1.05
Bones, in bags.....	100 lbs..	.62
Beans, in bags.....	100 lbs..	.46
Bullion, gold.....	1½ per cent <i>ad valorem</i>	
Bullion, silver.....	100 lbs., \$0.51 plus 1½ per cent	
Castor beans.....	100 lbs..	.62
Chocolate.....	cu. ft..	.33
Chicle.....	100 lbs..	2.09
Cigars and cigarettes.....	100 lbs..	1.33
Cocoa.....	100 lbs..	1.17
Coconuts.....	1,000 nuts.	9.37
Coffee, clean.....	100 lbs..	.72
Coffee, husk.....	100 lbs..	.85
Copia.....	100 lbs..	.84
Copra.....	cu. ft..	.36
Cotton.....	100 lbs..	1.81
Cuararina.....	100 lbs..	1.17
Divi divi.....	100 lbs..	1.25
Drums, empty, returned.....	cu. ft..	.20
Extract, tannic.....	100 lbs..	.60
Feathers.....	cu. ft..	.51
Fish oil.....	cu. ft..	.36
Flour, banana.....	100 lbs..	.59
Fruit, on deck, crated.....	cu. ft..	.74
Grease.....	100 lbs..	.62
Guara.....	100 lbs..	.51
Gum, amber.....	100 lbs..	2.09
Hair.....	100 lbs..	1.81
Hats.....	100 lbs., \$0.50 plus 1½ per cent	
Hides, dry, loose, or in bales.....	100 lbs..	1.81
Hides, green, salted, in bales.....	100 lbs..	1.05

Commodity.	Per	Rate.
Horns.....	100 lbs..	\$1.17
Ipecac.....	100 lbs..	2.58
Ivory nuts.....	100 lbs..	.46
Liquor.....	100 lbs..	1.33
Lumber, under 20-foot lengths.....	1,000 ft. B. M..	20.50
Lumber, 20-foot to 30-foot lengths.....	1,000 ft. B. M..	24.25
Mercury and mercury concentrates.....	100 lbs..	1.59
Milk, dry, powder.....	100 lbs..	.59
Minerals, valuation limited to \$200 per ton.....	100 lbs..	.51
Minerals, valuation over \$200 per ton.....	100 lbs., \$0.51 plus 1½ per cent	
Monkeys, in crates (<i>see</i> Birds).		
Nuts, Cohune.....	100 lbs..	.47
Ore, lead.....	100 lbs..	.51
Plants, in crates.....	cu. ft..	.51
Platinum.....	1½ per cent <i>ad valorem</i>	
Rubber.....	100 lbs..	2.09
Rubber, scrap.....	100 lbs..	1.05
Sarsaparilla.....	cu. ft..	.26
Scrap, metal, except scrap iron, valuation limited to \$200 per ton, ship's option:		
100 lbs.....		.63
Cubic foot.....		.26
Shells, turtle.....	cu. ft..	.63
Shells, turtle (or ship's option).....	1½ per cent <i>ad valorem</i>	
Sisal, hemp.....	100 lbs..	1.45
Skins:		
Alligator.....	100 lbs..	1.05
Bird, dried, in packages.....	cu. ft..	.51
Deer, goat, and sheep.....	100 lbs..	1.81
Specie, precious metals, jewels, money, etc.....	1½ per cent <i>ad valorem</i>	
Sugar.....	100 lbs..	.67
Talc.....	100 lbs..	.46
Tobacco.....	100 lbs..	1.33
Wax, bees.....	100 lbs..	2.09
Wines, whisky, etc. (<i>see</i> Liquors).		
Woods:		
Balsa.....	100 lbs..	1.05
Bamboo, boxed.....	cu. ft..	.26
Bark, mangrove, in bales.....	100 lbs..	.63
Bark, N. O. S., in bales.....	cu. ft..	.26
Cedar logs under 3 tons weight, each.....	100 lbs..	.63
Cedar logs over 3 tons weight, each.....	100 lbs..	.93
Cedar slats.....	cu. ft..	.26
Fustic.....	100 lbs..	.54
Guayacan, under 3 tons weight, each.....	100 lbs..	.63
Guayacan, over 3 tons weight, each.....	100 lbs..	.93
Log wood.....	100 lbs..	.63
Mahogany, under 3 tons weight, each.....	100 lbs..	.63
Mahogany, over 3 tons weight, each.....	100 lbs..	.93
Wood pulp, in bales.....	100 lbs..	.51
Wool, in bales.....	100 lbs..	2.25

Weather Conditions, Canal Zone.

Rainfall for the year 1919 was below normal at all stations except Taboga, Chilli-brillo, and Bocas del Toro, the deficiencies ranging from -4.19 inches at Juan Mina to -32.14 inches at Brazos Brook. October was the month of heaviest rainfall, and March the month of lightest rainfall at most stations. April and October were the only months with rainfall generally above normal. Annual totals ranged from 56.46 inches at Balboa to 147.15 inches at Porto Bello. The greatest amount of precipitation recorded on any one day was 9.09 inches at Porto Bello on April 23.

The air temperature, temperature of the sea, wind movement, and evaporation were above normal on both coasts, while the atmospheric pressure and relative humidity were below the average. The daytime cloudiness was above normal on the Atlantic Coast and below on the Pacific side.

A severe wind storm occurred at Gamboa on the afternoon of September 26, during which a maximum velocity of 50 miles an hour was recorded from the northeast.

Two unloading cranes at the Gamboa gravel plant were overturned and damaged approximately \$20,000.

A maximum wind velocity of 50 miles an hour from the south was recorded at Gatun on June 17.

An observation balloon at Coco Solo was burned and a near-by mess hall struck by lightning and slightly damaged during a severe electrical storm that occurred on the Atlantic side on August 5.

Twenty-two seismic disturbances were recorded at Balboa Heights during the year. All of these were of light intensity and caused no damage in the Canal Zone and vicinity.

Gatun Lake hydrology—Mean elevation of Gatun Lake was 85.61 feet; maximum 87.16 feet on December 3; minimum 83.70 feet on April 12; evaporation from Gatun Lake surface 57.738 inches; rainfall on Gatun Lake drainage basin 94.34 inches; total yield of Gatun Lake watershed 53.62 inches on watershed; the total yield amounted to 57 per cent of the rainfall.

The following table summarizes the weather conditions for the year:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Greatest daily range	Precipitation.			Wind.				
		Mean.	Maximum.	Date.	Minimum.	Date.		Mean relative humidity.	Total inches.	Station average.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa Heights.....	29.841	80.4	94	Feb. 6	67	Mar. 20	23	82	61.15	69.46	8.1	N. W.	36	N. W.	Mar. 7
Colon.....	29.850	80.3	92	June 2	71	Dec. 13	17	83	100.82	128.48	10.7	N.	33	N.	Nov. 28
Gamboa.....	.....	80.0	94	Apr. 11	66	Mar. 21	24	.....	62.02	90.81	5.4	N. E.	50	N. E.	Sept. 26
Gatun.....	.....	80.4	92	May 18	70	Mar. 19	18	.....	90.91	122.40	6.2	N.	50	S.	June 17

Increase in Pay of Employees on the Silver Roll.

Effective February 1, the pay of employees on the silver roll was increased above the rates in effect on January 31, as follows:

Hourly rates, subsistence and nonsubsistence	\$0.02
Monthly rates,* subsistence and nonsubsistence.....	5.00
Per diem rates, subsistence and nonsubsistence.....	.15

*Where the addition of \$5 to a monthly rate would increase the wage beyond the maximum of \$75 at present established, no increase may be made as of February 1. Increases for these rates have been recommended, and the Governor has requested that the Executive Order on employments be so amended as to permit employment of aliens at a maximum of \$960 a year.

Canal Clubhouses No Longer Connected with Y. M. C. A.

For the information of the public, it is announced that the Panama Canal clubhouses are no longer connected in any way with the Y. M. C. A. The clubhouses are now entirely under the jurisdiction of The Panama Canal, operated for the welfare of the employees of The Panama Canal and Panama Railroad Company.

The hospitality of the clubhouses is extended to the public, with the exception that dutiable supplies sold therein can only be sold to those in the service of the United States Government.

Separate clubhouses are provided for white and colored employees.

Executive Order.

The area of land hereinafter described, to be known as Fort William D. Davis Reservation, consisting of two parcels, situated in the Canal Zone, is hereby set apart and assigned to the uses and purposes of a military reservation, under the jurisdiction of the Secretary of War; but said area shall be subject to the civil control and jurisdiction of the Governor of the Panama Canal in conformity with the Panama Canal Act.

The boundaries of said reservation are described as follows: (Panama Canal circular No. 601-101 contains these boundaries.)

* * * * *

No structure shall be constructed by the military authorities within two hundred (200) feet of the present banks of the Canal.

The transfer of the Fort William D. Davis Reservation is made subject to the continued right of the Supply Department of The Panama Canal to use areas not contiguous to barracks or quarters for pasturage of cattle for the supply of beef to the Canal Zone; the pasturage areas, however, to be available for use by the troops when required for military maneuvers or for target practice.

WOODROW WILSON

THE WHITE HOUSE,
December 22, 1919.

[No. 3203.]

Executive Order.

Establishing Regulations for the Canal Zone relative to the sale, possession, and disposition of liquors for sacramental, scientific, industrial, pharmaceutical and medicinal purposes.

By virtue of the authority vested in me by section 20 of the Act of Congress entitled "An Act to prohibit intoxicating beverages, and to regulate the manufacture, production, use and sale of high-proof spirits for other than beverage purposes, and to insure an ample supply of alcohol and promote its use in scientific research and in the development of fuel, dye, and other lawful industries, effective October 28, 1919, I hereby establish the following regulations for the Canal Zone:

Section 1. The Chief Health Officer of The Panama Canal, under the direction of the Governor of The Panama Canal, is hereby authorized and directed to administer the regulations established hereunder; and he may designate one or more assistants to aid him in the performance of his duties, who shall exercise such powers as the Chief Health Officer may delegate to them from time to time.

Section 2. In conformity with Section 1, Title II, of the above mentioned Act of Congress, the word "liquor" when used in these regulations, shall be construed to include alcohol, brandy, whiskey, rum, gin, beer, ale, porter, and wine, and in addition thereto any spirituous, vinous, malt, or fermented liquors, liquids and compounds, whether medicated, proprietary, patented or not, and by whatever name called, containing one-half of one per cent or more of alcohol by volume, which are fit for use for beverage purposes; Provided, that the foregoing definition shall not extend to dealcoholized wine or to any beverage or liquid produced by the process by which beer, ale, porter or wine is produced, if it contain less than one-half of one per cent of alcohol by volume, and is otherwise denominated than as beer, ale, or porter.

In conformity with Section 1, Title III, of the above mentioned Act of Congress, the term "alcohol" means that substance known as ethyl alcohol, hydrated oxide of ethyl, or spirit of wine, from whatever source or whatever processes produced.

Section 3. No liquors for sacramental purposes shall be imported into the Canal Zone or possessed, used, or disposed of therein for that purpose except upon the written permit of the Chief Health Officer or his duly authorized assistant. The permit shall not be issued except upon a written application of a priest or other minister of the gospel, rabbi, or official of any religious sect residing within the Canal Zone. The application shall be dated, shall state the name of the applicant in full, his official position, his church or institution, and where it is located, and that he desires to import into the Canal Zone and use the liquors described in the application for sacramental purposes only, giving the quantity thereof, where he is to obtain the same, and how it is to be transported into the Canal Zone. The application shall state that the liquor applied for will be necessary to cover the sacramental use thereof by the applicant's church or congregation for a period of days to be stated in the application, and that he will undertake to the best of his ability to see that none of the liquor applied for shall be used for other than sacramental uses; and he shall also state the quantity, approximately, of any liquor he then has on hand for sacramental purposes. The application shall be signed by the applicant, and shall state his address for shipment purposes.

If, in the opinion of the Chief Health Officer, the application should be granted, he will endorse his approval thereon and sign the same officially and deliver it to the applicant; and the Chief Health Officer shall keep a record of each permit issued by him or his assistants.

Section 4. No physician in the Canal Zone not employed by the Health Department of the Canal, the Army, Navy, or Public Health Service of the United States, shall be authorized to prescribe liquor to any patient unless the physician holds a permit issued by the Chief Health Officer of The Panama Canal; and all such permits shall be in writing, giving the date of issue, the name and address of the person to whom it was issued, and shall designate and limit the acts which are permitted, and the time and place where such acts may be performed. The permit shall be signed by the Chief

Health Officer or his authorized assistant, and shall be delivered to the applicant; and the Chief Health Officer shall keep a record of each permit so issued by him or his assistant. No permit shall be required under this section from a physician in the employ of The Panama Canal, the Army, Navy, or Public Health service of the United States.

Section 5. No one but a physician, authorized to do so under the preceding section, shall be permitted to prescribe liquors for medicinal purposes in the Canal Zone, and no liquors shall be so prescribed except after careful physical examination of the person for whose use such prescription is sought, or if such examination is found impracticable, then only when upon the best information obtainable the physician believes that the issue of such liquor to such person is necessary and will afford him relief from some known ailment. A prescription issued bona fide under these regulations shall authorize the person named in the same to use and possess the liquor described in the prescription, and in the quantity and for the time therein stated.

Section 6. No prescription issued by a physician not a resident of the Canal Zone shall authorize the introduction into the Canal Zone, or the use or possession therein of any liquor, unless such prescription shall have been approved by the Chief Health Officer or one of his assistants.

Section 7. No druggist or pharmacist not in the employ of the Health Department of The Panama Canal or the Army, Navy, or Public Health Service of the United States, shall be authorized to issue liquors upon a physician's prescription, unless such druggist or pharmacist holds a written permit from the Chief Health Officer or one of his duly authorized assistants, and then only in the form and manner authorized by such written permit. No permit shall be required under this section from a druggist or pharmacist in the employ of The Panama Canal, or the Army, Navy, or Public Health Service of the United States.

Section 8. No liquors obtained outside of the Canal Zone shall be permitted to enter the Canal Zone, or to be possessed or used therein for sacramental, pharmaceutical, medicinal, industrial or scientific purposes except with the approval of the Chief Health Officer or his assistants; and such approval shall not be given unless such officer is satisfied that the liquor is intended to be used for the purposes enumerated in this section, and in conformity with the law and the regulations.

Section 9. No liquor shall be manufactured for sacramental, medicinal, pharmaceutical, scientific, or industrial purposes, except in the laboratories of The Panama Canal; and no liquors shall be used for sacramental, medicinal, or pharmaceutical purposes except in the manner hereinbefore described: and no liquors shall be used for scientific or industrial purposes except upon authorization of the Chief Health Officer. The Chief Health Officer is hereby authorized and directed to issue, from time to time, such instructions as are not inconsistent with law, for the manufacture and use of liquors under these regulations.

Section 10. The articles enumerated in this section, after having been manufactured and prepared for market, shall not be subject to the provisions of these regulations, if they correspond with the following descriptions and limitations, viz:

(a) Denatured alcohol or denatured rum produced and used as provided by the laws and regulations of the United States, now or hereafter in force.

(b) Medicinal preparations manufactured in accordance with formulas prescribed by the United States Pharmacopeia, National Formulary or the American Institute of Homeopathy, that are unfit for use for beverage purposes.

(c) Patented, patent, and proprietary medicines that are unfit for use for beverage purposes.

(d) Toilet, medicinal, and antiseptic preparations and solutions that are unfit for use for beverage purposes.

(e) Flavoring extracts and sirups, that are unfit for use as a beverage, or for intoxicating beverage purposes.

(f) Vinegar and preserved sweet cider.

The manufacture and preparation of such said articles, however, shall be subject to such conditions as the Chief Health Officer may impose.

Section 11. The Chief Health Officer may from time to time require any and all persons having in their possession any liquor for sacramental, medicinal, pharmaceutical, scientific, or industrial purposes, to submit a statement to him showing the amount of such liquor in their possession; and he is hereby authorized to issue from time to time such instructions as he may deem necessary to fully carry out these regulations, including instructions regarding the use of liquors by veterinarians employed by The Panama Canal and other departments of the government of the United States.

Section 12. Each and every violation of any of the provisions of these regulations shall be punished by a fine of not more than \$1,000 and imprisonment of not exceeding

six months for a first offense, and by a fine of not less than \$200 or more than \$2,000 and imprisonment of not less than one month nor more than five years for a second and subsequent offense, to be imposed by the District Court of the Canal Zone.

Section 13. These regulations shall be effective from and after this date.

WOODROW WILSON

THE WHITE HOUSE,

January 7, 1920.

[No. 3210.]

Executive Order.

An Executive Order Concerning Costs and Security for Costs in the District Court and the Magistrates' Courts in the Panama Canal Zone.

By virtue of the authority vested in me by "An Act to provide for the opening, maintenance, protection and operation of the Panama Canal, and the sanitation and government of the Canal Zone," approved August 24, 1912, known as the "Panama Canal Act," I hereby establish and prescribe the following rules of practice to govern the District Court and the Magistrates' Courts in the Panama Canal Zone:

Section I. Each party to any civil suit instituted in the District Court or any Magistrate court of the Canal Zone shall be responsible for the costs incurred by him in such suit, and the marshal, constable or other officer, authorized to execute any process in such cases, shall not execute the same unless the fees allowed by law for the service of such process shall be paid in advance by the party seeking such process, unless such party to the suit is entitled to prosecute the same in *forma pauperis*, as hereinafter provided.

Section II. The plaintiff in every civil case in the District Court shall deposit with the clerk thereof a docket fee of ten dollars in cash and every plaintiff instituting a suit in the Magistrate courts shall deposit a docket fee in said court of five dollars; and the suit shall not be filed by the clerk or the magistrate unless the said docket fee is paid in the manner herein provided. The monies to be deposited shall be applied to the payment of costs as they accrue.

Section III. Any party to a civil case in the District Court, who demands a trial by jury, shall accompany said demand with a deposit of ten dollars as a jury fee; and unless such deposit is made, the case shall be tried without the intervention of a jury.

Section IV. The plaintiff in any civil suit or proceedings in the District Court or in either of the Magistrate courts may be ruled to give security for the costs upon motion of the opposing party or of any officer of the court interested in the costs accruing in said suit; and it shall be the duty of the court to require the plaintiff to give such security for costs within a reasonable time thereafter and not later than ten days after the motion is presented to the court; and if the plaintiff shall fail to comply with the order of the court within the time prescribed by the court or judge thereof, the suit shall be dismissed.

Section V. A new or additional undertaking may be ordered, within such time as the court or judge may prescribe, upon proof that the original undertaking is insufficient security, and failure on the part of the plaintiff to comply with the order of the court, or judge, within the time prescribed, shall cause the dismissal of the suit.

The security for costs required by this section may consist of a money deposit, bond of a surety company, or cost bond with two or more good and sufficient sureties; the form of such security to be determined by the judge or magistrate of the court before whom the proceedings are pending. If personal security is furnished, the sureties must be residents of the Canal Zone, and no officer of the court or attorney practicing before the court shall be accepted as surety.

Section VI. All bonds given as security for costs shall authorize judgment against all of the obligors of the said bonds, jointly and severally, for such costs, to be entered in the final judgment of the case or special proceedings.

Section VII. Any citizen of the United States, entitled to commence any suit or action in any court in the Canal Zone, may commence and prosecute or defend to conclusion any such suit or action, without being required to prepay fees or costs or give security therefor, before or after bringing such suit or action, upon filing in the said court a statement, under oath, in writing, that because of his poverty he is unable to pay the costs of said suit or action, or to give security for same, and that he believes that he is entitled to the redress he seeks by such suit or action, and setting forth the nature of the said cause of action.

The opposing party in the suit, the clerk of the District Court or his assistant, or the magistrate, as the case may be, may contest the inability of the party to pay costs or

his inability to furnish security for same; and the contest shall be heard at such time as the court or magistrate may determine.

If no contest is made upon the affidavit, or if the same is admitted by the court or magistrate after the contest, it shall be the duty of the officers of the court thereafter to issue and serve all processes and perform all duties on behalf of such party as in other cases.

Section VIII. No security for costs shall be required of the United States, The Panama Canal, or any of its dependencies or from the public administrator of The Panama Canal.

Section IX. The provisions of this order, relating to security for costs, shall apply to an intervenor; and shall also apply to a defendant who seeks a judgment against the plaintiff on a counterclaim, after the defendant shall have discontinued his suit.

Section X. When the costs are secured by the provisions of an attachment or other bond, filed by the party required to give satisfactory security for costs, no further security shall be required.

Section XI. This order shall apply to pending cases in the District Court and the Magistrate courts.

Section XII. Costs shall ordinarily be allowed to the prevailing party as a matter of course, but the court shall have power for special reasons to adjudge that either party shall pay the costs of an action, or that the same be divided as may be equitable.

Section XIII. The Executive Order of August 14, 1914, "To Require Security for Costs in Civil Cases," and all other laws, orders, and decrees, or parts thereof, in conflict with this order, are hereby repealed.

Section XIV. This order shall take effect thirty days from this date.

WOODROW WILSON

THE WHITE HOUSE,
January 9, 1920.

[No. 3213.]

(Published as Panama Canal circular 601-103.)

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Assistant director of educational work, Public Health Service (male and female); Class A, \$3,000 to \$4,000 a year; Class B, \$2,800 to \$3,600 a year; Class C, \$1,800 to \$2,400 a year; February 24, 1920; age, within reasonable age limits.*

Translator (male and female); \$1,400 to \$1,800 a year; March 3, 1920; form 1312; age, 25 years and over.

Examiner, Interstate Commerce Commission (male and female); \$3,000 to \$5,000 a year; March 3-4, 1920; form 1312; age, 25 years and over.

Special assistant in home economics education (male and female); \$2,500 a year; March 2, 1920, form 1312; age, 25 years but not 50 years.*

Manual training teacher (male and female); \$900 to \$1,000 a year; February 18, 1920; No. 73; form 1312; age, 21 years but not 50 years.

Pyrotechnic engineer (male and female); Grade 1, \$2,400 a year; Grade 2, \$3,600 a year; February 17, 1920; No. 72; form 1312; age, 21 years and over.*

Map printer (male and female); \$1,320 a year; February 17, 1920; No. 66, form 1800; age, 24 years or over.*

Lithographic pressman (male and female); \$1,800 a year; February 17, 1920; No. 66; form 1800; age, 20 years or over.*

Research chemist (male and female); \$2,200 to \$2,500 a year; February 10, 1920; No. 61; form 1312; age, 25 years but not 45 years.*

Library assistant (male and female); \$1,200 a year; February 18, 1920; No. 64; form 1312; age, 18 years or over.

Senior instructor in telephony, consulting engineer (male and female); \$3,600 a year; February 10, 1920; No. 63; form 1312; age, 25 years and over.*

Senior instructor in telegraphy, consulting engineer (male and female); \$3,600 a year; February 10, 1920; No. 63; form 1312; age, 25 years and over.*

Foreman, 14,000-ton press for armor and large caliber guns (male and female); \$11.84 to \$13.28 a day; February 10, 1920; No. 62; form 1371; age, within reasonable age limits.*

Foreman heat treatment of small guns (male and female); \$8 a day; February 10, 1920; No. 62; form 1371; age, within reasonable age limits.*

Fire-control instrument expert (male and female); \$2,500 to \$3,000 a year; March 2, 1920; No. 87; form 1312; age, 21 years and over.*

Physician (male and female); Panama Canal Service; \$200 a month; February 18, 1920, and March 17, 1920; No. 15-amended; form 1312; age, 22 years but not 31 years.

Electrical instrument maker (male and female); \$1,500 a year; February 24, 1920; No. 81; form 1312; age, 25 years or over.*

Aeronautical draftsman (male and female); charge man, \$10 to \$12 a day; draftsman, Grade A, \$8 to \$9.60 a day; No. 318-amended; form 1312; age, 18 years or over.† Draftsman Grade B, \$6 to \$7.20 a day; Grade C, \$5.20 a day; No. 318-amended; form 1312; age, 18 years or over.†

Field and laboratory aid in plant pathology (male and female); \$720 to \$1,080 a year; No. 67; form 1312; February 18, 1920; age, 18 years but not 30 years.

Assistant in teacher placement (male and female); \$1,500 a year; February 24, 1920; No. 82. form 2118; age, 20 years or over.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice

Deceased Employees.

The estate of the following deceased employee of The Panama Canal is now in process of settlement, and any claims against this estate, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. This name will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death
Charles Young.....	69745	Jamaica.....	Panama.....	Mirafleres Locks.....	January 14, 1920

Sale of Building No. 5000, Cristobal.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., February 6, and then opened, for the purchase of building No. 5000, on the Folks River Road, Cristobal. This is a 2-story building and contains 20 rooms. The successful bidder will have to remove the building not later than February 15, 1920.

Proposals must be accompanied by postal money order, or certified check on a bank acceptable to The Panama Canal, made payable to the order of the Collector, The Panama Canal, in an amount not less than 20 per cent of the amount bid. Award will be made upon payment of the full amount bid, and the 20 per cent submitted with the bid will be held as a guarantee that the removal will be performed not later than February 15. For further information call at the office of the District Quartermaster, Cristobal, between the hours of 8 and 10 a. m.

The Panama Canal reserves the right to reject any or all bids.

Sale of Gasoline Launch.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., March 2, and then opened, for the purchase of the gasoline launch *Pioneer*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Administrator's Sale.

The Administrator of Estates, room 301, Administration Building, Balboa Heights, will accept written bids up to 2 p. m. Saturday, February 7, 1920, for the purchase of a wooden tool box and a lot of electrician's tools belonging to the estate of Frank R. Jay, deceased American employee. Itemized lists of the articles offered for sale will be found posted at Canal Zone post offices and clubhouses, and persons desiring to examine the property may do so on business days, until 4.30 p. m., January 24, at room 203, Terminal Building, Cristobal, and after that date at the Administrator's office, Balboa Heights. Bids may embrace the entire collection, or be limited to single items. They should be submitted to the Administrator of Estates in sealed envelopes, marked "Bid on effects of Frank R. Jay, deceased." The Administrator reserves the right to reject any or all bids, and no advance deposit of money is required.

Annual Rainfall for Three Years.

Stations	INCHES.			Station average	Years of record.	Rainy days, 1919
	1919	1918	1917			
<i>Pacific section—</i>						
Balboa	57.59	50.90	65.09	67.93	21	164
Balboa Heights.	61.15	54.82	63.80	69.46	22	172
Mirafleres	58.12	64.22	84.57	79.60	11	169
Pedro Miguel	63.20	66.09	89.64	80.06	12	173
Rio Grande	76.87	74.97	94.72	48.26	15	185
<i>Central section—</i>						
Culebra	74.98	80.94	88.72	87.05	29	197
Camacho	74.75	83.49	94.14	87.78	13	195
Empire	69.63	82.89	92.85	80.46	15	206
Gambosa	62.02	75.47	102.44	90.81	37	203
Juan Mina	88.80	82.13	103.94	92.99	9	173
Alhajuella	81.51	83.25	103.39	100.53	20	225
Vigia	75.85	91.58	107.81	102.72	11	209
Frijoles.	95.33	91.20	107.82	100.15	8	...
Trinidad	79.05	73.94	111.16	105.17	12	252
Monte Lirio.	98.47	105.89	119.44	121.13	12	253
<i>Atlantic section—</i>						
Gatun	90.91	101.19	140.03	122.40	15	256
Brazos Brook	100.39	127.12	135.27	132.53	13	240
Colon	100.82	125.27	117.72	128.48	49	245

Additions to Commissary Stock.

Grocery Section.

Mincement, P. C., 1/2-gal. jar.....	\$1.15
(Five cents refund for return of empty jar.)	
Sauce:	
Brand's A-1, 6-oz. bot.....	.23
Brand's A-1, 11-oz. bot.....	.39
Cigarettes, Happy Hit, 20s, pkg.....	.12

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is Pancaanal, Panama; in the United States, "Pancaanal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station.....	Leave on the hour and half hour.
Administration Building.....	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary.....	Leave 10 minutes and 40 minutes after the hour.
Balboa Shops.....	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa Shops.....	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office.....	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary.....	Leave 20 minutes and 50 minutes after the hour.
Administration Building.....	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station.....	Arrive on the hour and half hour.

Hotel Aspinwall Launch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10.00 a. m.
Leave Taboga.....	8.00 a. m.

Sundays and holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6.00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

COMMISSARY NOTES.

Return Your Milk Bottles.

Considerable inconvenience is caused through the failure of commissary customers to return promptly their empty milk bottles. At times it has become actually necessary to take hurried measures to avoid a shortage. No difficulty whatever would be experienced if patrons would return these bottles regularly instead of permitting them to accumulate, and the cooperation of all concerned to this end is requested by the commissary management.

Books.

Books received:

"Theodore Roosevelt's Letters to His Children," edited by Joseph Bucklin Bishop. "Mrs. Marden," by Robert Hichens; "From Mud to Mufti," by Bruce Bairnsfather; "Simonetta," by Edwin Lefevre; "On the Makeloa Mat," by Jack London; "Dreams: What They Are and What They Mean," by J. W. Wickwar; "All Roads Lead to Calvary," by Jerome K. Jerome; "Eminent Victorians," by Lytton Strachey; "Bringing up Father," by George MacManus; "The Four Horsemen of the Apocalypse," by Blasco Ibañez; "Waifs and Strays," by O. Henry; "Complete Verse," by Rudyard Kipling; "The Beasts of Tarzan," by Edgar Rice Burroughs; "Poems," by Alan Seeger; "Shorty McCabe Gets the Hail," by Sewell Ford; "Raemaker's Cartoon History of the War;" "Broom Fairies and other Stories," by Ethel M. Gate; "Michael Forth," by Mary Johnston.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., February 11, 1920. No. 26.

The Ship of Greatest Gross Tonnage Through the Canal.

The United States Army transport *America* which passed through the Canal on February 6, is the second longest ship and the ship of the greatest gross tonnage to have used the Canal to date. Her length of 668 feet 9 inches is 16 feet 7 inches less than that of the *Mount Vernon*, which made the transit on October 29, 1919, but her beam of 74 feet 4 inches exceeds by 2 inches that of the *Mount Vernon* and her registered gross tonnage is 22,622, as compared with the 18,372 of the *Mount Vernon*, and the 20,602 tons of the *Minnesota*, which had previously held the record for gross tonnage. In beam the *America* is exceeded by a number of warships which have made the transit. Her draft was 32 feet 9 inches.

The *America* is on the way from New York to Vladivostok, via San Francisco, carrying 6 through passengers. She discharged 80 tons of cargo at Balboa and cleared on February 7 with 3,793 tons remaining on board.

Visit of Portion of Atlantic Fleet.

A portion of the Atlantic Fleet of the United States Navy, including 16 destroyers, with 1 squadron flagship and 3 flotilla flagships, arrived at Cristobal in the morning of February 11 from Guantanamo, for a stay of several days in Canal waters.

Seven Nitrate Ships in a Day.

Seven ships carrying nitrate arrived at Balboa on February 8. They carried an aggregate of 21,869 tons of cargo, of which 3,410 tons were bound for Madeira and the remainder to southern and middle Atlantic ports of the United States.

The first of the ships arrived at 12.30 in the morning, the next at 2.30 and the hours of arrival of the others were 7.00, 8.20 and 11.40 a. m. and 1.10 and 3.56 p. m.

Fire on the "Marne" Extinguished and Work of Raising Begun.

The fire which broke out in the cargo of the steamship *Marne* at Cristobal on January 24, and made it advisable to sink the ship in the outer harbor in an effort to extinguish the burning oil, was finally put out on February 5 by smothering with steam led through hose from tugs. Preliminary work for raising her had already been started. Three divers have succeeded in plugging all of the holes in the hull of the ship made by shots fired from 3-inch guns of submarines in order to sink the *Marne*, and work is now in progress on the construction of bulkheads to enable the pumping out of the water in the hold. As the ship sank parts of the superstructure remained above water, and it was in the section amidships that the fire continued to burn; but the deck between the bridge and the forecastle head, and from the

amidships superstructure to the poop, is under water. Bulkheads of 2-inch planks are being built on both sides of these sections, and when they are made watertight it is expected that it will be a relatively simple matter to pump out the ship and make her float.

Departure of the "Yakumo."

The Japanese cruiser *Yakumo*, one of the three training ships for midshipmen of the Japanese Naval Academy, cleared for San Diego in the afternoon of February 10, after a 6-day stay at Balboa.

During the visit the officers and men were provided by the Government with opportunity to visit the points of interest in the Canal Zone, and several notable receptions were given for the officers and midshipmen.

The two other training ships are on cruises to France and Great Britain.

Visit of Swedish Cruiser.

The Swedish cruiser *Fylgia* sailed on February 9 for Habana, thence to Havre, after a stay of 4 days at Cristobal, where she arrived on February 5 from Kingston. She is cruising with 20 cadets, who are training for service as officers in the Swedish Navy. Courtesies of transportation and sight-seeing were extended to officers and crew.

Line between New Orleans and West Coast.

The Hodge Ship Company, Inc., of New Orleans, has begun the operation of a steamship line between New Orleans and Pacific ports of Colombia and Ecuador, including Buenaventura, Tumaco, Esmeraldas, Bahia, and Guayaquil. The steamship *Nika*, passing through the Canal southbound on February 1 was the first of the 4 or 5 ships which the company expects to employ in this service.

Revised Travel Regulations.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 30, 1920.

To all concerned—The following circular, which was issued on July 19, 1919, is still in effect and must be complied with:

"REVISED TRAVEL REGULATIONS.

"1. Effective at once, travel regulations contained in my circular, 'Information and Instructions,' and amendments thereto, regarding entry into and departure from the Canal Zone, of November 1, 1918, excepting as applied to hostile aliens, are rescinded.

"2. Hostile aliens shall procure special permits to depart by application at the police stations at Balboa or Cristobal.

"3. Citizens of the United States and other persons owing allegiance to the United States, including employees of The Panama Canal and Panama Railroad, traveling between the continental United States and the Canal Zone, or between the insular possessions of the United States and the Canal Zone, shall not be required to bear passports, identity cards, or permits.

"4. Co-belligerents and neutrals may make the same journeys on passports issued, renewed, or visaed by the respective government authorities within 60 days of the date of departure, without permits."

CHESTER HARDING,
Governor.

Quarantine Against Influenza.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 5, 1920.

CIRCULAR NO. 626-3.

The Quarantine Rules and Regulations of the Canal Zone and the cities of Colon and Panama, are hereby extended to include influenza and similar diseases as maritime quarantinable diseases, and the Chief Quarantine Officer is authorized to promulgate rules for the exclusion of such diseases.

CHESTER HARDING, *Governor.*

The Average Ship Through the Canal.

During the first half of the current fiscal year, the average length of the 1,152 commercial ships making the transit of the Canal was 342 feet. The average beam was 48 feet and the average draft in salt water was 21 feet. The average net tonnage was 3,368 and the average cargo 3,583 tons.

Figures for the period by months are contained in the following tables:

Date	No. of ships	Length		Beam		Draft	
		Aggregate	Average	Aggregate	Average	Aggregate	Average
July, 1919.....	158	53,193	336	7,446	47	3,409	21
August, 1919.....	188	62,357	331	8,833	47	4,061	21
September, 1919.....	170	58,673	345	8,191	48	3,719	21
October, 1919.....	196	66,798	340	9,410	48	4,204	21
November, 1919.....	180	61,417	341	8,467	47	3,741	21
December, 1919.....	260	91,954	354	12,651	49	5,466	21
Total.....	1,152	394,392	.....	54,998	.....	24,600	.....
Average for 6 months.....			342		48		21

Date.	No. of ships	P. C. net tons		Cargo tons	
		Aggregate	Average	Aggregate	Average
July, 1919.....	158	513,618	3,250	568,172	3,596
August, 1919.....	188	586,111	3,117	715,724	3,807
September, 1919.....	170	586,186	3,448	628,270	3,754
October, 1919.....	196	670,100	3,419	705,881	3,601
November, 1919.....	180	597,148	3,317	575,480	3,197
December 1919.....	260	927,726	3,568	924,479	3,555
Total.....	1,152	3,880,889	.....	4,128,006	.....
Average for 6 months.....			3.368		3,583

Notice to Mariners.—U. S. Naval Radio Station Puerto Obaldia in Operation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 12, 1920.

CIRCULAR No. 643-69 (Corrected):

1. The U. S. Naval Radio Station, Puerto Obaldia, R. P., is now in operation. The station is located at Puerto Obaldia, near the eastern extremity of the Atlantic sea-coast of the Republic of Panama; approximate position, latitude 8° 40' north, longitude 77° 22' west. The station call is NRK.

2. Puerto Obaldia is operated by the U. S. Naval Communication Service and is prepared to handle U. S. and Panaman Government despatches free of charge. The station also handles commercial traffic at rates which may be obtained from the Naval Radio Station, Balboa, C. Z.

3. The following daily schedule of watches will be maintained by Puerto Obaldia Radio; 6 to 8 a. m.; 12 noon to 2 p. m.; 6 to 8 p. m. All messages for this station will be handled via Balboa Radio on above schedules, and those received at Balboa at any time outside of schedule can not be transmitted until the following schedule.

4. Messages for Puerto Obaldia, or other U. S. Naval Radio Stations in the Republic of Panama, may be filed at any of the Panama Railroad or Panama National telegraph offices.

JAY J. MORROW, *Acting Governor.*

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, February 7, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draf	From	For	Cargo	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Gross Net
Helder	1	7 19	1	11 08	1	20 18	2	3 00	Norwegian.	Jac. Enzers Steamship Corp.	322.0	44.0	23.6	New York.	Meillonnes	Iron rails, cement	3,900	3,447
Nika	1	10 43	1	11 28	1	20 10	1	20 50	American.	Hodge Shipping Co.	297.3	46.0	18.6	New Orleans.	General	General	600	2,553
City of Para	1	6 24	2	15 50	2	15 50	2	21 13	American.	Pacific Mail Steamship Co.	345.0	38.0	22.3	Cristobal	San Francisco.	General	3,088	3,739
Vulcan (g)	2	15 25	3	6 24	3	18 14	3	18 50	American.	United States Navy.	386.0	53.0	27.0	Norfolk	San Diego	Coal, shells	7,200	7,200
Yosemite	1-27	19 00	3	6 30	3	17 15	3	21 33	American.	United States Shipping Board.	402.6	53.0	24.7	Hongkong.	Honolulu.	Case oil	7,500	6,570
Lake Maurepas	2	17 55	3	6 33	3	13 32	3	14 35	American.	United States Shipping Board.	235.4	43.0	22.0	Tampa.	Haiti.	General	2,368	1,904
Cote Blanche.	1-25	11 28	3	10 30	3	19 49	4	10 35	Chilean.	South American Steamship Line.	350.0	42.0	22.6	Cristobal.	Caleta Buena.	General	2,653	1,680
Palena	1-28	17 05	3	10 00	3	19 40	4	11 14	American.	United States Shipping Board.	253.0	44.0	22.6	New York.	Coronel.	General	583	639
Inea	2	20 45	3	11 01	3	21 51	3	21 51	Norwegian.	South American Steamship Line.	360.6	43.0	22.6	Norfolk.	General	4,025	3,952	
Amalienborg.	3	13 58	4	6 30	4	13 55	4	17 05	Danish.	Johs. Lindvig.	320.3	47.2	23.0	Baltimore.	Antofagasta.	Coke	3,349	3,561
Tripp	3	17 43	4	9 10	4	16 09	4	17 05	American.	C. K. Hansen.	409.8	43.1	21.0	Yokohama.	San Pedro.	General	6,528	6,589
Lake Cathoon.	3	16 20	4	10 40	4	17 16	4	18 06	American.	United States Shipping Board.	251.0	43.1	20.0	Norfolk.	Antofagasta.	Coke and coal.	1,991	2,828
Contolone.	4	13 30	4	13 50	4	20 09	6	16 36	American.	United States Shipping Board.	253.0	43.1	24.0	Baltimore.	Guayacan.	General	2,518	1,583
Huallaga.	1-29	17 17	5	6 10	5	14 55	5	21 46	Peruvian.	Peruvian Steamship Line.	360.0	44.7	20.3	Cristobal.	Callao.	General	849	4,514
Goa.	5	7 55	5	8 43	5	15 51	5	17 27	Portuguese.	Portugese Government.	425.0	51.0	23.0	New York.	Valparaiso	General	4,000	4,409
West Kasson.	5	9 34	5	10 05	5	18 05	5	18 47	American.	Standard Oil Co.	610.5	54.0	25.0	Baltimore.	San Pedro.	Crude oil	7,300	5,547
Braford.	4	19 45	5	10 23	5	19 05	5	21 16	American.	Standard Oil Co.	426.9	54.6	27.0	Tampico.	Pisagua.	Crude oil	8,220	7,318
Cottonwood.	5	9 45	5	11 28	5	20 09	6	11 30	American.	United States Shipping Board.	253.0	37.0	18.6	Charleston.	Caleta Coles.	General	1,750	2,379
San Juan.	1-28	22 23	6	6 06	6	13 51	6	17 03	American.	Pacific Mail Steamship Co.	669.0	74.3	30.9	New York.	San Francisco.	Miscellaneous	3,783	5,153
America (h)	5	17 43	6	6 33	6	17 47	7	11 04	American.	United States Army.	430.0	58.0	27.0	Tampico.	San Francisco.	Crude oil	9,764	8,683
G.D. Schofield.	5	23 42	6	7 00	6	15 35	6	20 23	American.	Standard Oil Co.	175.0	16.0	10.0	Coco Solo.	Balboa.	General	785	1,187
R-24, 23, 27(c)	d	11 11	6	7 25	6	18 46	6	21 47	American.	United States Navy.	220.0	33.1	17.0	Cristobal.	Buenaventura.	General	8,207	5,900
Jamaica	2	21 25	6	10 54	6	18 33	6	21 47	British.	Pacific Steam Navigation Co.	445.6	58.0	17.0	Antwerp.	Talca.	General	1,719	5,694
Kaikyu Maru.	6	10 30	7	6 15	7	14 34	7	15 28	Japanese.	Katsudo Steamship Co.	360.2	51.6	20.0	New York.	Valparaiso.	General	6,881	6,196
Santa Luisa.	6	18 35	7	6 27	7	16 29	7	16 38	American.	W. R. Grace & Co.	407.0	51.0	25.6	New Orleans.	Yokohama.	General	4,000	6,928
Horasian Maru.	7	3 45	7	7 03	7	16 39	7	17 25	Japanese.	Mitsui & Co.	360.2	54.0	20.0	Baltimore.	San Francisco.	General	1,750	2,379
Elbeek.	7	8 20	7	13 35	7	20 16	7	21 00	American.	United States Shipping Board.	402.0	54.0	20.0	Baltimore.	San Francisco.	General	2,861	2,895

(a) Collier. (b) Transport. (c) Submarines. (d) December.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draf	From	For	Cargo	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Gross Net
Caribbean	1	2 30	1	7 23	1	14 42	3	9 00	American.	Panama Railroad Cattle Industry	288.0	47.6	15.0	Corinto.	Mindí, C. Z.	Cattle, eggs	(f)	2,354
Fort Gaines.	1-31	13 50	1	7 30	1	13 50	1	15 20	Norwegian.	Federal Line.	225.2	34.1	16.0	Buenaventura.	New York.	General	840	1,128
Unica.	2	11 45	1	12 25	1	20 07	1	20 07	Norwegian.	H. M. Wrenzell & Co.	338.1	48.0	22.0	Junin.	Wilmington.	Nitrate	5,560	3,909
Bahiet.	1	12 10	1	13 23	1	21 44	2	11 15	American.	United States Shipping Board.	275.2	46.0	20.0	Astoria.	Philadelphia.	Ties	(g)	3,092
West Isip.	1	3 05	1	13 59	1	22 18	2	8 00	American.	United States Shipping Board.	409.8	54.2	25.0	Seattle.	New York.	Flour	7,753	6,755
Cethana	1-18	22 15	1	13 31	1	22 33	2	17 16	American.	J. E. Chilberg.	262.5	46.2	22.4	Seattle.	W. Hartlepool.	Lumber	1,764	2,414
Nookum.	1	15 30	2	6 40	2	15 50	2	15 50	American.	United States Shipping Board.	416.6	53.0	25.0	San Francisco.	New York.	Flour	7,073	6,512
Point Judith.	1	18 00	2	6 54	2	15 44	4	6 25	American.	Pacific Mail Steamship Co.	259.1	44.1	17.0	San Francisco.	Baltimore.	General	2,861	2,895

(e) Coffee, and empty gas cylinders. (f) Cattle, 200 head; eggs, 13 cases. (g) 1,312,367 feet, B. M.

Ship	Date	Vessel	Line	From	Date	Vessel	Line	To	Weight
Mouro	1 17.15	2	7.00	2 16.00	3	12.20	Spanish	Vaseo Cantabrico	319.0
Jupiter	1 18.30	2 9.04	2 17.45	2 17.45	3 12.58	Spanish	Cia Anon Maritima Union	Cia Anon Maritima Union	389.2
Sherman	1 20.20	2 11.08	2 18.52	2 18.52	3 19.00	American	Sherman Steamship Co	New York	400.3
Santa Olivia	1 22.10	2 11.27	2 19.55	2 19.55	3 23.12	American	Atlantic and Pacific Steamship Co	Charleston	404.5
Jamaica	2 12.20	2 7.41	2 21.25	2 21.25	3 10.54	British	Pacific Steam Navigation Co	Tumaco	220.0
Capt. Wilhelm	2 13.30	2 7.41	2 21.25	2 21.25	3 10.54	British	United States Army	Barboa	60.0
Farvont	2 15.40	3 6.49	3 15.43	3 15.43	4 15.53	American	Coastwise Transportation Co.	Tocopilla	368.6
Arava	2 18.45	3 8.13	3 16.32	3 16.32	4 5.43	British	Shaw, Saville & Albion	Lyttelton	60.0
Arruru	3 2.30	3 8.31	3 18.03	3 18.03	4 22.40	Spanish	Cia Naviera Vasconzada	Talal	46.0
Felix Taussig	3 7.50	3 8.31	3 18.41	3 18.41	4 12.40	American	Crowell & Thurlow S. S. Co	Antofagasta	319.5
Stephen R. Jones	3 11.24	3 12.28	3 21.23	3 21.23	4 21.38	American	Crowell & Thurlow S. S. Co	Iquique	354.2
Cove	3 12.15	3 13.16	3 21.40	3 21.40	4 7.00	American	United States Shipping Board	Iquique	253.0
West Hassay	3 14.20	4 6.28	4 15.23	4 15.23	5 19.16	American	United States Shipping Board	Portland	410.0
amra	3 17.30	4 8.03	4 16.43	4 16.43	5 24.45	American	United States Shipping Board	Portland	410.0
Sleiz	4 1.00	4 12.35	4 20.35	4 20.35	5 12.45	American	United States Shipping Board	Antofagasta	380.2
Manardo	4 16.00	5 6.45	5 15.23	5 15.23	6 12.45	Peruvian	Peruvian Line	Callao	360.0
Arroy	5 1.20	5 8.08	5 16.26	5 16.26	6 20.42	Norwegian	Klivel & Co	Tocopilla	295.0
Heijin Maru	5 8.15	5 9.43	5 18.30	5 18.30	6 23.42	Japanese	Toyo Kisen Kabushiki Kaisha	Iquique	345.0
Clausius	4 15.45	5 10.20	5 19.44	5 19.44	7 7.18	American	Green Star Line	Buenaventura	409.8
Laura C. Hall	4 10.50	5 11.44	5 19.44	5 19.44	8 9.12	British	Pacific Metals Corporation	San Francisco	54.2
Manavi	5 14.15	5 14.55	5 22.10	5 22.10	6 15.02	Dutch	Pacific Steam Navigation Co	Buenaventura	216.0
Almeo	5 7.15	6 6.40	6 15.02	6 15.02	7 15.02	Dutch	Royal Netherlands S. S. Co	Valparaiso	447.3
S. C. 284	1-27 15.17	6 8.49	(b)	6 8.49	(b)	American	United States Navy	Valparaiso	447.3
Gen. G. W. Getty	3 11.20	7 8.09	7 16.10	7 16.10	8 16.10	American	United States Army	Balboa	98.0
Annapolis (t)	3 11.20	7 8.09	7 16.10	7 16.10	8 16.10	American	United States Government	Mare Island	168.0
Sonoma (t)	7 3.20	7 8.54	7 17.30	7 17.30	8 17.30	British	United States Government	San Francisco	169.8
Grayson	1 21.00	7 11.18	7 19.18	7 19.18	8 19.50	American	Pacific Steam Navigation Co	San Francisco	350.3

PORT OF CRISTOBAL

(h) Launch. (i) Gunboat. (j) Tug. (k) Did not complete transit. (l) For orders. (m) Coffee, ivory nuts, and platinum. (n) 10,020 of 1,000 kilos.

Date	Vessel	Line	From	Date	Vessel	Line	To	Weight
Feb. 3	Ed. L. Doheny III	Pan-American	Tampico	Feb. 1	Craigsmere	United States Shipping Board	Bluefields	3,650
Feb. 3	Atenas	United Fruit Co	New York, via Habana	Feb. 1	Ulysses	Panama Railroad Steamship Line	New York	7,400
Feb. 4	Parisima	United Fruit Co	New Orleans and Habana	Feb. 2	Achilles	Panama Railroad Steamship Line	New York	5,804
Feb. 4	Carrillo	United Fruit Co	New York and Kingston	Feb. 2	Astmacho III	Panama Railroad Steamship Line	Norfolk	8,600
Feb. 5	W. S. Rheams	United States Shipping Board	Tampico	Feb. 4	Atenas	Panama Railroad Steamship Line	Bluefields	793
Feb. 5	Fylgia (t)	Swedish Government	Kingston	Feb. 4	Acon	Panama Railroad Steamship Line	New York	8,726
Feb. 5	Santa Maria	United Fruit Co	Cartagena	Feb. 5	Ed. L. Doheny III	Pan-American Pet. & Trans. Co.	New Orleans	5,300
Feb. 5	Perou	French Steamship Line	Hayre	Feb. 5	Parisima	United Fruit Co	New Orleans	4,000
Feb. 5	W. H. Marston	J. M. Scott	High seas	Feb. 5	Santa Maria	United Fruit Co	New York and Jamaica	9,000
Feb. 6	Gen. W. C. Gorgias	Panama Railroad Steamship Line	New York and Haiti	Feb. 6	Panama	Panama Railroad Steamship Line	New York via Haiti	6,380
Feb. 6	Constoga (p)	United States Navy	Norfolk	Feb. 6	Carrillo	United Fruit Co	Colombian ports	4,627

(o) Cruiser. (p) And Barge II.

(Continued on page 383, Column 2.)

Portuguese Government Ship Through the Canal.

The steamship *Goa*, owned by the Portuguese Government and operated by the Transportes Maritimes de Estado, passed through the Canal on February 5, on her way from New York to Valparaiso by way of Mollendo and Callao. She was carrying 4,000 tons of general cargo in tramp service.

Training Ship for the City of Philadelphia.

The United States Navy tug *Sonoma* arrived from San Francisco on February 3 on her way to Philadelphia, towing the *Annapolis*, a ship without power, classed as a gunboat, to be used by the city of Philadelphia as a training ship for the merchant marine. The tug and tow underwent some minor repairs at Cristobal and cleared on February 9.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending February 7, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ulysees.....	Panama Railroad Steamship Line.....	.....	February 1.....	.....	5,216
Achilles.....	Panama Railroad Steamship Line.....	.....	February 2.....	.....	(*)
City of Para.....	Pacific Mail Steamship Line.....	.....	February 2.....	.....	2,118
Cote Blanche.....	United States Shipping Board.....	.....	February 3.....	.....	(*)
Pa'ena.....	Chilean Steamship Co.....	.....	February 3.....	.....	599
Caribbean.....	Panama Railroad Cattle Industry.....	February 1.....	February 3.....	400	3
Point Judith.....	Pacific Mail Steamship Line.....	February 2.....	February 4.....	255	(*)
Jamaica.....	Pacific Steam Navigation Co.....	February 2.....	February 6.....	796	1,078½
Ancon.....	Panama Railroad Steamship Line.....	.....	February 4.....	.....	10,511
Lake Cathoon.....	United States Shipping Board.....	February 3.....	February 4.....	2,826	(*)
Atenas.....	United Fruit Co.....	February 3.....	February 4.....	5	54
E. L. Doheny III.....	Pan-Amer. Pet. & Trans. Co.....	February 3.....	February 5.....	11,430	(*)
Huallago.....	Peruvian Line.....	.....	February 5.....	.....	845½
Parismina.....	United Fruit Co.....	February 4.....	February 5.....	587	325
Carrillo.....	United Fruit Co.....	February 4.....	February 6.....	802	242
W. S. Rheem.....	United States Shipping Board.....	February 5.....	.....	9,000	.....
Santa Marta.....	United Fruit Co.....	February 5.....	February 5.....	3	½
Laura C. Hall.....	Pacific Metals Corporation.....	February 5.....	.....	47½	.....
Perou.....	French Steamship Co.....	February 5.....	.....	86	.....
Mantaro.....	Peruvian Steamship Line.....	February 5.....	.....	3,322½	.....
Manavi.....	Pacific Steam Navigation Co.....	February 5.....	.....	651	.....
San Juan.....	Pacific Mail Steamship Line.....	.....	February 6.....	.....	2,002
Panama.....	Panama Railroad Steamship Line.....	.....	February 6.....	.....	3,723
Teviot.....	Royal Mail Steam Packet Co.....	February 6.....	.....	50	.....
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....	February 6.....	February 2.....	3,458	.....
Caribbean.....	Panama Railroad Cattle Industry.....	February 7.....	.....	208	.....
Alianca.....	Panama Railroad Steamship Line.....	February 7.....	.....	1,379	.....
Chile.....	Pacific Steam Navigation Co.....	February 7.....	.....	2,026	.....

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 7, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Georgina Rolph.....	Rolpb Navigation Co.....	(*)	February 1.....	.....	71
Point Judith.....	Pacific Mail Steamship Co.....	February 1.....	February 2.....	171	.....
City of Para.....	Pacific Mail Steamship Co.....	February 2.....	February 2.....	.....	45
Lady Sybil.....	International Petroleum Co.....	February 2.....	February 6.....	500	100
Laura C. Hall.....	Pacific Metals Corporation.....	February 4.....	February 5.....	33	.....
Clauseus.....	Green Star Line.....	February 4.....	February 5.....	578	.....
Manavi.....	Pacific Steam Navigation Co.....	February 5.....	February 6.....	4	.....
America.....	United States Army.....	February 6.....	February 7.....	83	.....
Chile.....	Pacific Steam Navigation Co.....	February 7.....	February 7.....	1	.....

* Shown in last week's report.

Ships for West Coast Service.

The following is quoted from the *Digest of Reconstruction News* issued by the Council of National Defense, January 22, 1920:

"The Shipping Board will place under management of existing steamship company several vessels to handle freight and passenger service between New York and cities of west coast, including Callao, Arica, Iquique, and Valparaiso on 2-week schedule."

Tug "Dreadnaught" Transits the Canal.

The tug *Dreadnaught* of the United States Navy passed through the Canal on February 9, towing target raft *No. 51* from Norfolk to San Diego direct.

Passage of the "President Grant."

The United States Army transport *President Grant* arrived at 7.13 on the morning of February 10 on the way from Hoboken to Vladivostok by way of San Francisco, Kobe, and Yokohama, carrying 3,539 tons of cargo, consisting of steel, copper, and supplies.

The *President Grant* is a ship of 18,072 gross tons, registry measurement, and her length between perpendiculars is 598 feet 11 inches. Her beam is 68 feet 1 inch, and her draft in the fresh water of the Canal was 32 feet 8 inches.

The *President Grant* started through the Canal at 7.50 a. m., cleared Gatun Locks at 10.05 a. m., reached Pedro Miguel at 1.10 p. m., Balboa at 6.09 p. m., and cleared immediately for sea. Her time in transit through the Canal was 10 hours, 19 minutes, and her total time in Canal waters 10 hours, 56 minutes.

Suspension of Crossing at Pedro Miguel Locks.

On account of the overhaul of Pedro Miguel Locks individuals or pack trains will not be able to cross the Canal at this point for a period of about 3 months. Crossings can be made at Miraflores and at the Paraiso pontoon bridge.

Sunday Dinners at Ancon Restaurant.

The Canal restaurant at Ancon began on February 1 serving a Sunday evening *table d'hote* dinner of six courses for \$1, and will make this a feature each Sunday, in addition to the usual service, which, in this as in the other Canal restaurants, is *a la carte*. The Tivoli and Washington Hotels serve *table d'hote* luncheons and dinners, and *a la carte* breakfasts.

Physical Examination of School Children.

A report of the annual physical examination of children in the white schools made in October and November, 1919, follows:

Number of physical examinations made.....	1,631
Number found needing treatment.....	951
Number with other defects than those of teeth only.....	523
Number with defects of teeth as only defect.....	428
Defects found:	
Defective vision.....	173
Defective hearing.....	38
Defective nasal breathing.....	113
Hypertrophied tonsils.....	260
Pulmonary diseases.....	7
Cardiac disease.....	14
Chorea or other nervous disorders.....	11
Orthopedic defects.....	6
Malnutrition.....	12
Miscellaneous defects.....	802
Number with defective teeth.....	653
Number reported as treated.....	162

Standard Stock Catalogue.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., January 30, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

1. At my direction, and in accordance with my circular of September 16, 1918, the Supply Department has, with assistance of representatives of the various divisions of The Panama Canal and Panama Railroad Company, compiled a catalogue of supplies on hand in Supply Department storehouses, which will be retained for Panama Canal and Panama Railroad Company use. This catalogue will hereafter be referred to as the "Standard Stock Catalogue." All material on hand not included in this catalogue will, with few exceptions, be included in a separate surplus and obsolete catalogue, and efforts made to dispose of same.

2. The Standard Stock Catalogue was originated with the end in view of establishing the identity of all material on hand in storehouses, in so far as future stock protection of same was concerned; to provide, for the information of and guidance of departments and divisions, a catalogue of standard supplies which would be carried in stock in the future; to reduce investment in stock to the lowest possible figure, and to reduce the number of items previously carried in stock, in order that sufficient funds would be available for the purchase of standard material instead of large amounts being tied up in slow-moving stock, for which in many cases satisfactory substitutes could be furnished from standard stock; the use of such substitutes, even if at a higher cost than desired material, being considered advisable for obvious reasons.

3. Each item incorporated in the Standard Stock Catalogue is prefixed by one of the following symbols, indicating its status as shown below, in so far as future stock protection of same is concerned.

X—General stock material, requirements of which will be protected by the General Storekeeper on the basis of past consumption.

%—General stock material, requirements of which will be protected by the General Storekeeper on the basis of maximum and minimum quantities established.

*—Special stock material, to be reordered by the General Storekeeper as required, on the basis of estimates or special requests.

⌘—Material not to be reordered after present stock is exhausted.

4. Your particular attention is invited to all items incorporated in the Standard Stock Catalogue prefixed by the symbol "⌘," representing material which will not be reordered when the present supply is exhausted, with request that you arrange to use the present stock of this material at the earliest possible date, in order to prevent possible loss from deterioration in stock or otherwise.

5. Effective at once, the following instructions will govern origination of requisitions for United States purchase of Panama Canal and Panama Railroad Company material requirements.

(a) Requisitions for standard stock material included in the Standard Stock Catalogue will be originated in the office of the General Storekeeper, on form No. 906, and forwarded to the Chief Quartermaster for handling, except as noted below under sections 1, 2, and 3, of sub-paragraph (a).

(1) Standard stock electrical material will be ordered by the Electrical Division on form No. 6674, and forwarded to the Chief Quartermaster for handling, until such time as arrangements are made by the Supply Department to protect direct the requirements of this class of supplies.

(2) Dredge spares, stock protection of which has been handled by the Dredging Division in the past, will be ordered by the Dredging Division on form No. 6674, and forwarded to the Chief Quartermaster for handling, until such time as arrangements are made by the Supply Department to protect direct the requirements of this class of supplies.

(3) Special electrical material and lock spares, stock of which has in the past been protected by the Engineer of Maintenance, will be ordered by the Engineer of Maintenance, on form No. 6674, and forwarded to the Chief Quartermaster for handling, until such time as arrangements are made by the Supply Department to protect direct the requirements of this class of supplies.

(b) Stationery and printing plant supplies will be ordered by the Printer, Panama Canal Press, on form No. 6965-1, and submitted to the Chief Quartermaster for handling.

(c) Equipment or special material, not included in the Standard Stock Catalogue, required for special work, which, upon receipt, will be shipped direct to the work for which ordered, for installation or use, will be ordered on form No. 6674, which will be forwarded by the heads of departments and divisions to the Chief Quartermaster

for handling and my approval. In the event purchase of such material and equipment is approved, same shall not be considered in so far as future stock protection is concerned, and will not be recorded.

6. Your particular attention is called to the fact that all material which in the future will be stocked in Supply Department storehouses, will be ordered on requisitions originated by the General Storekeeper, except as provided for in sections 1, 2, and 3, of sub-paragraph (a) of a ove paragraph No. 5, and that only such material as is incorporated in the Standard Stock Catalogue will be stocked in the future.

7. Requests for additions to the Standard Stock Catalogue should only be made after careful investigation of the necessity for same, and the fact has been ascertained that the standards adopted are insufficient; consideration being given the fact that every additional stock item represents increased investment in stock.

8. Requests for additions to the Standard Stock Catalogue will be made by heads of departments and divisions on form No. 6222, a stock of which will be maintained by the Printer, Panama Canal Press, and submitted to the General Storekeeper in triplicate, for action, on the third Wednesday of each month, by the Standard Stock Committee, which is hereby created and will be composed of the Engineer of Maintenance as Chairman, the General Storekeeper, and representatives of the divisions requesting additional stock standardization. After careful investigation, the Standard Stock Committee will submit form No. 6223 to me with recommendation, for final action. The General Storekeeper will advise interested division on form No. 6224, of action taken in connection with each request for additional stock standardization.

9. Heads of departments and divisions will designate competent material representatives, who will be subject to the call of the General Storekeeper, for the purpose of revising stock standardization, when required.

10. After careful investigation, with the assistance of representatives of the various departments and divisions, the General Storekeeper is authorized, when necessary, to eliminate items included in the Standard Stock Catalogue from future stock protection, and to make necessary changes in symbols covering the various items, as necessity for same arises. The General Storekeeper will arrange periodically to furnish departments and divisions with revised sheets to the Standard Stock Catalogue indicating any changes that have been made in stock standardization covering material included thereon.

11. Other than standard stock material included in the Standard Stock Catalogue which is not required by departments and divisions, will be returned to stock at storehouses only in accordance with provisions of Auditor's Circular No. 196, dated April 21, 1919.

CHESTER HARDING, *Governor*

Liquor Regulations.

THE PANAMA CANAL, HEALTH DEPARTMENT,
BALBOA HEIGHTS, C. Z., January 31, 1920.

CIRCULAR NO. 173-

To all concerned—1. By virtue of the authority vested in me by Executive Order of January 7, 1920, entitled "Executive Order Establishing Regulations for the Canal Zone Relative to the Sale, Possession, and Disposition of Liquors for Sacramental, Scientific, Industrial, Pharmaceutical, and Medicinal Purposes," the following instructions are promulgated for the handling and use of liquors upon the Canal Zone:

2. Liquors for pharmaceutical, medicinal, industrial, or scientific purposes may be imported upon official requisitions.

3. Liquors for sacramental purposes may be imported upon permit issued by the Chief Health Officer. Applications for such permits must be upon forms as sample hereto attached.

4. Liquors imported by the Health Department for pharmaceutical, medicinal, scientific and veterinary purposes, will be placed in the medical storehouse and issued therefrom upon approved official requisitions.

5. Hospitals, dispensaries, and other units of the Health Department may obtain such liquors as necessary from the medical storehouse and will issue them upon prescriptions signed by physicians regularly employed by The Panama Canal.

6. All prescriptions for liquors will be kept on a separate file and will be subject to inspection at any time.

7. Physicians employed by the Health Department of The Panama Canal, by the Army, Navy, or Public Health Service, and those holding a permit from the Chief Health Officer, are authorized to prescribe liquor for medicinal purposes upon forms as attached hereto.

(a) When such prescriptions are for liquors to be used in a hospital only one copy need be made, and it will be filed in the drug room. When the prescription is for liquor to be used outside of a hospital, the physician will place on file a copy of the prescription, the patient retaining the original as his authority to have the liquor in his possession.

(b) When it is necessary to prescribe for individual patients liquor that must be obtained outside the Canal Zone, the physician will make out the prescription in duplicate and forward both copies to the Chief Health Officer. If approved for import it will be so indorsed by the Chief Health Officer, one copy will be returned to the physician who signed it for his file, and the other to the patient as his authority to import, use, and possess the liquor.

8. A record of all receipts and issues of liquors will be kept at the Medical Storehouse, and in the drug rooms or other units of the Health Department issuing liquors, with the necessary vouchers for all expenditures. A separate account will be kept for each kind of liquor used. The records will be ruled and kept in the form provided in sheet attached hereto.

9. At least once a month the accounts will be balanced and the quantities remaining on hand will be verified by the Storekeeper or a designated physician, and the facts noted over his signature. These accounts will be subject to inspection at any time.

10. Liquor for industrial, veterinary, and scientific purposes may be brought upon the Canal Zone upon official requisition and placed in stock in Government storehouses. It will be issued therefrom upon approved official requisitions, for industrial, veterinary and scientific purposes. Sales may be made to individuals provided the storekeeper is convinced that the liquor is for the purposes mentioned in this paragraph.

(a) Records of receipts and issues will be kept at all storehouses and these accounts will be subject to inspection at any time.

11. All liquors will be kept under lock and key.

Approved:

CHESTER HARDING,
Governor.

H. C. FISHER,
Chief Health Officer.

BALBOA HEIGHTS, C. Z., January 31, 1920.

APPLICATION BY PHYSICIAN NOT EMPLOYED BY THE HEALTH DEPARTMENT OF THE PANAMA CANAL, THE ARMY, NAVY, OR PUBLIC HEALTH SERVICE OF THE UNITED STATES FOR PERMISSION TO PRESCRIBE LIQUOR TO PATIENTS, IN ACCORDANCE WITH EXECUTIVE ORDER OF JANUARY 7, 1920

.....
(Address)

.....
(Date)

CHIEF HEALTH OFFICER,
Balboa Heights, C. Z.

In accordance with Executive Order of January 7, 1920, and your circular No. 173 of January 31, 1920, I hereby apply for permit to prescribe liquor for medicinal purposes to patients residing in the Canal Zone. Any prescriptions written under the requested permit will be upon the form and under the conditions prescribed in your circular No. 171.

....., M. D.

Permission to prescribe liquor for use upon the Canal Zone, in accordance with above application, is hereby given, to continue until.....
(Date of expiration)

providing all the requirements of Executive Order of January 7, 1920, are strictly adhered to.

Balboa Heights, C. Z.

.....
Chief Health Officer.

....., 192...

(This application will be forwarded to the Chief Health Officer in duplicate.)

THE PANAMA CANAL
CANAL ZONE

APPLICATION FOR PERMIT TO IMPORT AND USE LIQUORS FOR SACRAMENTAL PURPOSES.

.....
(Address)

.....
(Date)

CHIEF HEALTH OFFICER,
Balboa Heights, C. Z.

I,
(Name in full) (Official position)

of the at
(Church or institution) (Location)

desire to import into the Canal Zone and use for sacramental purposes only:

..... It will be obtained in
(Kind and amount of liquor) (Place)

and will be transported into the Canal Zone in the following manner:

.....
This amount of liquor will be necessary to cover the sacramental use thereof by the
above-mentioned church or congregation for a period of..... days, and I will
undertake to the best of my ability to see that none of the liquor applied for shall
be used for other than sacramental uses.

I have now on hand for sacramental purposes.
(Kind and amount of liquor)

My address for shipment purposes is
.....
(Signature)

The above application is hereby approved:

CHIEF HEALTH OFFICER,

....., 192..

(This application to be forwarded to the Chief Health Officer in duplicate)

THE PANAMA CANAL
CANAL ZONE
HEALTH DEPARTMENT

FORM FOR USE OF PHYSICIANS WHEN PRESCRIBING LIQUOR FOR MEDICINAL PURPOSES.

..... is authorized to use and possess
the following liquors for medicinal purposes:

Rx. Amount

Directions:

This prescription to expire.....

(1) I certify that I have made a careful physical examination of
and find that ..he is in need of medical aid. I believe that the issue of this liquor is
necessary and will afford h.... relief from the ailment with which ..he is suffering.

(2) I certify that has consulted me professionally
and that ..he is in need of medical aid. Upon the best information obtainable I
believe that the issue of this liquor is necessary and will afford h.... relief from the
ailment with which ..he is suffering.

....., M. D.

.....
(Place)

.....
(Date)

NOTES—Certificate No. 1 or No. 2 to be filled out, depending upon the circumstances of each case.
Certificate not used should be crossed out.

When prescriptions are for liquors to be used in a hospital, only one copy need be made, and it will
be filed in the drug room. When the prescription is for liquor to be used outside of a hospital, the
physician will place a copy of the prescription on file, the patient retaining the original as his
authority to have the liquor in his possession.

When it is necessary to prescribe for individual patients liquor that must be obtained outside the
Canal Zone, the physician will make out the prescription in duplicate and forward both copies to
the Chief Health Officer. If approved for import it will be so indorsed by the Chief Health Officer,
one copy will be returned to the physician who signed it for file, and the other to the patient as his
authority to import, use, and possess the liquor.

THE PANAMA CANAL
CANAL ZONE
HEALTH DEPARTMENT
FORM TO BE USED IN KEEPING LIQUOR ACCOUNT, IN ACCORDANCE
WITH CIRCULAR NO. 173.
LIQUOR ACCOUNT
Kind of Liquor.....

Voucher or prescription.		Debit.	Credit.	Balance.
Date.	Number.			
.....
.....
.....
Total	

Account balanced and quantity on hand verified.

Date..... Signature.....

NOTE.—The date of receipt will be noted in the left-hand column and the amount in the Debit column. The expenditures will be noted by entering the voucher or prescription number in the left-hand column and the amount expended in the Credit column.

Executive Order.

INSTRUCTION OF CANDIDATES FOR CLASSIFIED SERVICE.

The Executive Order of October 13, 1905, as amended on May 17, 1919, is hereby amended to read as follows:

No officer or employee of the Government shall, directly or indirectly, instruct or be concerned in any manner in the instruction of any person or classes of persons, with a view to their special preparation for the examinations of the United States Civil Service Commission. The fact that any officer or employee is found so engaged shall be considered sufficient cause for his removal from the service: *Provided*, that this order shall not be so construed as to prevent the Federal Board for Vocational Education, the Medical Departments of the Army and Navy, and any other branches of the Government from utilizing the government facilities and the services of federal officers and employees where such facilities or services may be necessary or useful in carrying out the duties imposed upon such departments or branches by law, in the training and testing of disabled soldiers, sailors, and marines.

As amended the order extends to government establishments generally the exemption heretofore made in the case of the Federal Board for Vocational Education.

THE WHITE HOUSE,
January 13, 1920.

WOODROW WILSON

[No. 3215.]

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service:

Dairy manufacturing specialist (male and female); \$1,800 to \$2,700 a year; March 9, 1920; form 2118; age, under 45 years.*

Mechanic and laboratory assistant (male and female); \$5.25 a day; March 3-4, 1920; form 1312; age, 18 years but not 40 years.

Specialist in city school administration (male and female); \$3,500 a year; March 9, 1920; form 2118; age, under 60 years.*

Stenography and typewriting instructor (male and female); \$1,380 to \$1,500 a year; February 24, 1920; No. 79; forms 304 and 2226; age, 21 years and over.

Grazing assistant (male and female); \$1,200 to \$1,500 a year; April 7-8, 1920; No. 84; form 1312; age, 20 years but not 40 years.

Calorimetric ballistic engineer (male and female); \$2,400 to \$3,000 a year; March 2, 1920; No. 88; form 1312; age, 21 years and over.*

Preparator in botany (male and female); \$75 a month; March 3, 1920; No. 90; form 1312; age, 18 years but not 50 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Official Circulars.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 2, 1920.
To all concerned—The appointment of Mr. H. A. A. Smith as a member of the Joint Commission, effective February 2, 1920, is hereby announced.

CHESTER HARDING,
Governor.

Acting Auditor.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 2, 1920.
To all concerned—Effective February 2, 1920, and during the absence of Mr. H. A. A. Smith, Mr. Elwyn Greene will act as Auditor, and Mr. W. H. Kromer as Assistant Auditor, of the Panama Canal.

CHESTER HARDING,
Governor.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 4, 1920.
CIRCULAR NO. 661-82:
Effective this date, Mr. Richard A. Wade is appointed Magistrate for the subdivision of Cristobal, *vice* Mr. John W. Thompson, resigned.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 4, 1920.
CIRCULAR NO. 228:
Effective February 2, 1920, Mr. Roy R. Watson is designated an accountable official of the Supply Department, The Panama Canal and Panama Railroad, *vice* Mr. Max Herz, and as such will account for all nonexpendable property in use by the Superintendent of the Supply Department.

ELWYN GREENE,
Acting Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

"Collect on Delivery" Service to United States.

THE PANAMA CANAL,
BUREAU OF POSTS,
BALBOA HEIGHTS, C. Z., February 5, 1920.
To all postmasters—Effective at once, C. O. D. parcels may be accepted for the United States of America under the general provisions of Circular 37, dated May 5, 1919. Particular care should be taken to avoid the acceptance of any articles excluded from the insured and C. O. D. service by the United States Guide and all other articles of a quickly perishable nature.

C. H. CALHOUN,
Director of Posts.

Annual Passes.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., February 5, 1920.
CIRCULAR NO. 1488:
All concerned—Effective Friday, February 20, annual passes for the year 1919 will not be honored for transportation.
The 1920 annual passes, which are now being distributed, will be honored effective at once.

W. F. FOSTER,
Master of Transportation.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 375.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessels.	Line.	From.	Date.	Vessels.	Line.	For.
Feb. 7.....	Caribbean.....	Panama Railroad Cattle Industry..	Cartagena.				
Feb. 7.....	Alliance.....	Panama Railroad Steamship Line..	New York.				
PORT OF BALBOA.							
*ARRIVALS.				*DEPARTURES.			
Jan. 31.....	Georgina Rolph (g).....	Rolph Navigation and Coal Co.....	Valparaiso.	Feb. 4.....	Georgina Rolph.....	Rolph Navigation & Coal Co.....	San Francisco.
Jan. 31.....	Lake Fitch (g).....	United States Shipping Board.....	Coquimbo.	Feb. 4.....	Cleveland (r).....	United States Navy.....	High seas.
Feb. 1.....	Cleveland, U. S. (r).....	United States Navy.....	Amapala.	Feb. 6.....	Lady Sybil.....	International Petroleum Co.....	Talara.
Feb. 2.....	Lady Sybil.....	International Petroleum Co.....	Talara.				
Feb. 4.....	Yakumo (r).....	Japanese Government.....	San Francisco.				

(g) Omitted in last week's issue. (r) Cruiser. *Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Prices of Coal.

THE PANAMA CANAL,
PANAMA RAILROAD COMPANY,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., January 29, 1920.

CIRCULAR RA-672:

To all station agents—The following prices per ton of 2,240 pounds have been fixed for the sale of coal for local use, effective February 8, 1920:

	Colon and Cristobal	Balboa	Panama and line points
1. To Panama Canal and to Panama Railroad, at coaling plants, without trimming.....	\$10.00	\$11.50	
2. To parties taking carload lots, including U. S. Army and Navy, but exclusive of coal belonging to Navy.....	13.00	14.50	\$14.50
3. Coal belonging to the U. S. Navy will be delivered at the plant at which stored for \$3 per ton.			
4. To parties taking less than carload lots from plants, cars, or bins.....	14.00	15.50	15.50
5. To employees of The Panama Canal, Panama Railroad, United States Government, and those entitled to employees' rates, including Santo Tomas Hospital.....	13.00	14.50	14.50

The following are the prices of coal furnished to steamships, effective November 16, 1919, as published in Panama Canal Tariff Supplement No. 2:

	Colon and Cristobal	Balboa
1. For steamships, including warships of all nations, delivered from coaling plants or alongside of vessels in lighters or in cars on the wharves and trimmed in bunkers, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$13.50	\$15.50
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting transit.....		13.50
3. To steamships taking less than carload lots from plants, or less than 25 tons from lighters.....	15.00	17.00
4. When request is made by commander of vessel, chief engineer or agent, for trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, an additional charge of 60 cents per ton will be made for extra handling.		
5. For lump coal for galley use, delivered in sacks, additional charge per ton \$10. Should the vessel furnish satisfactory sacks, the price will be only \$3 per ton addi-		

tional. Not more than 5 tons will be supplied to a vessel.
6. For coal for cargo which will be delivered only in exceptional cases, after special authority is given by the Governor..... \$16.00 \$18.00
H. A. A. SMITH,
Auditor.

Approved, effective February 8, 1920.

CHESTER HARDING,
Governor, The Panama Canal.

Increase in Price of Ice.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

CRISTOBAL, C. Z., February 7, 1920.

BULLETIN No. 919-7:

To all concerned—Effective March 1, 1920, the retail price of ice will be increased from 30 cents to 40 cents per 100 pounds.

Ice cards for March will be figured on this basis and collections from customers should be made accordingly.

J. J. JACKSON,
General Manager, Commissary Division.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., February 11, 1920.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request by the addressee. Request may be made by telephone, calling No. 182, Balboa:

Backus, W. C.	Lougon, Mrs. Hilda
Barker, Robert	Lucey, A. T.
Brooks, Mrs. Earle G.	Morse, Mrs. G. C.
Brown, Fred W.*	Murphy, Robert E.
Brown, Louis.*	Olsen, E. J.
Christobee, Alex.*	Payne, Mrs. R. T.
Dillon, Mrs. Wenonah A.	Penman, Miss Marguerite
Clark, G. E.	Phillips, Mrs. R.
Custed, W. D.	Rearidon, Maurice.
Elhorn, Mrs. Emmy	Reese, R. N.
Fletcher, B. J.	Reilly, Miss Alice
Fleming, Joseph M.	Reuterias, Jose
Forsberg, E. S.	Robinson, Van H.
Geddes, Geo.*	Rose, A. M.
Godfrey, Mrs. Madeleine	Rose, Mrs. C.
Goodman, Paul	Sawyer, Wm. T.
Hardwick, Rurl	Smith, Enrique Ernesto†
Hartman, Ferd	Smith, W. R.
Henry, E. G.*	Stanley, J. P.
Hoby, Mrs. H.	Stewart, Emel
Holcomb, Mrs. Adelta E.	Terry, E. H.
Johnson, Miss Eva.†	Theller, Mrs. Olaf E.
Jones, Fred	Thomas, James
Kennedy, J. W.†	Whitaker, R. W.†
Kirkpatrick, F. A.	Wilkinson, R. W.

*Paper. †Card.

Sale of Nails.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., February 20, 1920, and then opened, for the purchase of all or part of about 5,450 pounds 10d shop-worn finishing nails. Prospective purchasers may inspect these nails by inquiring at section "B," Balboa storehouse (telephone No. 381). Proposals must be accompanied by postal money order, or certified check on an acceptable bank, payable to the order of the Collector, The Panama Canal, in an amount not less than 10 per cent of the amount bid. Deposits of unsuccessful bidders will be returned, but deposit of successful bidder will be retained as a guarantee to complete contract. Envelope should be marked, "Proposal for the Purchase of Nails." The Panama Canal reserves the right to reject any or all bids.

Sale of Metal Checks.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., February 12, 1920, and then opened, for the purchase of all or part of a lot of approximately 75,000 obsolete metal checks, weighing about 1,500 pounds. These checks may be inspected on any working day, during office hours, by inquiring at Room 101, Accounting Department (telephone No. 22), Administration Building, Balboa Heights. Bids must be submitted on the basis of price per pound, and be accompanied by postal money order, or certified check on an acceptable bank, in an amount not less than 20 per cent of the amount bid. Bids should be plainly marked on the envelope: "Proposal for the purchase of metal checks." Deposit of unsuccessful bidders will be returned, but deposit of successful bidder will be held as a guarantee to complete contract. Award will be made upon the payment of the full amount bid, and metal checks must be removed within 30 days thereafter. The Panama Canal reserves the right to reject any or all bids.

Sale of Electric Trucks and Spare Parts.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., February 25, 1920, and then opened, for the purchase of four (4) "Buda" cargo-handling electric trucks and spares. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Additions to Commissary Stock.

Dry Goods Section.

Beads, ivory, carved, 80s, string.....	\$2.53
Dress goods:	
Cloth, printed, crepe, yd.....	.51
Voile, fancy, white, 36", yd.....	.84
Voile, fancy, white, 36", yd.....	1.03
Voile, fancy, white, 36", yd.....	.97
Holders, dribrush, ea.....	.39
Kimonos:	
Crepe, cotton, striped, men's, ea.....	3.00
Crepe, cotton, striped, men's, ea.....	2.60
Crepe, cotton, striped, men's, ea.....	2.23
Crepe, cotton, embroidered, men's, ea.....	3.00
Crepe, cotton, embroidered, men's, ea.....	2.95
Crepe, cotton, embroidered, men's, ea.....	2.60
Crepe, cotton, embroidered, ladies', ea.....	2.93
Crepe, cotton, embroidered, ladies', ea.....	2.90
Crepe, cotton, embroidered, ladies', (S/N 16295, 16296, 16297).....	2.75
Crepe, cotton, embroidered, ladies', (S/N 16298, 16299, 16302) ea.....	2.60
Crepe, cotton, embroidered, ladies', ea.....	2.50
Crepe, cotton, embroidered, ladies', (S/N 16303, 16304) ea.....	2.40
Paper, party, invitation, with envelopes, pink or blue, box.....	.28

Grocery Section.

Arrow root, powdered, 1-lb. bag.....	.38
--------------------------------------	-----

Hardware Section.

Coasters, nickel plated, ea.....	.38
Dishes:	
Chafing, silver plated, ea.....	16.93
Almond, nickel plated, ea.....	3.60
Planes, ice, with double edge knife, ea.....	.67

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Paul Caroline.....	30038	Martinique.....	Panama.....	Health Department....	January 13, 1920.
James Griffin <i>alias</i> Griffith.....	22762	Barbados.....	Panama.....	Supply Department...	January 20, 1920.
Theophilus Mann.....	42990	Barbados.....	Panama.....	Pacific Locks.....	January 20, 1920.
Nathaniel Matthews..	38691	Jamaica.....	Colon.....	Coaling Station.....	January 13, 1920.
Jeremiah Robinson..	34357	Jamaica.....	Panama.....	Mechanical Division ..	January 22, 1920.

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast.....	\$2.00						
Employees.....	per day.. 2 75						
Children under 12 years of age.....	per day.. 1.25						
Servants of employees.....	per day.. 1.50						
Employees for stay of 7 days.....	per day.. 2.00						
Reduction of 10 per cent for employees on above rates for stay of 30 days.							
Further reduction of 10 per cent for families of four or more.							
Nonemployees.....	per day.. 3.50						
Children of nonemployees.....	per day.. 1.50						
Servants of nonemployees.....	per day.. 1.75						
Meals without room.....	<table border="0"> <tr> <td>Breakfast.....</td> <td>1.00</td> </tr> <tr> <td>Luncheon.....</td> <td>1.25</td> </tr> <tr> <td>Dinner.....</td> <td>1.25</td> </tr> </table>	Breakfast.....	1.00	Luncheon.....	1.25	Dinner.....	1.25
		Breakfast.....	1.00				
		Luncheon.....	1.25				
Dinner.....	1.25						

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

COMMISSARY NOTES.

White Drill Overalls.

The commissary purchasing agent has advised that he has succeeded in making a very fortunate purchase of white drill overalls. These will come forward by an early departure and will sell for \$2 per pair.

Bungalow Rugs Not Obtainable.

Bungalow rugs, which have found considerable favor among commissary customers, are not at present obtainable. The suppliers have written that they have nothing to offer now and that from present indications it will be late this fall before they will be in position to make quotations.

Sugar.

Expressive of the sugar situation in the United States to-day is a recent communication from the commissary purchasing agent, who states that the wholesale price of granulated sugar is 15 cents per pound, less 2 per cent. It is still very scarce and the retail stores are selling it in 1-pound lots.

However, the refineries expect the price to come down soon and shipments of loaf and powdered sugar for the commissaries account will shortly be made.

Toys.

In order that full advantage may be taken of the Toymakers' Fair, to be held in New York this year at one of the large hotels from February 2 to March 13, a representative of the Commissary Division will be in attendance. It is stated that production will be only about 65 per cent of last year and the point has been reached where selections from catalogues would be a waste of time. In addition to being present at the Fair, the commissary buyer will consult with the purchasing agent stationed in New York in order that the best of seasonable goods in dry goods and other merchandise may be obtained.

Prices on Shoes, Hosiery, Etc.

Shoe prices have not reached the limit, and lower prices on hosiery may not be expected for at least 5 years, according to the Boston Retail Shoe Dealers' Association and the head of a large hosiery works in the United States, respectively. Hopes for lower prices on underwear were discouraged at the recent annual meeting in New York of the National Wholesale Dry Goods Association.

It is said that shoe prices will go down "when there is more leather and less demand for it here and abroad" and "when strikes cease and labor connected with shoes buckles down and produces more pairs."

It is further stated that while shoes now on sale were made from leather costing 60 cents to \$1 a foot, those now being made for Spring are from materials costing 80 cents to \$1.25 a foot, plus higher costs for other materials and additional grants to labor, with less pairs per man produced.

Prices to commissary customers will, however, be kept down to some extent due to large quantity purchases made in May and June, 1919, from four of the largest suppliers. The men's shoes bought at that time were for the most part medium grades, with \$15,000 worth of high-grade numbers. These shoes have now been received but the women's shoes on the same order are not yet all here. Duplicate orders recently placed for the same grade of goods run from \$2 to \$3 the pair higher. In work shoes the stock is particularly large, there being enough to last for a considerable time at last year's prices. It is in the better grade men's, women's, and especially children's shoes that the greatest advances are to be expected.

In assuring higher prices on hosiery for this year, it is said that with two-ply eighty mercerized yarn at \$5.65 a pound, \$1.50 may be cheap for a pair of summer stockings. Decreased production and increased manufacturing costs are given as the reasons for the anticipated rise. Opinion seems to be that no reduction will begin until Europe begins producing enough for itself.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.
PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., February 18, 1920. No. 27.

To Employees on the Silver Roll.

1. I am informed that a strike of certain of our silver employees belonging to the U. B. of M. W. E. and R. S. L. has been decided upon by officers of that organization in the United States in conjunction with a strike of certain railroad employees which may possibly occur in the United States.

2. I feel that I would be neglecting my plain duty to the men employed under my direction, in whose welfare I have a real interest, if I failed to counsel them to think matters over carefully before deciding to quit the service by striking.

3. The wages of silver roll employees have always been based in a general way on the wages paid in the islands and countries near the Canal Zone. It has been the constant endeavor of the Canal Government to maintain for its employees a decent standard of living, with care for their housing, sanitary surroundings, and care in time of sickness.

4. Wages have been increased from time to time to maintain the standard of decency and comfort, the latest adjustment having been made this month. With these adjustments, taking as a basis the actual increases in the prices of standard articles used, our employees will be able to live at the standard to which they have been accustomed, which is believed to be higher than the standard for any community of the same class of labor elsewhere.

Remember what the facts are, and do not let them be distorted by false advisers who have no interest in you except to receive your contributions of money.

5. There is no logical connection between the railroad employees in the United States and the silver employees on the Isthmus. Their class of work is wholly dissimilar; local conditions there and here are in no way comparable; and it must be apparent to our silver men that it is unreasonable to call a strike here because of the troubles of railroad employees in the United States. There is no wisdom but much folly in such a proposition. I understand that you have paid your money to the organization in the United States. Will that organization finance a strike here? Will you share in the benefits they gain for themselves?

6. Each man must make his own choice, without compulsion on the part of this administration. If a strike occurs, those who remain at work will receive cards daily entitling them to all the privileges accorded them regularly as employees. Those who do not report for work will receive the usual clearance slip showing that they voluntarily quit, and their places will be filled as soon as practicable by men who appreciate the advantages of being in the service of The Panama Canal and Panama Railroad Company.

CHESTER HARDING, *Governor.*

BALBOA HEIGHTS, C. Z., February 14, 1920.

Further Visits of Atlantic Fleet.

The squadron of 16 destroyers with the flagship *Rochester* and flotilla flagships *Blackhawk* and *Dixie* which arrived at Cristobal on February 11, from Guantanamo, cleared for Kingston on February 16. The battleships *Arizona*, *Nevada*, *Oklahoma*, and *Pennsylvania*, comprising Division 7, are due to arrive at Cristobal on February 19, from Barbados, and the battleships *Delaware*, *Florida*, *North Dakota*, and *Utah* comprising Division 5, are due to arrive on February 23. The train consisting of the *Columbia*, *Prometheus*, *Solace*, *Proteus*, *Brazos*, and *Bridge* will arrive individually. The *Brazos* and *Proteus* have already arrived and are at anchor in Cristobal harbor.

Admiral H. B. Wilson, commander-in-chief of the Atlantic fleet, is on board the battleship *Pennsylvania* and exercising immediate command of the 7th Division. Rear Admiral C. B. Brittain is his chief-of-staff. Rear Admiral Edward W. Eberle is in command of the 5th Division, on the flagship *Utah*. Rear Admiral Edward Simpson, commanding the train, is on board the *Columbia*.

Schedule of Rates.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,

BALBOA HEIGHTS, C. Z., February 10, 1920.

The following amendments are made to Tariff No. 3, Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at the Panama Canal:

ITEM 18—STEVEDORING AND TRANSFERRING CARGO.

Effective March 10, 1920.

1. Stevedoring:

(a) General cargo.....	per ton..	\$0.50
(b) Cotton, wool, kapok, hemp, bark, leather, hides, and similar commodities.....	per ton of 2,000 lbs..	1.00
If offered on measurement basis, rate will be the general cargo rate of \$0.50 per ton.		
(c) Boilers, locomotive parts, machinery, railroad cars, etc., scrap machinery and scrap boilers, etc., and other heavy weights of over two tons.....	per ton..	.70
(d) Structural iron over 35 feet long.....	per ton..	.70
(e) Loose bricks, conduit, sewer pipe, terra cotta, and tile.....	per ton..	.70
(f) Loose scrap iron of irregular shape, pieces not over two tons.....	per ton..	.80
(g) Lumber, switch and cross ties.....	per 1,000 ft., B. M..	1.40
(h) Rough timber and logs.....	per ton..	.80
(i) Piling.....	per linear foot..	.01½
(j) Horses, mules, and donkeys.....	per head..	1.00
(k) Cattle.....	per head..	.75
(l) Calves, goats, dogs, hogs, and sheep.....	per head..	.50
(m) Live stock other than above indicated, when crated.....	per ton..	1.20
(n) Mail, baggage, and specie.....	per ton..	1.50
(o) Explosives.....	per ton..	2.50
(p) Nitrates.....	per ton..	.65

2. Transferring cargo between vessels:

For transferring cargo from the cleared slings of the delivering carrier to the slings of the receiving carrier, the following rates will apply:

(a) General cargo.....	per ton..	1.50
(b) Cotton, wool, kapok, hemp, bark, leather, hides, and similar commodities.....	per ton of 2,000 lbs..	3.00
If offered on measurement basis, rate will be the general cargo rate of \$1.50 per ton.		

NOTE.—Rubber will be stevedored and transferred under the heading of General Cargo.

(j) An additional charge of one-sixteenth of one per cent. 1/16 of 1% of its value will be made for the safekeeping of specie or any other commodity on which freight is charged on an *ad valorem* basis as per bill of lading or on account of which the Panama Railroad assumes a greater liability than the maximum liability per package specified in paragraph 22 below.
 Minimum charge on specie. per shipment. \$5.00

3. Isthmian cargo:

(a) The charge for handling inward and outward local cargo across the docks at Cristobal and Balboa will be 90 cents per ton on general cargo, and on other commodities $\frac{1}{2}$ the rates specified in Section 2, paragraphs *b* to *j*. Bills will be made against the delivering or receiving line as the case may be.

23. "Special" cargo, that is, cargo carrying an *ad valorem* valuation, must be listed on separate Accountable Receipts.

CHESTER HARDING,
 Governor, The Panama Canal.
 President, Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending February 14, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
W. S. Rheem.	United States Shipping Board.		February 8.		(*)
Laura C. Hall.	Pacific Metals Corporation.		February 8.		6
Teviot.	Royal Mail Steam Packet Line.		February 9.		1,045
Caribbean.	Panama Railroad Cattle Industry.		February 9.		72
Perou.	French Steamship Line.		February 10.		189
Mantaro.	Peruvian Steamship Line.		February 10.		434
Manavi.	Pacific Steam Navigation Co.		February 10.		692
Calamares.	United Fruit Co.	February 9.	February 10.	641	(*)
Cartago.	United Fruit Co.	February 9.	February 11.	1,242	119
Balboa.	Colombian Maritime Co.	February 9.	February 14.	596	238
Ucayali.	Peruvian Steamship Line.	February 10.		2,183	
Salvador.	Pacific Steam Navigation Co.	February 10.	February 14.	866	723
Barbadian.	Leyland Line.	February 11.		780	
Aysen.	Chilean Steamship Co.	February 11.		2,113	
Lake Garza.	United States Shipping Board.	February 11.	February 12.	2,444	(*)
C. A. Canfield.	Pan.-Amer. Pet. & Transp. Co.	February 11.	February 13.	10,000	(*)
Van Rensselaer.	Royal Dutch West India Mall Co.	February 11.	February 13.	71	76 $\frac{1}{2}$
Gen. W. C. Gorgas.	Panama Railroad Steamship Line.		February 13.		4,307
Carrillo.	United Fruit Co.	February 12.	February 12.	1 $\frac{1}{2}$	(*)
Lake Sparor.	United States Shipping Board.	February 12.	February 13.	2,461	(*)
Guatemala.	Pacific Steam Navigation Co.	February 12.		2,342	
Tivives.	United Fruit Co.	February 12.	February 13.	24	184
Caribbean.	Panama Railroad Cattle Industry.	February 13.		203	
Metapan.	United Fruit Co.	February 13.		290	
Alliance.	Panama Railroad Steamship Line.		February 14.		2,178
Edgar F. Luckenbach.	Luckenbach Steamship Corp.	February 14.		11,884	
San Jose.	Pacific Mail Steamship Co.	February 14.		1,498	

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 14, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Chiriqui.	National Navigation Co.	February 9.	February 9.		7
Laura C. Hall.	Pacific Metals Corporation.	February 9.	February 9.		12
Salvador.	Pacific Steam Navigation Co.	February 9.	February 10.	11	
Balboa.	Colombia Maritime Co.	February 9.	February 9.	1	
Manavi.	Pacific Steam Navigation Co.	February 10.	February 10.	4	
San Mateo.	Pan-American Line.	February 10.		793	
Kronprinsessan Margareta.	Johnson Line.	February 11.	February 11.	215	
Guatemala.	Pacific Steam Navigation Co.	February 12.	February 12.	5	
San Jose.	Pacific Mail Steamship Co.	February 13.	February 14.	135	56
Balboa.	Colombia Maritime Co.	February 14.	February 14.		57

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, February 14, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Laura C. Hall.	5	19 44	8	9 12	8	16 51	9	12 35	British.	Pacific Metals Corporation.	81.0	25.0	9.0	Cristobal.	Buenaventura.	General.	6	130	69
Orari.	8	13 24	8	13 40	8	20 58	9	7 28	British.	New Zealand Shipping Co.	460.7	60.0	28.0	Newport News	General.	12,000	9,827	6,885	
Ben (a).	1-28		8	5 30	8	10 47	9	14 57	American.	George W. Healey.	434.3	37.7	27.3	Cristobal.	Shanghai.	General.	8,000	7,983	5,882
Dryden.	8	16 10	9	6 45	9	14 57	10	13 10	American.	United States Shipping Board.	135.0	30.0	20.0	New York.	San Diego.	General.	1,061 1/2	3,766	2,585
Prednought (b).	4	8 57	9	6 46	9	17 40	10	13 10	American.	United States Navy.	331.0	46.0	15.6	Kingston.	Champernoon.	General.	7,245	6,613	4,933
Tevot.	6	7 22	9	8 32	9	17 40	10	17 30	British.	Royal Mail Steam Packet Co.	216.0	35.1	23.0	Cristobal.	Kobe.	General.	1,241	1,241	759
Manavi.	5	22 10	10	6 14	10	14 18	10	17 30	British.	Pacific Steam Navigation Co.	410.0	54.2	29.0	New York.	Guayaquil.	General.	8,000	6,489	4,869
West Wind.	8	22 35	10	6 20	10	15 19	10	17 31	British.	United States Shipping Board.	452.0	52.0	14.0	Southampton.	Chile.	General.	3,530 1/2	19,690	14,868
Bolton Castle.	9	16 40	10	6 30	10	16 25	10	17 31	British.	James Chambers & Co.	135.0	29.1	14.0	Southampton.	Chile.	General.	5,500	4,813	3,371
Sh. Athan (c).	8	15 00	10	6 34	10	14 15	10	15 01	British.	British Government.	599.0	68.0	22.6	Hoboken.	Vladivostok.	Steel, copper.	3,530 1/2	19,690	14,868
President	10	7 13	10	7 50	10	18 09	10	19 13	American.	United States Army.	364.5	47.0	24.6	New York.	San Francisco.	General.	434	4,731	2,853
Grant (d).	9	25 10	10	8 05	10	20 14	10	21 27	Japanese.	Nippon Yusen Kaisha.	380.0	46.0	19.1	Cristobal.	Callao.	General.	6,000	5,667	4,220
Bombay Maru	5	15 23	10	10 21	10	20 17	10	22 85	Peruvian.	Peruvian Steamship Line.	425.0	56.0	21.6	Sabine.	Adeleide.	General, gasoline.	8,900	7,051	5,245
Mentaro.	10	7 00	10	11 56	10	20 59	10	21 42	American.	H. Hogarth & Son.	251.0	66.0	15.3	Jacksonville.	Meillones.	Sulphur.	12,877	9,882	7,157
Oreus.	10	18 22	11	6 35	11	15 57	11	16 40	British.	White Star Line.	500.0	63.0	24.0	London.	Wellington.	General.	7,666	6,529	4,688
Baron Inchcape	9	6 25	11	6 40	11	15 33	11	16 10	American.	White Star Line.	400.0	52.4	16.0	La Pallice.	Iquique.	General.	3,730	5,296	3,987
Lake Glascow.	11	4 50	11	7 22	11	16 54	12	7 58	British.	Cia. Francaise d'Armement.	400.7	54.2	25.3	New York.	Honolulu.	Iron, general.	3,730	5,296	3,987
Athenic.	10	22 32	11	7 30	11	17 30	11	21 44	French.	United States Shipping Board.	360.2	51.4	19.0	Gothenborg.	Valparaiso.	General.	2,482	1,588	1,588
Alicante.	11	6 57	11	8 30	11	18 34	12	15 48	American.	United States Shipping Board.	360.2	51.4	19.0	Gothenborg.	Valparaiso.	General.	2,482	1,588	1,588
Kaysecka.	11	6 57	11	8 30	11	18 34	12	15 48	American.	United States Shipping Board.	360.2	51.4	19.0	Gothenborg.	Valparaiso.	General.	2,482	1,588	1,588
Kronprinsessan	11	8 42	11	9 30	11	19 29	12	7 35	Swedish.	Johnson Steamship Line.	404.6	53.9	20.8	Guantanamo.	Balboa.	General.	6,116	5,430	3,798
Margareta	11	7 50	12	6 25	12	14 08	13	10 02	American.	United States Navy.	169.0	34.1	15.0	Guantanamo.	San Diego.	General.	2,482	1,588	1,588
Black Hawk (e)	11	2 37	12	6 40	12	16 45	12	17 25	American.	United States Navy.	251.0	43.6	20.8	Norfolk.	Iloquoie.	General.	6,116	5,430	3,798
Ontario (f)	11	6 27	12	10 02	12	16 25	12	16 43	American.	United States Shipping Board.	385.0	52.0	27.6	Coco Solo.	Balboa.	Oil.	2,752	1,751	1,751
Lake Garza.	12	6 27	12	10 02	12	16 25	12	16 43	American.	United States Navy.	385.0	52.0	27.6	Coco Solo.	Balboa.	Oil.	2,752	1,751	1,751
S. C. No. 284.	12	15 32	13	6 25	13	16 11	13	16 43	British.	Standard Transportation Co.	251.0	43.6	14.8	Norfolk.	Nagasaki.	General.	9,200	8,088	6,260
Sesquoya.	12	10 43	13	7 08	13	16 14	13	17 00	American.	United States Shipping Board.	434.0	54.0	28.2	New York.	Yokohama.	General.	7,860	5,741	4,400
Lake Esapor.	12	10 43	13	7 08	13	16 14	13	17 00	American.	United States Shipping Board.	434.0	54.0	28.2	New York.	Yokohama.	General.	7,860	5,741	4,400
City of Nor- wich	12	17 17	13	8 06	13	17 28	13	18 30	British.	Ellerman Hall Line.	335.0	51.0	26.0	New Orleans.	San Francisco.	Iron, cotton.	1,213	692	692
Aden Maru.	13	7 20	13	8 50	13	18 25	13	1 23	Japanese.	Kawasaki Kisen Kaisha.	190.0	29.0	13.3	Cristobal.	Buenaventura.	General.	1,213	692	692
Balboa.	9	22 30	14	6 05	14	13 51	14	18 58	American.	Colombian Maritime Co.	215.0	33.5	13.3	Cristobal.	Buenaventura.	General.	1,213	692	692
Salvador.	10	17 19	14	9 22	14	15 30	14	20 41	American.	Pacific Steam Navigation Co.	215.0	33.5	13.3	Cristobal.	Buenaventura.	General.	1,213	692	692

(a) Launch. (b) Tug, towing target raft No. 61. (c) Tug. (d) Transport. (e) Tender. (f) Tug, towing target raft No. 42.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Seattle Spirit	5	7.20	8	7.02	8	15.05	9	19.40	American.	United States Shipping Board.	409.7	54.2	23.5	Seattle	New York.	7,511	6,693	4,904
Hesperos	7	21.30	8	7.31	8	17.19	8	20.45	Norwegian.	Brussard & Co.	389.8	54.1	25.0	Mojilones	New Orleans.	7,956	5,878	4,214
West Hesseline	5	16.00	8	7.58	8	13.49	9	19.48	American.	United States Shipping Board	410.3	54.2	23.6	Seattle	New York.	7,780	6,695	4,902
Lako Buckeye.	8	12.30	8	8.24	8	20.05	10	16.52	American.	United States Shipping Board	251.0	43.6	20.0	Caleta Buena	Charleston.	2,991	2,505	1,611
Eretza Mendi.	8	7.00	8	9.30	8	19.50	9	6.20	Spanish.	Sota & Aznar Nav. Co.	365.0	50.3	22.1	Liquique.	Hampton Rds.	5,966	4,449	3,217
Craycroft.	8	2.30	8	9.38	8	21.30	9	6.55	American.	United States Shipping Board	253.0	43.8	20.0	Liquique.	Charleston.	2,850	2,366	1,501
Covanshannock	8	11.40	8	12.25	8	22.25	9	6.55	American.	United States Shipping Board	253.5	43.6	20.0	Taltal.	Norfolk.	3,522	2,936	1,729
Agavistana	8	13.10	8	14.36	8	21.35	15	16.38	American.	United States Shipping Board	267.5	46.4	24.4	Mañillones	New Orleans.	3,100	2,655	1,745
Coral.	8	15.50	9	6.32	9	16.20	9	21.17	American.	United States Shipping Board	253.4	44.7	23.0	Caleta Coloso	Pensacola.	3,030	2,751	1,749
R-21	1-27	18.36	9	6.30	9	15.16	10	11.16	American.	United States Navy				Balboa	Cristobal			
R-22	1-27	18.43	9	6.42	9	15.16	10	11.16	American.	United States Navy				Balboa	Cristobal			
R-25	1-27	18.41	9	6.50	9	15.16	10	11.16	American.	United States Navy				Balboa	Cristobal			
R-26	1-27	18.34	9	6.35	9	15.16	10	11.16	American.	United States Navy				Balboa	Cristobal			
S. C. No. 284	9	13.20	9	10.08	9	15.16	12	10.30	American.	United States Navy				Balboa	Cristobal			
Balboa.	9	13.30	9	14.50	9	23.30	14	6.07	American.	Colombian Maritime Co.	190.0	29.1	13.8	Buenaventura	Cristobal (k)	596	741	350
Lake Ontario.	9	14.00	9	14.44	9	22.00	9	23.40	American.	United States Shipping Board	250.5	43.7	20.4	Caleta Buena	Cristobal (k)	2,550	2,246	1,404
Lake Lesa.	10	4.30	10	7.46	10	15.37	11	10.00	American.	United States Shipping Board	253.0	43.0	24.2	Liquique.	Philadelphia	3,260	2,795	1,791
Salvador.	9	17.00	10	9.25	10	17.19	14	9.22	American.	United States Shipping Board	251.0	43.7	21.0	Liquique.	Cristobal	2,900	2,505	1,622
Ucayali.	10	4.15	10	9.35	10	17.15	16	6.10	Peruvian.	Pacific Steam Navigation Co.	215.0	33.5	15.4	Champertico.	Cristobal	866	1,213	692
Navarra.	10	8.10	10	10.04	10	22.55	11	14.07	Spanish.	Naviera Maritima Co.	374.7	46.3	21.6	Callao.	General.	2,183	4,278	2,234
Ipswich.	2	4.00	11	7.25	11	15.42	12	12.55	American.	Shawmut Steamship Co.	400.7	54.2	24.0	Antofagasta.	Barcelona.	3,700	5,256	2,102
Holbrook.	10	20.00	11	7.53	11	16.57	12	12.32	American.	United States Shipping Board	272.9	46.1	23.0	Caleta Buena	La Pallice.	7,469	6,616	4,569
St. Mabyn.	10	15.15	11	10.28	11	18.50	11	16.16	British.	British Government.	135.5	29.0	10.6	Liquique	Cristobal (k)	3,227	3,093	1,961
Aysen.	11	9.30	11	10.31	11	18.16	16	6.16	Chilean.	Chilean Line.	379.0	44.3	22.0	Valparaiso	Cristobal	(l)	452	115
Santa Maria.	10	15.15	11	15.03	12	14.45			German.	German Government.	426.1	55.3	24.6	Liquique.	Cristobal (k)	7,000	4,505	2,977
Crown of Cas-	12	5.00	12	7.33	12	15.42	12	17.30	British.	Crown Steamship Co.	400.0	52.0	22.6	San Francisco	Cardiff.	6,200	5,663	4,141
tile.	12	2.00	12	8.31	12	17.20	12	20.10	British.	Copper Alexander	343.0	49.7	21.9	Caleta Coloso	Dunkerque.	5,450	3,954	2,661
Sudbury.	11	23.00	12	8.59	12	18.23	14	17.31	Italian.	National Navigation Co.	346.5	50.3	20.6	Junn.	London.	5,300	3,954	2,661
Machao.	12	3.00	12	10.00	12	17.28	13	6.54	British.	Shaw, Saville & Albion Co.	500.9	63.3	28.0	Sydney	Genoa.	8,114	12,151	8,797
Jesusc.	12	4.00	12	11.31	12	21.45	13	6.56	British.	Andrew Weir & Co.	370.2	52.1	25.1	Taltal.	Liverpool.	7,122	5,839	4,550
Guatemala.	12	11.50	12	15.11	12	22.35	13		French.	Pacific Steam Navigation Co.	359.3	43.0	20.9	Valparaiso	Cristobal	2,342	4,267	2,790
Nika.	12	13.50	13	6.48	13	14.40	15	3.00	American.	French Government.	195.7	40.6	15.0	Vancouver	Queensdown.	(m)		
Black Hawk (g).	13	12.20	13	7.38	13	14.33	16	6.22	American.	Hodge Ship Co.	267.3	46.0	17.0	Guayaquil	New Orleans.	160	2,553	1,739
Willfrid Laurier.	13	9.30	13	10.18	13	17.10	16		American.	United States Navy	404.6	53.9	18.0	Balboa	Cristobal	2,100		
La Boca (h).	(i)	11.40	13	12.00	(j)				French.	United States Government.	279.0	46.9	18.0	Victoria	Liverpool			
Chanlier.	13	17.20	14	6.44	14	17.55	14	17.55	American.	United States Shipping Board	251.0	43.6	21.6	Balboa	Savannah	3,210	2,472	1,525
Begonia No. 2.	13	16.15	14	11.09	14	21.14	15	5.00	Spanish.	Jose M. de Urquijo & Co.	300.0	42.1	21.0	Antofagasta.	Lisbon.	3,600	2,814	2,116
San Jose.	13	12.30	14	13.19	14	20.40			American.	Pacific Mail Steamship Co.	283.0	37.0	27.0	San Francisco	Cristobal	1,365	2,352	1,602

(Continued on page 395.)

(r) Auxiliary tender. (s) Tug. (t) November 29, 1919. (u) Did not complete transit. (v) For orders. (w) 541,041 ft. B. M.

Two More Ships in the West Coast Service.

The Grace Line has been allotted two ships by the United States Shipping Board for the service between New York and ports on the west coast of South America as far south as Valparaiso. These are the *Santa Elisa* and *Santa Teresa*, sister ships of the *Santa Ana* and *Santa Luisa*, now in the New York to Valparaiso service. The new ships will begin voyages in April and from that time forth a bi-weekly service will be maintained by the four ships.

Stops will be made for landing and taking on both passengers and cargo at Cristobal. The two ships now in this service do not stop at the Canal.

Night Quarantine Service.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 16, 1920.

CIRCULAR NO. 626-4 (superseding Circular 626-2):

1. Vessels from ports not subject to a yellow fever quarantine, arriving before 10 p. m. at either entrance to the Panama Canal (*i. e.*, passing breakwaters at Cristobal harbor or anchoring off seaward end of dredged channel to Balboa harbor) will be boarded and inspected by the quarantine officer of the port, if quarantine inspection on the night of arrival is desired.

2. A charge of \$40 for passenger vessels, and \$20 for others, will be made against vessels availing themselves of quarantine inspection after sunset.

3. Vessels should give advance notice to Port Captain, through local agent or by radio, of their desire for such inspection, stating as near as possible the probable time of their arrival.

4. Final disposition of vessels inspected after sunset may be deferred at the discretion of quarantine officer.

5. Vessels from ports subject to a yellow fever quarantine will be inspected only by daylight.

CHESTER HARDING,
Governor.

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge and were effective February 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.50
Brass, sheet.....	Lb.	.625
Bronze, Tobin.....	Lb.	.375
Cement, at Panama:		
Department of United States Government (includes surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Department of United States Government (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.58
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	.9375
Copper, bar.....	Lb.	.50
Gasoline, in drums (motor grade).....	Gal.	.4375
Lead, sheet.....	Lb.	.125
Lead, pig.....	Lb.	.10
Lumber, ceiling, siding, and flooring 1" by 6".....	M ft. B.M.	95.19
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B.M.	100.00
Lumber, yellow pine or fir (except ceiling).....	M ft. B.M.	83.56
Metal, yellow.....	Lb.	.4375
Nuts, iron, machine, hexagonal.....	Lb.	.225
Nuts, iron, machine, square.....	Lb.	.1875

Commodity.	Unit.	Price.
Nails, common, wire.....	Lb.	\$0.0625
Nails, galvanized.....	Lb.	.10
Oakum, Navy, spun.....	Lb.	.2125
Oakum, Navy, unspun.....	Lb.	.2125
Oil, fuel, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same.....	42-gal. bbl.	*1.50
Commercial vessels and individuals and companies.....	42-gal. bbl.	*1.50
Individuals and companies from tank No. 116, Balboa.....	42-gal. bbl.	*1.54
Oil, fuel, at Balboa and Cristobal—in drums or barrels:		
United States Army and Navy and vessels operated by same.....	42-gal. bbl.	*1.75
Commercial vessels and individuals and companies.....	42-gal. bbl.	*1.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.625
Oil, ammonia cylinder.....	Gal.	.4375
Oil, burning.....	Gal.	1.375
Oil, cylinder, dark marine.....	Gal.	.875
Oil, cylinder, dark marine.....	Gal.	1.125
Oil, cylinder, ice machine, steam.....	Gal.	1.00
Oil, engine, dynamo.....	Gal.	.7875
Oil, engine—in tins.....	Gal.	.6875
Oil, engine—in barrels.....	Gal.	.5625
Oil, gas engine, extra heavy—in drums.....	Gal.	.5375
Oil, gas engine, heavy—in barrels.....	Gal.	.8125
Oil, gas engine, heavy—in cases.....	Gal.	.8725
Oil, gas engine, medium—in drums.....	Gal.	.5625
Oil, kerosene—in drums.....	Gal.	.25
Oil, kerosene—in tins.....	Gal.	.3125
Oil, linseed, boiled.....	Gal.	2.50
Oil, linseed, raw.....	Gal.	2.5625
Oil, locomotive, engine.....	Gal.	.35
Oil, lard.....	Gal.	2.375
Oil, marine engine.....	Gal.	1.125
Oil, marine engine.....	Gal.	.625
Oil, marine engine.....	Gal.	.4375
Oil, marine engine.....	Gal.	.75
Oil, "Mineral Seal".....	Gal.	.3125
Oil, nonliquid.....	Lb.	.10
Oil, stationary engine.....	Gal.	.375
Oil, sperm.....	Gal.	2.875
Oil, signal.....	Gal.	1.375
Oil, valve.....	Gal.	.50
Oil, var.....	Gal.	.225
Wax, lamp.....	Lb.	.20
Grease, black, gear.....	Lb.	.075
Grease, yellow, cup, No. 3.....	Lb.	.125
Grease, yellow, cup, No. 5.....	Lb.	.1375
Grease, rod, special.....	Lb.	.225
Grease, tunnel bearing.....	Lb.	.20
Tallow.....	Lb.	.225
Turpentine.....	Gal.	2.50
Turpentine substitute.....	Gal.	.4625
Vaseline.....	Lb.	1.125
Paint, lead, white, dry.....	Lb.	.125
Paint, lead, white, in oil.....	Lb.	.15
Paint, zinc, white, dry.....	Lb.	.225
Paint, zinc, white, in oil.....	Lb.	.1875
Paint, zinc, white leaded, 35 per cent in oil.....	Lb.	.1875
Rivets.....	Lb.	.10
Rope, Manila, 1/4" diameter.....	Cft.	.75
Rope, Manila, 1/2" diameter.....	Cft.	1.625
Rope, Manila, 3/4" diameter.....	Cft.	2.50
Rope, Manila, 1" diameter.....	Cft.	4.0625
Rope, Manila, 1 1/4" diameter.....	Cft.	4.375
Rope, Manila, 1 1/2" diameter.....	Cft.	6.25
Rope, Manila, 1 3/4" diameter.....	Cft.	7.50
Rope, Manila, 2" diameter.....	Cft.	12.1875
Rope, Manila, 2 1/4" diameter.....	Cft.	16.5625
Rope, Manila, 2 1/2" diameter.....	Cft.	26.25
Rope, Manila, 2 3/4" diameter.....	Cft.	31.25
Rope, Manila, 3" diameter.....	Cft.	47.50
Rope, Manila, 3 1/2" diameter.....	Cft.	77.50
Rope, Manila, 3 3/4" diameter.....	Cft.	102.50
Steel, bar.....	Lb.	.0625
Steel, spring.....	Lb.	.1375
Steel, cold rolled, round.....	Lb.	.0875
Steel, sheet.....	Lb.	.0675
Steel, structural (angles, beams, etc.).....	Lb.	.0675
Tin, block.....	Lb.	.750
Tin, Banca.....	Lb.	1.10
Tin, sheet.....	Lb.	.25
Washers, cut.....	Lb.	.10
Waste, colored.....	Lb.	.2125
Waste, white.....	Lb.	.20
Zinc, boiler plate, 1/4" by 6" by 12".....	Lb.	.15

*No surcharge.

Item now on hand purchased at a cost over the price shown above will be given the purchase price.

Weather Conditions in January, 1920.

The rainfall for the month was below normal everywhere, January, 1920, being the driest January on record. Rainfall totals in the Canal Zone and vicinity ranged from a trace of rain at Balboa and Balboa Heights to 2.52 inches at Porto Bello. The greatest amount of rainfall on any one day was 0.47 inch at Porto Bello on the 11th.

The estimated rainfall over Gatun Lake watershed was 0.69 inch, compared with a 10-year mean of 1.73 inches, and over the Chagres River basin above Alhajuela it was 1.15 inches compared with a 19-year mean of 3.08 inches.

The air temperature, wind movement, and evaporation were above normal, while the atmospheric pressure, relative humidity, and daytime cloudiness were below the average. The surface temperature of the sea was slightly above normal on the Pacific Coast and slightly below normal on the Atlantic.

No fogs were observed during the month. Light seismic disturbances were recorded on the 4th, 9th, 26th, and 30th.

Gatun Lake hydrology—Mean elevation of Gatun Lake was 86.4 feet, maximum, 86.89 feet on the 1st; minimum, 85.94 feet on the 31st; evaporation from Gatun Lake surface was 6.562 inches. Rainfall on Gatun Lake drainage basin was 0.69 inch. The total yield of Gatun Lake watershed was 1.50 inches on the watershed. The total yield amounted to 217 per cent of the rainfall.

The following table summarizes the weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.				Precipitation.				Wind.					
		Mean.	Maximum.	Date.	Minimum.	Date.	Mean relative humidity.	Total inches.	Station average.	Days with 0.1 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa	29.856	80.4	91	Jan. 16	70	Jan. 30	75.5	T	0.95	...	7,834	N.	30	N.	Jan. 19
Heights.....	29.876	81.6	87	Jan. 9	73	Jan. 26	75.8	0.51	3.74	9	12,681	N.	32	N. E.	Jan. 10
Colon.....	29.879	80.0	92	Jan. 23	69	Jan. 13*	...	.05	1.69	4	5,863	N. E.	31	N. E.	Jan. 5
Gamboa.....	80.6	89	Jan. 17	72	Jan. 26	...	.71	2.94	13	7,398	N.	23	N.	Jan. 20	

* And other dates.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286). Age limits do not apply to persons entitled to preference because of military or naval service.

Field and laboratory aid in plant pathology; No. 67-amendment; February 18, 1920; age, 18 years but not 45 years.

Teacher, Indian Service (male and female); \$720 to \$900 a year; February 18, March 17, April 21, May 19, and June 23, 1920; No. 97; form 1312; age, 20 years but not 50 years.

X-ray technician (male and female); \$840 a year; March 2, 1920; No. 96; form 1800; age, 20 years but not 40 years.*

Specification engineer (male and female); \$2,000 a year; March 2, 1920; No. 93; form 1312; age, 25 years but not 45 years.*

Assistant in school hygiene (male and female); \$1,800 a year; March 9, 1920; No. 101; form 2118; age, under 45 years.*

Dental mechanic (male and female); \$1,800 to \$2,400 a year; March 9, 1920; No. 103; form 1800; age, 18 years and over.*

Mechanical draftsman (male and female); chageman, \$10 to \$12 a day; draftsman, Grade A, \$8 to \$9.60 a day; Grade B, \$6 to \$7.20 a day; Grade C, \$5.20 a day; No. 104; form 1312; age, 18 years and over.†

Piping draftsman (male and female); chageman, \$10 to \$12 a day; draftsman, Grade A, \$8 to \$9.60 a day; Grade B, \$6 to \$7.20 a day; Grade C, \$5.20 a day; No. 105; form 1312; age, 18 years and over.†

Assistant in cotton classing (male and female); \$1,500 to \$2,700 a year; March 9, 1920; No. 100; form 2118; age, 21 years but not 45 years.*

Petroleum engineer (male and female); \$3,000 to \$4,500 a year; March 16, 1920; form 2118; age, under 45 years.*

Assistant petroleum engineer (male and female); \$2,100 to \$3,000 a year; March 16, 1920; form 2118; age, under 45 years.*

Laboratory assistant (male and female); \$900 to \$1,200 a year; March 9, 1920; form 1312; age, 18 years but not 35 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 391.

PORT OF CRISTOBAL.

*ARRIVALS.			*DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
Feb. 9.....	Calamares.....	United Fruit Co.....	Feb. 8.....	W. S. Rheems.....	United States Shipping Board.....
Feb. 9.....	Fort George.....	United States Shipping Board.....	Feb. 9.....	Caribbean.....	Panama Railroad Cattle Industry.....
Feb. 8.....	Fort George.....	United States Shipping Board.....	Feb. 9.....	Fort George.....	United States Shipping Board.....
Feb. 10.....	Oncida (n).....	E. C. Benedict.....	Feb. 9.....	Comestoga (p).....	United States Navy.....
Feb. 10.....	Abangarez.....	United Fruit Co.....	Feb. 9.....	Pygma (q).....	Swedish Government.....
Feb. 11.....	C. A. Canfield.....	Pan-Amér. Pet. and Trans. Co.....	Feb. 10.....	Perou.....	French Steamship Line.....
Feb. 11.....	Barbadian.....	Leyland Line.....	Feb. 10.....	West Harlan.....	United States Shipping Board.....
Feb. 11.....	Van Rensselaer.....	Royal Dutch West India Mail Co.....	Feb. 10.....	Calamars.....	United Fruit Co.....
Feb. 11.....	U. S. S. Rochester.....	United States Navy.....	Feb. 11.....	Abangarez.....	United Fruit Co.....
Feb. 11.....	Dixie.....	United States Navy.....	Feb. 11.....	Cartago.....	United Fruit Co.....
Feb. 11.....	Crownshield.....	United States Navy.....	Feb. 11.....	Oncida (n).....	E. C. Benedict.....
Feb. 11.....	Starkey.....	United States Navy.....	Feb. 12.....	Carrillo.....	United Fruit Co.....
Feb. 11.....	Brock.....	United States Navy.....	Feb. 12.....	Tallac.....	Alpha Steamship Co.....
Feb. 11.....	Islerwood.....	United States Navy.....	Feb. 13.....	C. A. Canfield.....	Pan-Amér. Pet. & Trans. Co.....
Feb. 11.....	Rodgers.....	United States Navy.....	Feb. 13.....	Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....
Feb. 11.....	Dickerson.....	United States Navy.....	Feb. 13.....	Van Rensselaer.....	Royal Dutch West India Mail Co.....
Feb. 11.....	Herbert.....	United States Navy.....	Feb. 13.....	Tivives.....	United Fruit Co.....
Feb. 11.....	Robinson.....	United States Navy.....	Feb. 14.....	Allianza.....	Panama Railroad Steamship Line.....
Feb. 11.....	Abott.....	United States Navy.....			
Feb. 11.....	Thomas.....	United States Navy.....			
Feb. 11.....	Hopewell.....	United States Navy.....			
Feb. 11.....	Saterlee.....	United States Navy.....			
Feb. 11.....	Profesus (o).....	United States Navy.....			
Feb. 12.....	Carrillo.....	United Fruit Co.....			
Feb. 12.....	Tallac.....	Alpha Steamship Co.....			
Feb. 12.....	Tivives.....	United Fruit Co.....			
Feb. 13.....	Mcstapan.....	United Fruit Co.....			
Feb. 13.....	Caribbean.....	Panama Railroad Cattle Industry.....			

*ARRIVALS.			*DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
Feb. 9.....	Lake Gebhart.....	United States Shipping Board.....	Feb. 9.....	Chiriqui (r).....	National Navigation Co.....
Feb. 9.....	Chiriqui (r).....	National Navigation Co.....	Feb. 10.....	Yakumo (q).....	Japanese Government.....
Feb. 10.....	Sao Mateo.....	Pan-American Line.....			
Feb. 10.....	San Joaquin.....	W. Wilhelmsen.....			
Feb. 10.....	Lake Frenchton.....	United States Shipping Board.....			
Feb. 13.....	Motor ship.....	Tocopilla.....			

PORT OF BALBOA.

*Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(r) Motor ship.

Deceased Employee.

The estate of the following deceased employee of The Panama Canal is now in process of settlement, and any claim against this estate, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. This name will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Joseph Sheppard.....	38978	Jamaica.....	Colon.....	Coaling Station.....	February 1, 1920.

Official Circular.

Children Not Permitted on Counters.

THE PANAMA CANAL,
SUPPLY DEPARTMENT.
CRISTOBAL, C. Z., January 29, 1920.

BULLETIN No. 937:

To commissary managers—For the protection of our trade, it is necessary to instruct that customers be not permitted to place their children on the counters.

This applies more particularly, of course, to sections where foodstuffs are sold.

J. J. JACKSON,
General Manager, Commissary Division

Sale of Clapet No. 7.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., March 20, 1920, and then opened, for the purchase of clapet No. 7, located at Gatun. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Rainfall from Jan. 1 to Jan. 31, Inclusive.

STATIONS.	Maximum in one day.	Date.	Total.
<i>Pacific section—</i>	<i>Ins.</i>		<i>Ins.</i>
Balboa.....	T	4 & 19	T
Balboa Heights.....	T	10 & 19	T
Miraflores.....	.03	20	.03
Pedro Miguel.....	.03	20	.03
Rio Grande.....	.03	20	.03
<i>Central section—</i>			
*Culebra.....	.04	20	.05
*Camacho.....	.13	2	.22
Empire.....	.06	2	.15
Gamboa.....	.02	2	.05
*Juan Mina.....	.09	7	.16
Alhajuela.....	.42	7	.52
*Vigia.....	.12	7	.24
Darien.....	.01	15	.01
Trinidad.....	.15	20	.60
*Monte Lirio.....	.11	6 & 20	.37
<i>Atlantic section—</i>			
Gatun.....	.25	20	.71
*Brazos Brook.....	.15	20	.30
Colon.....	.23	20	.51
†Bocas del Toro.....	.88	29	6.55
Porto Bello.....	.47	11	2.52

*Standard rain gauge—readings at 5 p. m. daily.
Automatic rain gauge at unstarred stations—values, midnight to midnight.
†Standard rain gauge—readings at 8 a. m. daily.

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

January Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1920.
	1920	1919	1918			
<i>Pacific section—</i>						
Balboa.....	T	0.13	1.02	0.97	21	....
Balboa Heights.....	T	.28	1.78	.95	22	....
Miraflores.....	.03	.16	3.37	1.59	12	1
Pedro Miguel.....	.03	.48	3.08	1.07	13	1
Rio Grande.....	.03	.64	1.48	1.08	16	1
<i>Central section—</i>						
Culebra.....	.05	.62	1.75	1.51	30	2
Camacho.....	.22	1.03	1.04	.97	14	3
Empire.....	.15	.50	1.50	.74	15	3
Gamboa.....	.05	.55	3.07	1.69	36	4
Juan Mina.....	.16	.97	1.35	1.07	10	3
Alhajuela.....	.52	.75	.93	1.00	21	4
Vigia.....	.24	.93	1.37	.77	12	6
Frijoles.....	.31	1.61	3.03	1.71	9	....
Trinidad.....	.60	2.47	3.96	2.59	13	7
Monte Lirio.....	.37	4.03	3.92	2.67	13	7
<i>Atlantic section—</i>						
Gatun.....	.71	1.42	4.03	2.94	16	13
Brazos Brook.....	.30	2.48	4.72	2.93	14	6
Colon.....	.51	1.82	3.28	3.74	50	9

Sale of Electric Trucks and Spare Parts.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., February 25, 1920, and then opened, for the purchase of four (4) "Buda" cargo-handling electric trucks and spares. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Tug "Miraflores."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., March 22, 1920, and then opened, for the purchase of the tug *Miraflores*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Additions to Commissary Stock.

Grocery Section.

Cream, evaporated, Rico, 7½-oz. tin.....	\$0.24
Loju, 16-oz. bot.....	.31
Post Toasties, 8-oz. pkg.....	.13

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Hotel Aspinwall Launch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10.00 a. m.
Leave Taboga.....	8.00 a. m.

Sundays and Holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6.00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster, or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station.....	Leave on the hour and half hour.
Administration Building.....	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary.....	Leave 10 minutes and 40 minutes after the hour.
Balboa shops.....	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa Shops.....	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office.....	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary.....	Leave 20 minutes and 50 minutes after the hour.
Administration Building.....	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station.....	Arrive on the hour and half hour.

COMMISSARY NOTES.**Pistachio Ice Cream.**

Pistachio Ice Cream will be available for order for February 22, 1920 (Washington's Birthday).

Books.

A large shipment of books of the Modern Library has been received and distributed to the line stores.

Commissaries Closed Monday, February 23.

Commissaries will be closed Monday, February 23, with the exception of the grocery and cold storage sections and cigar counters, which will be open only from 8 a. m. to 9 a. m.

Cigars and Cigarettes.

Shipments of cigars and cigarettes from a certain firm in Habana have been temporarily suspended as during the last few weeks there has been a harbor strike in that port which has paralyzed all activities.

Ice Bills for March.

All commissary customers are requested to pay their ice bills for March not later than the morning of the 24th of this month. It is necessary to ask that this be done in order to save considerable overtime on the part of the clerks handling ice accounts in the General Manager's office. February being a short month, the last day of which falls on Sunday, these employees have two days less than usual in which to do their work.

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE NO. 30, EFFECTIVE DECEMBER 25, 1918.

	MAIN LINE STATIONS.					MAIN LINE STATIONS.					Sat'day only.	Sunday only.	
	DAILY.		DAILY.		DAILY.		DAILY.		Sat'day only.	Sunday only.			
	3	6	7	101	9	11	4	8					8	10	12
Leave	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.
Colon.....	7.10	11.00	5.00	11.15	11.30	9.35	11.30	5.00	11.30	9.35	11.30	5.00	11.30
Mount Hope.....	7.15	11.05	5.05	11.20	11.35	9.40	11.35	5.05	11.35	9.40	11.35	5.05	11.35
New Gatun.....	7.27	11.17	5.17	11.28	11.45	9.52	11.45	5.10	11.41	9.40	11.41	5.10	11.41
Gatun.....	7.42	11.32	5.32	11.40	12.04	10.07	12.04	5.15	11.46	9.51	11.46	5.15	11.46
Monte Lirio.....	7.53	11.43	5.43	12.10	12.15	10.18	12.15	5.23	11.53	9.58	11.53	5.23	11.53
Frijoles.....	8.00	11.50	5.50	12.22	12.22	10.25	12.22	5.35	12.05	10.10	12.05	5.35	12.05
Darien.....	8.14	12.02	6.02	12.30	12.33	10.37	12.33	5.47	12.17	10.22	12.17	5.47	12.17
Gamboa.....	8.44	12.26	6.34	1.00	12.57	11.01	1.00	5.57	12.28	10.32	12.28	5.57	12.28
Summit.....	8.50	12.32	6.30	1.05	11.04	11.04	1.05	6.04	12.35	10.39	12.35	6.04	12.35
Pedro Miguel.....	8.54	12.36	6.34	1.10	11.10	11.10	1.10	6.15	12.46	10.50	12.46	6.15	12.46
Miraflores Locks.....	9.00	12.45	6.40	1.15	11.20	11.20	1.15	6.30	1.01	11.05	1.01	6.30	1.01
Balboa Heights.....	9.05	12.50	6.45	1.20	11.25	11.25	1.20	6.45	6.40	1.10	6.40	6.45	1.15
Colon.....	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	P. M.
Panama.....	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	P. M.
Arrive	3	5	7	101	8	11	4	8	8	10	12	4	8

All trains stop a here time is shown except t indicates stop on signal only.

	LAS CASCADAS BRANCH STATIONS.					LAS CASCADAS BRANCH STATIONS.					Sat'day only.	Sunday only.	
	DAILY.		DAILY.		DAILY.		DAILY.		Sat'day only.	Sunday only.			
	39	37	35	33	31	30	32	34					36	38	40	42
.....	P. M.	P. M.	P. M.	A. M.	A. M.	Arrive	A. M.	A. M.	P. M.	P. M.	P. M.	A. M.	A. M.
.....	7.00	4.55	1.35	9.25	6.45	Empire.....	6.25	9.10	12.55	4.00	6.50	11.23	12.23
.....	7.40	5.35	2.15	10.05	7.30	Culebra.....	6.15	9.05	12.50	3.55	6.45	11.19	12.20
.....	7.45	5.40	2.20	10.10	7.35	Paraso.....	6.00	8.51	12.35	3.41	6.31	11.08	12.07
.....	P. M.	P. M.	P. M.	A. M.	A. M.	Pedro Miguel.....	5.56	8.48	12.32	3.38	6.28	11.03	12.04
.....	P. M.	P. M.	P. M.	A. M.	A. M.	Red Tank.....	8.45	12.29	3.35	6.25	11.00	12.01	12.01
.....	7.28	5.19	1.59	9.49	7.14	Miraflores Locks.....	5.49	8.41	12.25	3.31	6.21	10.50	11.50
.....	7.33	5.28	2.08	9.53	7.19	Corozal.....	5.44	8.50	12.21	3.26	6.16	10.51	11.51
.....	7.40	5.35	2.15	10.05	7.30	Balboa Heights.....	5.36	8.30	12.15	3.20	6.10	10.45	11.45
.....	7.45	5.40	2.20	10.10	7.35	Panama.....	5.30	8.25	12.10	3.15	6.05	10.40	11.40
.....	P. M.	P. M.	P. M.	A. M.	A. M.	Arrive	A. M.	A. M.	P. M.	P. M.	P. M.	A. M.	A. M.
.....	P. M.	P. M.	P. M.	A. M.	A. M.	Leave	A. M.	A. M.	P. M.	P. M.	P. M.	A. M.	A. M.
.....	39	37	35	33	31	30	32	34	36	38	40	42	42

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., February 25, 1920. No. 28.

Ship Repairing at Canal Shops.

During the war the so-called "water-front work," that is, running repairs to ships in transit, gradually decreased. The trend of the traffic was north. Since the end of the war the trend has changed to south and the repair work has increased to a marked degree, also because many more ships are going through the Canal. Many of the new ships have been thoroughly shaken down and the defects are beginning to be apparent. Usually, 8 or 10 ships are on the water front at Balboa shops, most of them requiring repairs to auxiliary machinery and pipes, and many of them main engine adjustments. Boiler trouble is due principally to "salting up." The following vessels were at the Balboa shops last week:

Tug La Boca	Launch, Sea Kid, Jr.	Barge No. 131
Anita	DeMayo Barge No. 13	Petunia
Lake Fitch	Cawker	Cruiser Lima
C-32 (French S. F.)	Xenia	San Joaquin
Submarine R-23	Lake Gebhart	Acajutla
Submarine R-27	Atlantius	Cristobal
Submarine R-24	Supply Boat No. 2	Dredge No. 86

Ex-German Ships Purchased by Panama Railroad Company.

The Panama Railroad Company has purchased for its steamship line the steamers *General G. W. Goethals*, *General W. C. Gorgas*, *General O. H. Ernst*, and *General H. F. Hodges* from the United States Shipping Board, at a transfer price of \$750,000. These four steamers are ex-German vessels. Their former names were, respectively, the *Grunewald*, the *Prinz Sigismund*, the *Sachsenwald*, and the *Savoia*. At the outbreak of the war in Europe they took refuge in Cristobal harbor, and were consequently interned. When hostilities began between the United States and Germany they were seized by the authorities of the Canal Zone. They were towed to Gatun Lake on April 9, 1917, thence to Balboa shops for the overhaul necessary after their having lain at anchor for two years and eight months. They were placed in service between New York and Cristobal, and the *General W. C. Gorgas* and the *General O. H. Ernst*, later were engaged in carrying nitrate from Chilean ports to the United States. These two made trips to France during the war; the *General G. W. Goethals* and the *General H. F. Hodges* also made trips to France, after the signing of the armistice.

The other vessels of the Panama Railroad Steamship Line between New York and Cristobal are the *Ancon* and the *Cristobal*, the *Panama* and the *Colon*, the *Allianca* and the *Advance*. The colliers *Ulysses* and *Achilles* ply between Norfolk and Cristobal, and the steamship *Caribbean* operates between Cristobal and Colombian ports, carrying principally supplies for The Panama Canal but handling commercial freight as well. The *Ancon* and the *Cristobal* were likewise put in the nitrate

trade and the *Ancon* was used as a transport after the armistice was signed. The *Colon*, *Panama*, *Allianca*, and *Advance* were retained in the regular service between New York and Cristobal, being necessary to the operation of the Canal.

The *General H. F. Hodges* is now employed, with the *Advance*, in a service between New York and Haitian ports. The three other ex-German ships are on the run between New York and Cristobal, with sailings via Port au Prince as traffic warrants, the other ships on this run being the *Ancon*, *Colon*, *Panama*, and *Allianca*. The *Cristobal* is being reconstructed at Balboa shops. When the Shipping Board took over the ex-German vessels for war purposes, the Panama Railroad Steamship Line was replenished with other steamships, of the "Lake" type, carrying cargo only. These have been returned to their original owners, with the exception of the *Lake Hurst* and the *Lake Wilson*, which are occasionally used as necessity requires.

The *General O. H. Ernst* and the *General H. F. Hodges* do not carry passengers. Data with respect to passenger accommodations and other features of the Panama Railroad vessels are presented herewith:

Steamer.	Passenger accommodations			Gross tonnage	Net tonnage	Length	Beam	Depth	Master
	First	Second	Steerage						
<i>Advance</i>	60	.....	.....	2,458	1,481	295'	38' 5''	23' 5''	R. S. Dodge.
<i>Allianca</i>	68	53	.....	4,016	2,441	335'	42'	23' 10''	W. J. Scully.
<i>Ancon</i>	78	.....	52	9,332	7,060	489' 6''	58'	28' 11''	J. T. Hudgins.
<i>Caribbean</i>.....	.....	.....	12	2,026	417	288'	47' 7''	25'	J. H. O'Leary.
<i>Colon</i>	159	40	.....	5,670	3,513	360'	50'	32' 2''	H. Prager.
<i>Cristobal</i>	130	.....	52	9,332	7,070	489' 6''	58'	23' 10''	Benj. Corning.
<i>Gen. G. W. Goethals</i>	49	.....	100	4,833	2,878	353' 1''	48' 8''	25'	E. C. Roberts.
<i>Gen. H. F. Hodges</i>.....	.....	.....	.....	2,732	1,667	323' 6''	39'	23'	O. B. Thompson.
<i>Gen. O. H. Ernst</i>	30	.....	60	3,564	2,259	356' 5''	45' 4''	24' 6''	E. W. Spurr.
<i>Gen. W. C. Gorgas</i>	68	.....	.....	4,564	2,826	370' 2''	45' 4''	26' 9''	J. E. Stone.
<i>Lake Hurst</i>.....	.....	.....	.....	2,308	1,378	253' 6''	43' 9''	20' 5''	H. Monteith.
<i>Lake Wilson</i>.....	.....	.....	.....	2,151	1,286	250' 6''	43' 8''	20' 5''	Harry Newman.
<i>Panama</i>	159	40	.....	5,665	3,516	360'	50'	32' 2''	W. B. Oakley.

Periodic Underwater Work on Submarines.

The seven R-type submarines stationed at Coco Solo were brought through the Canal to Balboa shops a few days ago for periodic underwater work. They returned to Coco Solo, last week. They were put in dry dock and their bottoms were cleaned and painted, sea valves were overhauled and tested, various tanks and part of the hulls under the superstructure were given protective coatings. While this work was in progress various miscellaneous repairs were made, such as tightening up the vent system, and making minor adjustments to the operating mechanism. The mass of machinery in the submarines makes them more difficult to maintain than the ordinary run of vessels.

Submarines have heretofore been dry docked at Cristobal, but the greater draft of the new R-type makes this impracticable, so that henceforth the work will be done at Balboa.

Bills Against Steamships.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., July 26, 1918.

All concerned—The attention of departments and divisions is called to the delay in rendering bills against steamships. The regulations provide that all departments and divisions of The Panama Canal and Panama Railroad Company will furnish promptly to the Collector the necessary bills for material, supplies, or service furnished steam-

ships, sending duplicate copy to the Auditor. The regulations also provide that the Collector shall make immediate settlement with shipping operators after their ships have left the Canal.

The practice of unnecessary delay in rendering bills must be discontinued and instructions should be given all employees responsible for the making of bills that charges against steamships must be furnished the Collector at once.

The Collector has been instructed to report to me further delinquencies in the rendition of bills against steamships.

CHESTER HARDING,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending February 21, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caribbean.....	Panama Railroad Cattle Industry.....		February 15.....		70
Ucayali.....	Peruvian Line.....		February 16.....		704
Aysen.....	Chilean S. S. Line.....		February 16.....		653
Metapan.....	United Fruit Co.....		February 16.....		14
Edgar F. Luckenbach.....	Luckenbach S. S. Corporation.....		February 16.....		(*)
Chile.....	Pacific Steam Navigation Co.....		February 16.....		746
Barbadian.....	Leyland Line.....		February 17.....		1,711
E. D. Kingsley.....	Kingsley Navigation Co.....	February 16.....	February 17.....	67	(*)
Pastores.....	United Fruit Co.....	February 16.....	February 17.....	494	3
Lake Capen.....	United States Shipping Board.....	February 16.....	February 17.....	2,023	(*)
Gen. G. W. Goethals.....	Panama Railroad Steamship Line.....	February 16.....		2,090	
Achilles.....	Panama Railroad Steamship Line.....	February 16.....	February 19.....	12,009	(*)
Guatemala.....	Pacific Steam Navigation Co.....		February 19.....		(*)
Cauca.....	Pacific Steam Navigation Co.....	February 16.....	February 20.....	1,058	904
Laura C. Hall.....	Pacific Metals Corporation.....	February 17.....	February 21.....	67	39
W. L. Steed.....	United States Shipping Board.....	February 17.....	February 19.....	9,000	(*)
Lake Markham.....	United States Shipping Board.....	February 18.....	February 19.....	350	(*)
Heredia.....	United Fruit Co.....	February 18.....	February 19.....	865	72
San Jose.....	Pacific Mail S. S. Line.....		February 20.....		2,003
Mercury (U. S. A. T.).....	United States Government.....	February 18.....	February 21.....	352	49
Saint Jean.....	French Line.....	February 19.....		406	
Jamaica.....	Pacific Steam Navigation Co.....	February 20.....		856	
Urubamba.....	Peruvian Line.....	February 20.....		2,452	
Caribbean.....	Panama Railroad Cattle Industry.....	February 20.....		205	
Point Bonita.....	Pacific Mail S. S. Line.....	February 21.....		156	
Lake Fillion.....	United States Shipping Board.....	February 21.....		3,621	
Colon.....	Panama Railroad S. S. Line.....	February 21.....		1,205	
Tactician.....	Harrison Line.....	February 21.....		649	

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 21, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cauca.....	Pacific Steam Navigation Co.....	February 15.....	February 16.....	1	
Benjamin Brewster.....	West India Oil Co.....	February 15.....	February 15.....	2	
Ansaldo V.....	National Navigation Society.....	February 19.....	February 20.....	170	
San Jose.....	Pacific Mail Steamship Co.....	February 20.....	February 20.....		111
Cauca.....	Pacific Steam Navigation Co.....	February 20.....	February 20.....	53	
Laura C. Hall.....	Pacific Metals Corporation.....	February 21.....	February 21.....		31

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington"

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, February 21, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Benjamin	14	19.21	15	7.15	15	15.35	15	19.39	American	Standard Oil Company	411.6	53.4	25.0	Tampico	Pisagua	Crude oil	8,000	6,193	4,693
Brewster	14	10.20	15	7.40	15	17.12	16	7.40	British	Standard Tanker Co.	329.5	47.0	19.0	Liverpool	San Francisco	Coal, general	7,082	5,667	
British Em-	15	6.50	15	12.32	15	19.56	15	22.12	Norwegian	Bentley J. Grefstad	414.0	56.0	20.11	Baltimore	Caleta Buena	Coal, general	3,964	3,189	2,317
Odenstad	10	17.15	16	6.10	16	13.41	16	18.00	Peruvian	Pertuvian Line	374.7	44.3	18.3	Cristobal	Callao	General	607	4,278	2,244
Ucayali	11	18.16	16	6.16	16	14.37	16	18.40	Chilean	South American S. S. Line	379.6	44.3	20.6	Cristobal	Valparaiso	General	4,905	2,977	
Western Glen	15	15.12	16	6.30	16	15.38	16	20.40	American	United States Shipping Board	409.8	54.2	26.9	Norfolk	Bremerton	Navy coal	6,939	6,519	4,496
Chile	7	17.30	16	9.44	16	18.10	16	20.07	British	Pacific Steam Navigation Co.	350.3	43.1	18.0	Cristobal	Valparaiso	General	792	4,040	2,628
Masala	16	9.56	16	10.40	16	19.06	17	15.55	British	British India Steam Nav. Co.	450.0	58.0	21.0	New York	Lyttelton	General	7,811	8,117	5,240
Uncas (a)	15	10.30	16	11.03	17	9.52			American	John Bowers	56.5	16.4	7.0	New York	San Diego	General	800	1,233	617
Edgar F. Luck-	14	7.12	16	11.35	16	20.23	17	14.20	American	Luckenbach Steamship Line	425.0	57.0	17.1	Norfolk	Chile	General, gas	8,568	6,696	
enbach	16	13.33	17	6.02	17	13.35	17	21.10	British	Kingsley Navigation Co.	200.0	32.0	16.0	New York	Tumaco	General, gas	800	1,233	617
E. D. Kingsley	16	4.48	17	6.10	17	13.29	17	14.20	American	W. R. Grace & Co.	394.0	52.0	16.3	Dunkirk	Méjillones	General	6,610	4,993	
Cacique	16	6.35	17	6.25	17	14.15			American	United States Shipping Board	251.0	43.5	13.0	Norfolk	Punta Arenas	General	2,208	1,403	
Lake Capens	17	12.26	17	12.56	17	20.00	18	11.53	British	F. & W. Ritson	366.0	45.0	20.0	Liverpool	Valparaiso	General	2,600	4,161	3,133
Palm Branch	17	17.27	18	6.43	18	14.19	18	15.23	American	American-Hawaiian Line	406.8	51.1	16.6	Charleston	Iquique	General	5,988	4,226	
American	18	19.37	19	6.15	19	13.54	20	19.24	Italian	Societa Nazionale di Nav.	378.5	51.5	19.2	Genoa	Valparaiso	General	300	5,453	3,457
Ansaldo V	12	22.35	19	6.18	19	13.57	19	15.55	British	Pacific Steam Navigation Co.	359.2	43.0	17.0	Cristobal	Valparaiso	General	4,267	2,790	
Guatemala	18	14.31	19	6.23	19	15.17	19	16.17	Japanese	Tatsuma Kisen Kaisha	445.0	58.0	20.0	Weymouth	Antofagasta	General	8,151	5,979	
Hakushika	18	18.20	20	6.10	20	14.25	20	23.37	American	Pacific Mail S. S. Co.	283.0	37.0	18.0	Cristobal	San Francisco	General	1,796	2,362	1,602
Maru	16	16.45	20	6.15	20	14.30	20	19.36	British	Pacific Steam Navigation Co.	246.0	35.5	15.8	Cristobal	Guayaquil	General	9,007	1,582	1,023
San Jose	20	1.07	20	11.50	20	13.24	20	20.02	American	United States Shipping Board	443.0	55.0	24.0	Norfolk	Iquique	Coal	6,021	6,932	5,046
San Jose	20	1.07	20	6.15	21	13.24	21	14.10	British	British India S. N. Co.	440.0	58.0	22.6	New York	Auckland	General	7,900	8,249	5,440
Caucas	19	1.00	21	6.25	21	13.52	22	9.54	British	Pacific Metals Corporation	81.0	25.0	9.6	Cristobal	Buenaventura	General	39	130	69
Crisfield	17	16.40	21	6.25	21	13.52	22	9.54	British	Pacific Metals Corporation	81.0	25.0	9.6	Cristobal	Buenaventura	General	39	130	69
Nuddea	17	16.40	21	6.25	21	13.52	22	9.54	British	Pacific Metals Corporation	81.0	25.0	9.6	Cristobal	Buenaventura	General	39	130	69
Laura C. Hall	17	16.40	21	6.25	21	13.52	22	9.54	British	Pacific Metals Corporation	81.0	25.0	9.6	Cristobal	Buenaventura	General	39	130	69

(a) Yacht.

(b) Transport. (c) Submarine.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

S. V. Harkness	14	21.30	15	7.42	15	16.11	15	18.60	American	Standard Oil Co.	419.5	57.2	19.0	Antofagasta	Tampico	Ballast	7,443	5,545	
Maries (b)	15	11.00	15	12.05	15	20.10	16	6.20	American	United States Army	475.0	60.0	24.5	San Francisco	New York	Flour	7,900	9,279	6,834
Crafter Hall	15	18.45	16	6.42	16	15.13	16	16.55	American	United Steel Products Co.	380.0	50.0	24.6	Méjillones	Savannah	Nitrates	6,721	4,955	3,652
R-24 (c)	6	18.46	16	6.49	16	14.13			American	United States Navy				Balboa	Cristobal				
R-27 (c)	6	18.46	16	6.49	16	14.17			American	United States Navy				Balboa	Cristobal				
R-23 (c)	6	18.45	16	6.58	16	14.11			American	United States Navy				Balboa	Cristobal				

Ship	Date	From	To	Line	Agents	Remarks
Lowther Castle	16 1 35	16 7 46	16 15 37	16 17 10	British	
Arna	16 7 00	18 8 42	16 16 36	16 18 12	Norwegian	
China	15 23 00	9 18	16 16 45	20 6 15	British	
S. C. No. 284	12 16 25	16 10 30	16 19 35	16 6 25	American	
Grangpark	16 6 30	16 12 51	16 20 34	17 2 05	British	
Marzarta (d)	16 16 00	16 20 00	16 20 00	16 9 25	American	
Dulwyn	15 22 30	16 15 20	16 22 35	16 22 35	American	
Laura C. Hall	16 16 30	17 6 43	17 16 20	21 6 25	British	
C-32	(e) 6 400	17 7 43	17 16 38	18 23 10	French	
Santa Clara	17 12 00	17 15 00	17 22 45	18 2 30	American	
Quernstad	17 22 00	18 7 44	18 17 02	18 23 36	Norwegian	
Robin Adair	17 20 20	18 7 46	18 15 40	19 18 14	American	
Acadie	18 6 30	18 7 49	18 16 48		French	
Quebec	18 12 00	18 12 25	18 19 45	23 13 55	French	
Xenia	1 11 30	19 6 37	19 15 25	23 10 15	American	
Petunia	1-27 16 45	20 6 46	20 15 41	21 24 00	American	
Basis	19 14 00	20 6 55	20 15 51	20 18 45	Norwegian	
Urubamba	19 15 20	21 7 00	20 16 55		Peruvian	
Fort Sydney	20 3 30	20 8 17	20 16 46	20 19 00	British	
Tanata	20 9 00	20 10 30	20 19 05		British	
Centaurus	20 10 13	20 11 25	20 21 00	22 16 10	American	

(d) Launch. (e) December 26, 1919. (f) 67,528 barrels. (g) Lumber, 1,615; iron, 110.

PORT OF CRISTOBAL.

*ARRIVALS.

*DEPARTURES.

Date	Vessel	Line	From	Date	Vessel	Line	For
Feb. 16	Pastores	United Fruit Co.	New York and waypoints.	Feb. 15	Caribbean	Panama Railroad Cattle Industry.	Cartagena.
Feb. 16	Gen. G. W. Goethals.	Panama Railroad Steamship Line.	New York and Haiti.	Feb. 16	Metapan	United Fruit Co.	New Orleans and waypoints.
Feb. 16	U. S. S. Brazos	United States Navy	Port Arthur.	Feb. 16	Rochester	United States Navy	Kingston.
Feb. 16	Achilles	Panama Railroad Steamship Line.	Norfolk.	Feb. 16	Blackhawk	United States Navy	Kingston.
Feb. 16	Linda S. (h)	Suzaron Brothers	Colon.	Feb. 16	Crownshield	United States Navy	Kingston.
Feb. 16	Fagle No. 11	United States Navy	Kingston.	Feb. 16	Dixie	United States Navy	Kingston.
Feb. 16	H-1 and H-2.(c)	United States Navy	Kingston.	Feb. 16	Sharkey No. 281	United States Navy	Kingston.
Feb. 17	San Blas	Panamanian Government	Colon.	Feb. 16	Breck No. 283	United States Navy	Kingston.
Feb. 17	W. L. Steed	United States Shipping Board	Puerto Lobos	Feb. 16	Isherwood, No. 284	United States Navy	Kingston.
Feb. 18	Lake Markham	United States Shipping Board	Cartagena.	Feb. 16	Rodgers, No. 274	United States Navy	Kingston.
Feb. 18	Heredia	United Fruit Co.	New Orleans.	Feb. 16	Dickerson, No. 157	United States Navy	Kingston.
Feb. 19	Mercury (f)	United States Army	New York.	Feb. 16	Schenck, No. 159	United States Navy	Kingston.
Feb. 19	Columbia	United States Navy	Curacao.	Feb. 16	Herbert, No. 160	United States Navy	Kingston.
Feb. 19	Solace (j)	United States Navy	Ponce, P. R.	Feb. 16	Robinson, No. 88	United States Navy	Kingston.
Feb. 19	Pennsylvania	United States Navy	Barbados.	Feb. 16	Abbott, No. 184	United States Navy	Kingston.
Feb. 19	Arizona	United States Navy	Barbados.	Feb. 16	Thomas, No. 182	United States Navy	Kingston.
Feb. 19	Oklahoma	United States Navy	Barbados.	Feb. 16	Howell, No. 181	United States Navy	Kingston.
Feb. 19	Nevada	United States Navy	Barbados.	Feb. 16	Saterlee, No. 190	United States Navy	Kingston.
Feb. 20	Caribbean	Panama Railroad Cattle Industry.	Cartagena.	Feb. 17	Barbadian	Leyland Line.	New Orleans.
Feb. 20	Leary (k)	United States Navy	Guantanamo.	Feb. 17	Pastores	United Fruit Co.	New York and waypoints.

(h) Motor schooner. (i) Transport. (j) Hospital ship. (k) Destroyer.

(Continued on page 405, column 2.)

Roosevelt Memorial.

The President of the Roosevelt Memorial Association in the United States has written Governor Harding a letter expressing the appreciation of the association of the liberal response made by the Canal Zone in the recent campaign in the interest of the national memorial to Theodore Roosevelt.

The Canal Zone branch of the association collected \$9,007.28. Expenses of printing, postage, and other incidentals were \$93.53, making the net amount remitted \$8,913.75.

Engraved certificates of membership in the Roosevelt Memorial Association are to be given to each subscriber. It is expected that they will be ready for distribution within the next few weeks.

Demand for Native Lumber in Marine Repair Work Exceeding the Supply.

The lumber industry operated by the Mechanical Division of The Panama Canal is lumbering about 100,000 feet of timber per month for use in marine and railway construction and repairs, and with the increasing demand for this material is unable with the present facilities to meet the current demand. Arrangements are being made for an extension of the logging operations. The use of the native woods has largely supplanted that of oak, basswood, and Honduran mahogany, and has greatly reduced the use of ash, hickory, cedar, and other woods which have been brought from the United States.

Of the many different species developed, almendra, amargo, and guayacan are of particular value in ship construction and repair. Almendra and guayacan are strong competitors with ironbark and tallow wood in such heavy construction as stern-posts and rudder-stocks. Amargo is notable for the excellent keels which it provides for large ships.

A 6-foot band mill installed at Balboa shops is used in the manufacture of the lumber. The mill has a daily capacity of 5,000 feet of hardwoods and 10,000 feet of soft woods. A considerable part of the lumber is used in the green state. The board stock and selected pieces for special work requiring thoroughly dry lumber are sent to dry kilns for seasoning. The larger sizes used principally in marine and car construction are sent direct to a storage shed for air drying.

The lumber industry of the Canal, although in its infancy, has been successful in furnishing satisfactory substitutes for specially imported lumber, and is considered an important adjunct of the increasing marine work at both terminals.

The Canal Bakery.

The increase in cost of flour recently made in the United States will not affect the price of bread at the Canal commissaries for from four to five months because the flour being used was purchased at the old prices. Bread will continue at 8 cents a loaf. An indication of the volume of work at the bakery is contained in the following summary of operations for January of this year:

Bread.....	loaves	480 672
Cakes.....	pounds	18,707
Rolls, French.....	dozen	677½
Rolls, dinner.....	dozen	1,729
Crackers.....	pounds	3,212
Pies.....	each	3,180
Zwieback.....	packages	274
Saratoga chips.....	packages	2,287
Cracker meal.....	pounds	184
Bread crumbs.....	pounds	18

Deceased Employees.

The estates of the following deceased employees of The Panama Canal and Panama Railroad are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Leon Manuel.....	29230	Guadeloupe....	Colon.....	Mun. Eng. Div.....	February 7, 1920.
Richard T. Perrott....	1196	United States...	Ancon.....	Supply Department....	February 8, 1920.
Leslie Smith.....	29887	Barbados.....	Colon.....	Building Division.....	February 15, 1920.
Maselino Vasquez.....	41987	Panama.....	Panama.....	Cattle Industry.....	February 6, 1920.

Locations of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the new Ancon Hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Present number of beds.	Visiting hours.
Section "A"—White American, male:		
Ward No. 1, Medical, Eye and Ear.....	44	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. Sundays and holidays, 9.30 to 11 a. m. and 2.30 to 4.30 p. m.
Ward No. 2, Medical, Eye and Ear.....	41	
Ward No. 3, Surgical.....	44	
Ward No. 4, Surgical.....	41	
Cells (2).....	2	
	172	
Section "B":		
White American, female.....	23	Daily except Sunday, 2 to 4.30 p. m.; 6.30 to 8 p. m. Sundays and holidays, 10 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m. No visitors permitted. Daily, 9.30 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m.
White foreign, female.....	15	
Nursery.....	16	
Private Rooms (40).....	46	
Cells (2).....	2	
	102	
Section "C":		
Ward No. 9, White foreign, male.....	39	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward No. 10, Colored, eye and ear, convalescent medical.....	39	
Ward No. 11, Colored Acute surgical.....	39	
Ward No. 12, Colored Acute medical.....	39	
Ward No. 13, Colored Convalescent surgical.....	39	
Ward No. 14, Colored Convalescent surgical.....	39	
Cells (6).....	6	
Rooms (7).....	7	
	247	
Section "D":		
Ward No. 15.....	41	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m. Daily, 9.30 to 10 a. m.; 2 to 4 p. m.
Ward No. 16.....	39	
Ward No. 17, Colored children.....	32	
Ward No. 18, White children.....	30	
Ward No. 19, Colored female medical.....	41	
Ward No. 20, Colored female surgical.....	34	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Rooms (6).....	6	
Cells (6).....	6	
	229	
Isolation:		No visitors permitted.
Floor No. 1.....	14	
Floor No. 2.....	29	
Floor No. 3.....	28	
Floor No. 4.....	28	
	99	
Total number of beds.....	849	

Emergency passes are issued only by and in the discretion of the section nurse.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Volume XIII. Balboa Heights, C. Z., March 3, 1920. No. 29

CANAL WORK IN JANUARY.

BALBOA HEIGHTS, C. Z., February 25, 1920.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of January, 1920:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal during the month was 238 including 1 British cruiser of 5,940 displacement tons, but excepting 25 United States Government vessels, as follows: Eight destroyers, 5 minesweepers, 4 submarines, 3 colliers, 1 supply ship, 1 transport, 1 Navy tug and barge, and 2 commercial vessels chartered by the Government. The month's traffic is classified in a tabulation included in this report.

The net tonnage, Panama Canal measurement, of the 238 commercial vessels, excluding the British cruiser which was not measured, aggregated 765,533 tons, 162,193 tons less than the previous month. Their registered gross tonnage was 992,024, and registered net tonnage, 632,154. The total cargo carried was 894,628 tons of 2,240 pounds, 29,851 tons less than in December. Of this month's traffic, 4,583 tons were carried as deck cargo. The total number of vessels and craft of all kinds through the Canal was 267, as compared with 281 last month, when the highest record in the history of the Canal was established. The average length of these vessels was 337 feet, average beam 47 feet, and average draft in salt water 21 feet, their average tonnage, Panama Canal net measurement, was 3,230, United States net equivalent, 2,678, registered gross, 4,186, and registered net, 2,667.

The United States coastwise trade for the month comprised 22 vessels aggregating 97,908 tons, Panama Canal net measurement, carrying 139,641 tons of cargo. That from the Atlantic to the Pacific coast included 9 vessels with a total Panama Canal net tonnage of 42,190, carrying 51,295 tons of cargo. This trade from the Pacific to the Atlantic was carried in 13 vessels with a total Panama Canal net tonnage of 55,718, with 88,346 tons of cargo.

PRINCIPAL COMMODITIES.

Bulk shipments consisting of whole cargoes of the different principal commodities included in the January traffic were:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Crude oil.....	2	19,117	.....	Tampico.....	Pisagua.
Crude oil.....	1	10,000	.....	Puerto Lobos.....	Antofagasta.
Crude oil.....	1	9,000	.....	Puerto Lobos.....	Tocopilla.
Crude oil.....	1	8,800	46,917	Tampico.....	Balboa.
Case oil.....	1	10,300	.....	Tampico.....	San Francisco.
Case oil.....	1	9,000	.....	New York.....	San Francisco.
Case oil.....	1	7,285	.....	Port Arthur.....	Honolulu.
Case oil.....	1	7,000	.....	New York.....	Honolulu.
Case oil.....	1	8,509	.....	New Orleans.....	Honolulu.
Case oil.....	1	8,625	50,719	New York.....	Yokohama.
.....	2	6,536	6,536	Norfolk.....	Iquique.
Coal.....	1	6,774	6,774	Tampa.....	San Francisco.
Phosphate.....	1	4,909	4,909	Santiago, Cuba.....	Vancouver, B. C.

FROM PACIFIC TO ATLANTIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	2	17,961	.....	Antofagasta.....	Dunkirk.
Nitrate.....	1	10,000	.....	Antofagasta.....	Antwerp.
Nitrate.....	1	7,500	.....	Antofagasta.....	Genoa.
Nitrate.....	1	7,350	.....	Antofagasta.....	Rotterdam.
Nitrate.....	1	3,550	.....	Antofagasta.....	Ostend.
Nitrate.....	1	8,180	.....	Antofagasta.....	Savannah.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	1	6,150		Antofagasta.....	New York.
Nitrate.....	1	3,000		Antofagasta.....	Baltimore.
Nitrate.....	1	8,426		Iquique.....	Copenhagen.
Nitrate.....	1	7,021		Iquique.....	Hamburg.
Nitrate.....	1	6,200		Iquique.....	United Kingdom.
Nitrate.....	1	4,363		Iquique.....	Falmouth.
Nitrate.....	1	3,186		Iquique.....	Matanzas, Cuba.
Nitrate.....	1	3,356		Iquique.....	Cristobal (for orders).
Nitrate.....	2	14,372		Iquique.....	Savannah.
Nitrate.....	2	10,395		Iquique.....	Charleston.
Nitrate.....	1	3,511		Iquique.....	Norfolk.
Nitrate.....	1	3,310		Iquique.....	Baltimore.
Nitrate.....	1	8,426		Mejillones.....	St. Nazaire.
Nitrate.....	1	6,620		Mejillones.....	Marseilles.
Nitrate.....	1	6,018		Mejillones.....	Nantes.
Nitrate.....	1	7,774		Mejillones.....	Antwerp.
Nitrate.....	1	6,921		Mejillones.....	Ghent.
Nitrate.....	1	2,325		Mejillones.....	Norfolk.
Nitrate.....	1	6,700		Caleta Colosa.....	Alexandria, Egypt.
Nitrate.....	1	6,109		Caleta Colosa.....	Cristobal (for orders)
Nitrate.....	1	3,140		Caleta Colosa.....	Wilmington, N. C.
Nitrate.....	1	9,300		Caleta Buena.....	Genoa.
Nitrate.....	1	7,778		Caleta Buena.....	Dunkirk.
Nitrate.....	1	7,252		Caleta Buena.....	Santander.
Nitrate.....	1	5,500		Caleta Buena.....	Alicante.
Nitrate.....	1	9,200		Tocopilla.....	Dunkirk.
Nitrate.....	1	7,400		Tocopilla.....	Bordeaux.
Nitrate.....	1	8,204		Tocopilla.....	Cristobal (for orders)
Nitrate.....	1	2,770		Pisagua.....	Wilmington, N. C.
Nitrate.....	1	1,704		Pisagua.....	Mobile.
Nitrate.....	1	8,200		Taltal.....	Wilmington, N. C.
Nitrate.....	1	4,700		Taltal.....	Boston.
Nitrate.....	1	3,820	257,692	Junin.....	Baltimore.
Flour.....	3	24,119		Tacoma.....	New York.
Flour.....	2	16,963		Seattle.....	New York.
Flour.....	2	15,131		San Francisco.....	New York.
Flour.....	1	8,055		Astoria.....	New York.
Flour.....	1	7,100	71,368	Portland.....	New York.
Lumber.....	1	2,178		Seattle.....	Rotterdam.
Lumber.....	1	2,000		Seattle.....	Queenstown.
Lumber.....	1	2,131		Seattle.....	Antilles.
Lumber.....	1	1,417		Seattle.....	Nipe, Cuba.
Lumber.....	1	4,718		Portland.....	United Kingdom.
Lumber.....	1	1,814		Portland.....	Queenstown.
Lumber.....	1	2,632		Aberdeen.....	Philadelphia.
Lumber.....	1	1,424		Aberdeen.....	West Hartlepool.
Lumber.....	1	2,981		Port Blakely.....	Antwerp.
Lumber.....	1	1,968		Victoria.....	Queenstown.
Lumber.....	1	872		Port Angeles.....	Saqua la Grande.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	35	127,368	79,316	94,031	58,284
British.....	17	48,544	28,334	35,630	27,722
Norwegian.....	7	24,024	15,113	18,885	12,587
Spanish.....	4	13,014	8,182	9,399	.....
Chilean.....	4	10,553	6,294	8,619	2,724
Japanese.....	3	17,513	11,870	13,315	.....
Peruvian.....	3	12,682	7,041	8,312	1,915
German.....	2	954	193	332	.....
French.....	1	5,818	3,631	4,166	300
Italian.....	1	5,255	3,226	3,756	363
Danish.....	1	3,102	1,963	2,389	4,225
Total.....	78	268,827	165,163	198,834	108,120

Of the 78 vessels above, 36 were in ballast, 31 from United States ports, 1 from England, 1 from Spain, 1 from Germany, 1 from Porto Rico, and 1 from the Atlantic terminus of the Canal. Of the remaining 42 laden ships, 11 were from the United States with 31,505 tons of general cargo, 5 from Mexican ports with 46,917 tons of fuel oil, 19 from the Atlantic terminus of the Canal with 12,436 tons of general cargo, 4 from England with 12,589 tons, 1 from Scotland with 4,010 tons, 1 from France with 300 tons, 1 from Port Limon, Costa Rica, with 363 tons, all general

cargo. With the exception of 1 vessel of 692 tons net, Panama Canal measurement, carrying 1,074 tons of cargo, the 78 ships were all en route to the west coast of South America, the one exception being bound for Champerico, Guatemala.

This trade from the west coast of Central and South America for the month was as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
					<i>Tons.</i>
United States.....	35	138,076	86,208	105,003	154,591
British.....	20	71,987	42,018	52,611	69,098
Japanese.....	5	28,532	18,405	21,030	37,998
Italian.....	4	23,327	14,354	17,356	27,973
Peruvian.....	3	12,468	6,677	7,845	6,571
Spanish.....	4	16,050	10,584	12,448	22,411
Chilean.....	3	9,080	5,505	8,073	5,547
Dutch.....	2	10,834	6,892	9,121	13,950
French.....	1	6,872	4,245	6,576	9,045
Brazilian.....	1	6,692	4,126	6,294	8,916
Norwegian.....	1	5,254	3,246	4,755	8,426
Total.....	79	329,172	202,260	251,117	364,526

Four of the above 79 vessels were in ballast, the remainder all carried cargo. Twenty-three were en route to United States ports with 97,888 tons of cargo, 2 of these being in ballast, the cargo consisting of 69,427 tons of nitrate and 28,461 tons of general commodities. Nine ships were en route to Great Britain with 47,515 tons of cargo, 2 with 10,563 tons of nitrate and 7 with 36,952 tons of general cargo. Eighteen ships laden entirely with nitrate were destined to the following countries: Eight to France with 63,403 tons, 4 to Belgium with 28,245 tons, 2 to Spain with 12,752 tons, 1 to Egypt with 6,700 tons, 1 to Denmark with 8,426 tons, 1 to Germany with 7,021 tons, and 1 to Cuba with 3,186 tons. Five vessels with 18,673 tons of general cargo and 16,800 tons of nitrate were en route to Italy, 2 to the Netherlands with 6,600 tons of general cargo and 7,350 tons of nitrate, 17 with 22,298 tons of general cargo and 3 with 17,669 tons of nitrate were routed to Cristobal, the three nitrate-laden vessels to be ordered to ultimate destination from this point.

Sixty-six vessels controlled by the United States Shipping Board passed through the Canal this month, these combined a total Panama Canal net tonnage of 214,444 and carried 266,102 tons of cargo. Thirty-three were southbound with an aggregate net tonnage of 101,692, carrying 94,432 tons of cargo. The same number was northbound with an aggregate net tonnage of 112,752, carrying 171,670 tons of cargo, the greater part of which was nitrate.

PRINCIPAL TRADE ROUTES.

The month's traffic was distributed according to the principal trade routes as follows:

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
			<i>Tons.</i>		
<i>Atlantic to Pacific.</i>					
United States to west coast of South America.....	42	107,343	31,515	32	76,095
Cristobal to west coast of South America.....	18	27,092	11,362	1	101
United States coastwise.....	9	42,190	51,295	1	5,741
Europe to west coast of South America.....	9	28,235	16,895	3	8,695
United States to Honolulu.....	7	32,708	52,130		
United States to Far East.....	5	25,999	47,907		
Mexico to west coast of South America.....	5	28,337	46,917		
United States to Australia and New Zealand.....	4	23,183	22,664		
Europe to west coast United States.....	2	9,329	3,730		
Cuba to west coast of United States.....	2	7,141	10,567		
Mexico to west coast of United States.....	1	5,680	10,300		
Cuba to west coast of South America.....	1	3,277		1	3,277
Costa Rica to west coast of South America.....	1	3,756	363		
Cuba to Canada (British Columbia).....	1	2,933	4,909		
Europe to Tahiti.....	1	728	1,000		
Cristobal to west coast of United States.....	1	2,163	1,873		
Cristobal to west coast Central America.....	1	692	1,074		
*Miscellaneous.....	3	182	9	2	182
Total.....	113	350,973	314,510	40	94,091

**Miscellaneous" includes 1 tug, the *St. Boswells*, British registry, of 102 tons, Panama Canal net measurement, en route from Kingston to Chile; the yacht *Ajaz*, American registry, of 80 tons, same measurement, bound from Kingston to Samoa; and the British cruiser *Yarmouth*, the latter having a displacement tonnage of 5,940.

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Pacific to Atlantic.</i>					
			<i>Tons.</i>		
West coast of South America to Europe.....	31	135,864	210,359		
West coast of South America to Cristobal.....	19	35,199	39,928		
West coast of South America to east coast of United States.....	22	54,741	97,894	1	447
United States coastwise.....	13	55,718	88,346		
West coast of United States to Europe.....	13	35,336	50,586		
Far East to east coast United States.....	6	29,231	42,283		
Australia and New Zealand to Europe.....	3	18,087	17,261		
West coast of South America to Mexico.....	3	10,923	3,186	2	9,084
West coast of United States to Cristobal.....	3	6,215	3,044		
Canada (British Columbia) to Europe.....	3	2,037	2,636		
West coast of United States to Cuba.....	2	2,404	2,289		
Australia and New Zealand to east coast of United States.....	1	6,958	7,010		
Balboa to east coast of United States.....	1	5,621		1	5,821
West coast of United States to Mexico.....	1	5,458		1	5,458
West coast of South America to Egypt.....	1	4,097	6,700		
Falkland Islands to England.....	1	3,980	6,426		
West coast of United States to Antilles.....	1	1,999	2,131		
West coast of Central America to Cristobal.....	1	692	39		
Total.....	125	414,560	580,118	5	20,610

SERVICES TO CANAL SHIPPING.

Repairs were made on 166 vessels during the month, including both those entering the ports only and those passing through the Canal, 103 at Cristobal and 63 at Balboa. Thirteen vessels were drydocked, 2 at Cristobal and 11 at Balboa. Coal sales totaled 39,181 tons to 157 vessels, 4,920 tons to 20 vessels at Balboa, and 34,261 tons to 137 vessels at Cristobal. Twenty-two ships were supplied with fuel oil from Panama Canal tanks, 13 at Cristobal with 42,085 barrels, and 9 at Balboa with 14,850 barrels. There were 367 vessels supplied with 12,164,458 gallons of water, 230 at Cristobal with 9,097,708 gallons, and 137 at Balboa with 3,066,750 gallons. Sales of commissary supplies to commercial ships other than those of the Panama Railroad Steamship Line, aggregated \$131,515.56, including \$4,866.69 for laundry service at Cristobal and Ancon laundries. Charges for tug service to vessels using the Canal and the terminal ports amounted to \$32,550, of which \$16,262.50 was collected at Cristobal and \$16,287.50 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulation:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	113	125	238
Net tonnage of commercial ships, Panama Canal measurement.....	350,973	414,560	765,533
United States equivalent net tonnage of commercial ships.....	289,674	346,616	636,290
Registered gross tonnage of commercial ships.....	459,631	532,393	992,024
Registered net tonnage of commercial ships.....	292,070	340,084	632,154
Cargo through the Canal in commercial ships, tons of 2,240 pounds.....	314,510	580,118	894,628
Deck load cargo, included in above.....	1,177	3,406	4,583
Nationality of commercial ships through Canal:			
British.....	29	27	56
Brazilian.....		1	1
Chilean.....	4	3	7
Danish.....	1		1
Dutch.....		2	2
French.....	3	7	10
German.....	2		2
Italian.....	1	4	5
Japanese.....	7	7	14
Norwegian.....	8	2	10
Panamanian.....		1	1
Peruvian.....	3	3	6
Russian.....	1		1
Spanish.....	4	4	8
United States.....	50	64	114
Total.....	113	125	238

Item.	Cristobal.	Balboa.	Total.
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	95,308	94,416	189,724
Brazilian.....		6,294	6,294
Chilean.....	8,619	8,078	16,697
Danish.....	2,389		2,589
Dutch.....		9,121	9,121
French.....	7,827	13,359	21,186
German.....	332		332
Italian.....	3,756	17,356	21,112
Japanese.....	32,385	30,911	63,296
Norwegian.....	22,771	5,595	28,366
Panaman.....		930	930
Peruvian.....	8,312	7,845	16,157
Russian.....	5,144		5,144
Spanish.....	9,399	12,448	21,847
United States.....	154,731	208,207	362,938
Total.....	350,973	414,560	765,533
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	75,748	75,869	151,617
Brazilian.....		5,436	5,436
Chilean.....	5,338	4,928	10,266
Danish.....	1,970		1,970
Dutch.....		6,928	6,928
French.....	6,587	12,903	19,490
German.....	407		407
Italian.....	2,971	14,410	17,381
Japanese.....	27,990	28,235	56,234
Norwegian.....	18,253	4,146	22,399
Panaman.....		940	940
Peruvian.....	5,703	4,655	10,358
Russian.....	4,740		4,740
Spanish.....	7,973	11,645	19,618
United States.....	131,985	176,521	308,506
Total.....	289,674	346,616	636,290
Registered gross tonnage of commercial ships through the Canal:			
British.....	121,425	119,487	240,912
Brazilian.....		6,692	6,692
Chilean.....	10,553	9,000	19,633
Danish.....	3,102		3,102
Dutch.....		10,834	10,834
French.....	10,543	18,181	28,724
German.....	954		954
Italian.....	5,255	23,327	28,582
Japanese.....	42,244	41,294	83,538
Norwegian.....	28,918	6,230	35,148
Panaman.....		1,141	1,141
Peruvian.....	12,682	12,468	25,150
Russian.....	7,464		7,464
Spanish.....	13,014	16,050	29,064
United States.....	203,477	267,609	471,086
Total.....	459,631	532,393	992,024
Registered net tonnage of commercial ships through the Canal:			
British.....	76,145	72,583	148,728
Brazilian.....		4,126	4,126
Chilean.....	6,294	5,505	11,799
Danish.....	1,963		1,963
Dutch.....		6,892	6,892
French.....	6,629	11,235	17,864
German.....	193		193
Italian.....	3,226	14,354	17,580
Japanese.....	28,026	26,256	54,282
Norwegian.....	18,167	4,094	22,261
Panaman.....		916	916
Peruvian.....	7,041	6,677	13,718
Russian.....	4,779		4,779
Spanish.....	8,182	10,584	18,766
United States.....	131,425	176,862	308,287
Total.....	292,070	340,084	632,154
Cargo carried by ships of various nationalities:			
British.....	95,479	116,377	211,856
Brazilian.....		8,916	8,916
Chilean.....	2,724	5,547	8,271
Danish.....	4,225		4,225
Dutch.....		13,950	13,950
French.....	6,209	17,086	23,295
German.....	5		5
Italian.....	363	27,973	28,336
Japanese.....	29,029	52,718	82,647
Norwegian.....	14,287	9,850	24,137
Panaman.....		872	872

Item.	Cristobal.	Balboa.	Total.
Cargo carried by ships of various nationalities—Continued:			
Peruvian.....	1,915	6,571	8,486
Russian.....	12,147		12,147
Spanish.....		22,411	22,411
United States.....	147,227	297,847	445,074
Total.....	314,510	580,118	894,628
Vessels passing through the Canal free of tolls:			
U. S. Navy destroyers.....	8		8
U. S. Navy tug and barge.....	1		1
U. S. Navy mine sweepers.....	5		5
U. S. Navy colliers.....	1	2	3
U. S. Navy submarines.....	4		4
U. S. Navy supply ship.....	1		1
U. S. Army transport.....	1		1
Merchant ships with coal, chartered by the U. S. Government.....	2		2
Total.....	23	2	25
Launches.....	1	3	4
Net tonnage of launches, Panama Canal measurement.....	3	11	14
Total ocean-going ships transiting Canal.....	136	127	263
Total vessels and craft transiting the Canal.....	137	130	267
Cargo on which no tolls were charged..... tons.	25,943	110	26,053
Commercial ships through Canal in ballast.....	40	5	45
Net tonnage of above, Panama Canal measurement.....	94,091	20,610	114,701
Total commercial ships without cargo, transiting Canal.....	40	5	45
Net tonnage of above, Panama Canal measurement.....	94,091	20,610	114,701
Motor ships through the Canal.....	3	4	7
Net tonnage of above, Panama Canal measurement.....	4,024	6,507	10,531
Sailing ships through the Canal.....		4	4
Net tonnage of above, Panama Canal measurement.....		3,024	3,024
Yachts through the Canal.....	1		1
Net tonnage of above, Panama Canal measurement.....	80		80
Tolls levied on laden ships through the Canal.....	\$263,786.15	\$410,360.40	\$674,146.55
Tolls levied on ships in ballast.....	\$77,758.53	\$14,849.61	\$92,608.14
Tolls levied on launches.....	\$3.60	\$13.20	\$16.80
Total tolls levied.....	\$341,548.28	\$425,223.21	\$766,771.49
Total ships entering port, including Canal transit.....	316	273	589
Total ships clearing port, including Canal transit.....	310	269	579
Total ships handled.....	626	542	1,168
Net registered tonnage of vessels entering port.....	920,162	701,751	1,621,913
Net registered tonnage of vessels clearing port.....	894,386	707,014	1,601,400
Total for vessels entering and clearing.....	1,814,548	1,408,765	3,223,313
Registered gross tonnage of vessels entering port.....	1,363,331	1,088,061	2,451,392
Registered gross tonnage of vessels clearing port.....	1,322,744	1,094,056	2,416,800
Total registered gross tonnage of vessels entering and clearing.....	2,686,075	2,182,117	4,868,192
Vessels entering port, but not passing through the Canal.....	66	9	75
Net tonnage of above.....	192,409	18,910	211,319
Gross tonnage of above.....	295,425	30,965	326,390
Vessels clearing port, but not passing through the Canal.....	64	9	73
Net tonnage of above.....	174,750	21,312	196,062
Gross tonnage of above.....	269,849	34,747	304,596
Vessels passing through Canal, and handling passengers or cargo at port entered.....	42	47	89
Net tonnage of above.....	88,863	90,554	179,417
Gross tonnage of above.....	148,946	153,924	302,870
Vessels passing through Canal, and handling passengers or cargo at port cleared.....	37	49	86
Net tonnage of above.....	79,446	96,097	175,543
Gross tonnage of above.....	131,336	162,287	293,623
Transit cargo arriving..... tons.	926,173	908,678	1,834,851
Transit cargo cleared..... tons.	934,327	920,662	1,854,989
Total transit cargo handled..... tons.	1,860,500	1,829,340	3,689,840
Local cargo arriving..... tons.	117,595	18,955	134,550
Local cargo shipped..... tons.	3,634	2,446	6,080
Total local cargo handled..... tons.	121,229	19,401	140,630
Total local and transit cargo arriving..... tons.	1,043,768	925,633	1,969,401
Total local and transit cargo cleared..... tons.	937,961	923,108	1,861,069
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	74,936	3,544	78,480
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	58,724	3,666	62,390
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.	3,142	2,234	5,376
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	136,802	9,444	146,246
Cargo stevedored, included in above..... tons.	71,874	3,545	78,419
Commercial vessels other than P. R. R. supplied with bunker coal.....	123	18	141
Coal supplied above vessels..... tons.	32,961	4,870	37,831
Panama Railroad vessels supplied with bunker coal.....	7		7
Coal supplied above vessels..... tons.	1,389		1,389

Item.	Cristobal.	Balboa.	Total.
U. S. Army vessels supplied with coal.....	4	2	6
Coal supplied above vessels..... tons	137	50	187
Total vessels supplied with coal from Panama Railroad deposits..... tons	134	20	154
Total coal furnished to vessels from Panama Railroad deposits..... tons	34,487	4,920	39,407
Coal supplied Panama Railroad departments..... tons	657	471	1,128
Coal supplied Army, excepting vessels..... tons	117	.....	117
Coal supplied The Panama Canal..... tons	1,818	721	2,539
Coal supplied individuals and companies..... tons	321	.....	321
Total coal furnished from Panama Railroad deposits..... tons	37,400	6,112	43,512
Coal received during January..... tons	63,810	.....	63,810
Coal on hand, February 1, 1920..... tons	49,172	19,763	68,935
Coal on hand, January 1, 1920..... tons	22,762	25,875	48,637
Coal, U. S. Navy Account.			
Coal furnished U. S. Navy, including vessels..... tons	3,312	1	3,313
Coal received during January..... tons	12,465	2,391	14,856
Coal on hand, February 1, 1920..... tons	30,883	17,947	48,830
Coal on hand, January 1, 1920..... tons	21,730	15,557	37,287
Commercial vessels supplied with fuel oil from Panama Canal tanks.....	13	9	22
Fuel oil sold to above vessels..... barrels	42,085	14,550	56,935
Fuel oil sold to P. R. vessels..... barrels	9,624	.....	9,624
Fuel oil issued to U. S. Navy..... barrels	205	675	880
Fuel oil issued to U. S. Army..... barrels	8,847	536	9,383
Fuel oil issued to Canal departments..... barrels	6,362	18,416	24,808
Total fuel oil furnished from Panama Canal tanks..... barrels	67,123	34,507	101,630
Fuel oil received during month..... barrels	.....	64,923	64,923
Fuel oil on hand, February 1, 1920..... barrels	19,890	89,723	109,613
Fuel oil on hand January 1, 1920..... barrels	87,013	59,306	146,319
Other oil pumped..... barrels	306,263	25,161	331,427
Diesel oil issued during month..... barrels	.....	27	27
Diesel oil on hand, February 1, 1920..... barrels	.....	1,396	1,396
Vessels supplied with water.....	230	137	367
Water sold to ships..... gals.	9,097,708	3,066,750	12,164,458
Vessels dry docked.....	2	11	13
Commercial vessels furnished commissary supplies.....	205	92	297
Panama Railroad vessels furnished commissary supplies.....	11	1	12
Other U. S. Government vessels furnished commissary supplies.....	27	21	48
Total vessels furnished commissary supplies.....	243	114	357
Commissary sales to commercial vessels:			
Ice.....	\$2,389.59	\$600.48	\$2,990.07
Wholesale groceries.....	27,272.94	3,440.78	30,713.72
Wholesale cold storage.....	65,579.36	19,385.32	84,964.68
Laundry.....	3,804.68	1,062.01	4,866.69
Miscellaneous.....	5,340.99	2,639.41	7,980.40
Total.....	\$104,387.56	\$27,128.00	\$131,515.56
Commissary sales to Panama Railroad vessels:			
Ice.....	\$105.90	\$9.00	\$114.90
Wholesale groceries.....	1,369.42	487.55	1,856.97
Wholesale cold storage.....	3,941.08	1,135.27	5,076.35
Laundry.....	1,204.55	.....	1,204.55
Miscellaneous.....	218.54	4.19	222.73
Total.....	\$6,830.49	\$1,636.01	\$8,475.50
Commissary sales to other U. S. Government vessels:			
Ice.....	\$147.10	\$105.24	\$252.34
Wholesale groceries.....	2,283.75	2,488.69	4,772.44
Wholesale cold storage.....	12,452.70	4,908.38	17,361.08
Laundry.....	712.76	107.57	820.33
Miscellaneous.....	642.42	153.84	796.26
Total.....	\$16,238.73	\$7,763.72	\$24,002.45
Total commissary sales to all vessels.....	\$127,465.78	\$36,527.73	\$163,993.51
Passengers arriving, including transit passengers:			
First cabin.....	3,122	1,469	4,591
Other than first cabin.....	1,542	900	2,442
Total.....	4,664	2,369	7,033
Passengers departing, including transit passengers:			
First cabin.....	2,805	1,335	4,140
Other than first cabin.....	1,149	853	2,002
Total.....	3,954	2,188	6,142
Total movement of passengers.....	8,618	4,557	13,175
Passengers disembarking:			
First cabin.....	1,714	293	2,007
Other than first cabin.....	1,254	147	1,401
Total.....	2,968	440	3,408
Passengers embarking:			
First cabin.....	1,324	159	1,483
Other than first cabin.....	1,149	100	1,249
Total.....	2,473	259	2,732

Item.	Cristobal.	Balboa.	Total.
Services to American seamen:			
Seamen shipped.....	311	132	443
Seamen paid off.....	260	93	353
Seamen deserted.....	7	12	19
Seamen deceased.....	3	1	4
Seamen lodged, subsisted, and repatriated.....	52	44	96
Wages of American seamen:			
Total amount earned.....	\$21,542.88	\$11,243.29	\$32,786.17
Deductions approved by Deputy Shipping Commissioners.....	\$4,467.43	\$2,689.96	\$7,157.39
Balance due seamen.....	\$17,075.45	\$8,553.33	\$25,628.78
Paid to seamen.....	\$5,542.62	\$4,401.39	\$9,944.01
Received on deposit for seamen.....	\$11,532.83	\$5,212.94	\$16,745.77
Services to American vessels:			
Crews paid off.....	2		2
Shipping articles written.....		1	1
Marine notes of protest noted.....	26	8	34
Bills of health issued.....	170	146	316

*Includes \$1,061 immigration deposit.

LOCK OPERATION.

Lockages of commercial vessels during January were as follows:

	Number of lockages			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	118	103	221	126	114	240
Pedro Miguel.....	119	107	226	125	115	240
Miraflores.....	110	91	201	125	115	240

All lockages, including Army and Navy vessels, those of the Panama Railroad and The Panama Canal, are included in the following summary of lockages for the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial lockages.....	221	226	201
Noncommercial, United States Army and Navy.....	9	14	13
Canal equipment.....	11	25	19
Total.....	241	265	233
Vessels:			
Commercial vessels.....	240	240	240
Noncommercial United States Army and Navy.....	33	32	31
Canal equipment and launches.....	36	54	45
Total.....	309	326	310

The total consumption of water for all lockages was 1,890,950,000 cubic feet. The consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
Lockage.....	Cubic feet. 1,006,020,000	Cubic feet. 884,930,000	Cubic feet. 740,650,000
Leakage.....	20,000,000	33,540,000	15,000,000
Maintenance.....			13,500,000
Total.....	1,026,020,000	918,470,000	769,150,000

METEOROLOGY.

This was the driest January of record since the American occupation, being slightly drier than the corresponding month of 1912, previously the driest January on record. Totals ranged from a trace of rain at Balboa and Balboa Heights to 2.52 inches at Porto Bello, the greatest precipitation of any one day was 0.47 inch at Porto Bello on the 11th. The estimated rainfall over Gatun Lake watershed was 0.69 inch, compared with a 10-year mean of 1.73 inches, over the Chagres River Basin above Alhajuela it was 1.15 inches, compared with a 19-year mean of 3.08 inches. Gatun Lake watershed total yield was 34 per cent below the 10-year mean or 1,714 c. f. s. against a mean of 2,602 c. f. s. The maximum January total yield since the existence of Gatun Lake was 3,827 c. f. s. in 1918, and the minimum total yield was 1,371 c. f. s. in 1912. Gatun Lake varied from a maximum elevation of 86.89 feet on the 1st to a minimum elevation of 85.94 feet on the 31st.

Four seismic disturbances were recorded during the month, on the 3d, 9th, 26th, and 30th. That of the 26th, though slight as were the others, was the most pronounced shock recorded during the month, the indicated distance of its epicenter was 48 miles and the movement had its probable origin to the west or southwest of the Balboa Heights station.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The gross output of this station for January was 5,894,400 KWH. on a computed water consumption of 4,227,120,000 cubic feet. A shutdown of 12 minutes occurred on the 15th due to trouble on the high tension system, there were no other interruptions to service at this station. The testing equipment was erected and an efficiency test was run on Unit No. 3.

Miraflores steam plant—This plant consumed 176,180 KWH. in excess of its output during the month, with generators floating on line for stand-by service. The oil consumption was 2,035 barrels.

Total power output—The total gross output of both plants was 5,894,400 KWH, the total power distributed to consumers was 5,006,940 KWH. The total loss of power plant auxiliaries, transmission, transformation, and operation of steam plant generators for stand-by service was 887,560 KWH, or 15.06 per cent of the gross output.

Transmission line—Minor interruptions to service occurred in the district served by the Gamboa substation and in the Balboa district. Trouble of an unknown nature caused a bad drop in system voltage on the 11th in the Gamboa substation district, and in the Balboa district was interrupted on the 18th for 38 minutes to permit cleaning the high tension bus sectionalizing switches.

Substations—No service interruptions occurred at any of the substations except at Miraflores. Feeder D and feeders 15, 16, and 17 were out for a few moments each during the month at Miraflores.

Marine work—In addition to its usual repair and maintenance work this division installed and repaired various items of electrical equipment on 90 vessels during the month 44 at Cristobal and 46 at Balboa.

Construction work—Miscellaneous items of construction work were under way during the month at Gatun and Miraflores substations, Gatun hydroelectric plant, Mount Hope cold storage plant, Pier No. 6, Cristobal, Coco Solo, Reclamation building at the scrap yard, Balboa, Fort Davis, and Miraflores Army post. There were 386 work orders issued for work to be performed by the different sections of the Electrical Division during January.

SHOP, FOUNDRY, AND DRY DOCK WORK.

All steel work has been completed on the steamship *Cristobal* and most of the riveting done. A considerable amount of wood work on the decks remained uncompleted at the end of the month. Work within the engine and boiler room spaces was approximately 98 per cent completed, and that in the cargo spaces about 90 per cent completed. A large amount of work remained to be done in the passenger and crew spaces, principally woodwork, pipe fitting, and plumbing.

The installation of oil-burning apparatus on the steamship *Acajulla* was well advanced, the steel work for the tanks was fabricated and erected and riveting begun. Repairs to the motorship *Ansaldo SanGiorgio I* were completed and satisfactory dock trial of the engines run. This ship is driven by a pair of Diesel engines of about 300 horsepower. The vessel arrived at the Balboa shops about the middle of November with the bearings throughout both engines badly worn and out of line. Request was at first made for only a small amount of the necessary work, but before the engines could be made to run satisfactorily, it became necessary to refit and reline the engines throughout.

The overhauling of the steamship *Culebra* at Cristobal shops, prior to its return to the Dredging Division, was continued during the month, but very little could be done on it. The renewal of the greater portion of the planking, framing, and stern log of the tug *San Juan* was completed on January 22. The installation of a new stem and forefoot on the steamship *Boxley* was nearly completed, and the repairing of the boiler of the steamship *Buttonville*, 55 per cent completed. Salvage operations were started on the raising of the steamship *Marne*. The tug *San Juan* and steamship *Boxley* were in dry dock at Cristobal for the greater part of the month.

There were 226 special individual and company job orders issued at Cristobal during the month, three of which were for work on submarines and nine for work on other naval vessels, of the remaining 214, 98 covered repairs to ships making the port or in transit of the Canal, exclusive of Panama Railroad vessels. The following vessels were at the Cristobal shops for repairs during January: U. S. S. *Astoria*, *Babbitt*, *Oriole*, *Jacob Jones*, *Graham*, *Ramapo*, U. S. A. T. *Princess Matoika*, steamships *Achilles*, *Agaresta*, *Allianca*, *Ashland County*, *Ancon*, *Astmacho III*, *August*, *Aysen*, *Ayruocca*, *Balboa*, *Barrington*, *Buttonville*, *Bellflower*, *Bellota*, *Bonnafon*, *Boxley*, *British Isles*, *Brookland*, C-34, C-41, C-42, C-44, C-47, C-48, *Calamares*, *Cansumsett*, *Chile*, *City of Para*, *Cockapouset*, *Covanshannock*, *Cowboy*, *Culebra*, *Colon*, *Cole Blanche*, *Diana*, *Ebro*, *Effingham*, *Fasset*, *Fort Sill*, *Frontenac*, *General Gorgas*, *General Goethals*, *General Ernst*, *Haltchie*, *Henry T. Scott*, *Hiyeizan Maru*,

Huallaga, Kentuckian, Lake Catherine, Lake Gebhart, Lake Fibre, Lake Stobi, La Salle, Lake Frenchton, Laura C. Hull, Manavi, Mantaro, Montmagny, Margaret, Marne, Mystic, Mecklenburg, Newport, Nishwaha, Omsk, Panama, Parismina, Peru, Puerto Rico, Point Adams, Palena, Stuyvesant, Saverne, St. Louis, Salmon, Sardegna, St. Amarin, Santa Marta, Sacramento, Tallac, Tulsa, Ulysses, Ucayali, Urubamba, Vancowar, Virginian, West Coyote, West Vaca, Winjah, Yosemite. schooners *John D. Wells*, and *Polawan*, tugs *Engineer, San Juan*, and *Tavernilla*, ketch *Ajax*.

The Balboa shops had the following vessels for miscellaneous repairs during January: *U. S. S. Aulick, Babbitt, Gillis, R-21, R-22, R-24, R-25, R-26, R-27*, sub-chaser *No. 280, Willis*, minesweeper *Avocat*, mineplanter *Thrush*, cableship *Guardian*, steamships *Acajulla, Agremont, Ansaldo I, Andrew Jackson, Ardmore, Almirante, Ansaldo San Giorgio I, Ansaldo San Giorgio II, Basis, Bradford, Brookland, C-32, Cristobal, Caddo, Cowec, Cawker, Caribbean, Coolcha, Coulee, Chirigui, Cethana, Dakstan, Diablo, Erydamas, Gaffney, General Pau, George W. Elder, Houma, Jadden, Lake Elkwater, Lake Buckeye, Lake Fabyan, Lake Filbert, Liberty, Mendora, National Bridge, Peru, Petunia*, and *Ucayali*, tender *Perico*, tugs *Einigkeit, Schelie*, and *La Boca*, cruiser *Lima*, ketch *Ajax*, barge *No. 131*, dredges *No. 86* and *Paraiso*. Of these the following were in dry dock at Balboa: Steamships *Acajulla* and *Lake Fabyan*. submarines *R-22, R-25, R-21*, and *R-26*, dredges *No. 86* and *Paraiso*, tender *Perico*, tug *La Boca*.

The output of the Mechanical Division in patterns made and foundry production for the month is shown as follows:

	January.		December.	
	Patterns	Pounds.	Patterns.	Pounds.
Iron.....	46	95,914	57	129,358
Steel.....	11	37,571	14	26,114
Brass.....	67	24,720	43	13,356

The ordinary repair and inspection work of this division for January included the following items:

Cars repaired.....	1,811
Locomotives and cranes repaired.....	918
Passenger coaches packed, cleaned, oiled, and inspected.....	2,958
Freight cars repacked.....	857
Locomotives hostled.....	1,590
Cranes hostled.....	230
Locomotives ridden.....	58
Locomotives inspected.....	73
Crews instructed in handling locomotives.....	15

BUILDING CONSTRUCTION.

The Building Division had the following items of construction under way during January, with the progress indicated:

	Per cent completed.
Tuberculosis ward, Corozal Hospital.....	99
Moving 3 type-18 houses from Las Cascadas to Balboa.....	90
Moving 7 type-15 houses and 1 type-7 house from Las Cascadas to Pedro Miguel:	
3 houses.....	100
3 houses.....	90
2 houses.....	60
Installation of third unit, Gavilan Island incinerator.....	60
Colon stables.....	30
Silver townsite, Mount Hope:	
Commissary.....	5
2 houses.....	6
8 houses.....	(*)
Oil storage shed, Balboa store.....	82
Six-stall garage near Balboa school.....	100
Six-stall garage near old power plant.....	100
Conversion of Chinese detention camp into married quarters.....	100
Play shed, Pedro Miguel.....	15
Moving old police station, Las Cascadas to Gamboa.....	75
Moving bachelor quarters and old pay office, Cristobal.....	30
Converting old section D, Ancon Hospital, into married quarters.....	80
Converting old kitchen, Ancon Hospital, into married quarters.....	99
Converting old ward 17, Ancon Hospital, into married quarters.....	80
Converting old ward 18, Ancon Hospital, into married quarters.....	60
Converting old ward 19, Ancon Hospital, into married quarters.....	60

* Started during month.

Work was begun and the excavation and foundations completed during the month for the new Cristobal incinerator, the construction of the stack under the supervision of the contractor's representative was commenced. Various items of maintenance and repair work, including painting, the installation of plumbing, and other miscellaneous repairs to Panama Canal and Panama Railroad buildings were also in progress. A separate report is submitted covering the work of the Building Division performed for the Army and Navy.

DREDGING DIVISION.

The total excavation by dredges during January was 253,602 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
(a) 22,500	20,300	2,200	Maintenance....	1811-50 to 1823-00	Gamboa.
(a) 50,500	10,000	40,500	Maintenance....	1893-50 to 1910-00 W	Gamboa.
				<i>Pacific Entrance.</i>	
(b) 40,000	40,000		Maintenance....	2166-00 to 2194-50 W	No. 86.
(b) 44,000	44,000		Maintenance....	2198-00 to 2214-50 E	No. 84.
(b) 32,100	32,100		Maintenance....	2148-00 to 2137-00 W	No. 83.
				<i>Balboa Inner Harbor.</i>	
(c) 29,600	29,600		Maintenance....	Balboa inner harbor	Cascadas.
(c) 17,500	17,500		Construction	Balboa inner harbor	Cascadas.
	Gravel.				
(d) 14,552	14,552		Aux. constr'n...	Chagres River gravel bed	Marmot.
	Sand.				
(d) 1,050	1,050		Aux. constr'n...	Chagres River gravel bed	Marmot.
	Mud.				
(d) 1,800	1,800		Aux. constr'n...	Uncovering gravel beds	Marmot.
253,602	210,902	42,700	Total for month		

(a) Gaillard Cut. (b) Pacific entrance. (c) Balboa inner harbor. (d) Chagres River.

The excavated material was dumped as below:

	Cu. yds.
Gatun Lake north of Gamboa.....	73,000
San Juan dump.....	84,000
Pacific entrance:	
Flats west of Canal.....	32,100
At sea.....	47,100
Total.....	236,200

East Culebra slide showed no unusual movement during the month. Cucaracha slide had no general movement, though there was a small surface movement near the top of the slide, which brought no additional material into the Canal area. At the barge repair slide there was a small surface movement continuous throughout the month.

The following excavation remained to be done on February 1:

Location.	Earth.	Rock.	Total.
	Cu. yds.	Cu. yds.	Cu. yds.
Gaillard Cut.....	25,000	25,000	25,000
Pacific entrance.....	50,500	86,900	137,400
Total Canal prism.....	50,500	111,900	162,400
Cristobal coaling station.....	2,100	2,100	2,100
Balboa inner harbor.....	127,500	13,400	140,900
Total, ocean to ocean.....	178,000	127,400	305,400

MUNICIPAL ENGINEERING DIVISION.

The following items of construction work were under way in the Northern District during January, with the progress on February 1 as shown:

	Per cent completed.
Roads, water and sewers, ten 12-family quarters, Mount Hope:	100
Water lines.....	100
Sewer lines.....	100
Roads and sidewalks.....	50
Grading, fill, and general municipal work for new silver townsite, Mount Hope:	100
Fill and grading.....	100
Water lines.....	98
Streets and roads.....	95
Sewers, sanitary.....	92
Sewers, storm.....	98
Municipal work, Panama Railroad stables, Colon.....	100
Municipal work, Block 54, Colon:	
Grading.....	20
Roads.....	20
Concreting railroad tracks.....	5
Water lines.....	99
Sanitary sewers.....	100
Storm sewers.....	99
Municipal work, area between 6th and 9th and "G" and "K" streets, Colon:	
Roads.....	5
Alleyways.....	(*)
Grading and rolling.....	10
Water lines.....	10
Sanitary sewers.....	10

* Not started.

	Per cent completed.
Municipal work, New Cristobal townsite:	
Grading	5
Roads	2
Water lines	2
Sanitary sewers	20
Construction modified Imhoff tank, Mindi farm	50
Construction tennis court, Cristobal	80
Concrete roadway to substation, Gatun	100

Construction work in the Southern District reached the following status on February 1:

	Per cent completed.
Municipal work for 3 type-18 houses, Balboa	60
Industrial track between buildings 8 and 14, Balboa shops	99
Storm sewer, Javillo fill	90
Sewer, Northern Avenue to beach	95
Box sewer, Panama Railroad yards	5
Municipal work for 8 houses, Pedro Miguel	97
Sewer and water lines for C. & S. A. Tel. Company, Balboa	90
Sidewalks, New Corozal, Balboa	100
Road from lumber shed to Diablo Hill	5

No work was performed on either the municipal construction for the three type-18 houses at Balboa, the industrial track between buildings 8 and 14 at Balboa shops, or some few other items under way for the Army. Authority was received for the demolition of Caledonia bridge in Panama City and the construction of a grade crossing to replace it. Work on this was started toward the end of the month.

The total output of all pumping stations for the month was 918,711,950 gallons, and that of the three filtration plants, 572,013,000 gallons. Panama City was furnished with 83,665,000 gallons, and Colon with 46,558,825 gallons. Sales of water to vessels amounted to 12,164,458 gallons.

The Gavilan Island incinerator was operated as usual during the month, consuming 2,883 tons of garbage and 32 dead animals:

WORKING FORCE.
Effective January 21, 1920.

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office	36	57	93
Building Division	387	1,835	2,222
Electrical Division	254	350	604
Municipal Engineering Division	112	1,678	1,790
Lock Operation	165	643	808
Dredging Division	147	917	1,064
Mechanical Division	998	1,994	2,992
Marine Division	136	438	574
Fortifications	51	209	260
Total	2,286	8,121	10,407
Supply Department:			
Quartermaster	156	1,828	1,984
Subsistence	30	398	428
Commissary	238	1,657	1,895
Cattle Industry—Plantations	31	1,368	1,399
Hotel Washington	4	100	104
Total	459	5,351	5,810
Accounting	241	11	252
Health	238	924	1,162
Executive	549	284	833
Total	1,028	1,219	2,247
Panama Railroad:			
Superintendent	74	549	623
Transportation	131	199	330
Receiving and Forwarding Agent	82	2,209	2,291
Coaling Stations	81	678	759
Total	368	3,635	4,003
Grand total	4,141	18,326	22,467

The total gold force employed on January 21 was 60 more than the 4,081 at work on December 24, 1919, and the silver force was 467 more than the 17,859 working on that date. As compared with the gold force for the corresponding month of last year, reported as of January 22, 1919, the present force is an increase of 712 over the 3,429 employed on that date, and the silver force an increase of 135 over the 18,191 of the same date.

The tabulation following gives the occupants by numbers as classified of Panama Canal and Panama Railroad quarters on January 31.

Occupants.	Men.	Women.	Children.	Total.
Americans	3,565	2,160	2,555	8,280
Europeans	188	43	56	287
West Indians	5,409	2,024	3,729	11,160
Total	9,162	4,227	6,340	19,729

PUBLIC HEALTH.

There were 43 employees and 15 nonemployees, 1 nonresident, discharged from Canal Zone hospitals on account of malaria during January, as compared with 43 cases the preceding month. No deaths occurred from malaria. Influenza caused no deaths; 15 cases were discharged, as compared with 18 cases last month. Pneumonia caused 4 deaths, and 7 cases were discharged. There were no typhoid fever cases this month; during December there were 5 cases, 3 nonresident, and 1 death. Ten cases of chickenpox were discharged in January, as compared with 4 in December and 2 in November. One case of yaws was admitted and discharged. Three cases of leprosy were admitted, 1 from Juan Diaz, Republic of Panama, and transferred to Palo Seco. Four cases of smallpox, all from Juan Diaz, were admitted.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

Material ordered on United States requisitions was received during the month in the total amount of \$733,946.90. The corresponding receipts for December were \$1,144,336.24. Of the January receipts, \$630,822.63 was chargeable to Operation and Maintenance, \$91,653.36 to Construction and Equipment, and \$11,470.90 to miscellaneous departments. Cash sales on the Isthmus from storehouses and obsolete store amounted to \$148,349.98, of which \$57,011.95 was for stock, \$89,296.89 for fuel oil, \$1,319.14 for scrap and \$722 for obsolete material.

The total sales of material from storehouses to steamships during the month was \$131,059.55, of which \$41,762.66 was for miscellaneous stock material, and \$89,296.89 for fuel oil. Sales of commissary supplies to all purchasers for January aggregated \$1,083,172.48, made up as follows: To steamships, other than United States Government vessels and those of the Panama Railroad Steamship Line, \$131,365.28, to The Panama Canal, \$130,767.66, to the United States Government, including sales to the Army and Navy, \$161,013.35, to individuals and companies, mainly through charge accounts in the retail commissaries, \$24,430.87, to the Panama Railroad, including its steamships and the Hotel Washington, \$37,945.49, and to individuals purchasing coupons, \$597,649.83.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on January 31, exclusive of Fortifications, was \$14,629,330.15, the balance in Fortifications was \$6,811,795.97. Payments from appropriations made by the Disbursing Clerk, Washington, amounted to \$728,792.63, and by the Paymaster on the Isthmus to \$1,506,555.91. Purchases of commissary books from the Panama Railroad Company amounted to \$422,535.74.

Collections of tolls on the Isthmus amounted to \$766,775.24. Deposits of \$244,453.75 were made with the Assistant Treasurer of the United States to be applied on payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,277,762.08, and collections by the Disbursing Clerk, Washington, \$56,316.26. Receipts from Canal Zone and miscellaneous funds were \$205,165.12, disbursements from the same source were \$36,346.35. January payrolls on the Isthmus aggregated \$1,275,004.90, as compared with \$1,250,334.45 for the preceding month, an increase of \$24,670.45.

Respectfully,

CHESTER HARDING,
Governor.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, February 28, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Tacrician	21	6.47	22	6.25	22	14.12	22	15.06	British	Harrison Line	470.0	56.0	20.6	Liverpool	San Francisco	General	5,021	7,741	5,705
Rador	21	6.00	22	6.25	22	15.26	22	16.19	American	United States Shipping Board	434.0	58.0	28.1	New York	Yokohama	General	10,073	7,992	5,871
St. Minver	13	6.40	22	6.40	22	14.08	22	15.06	British	British Admiralty	135.0	29.1	13.6	Southernhampton	Chile	Coal	438	438	111
Cheron	21	5.20	22	7.00	22	16.55	22	17.55	American	United States Shipping Board	266.8	46.2	20.0	Newport News	Arica	Coal	1,585	2,652	1,690
Point Bonita	21	6.10	22	7.31	22	15.58	22	23.14	American	Pacific Mail Steamship Co.	289.0	44.0	20.0	Baltimore	San Francisco	General	3,355	2,891	1,993
Kanazawa Maru	21	10.27	22	8.27	22	18.28	22	22.00	Japanese	Nippon Yusen Kaisha	445.0	49.7	24.8	New York	Yokohama	General	6,035	6,291	4,314
Lake Fillion	21	11.42	22	8.48	22	18.36	22	22.70	American	United States Shipping Board	251.0	43.6	24.0	Charleston	Chile	General	2,823	3,823	1,740
St. Jean	19	7.54	22	10.53	22	19.35	22	20.23	French	French Line	397.0	50.0	17.6	Havre	Talcahuano	General	490	5,849	4,081
Relay	19	6.43	22	11.00	22	19.25	22	20.07	American	Mexican Telephone Co., N. Y.	240.0	32.0	17.0	St. Thomas	Pacific Coast	Steel, oil, general	1,291	1,291	675
Amazon Maru	23	22.40	24	8.45	22	18.09	24	22.15	Japanese	Osaka Shosen Kaisha	425.0	56.0	30.2	New York	Kobe	Steel, oil, general	8,950	7,901	5,629
Rosalie Ma-honey	24	6.44	24	10.24	24	18.25	24	18.25	American	Fred Linderman	201.0	40.5	15.0	New York	San Francisco	General	1,493	1,493	980
Eagle No. 11	16	17.05	24	12.50	24	19.32	25	9.40	American	United States Navy	200.0	26.0	14.0	New York	San Pedro	General	5,018	3,215	3,215
St. H. 1 and 2	16	17.05	24	12.50	24	19.34	25	9.40	American	United States Navy	147.0	14.0	12.0	Key West	San Pedro	General	1,187	622	622
Urubamba	20	15.55	25	6.10	24	18.50	25	9.40	Peruvian	Peruvian Steamship Line	381.0	46.0	20.0	Cristobal	Callao	General	8,200	6,619	4,485
Januaria	20	15.25	25	10.50	24	19.40	25	22.01	British	Pacific Steam Navigation Co.	209.0	34.0	12.0	Cristobal	Tumaco	Case oil	6,500	6,992	4,897
West Etogon	25	15.30	26	6.05	26	18.13	26	20.59	American	United States Shipping Board	422.0	52.8	32.1	New York	Honolulu	General	2,420	2,510	1,870
Ajax	19	18.26	26	10.35	26	19.15	27	19.12	American	Ocean Steamship Co.	250.0	43.5	22.1	Norfolk	Chile	Coal	8,143	6,762	4,314
Lake Berdan	24	8.28	27	6.30	27	19.30	28	20.58	British	United States Shipping Board	419.7	54.3	27.0	Port Arthur	Fiji	Fuel oil	6,933	5,732	5,732
British Light	27	8.30	27	10.10	27	20.09	27	20.58	American	United States Shipping Board	402.6	54.8	17.6	Philadelphia	Antofagasta	Coal	6,873	5,560	3,603
Effna	27	7.48	27	12.55	28	19.00	28	20.49	Japanese	Mitsui & Co.	380.0	53.0	26.0	Norfolk	Mejillones	Coal	3,600	3,945	2,564
Tenpansen Maru	27	23.45	27	12.56	28	19.53	28	20.46	American	United States Navy	329.2	46.2	26.0	New York	San Francisco	Naval supplies	8,449	6,577	4,009
U. S. S. Bath	27	16.50	27	12.56	28	20.53	29	10.50	American	United States Navy	402.4	53.1	25.6	Savannah	Shanghai	General	2,092	5,842	4,150
Chicomio	27	18.45	28	6.23	28	18.09	28	18.54	American	W. R. Grace & Co.	360.0	51.0	22.0	New York	Valparaiso	General	6,300	5,287	3,837
Santa Ana	27	18.45	28	6.20	28	18.09	28	18.54	American	W. R. Grace & Co.	360.0	51.0	22.0	New York	Valparaiso	General	6,300	5,287	3,837
Aspinet	28	6.50	28	11.03	28	21.35	28	22.28	American	Fayne & Watdaw	290.0	52.1	23.6	New York	Moji	Gasoline, etc.	7,402	6,139	4,698

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Mineric	21	22.00	22	6.50	22	15.55	22	17.00	British	Andrew Weir & Co.	405.0	52.0	24.0	Caleta Colosa	Leith, Scot'd.	Nitrate	7,402	6,139	4,698
Tewkesbury	21	21.00	22	6.52	22	15.53	22	19.58	American	Alexander Steamship Co.	370.8	49.5	23.0	Antofagasta	Newport News	Nitrate	6,260	3,424	2,706
Jeanette	21	8.75	21	8.25	21	15.51	21	16.51	American	G. Husted	24.4	6.0	2.0	Balboa	Gatun Lake	General	10,245	5,979	5,174
Maiwa Maru	22	20.00	23	6.53	23	21.57	24	0.40	Japanese	Tokio Kaimo Kabushiki Kaisha	445.0	53.0	29.1	Mejillones	Rotterdam	Nitrate	6,302	4,161	2,095
Saint Anthony	23	13.30	24	8.57	24	18.45	25	0.25	American	United States Shipping Board	396.0	58.2	24.0	Tacoma	New York	Flour	1,834	1,680	1,565
Montreal	23	14.00	23	13.57	24	18.50	24	19.50	French	French Government	279.0	46.1	19.7	Vancouver	London	Lumber	2,500	1,683	1,496
Oyatama	23	19.30	24	8.00	24	20.20	25	14.57	American	United States Shipping Board	266.6	46.1	24.0	Portland	Queenstown	Lumber	2,500	1,683	1,496

(a) Subbaser. (b) Submarines.

Malay Maru	24 18.30	25 7.05	25 21.10	26 10.30	Japanese	Oaka Shosen Kaisha	379.8	50.0	21.6	Hongkong	New Orleans	Rice, general	5,600
Acno	24 19.00	25 7.23	25 19.26	25 19.26	American	Standard Transportation	400.3	56.0	20.6	San Francisco	Beaumont	Ballast	5,000
Crown of Oall-													4,928
els	24 20.00	25 7.10	25 20.25	26 6.25	British	Penrice-Service-Henderson	400.0	52.0	24.0	Vancouver	Liverpool	Lumber, general	6,000
Braynburg	25 6.00	25 10.11	25 22.22	26 10.39	Danish	C. K. Hansen	315.8	45.6	21.0	Caleta Buena	Nykohing	Nitrate	4,719
Royal Arrow	25 11.05	25 11.15	25 21.03	25 19.33	American	Standard Oil Co.	467.6	62.7	22.0	San Francisco	Beaumont	Ballast	3,926
Huasco	25 11.00	25 11.28	25 21.45		Chilean	Chilean Line	379.7	44.3	24.6	Valparaiso	Cristobal	General	7,237
Terrier	25 10.30	25 13.05	26 19.50	26 19.50	Norwegian	W. Wilhelmsen	400.0	52.0	24.4	Iquique	Cristobal (c)	Nitrate	4,508
Morristown	26 4.40	26 7.40	26 21.25	27 0.27	American	United States Shipping Board	377.0	52.0	22.5	Iquique	Savannah	Nitrate	3,979
City of Berke-													6,200
ley	26 6.27	26 8.54		29 19.25	American	United States Shipping Board	402.5	53.0	25.0	San Francisco	New York	Flour	8,085
Manavi	27 6.36	26 6.48	27 18.45		British	Pacific Steam Navigation Co.	216.0	38.1	13.6	Guayaquil	Cristobal	General	4,741
Santa Rosa	27 21.30	28 7.32	28 20.30	29 5.15	American	W. R. Grace & Co.	404.6	53.9	29.0	Puntarenas	Baltimore	Nitrate, wool	1,241
Santa Theresa	28 1.00	28 7.00			German	British Government	350.0	85.0	19.8	Iquique	Cristobal (c)	Nitrate	8,540
Saint Boswells	28 1.00	28 8.31	28 19.30		British	Pacific Steam Navigation Co.	135.4	29.1	12.0	Iquique	United King.	Ballast	4,600
Ebro	28 9.50	28 11.31	28 21.35	29 17.50	British	Pacific Steam Navigation Co.	430.3	57.8	24.0	Talcahuano	New York	General	190

(c) For orders.

PORT OF CRISTOBAL

Date	Vessel	Line	From	Date	Vessel	Line	For
Feb. 23	Ramapo	United States Navy	Guantanamo	Feb. 22	Caribbean	Panama Railroad Steamship Line	Cartagena
Feb. 23	Prometheus	United States Navy	Guantanamo	Feb. 23	Middlebury	United States Shipping Board	Cartagena
Feb. 23	Bridge	United States Navy	Guantanamo	Feb. 24	Gen. G. W. Goodlands	Panama Railroad Steamship Line	New York via Haiti
Feb. 23	North Dakota	United States Navy	Guantanamo	Feb. 24	Ramapo	United States Navy	Port Arthur
Feb. 23	Delaware	United States Navy	Guantanamo	Feb. 25	Leary No. 158 (d)	United States Navy	Kingston
Feb. 23	Florida	United States Navy	Guantanamo	Feb. 25	Solace (e)	United States Navy	Kingston
Feb. 23	Utah	United States Navy	Guantanamo	Feb. 25	Zacapa	United Fruit Co.	Limon, Costa Rica
Feb. 23	Atenas	United Fruit Co.	New Orleans	Feb. 25	Baldoin	United States Shipping Board	Bluefields
Feb. 24	Zacapa	United Fruit Co.	New York via Habana	Feb. 26	Parissmina	United States Shipping Board	New Orleans, wayports
Feb. 24	Beaumont	United States Shipping Board	Norfolk	Feb. 26	Craigsmere	United States Shipping Board	Colorado Bar
Feb. 24	Baldoin	United States Shipping Board	Colorado Bar	Feb. 26	Turrialba	United States Navy	Colombian ports
Feb. 25	Turrialba	United States Shipping Board	New Orleans, Martinique	Feb. 28	Atenas	United Fruit Co.	Guantanamo
Feb. 25	Parissmina	United Fruit Co.	New York and wayports	Feb. 28	Segura	Royal Mail Steam Packet Co.	New Orleans via Kingston
Feb. 25	Undaunted, towing target raft No. 40	United States Navy	New Orleans via Habana	Feb. 28	Colon	Panama Railroad Steamship Line	London via Kingston
Feb. 26	Segura	Royal Mail Steam Packet Co.	Norfolk via Guantanamo	Feb. 28	Edward L. Doheny	Pan-American Petroleum Co.	New York via Haiti
Feb. 26	Edward L. Doheny	Pan-American Petroleum Co.	London				
Feb. 26	Caribbean	Panama Railroad Cattle Industry	Tampico				
Feb. 27	Overbrook	United States Shipping Board	Tampico				

(d) Destroyer. (e) Hospital ship.

PORT OF BALBOA

Date	Vessel	Line	From	Date	Vessel	Line	For
Feb. 22	Seiyo Maru	Toyoko Kisen Kabushiki Kaisha	Valparaiso via wayports	Feb. 22	Seiyo Maru	Toyoko Kisen Kabushiki Kaisha	San Francisco, and wayports
Feb. 23	Lake Filbert	United States Shipping Board	Iquique				
Feb. 27	Firthcliffe	United States Shipping Board	Antofagasta				

*Other than ships passing through the Canal.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Notice to Mariners.—Spar Buoys Discontinued in Cristobal Harbor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 21, 1920.

CIRCULAR No. 643-73.

Two spar buoys, painted white, marking the anchorage for vessels carrying explosives, on a line 500 yards from the East Breakwater and running parallel with it, have been discontinued.

(H. O. Charts Nos. 950, 5000, and 5002.)

CHESTER HARDING,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending February 28, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caribbean.....	Panama Railroad Cattle Industry..		February 22.		53
Point Bonita.....	Pacific Mail Steamship Line.....				17
Tactician.....	Harrison Line.....		February 22.		(*)
Atenas.....	United Fruit Co.....	February 23.	February 27.	1,093	2
Beaumont.....	United States Shipping Board.....	February 24.		2,626	
Gen. G. W. Goethals..	Panama Railroad Steamship Line..		February 24.		4,348
Zacapa.....	United Fruit Co.....	February 24.	February 25.	170	(*)
Jamaica.....	Pacific Steam Navigation Co.....		February 25.		672
Urubamba.....	Peruvian Steamship Line.....		February 25.		522
Lake Berdan.....	United States Shipping Board.....	February 24.	February 27.	2,420	(*)
Turrialba.....	United Fruit Co.....	February 24.	February 26.	38	
Parismina.....	United Fruit Co.....	February 25.	February 26.	104	19½
Huasco.....	Chilean Steamship Line.....	February 25.		2,361	
Haarlem.....	Royal Dutch West India S. S. Line	February 26.		580	
Segura.....	Royal Mail Steam Packet Co.....	February 26.	February 28.	37	
Caribbean.....	Panama Railroad Cattle Industry..	February 26.		202	
E. L. Doheny.....	Pan.-Amer. Pet. & Trans. Co.....	February 26.	February 28.	9,000	(*)
Manavi.....	Pacific Steam Navigation Co.....	February 27.		640	
Colon.....	Panama Railroad Steamship Line..		February 28.		3,137
Overbrook.....	United States Shipping Board.....	February 28.		8,955	

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 28, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Point Bonita.....	Pacific Mail Steamship Co.....	February 22.....	February 22.....	70	2
Manavi.....	Pacific Steam Navigation Co.....	February 27.....	February 27.....	3	

Executive Order.

In pursuance of the authority conferred upon the President of the United States by Section 2 of the Act approved August 18, 1914, entitled "An Act to provide for the admission of foreign-built ships to American registry for the foreign trade, and for other purposes," it is hereby ordered:

1. That the provisions of law prescribing that the watch officers of vessels of the United States shall be citizens of the United States are hereby suspended so far and for such length of time as will permit alien watch officers who now hold United States provisional licenses, and who heretofore have declared their intention to become citizens of the United States, to serve on American vessels engaged in the foreign trade, until three years and three months shall have elapsed after the date of making their respective declarations.

2. That all executive orders heretofore issued suspending the provisions of law prescribing that all watch officers of vessels of the United States shall be citizens of the United States are hereby revoked.

WOODROW WILSON

THE WHITE HOUSE,
7 February, 1920.

[No. 3224.]

Executive Order.AUTHORIZING CHARGES FOR SERVICES RENDERED BY THE QUARANTINE DIVISION OF
THE PANAMA CANAL.

By virtue of the authority vested in me, I hereby establish the following order for the Canal Zone:

SEC. 1. The Governor of The Panama Canal is hereby authorized to establish, from time to time, a schedule of charges to cover services rendered by the Quarantine Division of The Panama Canal in the disinfection of vessels and their cargoes, for the transportation and subsistence of passengers while in quarantine, for placing guards aboard vessels when necessary, and for the inspection of vessels outside of the regular hours, which charges shall be paid to The Panama Canal by the person or interest receiving such service.

SEC. 2. The ordinance of the Isthmian Canal Commission, enacted August 5, 1911, and approved by the Secretary of War August 22, 1911, "Providing for night quarantine inspection of vessels at the port of Colon," and all other laws, orders and regulations in conflict with this order are hereby repealed.

SEC. 3. This order shall take effect from and after this date.

WOODROW WILSON

THE WHITE HOUSE,
11 February, 1920.

[No. 3226.]

(Published as Panama Canal Circular 601-105.)

March Weather Probabilities.

The following weather conditions may be expected at the Canal entrances during the month of March, 1920; these predictions are based on the weather records at Cristobal and Balboa Heights for the last 12 and 14 years respectively.

Winds—Dry season weather will prevail over the Isthmus throughout the month. There will be a continuation of February wind conditions with little change either in prevailing direction or average velocity. On the Atlantic coast the prevailing direction will be North or Northeast with an average hourly velocity of about 15 miles. The maximum velocity is not likely to exceed 35 miles per hour. On the Pacific coast the prevailing direction will be Northwest to North, with an average hourly velocity of about 11 miles. No winds above 30 miles per hour may be expected.

Rain—March is the month of least average rainfall on the Isthmus, and nothing more than an occasional light shower is probable. The 50-year average rainfall at Cristobal is 1.59 inches, and the 21-year average at Balboa Heights is 0.65 inch.

Fog—No fogs are likely to occur at either Canal entrance, but occasional night or early morning fogs may be expected in the interior. The average number of nights with fog over the Gaillard Cut section of the Canal is four. All fogs will probably be light and may be expected to clear away before 8.30 a. m.

Temperature—The monthly mean air temperature should average about 81° Fahrenheit on the Pacific side, and about 80° Fahrenheit on the Atlantic side. On the Atlantic side no temperature lower than 67° or higher than 88° may be expected, while on the Pacific side 65° to 96° are the extremes. The average daily range on the Pacific side is about 19° and on the Atlantic side about 7°.

Relative humidity—The average relative humidity is about 73 per cent on the Pacific side and about 79 per cent on the Atlantic side. The range is greater on the Pacific side than on the Atlantic side on account of higher night humidity and lower midday humidity.

Storms—Fair weather may be expected on both coasts during March. The effects of "Northers" may occasionally be felt as far south as the Atlantic entrance, and intensified Northwest Trades frequently cause rough seas and a heavy swell outside the breakwater. At the Pacific entrance the sea will be smooth to moderate.

Tides—Tidal fluctuations on the Atlantic side are too small to effect navigation.

Sale of Annual Reports for 1919.

Annual Reports of the Governor of The Panama Canal for the year 1919, can be obtained from the Superintendent of Documents, Washington, D. C., at 40 cents per copy.

Conversion of Liberty Bonds.

The Liberty Loan Committee has furnished the following information relative to the conversion or exchange of bonds of the first and second issues:

The Secretary of the Treasury, acting under authority of a provision contained in the Victory Loan Act, has extended indefinitely the time within which holders of first or second issue bonds can have them converted.

These bonds now bear interest at 4 per cent and have no further interest coupons attached.

They can be converted into bonds of the same issue bearing 4½ per cent.

At the time of conversion they can also be exchanged into same issue bonds bearing all interest coupons.

Bearer bonds can be exchanged into registered bonds of the same issue.

The fee for sending bonds to Washington is 50 cents for each \$100. This charge is to pay insurance at face value to and from Washington, postage, registry, and other incidentals.

There is no reason why holders can not send their bonds direct to Washington if they so desire and without insurance charge if they are willing to assume the risk, but the Liberty Loan Committee will not forward any bonds except those fully insured.

Bonds can be held until the subscribers return to the United States and then exchanged for bonds with all interest coupons attached and unless a time limit is subsequently fixed they can also be converted to the higher rate at that time.

The Liberty Loan Committee will not accept any bonds of the first or second issues for conversion or exchange after March 31, 1920.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286).

Calculating-machine operator, operative (male and female); \$900 to \$1,200 a year; March 3, April 7, and May 5, 1920; No. 120; form 304; age, over 18 years.

Guard; \$720 a year (male and female); March 23, 1920; No. 121; form 1800; age, 21 but not 60.*
Chief of division of district offices, Bureau of Foreign and Domestic Commerce (male and female); \$2,500 a year; March 9, 1920; No. 116; form 2118; age, no limit.*

Scientific aid, Division of Physical Anthropology, National Museum (male and female); \$1,500 a year; March 16, 1920; No. 119; form 1312; age, up to 35.*

Foreman, heat treatment of armor plate, \$10 to \$14.40 a day; foreman, heat treatment of large guns, \$8 to \$12.56 a day (male and female); March 23, 1920; No. 118; form 1371; age, no limit.*

Aeronautical draftsman, Field Service of the Navy Department (male and female); \$5.20 to \$12 per diem; No. 112; form 1312; age, over 18.†

Statistical expert (male and female); \$3,600 to \$4,500 a year; March 9, 1920; No. 111; form 1312; age, 25 but not 50.*

Press feeder (male and female); \$3.20 a day, \$840 a year; No. 449-amended; forms 304 and 1145; age, no limits.†

Geologic aid, assistant geologist (male and female); \$1,200 to \$1,800 a year; March 17-18, 1920; No. 103; form 1312; age, over 20.

Lithographic map engraver (male and female); \$1,200 to \$1,500 a year; March 9, 1920; No. 108; form 1800; age, 21 but not 40.*

Laboratory assistant (male and female); \$900 to \$1,200 a year; March 9, 1920; No. 110; form 1312; age, 18 but not 35.*

Blue printer (male and female); \$720 a year to \$4 or over per diem; No. 441-amended; age, over 18.†

Veterinarian, lay inspector, Grade 1 (male and female); \$1,500 to \$1,800 a year; April 7, May 5, and June 9, 1920; No. 514; forms Nos. 304 and 1312; age, 21 but not 45, and 18 but not 45, respectively.

Inspector and agent, Anti-narcotic Act (male and female); \$1,500 to \$2,000 a year; April 13, 1920; form 1312; age, 21 years but not 45 years.*

Translator, qualified as assistant tariff expert (male and female); \$2,000 a year; April 21, 1920; form 1312; age, no limits.

Reservation warden (male and female); \$1,200 to \$1,500 a year; April 7, 1920; form 1312; age, 21 years but not 45 years.

Assistant field agent, protective social measures (male and female); \$1,200 to \$2,000 a year; April 21, 1920; No. 137; form 1312; age, 21 years and over.

Forest assistant (male and female); \$1,500 to \$1,800 a year; No. 138; March 17-18, 1920; form 1312; age, 20 years and over.

F-1 addressograph operator (male and female); \$900 to \$1,200 a year; No. 129; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.

Automatic 3 addressograph operator (male and female); \$1,200 to \$1,400 a year; No. 129; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.

Automobile mechanic (male and female); \$150 to \$175 a month; form 1312; No. 129; March 23, 1920; age, 20 years and over.*

Steward, Freedmen's Hospital, Washington, D. C. (male and female); \$720 a year; No. 125; March 23, 1920; form 1312; age, 20 years and over.*

Teacher, Ordnance Department at Large (male and female); \$60 to \$140 a month; No. 127; April 7, 1920; form 1312; age, no limits.

Lithographic press helper (male); \$700 a year; No. 126; March 17, 1920; form 304; age, 16 years and over.

Oiler (male and female); \$900 a year; No. 133; March 30, 1920; form 1800; age, 18 years and over.* Automatic scale expert (male and female); \$1,600 a year; No. 122; March 17, 1920; form 1312; age, 18 years and over.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Lorenzo Arancivia (Arancevía).....	41858	Panama.....	Panama.....	Cattle Industry.....	February 18, 1920.
Samuel Britton (Bretton).....	39121	Jamaica.....	Colon.....	Building Division.....	February 12, 1920.
Henry Neusam (Newson).....	35592	Jamaica.....	Panama.....	Building Division.....	February 17, 1920.
Manuel Pinday (Pindia).....	26457	Peru.....	Camp Bierd.....	R. & F. Agent.....	February 24, 1920.
Marcelino Vasquez.....	41987	Panama.....	Panama.....	Cattle Industry.....	February 7, 1920.

Re-employment of Silver Employees.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 1, 1920.*

All concerned—In order to avoid misunderstanding and confusion regarding the status of silver employees who are being reemployed the following instructions should be borne in mind:

Men who reported for duty on or before the usual hour for reporting for work after noon of February 27 and who have not been absent without proper excuse since then will not suffer any change in status and will receive the increase authorized to be effective February 1.

Those who have been or may be reemployed after the hour above specified will be reemployed strictly in accordance with the rules contained in Circulars 666-12 and 666-13. Their employment in February up to the time they voluntarily quit will be at the rates authorized including the February 1 increase, and their re-employment will be at a lower rate than the rate so received.

Clearances should be issued to the men who went on strike showing termination of service as "voluntarily quit" and conduct and workmanship ratings should take into account their record up to the time of quitting only. In other words, ignore the motive for quitting and rate each individual on his merits.

Men will be re-employed to the extent necessary to fill the positions not filled during the continuance of the strike, and discretion as to the men who will be refused employment is vested in the general foremen and officials of similar grade. These officials will decide whether the action of foremen or others under their supervision, in re-employing or declining to re-employ men who were on strike, is proper. It is desired that a spirit of tolerance be shown toward the men selected for re-employment, as they have been the victims of false advice and irresponsible leadership.

CHESTER HARDING,
Governor.

Quarters Within Hospital Grounds.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 18, 1920.
Circular No. 627-25.

Paragraph 9 of Circular No. 627-24, dated June 3, 1919, is amended to read as follows:

9. All family quarters distinctly and definitely within hospital reservations shall be regarded as for use of hospital physicians and nurses, with the exception of Ancon Hospital reservation where certain designated apartments have been set aside for the position of pharmacist, electrician, general mechanic, embalmer, property clerk and steward. The assignment shall remain under the jurisdiction of the Chief Quartermaster. Applicants for hospital quarters can not file applications for quarters outside of hospital reservation.

CHESTER HARDING,
Governor.

Payment of Bills.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 13, 1920.
Circular No. 659-2.

The prompt payment of bills rendered against employees, by The Panama Canal and Panama Railroad Company, for supplies or services, not covered by security deposit or for which cash payment is not made, is essential for the proper and economical handling of such accounts. With a view of securing prompt payment of such bills, the following rules and regulations are prescribed:

1. All regular monthly bills rendered in advance, on the 1st of each month, such as garage, corral, and telephone bills, must be paid before the close of business on the 24th day of the month in which rendered, or on the preceding business day when the 24th falls on a Sunday or holiday.

2. Other bills rendered at the close of the month such as commissary and laundry bills, must be

paid on or before the 24th day of the month following that in which the service was rendered or supplies furnished, and miscellaneous bills such as Quartermaster's bills, motor car repair shop bills, etc., if rendered on or before the 10th of the month must be paid on or before the 24th of that month. Bills rendered after the 10th of the month must be paid before the 24th of the succeeding month.

3. All bills remaining unpaid at the close of business on the dates above specified will be collected by pay roll deduction.

4. Collecting agents handling such bills must, at the close of business on the 24th of each month, forward all unpaid bills, with a list in duplicate, to the Auditor for deduction on current pay rolls.

5. Collecting agents shall not accept cash payment from employees for bills of the kinds above mentioned, after the close of business on the 24th of each month.

6. To each bill collected by pay roll deduction a charge of 50 cents will be added to cover the cost of collection when the amount of such bill is less than \$20, and \$1 when the amount is \$20 or over.

7. Bills for medical and hospital treatment, Hotel Aspinwall bills, bills for rental of silver quarters and monthly bills for electrical appliances charged against silver employees, will be handled by deduction on current rolls without charge, as heretofore.

8. Bills against other than employees must be paid on or before the dates fixed for employees. Failure to pay bills in accordance with the above regulations, will result in the cancellation of the credit privilege or the discontinuance of the service.

9. Nothing in this circular is to be construed to grant credit or "charge" accounts where such privilege has not been granted heretofore. All regulations regarding security deposits and cash payments remain in effect.

10. Penalties for nonpayment of garage, corral, and telephone bills as provided for in circulars 672-1 and 650-2 are hereby canceled.

11. The foregoing rules will apply to bills rendered on and after February 1, 1920.

CHESTER HARDING,
Governor, The Panama Canal.
President, Panama Railroad Company.

Employment of School Children.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 26, 1920.
HEADS OF DEPARTMENTS AND DIVISIONS:

Do not employ school children during school hours. There is no objection to their employment after school hours if parents consent.

CHESTER HARDING,
Governor.

Loan of Property for Other Than Official Use.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., February 18, 1920.
Circular No. 656-14 (Superseding Circular No. 656-12):

1. Effective at once, no Panama Canal or Panama Railroad property will be loaned for other than official use, whether from regular stock or in use by departments and divisions without first securing the authority of the Governor, and in any event no property will be loaned without a rental charge.

2. All property loaned will be inspected prior to delivery, by the Surveying Officer, except in cases where total value of articles loaned is less than \$25. Rental will be charged at the rate of 10 per cent per month, or fraction thereof, computed on basis of purchase price of new articles of like nature in cases where articles loaned do not exceed \$25 in total value, with a minimum charge of \$1. Where total value of articles exceeds \$25, rental

charge will be set by the Board of Appraisal, and in such cases will be covered by formal survey requests.

3. Receipts for all articles loaned by authority from this office, where value is less than \$25 will be taken by divisions loaning the property, and they in turn will furnish copy of the receipt to the Auditor, also information as to when articles are returned and condition of same on return. Articles covered by survey requests will be invoiced to the Auditor, invoices to be accompanied by signed receipts from the party to whom loan is made and when the property is returned to The Panama Canal, resurvey will be made to determine their condition and on the basis of this resurvey bills will be prepared by the Auditor covering not only the rental but such additional charges as may be approved on the basis of the resurvey.

4. All authorities for loans will be approved by the Governor and communicated through the Surveying Officer, who will issue letters of authority, sending full instructions in regard to rental charges and such other data as may be necessary.

CHESTER HARDING,
Governor, The Panama Canal.
President, Panama Railroad Company.

Commissary Books.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 1, 1920.

To all concerned—As soon as the present supply of \$5 commissary coupon books becomes exhausted there will be placed in stock two different series of books of this denomination, one series (form 5407-S) will be issued to silver employees, the other (form 5407) will be issued to gold employees.

A new book containing coupons to the value of \$7.50 will also be placed in stock for issue to silver employees only, and is designed to reduce to a minimum the work connected with the issuing of books of smaller denominations.

A supply of form 5048-2 will be sent to each issuing clerk for requisitioning a supply of books from stock.

ELWYN GREERNE,
Acting Auditor.

Command of Panama Canal Department.

GENERAL ORDERS } HEADQUARTERS,
No. 10. } PANAMA CANAL DEPT.,
ANCON, C. Z., February 22, 1920.

Under the provisions of paragraph 196, Army Regulations the undersigned assumes command of the Panama Canal Department.

B. C. MORSE,
Colonel, 33d Infantry.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., March 3, 1920.
The following insufficiently addressed mail has been received in the office of the Director of Posts and may be obtained upon request of the addressee. Such request may be made by telephone, calling No. 182, Balboa:

- | | |
|-----------------------|-----------------------|
| Anderson, Joseph | Patrick, Mrs. Mary |
| Bradley, Mrs. J. | Peters, Jessie H. |
| Brown, F. W. | Rice, S. L. |
| Callahan, Miss Edna | Roache, John |
| Cheney, T. E. | Robinson, J. E. |
| Dunaway, Davies | Russin, Harry O. |
| Earle, Lyon H. | Ryfogel, Ernest J. |
| Espico, Paul | Sample, James N. |
| Foucher, Ernie | Servoss, Mrs. E. B. † |
| Guinor, Edward | Skwara, Frank |
| Hanson, J. A. | Smith, Mrs. Marie A. |
| Maycock, Henry | Stone, C. W. |
| Morris, E. P. (Prof.) | Thompson, Mrs. C. E. |
| Morris, Paul J.* | Walsh, Stevenson H. |
| Norbury, Joseph | Wattson, C. R. |
| Ortiz, Enrique | Wilkinson, B. W. |

*Package. †Special delivery. ‡Paper.

THE PANAMA CANAL RECORD

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PUBLISHED WEEKLY.

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Volume XIII. Balboa Heights, C. Z., March 10, 1920. No. 30.

“Acajutla” Repaired and in Service.

The Pacific Mail steamship *Acajutla*, in service on the west coast of South America, is ready to leave the marine shops at Balboa after 3 months of extensive refitting and repairs. Her coal bunkers were cut out and a complete oil-burning outfit was installed. While this was being done the main and auxiliary machinery was taken down, repaired and adjusted, and the vessel was given a general overhauling.

Repairs to the Peruvian Cruiser “Lima.”

The *Lima*, a cruiser of the Peruvian Navy, slightly over 2,000 tons gross, left Balboa on March 8 for Callao after having been extensively overhauled and repaired at Balboa shops. She had been at the shops over 4 months. The repairs originally ordered were completed 2 months ago and the ship was ready to sail when further repairs were ordered.

The boilers, two double-ended and two single-ended Scotch marine boilers, were removed and rebuilt. While these were out, the bunkers were rebuilt and all of the frames renewed. All of the piping for steam and water in and around the boiler space was repaired or renewed; a general overhauling was made of the main and auxiliary machinery, the condensers were retubed, and a new pilot house was built. The ship had no wireless installation, and she was completely fitted with a new system and a house was built for the installation. Other general repairs and replacements were made.

The *Lima* was built at Kiel in 1879, and is a sister ship of the *Topeka* of the United States Navy. Both vessels were built for the Peruvian Navy, but an agreement with Chile as to limitation of armament made it impracticable for Peru to accept one of the ships, which was sold to an English ship company, which in turn sold it to the United States just prior to the Spanish-American war.

Salvaging the “Marne.”

The Shipping Board steamship *Marne*, which was sunk in Cristobal harbor on January 24, for the purpose of extinguishing a fire, was raised by forces of the Mechanical Division of The Panama Canal after about 3 weeks of work, and was towed into dock No. 6 at Cristobal for unloading. The general foreman of the marine shops at Cristobal was in direct charge of the work, and he had with him men from Balboa and Cristobal shops and the Dredging Division.

The *Marne* was lying in about 40 feet of water, and as the hull had a depth of only 35 feet, several feet of water were over the deck, the only parts above the water being the midship deck house and the raised poop and forecastle. This necessitated a temporary extension of the bulwarks, which was done by using planks, somewhat in the

nature of sheet piling, arranged with overlapping edges, with strips of canvas worked into the joints to obtain water-tightness. Sections about 12 to 16 feet wide were assembled at Cristobal shops. These were swung into place by cranes on the crane boat *La Valley*; and the lower edge was bolted to the vessel by divers, who drilled holes under water with air drills and put in the bolts when the sections were in place. These sections had a cushion or gasket of considerable thickness on the lower edge made of canvas stuffed with oakum for the purpose of securing water-tightness along the bottom over the irregular surface on which the sections were drawn up.

Divers worked for several days putting temporary wooden patches over the numerous holes in the shell of the vessel which were made by the projectiles from submarines which were used to sink the vessel. Numerous large centrifugal and reciprocating pumps were installed at various parts of the vessel for the purpose of pumping out the water as soon as the wooden extensions were completed. They were driven by air from an air compressor barge which had been towed alongside. One of the divers succeeded in connecting air to the main circulating pump of the *Marne*, located in the bottom of the engine room, and in opening the necessary valves so that this pump also could be used. This is considered a good piece of work by the men in charge of the salvaging. Other pumps of the vessel were also used at later stages when the ship was afloat.

The work of salvage was retarded greatly in the beginning by the fact that the fire was not extinguished until after several days of fighting. The fire in the midship holds, which was the most persistent, was finally extinguished by smothering it with steam from the boilers of the air compressor barge.

Another difficulty that had to be overcome was clearing away the cargo in the hatches to enable the pump suction to be put far enough down in the vessel to lower the water enough so that the ship would float. The fact that the cargo consisted mainly of benzine and turpentine, and that the bunker tanks were filled with fuel oil, increased the difficulties of the work. There was always great danger of fire breaking out again, and the oils covered the surface of the water and everything near it, giving off disagreeable odors and making footing uncertain. The fumes from this oil turned the white paint in the cabin of the crane boat black, and bright silver coins carried in the pockets of the men at work were also blackened. Several men were obliged to seek medical aid on account of the effects of the fumes.

After all preparations had been completed the pumps were started and the water was lowered in the vessel, the divers meanwhile having gone repeatedly to the various underwater openings and tightened the patches so as to reduce the leakages to such a point that the pumps could handle more water than could leak in. The stern of the vessel lifted first, and several hours later the bow also cleared the bottom. After the ship had been lifted a sufficient amount to clear the mud that had banked up around the spot where she lay, she was moved a distance of a mile or more into shoal water as a precaution against her going down again in event of accident to the pumping equipment or the patches being loosened. The vessel was raised higher each day until all of the water that could be reached by the pumps had been pumped out.

As soon as a berth was available in dock No. 6, the place chosen for unloading the cargo, the ship was moved into that dock on March 1. Only a small force of stevedores was available and therefore only a small proportion of the cargo had been removed by Saturday the 6th. In the early morning of that day there was a heavy explosion in the vicinity of the engine room, immediately followed by fire. At once the ship was towed from the dock, and she sank in the harbor off the end of the mole in about 40 feet of water.

The raising of the vessel for the second time is now being undertaken by much the same methods as already described. The work is retarded however, by the fact that the fire has not yet been extinguished. There is this difference, the vessel has not sunk forward and efforts are being made to keep the bow afloat by pumping out the forward holds as the water leaks into them.

Thanks to American Employees.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 8, 1920.

All concerned—I wish to express my heartfelt appreciation of the spirit of loyalty and patriotism exhibited by American citizens and others on the Isthmus in their successful efforts to continue the essential functions of the Canal and Railroad during the recent strike of silver employees. The gratifying feature of this action rests not only in the defeat of the attempt of a large majority of the silver employees to impede the operation of the Canal and Railroad as a means to force compliance with the demands of irresponsible leaders, but also, and in large measure, on the spirit of pride and patriotism splendidly manifested in the determination to vindicate American efficiency and to uphold the spirit of Americanism in this great enterprise, through which the Government of the United States serves the whole world.

The "esprit-de-corps" of the Canal organization has been often manifested in the past, and it is gratifying to know that it continues to exist as an active and dependable force for the good of the Canal.

CHESTER HARDING,
*Governor, The Panama Canal,
President, Panama Railroad Company.*

High Wind at Cape Mala, January, 1920.

The wind movement at Cape Mala during the month of January, 1920, averaged 23 miles an hour, compared with 17 miles at Cristobal and Sosa Hill. This is the highest average monthly wind movement ever recorded on the Isthmus, and it is seldom exceeded at stations in the United States, except at the more exposed coast stations such as Point Reyes and Mt. Tamalpais, Cal.; Tatoosh Island, Washington; and Block Island, Sandy Hook, and Cape Hatteras on the Atlantic coast.

The wind direction at Cape Mala was from the north during practically the entire month, and the maximum velocity was 52 miles an hour from the north at 6.10 a. m., January 12.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Guatemala.	29	19	10	1	7	50	10	22	British.	Pacific Steam Navigation Co.	359.3	43	0	18	6	Guayaquil.	Cristobal.	General.	1,560	4,267	2,790
Port Darwin.	29	21	40	1	8	40	12	10	British.	Commonwealth & Dominion Line	500.4	60	3	27	0	Melbourne.	London.	General.	7,365	10,559	7,968
San Juan.	1	14	20	1	15	08	2	10	American.	Pacific Mail Steamship Co.	283.0	37	0	18	8	Champerico.	Cristobal.	General.	2,064	2,378	1,583
Rushine.	1	17	00	2	20	15	3	11	British.	New Zealand Shipping Co.	480.6	60	3	26	0	Wellington.	London.	General.	6,115	1,197	8,322
Conlie.	2	8	30	3	21	04	4	15	American.	United States Shipping Board.	253.4	43	7	24	0	Antofagasta.	Baltimore.	Nitrate.	3,000	2,450	1,485
Saint Louis.	2	6	00	2	18	38	7	6	French.	Cie Gen. Transatlantique.	403.0	46	0	24	0	Talcahuano.	Havre.	Nitrate, general.	6,300	5,818	3,711
Laura C. Hall.	2	14	05	3	20	35	4	10	British.	Pacific Metals Corporation.	81.0	25	0	10	0	Buenaventura.	Cristobal.	General.	825	4,182	3,102
Virginia.	2	14	00	3	22	50	4	10	American.	L. A. Scott.	170.0	36	8	16	6	Pisagua.	Mobile.	Nitrate.	8,239	5,964	4,257
Tokushim Maru.	3	15	50	3	19	45	4	14	Japanese.	Nippon Yusen Kabushiki Kaisha	402.5	53	6	24	6	Kobe.	New York.	General.	8,839	8,879	4,755
Santa Barbara.	3	2	00	3	23	15	4	16	American.	W. R. Grace & Co.	337.8	43	9	21	4	Talcahuano.	Colon (e).	Nitrate.	3,009	3,633	2,475
Begona No. 4.	3	5	00	3	19	45	4	16	Spanish.	D. Jose Mcd. Urquijo Co.	330.8	43	2	21	0	Caleta Buena.	Bordeaux.	Nitrate.	1,355	3,633	1,431
Lake Yahara.	3	11	00	3	21	15	3	23	American.	United States Shipping Board.	300.0	40	0	20	0	Talcahuano.	Cristobal.	General.	3,043	4,009	1,507
Imperial.	3	12	15	3	19	45	4	19	Spanish.	W. R. Grace & Co.	350.0	43	6	25	0	Valparaiso.	New York.	Sugar, metal.	2,224	4,009	1,645
Mineol.	3	12	15	4	19	50	4	19	Chilean.	Pacific Steam Navigation Co.	251.0	43	6	25	0	Salavierre.	Cristobal.	General.	3,850	5,715	1,653
Percy.	3	20	45	4	8	56	4	19	British.	J. Lindvieg.	400.3	52	4	25	0	Antofagasta.	Cristobal.	Nitrate.	7,000	5,787	3,538
Tora.	3	22	00	4	7	31	4	22	French.	Cie Francaise D'Arment.	360.0	44	7	21	0	Iquique.	La Pallice.	Nitrate.	2,532	4,403	2,089
Alisa.	4	11	45	4	12	05	4	22	Peruvian.	Peruvian Steamship Co.	390.0	54	2	26	3	Mollendo.	Charleston.	Nitrate.	7,007	5,562	3,434
Hualtaga.	4	11	45	4	20	20	6	7	American.	United States Shipping Board.	402.6	53	0	25	0	Talcahuano.	Charleston.	Nitrate.	8,581	6,564	4,861
Anwa.	5	7	00	5	8	30	5	21	French.	French Government.	279.0	46	9	18	0	Portland.	New York.	Flour.	1,646		
Tulsa.	5	10	00	5	10	21	5	21	American.	United States Navy.	175.0	16	0			Victoria.	London.	Lumber.			
Alberta.	5	10	00	5	10	21	5	21	American.	W. R. Grace & Co.	360.0	51	6	24	6	Valparaiso.	New York.	General.	4,212	4,944	2,956
R-27 (P).	2-23	14	13	5	13	26	6	21	American.	Chilburg Co.	261.7	46	6	21	0	Seattle.	Havre.	Lumber.	1,841		
Santa Luisa.	6	5	30	6	7	17															
Culburre.	6	9	15	6	9	10															

(d) Submarine, (e) For orders.

PORT OF CRISTOBAL.

		*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From.	Date.	Vessel.	Line.	For.		
Feb. 29.	Santa Marta.	United Fruit Co.	New York via Kingston.	Feb. 29.	John W. Wells.	Pacific Freighters Co.	Ipswich.		
Feb. 29.	Panama.	Panama Railroad Steamship Line.	New York via Haiti.	Feb. 29.	Caribbean.	Panama Railroad Cattle Industry.	Caragena.		
March 1.	Alta.	United States Shipping Board.	Wauna.	March 1.	Santa Marta.	United Fruit Co.	Colombian ports.		
March 1.	Abangarez.	United Fruit Co.	New Orleans.	March 1.	Baunton.	United States Shipping Board.	Bluefields.		
March 2.	Median.	Leyland Line.	Liverpool and way ports.	March 1.	Abangarez.	United Fruit Co.	New Orleans.		
March 3.	Asmachu III.	Astoria Malhagary Co.	Bluefields.	March 1.	Pensylvania.	United States Navy.	Guantanamo.		
March 3.	Achilles.	United Fruit Co.	Norfolk.	March 1.	Arizona.	United States Navy.	Guantanamo.		
March 4.	Carrillo.	United Fruit Co.	New York.	March 1.	Oklahoma.	United States Navy.	Guantanamo.		
March 4.	Caribbean.	Panama Railroad Cattle Industry.	Cartagena.	March 1.	Utah.	United States Navy.	Guantanamo.		
March 5.	Carrago.	United Fruit Co.	New Orleans.	March 1.	Nevada.	United States Navy.	Guantanamo.		
March 5.	Cryssen.	Royal Dutch West India Mail Co.	Amsterdam.	March 1.	North Dakota.	United States Navy.	Guantanamo.		
March 5.	Alisaga.	Panama Railroad Steamship Line.	New York.	March 1.	Delaware.	United States Navy.	Guantanamo.		
March 6.	Haiti.	French Line.	Havre and wayports.	March 1.	Florida.	United States Navy.	Guantanamo.		
March 6.	Santa Leonora.	United States Army.	New Orleans and San Juan.	March 1.	Proteus.	United States Navy.	Guantanamo.		
March 6.	Metapan.	United Fruit Co.	Bluefields.	March 2.	Overbrook.	United States Shipping Board.	Palo Blanco, j		
March 6.	Balayan.	United States Shipping Board.	Port Limon.	March 5.	Carrigo.	United Fruit Co.	Colombia.		
March 6.				March 5.	Cryssen.	Royal Dutch West India Mail Co.	New Orleans.		
March 6.				March 6.			Amsterdam and wayports.		

(Continued on page 435, column 2.)

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, January, 1920.

From—	Alexandria, Egypt.	Alaska, Spain.	Amsterdam, Holland.	Antilles.	Antwerp, Belgium.	Baltimore, Maryland.	Bordeaux, France.	Boston, Mass.	Brest, France.	Cardiff, Wales.	Charleston, S. C.	Copenhagen, Denmark.	Cristobal Canal Zone.	Dunkirk, France.	Falmouth, England.	Genoa, Italy.	Ghent, Belgium.	Hamburg, Germany.	Hampton Roads, Va.	Havre, France.	Liverpool, England.				
Aberdeen, Wash.														8,916											
Antofagasta, Chile.					10,000	3,000								9,045		7,500									
Astoria, Oreg.													2,254												
Buenaventura, Colombia.					3,373									7,778		9,300					5,133				
Caldera, Chile.		5,500											6,109												
Caleta Buena, Chile.													6,571												
Caleta Colosa.													39												
Callao, Peru.	6,700																								
Champerico, Guatemala.																									
Eten, Peru.																									
Falkland Islands.																									
Gatico, Chile.																									
Guayaquil, Ecuador.													5,015												
Hongkong, China.						3,310					10,395	8,426	3,356		4,363			7,021							
Iquique, Chile.					3,820																				
Juinin, Chile.					7,774																				
Meillonos, Chile.																									
Melbourne, Australia.																									
Pisagua, Chile.																									
Port Angeles, Wash.																									
Port Blakely, Wash.																									
Portland, Oreg.																									
Punarenas, Argentina.																									
San Francisco, Cal.						5,616																			
San Pedro, Cal.																									
Seattle, Wash.					2,131																				
Shanghai, China.										7,000															
Singapore, Straits Settlements.																									
Sydney, Australia.																									
Tacoma, Wash.									1,200																
Tacahuano, Chile.																									
Talca, Chile.								4,700																	
Tocopilla, Chile.						7,400																			
Tumaco, Colombia.																									
Valparaiso, Chile.		6,600																							
Vancover, British Columbia.																									
Victoria, British Columbia.																									
Wellington, New Zealand.																									
Total	6,700	5,500	6,600	2,131	20,755	19,119	7,400	4,700	1,200	7,000	10,395	8,426	43,011	134,939	4,363	35,473	6,921	7,021	7,010	8,206	5,599	7,108	7,010	8,206	41,109

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, January, 1920—Continued.

From—	London, England.	Marseilles, France.	Matanzas, Cuba.	Mobile, Ala.	Nantes, France.	New Orleans, La.	New York, N. Y.	Nipe, Cuba.	Norfolk, Va.	Ostend, Belgium.	Philadelphia, Pa.	Queensdown, Ireland.	Rotterdam, Netherlands.	Savannah, Ga.	Santander, Spain.	Sagua la Grande, Cuba.	St. Nazaire, France.	United Kingdom.	Wilmington, N. C.	W. Hartlepool, Eng.	Total.	
Aberdeen, Wash.							6,150				2,632									1,424	12,972	
Antofagasta, Chile.							8,150			3,550			7,350	8,180							54,775	54,775
Astoria, Ore.							8,055															8,055
Buenaventura, Colombia.																						2,294
Caldera, Chile.																						3,373
Caleta Buena, Chile.															7,252							34,983
Caleta Calosa.																						15,949
Callao, Peru.																			3,140			6,571
Champerico, Guatemala.																						39
Eten, Peru.												3,400										3,400
Falkland Islands.																						6,426
Gatico, Chile.							1,840															1,840
Guayaquil, Ecuador.																						5,015
Hongkong, China.																						8,100
Iquique, Chile.									3,511													6,200
Junin, Chile.									2,325													64,140
Mejillones, Chile.																						3,820
Melbourne, Australia.																						38,084
Eisagua, Chile.					6,018																	7,649
Fort Angeles, Wash.				1,704																		4,474
Fort Blakely, Wash.																						872
Portland, Ore.							7,100															2,981
Punta Arenas, Argentine.											1,814											13,632
San Francisco, Cal.							15,131															5,500
San Pedro, Cal.																						38,314
Seattle, Wash.							25,693															5,495
Shanghai, China.							22,275															47,672
Singapore, Straits Settlements.							6,963															22,275
Sydney, Australia.						4,945																11,908
Tacoma, Wash.																						7,010
Talcahuano, Chile.							24,119															25,319
Talitel, Chile.											8,675											17,053
Tocopilla, Chile.																						12,900
Tunaro, Colombia.																						8,200
Valparaiso, Chile.							8,423															49,322
Vancouver, British Columbia.																						2,636
Victoria, British Columbia.																						2,060
Wellington, New Zealand.																						7,558
Total	20,702	7,338	3,186	1,704	6,018	4,945	125,749	1,417	5,836	3,550	11,307	12,055	9,328	30,652	7,252	872	8,426	16,068	14,110	1,424	450,118	

MOVEMENTS OF OCEAN VESSELS.—Continued from page 431.

	2,030	8,439	2,030	8,439	6,040
Glasgow, Scotland.....					5
Hamburg, Germany.....					9
Havana, Cuba.....		8,439			6,598
Kingston, Jamaica.....			4,742		5,982
Liverpool, England.....					8,509
London, England.....					7,590
New Orleans, La.....					121,288
Newport News, Va.....	580				15,830
New York, N. Y.....	11,523				6,538
Norfolk, Va.....		25,807			8,407
Philadelphia, Pa.....					7,285
Port Arthur, Tex.....					363
Port Limon, Costa Rica.....					19,000
Puerto Lobos, Mexico.....					4,909
Santiago, Cuba.....		9,708			23,198
Savannah, Ga.....		13,190			21,990
Tampa, Fla.....		19,117			29,417
Tampico, Mexico.....					
Total.....	10,168	19,117	75,145	5 0	11,523
				2,030	1,000
				9,183	9,000
				716	8,201
				12,147	5,628
				4,909	15,830
					314,510

PORT OF BALBOA.

*ARRIVALS.			*DEPARTURES.				
Date.	Vessel.	Line.	From.	Date	Vessel.	Line.	For.
Feb. 28	Lake Stobi.....	United States Shipping Board.....	Iquique.	Feb. 29	Firrelife.....	United States Shipping Board.....	Kobe via Honolulu.
March 4	E. D. Kingsley.....	Kingsley Navigation Co.....	Buenaventura.	March 4	Lake Filbert.....	United States Shipping Board.....	Kobe via Honolulu.
March 3	U. S. Tacoma.....	United States Navy.....	Annapala.	March 5	E. D. Kingsley.....	Kingsley Navigation Co.....	Puntarenas.
March 5	Paraiso.....	O. J. Olsen.....	Eureka.	March 5	Paraiso.....	O. J. Olsen.....	Mollendo.

*Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending March 6, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Santa Marta.....	United Fruit Co.....	February 29..	March 1.....	146	(†)
Cape Fear.....	United States Shipping Board.....	February 29..	.....	2,878	.....
Panama.....	Panama Railroad Steamship Line.....	February 29..	.....	2,646	.....
Balboa.....	Colombian Maritime Co.....	February 29..	March 6.....	614	361
Lake Flynus.....	United States Shipping Board.....	March 1.....	March 5.....	2,779	(†)
Huasco.....	Chilean Steamship Line.....	.....	March 4.....	.....	282
Manavi.....	Pacific Steam Navigation Co.....	.....	March 4.....	.....	543
Guatemala.....	Pacific Steam Navigation Co.....	March 1.....	.....	1,553	.....
Median.....	Leyland Line.....	March 2.....	.....	492	.....
San Juan.....	Pacific Mail Steamship Line.....	March 2.....	.....	2,069	.....
Achilles.....	Panama Railroad Steamship Line.....	March 3.....	.....	12,205	.....
Laura C. Hall.....	Pacific Metals Corporation.....	March 3.....	.....	50	.....
Peru.....	Pacific Steam Navigation Co.....	March 4.....	.....	2,173½	.....
Imperial.....	Chilean Steamship Line.....	March 4.....	.....	1,359	.....
Carrillo.....	United Fruit Co.....	March 4.....	March 5.....	890	163
Caribbean.....	Panama Railroad Cattle Industry.....	March 4.....	.....	250	.....
Cartago.....	United Fruit Co.....	March 5.....	March 5.....	(*)	230
Crynsseu.....	Royal Dutch W. I. Mail S. S. Co.....	March 5.....	March 6.....	83	112
Alianza.....	Panama Railroad Steamship Line.....	March 5.....	.....	950	.....
Haiti.....	French Line.....	March 6.....	.....	178	.....

* No cargo discharged.

† No cargo laded.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending March 6, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Seijo Maru.....	Toyu Kisen Kaisha.....	February 22..	February 22..	*1	*44
Balboa.....	Colombian Maritime Co.....	February 23..	February 29..	3	.....
Guatemala.....	Pacific Steam Navigation Co.....	February 29..	March 1.....	4	.....
San Juan.....	Pacific Mail Steamship Co.....	March 1.....	March 2.....	.....	3
Peru.....	Pacific Steam Navigation Co.....	March 3.....	March 4.....	57	.....
Balboa.....	Colombian Maritime Co.....	March 6.....	March 6.....	65	.....

* Information unavailable for last week's report.

Panama Railroad Steamship Line Freight Tariffs.

The Panama Railroad Steamship Line, in connection with the Pacific Mail Steamship Company, has established the following rates on coffee from Cartagena, Colombia, to San Francisco:

Coffee, clean	per 100 pounds..	\$1.11
Coffee, husk,	per 100 pounds..	1.18

All rules and regulations applying in Tariff No. 4 are applicable to this tariff.

In the publication of Tariff No. 4, Cartagena to New York, and Tariff No. 3, between Cartagena and Cristobal, in THE PANAMA CANAL RECORD of February 4, 1920, the rates of freight of Tariff No. 3 were printed in error as a part of No. 4, forming the first paragraph of the latter, on page 361. These rates apply between Cartagena and Cristobal, not from Cartagena to New York; they are reprinted here for the sake of clarity:

RATES OF FREIGHT.

Tariff No. 3, between Cristobal, C. Z., and Cartagena, Colombia.
(In United States currency or its equivalent.)

Commodity.		Rate.
General merchandise, per 40 cubic feet or 2,000 pounds ship's option.....		\$6.38
Cattle, horses, etc. (see Item 5):		
Horses.....	each..	15.00
Mules.....	each..	15.00
Steers, beef.....	each..	15.00
Bulls.....	each..	15.00
Steers, lean.....	each..	12.00

Cattle horses, etc.—Continued.		Rate.
Cows.....	each..	\$12.00
Yearlings.....	each..	8.00
Calves.....	each..	4.00
Sheep.....	each..	3.00
Hogs.....	each..	4.00
Launches, 20 feet in length or over, subject to special arrangement.		
Launches, under 20 feet in length, per running foot.....		9.56
Lumber, except hardwood, per 1,000 ft. B. M.....		8.00
Pears, alligator, on dock at owner s risk, per cu. ft.....		.58
Poultry and animals (<i>see</i> Item 6) in crates, ship's option:		
Per large crate.....		5.10
Per small crate.....		2.55
Rice, per 100 lbs.....		.38
Rowboats and yawls 20 feet in length or over, subject to special arrangement.		
Rowboats and yawls under 20 feet in length, per running foot.....		3.82
Specie	<i>Ad valorem</i> 1¼ per cent	

Executive Order.—Obtaining Vessels and Equipment from Navy.

The following Executive Orders are published for the information of all concerned.

CHESTER HARDING,
Governor.

Under authority of the Act of Congress, Chapter 78, Section 2, approved May 20, 1918, Executive Order No. 3091, dated May 24, 1919, is hereby amended so as to include The Panama Canal.

WOODROW WILSON

THE WHITE HOUSE,
February 3, 1920.

The following Executive Order No. 3091 is made applicable to The Panama Canal by the above order.

EXECUTIVE ORDER.

Under authority of the Act of Congress, Chapter 78, Section 2, approved May 20, 1918, it is hereby ordered that the Secretary of the Navy be and he hereby is authorized to transfer any or all vessels, boats, and auxiliary ships of the Navy classified as yachts, colliers, transports, tenders, supply ships, hospital ships, submarine chasers, patrol boats, motor boats, fishing vessels, and special types built, purchased or commandeered for a substantial consideration by the Navy subsequent to the declaration of Congress by joint resolution approved April 6, 1917, that war exists between the United States and Germany, and provided said vessels were built, purchased, or commandeered for the purposes of said war, and any other Executive Department of the Government is desirous of securing from the Navy Department such vessels, boats, and auxiliary ships, or any of them, which are, in the opinion of the Secretary of the Navy, not necessary for the needs of the Navy, upon such terms as may be agreed to by the Executive Head of such Department and the Secretary of the Navy.

It is hereby further ordered that the Secretary of the Navy may in his discretion and upon such terms as may be agreed to by him and the Executive Head of any Executive Department desirous of obtaining same, transfer the materials and equipment of vessels, boats, and auxiliary ships of the Navy as above described, said materials and equipment consisting of masts, bowsprits, boats, anchors, tackle, furniture, and all other necessaries appertaining and belonging to such vessels, boats, and auxiliary ships.

WOODROW WILSON

THE WHITE HOUSE,
May 24, 1919.

The above has been published as Panama Canal circular No. 601-106.

Steamship Transportation for Employees.

Employees are requested to read and be guided by the following:

THE PANAMA CANAL,
WASHINGTON OFFICE, Washington, D. C.
SPECIAL INSTRUCTIONS TO STEAMSHIP PASSENGERS.

Steamer Reservations and Payment of Passage Money on Panama Railroad Steamers— Passage money for steamship tickets, including cost of war revenue stamp in accordance with the scale given below, must be sent, by postal money order, bank

draft, or express money order, to the Panama Railroad Company, 24 State Street, New York, N. Y., payable to said company in New York, so as to be in the possession of their Passenger Department not later than 72 hours before the scheduled date of the steamer's departure in order to insure that the accommodations thereon which have been tentatively reserved at the request of this office shall be definitely assigned. If *passage money is not received* as herein suggested the tentative reservations made by this office are *automatically canceled*, and the Panama Railroad Company will exercise without further notice the right to assign them to other intending passengers.

Passengers should sail on the date assigned unless some urgent reason makes this impossible. Persons who are unable to sail on the date assigned should notify this office and the Panama Railroad Company, so that the notice will be received at least 72 hours before the steamer sails. Passengers must call at the Panama Railroad Company's office for their tickets, preferably on the day before sailing, as same can not be delivered at the pier.

United Fruit Company Steamers and Army Transports—Instructions regarding remittance of passage money for those passengers assigned to United Fruit Company steamers or Army transports will be contained in the letter issued to them authorizing the transportation.

Identity Certificates—Identity certificates or passports are no longer required of American citizens going to the Canal Zone. Aliens must secure from a Consul of their country a passport authorizing their leaving the United States for the Canal Zone.

War Revenue Stamp Tax—Passengers should be prepared to pay at the steamship office in addition to their passage money, a stamp tax on steamship tickets in accordance with the following table: (This does not apply to persons furnished free transportation at the expense of The Panama Canal.)

On tickets costing \$10 or less.....	No tax
On tickets costing over \$10 and including \$30.....	\$1.00
On tickets costing over \$30 and including \$60.....	3.00
On tickets costing over \$60.....	5.00

Extension of Leave of Absence—This office has no authority to extend leaves of absence of persons employed on the Isthmus nor time limits on family quarters. Persons desiring to have this office cable the officials on the Isthmus for an extension should send this office \$2.00 in cash, preferably by registered mail, to cover cost of cabling and state the reason why an extension is necessary.

A. L. FLINT,
Chief of Office.

Telegraphic Extensions.

The Central and South American Telegraph Company advises that it has purchased and is operating land lines from Arica and Tacna, Chile, to La Paz, Bolivia. A cable is being laid from Iquique to Arica and is to be in operation in March.

Automobiles and Motorcycles.

At the end of February, 1920, there were 1,401 automobiles and trucks, and 269 motorcycles licensed in the Canal Zone, as compared with 899 and 213, respectively, on August 25, 1917. Automobile licenses are divided into three classes—for pleasure only, for hacking, or carrying passengers for hire, and for trucking. Of the 1,401 automobiles and trucks licensed, 501 are for official cars belonging to The Panama Canal, the Panama Railroad Company, and the United States Army and Navy, and 21 are reciprocal licenses for official cars belonging to the Republic of Panama, as compared with 140 and 2, respectively, on August 25, 1917. Of the 879 remaining, 308 are personal licenses, 41 are hacking licenses, and 2 are trucking licenses issued to residents of the Canal Zone, as compared with 286, 22, and 4 respectively, on August 25, 1917, 103 and 42 are reciprocal personal licenses issued to residents of Panama and Colon, respectively, and 311 and 72 are reciprocal commercial licenses issued to persons

living in Panama and Colon, respectively. The total of reciprocal licenses of all classes in effect at the end of February was 549, as compared with 445 on August 25, 1917. Of the 383 reciprocal commercial licenses above mentioned, 349 are for hacking, or carrying passengers for hire, and 34 for trucking.

Of the 269 motorcycles licensed, 142 are for official machines belonging to the United States, and one is a reciprocal license for an official machine belonging to the Republic of Panama. Of the 126 remaining, 111 are personal licenses issued to residents of the Canal Zone, 8 are reciprocal personal licenses issued to residents of Panama, and 7 are reciprocal personal licenses issued to residents of Colon. On August 25, 1917, there were 213 motorcycles licensed in the Canal Zone, 70 of which were official licenses for machines owned by the United States, and 5 of which were reciprocal licenses for machines owned by residents of the Republic of Panama.

A resident of the Canal Zone secures his original license in the Zone, and is granted a reciprocal rate in Panama or Colon, at a reduced fee. The same holds good in the Zone for residents of Panama or Colon who have obtained the original license in Panama territory. Canal Zone licenses are issued by the Division of Civil Affairs, Balboa Heights, and no fee is accepted for less than the calendar year unless more than one quarter has expired when the license is taken out, in which case the license fee is proportioned to the part of the calendar year remaining, including therein the calendar quarter in which the license is paid.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Civil Service Board, Balboa Heights (telephone 286).

Assistant specification engineer (male and female); \$1,200 to \$2,000 a year; April 13, 1920; age 21 years but not 45.*

Fuel research assistant (male and female); \$1,200 to \$1,800 a year; April 13, 1920; form No. 2118; age, 35 and over.*

Junior mechanical engineer (male and female); \$1,800 a year; April 13, 1920; form No. 1312; age, 20 years and over.*

Land law clerk (male and female); \$1,000 a year; April 21, 1920; form No. 1312; age, 18 but not 45.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington, prior to the hour of closing business on that date.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Samuel Ferguson.....	23676	Jamaica.....	Colon.....	Division of Locks.....	February 22, 1920.
Basilio Kromidas.....	50223	Greco.....	Colon.....	R. & F. Agency.....	February 21, 1920.
Joseph Yarwood <i>alias</i> Jose Diego Cardona	34966	Barbados.....	Panama.....	R. & F. Agency.....	December 29, 1919.
Jose Rivera.....	160222	Panama.....	Panama.....	Cattle Industry.....	January 18, 1920.
Edward M. Brainard..	2792	United States...	Ancon.....	Mechanical Division...	March 5, 1920.

Official Circulars.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., February 28, 1920.

Circular No. 661-83.

1. Mr. Alfred H. Mohr is hereby appointed Deputy Collector of The Panama Canal. He will act for the Collector of The Panama Canal during such periods as he may be designated by the Governor of The Panama Canal to perform the duties of the Collector during the Collector's absence or disability.

2. Before authority is given him to act for the Collector, the required stipulation and consent agreements must be executed by the surety on the bond of the Collector.

CHESTER HARDING,
Governor.

Rate for Floating Pile Driver.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., February 27, 1920.

Circular No. 686-10:

Effective March 1, 1920, a rate of \$3 an hour is established for use of the floating pile driver by departments and divisions of The Panama Canal or Panama Railroad, or other branches of the United States Government.

CHESTER HARDING,
Governor.

Charges for Chagres River Sand and Gravel.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., March 5, 1920.

Circular No. 711-4 (superseding Circular No. 711-3):

Effective at once, sand and gravel will be furnished at the following rates:

SAND, NO. 2 GRAVEL OR RUN-OF-BANK GRAVEL.

1. To departments and divisions of The Panama Canal and Panama Railroad:

F. O. B. cars
Gamboa.
Cu. yd.

In lots of 3,000 cubic yards, or more, per month.....	\$1.25	
In lots of 500 cubic yards, or more, per month.....	1.45	
In lots of less than 500 cubic yards per month.....	1.60	
Amounts per month to be the aggregate of sand and gravel delivered.		

2. To the United States Army and Navy and other departments of the Government:

Delivered
at any
F. O. B. point
cars on the
Gamboa P. R. R.
Cu. yd. Cu. yd.

In carload lots, 500 cubic yards, or more, per month.....	\$1.60	\$2.60
In carload lots, less than 500 cubic yards per month.....	1.75	2.75

3. To individuals and companies:

Cu. yd.

In carload lots delivered at any point on the Panama Railroad.....	\$2.75	
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4. No. 1 gravel will be furnished to departments and divisions of The Panama Canal and Panama Railroad at 25 cents per cubic yard, plus actual cost of loading and transportation.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,

BALBOA HEIGHTS, C. Z., March 5, 1920.

Circular No. 229:

Effective February 24, 1920, Mr. M. F. Bradley is designated an accountable official of The

Panama Canal, vice Mr. O. M. Ewing, and as such will account for the storehouse stock, Medical Storehouse, Ancon, C. Z.

ELWYN GREENE,
Acting Auditor, The Panama Canal.

Importation of Motor Vehicles under Authority of Free Entry Requests.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., February 19, 1920.

To all concerned—

Your attention is directed to the following rules and regulations regarding the free entry and reduced freight privileges accorded employees:

1. A motor vehicle on which an employee is granted entry free of customs duty and the reduced freight rate, must be used exclusively for the personal use of the employee and his family.

2. An employee is not permitted to make application for free entry and the reduced freight rate to cover a motor vehicle which has been purchased from the stock of a dealer in the Republic of Panama, but he may import a machine through a local dealer when the imported motor vehicle goes to the employee, and is not used to replenish the dealer's stock.

3. No motor vehicle, imported free of duty, shall be sold at any time to a person not entitled to that privilege, unless proper duty has first been paid to the Republic of Panama. In such cases the receipt for the duty paid shall be presented or forwarded to the Division of Civil Affairs, Balboa Heights, but will be returned after having been noted.

4. The difference between the employees' freight rate and the full tariff rate must be paid to the Panama Railroad Company in the event a motor vehicle is imported at the reduced freight rate and is used for commercial purposes or sold to a nonemployee within a certain period after the date of the arrival of the machine on the Isthmus.

5. When a motor vehicle is imported by an employee and sold to another person immediately after arrival, or the first license on the car is taken out by a person other than the one signing the free entry request, the employee is required to immediately advise the Division of Civil Affairs, Balboa Heights, of the fact that the car has been sold to another person, or that it has been licensed in the name of another person, giving the name and address of such person, the make of the car, the engine number, and the date on which it arrived on the Isthmus.

6. To obtain a Canal Zone motor vehicle license, it is necessary for an employee living in the Canal Zone to present or forward to the Division of Civil Affairs, Balboa Heights, his copy of the approved free entry request and the required license fee, and to state the name of the car and its engine number. Persons living in Panama City, Colon, Colon Beach, or New Cristobal, are required to first license their cars in the Republic of Panama, and to forward or present a receipt for the payment of the license fee there, in addition to forwarding or presenting the free entry request and Canal Zone fee and giving the data above referred to.

7. Forms 164-1 to 164-4, Request for Reduced Freight Rate and Free Entry are obsolete and should not be used. Form 164-5 will be in use temporarily until printing and issue of Form 164-6.

C. A. McILVAINE,
Executive Secretary.

Joint Commission.

Rules of Dismissal.

In the matter of the claim of The Panama Development and Manufacturing Company and Felipe Gonzalez Camarena, Intervenor for property known as Ensenada de las Minas de Santa Rita, Rule of Dismissal No. 452, Docket No. 3056, February 9, 1920—On the 21st day of December 1914, the Panama Development and Manufacturing Company filed a claim before the Joint Commission

for \$12,500 alleging that it was the owner of 500 hectares of the lands known as "Ensenada de las Minas de Santa Rita," which the United States Government had allowed to be submerged by the waters of Lake Gatun.

At a later date Felipe Gonzalez Camarena filed a plea of intervention with the commission claiming that he was the owner of the lands known as "Ensenada de las Minas de Santa Rita," and that the said 500 hectares formed a part thereof, and asking that if an award should be made by the Commission for said submerged land, that the amount of said award be paid to him as the owner thereof. The Commission allowed said intervenor's petition in so far as it related to the 500 hectares mentioned in the claim of the Panama Development and Manufacturing Company.

The claim of the Panama Development and Manufacturing Company was set for trial on the 25th day of November, 1919, but there was no appearance on the part of claimant nor counsel for claimant, and a rule of default was accordingly entered against it. The trial of the plea of intervention was continued to a later date.

On April 13, 1916, the Joint Commission with the approval of the two Governments, parties to the Treaty adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing, or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within sixty days from said first publication their claims will be considered as having been either settled or abandoned and the same will be dismissed and forever barred."

Due notice having been given as provided for in the above quoted section of the rule of the Commission, and there having been no appearance by the Panama Development and Manufacturing Company in person or by counsel during the 60-day period fixed in the rule referred to, which began on November 26, 1919, the above entitled claim in so far as it relates to the Panama Development and Manufacturing Company is hereby dismissed.

The trial of the plea in intervention filed by Felipe Gonzalez Camarena came on for hearing on February 6, 1920. The evidence disclosed that the Panama Development and Manufacturing Company claimed title to said 500 hectares of land which are located in the Republic of Panama, under deed of August 15, 1912, whereby Catalina Arrivet V. de Cowan et al conveyed said property to the Panama Development and Manufacturing Company. The description of the land as set out in said deed expressly excludes the projected lake of Gatun, and describes the lake and public lands as the southern boundary of the property.

The Commission finds that no part of the said 500 hectares of land mentioned and described in the claim of the Panama Development and Manufacturing Company and referred to in the intervenor's petition, was submerged or damaged by the waters of Lake Gatun; and the Commission further finds that the United States Government expropriated no part of said land nor damaged the same in any manner whatsoever.

It is, therefore, the unanimous opinion of the members of the Commission that the plea of intervention filed by Felipe Gonzalez Camarena should be and the same is hereby, dismissed.

It was made to appear by the evidence introduced at the trial that a civil action involving the title to said 500 hectares of land is now pending in one of the courts of Panama in which action

the Panama Development and Manufacturing Company, the Intervenor and others, are parties. The claim of the Panama Development and Manufacturing Company, docket No. 3056, and the plea of intervention filed by Felipe Gonzalez Camarena are therefore dismissed without prejudice to any claim of title asserted by said parties to the property in question in the civil action above mentioned.

FEDERICO BOYD, H. A. A. SMITH, JULIO J. FABREGA, BURT NEW, Commissioners.

In the matter of the claims of Jose H. Stilson, in which Rules of Default have been entered, Rule of Dismissal No. 453, Docket Nos. 3062 and 3281, February 24, 1920—On April 13, 1916, the Joint Commission with the approval of the two Governments, parties to the Treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing, or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default notice thereof shall be given by four successive publications, one each week, in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within sixty days from said first publication their claims will be considered as having been either settled or abandoned and the same will be dismissed and forever barred."

On December 22, 1919, when the above entitled claims were called for hearing, Mr. C. P. Fairman, appearing as attorney for claimant in both claims, stated in public session before the Joint Commission that he and the claimant refused to present any evidence or to take any other or further step looking toward the prosecution of said claims before the Joint Commission and thereupon the Joint Commission ordered that a rule of default be entered against Jose H. Stilson in both claims.

Due notice having been given as provided for in the above-quoted section of the rule of the Commission, and there having been no appearance by claimant in person or by counsel during the 60-day period fixed in the rule referred to, which began on December 24, 1919, the foregoing claims against the United States are hereby dismissed and forever barred.

FEDERICO BOYD, H. A. A. SMITH, JULIO J. FABREGA, BURT NEW, Commissioners.

In the matter of Sundry Claims, Rule of Dismissal No. 454, Docket Numbers as shown, February 25, 1920—Direct settlement having been made with claimants by the Panama Railroad Company in the following cases the same are hereby dismissed and stricken from the docket:

Dkt. No.	Claimant.	Date of Payment.
1775	Catalina Paredes.....	5-24-1915
2718	Carmen C. Alfaro.....	6-7-1919
2790	Panama Banking Company...	6-19-1919
2740	Chong Hing Sue.....	2-24-1917
2836	Fritz Jensen.....	2-21-1920
2872	Guillermo Aias.....	8-15-1919
2873	Guillermo Arias.....	8-15-1919
2874	Guillermo Arias.....	8-15-1919
2875	Guillermo Arias.....	8-15-1919
2948	Yee Kee.....	4-29-1918
2951	Wai On Tseung Chan.....	10-26-1917
2954	H. Hellinger.....	1-24-1920
2957	L. P. Stanley.....	1-10-1917
2972	Chong Hing Sue.....	2-24-1917
3256	Habebe Talgae.....	4-19-1917
3315	Orinthia Anderson.....	4-21-1915
3334	F. Weidman & J. Bryan.....	7-26-1917

FEDERICO BOYD, H. A. A. SMITH, JULIO J. FABREGA, BURT NEW, Commissioners.

In the matter of the claim of Enfracia C. de Villalobos, et al, in which Rule of Default has been en-

tered. *Rule of Dismissal No. 455, Docket No. 3064, February 25, 1920*—On April 13, 1916, the Joint Commission with the approval of the two Governments, parties to the Treaty, adopted a rule relative to the continuance or dismissal of claims in which the claimants are not ready for trial on the date their claims are set for hearing, or who fail to appear for hearing. This rule provides for the entering of a rule of default against claimants who fail to appear when called. This rule also provides that:

"Upon the entry of such rule of default notice thereof shall be given by four successive publications, one each week in the English and Spanish languages, in newspapers of general circulation in the Republic of Panama, notifying such claimants to appear in person or by attorney within sixty (60) days from the first of said publications and show good and sufficient cause why such default should be set aside, and take active steps to prosecute their claims, and failing to so appear within the sixty days from said first publication their claims will be considered as having been either settled or abandoned and the same will be dismissed and forever barred."

On November 17, 1919, when the above entitled claim was called for hearing, Mr. C. P. Fairman, appearing as attorney for claimants, stated in public session before the Joint Commission that he and the claimants refused to present any evidence or to take any other or further step looking toward the prosecution of said claim before the Commission, and thereupon the Joint Commission ordered that a rule of default be entered against claimants.

Due notice having been given as provided for in the above quoted section of the rule of the Commission, and there having been no appearance by claimant in person or by counsel during the 60-day period fixed in the rule referred to which began on December 24, 1919, nor before February 24, 1920, to which date the period of default had been extended, and claimants having failed to appear and show good and sufficient cause for setting aside the default, the foregoing claim against the United States is hereby dismissed and forever barred.

FEDERICO BOYD, JULIO J. FABREGA, H. A. A. SMITH, BURT NEW, *Commissioners.*

Certificate of Disagreement.

In the matter of the claim of Francisco Filos and Isabel N. Hernandez, for property known as Cuatro Caminos. Certificate of Disagreement, Rule No. 456, Docket No. 3046, February 27, 1920—Pursuant to the provisions of Article XV of the Treaty between the United States of America and the Republic of Panama, ratified February 26, 1904, the Commission hereby desires to bring to the notice of the Umpire duly appointed under the said Treaty that the Commission has been unable to reach an agreement in the above entitled matter on the following, to wit:

The Questions of Liability and Time.

The Commission herewith certifies this disagreement to the Umpire appointed under the Treaty as provided for in Article XV thereof.

Done at the National Palace, Panama, this twenty-seventh day of February, 1920.

FEDERICO BOYD, H. A. A. SMITH, JULIO J. FABREGA, BURT NEW, *Commissioners.*

Sale of Clapet No. 7.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., March 20, 1920, and then opened, for the purchase of clapet No. 7, located at Gatun. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Tug "Mirafloros."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., March 22, 1920, and then opened, for the purchase of the tug *Mirafloros*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Shipping Commissioner's Sale.

The Shipping Commissioner, room 305, Administration Building, Balboa Heights, will accept written bids up to noon Monday, March 15, 1920, for the purchase of portions of the personal effects belonging to the estates of Stanley C. Evans, Anton Olsen, Robert Park, Antonias Johanas Verslys, and Frank C. Wilson, deceased American seamen. Itemized lists of the articles offered for sale will be found posted at the Canal Zone customs offices, post offices, and clubhouses; and persons desiring to examine the effects should apply to the Shipping Commissioner's Office on any business day. Bids may be made for the entire lot of the effects of each decedent, or be limited to individual articles, and should be submitted in sealed envelopes addressed to the Shipping Commissioner, marked "Bid on effects of (insert name of seaman), deceased." The right is reserved to reject any or all bids, and no advance deposit of money is required.

Current Net Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$13.50 per ton of 2,240 pounds at Cristobal and \$15.50 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$15 per ton at Cristobal, \$17 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$15.00 per barrel of 42 gallons.

Diesel oil is not sold by The Panama Canal, but may be obtained from private concerns at approximately \$3 per barrel. Cable arrangement should be made in advance of arrival of vessel.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. Prices quoted are United States currency, per pound net:

Beef hinds, 19 cents; beef fores 14 cents; beef ribs, entire set, 20 cents; short loins, 25 cents. This beef is from Colombian cattle, slaughtered on the Isthmus.

Additions to Commissary Stock.

Dry Goods Section.

Towels:

Huck, linen, H. S., 20" x 36", ea.	\$0.90
Huck, linen, H. S., 22" x 40", ea.	1.10
Huck, linen, H. S., 24" x 40", ea.	1.25
Huck, linen, H. S., 20" x 36", ea. ....	.71

Weights:

Lead, for dresses, $\frac{1}{2}$ ", doz. ....	.04
Lead for dresses, $\frac{1}{4}$ ", doz. ....	.07

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

THE PANAMA CANAL RECORD

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Volume XIII. Balboa Heights, C. Z., March 17, 1920. No. 31.

The "Olockson" on Fire.

The steamship *Olockson* sent an aerogram on March 13 that she was on fire off the Panama coast about 150 miles from the Pacific entrance of the Canal. The U. S. S. *Tacoma*, and the *Salvador* of the Pacific Steam Navigation Company, brought the crew to Balboa, and the Panama Canal tug *Gorgona* was sent out to tow the ship to Balboa, if this proved possible. The job is a difficult one and the master of the *Gorgona* was given full authority to act as seemed best; whether to bring the ship into port or beach her. It is expected that the *Gorgona* with her tow will arrive at the Pacific entrance to-morrow morning.

The *Olockson* is owned by the United States Shipping Board and operated by the Barber Steamship Lines. She is of 3,729 net tons, and was bound from Philadelphia to Yokohama with a cargo of steel and gasoline.

Fire on the "Marne."

The steamship *Marne* which was sunk in Cristobal harbor on January 24 and again on March 6, both times to extinguish fire in her cargo, is still burning, but the fire is almost extinguished. The bow is still afloat. Arrangements for raising the vessel are in progress.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 13, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Guatemala.....	Pacific Steam Navigation Co.....	.....	March 7.....	.....	592½
Caribbean.....	Panama Railroad Cattle Industry.....	.....	March 7.....	.....	16
Panama.....	Panama Railroad Steamship Line.....	.....	March 8.....	.....	3,063
Median.....	Leyland Line.....	.....	March 8.....	.....	2,087
Imperial.....	Chilean Steamship Line.....	.....	March 9.....	.....	681
Salvador.....	Pacific Steam Navigation Co.....	March 7.....	March 12.....	543	763½
Calamares.....	United Fruit Co.....	March 8.....	March 9.....	(*) 27	.....
Heredia.....	United Fruit Co.....	March 8.....	March 10.....	177	187
Lake Festine.....	United States Shipping Board.....	March 8.....	March 10.....	3,552	(†)
Gen. O. H. Ernst.....	Panama Railroad Steamship Line.....	March 9.....	.....	654	.....
Victoria.....	Pacific Steam Navigation Co.....	March 9.....	March 10.....	44	306½
San Juan.....	Pacific Mail Steamship Co.....	.....	March 10.....	.....	1,803
Haiti.....	French Line.....	.....	March 10.....	.....	275½
Huallago.....	Peruvian Line.....	.....	March 10.....	.....	615
Jamaica.....	Pacific Steam Navigation Co.....	March 9.....	March 13.....	719	706
Cauca.....	Pacific Steam Navigation Co.....	March 10.....	.....	1,053	.....
Palena.....	Chilean Steamship Line.....	March 10.....	.....	1,549	.....
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....	March 10.....	.....	2,244	.....
Ancon.....	Panama Railroad Steamship Line.....	March 10.....	.....	5,446	.....
Peru.....	Pacific Steam Navigation Co.....	.....	March 11.....	.....	(†)
Harold Walker.....	Pan-Amer. Pet. and Transp. Co.....	March 10.....	March 12.....	9,000	(†)
Tivives.....	United Fruit Co.....	March 11.....	March 11.....	4½	6
Caribbean.....	Panama Railroad Cattle Industry.....	March 11.....	.....	350	.....
Mantaro.....	Peruvian Line.....	March 12.....	.....	2,233	.....
Allianca.....	Panama Railroad Steamship Line.....	.....	March 12.....	.....	2,245
Teviot.....	Royal Mail Steam Packet Co.....	March 13.....	.....	746	.....

* No cargo discharged.

† No cargo laded.

Slide at Cucuracha.

A movement in the old slide at Cucuracha in Gaillard Cut on the afternoon of February 22 resulted in about 4 hours' delay in the transit of one ship on the following day. All other vessels made the transit without delay. Two dredges were set at work and from that time until March 13 no delay was experienced by ships in passing through "the Cut." On the night of March 12 there was a further movement and as a result ships drawing 25 feet or more were delayed on the following day. These ships were passed through on March 14 and 15 and there has been no delay since.

Income Tax Returns.

The following excerpts from Circular 2195 issued July 18, 1919, are published for the information of employees:

"6. An American citizen applying for a sailing permit should satisfy the Internal Revenue Agent in charge that he has paid all installments of income tax due up to the date of departure and has made arrangements for the payment of future installments as they become due. * * * The sailing permits will be printed on special paper so they may not be easily duplicated and will be readily distinguished by the Revenue Agent at the port of departure.

* * * * *

"8. In accordance with an agreement with the officials of steamship companies, which operate ships entering into United States ports, steamship officials will require persons applying for over-stamping of tickets to produce a sailing permit signed by the proper Internal Revenue officer. The Internal Revenue Agent in charge will assign a sufficient number of his force to inspect the permits at the pier on days of sailing.

It is also suggested that persons on the Isthmus making a Return and paying taxes should request the Collector of Internal Revenue to whom payment is made to furnish a receipt.

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge and were effective February 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.375
Brass, sheet.....	Lb.	.5625
Bronze, Tobin.....	Lb.	.375
Cement, at Panama:		
Departments of United States Government (includes surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Departments of United States Government (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.58
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	9375
Copper, bar.....	Lb.	.50
Gasoline, in drums (motor grade).....	Gal.	.475
Lead, sheet.....	Lb.	.125
Lead, pig.....	Lb.	.10
Lumber, ceiling, siding, and flooring, 1" by 6".....	M ft. B. M.	95.19
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B. M.	100.00
Lumber, yellow pine or fir (except ceiling).....	M ft. B. M.	83.56
Metal, yellow.....	Lb.	.375
Nuts, iron, machine, hexagonal.....	Lb.	.225
Nuts, iron, machine, square.....	Lb.	.1875
Nails, common, wire.....	Lb.	.0625
Nails, galvanized.....	Lb.	.0875
Oakum, Navy, spun.....	Lb.	.20
Oakum, Navy, unspun.....	Lb.	.20
Oil, fuel, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same.....	42-gal. bbl.	1.50
Commercial vessels and individuals and companies.....	42-gal. bbl.	1.50
Individuals and companies from tank No. 116, Balboa.....	42-gal. bbl.	1.54

Commodity.	Unit.	Price.
Oil, fuel, at Balboa and Cristobal—in drums and barrels:		
United States Army and Navy and vessels operated by same.....	42-gal. bbl.	\$1.75
Commercial vessels and individuals and companies.....	42-gal. bbl.	1.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.625
Oil, ammonia cylinder.....	Gal.	.4375
Oil, burning.....	Gal.	1.375
Oil, cylinder, dark marine.....	Gal.	.875
Oil, cylinder, dark marine.....	Gal.	1.25
Oil, cylinder, ice machine, steam.....	Gal.	1.00
Oil, engine, dynamo.....	Gal.	.7875
Oil, engine—in tins.....	Gal.	.6875
Oil, engine—in barrels.....	Gal.	.5625
Oil, gas engine, extra heavy—in drums.....	Gal.	.5375
Oil, gas engine, heavy—in barrels.....	Gal.	.8125
Oil, gas engine, heavy—in cases.....	Gal.	.8725
Oil, gas engine, medium—in drums.....	Gal.	.5625
Oil, kerosene—in drums.....	Gal.	.25
Oil, kerosene—in tins.....	Gal.	.3125
Oil, linseed, boiled.....	Gal.	2.50
Oil, linseed, raw.....	Gal.	2.5625
Oil, locomotive engine.....	Gal.	.35
Oil, lard.....	Gal.	2.375
Oil, marine engine.....	Gal.	1.125
Oil, marine engine.....	Gal.	.625
Oil, marine engine.....	Gal.	.4375
Oil, marine engine.....	Gal.	.75
Oil, "Mineral Seal".....	Gal.	.3125
Oil, nonliquid.....	Lb.	.10
Oil, stationary engine.....	Gal.	.375
Oil, sperm.....	Gal.	2.875
Oil, signal.....	Gal.	1.375
Oil, valve.....	Gal.	.50
Oil, car.....	Gal.	.225
Wax, lamp.....	Lb.	.20
Grease, black, gear.....	Lb.	.075
Grease, yellow, cup, No. 3.....	Lb.	.125
Grease, yellow, cup, No. 5.....	Lb.	.1375
Grease, rod, special.....	Lb.	.225
Grease, tunnel bearing.....	Lb.	.20
Tallow.....	Lb.	.225
Turpentine.....	Gal.	2.50
Turpentine substitute.....	Gal.	.4625
Vaseline.....	Lb.	.1125
Paint, lead, white, dry.....	Lb.	.125
Paint, lead, white, in oil.....	Lb.	.15
Paint, zinc, white, dry.....	Lb.	.225
Paint, zinc, white, in oil.....	Lb.	.1875
Paint, zinc, white leaded, 35 per cent in oil.....	Lb.	.1875
Rivets.....	Lb.	.0625
Rope, Manila, 1/4" diameter.....	C ft.	.75
Rope, Manila, 3/8" diameter.....	C ft.	1.25
Rope, Manila, 1/2" diameter.....	C ft.	2.19
Rope, Manila, 5/8" diameter.....	C ft.	4.06
Rope, Manila, 3/4" diameter.....	C ft.	4.69
Rope, Manila, 7/8" diameter.....	C ft.	6.25
Rope, Maocila, 1" diameter.....	C ft.	7.50
Rope, Manila, 1 1/8" diameter.....	C ft.	11.25
Rope, Manila, 1 1/4" diameter.....	C ft.	16.56
Rope, Manila, 1 3/8" diameter.....	C ft.	25.00
Rope, Manila, 2" diameter.....	C ft.	30.00
Rope, Manila, 2 1/2" diameter.....	C ft.	47.50
Rope, Manila, 3" diameter.....	C ft.	77.50
Rope, Manila, 3 1/2" diameter.....	C ft.	102.50
Steel, bar.....	Lb.	.05
Steel, spring.....	Lb.	.125
Steel, cold rolled, round.....	Lb.	.0875
Steel, sheet.....	Lb.	.05
Steel, structural (angles, beams, etc.).....	Lb.	.05
Tin, block.....	Lb.	.6875
Tin, Banca.....	Lb.	.9375
Tin, sheet.....	Lb.	.225
Washers, cut.....	Lb.	.0875
Waste, colored.....	Lb.	.2125
Waste, white.....	Lb.	.20
Zinc, boiler plate, 5/8" by 6" by 12".....	Lb.	.1375

Postal and Cable Addresses of The Panama Canal.

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MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight March 13, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
St. Eve (a)	29	14 45	7	6 20	7	14 47	7	14 47	British	Rowbotham & Co.	135.0	29.0	14.6	St. Lucia	Valparaiso	General	450	104	
Laura C. Hall	3	8 35	7	6 30	7	16 10	8	14 55	British	Pacific Metals Corporation	81.0	25.0	10.0	Cristobal	Buenaventura	General	130	69	
Tampa	5	20 15	7	6 58	7	16 05	7	19 12	American	United States Shipping Board	401.0	51.0	17.0	Tampa	Chile	General	6,885	5,070	
Woodarra	7	2 55	7	8 55	7	17 55	9	7 38	British	British India Steam Nav. Co.	449.0	58.0	25.0	New York	New Zealand	General	8,209	5,313	
Guatemala	6	19 58	7	10 07	7	10 07	11	7 22	American	Garland Steamship Co.	247.0	43.0	15.0	New York	Antofagasta	General	4,273	1,832	
Guatemala	1	21 10	7	10 22	7	19 47	7	22 00	British	Pacific Steam Navigation Co.	359.3	43.0	16.5	Cristobal	Valparaiso	General	7,000	2,730	
Nokai	7	5 45	8	6 25	8	16 39	8	17 37	American	United States Shipping Board	402.6	53.0	24.0	New York	Lititicon	General	6,580	4,922	
Hawaii Markness	7	17 37	8	6 25	8	18 47	8	22 27	Japanese	Osaka Shosen Kaisha	475.0	61.0	27.6	New Orleans	Kobe	Cotton, etc.	7,432	9,960	
S. V. Harkness	7	18 21	8	6 30	8	17 52	9	14 51	American	Standard Oil Co.	419.0	67.0	26.8	Tampico	Crude petroleum	General	7,443	5,545	
Nika	7	1 58	8	7 05	8	19 30	9	18 30	American	Hodge Shipping Co.	267.5	46.0	22.0	New Orleans	Valparaiso	General	2,700	1,755	
St. Botolph (a)	8	1 08	9	6 21	9	16 59	9	20 27	American	British Admiralty	135.0	29.0	16.6	St. Lucia	Iquique	General	452	115	
Imperial	4	19 50	9	6 32	9	17 09	9	18 05	British	South American S. S. Line	336.8	41.2	23.9	Cristobal	Valparaiso	General	2,544	1,927	
Juneau	9	1 35	10	6 05	10	18 21	12	21 37	Chilean	Alaska Steamship Co.	244.0	43.2	15.0	Boston	San Francisco	General	1,500	1,927	
San Juan	2	18 50	10	6 10	10	17 14	11	7 40	American	Pacific Mail Steamship Co.	283.0	37.0	17.6	Cristobal	General	2,379	1,593		
Steel Age	9	10 22	10	6 24	10	19 20	10	22 16	American	United States Steel Products Co.	395.5	55.0	26.6	New York	Talcahuano	General	7,771	4,447	
St. Blazey (a)	9	7 30	10	6 30	10	17 12	10	18 09	British	British Government	135.4	29.1	14.6	London	Iquique	General	2,359	1,577	
Lautaro	9	14 05	10	6 52	10	20 35	10	21 45	Chilean	Borquez & Co.	275.0	36.0	15.0	Gibraltar	Juniu	General	2,823	1,740	
Lake Festina	8	15 43	10	7 22	10	18 20	10	18 59	American	United States Shipping Board	360.0	44.7	21.3	Cristobal	Toopilla	General	620	4,514	
Hualpaea	4	22 55	10	7 55	10	19 30	10	22 30	Peruvian	Peruvian Steamship Line	425.0	57.0	27.0	Tampico	Toopilla	Fuel oil	(c)	7,065	
Belridge	10	9 10	10	9 51	10	21 10	10	24 39	Norwegian	W. Wilhelmsen	425.0	52.0	27.0	Tampico	Toopilla	General	1,187	6,887	
Victoria	9	14 17	10	10 40	10	21 50	11	15 06	British	Pacific Steam Navigation Co.	401.0	57.0	20.0	Liverpool	Valparaiso	General	1,187	6,887	
Swallow and barge No. 4	8	14 45	11	6 20	11	15 57	14	17 00	American	United States Government	187.0	35.0	10.0	Norfolk	San Francisco	General	3,959	2,628	
National Bridge	10	3 05	11	6 23	11	15 51	11	17 10	American	United States Shipping Board	324.0	46.2	14.3	Charleston	Caleta Buena	Coal	6,696	4,953	
West Henshaw	10	9 24	11	6 34	11	17 08	14	8 45	American	United States Shipping Board	410.0	54.2	24.6	Norfolk	San Diego	Coal	4,100	2,646	
Peru	4	22 32	11	7 08	11	18 48	11	22 45	British	Pacific Steam Navigation Co.	350.0	53.1	19.3	Cristobal	Guayaquil	General	9,127	7,285	
Steelmaker	10	13 47	11	7 41	11	18 46	11	19 41	American	United States Steel Products Co.	393.0	45.0	27.8	New York	Vancouver	General	6,941	10,631	
Tanul	11	3 58	11	7 30	11	19 52	12	8 03	British	Shaw Saville & Albion	477.8	61.0	26.6	Norfolk	Wellington	General	6,941	10,631	
Wm. T. Lewis b	10	6 52	11	6 27	11	18 16	12	18 58	American	Hind Rolph & Co.	279.0	42.0	13.6	Plymouth	Port Townsend	Steel, gasoline	8,000	6,611	
Oloksen	11	16 40	12	6 12	12	18 16	12	18 58	American	United States Shipping Board	401.0	53.0	26.0	Philadelphia	Vladivostok	General	5,990	4,774	
Salvador	11	16 40	12	6 14	12	17 12	12	20 06	British	Pacific Steam Navigation Co.	215.0	31.8	14.6	Cristobal	Champorico	General	5,990	4,774	
Panama Maru	7	22 02	12	6 25	12	17 19	12	18 30	Japanese	Osaka Shosen Kaisha	400.0	53.0	23.0	New Orleans	Los Angeles	General	3,751	5,995	
Chairton	12	3 12	12	7 15	12	19 00	13	14 51	American	United States Shipping Board	395.3	55.0	18.0	New York	New Orleans	General	7,286	5,245	
Yang-Tze	12	10 50	12	11 46	13	18 03	13	18 39	British	Alfred Holt & Co.	449.0	53.0	25.0	New York	Antofagasta	General	5,046	6,926	
West Eldara	9	21 20	13	6 07	13	18 37	13	22 59	British	Pacific Steam Navigation Co.	220.0	34.0	13.0	Cristobal	Singapore	General	7,075	4,969	
F. D. Asche	12	11 30	13	6 24	13	21 05	14	22 54	American	United States Shipping Board	409.6	54.2	23.6	New York	Buenaventura	General	11,500	8,606	
Royal Arrow	13	7 56	13	6 30	13	22 11	13	22 11	American	Standard Oil Co.	461.6	60.0	26.6	Sabine	Balboa	Fuel oil	11,500	8,606	
											467.6	60.0	26.6	Sabine	Yokohama	Petroleum	11,500	10,041	

(a) Tug. (b) Bark. (c) 33,000 barrels.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Date	Vessel	From	Date	Vessel	Line	General	Weight	Remarks							
Salvador	6 23 15	6	6 55	7 18 40	12	6 14	British	Pacific Steam Navigation Co.	215.0	33.0	14.6	Champetico	Cristobal	766	1,128	650
Lake Elwater	7 00 1	7	8 03	7 20 21	10	17 10	American	United States Shipping Board	253.4	43.6	20.8	Tacoma	Nipe Bay Cuba	1,865	2,730	1,693
Lake Cathoon	7 00 15	7	6 09	7 22 00	11	14 25	American	United States Shipping Board	251.0	46.6	20.3	Caleta Colosa	Wilmington	3,002	2,319	1,412
Cottonwood	7 1 00	7	10 08	7 18 42	8	4 35	American	United States Shipping Board	253.4	58.4	23.6	Caleta Colosa	New York	3,200	2,450	1,485
Port Pirie	7 1 30	7	7 35	7 16 18	7	19 40	British	Commonwealth & Dominion Line	470.1	43.9	25.1	Littleton	London	8,000	7,316	4,601
Benjamin	7 3 30	7	9 06	7 15 10	8	15 10	American	Standard Oil Co. of N. J.	411.6	53.4	16.6	Antofagasta	Ralboa (d)	5,579	3,379	3,379
Brewster	7 6 00	7	7 40	7 17 10	8	12 10	British	F. & W. Rison	300.5	51.0	22.6	Puntarenas	London	5,297	3,554	2,222
Cedar Branch	7 7 30	7	10 18	7 20 07	8	7 35	Norwegian	W. Wilhelmssen	424.8	57.0	18.0	Tucupilla	Tampico	7,022	4,438	2,222
La Halra	7 9 30	7	10 35	7 22 50	8	16 45	American	United States Shipping Board	251.0	43.6	22.3	Mejillones	Pensacola	3,350	2,606	1,612
Lake Glasco	7 13 30	7	7 48	8 19 35	9	4 50	American	United States Shipping Board	395.5	53.0	26.0	Wellington	Baltimore	8,810	2,027	1,200
Bellnecke	7 15 30	8	11 10	13 22 15	13	22 15	American	United States Shipping Board	251.6	43.3	18.0	Puntarenas	Baltimore	5,113	2,027	1,200
Lake Capens	7 15 30	8	7 54	8 21 04	8	23 10	Norwegian	Brungsard Kiostrud	389.8	54.1	24.6	Iquique	New Orleans	8,173	3,340	2,724
Herkles	7 20 00	8	9 13	8 20 14	8	23 59	Norwegian	Yae Luger	322.7	41.2	23.6	Mejillones	Savannah	4,439	3,369	2,594
Helder	7 18 20	8	42 42	9 21 14	12	16 12	American	Robin Steamship Line	424.8	55.2	26.8	Taital	Antwerp	9,027	8,061	6,253
Edgar F. Luck	8 9 00	8	18 52	9 23 53	American	23 53	American	Luckenbach Steamship Co.	425.0	57.3	31.6	Iquique	Charleston	11,807	8,061	6,253
enbach	8 22 00	9	7 29	9 18 52	9	23 53	British	Pacific Steam Navigation Co.	220.0	34.0	13.3	Tumaco	Cristobal	719	1,138	602
Jumata	9 6 30	9	7 30	9 21 25	13	9 25	British	Pacific Steam Navigation Co.	220.0	34.0	13.3	Tumaco	Cristobal	719	1,138	602
Sarigano	9 8 30	9	11 35	9 19 55	14	9 42	Italian	La Veloce	418.3	47.2	23.0	Valparaiso	Genoa	3,097	5,253	3,226
Kaikyo Maru	9 17 00	9	19 11	10 20 25	11	2 50	Japanese	Katsuda Kisen Kaisha	445.0	58.0	28.6	Arica	Antwerp	11,400	8,134	5,046
Canra	9 20 20	10	7 48	10 18 15	15	6 15	British	Pacific Steam Navigation Co.	246.0	35.2	16.0	Guayquil	Cristobal	1,053	1,448	890
Palena	10 10 05	10	10 30	10 19 50	15	7 50	Chilean	Chilean Line	350.0	42.1	19.5	Valparaiso	Cristobal	1,549	2,553	1,600
Cote Blanche	10 10 40	10	11 45	10 21 52	11	3 38	American	United States Shipping Board	253.4	43.7	24.0	Caleta Buena	Savannah	3,452	2,351	1,433
Carique	11 9 53	11	9 56	11 20 30	12	4 25	Pervuvian	W. K. Grace & Co.	304.2	42.3	28.6	Mejillones	English Chan	8,175	6,202	4,543
Manfaro	11 13 30	11	14 05	12 18 24	13	12 58	British	Pervuvian Line	386.0	46.0	20.0	Wellington	Cristobal	2,233	4,617	2,427
Rimutaka	11 17 30	11	17 15	12 19 38	13	12 58	British	United States Shipping Co.	457.0	58.0	22.6	Wellington	London	5,250	3,893	5,759
Clackamas	11 18 30	11	19 19	12 21 20	13	2 20	American	United States Shipping Board	267.8	49.8	23.6	Portland	London	11,000	8,597	5,277
D. G. Schofield	11 19 25	12	8 30	12 21 43	13	2 20	American	Standard Oil Co.	479.0	46.9	30.0	San Francisco	London	11,000	8,597	5,277
Nouvelle Poisse	12 4 00	12	9 04	12 21 20	13	2 20	French	French Government	331.0	46.9	16.4	Vancouver	London	1,775	5,000	5,277
Tevio	12 11 11	12	11 13	12 21 05	13	2 20	British	Royal Mail Steam Packet Co.	331.0	46.9	16.4	Vancouver	London	1,775	5,000	5,277
Ansaldo III	12 6 30	12	9 40	12 21 25	15	6 10	Italian	National Navigation Association	365.5	48.0	20.8	Valparaiso	Genoa	5,761	5,310	3,153
Eastern Moon	12 15 30	12	17 25	14 20 14	21	37	American	United States Shipping Board	384.8	51.2	24.6	Everett	New York	7,785	5,310	3,153
West Cayote	12 18 30	12	20 08	11 20 20	14	21 37	American	United States Shipping Board	410.5	54.3	22.0	Seattle	Portland	5,481	5,310	3,153
Mexico	12 20 00	12	20 50	13 20 27	14	4 40	British	Pacific Steam Navigation Co.	401.0	52.0	23.6	Taleahuano	Liverpool	3,334	5,549	2,994
Marshfield	13 00 10	13	7 46	13 22 22	14	4 40	American	United States Shipping Board	275.2	46.0	20.0	Portland	New York	2,200	2,200	2,200

PORT OF CRISTOBAL

Ship	Date	Vessel	From	Date	Vessel	Line	General	Weight	Remarks
March 7	March 7	Lake Gilboa	United States Shipping Board	March 7	Caribbean	Astoria Mahogany Co.	General	766	New York
March 8	March 8	Calamares	United Fruit Co.	March 7	Arche	Panama Railroad Cattle Industry	Lumber	1,128	Cartagena
March 8	March 8	Heredia	United Fruit Co.	March 7	Achilles	Panama Railroad Steamship Line	Nitrate	1,865	Cartagena
March 9	March 9	Gen. O. H. Ernst	Panama Railroad Steamship Line	March 8	Beaumont	United States Shipping Board	Nitrate	3,002	Norfolk
March 9	March 9	Salmon	United States Shipping Board	March 8	Lake Gilboa	United States Shipping Board	C.S. and general	8,000	Pensacola

*DEPARTURES

(d) For orders. (e) 1,333,777 feet.

(Continued on page 449, column 2.)

Weather Conditions in February, 1920.

The month of February was the driest on record for the Canal Zone and vicinity, totals ranging from no rain at Miraflores to 1.61 inches at Porto Bello. The greatest amount of rainfall on any one day was 0.32 inch at Gatun on the 13th and at Porto Bello on the 15th. Heavy rains occurred near Bocas del Toro. In the Talamanca Valley 9 inches of rain fell during the 24 hours ended at 6 a. m. February 28.

The estimated rainfall over Gatun Lake watershed was 0.44 inch, compared with a 10-year mean of 1.82 inches, and over the Chagres River basin above Alhajueta it was 0.74 inch, compared with a 19-year mean of 1.63 inches.

The air temperature and wind movement were near the normal, while the atmospheric pressure, relative humidity, and daytime cloudiness were below the average. The temperature of the sea water was below normal on the Pacific Coast, and above on the Atlantic. The evaporation was generally above the normal.

No fogs were observed during the month.

The average hourly wind movement at Cape Mala was 23 miles, prevailing direction north, and maximum velocity 44 miles an hour from the north on February 8.

Light seismic tremors were recorded on the 2d, 7th, 10th, and 28th of the month.

Gatun lake hydrology—Mean elevation of Gatun Lake was 85.26 feet, maximum, 85.95 feet on the 1st, minimum, 84.56 feet on the 29th, evaporation from Gatun Lake surface, 6.552 inches, rainfall on Gatun Lake drainage basin, 0.44 inch, total yield of Gatun Lake watershed 0.58 inch on watershed. The total yield amounted to 132 per cent of the rainfall.

The following table gives a summary of the weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.				Precipitation.				Wind.					
		Mean.	Maximum.	Date.	Minimum.	Date.	Mean relative humidity.	Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa Heights.....	29.860	80.2	92	Feb. 25	68	Feb. 7	72.9	T	0.77	....	8,006	N.	31	N.	Feb. 17
Colon.....	29.876	81.2	87	Feb. 26	72	Feb. 25	76.1	0.54	1.62	10	10,768	N.	31	N.	Feb. 27
Gamboa.....	79.2	94	Feb. 25	66	Feb. 7	....	.10	.82	3	5,393	N.E.	28	N.E.	Feb. 21	
Gatun.....	89.0	91	Feb. 26	70	Feb. 25	....	1.00	2.58	14	7,202	N.	24	N.	Feb. 22	

Official Circulars.

Enemy Aliens.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 9, 1920.
Revised Travel Regulations.

To all concerned—Under instructions from the State Department no enemy aliens will be allowed to pass through the Canal Zone unless they are in possession of passports properly visaed by the American Consular officer at port of departure for the Canal Zone.

These instructions are in addition to the requirements contained in notice to all concerned of January 30, 1920.

CHESTER HARDING,
Governor.

Purchases from Enlisted Men Forbidden.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 12, 1920.

To all concerned—Complaints have recently been received in this office of instances of Panama Canal and Panama Railroad employees purchasing Government clothing and other property from enlisted men. This practice is unlawful, and in this connection your attention is invited to the provisions of the Executive Order of the President of November 15, 1911, from which the following is quoted:

"Section 1. Whoever shall knowingly purchase or receive in pledge for any obligation or indebtedness from any soldier, officer, sailor, or other person called into or employed in the military or naval service, any arms, equipment, am-

munition, clothes, military stores, or other public property, whether furnished to the soldier, officer, sailor, or person under a clothing allowance or otherwise, such soldier, officer, sailor, or other person not having a lawful right to pledge or sell the same, shall be fined not more than five hundred dollars, and imprisoned in jail not more than two years; and the Circuit Court of the Circuit wherein such supplies or equipment may have been unlawfully purchased or received in pledge shall have jurisdiction of the offense."

There is also quoted below my circular of May 21, 1919, which is repeated for your information and guidance:

"Attention is invited to the following Section No. 1247 of Army Regulations, prohibiting the sale or barter of supplies purchased or drawn from the Army Commissaries:

"Post Commanders will regulate sales and delivery of supplies. Selling (except by the Post Exchange) or bartering of supplies purchased or drawn from the Quartermaster is forbidden."

Employees of The Panama Canal and Panama Railroad Company are cautioned against being parties to violations of the foregoing regulations. Any employee found guilty of such practice should be reported to this office for disciplinary action.

CHESTER HARDING,
Governor.

Board of Admeasurement.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 10, 1920.
Circular No. 660-50;

Subject to revision by the Governor, the Board of Admeasurement is charged with supervision

Rainfall from Feb. 1 to Feb. 29, Inclusive.

STATIONS.	Maximum	Date.	Total.
	in one day.		Ins.
<i>Pacific section—</i>	<i>Ins.</i>		<i>Ins.</i>
Balboa.....	T	28	T
Balboa Heights.....	T	5,17,21	T
Miraflores.....			
Pedro Miguel.....	0.07	27	0.07
Rio Grande.....	.04	27	.05
<i>Central section—</i>			
*Culebra.....	.06	27	.10
*Camacho.....	.05	27	.05
Empire.....	.03	27	.05
Gamboa.....	.07	27	.10
*Juan Mina.....	.07	27	.12
Alhajuela.....	.09	27	.15
*Vigia.....	.06	27	.13
Darien.....	.04	27	.12
*Trinidad.....	.14	20	.40
*Monte Lirio.....	.25	27	.71
<i>Atlantic section—</i>			
Gatun.....	.32	13	1.00
*Brazos Brook.....	.30	14	.56
Colon.....	.31	13	.54
†Bocas del Toro.....	3.48	29	13.58
Porto Bello.....	.32	15	1.61

*Standard rain gauge—readings at 5 p. m. daily.
Automatic rain gauge at unstarred stations—values,
midnight to midnight.

†Standard rain gauge—readings at 8 a. m. daily.

February Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1920.
	1920	1919	1918			
<i>Pacific section—</i>						
Balboa.....	T	0.06	.....	0.57	21	....
Balboa Heights.....	T	T	T	.77	23	....
Miraflores.....				.93	12	....
Pedro Miguel.....	.07	T	.02	.63	13	1
Rio Grande.....	.05	.02	.12	.64	16	2
<i>Central section—</i>						
Culebra.....	.10	.05	.10	.63	30	4
Camacho.....	.05	.21	.02	.78	14	1
Empire.....	.05	.24	.02	.69	15	3
Gamboa.....	.10	.21	.07	.82	35	3
Juan Mina.....	.12	.04	.96	1.08	10	3
Alhajuela.....	.15	.04	.14	.71	21	5
Vigia.....	.13	.....	.30	1.40	12	5
Frijoles.....	.25	.52	.24	1.96	9	....
Trinidad.....	.40	.34	.37	2.34	13	8
Monte Lirio.....	.71	1.15	.76	2.93	13	9
<i>Atlantic section—</i>						
Gatun.....	1.00	.54	.53	2.58	16	14
Brazos Brook.....	.56	.70	1.00	2.88	14	9
Colon.....	.54	.36	.67	1.62	50	10
Porto Bello.....	1.61	1.58	.....	3.35	9	17

COMMISSARY NOTES.

Easter Novelties.

Easter cards have been distributed to the commissaries at Ancon, Balboa, Cristobal, Pedro Miguel, and Gatun. These stores will also offer for sale on Monday, March 22, Easter novelties, such as chicks, rabbits, eggs, baskets, chick houses, etc.

Hot Cross Buns.

Responsive to requests from a number of customers, hot cross buns will be baked for delivery to the commissaries April 1. Persons desiring will please place orders at their commissaries in order that requirements may be more accurately estimated.

Potatoes.

Wholesale quotations from New York seem to indicate that the price of potatoes will advance markedly. It is stated that the poor potato crop last year coupled with the railroad freight embargo caused by weather conditions is the probable reason for the situation.

Nutmargarine.

Nutmargarine will in future be sold only over the counter in the retail commissaries, except when customers desiring delivery will agree not to return it for exchange. This product is a vegetable fat and will not hold up, as a rule, longer than an hour outside of refrigeration.

Advanced Prices.

Advices from a firm in Japan of which the Commissary Division purchases a number of items contain notification of various advances in the prices of articles manufactured in that country. Brushes have increased 20 per cent and silk 74 per cent and there is said to be nothing in the present situation to encourage the hope of any decline in the first half of this year.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., March 24, 1920. No. 32.

The Slide at Cucaracha.

A movement of the slide at Cucaracha in Gaillard Cut on the night of March 20 delayed vessels transiting the Canal. Vessels will be able to complete the transit on the morning of the 25th. There will be an improvement in conditions from this time until the next movement, the date of which it is impossible to predict. The permanent equilibrium, disturbed by the initial movement of February 22, will not be restored until several repetitions of the shoaling and clearing process have occurred.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 20, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Caribbean.....	Panama Railroad Cattle Industry..		March 14.....	<i>Tons.</i>	<i>Tons.</i>
Arabia.....	San Blas Trading Corporation.....	March 15.....	March 15.....	(*)	† 215
Gen. O. H. Ernst.....	Panama Railroad Steamship Line..		March 15.....		30
Cauca.....	Pacific Steam Navigation Co.....		March 15.....		3,431
Palena.....	Chilean Steamship Co.....		March 15.....		1,065
Pastores.....	United Fruit Co.....	March 15.....	March 16.....	447	(†)
Parismina.....	United Fruit Co.....	March 16.....	March 16.....	70	(†)
Mantaro.....	Peruvian Line.....		March 16.....		152‡
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line..		March 17.....		3,806
Atenas.....	United Fruit Co.....	March 16.....	March 18.....	1,374	74
Teviot.....	Royal Mail Steam Packet Co.....		March 18.....		2,837
Saint Andre.....	French Line.....	March 16.....	March 19.....	239	(†)
Ancon.....	Panama Railroad Steamship Line..		March 19.....		11,093
Ucayali.....	Peruvian Line.....	March 16.....		1,631	
Oriana.....	Pacific Steam Navigation Co.....	March 17.....	March 19.....	2	(†)
Newport.....	Pacific Mail Steamship Line.....	March 17.....		2,065	
Caribbean.....	Panama Railroad Cattle Industry..	March 18.....		250	
Santa Marta.....	United Fruit Co.....	March 18.....	March 19.....	1	5
Colon.....	Panama Railroad Steamship Line..	March 19.....		2,619	
Balboa.....	Colombian Maritime Co.....	March 19.....		503	
Ulysses.....	Panama Railroad Steamship Line..	March 20.....		12,015	
Manavi.....	Pacific Steam Navigation Co.....	March 20.....		654	

* No cargo discharged.

† Pounds.

‡ No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending March 20, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Rosalie Mahoney.....	Fred Lindenman of San Francisco.		March 8.....	<i>Tons.</i>	<i>Tons.</i>
Salvador.....	Pacific Steam Navigation Co.....		March 7.....	73	1,487
Guatemala.....	Pacific Steam Navigation Co.....	March 7.....	March 7.....	6	
Kiyo Maru.....	Toyo Kisen Kaisha.....	March 7.....	March 11.....	1,649	1
Jamaica.....	Pacific Steam Navigation Co.....	March 9.....	March 9.....	5	
San Juan.....	Pacific Mail Steamship Co.....	March 10.....	March 10.....		47
Laura C. Hall.....	Pacific Metals Corporation.....	March 10.....	March 13.....		142
Ansaldo III.....	National Navigation Society.....	March 12.....		46	
West Cayote.....	United States Shipping Board..	March 12.....	March 12.....	1,045	
Teviot.....	Royal Mail Steam Packet Co.....	March 12.....	March 13.....	136	
Ansaldo III.....	National Navigation Society.....		March 14.....		168
F. D. Asche.....	Standard Oil Co.....	March 13.....	March 16.....	11,500	
Lady Sybil.....	International Petroleum Co.....	March 15.....		500	
Ucayali.....	Peruvian Steamship Co.....	March 16.....	March 16.....	8	
Newport.....	Pacific Mail Steamship Co.....	March 16.....	March 17.....	183	14
Manavi.....	Pacific Steam Navigation Co.....	March 19.....	March 19.....	10	
Point Adams.....	Pacific Mail Steamship Co.....	March 20.....		143	

Trial Trip of the "Cristobal."

The steamship *Cristobal* of the Panama Railroad Steamship Line, which is being overhauled and extensively rebuilt at Balboa shops, underwent a trial trip on March 21, affording a test of boilers, engines, steering gear, anchor hoists, etc., and giving opportunity to correct the compasses. It was a test of a coordinated ship, and in all respects satisfactory. The *Cristobal* was placed in dry dock on the following day for the semiannual cleaning and painting, and is to be given stability tests in the evening of March 24, after which she will leave the dry dock and be given final touches preparatory to clearing for New York. On this voyage she will not carry passengers.

Salvaging the "Olockson."

The steamship *Olockson* which was reported by wireless on March 13 afire off Morro Puercos, beyond Cape Mala, was taken in tow by the Panama Canal tug *Gorgona* at about 10 a. m., Sunday, March 14, approximately in latitude 7° 12' N. and longitude 80° 20' W., about 35 miles southwest by south of the light on Cape Mala. She had been abandoned by her crew. They had taken to the lifeboats, and had been picked up by the steamer *Salvador*, from which they were transferred to the United States cruiser *Tacoma*, which had gone out in response to the calls from the *Olockson*, reaching her in the afternoon of March 13, but not attempting to take her in tow on account of the explosions then occurring in the cargo. The fire had been burning about 28 hours when the tug took the ship in tow.

The *Gorgona* made fast with 250 fathoms of 1½-inch steel cable, and started back to Balboa with the blazing ship in tow. The *Olockson* sheered badly, at times as much as 90 degrees from the line of the tow, so that the cable was broken four times. The ship was a mass of flames, the heat was intense, and for a part of the time it was impossible to make fast to her bow, and the cable was attached to the poop, towing the ship stern foremost. In going alongside to put men aboard to make fast the cable, the tug lost both her ladders by breaking and afterwards it was necessary for men to climb aboard by cables, sometimes finding it so hot that they could not stay. At frequent intervals explosions occurred among the drums of gasoline in the cargo, and flames would shoot up as high as 200 feet in the air. Altogether, the 6 officers and crew of 25 on the *Gorgona* had a strenuous struggle, and their work in bringing the ship in is considered a piece of splendid seamanship.

The *Gorgona* and tow reached the outer harbor at Balboa about 6 in the evening of the fourth day, Wednesday, March 17. The *Olockson* was beached off Changarme Rock, in a bed of soft material dumped by barges from the excavation in the Pacific entrance channel. The water was then at about half tide, and falling. At low tide men from the Mechanical Division cut holes about 10 or 12 inches square at the surface of the water into each hold and the engine room. Oxy-acetylene torches were used for the cutting.

When the tide rose it filled the interior of the ship to the level of high water, protecting part of the structure and cargo and assisting the work of the fire-fighters. A force under the direction of the captain of the Balboa fire station worked incessantly on the fire during the high water periods, cooperating with the crew of the *Gorgona*. Seven streams of water were played on the flames, but the only way to extinguish the fire was to flood it. When the water from the tide had reached its high-

est level, a diver closed up the holes in the hull by fixing plates over them, and with the help of the water thrown on the flames from above by the firemen the fire was extinguished on March 21, at 5.30 in the afternoon. The total time of actual fire-fighting was 23 hours and 15 minutes.

The sea water found access to the oil fuel tanks of the *Olockson* at high tide and, being heavier than the oil, forced it through the vent pipes to the surface, where it became ignited and added to the difficulties of the situation. Wooden plugs were driven in the vent pipes to stop the flow of oil.

Directly after the fire was extinguished the plates which covered the holes in the hull were removed, to lighten the weight on the ship and prevent her sinking deeper in the mud. Pumps are being made ready on lighters and as soon as the men are ready to begin pumping the plates will be replaced over the holes at low tide. With vigorous pumping it is expected to lighten the ship enough to float her when the tide rises. As she lies now the deck is awash at high tide, It is expected to unload the cargo from the *Olockson* into lighters, and not to bring her into dock until unloaded, on account of the further fire risk.

Freight Tariff to South Pacific Ports.

The Panama Railroad Company has issued its freight classification and tariff No. 35, publishing class and commodity rates from New York to Pacific ports of Colombia, Ecuador, Peru, and Chile, over the Panama Railroad Steamship Line and connecting carriers, effective February 27, 1920, and canceling classification and tariff No. 28, with supplements. The ports for which rates are quoted are Buenaventura and Tumaco, Colombia; Esmeraldas, Cayo, Bahia de Caraquez, Ballenita, Manglar Alto, Manta, Machalilla, Puerto Bolivar, and Guayaquil, Ecuador; Huanchaco, Supe, Eten, Payta, Pacasmayo, Salaverry, Pisco, Chimbote, Samanco, Casma, Huacho, Pimentel, Huarmey, Callao, Cerro Azul, Lomas, Chala, Tambo de Mora, Mollendo, and Ilo, Peru; Arica, Pisagua, Caleta Buena, Tocopilla, Taltal, Iquique, Valparaiso, Talcahuano, Antofagasta, Chanaral, Gatico, Lota, Caldera, Coquimbo, Coronel, Penco, Tome, and Fiasco, Chile. Steamers sail from Pier No. 67, North River, New York, at the foot of West 27th Street, about every sixth day, at 3 p. m. Freight is received up to 5 p. m. two days prior to sailing.

Copies of the freight classification and tariff may be obtained from the Panama Railroad Company at Balboa Heights, Canal Zone, or 24 State Street, New York.

Cable Company Changes Name.

The name of the Central and South American Telegraph Company has been changed to "All America Cables, Incorporated," by authority of the State of New York.

Prices of Miscellaneous Supplies.

The price list of miscellaneous supplies published in last week's issue is effective March 1, instead of, as stated, February 1, 1920.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight March 20, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Stillehavet.....	13	14.15	14	6.25	14	20.03	14	23.54	Danish.....	Astan Herthavet S. S. Co.	376.0	50.0	25.0	Norfolk.....	Antofagasta.....	Coal.....	3,336	5,572	4,220
Delanson.....	13	8.25	14	6.35	14	22.42	15	1.06	American.....	United States Shipping Board	409.7	54.2	15.3	Philadelphia.....	Iquique.....	Iron and cotton.....	6,900	5,329	4,658
okufuku Maru.....	14	2.15	14	7.40	14	23.38	15	1.33	Japanese.....	Kawasaki Dockyard Co.	385.0	51.0	25.7	New Orleans.....	San Francisco.....	General.....	4,246	3,997	2,823
Carawa.....	14	12.32	15	6.24	15	20.23	16	16.33	British.....	Commonwealth Government.....	360.0	47.6	22.0	Port Arthur.....	Melbourne.....	Petroleum.....	8,600	7,165	5,426
Acme.....	14	21.50	15	6.55	15	20.26	15	21.20	American.....	Steam Transportation Co.	435.0	56.0	26.0	Beaumont.....	Darien.....	General.....	1,110	1,532	1,023
Cayca.....	10	18.15	15	9.30	15	18.59	15	22.08	British.....	Pacific Steam Navigation Co.	245.0	35.2	16.0	Cristobal.....	Guayaquil.....	General.....	285	3,639	2,537
Palena.....	10	19.50	15	9.58	15	19.11	15	19.28	Chilean.....	Pacific Steam Navigation Co.	350.0	42.1	23.1	Cristobal.....	Valparaiso.....	General.....	95	73	73
Konsh (6).....	13	7.22	16	6.05	16	17.47	19	19.28	American.....	E. W. Scripps	84.0	18.0	9.0	Jacksonville.....	San Diego.....	General.....	8,500	7,285	5,256
Wahegan.....	15	6.50	16	6.12	16	19.03	16	19.56	American.....	United States Shipping Board	395.5	55.0	26.6	New York.....	Honolulu.....	Phosphate,cotton	8,000	7,338	5,555
Burana.....	13	20.03	16	5.40	16	19.57	16	21.01	American.....	Green Star Line.....	399.7	56.2	25.6	Baltimore.....	San Francisco	General	152	4,721	2,853
Milwano.....	12	18.24	16	7.55	16	18.00	16	23.50	Peruvian.....	Peruvia Line.....	386.0	46.0	20.0	Tampico.....	Callao.....	Crude naphtha.....	9,500	7,441	5,341
Dilwyn.....	16	9.40	17	6.40	17	22.52	17	23.47	British.....	United States Shipping Board	435.0	56.0	27.0	Tampico.....	San Francisco	General	7,473	5,842	4,061
Persian Prince.....	16	16.33	17	6.50	18	18.58	19	19.09	British.....	Prince Line, Ltd	403.0	52.0	25.8	New York.....	Honolulu.....	General.....	11,470	9,967	6,936
Eurylochus.....	16	12.38	17	7.05	17	20.07	17	21.03	British.....	New Zealand Shipping Co.	460.7	60.2	29.0	Newport, News	Auckland.....	General.....	6,800	6,781	4,635
Caddo.....	16	22.11	17	8.05	17	18.35	19	16.38	American.....	Alfred Holt & Co.	430.0	53.0	27.0	New York.....	Honolulu.....	General.....	8,000	6,438	4,393
Cajacet.....	6	9.00	17	10.58	17	22.05	17	23.05	American.....	Standard Oil Co.	427.0	55.0	29.0	Tampico.....	Pisagua.....	Petroleum.....	8,000	7,983	5,882
Corinthiac.....	17	9.33	17	11.05	17	23.47	19	13.28	British.....	United States Shipping Board	434.0	57.7	16.6	Philadelphia.....	Iquique.....	Gov't stores.....	300	12,792	9,906
Scottish Monarch.....	17	9.45	17	11.28	17	21.02	18	2.20	British.....	White Star Line.....	500.0	63.0	26.0	London.....	New Zealand.....	Gov't stores.....	300	12,792	9,906
San Joaquin.....	17	14.50	18	6.25	18	24.00	19	2.54	Norwegian.....	Monarch Line.....	425.0	54.0	19.0	Newport News	Taltal.....	Crude oil.....	9,700	7,039	5,081
Texaskana.....	4	16.07	18	7.00	18	17.39	18	18.47	American.....	United States Shipping Board	410.0	54.2	15.0	New York.....	Taltal.....	Crude oil.....	9,700	7,039	5,081
Comeric.....	7	9.55	18	6.45	18	16.41	18	17.24	British.....	Andrew War & Co.	402.0	55.5	29.6	New York.....	Caleta Buena.....	General.....	9,500	7,186	5,335
Republic.....	16	22.30	18	7.12	18	19.36	18	8.42	American.....	Chile Steamship Co.	345.0	49.0	19.6	Baltimore.....	Tocopilla.....	General.....	3,500	4,623	3,372
Santa Paula.....	17	10.00	18	7.55	18	22.16	21	7.35	American.....	W. R. Grace & Co.	404.0	54.0	24.0	New York.....	Talcahuano.....	General.....	5,200	6,744	4,825
Albat Maru.....	17	22.45	18	8.10	18	21.33	19	24.00	Japanese.....	Osaka Shosen Kaisha	425.0	56.0	30.6	New York.....	Yokohama.....	General.....	9,372	7,903	5,635
Avalon.....	17	15.46	18	10.20	18	20.36	18	22.15	American.....	William Wrigley Jr.	264.7	38.3	15.6	New York.....	San Pedro.....	General.....	2,300	1,922	1,322
Sherman.....	13	10.18	18	10.45	18	22.55	18	23.40	American.....	Sherman Steamship Co.	400.0	45.0	25.0	Baltimore.....	Valparaiso.....	General.....	4,138	5,037	3,492
Oriana.....	17	22.20	19	6.25	19	16.25	19	23.25	British.....	Pacific Steam Navigation Co.	465.0	56.0	24.0	Liverpool.....	Coronel.....	General.....	1,445	8,620	5,345
Saint Andre.....	16	11.25	19	6.35	19	17.22	19	18.07	French.....	French Line.....	397.9	50.3	16.3	Bordeaux.....	Guayaquil.....	General.....	235	5,917	4,146
Moody (6).....	15	6.36	20	9.23	20	17.52	.....	.....	American.....	United States Navy	314.0	32.0	.....	Quantanaro.....	San Diego.....	.....	.....	.....	.....
Henshaw (6).....	10	18.03	20	6.43	20	17.58	.....	.....	American.....	United States Navy	310.0	36.0	15.6	Puerto Cortez.....	San Diego.....	.....	.....	.....	.....
McCawley (6).....	13	12.07	20	6.43	20	17.38	.....	.....	American.....	United States Navy	312.0	37.0	16.0	New Orleans.....	San Pedro.....	.....	.....	.....	.....
Meyer, 279.....	19	13.11	20	6.43	20	17.39	.....	.....	American.....	United States Navy	286.0	46.0	25.0	Tampico.....	San Pedro.....	.....	.....	.....	.....
Corcovado.....	19	29.18	23	6.07	23	19.23	20	19.50	British.....	Pacific Steam Navigation Co.	402.0	47.0	23.1	Liverpool.....	Coronel.....	General.....	5,514	4,976	3,272
Cape Fear.....	2-29	18.23	20	6.37	20	19.27	.....	.....	American.....	United States Shipping Board	286.0	46.0	25.0	Norfolk.....	Iquique.....	.....	.....	.....	.....

(a) Yacht. (b) Destroyer.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Crown of Toledo	14	15	00	14	17	35	15	20	35	15	23	10	British	Prentice, Service & Henderson	455	0	56	0	23	6	Vancouver	London	Salmon, fruit, etc.	7,000	7,619	4,874
Bogota	14	18	40	15	7	35	15	13	25	15	1	10	American	Pacific Steam Navigation Co.	400	0	56	0	23	6	Talcahuano	Liverpool	General	6,447	5,167	3,127
S. C. No. 284	2-29	15	30	16	1	01	16	19	10	16	19	45	American	United States Navy	100	0	16	0			Balboa	Gatun Locks				
F. D. Asche	13	21	50	16	7	25	16	18	45	16	23	45	American	Standard Oil Company of N. J.	461	6	60	0			Balboa	Tampico	Ballast	8,158	5,591	3,644
Ycahay	16	1	00	16	8	50	16	19	15	22	7	15	Peruvian	Peruvian Line	374	7	46	3	21	6	Callao	Deiaware River	General	1,639	3,305	1,514
West Capote	16	6	00	16	7	30	16	18	43	17	6	40	American	United States Shipping Board	406	8	51	1	28	0	Callao	Cristobal	Nitrate	7,900	5,889	3,711
Amalenberg	16	6	45	16	17	00	17	20	44	17	22	00	Danish	C. K. Hansen	320	3	34	2	10		Hongkong	Savannah	Rice	4,590	2,858	1,692
Newport	16	11	00	16	11	50	17	18	50	18	4	36	American	Pacific Mail Steamship Co.	326	0	38	2	19		Tucupilla	Savannah	Nitrate	2,156	2,643	1,654
Lake Filhol	16	16	00	16	19	37	17	18	20	18	4	36	American	United States Shipping Board	251	0	43	6	24		San Francisco	Cristobal	General	3,510	2,560	1,587
Hugoton	16	20	10	17	7	39	17	19	30	18	6	10	American	United States Shipping Board	434	9	56	2	27		San Francisco	New York	Gasoline, oil	9,027	7,009	4,311
Relay	16	20	45	17	7	20	17	20	44	17	22	00	American	All America Cables Co.	250	0	32	0	17		Sydney	Balboa	Ballast	6,850	7,852	5,020
Waimea	17	10	00	17	10	53	17	13	02	18	12	50	British	Shaw Saville Albion	477	6	63	1	27		London	General	Nitrate	3,201	2,593	1,604
Lake Sapor	17	24	50	17	24	52	19	10	45	19	20	33	Italian	Groanni Quaglia	209	0	33	0	19		Sape	Gibraltar	Sugar	1,625	1,082	945
Piaguaya	16	12	01	19	7	16	19	20	30	19	19	05	French	Colombian Maritime Co.	195	7	40	5	14		Vancouver	London	Lumber, etc.	781	1,171	694
Woerth	18	13	00	19	10	45	19	20	33	19	19	05	American	United States Navy	380	0	47	0	20		Buenaventura	Cristobal	General	503	615	372
Beaver	18	14	20	18	16	21	19	19	05	19	19	05	American	United States Shipping Board	401	0	53	0			San Diego	Hampton R ds	Steel, gasoline	671	1,041	615
Oloockson	17	17	00	19	7	29	19	19	05	19	19	05	British	Pacific Steam Navigation Co.	216	0	35	1	14		Guayaquil	Cristobal	General	671	1,041	615
Manavi	19	12	00	19	13	26	20	18	35	20	18	35	British	United States Army	439	5	57	0	15		Balboa	Cristobal	Ballast	6,369	3,489	
Gen. Wm. M.	19	12	00	19	13	26	20	18	35	20	18	35	British	J. L. Mowinkel	289	0	44	1	21		San Francisco	New York	Ballast	3,112	2,671	1,665
Graham	20	8	00	20	9	1	20	19	30	20	20	48	American	Pacific Mail Steamship Co.	314	0	46	5	20		San Francisco	Baltimore	Nitrates (e)	4,112	2,694	1,672
Strinda	20	24	23	20	15	0	20	14	00	20	15	0	American	B. J. Grefstad	125	2	15	5	22		Pisagua	Colon (d)	Nitrates	5,213		
Point Adams	20	14	00	20	15	1	20	14	00	20	15	1	German	Kosmos Line	135	0	29	0	13		Pisagua	Colon (d)	Nitrates			
Ofterstad	20	16	10	20	16	10	20	16	10	20	16	10	British	British Government	135	0	29	0	13		Pisagua	Colon (d)	Nitrates			
Athian (c)	20	16	10	20	16	10	20	16	10	20	16	10	British	British Government	135	0	29	0	13		Pisagua	Colon (d)	Nitrates			

(c) Tug. (d) For orders. (e) 1,000 barrels oil.

PORT OF CRISTOBAL.

ARRIVALS.										DEPARTURES.									
Date.	Vessel.	Line.	From.	Date.	Vessel.	Line.	To.	Date.	Vessel.	Line.	From.	Date.	Vessel.	Line.	To.				
March 14	Northern Pacific	United States Army	New York	March 14	Caribbean	Panama Railroad Cattle Industry	Cartagena	March 14	Caribbean	Panama Railroad Cattle Industry	Cartagena	March 14	Caribbean	Panama Railroad Cattle Industry	Cartagena				
March 15	Pastores	United Fruit Co.	New York and wayports.	March 15	Gen. O. H. Ernst	Panama Railroad Steamship Line	New York	March 15	Gen. O. H. Ernst	Panama Railroad Steamship Line	New York	March 15	Gen. O. H. Ernst	Panama Railroad Steamship Line	New York				
March 15	Arabia (f)	W. V. N. Powellson	Colon	March 15	Arabia (f)	W. V. N. Powellson	Colon	March 15	Arabia (f)	W. V. N. Powellson	Colon	March 15	Arabia (f)	W. V. N. Powellson	Colon				
March 16	Parismina	United Fruit Co.	New Orleans and Habana	March 16	Pastores	United Fruit Co.	New York and wayports.	March 16	Pastores	United Fruit Co.	New York and wayports.	March 16	Pastores	United Fruit Co.	New York and wayports.				
March 16	Atenas	United Fruit Co.	New Orleans	March 16	Parismina	Parismina	Parismina	March 16	Parismina	Parismina	Parismina	March 16	Parismina	Parismina	New Orleans and Bocas.				
March 17	C-43	French Government	High seas	March 16	Alta	Alta	Alta	March 16	Alta	Alta	Alta	March 16	Alta	Alta	Boston.				
March 17	Caribbean	Panama Railroad Cattle Industry	Cartagena	March 17	Gen. W. C. Gorgas	United States Shipping Board	Boston	March 17	Gen. W. C. Gorgas	United States Shipping Board	Boston	March 17	Gen. W. C. Gorgas	United States Shipping Board	Boston.				
March 18	Santa Marta	United Fruit Co.	Port Limon	March 17	Northern Pacific	United States Army	New York and San Juan	March 17	Northern Pacific	United States Army	New York and San Juan	March 17	Northern Pacific	United States Army	New Orleans, wayports.				
March 18	Colon	Panama Railroad Steamship Line	New York	March 18	Atenas	Atenas	Atenas	March 18	Atenas	Atenas	Atenas	March 18	Atenas	Atenas	New Orleans, wayports.				
March 19	Ulysses	Panama Railroad Steamship Line	Norfolk, Va.	March 18	Santa Marta	Santa Marta	Santa Marta	March 18	Santa Marta	Santa Marta	Santa Marta	March 18	Santa Marta	Santa Marta	New York and Kingston.				
March 20	Lady Swhil	International Petroleum Co.	Talara	March 19	Anoon	Anoon	Anoon	March 19	Anoon	Anoon	Anoon	March 19	Anoon	Anoon	New York and Haiti.				
March 19	De Lesseps (c)	Pan-American Timber Corp.	Panama	March 20	De Lesseps (c)	De Lesseps (c)	Pan-American Timber Corp.	March 20	De Lesseps (c)	De Lesseps (c)	Pan-American Timber Corp.	March 20	De Lesseps (c)	De Lesseps (c)	Panama.				

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(f) Motor schooner.

New Edition of Chart of Colon Harbor.

A new edition of chart No. 950 of Colon Harbor, drawn to a scale of 1 to 15,000, and 28 by 35 inches in dimensions, is on sale at the Hydrographic Office in the Terminal Building at Cristobal, at 50 cents per copy. The new edition shows corrections and additions based on late surveys; the principal changes are in the vicinity of the water front of Colon, near Cristobal mole, in the inner harbor, and along the southern shore line of Limon Bay.

Concrete Ship Repaired at Cristobal.

The concrete ship *Cape Fear* passed through the Canal on the way from Norfolk to Iquique, on March 20. At the time of transit she was in ballast, but in coming from Norfolk she brought 2,878 tons of coal for delivery to the Canal plant at Cristobal.

While at Cristobal the *Cape Fear* underwent hull repairs made necessary by a slight collision. She was made fast at the slip at the entrance to the dry dock, and a cofferdam was built around the small section of hull affected, by the Mechanical Division forces. After the water had been pumped out, forces of the Building Division placed the necessary concrete to make good the damage. The *Cape Fear* is a ship of 2,795 gross and 1,695 net tons, 286 feet long by 46 feet beam, and was drawing 25 feet of water when she reached Cristobal.

The *Cape Fear* is not the first concrete ship to have used the Canal. The *Faith* has made three transits; north on October 3, 1918, and March 9, 1919, and south on December 28, 1918. The *Faith* is 346 feet long by 46½ feet beam.

Vessels Classified by Lengths and Drafts.

The following is a summary by lengths and salt-water drafts of commercial vessels making transit of the Canal from July 1, 1919, to December 31, 1919:

Length.	Atlantic to Pacific.	Pacific to Atlantic.	Total.	Per cent of total.
Less than 100 feet.....	17	10	27	2.34
Between 100 and 200 feet.....	16	35	51	4.43
Between 200 and 300 feet.....	105	214	319	27.69
Between 300 and 400 feet.....	180	147	327	28.38
Between 400 and 500 feet.....	200	205	405	35.17
Over 500 feet.....	10	13	23	1.99
Total.....	528	624	1,152	100.00

Draft.	Atlantic to Pacific.	Pacific to Atlantic.	Total.	Per cent of total.
Less than 15 feet.....	82	46	128	11.12
Between 15 and 20 feet.....	133	124	257	22.31
Between 20 and 25 feet.....	136	319	455	39.49
Between 25 and 30 feet.....	165	134	299	25.94
Over 30 feet.....	12	1	13	1.14
Total.....	528	624	1,152	100.00

Agent Royal Netherlands West India Mail.

Mr. J. J. Ecker, Sr., has resigned the agency of the Royal Netherlands West India Mail at Cristobal-Colon and has been succeeded by Mr. H. E. Kies, whose office is at 182 Bolivar Street, Colon.

LINES THROUGH THE CANAL.

Services in Fairly Regular Operation Over the Great Trade Routes.

The following is a summary of the principal regular, or fairly regular, services through the Canal at present. War and post-war conditions have affected the regularity of the sailings, and with the release of more ships from government service new developments are taking place all the time. This summary endeavors to present the best approximation of present services:

From the Atlantic coast of the United States to the Pacific coast of South America—Many of the vessels plying over this route are in the petroleum or the nitrate trade and used exclusively by charterers. The following commercial lines maintain fairly regular services:

The Merchants' Line, operated by W. R. Grace and Company, plies between New York and ports of Ecuador, Peru, and Chile, with a sailing each way about every week, with calls at Buenaventura as cargo justifies.

The Pacific Steam Navigation Company has recently inaugurated a passenger and cargo service between New York and Valparaiso, calling at Callao, Mollendo, Arica, Iquique, and Antofagasta each way. The service is approximately fortnightly in both directions.

The United States Steel Products Company operates the New York and South America Line between New York and the west coast, as far south as Valparaiso, with a sailing each way about every third week.

The New Orleans and South America Steamship Company operates a monthly service from New Orleans to Ecuadorian, Peruvian, and Chilean ports. This service is in addition to a service from New Orleans to Cristobal, via Habana and Porto Rican ports, Trinidad, and Guadeloupe.

The Grace Line operates passenger-carrying ships between New York and Peruvian and Chilean ports. Sailings are about every 15 days.

The West Coast Line (Wessels, Duval, and Company), plies between New York and Chile and Peru, with a vessel going each way about every third week.

The Chile Steamship Company operates a tri-weekly service between New York and Chilean ports, carrying on their outwardbound passages principally machinery and supplies for the plants of two American copper companies, and returning with copper and nitrates.

The Hodge Ship Company has a service between New Orleans and ports of Colombia and Ecuador, including Buenaventura, Tumaco, Esmeraldas and Guayaquil. Sailings are approximately monthly.

The Merchants' Line, the United States Steel Products Company's line, the West Coast Line, the Chile Steamship Company, and the Hodge Company's line carry cargo only. The others named in this section carry both passengers and cargo.

From Europe to the Pacific coast of South America—The East Asiatic Company has a line from Copenhagen, by way of Gothenburg and Christiania, to Valparaiso and intermediate ports, operating on a fortnightly schedule. Passengers are carried.

The Johnson Line plies between Swedish and other Scandinavian ports and the west coast, as far as Valparaiso, with a sailing each way about every 60 days. Passengers are carried.

The vessels of the Nautilus Steam Shipping Company (the old Gulf Line), sailing from Great Britain to the west coast of South America via the Straits of Magellan, and returning up the coast, make the home voyage through the Canal. The service has cargo steamers, monthly.

The Royal Dutch West India Mail Steamship Company has approximately a monthly service from Rotterdam to the west coast of South America and return. The ships handle cargo only.

The Pacific Steam Navigation Company has practically a weekly sailing from Great Britain to Peru and Chile, and return, both via the Panama Canal and the Straits of Magellan, the larger steamers using the latter route only outwardbound, but returning via the Panama Canal. Passengers are carried.

The Compagnie Generale Transatlantique (French Line) is operating a monthly freight service between Havre and Valparaiso, via Ecuadorian, Peruvian, and Chilean ports.

The La Veloce Navigazione Italiana a Vapore ("La Veloce" Line) has a line from Genoa, Italy, to Valparaiso, calling at Marseilles, Barcelona, Tenerife, Barbados, Trinidad, Venezuela, Curaçao, Colombian ports, Port Limon, Cristobal, and Ecuadorian, Peruvian, and Chilean ports each way, with a sailing every 60 days. Passengers and cargo are carried.

The vessels of the "Transatlantica Italiana" and "Societa Nazionale di Navigazione," sail from Genoa, calling at Marseilles, Barcelona, and Cadiz, thence to Trinidad, Curaçao, Venezuelan and Colombian ports, and to the Canal; and on the west coast call at Colombian, Ecuadorian, Peruvian, and Chilean ports as far as Valparaiso. On the homeward voyage the course is approximately the same, such calls being made as conditions warrant. For the present passengers are not carried but it is expected to begin a passenger service in November or December, 1920, with new steamers under construction in the shipping yards owned by the two companies.

The Royal Netherlands Steamship Company (Koninklijke Nederlandsche Stoomboot Maatschappij) is operating approximately a monthly service through the Canal between Amsterdam and Valparaiso. On the outward voyage the ships sail for Valparaiso direct; for the homeward voyage they receive orders at Valparaiso as to calls at ports between Valparaiso and the Canal, nitrates forming the bulk of the return cargo and determining the course of the ships. The line carries passengers.

The transfer services from the Atlantic terminus of the Canal, referred to in the first section of this article, receive extensive consignments of goods from both Europe and the United States and carry them through the Canal to the west coast of South America.

From Europe to the Pacific coast of Central America—The Royal Mail Steam Packet Company maintains a monthly service between London and Rotterdam and the principal ports in Central America up to and including Champerico. On the homeward voyage these steamers also call at Havre. Cargo only.

From Europe to the west coast of North America—The East Asiatic Company has a service between Scandinavian ports and San Francisco, operating a vessel each way about every fourth week. The ships carry passengers.

The Johnson Line has a service over this route, primarily between Sweden and San Francisco, with a vessel each way about every 60 days, with passengers.

The Norway-Pacific Line operates motor vessels, carrying a few passengers, between Scandinavian ports and the Pacific coast of the United States.

The Harrison-Direct Line has a service between Great Britain and the west coast as far as Puget Sound, with a vessel each way approximately every sixth week. These are cargo ships.

The Maple Leaf Line plies from New York to Vancouver, to return to Europe by way of California ports and Santa Rosalia. Ships of this line are scheduled to sail every five weeks. They do not carry passengers.

From the Atlantic terminus to South America—The Pacific Steam Navigation Company has services from Cristobal to west coast ports as far south as Valparaiso and Coronel. Sailings for Tumaco and Ecuadorian ports, as far as Guayaquil, are every few days; sailings to Valparaiso via Chilean and Peruvian ports are fortnightly; and a service between Cristobal and Buenaventura and Tumaco has a sailing every week.

The Compañía Sud-Americana de Vapores (South American Steamship Co.), the Chilean Line, maintains practically a weekly service between Cristobal and Valparaiso, calling at all important Peruvian and Chilean ports.

The Peruvian Steamship and Dock Company of Callao (Peruvian Line) maintains a service between Cristobal and Peruvian ports, going as far south as Mollendo and making its principal calls on the way at Paita, Eten, Pacasmayo, Salaverry, Callao, and southern ports. The line has sailings each way once a week.

The Colombian Maritime Steamship Company, Limited, operates a vessel in regular service between Cristobal and Buenaventura and Tumaco, making about two round voyages a month.

The Pacific Metals Corporation operates a motor schooner between Cristobal and Buenaventura, Colombia, carrying cargo, making round voyages approximately twice a month.

All of the lines named above, except the Pacific Metals Corporation, carry both passengers and cargo.

From the Atlantic terminus to Central and North America—The Pacific Mail Steamship Company is operating a line between Cristobal and San Francisco, with a sailing each way about every 15 days. Calls are made at ports of Central America and Mexico on the way, and passengers are carried.

The Pacific Steam Navigation Company has a line to Central American ports as far north as Champerico, Guatemala, calling at the principal wayports, and returning over the same route. Sailings are monthly. Passengers are carried.

From the Atlantic coast of the United States to Japan, Siberia, China, and the Philippine Islands—The movements of vessels over this trade route have not been regular, as most of the ships load and clear as cargo offers and do not attempt a fixed schedule. The tendency to this practice is fostered by the length of the voyage and a general uncertainty as to the return voyage, with what cargo and by what route.

The American-Oriental Line operates a service between New York and Yokohama, Kobe, Shanghai, Hongkong, Manila, and Singapore, carrying cargo, with a sailing about once a month in each direction.

The Barber Lines, operating between New York and the Far East, principally to Yokohama, Kobe, Manila, and Shanghai, send out a cargo ship about every three or four days.

A service of Alfred Holt and Company in this area send a cargo ship through the Canal about every three weeks.

Ships operated by Norton, Lilly, and Company between New York and the Far East area sail at irregular intervals, approximately once a month.

The Osaka Shosen Kaisha has a line between Japan and New York, via Cuba, with a ship in each direction every month.

The East Asiatic Company sends an occasional vessel to the Far East direct through the Canal; and at irregular times the vessels of the company return from the Far East to Denmark through the Panama Canal.

Frank Waterhouse & Co., Inc., maintains a service between the Philippine Islands and the Atlantic coast of the United States, carrying cargo, with sailings approximately every three weeks.

The Nippon Yusen Kaisha operates a line of cargo steamers from New York via the Canal to Yokohama, Kobe, Shanghai, Hongkong, Manila, and Singapore, with a sailing about twice a month in each direction.

The Toyo Kisen Kaisha operates a service between New York and the Orient, via Cuba, the Canal, and San Francisco, with a ship each way every 60 days.

The Prince Line uses the Canal for its service between the Far East and Boston and New York. Some of the ships have sailed to or from Vladivostok, others from Japan, others from Australia. The sailings are irregular, and passengers are not carried.

From the Atlantic coast of the United States to Australia and New Zealand—The United States and Australia Line operates between New York and the ports of New Zealand and Australia, with a vessel out about every 3 weeks.

The Ellerman Lines have a service from New York to Australia and New Zealand, with irregular sailings.

The Federal Steam Navigation Company has established a line between New Zealand and New York, with a ship each way approximately every six weeks.

The American and Australian Line operates between New York and Australia, with a vessel each way about every 20 days.

The Commonwealth and Dominion Line serves these trade areas, with a ship through the Canal in each direction about every fourth week.

The Stoomvarts Maatschappe Nederland, the Rotterdamsche Lloyd, and the Holland-American Line cooperate in a service between New York and Batavia, Surabaya, and Samarang.

From Europe to Australia and New Zealand—The New Zealand Shipping Company operates a line between New Zealand and Great Britain with possible way calls at Norfolk and New York. Sailings each way are every 28 days for mail boats, carrying passengers, with intermediate sailings of cargo ships.

The White Star Line has a service between England and ports of New Zealand and Australia, with irregular sailings, a ship each way about every 12 or 15 days. The larger ships carry passengers.

The Commonwealth Government Line, operated by the Government of Australia, between Great Britain and Australia, via United States ports, has a large fleet of cargo and passenger steamers, with irregular

sailings at present, averaging approximately a vessel outward every three weeks, returning by the Suez Canal or the Cape of Good Hope.

The Federal Steam Navigation Company operates over the same route, with a ship each way about once a month.

The Shaw, Saville, and Albion Company, Limited, of London, has been sending all of its ships through the Canal on both the homeward and outward voyages between Great Britain and New Zealand. The service is irregular but is settling down to a mail and passenger steamer each way every month and a cargo vessel every two weeks.

The Swedish East Asiatic Company has an irregular service between Scandinavian ports and the Far East.

United States coastwise trade—The Pacific Mail Steamship Company operates a service between Baltimore and San Francisco, via Habana and Puerto Colombia on the Atlantic, and via Central American ports on the Pacific side, with a vessel each way every three weeks, carrying cargo only.

The Isthmian Steamship Lines operate a service between New York and San Francisco, Seattle and Vancouver, carrying cargo, with a sailing about once a month.

CONNECTING LINES AT TERMINALS.

In connection with the traffic through the Canal, important business is carried on in the transfer of cargo and passengers between connecting carriers at the terminals of the Canal, especially Cristobal, at the Atlantic end. The following are the lines which call regularly at the terminals either with or without passing through the Canal:

Atlantic Terminal—The United Fruit Company operates a weekly service from New Orleans to Cristobal direct. These steamers return to New Orleans weekly, going via Bocas del Toro and Habana. This company operates a line from New York via Kingston to Cristobal, thence to Colombian ports, returning to Cristobal, sailing weekly to New York via Kingston. Also a line from New York, via Habana, to Cristobal, thence to Costa Rica, and direct to New York, sailing weekly.

The Panama Railroad Steamship Line maintains weekly sailings between New York and Cristobal, via Port au Prince, Haiti, carrying passengers and cargo, with supplementary sailings between New York and Cristobal direct, about every 10 days, of vessels carrying cargo only. A service is operated between Cristobal and Cartagena, Colombia, via Cispata, approximately weekly, carrying deck passengers and freight. A line handling coal to the coaling plants at Cristobal is operated from Norfolk, with sailings about fortnightly.

The service of La Veloce Line, noted under the section on lines between Europe and the west coast of South America, makes stops at Cristobal.

The Royal Dutch West India Mail (Koninklijke West Indische Mailldienst) is operating a service with two ships a month in each direction between Amsterdam and Caribbean ports, carrying cargo and passengers. On the outward voyage the calls are usually Trinidad, and regularly La Guaira, Curaçao, Puerto Colombia, Cartagena, Port Limon, and Cristobal; and returning, the calls are as traffic warrants, normally Puerto Colombia, Cuaraçao, and La Guaira, with other calls depending on orders.

The Compañía Trasatlantica de Barcelona (Spanish Line) has a monthly service, carrying passengers and cargo, from Barcelona via Malaga, Valencia, Cadiz, Santa Cruz, and Las Palmas in the Canary Islands, San Juan, Porto Rico, and Habana to Cristobal; returning via Puerto Colombia, Cuarçao, Puerto Cabello, La Guaira, San Juan, Porto Rico, Canary Islands, Cadiz, and Barcelona.

The Compagnie Generale Transatlantique (French Line) operates fortnightly service between Cristobal and Havre, Saint Nazaire, and Bordeaux, via ports of Colombia, Venezuela, Trinidad, and the French West Indies. Vessels carry both passengers and cargo.

The Leyland and Harrison Lines together maintain a cargo service through Caribbean and Gulf of Mexico ports, coming out from Liverpool and making the circuit according to the cargo which offers. A ship comes out approximately every month, and calls are normally made at Cristobal.

Pacific terminal—The Rolph Mail Steamship Company's vessels call at Balboa in the coasting service which they maintain between San Francisco and Chilean ports, with a vessel each way every two months.

The Toyo Kisen Kaisha vessels in the service between the Orient and Valparaiso, via the west coast, call at Balboa. The line runs from the Orient to San Francisco, thence via Salina Cruz and Balboa to Peruvian and Chilean ports, returning in reverse order, with a vessel every month in alternate directions.

Light Earthquake Shock.

A light earthquake shock was recorded at Balboa Heights on Thursday evening, March 18. The record began at about 44½ minutes past 8, and continued for approximately 1 minute. The maximum amplitude of the record was 10 millimeters and the approximate distance to its epicenter, or point of origin, was about 55 miles. The direction could not be determined positively, but it was thought to be from the southwest or west, as the principal movement was in an easterly direction.

This shock was felt by a number of people at the southern end of the Canal Zone. While somewhat stronger than other shocks recorded recently, it was much lighter than the heavy shocks that occurred in 1913 and 1914.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights, (telephone 286).

Investigator in marketing wool (male and female); \$2,400 to \$3,300 a year; No. 149; April 6, 1920; form 2118; age, 25 years and over.*

Practical optician and glass worker (male and female); \$1,320 to \$1,600 a year; No. 151; April 13, 1920; form 1312; age, 18 years and over.*

Practical optician and glass worker's helper (male and female); \$720 to \$1,200 a year; No. 151; April 13, 1920; form 1312; age, 18 years and over.*

Matron; \$500 to \$720 a year; No. 146; March 17, April 21, May 19, June 23, and July 21, 1920; form 304; age, 21 years but not 50 years.

Assistant in nematology (male and female); \$1,000 to \$1,800 a year; No. 139; April 6, 1920; form 2118; age, 21 years and over.*

Translator, qualified as assistant tariff expert (male and female); \$2,000 a year; No. 152; April 21, 1920; form 1312; age, no limits.

Older; \$840 to \$900 a year; No. 133-supplemental; March 30, 1920.*

- Assistant field agent, protective social measures; \$1,200 to \$2,000 a year; No. 137-supplemental; April 21, 1920.*
- Automobile mechanic (male and female); \$150 to \$175 a month; No. 128-amended; March 23, 1920; form 1312; age, 20 years and over.*
- Junior mechanical engineer (male and female); \$1,800 a year; No. 156; April 13, 1920; form 1312; age, 20 years and over.*
- Technician (machine tool expert) (male and female); \$3,000 a year; April 20, 1920; form 1312; age, 21 years and over.*
- Assistant in marketing wool (male and female); Grade 1, \$1,800 to \$2,400 a year; Grade 2, \$1,200 to \$1,800 a year; No. 147; April 7, 1920; form 1312; age, 21 years but not 40 years.
- Assistant specification engineer (male and female); \$1,200 to \$2,000 a year; No. 157; April 13, 1920; form 2118; age, 21 years but not 45 years.*
- Fuel research assistant (male and female); \$1,200 to \$1,800 a year; No. 158; April 13, 1920; form 2118; age, under 35 years.*
- Domestic science teacher (male and female); \$720 a year; No. 142; April 7, May 5, June 9, and July 7, 1920; form 1312; age, 22 years but not 50 years.
- Physical laboratory helper (male and female); \$600 to \$900 a year; No. 135; April 7, May 5, and June 9, 1920; form 1312; age, 16 years and over.
- Apprentice fish culturist (male and female); \$600 to \$900 a year; No. 134; April 7, May 5, June 9, and July 6, 1920; form 1312; age, 18 years but not 45 years.
- Assistant fuel engineer (male and female); \$4,200 a year; No. 141; April 6, 1920; form 2118; age, no limits.*
- Lithographic transferrer (male and female); \$1,200 a year; No. 144; April 6, 1920; form 1800; age, 20 years and over.*
- Farmer, Indian Service (male and female); \$600 to \$900 a year; No. 617-supplemental.†
- Director of bureau, division, or section of protective social measures (male and female); \$3,500 to \$4,500 a year; No. 136; April 20, 1920; form 2118; age, 21 years and over.*
- Supervisor of protective social measures (male and female); \$2,800 to \$3,600 a year; No. 136; April 20, 1920; form 2118; age, 21 years and over.*
- Field agent, protective social measures (male and female); \$1,800 to \$3,000 a year; No. 136; April 20, 1920; form 2118; age, 21 years and over.*
- Special assistant agent, protective social measures (male and female); \$900 to \$1,500 a year; No. 136; April 20, 1920; form 1312; age, 21 years and over.*
- Inspector of structural steel erection (male and female); \$8.80 a day; No. 143; April 6, 1920; form 1312; age, 25 years and over.*
- Marine engineer (male and female); \$2,400 to \$4,000 a year; form 2118; April 13, 1920; age, under 50 years.*
- Mechanical engineer (male and female); \$2,400 to \$4,000 a year; April 13, 1920; age, under 50 years.*
- Electrical engineer (male and female); \$2,400 to \$4,000 a year; form 2118; April 13, 1920; age, under 50 years.*
- Mechanician, qualified as instrument maker (male and female); \$900 to \$1,800 a year; forms 304 and 2029; age, 20 years and over.†
- Mechanical aid (male and female); \$10.56 a day; form 2118; April 13, 1920; age, under 40 years.*
- Automatic 3-A addressograph feeder (male and female); \$1,100 to \$1,200 a year; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.
- Automatic 3-A addressograph operator, grade 1, \$1,200 to \$1,500 a year; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.
- Automatic 3-A addressograph operator, grade 2, \$1,500 to \$1,800 a year; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.
- Posting machine operator (male and female); \$1,100 to \$1,320 a year; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.
- Posting machine mechanic (male and female); \$1,400 to \$1,800 a year; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.
- Posting machine expert (male and female); \$1,400 to \$1,800 a year; April 7, May 5, and June 9, 1920; form 304; age, 18 years and over.
- Statistical assistant (male and female); \$1,500 to \$2,100 a year; July 1, 1920; form 1312; age, within reasonable age limits.*
- Statistician (male and female); \$2,400 to \$3,600 a year; July 1, 1920; form 1312; age, within reasonable age limits.*
- Bacteriologist junior bacteriologist (male and female); \$90 to \$180 and \$30 to \$90 a month; receipt of applications will cease on June 29, 1920; form 1312; age, 18 years and over.*
- Typist; clerk with knowledge of stenography (male and female); \$900 to \$1,200 a year; April 9, May 7, and June 4, 1920; form 304; age, 18 years and over.
- Clerk-translator (male and female); \$1,000 a year; April 21, 1920; form 304; age, 18 years and over.
- Expert driller (male and female); \$3,000 a year; April 13, 1920; form 2118; age, 25 but not 45 years.*
- Assistant in poultry and egg handling (male and female); \$1,200 to \$1,620 a year; April 20, 1920; form 2118; age, not over 45 years.*
- Assistant examiner, patent office (male and female); \$1,500 a year; April 7, 8, and 9, May 5, 6, and 7, and June 9, 10, and 11, 1920; form 1312; age, 20 years and over. No. 164.
- Expert designer (male and female); \$4,200 a year; April 20, 1920; form 1312; age, reasonable age limits; No. 168.*
- Specialist in marketing statistics (male and female); \$3,000 to \$3,600 a year; form 2118; age, not over 45 years; April 20, 1920; No. 169.*
- Junior construction engineer; junior designing engineer; junior marine engineer (male and female); March 30, 1920; \$1,800 to \$2,400 a year; form 2118; age, 21 years and over; No. 170.*
- Technician (machine tool expert) (male and female); \$3,000 a year; April 20, 1920; form 1312; age, 21 years and over; No. 171.*
- Mold maker (optical glass or ceramics) (male and female); \$1,020 to \$1,680 a year; April 20, 1920; form 1312; age, 21 years and over; No. 172.*
- Mechanical aid (male and female); \$10.56 per diem; April 20, 1920; form 2118; age, not 40 years; No. 173.*
- Marine engineer; mechanical engineer; electrical engineer (male and female); \$2,400 to \$4,000 a year; April 20, 1920; form 2118; age, not 50 years. No. 174.*
- Money counter (male and female); \$700 to \$1,000 a year; April 7, 1920; age, 18 years, but not 35; form 304; No. 176.
- Specialist in cotton classing or marketing (male and female); \$2,700 to \$3,600 a year; April 20, 1920; form 2118; age, 25 years, but not 60 years; No. 179.*

Rodman and chainman, Interstate Commerce Commission (male and female); \$720 to \$1,080 a year; form 1800; age, no age limits.†

Accountant (male and female); \$3,000 to \$4,500 a year; receipt of applications to close March 30, 1920; form 532-supplemental.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Local Civil Service Examinations.

The following examinations for the Panama Canal Service will be held at Balboa Heights, Canal Zone, on the following dates:

Clerk and postal clerk, April 25, 1920.

Stenographer and typist, May 2, 1920.

Usual entrance salaries are, Clerk and typist, \$106 to \$127 a month. Postal clerk, \$104 to \$125 a month. Stenographer and typist, \$116 to \$137 a month.

Full information in regard to the scope and character of examinations is contained in leaflets, forms 2203 and 2206, copies of which, including sample questions, may be obtained from the Secretary, Board of Civil Service Examiners, Room 244, Administration Building, Balboa Heights, Canal Zone, telephone Balboa 286.

Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are typewriting, bookkeeping, general business training and experience and timekeeping training and experience. If the third optional is taken three letters of recommendation from former or present employers, written on a business letterhead and signed by the persons recommending the applicants, should accompany the application.

Applicants for the Postal Clerk examination must have had one year's experience in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and must be familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Applicants must have reached their 18th but not their 45th birthday on the date of the examination. must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the date of the examination their photographs taken within two years, securely pasted on the admission card which will be sent to them after their applications have been filed and the questions have been received from the United States.

Applicants for the Clerk examination should state on the outside cover and also in answer to question No. 1 the optional subject or subjects desired in addition to the name of the examination.

In answer to question No. 4 applicants must show residence in some State or territory in the United States from the time of taking their residence therein to April, 1920, a ruling having been made by the Civil Service Commission that those temporarily employed on the Canal Zone retain their legal residence in the last State in which they resided prior to coming to the Isthmus.

Application form No. 1312 must be filled out, including the medical certificate but excluding the County Officer's Certificate, and should be filed promptly with the Board of Civil Service Examiners, Balboa Heights, Canal Zone.

Deceased and Insane Employees.

The estates of the following deceased or insane employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

DECEASED.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death
Adolfo Deville.....	30459	France.....	Corozal Farm...	Corozal Farm.....	February 24, 1920
Alex Williams.....	49012	Jamaica.....	Panama.....	Cattle Industry.....	February 28, 1920
Kittel Billestad.....	4168	U. S. A.*	Cristobal.....	R. & F. Agency.....	March 19, 1920.
James Jones.....	29062	Jamaica.....	Panama.....	Dredging Division.....	February 7, 1920.
Herbert Smith.....	52586	Bahamas Island.	Colon.....	R. & F. Agency.....	March 10, 1920..
George Downes.....	35596	Barbados.....	Colon.....	Mechanical Division..	March 11, 1920..
Olego Gutierrez.....	39646	Panama.....	Camp Bierd.....	Coaling plant.....	March 18, 1920.
Augusto Bolanos (Bal-lano).....	47773	Panama.....	Camp Bierd.....	R. & F. Agency.....	March 12, 1920.

* Naturalized.

INSANE.

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of commitment.
Mon Ram.....	28414	India.....	Toro Point.....	Mun. Eng. Div.....	February 9, 1920.
Cyril Sargent.....	35143	Barbados.....	Colon.....	Mechanical Division.	February 25, 1920.
Harry B. McCristal..	199328	U. S. A.....	Pedro Miguel...	Dredging Division...	March 8, 1920.

Official Circulars.

Restriction on Payment for Work in An Official Capacity.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., March 17, 1920.

To all concerned—The following is quoted from the provisions of the Legislative, Executive, and

Judicial Appropriation Act of March 3, 1917, for the information and guidance of all Canal employees and those persons, firms, associations, or corporations that may desire to contribute to or in any way supplement the salary of such employees for services performed by them in their capacity as Canal employees:

"That on and after July first, nineteen hundred and nineteen, no Government official or employee shall receive any salary in connection with his services as such an official or employee from any

source other than the Government of the United States, except as may be contributed out of the treasury of any State, county, or municipality, and no person, association, or corporation shall make any contribution to, or in any way supplement the salary of, any Government official or employee for the services performed by him for the Government of the United States. Any person violating any of the terms of this proviso shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than \$1,000 or imprisonment for not less than six months, or by both such fine and imprisonment as the Court may determine."

CHESTER HARDING,
Governor.

Executive Order—Maximum Salary for Silver Employees.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 16, 1920.
CIRCULAR NO. 601-107.

The Executive Order quoted below is published for the information of all concerned.

CHESTER HARDING,
Governor.

ESTABLISHING A MAXIMUM RATE OF PAY FOR ALIEN EMPLOYEES OF THE PANAMA CANAL AND THE PANAMA RAILROAD COMPANY ON THE Isthmus of PANAMA.

By virtue of the authority vested in me by The Panama Canal Act, approved August 24, 1912, it is hereby ordered:

I. That the Executive Order of February 2, 1914,* be so amended that paragraphs 6 and 20 thereof shall read as follows:

PARAGRAPH 6.

All employees who receive compensation at the rate of more than \$960 a year or 40 cents an hour, must be citizens of the United States or the Republic of Panama, and such citizens will be given preference for employment in all grades. Aliens may not be employed in such grades unless (a) they have occupied similar positions during the construction of the Canal for two years or more, or (b) in case of emergency, in which latter case they must be replaced by citizens of the United States or Republic of Panama as early as practicable.

PARAGRAPH 20.

All employees who are citizens of the United States, and aliens whose compensation is at a rate of more than \$960 a year or 40 cents an hour, shall be entitled to leave privileges.

II. This order shall take effect on and after this date.

WOODROW WILSON

THE WHITE HOUSE,
February 20, 1920.

*Published as Panama Canal Circular 601-4.

Rate for Floating and Track Pile Drivers.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 15, 1920.
CIRCULAR NO. 686-11 (superseding Circular No 686-10).

Effective March 1, 1920, the rate of \$3 an hour is established for the use of the Panama Railroad floating pile driver and Panama Railroad track pile driver No. 2, by departments and divisions of The Panama Canal and Panama Railroad, or other branches of the United States Government. This rate covers material and supplies, repairs, and depreciation only. Actual labor will be billed separately.

CHESTER HARDING,
Governor.

Time Limit on Commissary Authority Cards Extended.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 24, 1920.
To all concerned—The time limit on commissary authority cards expiring March 31, 1920, is hereby extended to June 30, 1920. All issuing clerks will be governed accordingly. New cards will not be issued until the month of June.

CHESTER HARDING,
Governor.

Licensing of Chauffeurs.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 16, 1920.
CIRCULAR NO. 723-1.

By virtue of the authority contained in section 5 of the Executive Order of October 9, 1918, providing for the licensing of chauffeurs in the Canal Zone, and published as Circular No. 601-83, I hereby amend subparagraph (i) of the rules and regulations governing the issuance of licenses as contained in Circular No. 723 of November 23, 1918, to read as follows:

"(i) Members of the military and naval forces of the United States stationed on the Isthmus, will hereafter be required to have Canal Zone chauffeurs' licenses when operating self-propelled vehicles belonging to those organizations. Such licenses will be issued in accordance with the procedure prescribed in Circular No. 723, at no fee shall be charged therefor when issued to chauffeurs who only operate such official vehicles. Official licenses so issued will continue in force until the official necessity thereof ceases, when they should be returned to the Executive Secretary for cancellation."

CHESTER HARDING,
Governor.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 15, 1920.
CIRCULAR NO. 661-84:

Capt. E. P. Jessop, U. S. N., having reported for duty this date, is hereby temporarily assigned to duty as Assistant to the Governor.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 12, 1920.
CIRCULAR NO. 232:

Effective March 11, 1920, Mr. H. G. Cornthwaite is designated an accountable official of The Panama Canal, *vice* Mr. R. Z. Kirkpatrick, and as such will account for all nonexpendable property in use in the Division of Meteorology and Hydrography.

ELWYN GREENE,
Acting Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Fusible Plugs.

THE PANAMA CANAL,
BOARD OF LOCAL INSPECTORS,
BALBOA HEIGHTS, C. Z., March 15, 1920.
To all concerned—The Governor has approved my memorandum to the Engineer of Maintenance under date of March 3, 1920, from which the following is quoted for your information:
"The Engineer Member of the Local Board, upon investigation, finds that the cost of refilling fusible plugs exceeds, in most cases, the cost of new

plugs. * * * In view of the enormous cost of refilling plugs and the comparatively low cost of purchasing new plugs, the board is of the opinion, and it so recommends, that in future all old fusible plugs be scrapped and that new plugs be used in each and every case.

It is further recommended that the General Storekeeper at Balboa be instructed to keep on hand a larger number of plugs commonly used at the Panama Canal than has heretofore been the custom, viz., $\frac{3}{4}$ ", 1", and 1 $\frac{1}{4}$ " external plugs."

JOHN G. FELS,
Chairman.

Commissary Managers.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., March 16, 1920.

MEMORANDUM No. 761-45:

To commissary managers—Effective as of March 8, and to continue during the absence on leave of Mr. O. G. Hanseler, Mr. C. W. Barnhard will act as Manager, Culebra Commissary.

J. J. JACKSON,
General Manager, Commissary Division.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., March 16, 1920.

MEMORANDUM No. 761-46:

To commissary managers—Mr. H. C. Herse having returned from vacation, will resume his duties as Manager, Cristobal Commissary, vice Mr. H. C. Smith, transferred to other duties.

J. J. JACKSON,
General Manager, Commissary Division.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., March 23, 1920.

The following insufficiently addressed mail has been received in the office of the Director of Posts and may be obtained upon request of the addressee. Such request may be made by telephone, calling No. 182, Balboa:

Alkins, Mrs. C. C.*	McKay, Harvey
Anderson, James	Martin, Joe R.
Armstrong, Mrs Lloyd	Miller, C. J.
Clayton, Mrs. L. D.*	Moore, Stanley
Cudlip, Mrs. R. L.	Parker, Phillip
Davison, Walter	Pire, Guy W.
Dickerson, J. A.	Read, A. O.
Drake, Mrs. Henry	Sterling, Mrs. G. H
Harden, Edward B.	Stout, Roy Ceral
Kennedy, W. F., Jr.	Taylor, A. R.
Lawrence, Agnes	Toland, Joseph†
Lewis, Archie	Wilson, Thos.‡

*Paper. †Special delivery. ‡Card.

Additions to Commissary Stock.

Hardware Section.

Fishing tackle: Swivels, connecting link barrel, 3/0, ea.....	\$0.04
Kettles, Berlin, aluminum, 2-qt., ea.....	1.15
Knives, bread, ea.....	.55
Knives, bread, ea.....	.42
Knives, cook, ea.....	.64
Knives, paring, ea.....	.13
Knives, paring, ea.....	.14
Knives, pocket, ea.....	.47
Knives, pocket, ea.....	.35
Knives, pocket, ea.....	.28
Mattresses, crib, Balsa wool, 4' x 2' 4' x 4' 8", ea.....	6.35
Pans, shallow, stew, aluminum, 4-qt., ea.....	1.35
Pans, oyster stew, aluminum, 2-qt., ea.....	.96
Pitchers, aluminum, 3-qt., ea.....	5.05
Pots, tea, aluminum, 2-qt., ea.....	2.95
Saucepans, lipped, aluminum, 4-qt., ea.....	1.30

Apples.

The steamship *Colon*, which arrived Friday, brought 250 boxes of extra fancy Newtown pippins, which are now being sold in the commissaries.

Sugar.

The latest advice from the commissary purchasing agent states that the refineries are now charging from 14 cents to 16 cents per pound for sugar. The supply is said to be about normal but the demand is very heavy. Many of the refineries which are running at full capacity are over-sold and out of the market.

Commissaries Closed.

Commissaries will be closed for the quarterly inventory all day on Tuesday, March 30. The grocery and cold storage sections will be opened not later than 10 a. m. on Wednesday, March 31, and all other departments as soon thereafter as possible.

The commissaries will also be closed all day April 2, Good Friday.

Electrical Supplies.

It is becoming increasingly difficult for the Commissary Division to obtain reasonable deliveries on its requisitions for electrical equipment sold in the line stores. Practically the same information has been received from all contractors—that they are greatly behind in production and that many orders must remain unfilled. The earliest estimate of shipping date furnished by one company with which an order has just been placed is September 1.

Toys.

A shipment of velocipedes, hand cars, toy automobiles, etc., has just been received and distributed to the line commissaries. These articles were ordered for the Christmas trade but conditions in the United States made it impossible for the contractors to ship within the desired time. However, as these are items that sell the year around they have been sent to the stores so that customers may have the opportunity to purchase. Prices range from \$2.50 to \$10.45 each.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., March 31, 1920. No. 33.

Visit of Prince of Wales—"Renown" Largest Ship Through Canal.

The British battle cruiser *Renown*, carrying the Prince of Wales and his staff, arrived at Cristobal in the morning of March 30, and proceeded through the Canal to Balboa. At Gatun Locks the *Renown* was boarded by the Governor of The Panama Canal, the President of Panama, and other officials, who made the passage as far as Pedro Miguel Lock. The ship was held up about three hours in Gaillard Cut while the dredges cleared the channel past the south side of Cucaracha slide, and arrived at Balboa at 8.30, having been 13½ hours in transit.

The *Renown* is the largest ship, in length and displacement, to have passed through the Canal. She is 795 feet long, over all, and her displacement, as measured for the collection of tolls, at 50 cents per displacement ton, is 33,379 tons. Her beam, 91½ feet, is 5 feet 10 inches less than that of the battleships *Mississippi* and *New Mexico*. She was drawing 31 feet 8 inches, forward and aft, in fresh water, at the time of passage.

The Prince was entertained in the evening of his arrival by a dinner and reception, followed by dancing, given by the British Minister at the Tivoli Hotel, and in the evening of March 31 is to be the guest of honor at a banquet and ball tendered by the President of Panama at the Union Club. The *Renown* is due to sail for San Diego at 6 a. m., April 1, thence to New Zealand and Australia via Honolulu.

New Lighthouse Tender and Salvaging Vessel.

The U. S. S. *Favorite*, a salvaging and towing vessel used by the United States Navy, as a minesweeper, in operations in the North Sea and English Channel during the recent war, is to be transferred to The Panama Canal for use as a lighthouse tender and an auxiliary salvaging vessel. The *Favorite* was built in 1907 by the Buffalo Dry Dock Company, for the Great Lakes Towing Company, Duluth, and was bought by the Navy Department for use in the war. She is to be transferred to the Canal for service, subject to recall by the Navy in case of emergency.

The *Favorite* is a vessel of 1,223 gross tons, 195 feet in length over all, 180 feet between perpendiculars, with a breadth of 43 feet and a molded depth of 20 feet and 6 inches. She is equipped with a 25-ton boom forward and a 5-ton boom aft, and with a machine shop containing an air compressor, power saw, cutter, shaper, a punching machine, a 200-kilowatt generator, and pumps. She is a coal burner, credited with a speed of 14 or 15 knots and is equipped with wireless.

It is expected that the *Favorite* will not only be a capable, satisfactory lighthouse tender, better able to make rough voyages in the Caribbean to the outlying lights maintained by The Panama Canal and to Cape Mala on the Pacific side than the tugs which have heretofore been employed, but also will be of distinct assistance in relief work and salvaging.

CANAL WORK IN FEBRUARY.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of February, 1920:

BALBOA HEIGHTS, C. Z., March 26, 1920.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of February, 1920.

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal during the month was 208, not including 21 United States Government vessels, as follows: Ten submarines, 2 tenders, 2 tugs, 1 supply ship, 1 collier, 1 dreadnaught, 1 hospital ship, 1 gunboat, 1 subchaser, and 1 merchant ship with coal for the United States Navy. The month's traffic is classified in a tabulation included in this report.

The net tonnage, Panama Canal measurement, of the 208 commercial vessels aggregated 703,462 tons, 62,071 tons less than the preceding month. Their registered gross tonnage was 913,404, and registered net tonnage, 579,842. The total cargo carried was 780,488 tons of 2,240 pounds, 114,140 tons less than in January. Of the total for this month, 3,593 tons were carried as deck cargo. The total number of vessels and craft of all kinds through the Canal was 230, as compared with 267 last month.

The average length of the commercial vessels was 341 feet, average beam 48 feet, and average draft in salt water 21 feet; their average tonnage, Panama Canal measurement, was 3,382; United States net equivalent, 2,818; registered gross, 4,391; and registered net, 2,788. The United States Army transport, *America*, which passed southward through the Canal on February 6, is the second longest vessel and the ship of the greatest gross tonnage to have transited the Canal to date. The previous high record for gross tonnage was that of the *Minnesota* with 20,602 tons. The length of the *America* is 668 feet, 9 inches; 16 feet, 7 inches less than that of the *Mount Vernon*, the ship of greatest length yet passing through the Canal.

The United States coastwise trade for the month comprised 23 vessels aggregating 121,793 tons, Panama Canal measurement, carrying 118,456 tons of cargo. There were 8 vessels from the Atlantic to the Pacific Coast with a total Panama Canal net tonnage of 49,567, and cargo of 28,733 tons; and from the Pacific to the Atlantic Coast, 15 vessels with a total Panama Canal net tonnage of 72,226, carrying 89,723 tons of cargo.

PRINCIPAL COMMODITIES.

Bulk shipments consisting of whole cargoes of the different principal commodities included in the February traffic were:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes	Tons.	Total tons.	From—	To—
Crude oil.....	2	16,220	.....	Tampico.....	Pisagna.
Crude oil.....	1	9,764	.....	Tampico.....	San Francisco.
Crude oil.....	1	8,143	34,127	Port Arthur.....	Fiji.
Case oil.....	1	8,214	.....	New York.....	Shanghai.
Case oil.....	1	6,300	.....	New York.....	Moji, Japan.
Case oil.....	1	7,500	.....	Philadelphia.....	Honolulu.
Case oil.....	1	6,116	28,130	Sabine.....	San Francisco.
Coal.....	2	9,039	.....	Norfolk.....	Chile.
Coal.....	2	6,749	.....	Baltimore.....	Chile.
Coal.....	1	1,585	17,373	Newport News.....	Arica.
Sulphur.....	1	.....	8,900	Sabine.....	Adelaide.

FROM PACIFIC TO ATLANTIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	1	10,245	.....	Mejillones.....	Rotterdam.
Nitrate.....	1	8,526	.....	Iquique.....	Antwerp.
Nitrate.....	1	7,469	.....	Taltal.....	La Pallice.
Nitrate.....	1	7,170	.....	Iquique.....	United Kingdom
Nitrate.....	1	7,122	.....	Taltal.....	Liverpool.
Nitrate.....	1	5,200	.....	Junin.....	Genoa.
Nitrate.....	1	3,009	.....	Tocopilla.....	Ostend.
Nitrate.....	1	3,000	.....	Tocopilla.....	Havre.
Nitrate.....	1	5,466	.....	Iquique.....	Dunkirk.
Nitrate.....	1	5,450	.....	Caleta Colosa.....	Dunkirk.

FROM PACIFIC TO ATLANTIC—Continued.

Commodity.	No. of cargoes.	Tons.	Total Tons.	From—	To—
Nitrate.....	1	4,000		Taltal.....	Dunkirk.
Nitrate.....	1	7,600		Antofagasta.....	Alexandria.
Nitrate.....	1	6,260		Antofagasta.....	Europe.
Nitrate.....	1	7,400		Antofagasta.....	United Kingdom.
Nitrate.....	1	3,700		Antofagasta.....	Barcelona.
Nitrate.....	1	3,600		Antofagasta.....	Lisbon.
Nitrate.....	1	7,204		Caleta Colosa.....	Leith.
Nitrate.....	1	4,719		Caleta Colosa.....	Nykoping.
Nitrate.....	3	17,900		Iquique.....	Cristobal.*
Nitrate.....	2	11,056		Mejillones.....	New Orleans.
Nitrate.....	1	3,227		Caleta Bucna.....	New Orleans.
Nitrate.....	1	8,000		Mejillones.....	Baltimore.
Nitrate.....	1	3,000		Mejillones.....	Boston.
Nitrate.....	1	8,600		Antofagasta.....	Charleston.
Nitrate.....	1	2,991		Caleta Bucna.....	Charleston.
Nitrate.....	1	2,850		Iquique.....	Charleston.
Nitrate.....	1	8,600		Mejillones.....	Charleston.
Nitrate.....	1	5,060		Taltal.....	Charleston.
Nitrate.....	1	5,966		Iquique.....	Hampton Roads.
Nitrate.....	1	3,522		Taltal.....	Norfolk.
Nitrate.....	1	3,030		Caleta Colosa.....	Pensacola.
Nitrate.....	1	2,550		Caleta Bucna.....	Philadelphia.
Nitrate.....	1	3,260		Iquique.....	Philadelphia.
Nitrate.....	2	16,036		Antofagasta.....	Savannah.
Nitrate.....	3	15,790		Iquique.....	Savannah.
Nitrate.....	1	6,721		Mejillones.....	Savannah.
Nitrate.....	1	8,726		Tocopilla.....	Savannah.
Nitrate.....	1	3,200		Iquique.....	Wilmington.
Nitrate.....	1	5,560		Junin.....	Wilmington.
Nitrate.....	2	6,850	259,635	Tocopilla.....	United States ports.
Flour.....	3	23,044		Seattle.....	New York.
Flour.....	3	23,008		San Francisco.....	New York.
Flour.....	3	22,964		Portland.....	New York.
Flour.....	1	6,302	75,318	Tacoma.....	New York.
Food products:					
Cold storage.....	1	5,300		Lyttleton.....	London.
Cold storage.....	1	8,114		Sydney.....	London.
Cold storage.....	1	9,423	22,837	Wellington.....	London.
Barley.....	1		3,000	San Francisco.....	United Kingdom.
Beans.....	1		5,999	San Francisco.....	Hamburg.
Rice.....	1		5,600	Hongkong.....	New Orleans.
Lumber.....	1	1,697		Astoria.....	Philadelphia.
Lumber.....	1	2,653		Portland.....	Queenstown.
Lumber.....	1	2,049		Seattle.....	West Hartlepool.
Lumber.....	1	6,261		San Francisco.....	Cardiff.
Lumber.....	1	6,125		Vancouver.....	Liverpool.
Lumber.....	3	5,568		Vancouver.....	London.
Lumber.....	2	1,631		Vancouver.....	Queenstown.
Lumber.....	1	2,267	28,256	Victoria.....	Liverpool.

* For orders.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	28	108,437	72,950	85,427	Tons. 37,924
British.....	15	25,281	14,495	13,484	13,055
Peruvian.....	4	17,085	8,929	10,698	2,412
Norwegia.....	4	15,357	10,009	11,781	8,138
Japanese.....	3	21,305	12,722	15,487	6,878
French.....	2	11,469	7,139	8,237	490
Chilean.....	2	8,367	3,888	5,514	799
Portuguese.....	1	5,605	3,528	4,501	4,000
Italian.....	1	5,368	3,200	3,457	360
Swedish.....	1	3,774	2,875	3,965	3,730
Danish.....	1	2,858	1,692	2,459	3,349
Total.....	62	224,906	141,418	170,010	81,675

Of the 62 vessels above, 27 were in ballast; 18 from United States ports, 3 from the United Kingdom, 2 from Cristobal, 1 from Belgium, 1 from Tampico, Mexico, 1 from France, and 1 from the British West Indies. Of the 35 laden vessels, 14 were from United States ports, 8 with 25,427 tons of general cargo, and 6 with 23,394 tons of coal and coke; 14 from Cristobal with 7,849 tons of general cargo; 2 from Tampico, Mexico, with 16,220 tons of fuel oil; 1 from Kingston, Jamaica, with 1,061 tons; 1 from Glasgow with 2,604 tons; 1 from Havre with 490 tons; 1 from Sweden

with 3,730 tons; and 1 from Genoa, Italy, with 300 tons, all general cargo. One vessel of 692 tons, Panama Canal measurement, carrying 723 tons of general cargo, was en route to Champerico, Guatemala, and other Central American ports; the remaining 34 laden ships were all destined to South American ports.

The Latin-American traffic from the west coast of Central and South America for the month is classified in the following tabulation:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	31	118,379	76,591	86,776	144,354
British.....	17	45,178	27,126	35,992	45,912
Norwegian.....	8	29,146	18,277	22,864	33,425
Spanish.....	6	20,377	13,342	15,618	28,316
Peruvian.....	3	12,682	7,014	8,312	8,060
Japanese.....	2	12,594	7,834	9,148	15,711
Chilean.....	2	7,612	4,560	6,043	4,604
German.....	1	7,401	4,752	5,519	7,000
Dutch.....	1	6,899	4,417	6,653	10,020
Italian.....	1	3,816	2,454	2,661	5,200
Danish.....	1	3,102	1,963	2,389	4,719
Total.....	73	267,186	168,330	201,975	307,321

Three of the above vessels (2 oil tankers and 1 tug) were in ballast; the others were all laden. Eighty-seven per cent of the total cargo consisted of nitrate. With the exception of 1 vessel of 692 tons, Panama Canal measurement, carrying 866 tons of general cargo from Champerico, Guatemala, to Cristobal, all were en route from the west coast of South America.

The registry of the vessels engaged in this traffic for the month, the kind and quantity of the cargo handled, and its destination are shown in the tabulation following:

No. of vessels	Registry.	Tons cargo.	Commodity.	Total commodity	Destined to—
22	United States.....	110,053	Nitrate.....	.....	United States ports.
3	Norwegian.....	18,576	Nitrate.....	.....	United States ports.
1	Spanish.....	5,966	Nitrate.....	112,362	United States ports.
1	United States.....	3,600	General cargo.....	.....	United States ports.
1	British.....	3,547	General cargo.....	7,147	United States ports.
1	Norwegian.....	.....	Coffee and drums.....	840	United States ports.
1	United States.....	.....	Cocoa.....	160	United States ports.
3	British.....	.....	Nitrate.....	21,496	United Kingdom.
1	United States.....	7,469	Nitrate.....	.....	France.
1	Japanese.....	5,466	Nitrate.....	.....	France.
1	British.....	5,450	Nitrate.....	.....	France.
1	Norwegian.....	3,000	Nitrate.....	21,355	France.
1	Japanese.....	.....	Nitrate.....	10,245	Holland.
1	Dutch.....	.....	General cargo.....	10,020	Holland.
1	United States.....	8,526	Nitrate.....	.....	Belgium.
1	Norwegian.....	3,009	Nitrate.....	11,535	Belgium.
1	United States.....	.....	Nitrate.....	7,600	Alexandria, Egypt.
1	British.....	.....	Nitrate.....	6,260	Europe (port unknown),
1	Italian.....	.....	Nitrate.....	5,200	Italy.
1	Spanish.....	.....	Nitrate.....	3,700	Spain.
1	Spanish.....	.....	Nitrate.....	3,600	Portugal.
1	Danish.....	.....	Nitrate.....	4,719	Sweden.
1	United States.....	5,674	Nitrate.....	.....	Cristobal (for orders).*
3	Spanish.....	15,050	Nitrate.....	.....	Cristobal (for orders).*
1	Norwegian.....	8,000	Nitrate.....	.....	Cristobal (for orders).*
1	German.....	7,000	Nitrate.....	57,957	Cristobal (for orders).*
10	British.....	9,159	General cargo.....	.....	Cristobal (transfer).†
3	Peruvian.....	8,060	General cargo.....	.....	Cristobal (transfer).†
2	Chilean.....	4,604	General cargo.....	.....	Cristobal (transfer).†
2	United States.....	1,272	General cargo.....	23,095	Cristobal (transfer).†
1	United States.....	Tanker.....	Ballast.....	.....	Tampico, Mexico.
1	Norwegian.....	Tanker.....	Ballast.....	.....	Tampico, Mexico.
1	British.....	Tug.....	Ballast.....	.....	Cristobal (for orders).
73				307,321	

* The 6 vessels shown were routed to Cristobal where they received orders to proceed to ultimate destination.

† The 17 vessels shown delivered 23,095 tons of cargo at Cristobal for transfer to other steamship lines.

Fifty-four of the vessels passing through the Canal this month were under control of the United States Shipping Board; these combined a total Panama Canal net tonnage of 177,815 and carried 225,545 tons of cargo. Twenty-seven were southbound with 90,849 tons of cargo; the same number were northbound with 134,696 tons of cargo, the latter mainly nitrate.

PRINCIPAL TRADE ROUTES.

Separate statements attached to this report show the ports of origin and destination for all cargo through the Canal for the month. (See pages 482 to 484 and 489.) The tabulation below gives the distribution according to the principal trade routes:

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America	32	96,614	48,821	18	56,977
Cristobal to west coast of South America	15	25,144	7,126	2	2,859
United States to Far East	12	54,444	86,978		
Europe to west coast of South America	10	34,217	8,185	5	16,998
United States coastwise	8	49,567	28,733	2	1,010
United States to Honolulu	6	31,508	47,683		
United States to Australia and New Zealand	3	15,925	24,611		
Mexico to west coast of South America	3	11,668	16,220	1	1,517
Cristobal to west coast of United States	3	5,654	6,745		
Europe to west coast of United States	2	11,372	5,021	1	5,667
Europe to New Zealand	*1	9,587			
Canada to New Zealand	1	6,895	12,000		
Mexico to west coast of United States	1	6,540	9,764		
Cristobal to west coast of Central America	1	692	723		
British West Indies to west coast of South America	1	675		1	675
Total	99	360,502	302,610	30	85,701
<i>Pacific to Atlantic.</i>					
West coast of South America to east coast of United States	33	91,162	160,066		
West coast of South America to Europe	18	66,249	109,160		
West coast of South America to Cristobal	17	28,390	29,629		
United States coastwise	15	72,226	89,723	2	12,663
Canada (British Columbia) to Europe	7	12,056	15,591		
West coast of United States to Europe	6	16,294	23,067		
Australia and New Zealand to Europe	3	25,178	22,837		
Far East to east coast of United States	3	13,151	17,600		
West coast of South America to Mexico	2	10,626		2	10,626
West coast of South America to Egypt	1	4,741	7,600		
West coast of United States to Cristobal	1	1,602	1,350		
West coast of Central America to Cristobal	1	692	866		
West coast of Central America to Canal Zone	1	478	389		
West coast of South America to Jamaica	1	115		1	115
Total	109	342,960	477,878	5	23,404

* Vessels carried passengers only.

† Includes 1 vessel of 3,994 tons, Panama Canal net measurement, with 7,400 tons of cargo proceeding to Cristobal for orders, ultimate destination unknown.

SERVICES TO CANAL SHIPPING.

Repairs were made on 137 vessels during the month including those entering the ports only and those passing through the Canal; 86 at Cristobal and 51 at Balboa. Twenty-three vessels were drydocked for repairs; 10 at Cristobal and 13 at Balboa, the latter including 7 submarines. Coal sales totaled 39,498 tons to 131 commercial vessels; 33,997 tons to 116 vessels at Cristobal, and 5,501 tons to 15 vessels at Balboa. Sixteen ships were furnished a total of 47,200 barrels of fuel oil; 4 at Cristobal with 20,141 barrels, and 12 at Balboa with 27,059 barrels. There were 347 vessels supplied with 15,708,857 gallons of water; 228 at Cristobal with 13,215,607 gallons, and 119 at Balboa with 2,493,250 gallons. Sales of commissary supplies to commercial ships other than those of the Panama Railroad Steamship Line aggregated \$104,412.67, including \$3,153.41 for laundry service at Cristobal and Ancon laundries; these sales having been made to 171 vessels in the amount of \$70,862.08 at Cristobal, and to 94 vessels in the amount of \$33,550.59 at Balboa. Charges for tug service for vessels using the Canal and the terminal ports amounted to \$22,716.60, of which \$15,736.25 was earned at Cristobal, and \$6,890.35 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Canal terminals are included in the following tabulation:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal	99	109	208
Net tonnage of commercial ships, Panama Canal measurement	360,502	342,960	703,462
United States equivalent net tonnage of commercial ships	305,856	280,251	586,107
Registered gross tonnage of commercial ships	469,757	443,647	913,404
Registered net tonnage of commercial ships	301,140	278,702	579,842

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Item.	Cristobal.	Balboa.	Total.
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	302,610	477,878	780,488
Deck load cargo, included in above.....	954	2,639	3,593
Nationality of commercial ships through the Canal:			
British.....	28	23	61
Chilean.....	2	2	4
Danish.....	1	1	2
Dutch.....		1	1
French.....	2	6	8
German.....		1	1
Italian.....	1	1	2
Japanese.....	8	3	11
Norwegian.....	4	9	13
Peruvian.....	4	3	7
Portuguese.....	1		1
Spanish.....		6	6
Swedish.....	1		1
United States.....	47	53	100
Total.....	99	109	208
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	89,815	73,803	163,618
Chilean.....	5,514	6,043	11,557
Danish.....	2,459	2,389	4,848
Dutch.....		6,653	6,653
French.....	8,237	7,931	16,168
German.....		5,519	5,519
Italian.....	3,457	2,661	6,118
Japanese.....	37,672	13,185	50,857
Norwegian.....	11,781	27,611	39,392
Peruvian.....	10,698	8,312	19,010
Portuguese.....	4,501		4,501
Spanish.....		15,618	15,618
Swedish.....	3,965		3,965
United States.....	182,403	173,235	355,638
Total.....	360,502	342,966	703,462
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	77,510	56,706	134,216
Chilean.....	3,365	3,675	7,040
Danish.....	2,471	1,961	4,432
Dutch.....		4,262	4,262
French.....	7,166	7,627	14,793
German.....		4,697	4,697
Italian.....	3,053	2,458	5,511
Japanese.....	33,439	11,352	44,791
Norwegian.....	9,919	23,169	33,088
Peruvian.....	6,907	5,703	12,610
Portuguese.....	4,419		4,419
Spanish.....		13,739	13,739
Swedish.....	2,295		2,295
United States.....	155,312	144,992	300,214
Total.....	305,856	280,251	586,107
Registered gross tonnage of commercial ships through the Canal:			
British.....	119,429	89,585	209,014
Chilean.....	8,367	7,612	15,979
Danish.....	2,858	3,102	5,960
Dutch.....		6,899	6,899
French.....	11,469	13,153	24,622
German.....		7,401	7,401
Italian.....	5,368	3,816	9,184
Japanese.....	51,196	17,151	68,347
Norwegian.....	15,357	34,411	49,768
Peruvian.....	17,085	12,682	29,767
Portuguese.....	5,605		5,605
Spanish.....		20,377	20,377
Swedish.....	3,774		3,774
United States.....	231,249	227,458	458,707
Total.....	471,757	443,647	915,404
Registered net tonnage of commercial ships through the Canal:			
British.....	74,578	55,482	130,060
Chilean.....	3,888	4,560	8,448
Danish.....	1,692	1,963	3,655
Dutch.....		4,417	4,417
French.....	7,139	7,937	15,076
German.....		4,752	4,752
Italian.....	3,200	2,454	5,654
Japanese.....	32,896	11,081	43,977
Norwegian.....	10,000	21,527	31,527
Peruvian.....	8,929	7,014	15,943
Portuguese.....	3,528		3,528
Spanish.....		13,342	13,342
Swedish.....	2,875		2,875
United States.....	152,415	144,173	296,588
Total.....	301,140	278,792	579,932

Item.	Cristobal.	Balboa.	Total.
Cargo carried by ships according to nationality:			
British.....	98,958	87,135	186,093
Chilean.....	799	4,004	5,403
Danish.....	3,349	4,719	8,068
Dutch.....		10,020	10,020
French.....	490	9,466	9,956
German.....		7,009	7,009
Italian.....	300	5,200	5,500
Japanese.....	40,061	21,311	61,372
Norwegian.....	8,138	38,425	47,563
Peruvian.....	2,412	8,060	10,472
Portuguese.....	4,000		4,000
Spanish.....		28,316	28,316
Swedish.....	3,730		3,730
United States.....	140,373	252,622	392,995
Total.....	302,610	477,878	780,488
Vessels passing through the Canal free of tolls:			
U. S. Navy submarines.....	3	7	10
U. S. Navy tenders.....	1	1	2
U. S. Navy tugs.....	1	1	2
U. S. Navy supply ship.....	1		1
U. S. Navy subchaser.....		1	1
U. S. Navy gun boat.....		1	1
U. S. Navy hospital ship.....	1		1
U. S. Navy dreadnaught.....	1		1
U. S. Navy collier.....	1		1
Merchant ship with coal for U. S. Navy.....	1		1
Tug (British) with minus U. S. equivalent tonnage.....		1	1
Total.....	10	12	22
Total ocean-going ships passing through the Canal.....	109	121	230
Total vessels and craft passing through the Canal.....	109	121	230
Cargo on which no tolls were charged..... tons.	14,139		14,139
Commercial ships through the Canal without cargo, but not in ballast.....	1		1
Net tonnage of above, Panama Canal measurement.....	9,587		9,587
Commercial ships through the Canal in ballast.....	30	6	36
Net tonnage of above, Panama Canal measurement.....	85,701	23,506	109,207
Total commercial ships without cargo transiting the Canal.....	31	6	37
Net tonnage of above, Panama Canal measurement.....	95,288	23,506	118,794
Motor ships through the Canal.....	2	3	5
Net tonnage of above, Panama Canal measurement.....	138	1,880	2,018
Yachts through the Canal.....	1		1
Net tonnage of above, Panama Canal measurement.....	30		30
Tolls levied on laden ships through the Canal.....	\$278,674.25	\$325,244.15	\$603,918.40
Tolls levied on ships in ballast.....	74,935.03	16,920.18	91,855.21
*Total tolls levied.....	\$353,609.28	\$342,164.33	\$695,773.61
Total ships entering port, including Canal transit.....	295	245	540
Total ships clearing port, including Canal transit.....	286	245	531
Total ships handled.....	581	490	1,071
Net registered tonnage of vessels entering port.....	1,022,670	636,504	1,659,174
Net registered tonnage of vessels clearing port.....	833,456	626,225	1,459,681
Total for vessels entering and clearing.....	1,856,126	1,262,729	3,118,855
Registered gross tonnage of vessels entering port.....	1,455,018	993,104	2,448,122
Registered gross tonnage of vessels clearing port.....	1,270,594	978,212	2,248,806
Total for vessels entering and clearing.....	2,725,612	1,971,314	4,696,928
Vessels entering port, but not passing through Canal.....	69	7	76
Net tonnage of above.....	437,812	17,012	454,824
Gross tonnage of above.....	532,138	24,493	556,631
Vessels clearing port, but not passing through Canal.....	60	7	67
Net tonnage of above.....	238,652	16,811	255,463
Gross tonnage of above.....	335,284	24,287	359,571
Vessels passing through Canal, and handling passengers or cargo at port—			
Entering.....	29	44	73
Net tonnage of above.....	42,763	78,261	121,024
Gross tonnage of above.....	69,951	136,692	206,673
Vessels passing through Canal and handling passengers or cargo at port—			
Clearing.....	31	43	74
Net tonnage of above.....	49,594	77,032	126,626
Gross tonnage of above.....	81,942	134,246	216,188
Transit cargo arriving..... tons.	787,719	834,396	1,622,115
Transit cargo cleared..... tons.	781,798	813,725	1,595,523
Total transit cargo handled..... tons.	1,569,517	1,648,121	3,217,638
Local cargo arriving..... tons.	117,287	2,427	119,714
Local cargo shipped..... tons.	6,930	537	7,467
Total local cargo handled..... tons.	124,217	2,964	127,181
Cargo received for transshipment..... tons.	36,907	296	37,203
Cargo transhipped..... tons.	49,767		49,767
Total cargo arriving..... tons.	941,913	837,119	1,779,032
Total cargo cleared..... tons.	838,495	814,262	1,652,757
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	53,514	6,308	59,822

* Does not include \$8,111.25 levied for tolls prior to February.

Item.	Christobal.	Balboa.	Total.
Cargo dispatched by Receiving and Forwarding Agency of P. R. R. tons.	43,977	895	44,872
Cargo rehandled by Receiving and Forwarding Agency of P. R. R. tons.	2,292	556	2,848
Total cargo handled by Receiving and Forwarding Agency of P. R. R. tons.	99,783	7,759	107,542
Cargo stevedored, included in above..... tons.	51,201	6,040	57,241
Commercial vessels, other than P. R. R., supplied with bunker coal..... tons.	111	15	126
Coal supplied above vessels..... tons.	33,168	5,501	38,669
Panama Railroad vessels supplied with bunker coal..... tons.	5		5
Coal supplied above vessels..... tons.	829		829
U. S. Army vessels supplied with coal..... tons.	4	1	5
Coal supplied above vessels..... tons.	131	21	152
Total vessels supplied with coal from Panama Railroad deposits..... tons.	120	16	136
Total coal furnished to vessels from Panama Railroad deposits..... tons.	34,128	5,522	39,650
Coal supplied to P. R. R. departments..... tons.	1,067		1,067
Coal supplied Army, excepting vessels..... tons.	186		186
Coal supplied The Panama Canal..... tons.	1,771	508	2,279
Coal supplied individuals and companies..... tons.	422		422
Total coal furnished from Panama Railroad deposits..... tons.	37,574	6,030	43,604
Coal received during February..... tons.	42,314		42,314
Coal on hand, March 1, 1920..... tons.	53,912	13,733	67,645
Coal on hand, February 1, 1920..... tons.	49,172	19,763	68,935
Coal, U. S. Navy Account.			
Coal furnished U. S. Navy, including vessels..... tons.	2,267	967	3,234
Coal received during February..... tons.			
Coal on hand, March 1, 1920..... tons.	28,616	16,980	45,596
Coal on hand, February 1, 1920..... tons.	30,883	17,947	48,830
Commercial vessels supplied with fuel oil from Panama Canal tanks..... tons.	3	12	15
Fuel oil sold to above vessels..... barrels.	17,328	27,059	44,387
Fuel oil sold to Panama Railroad vessels..... barrels.	2,814		2,814
Fuel oil issued to U. S. Navy..... barrels.	204		204
Fuel oil issued to U. S. Army..... barrels.	5,326	54	5,380
Fuel oil issued to Canal departments..... barrels.	8,926	20,782	29,708
Fuel oil delivered to individuals and companies..... barrels.		1,983	1,983
Total fuel oil furnished from Panama Canal tanks..... barrels.	34,598	49,878	84,476
Fuel oil received during the month..... barrels.	61,873	144	62,017
Fuel oil on hand, March 1, 1920..... barrels.	47,165	39,989	87,154
Fuel oil on hand, February 1, 1920..... barrels.	19,890	89,723	109,613
Other oil pumped for individuals and companies..... barrels.	439,294	36,917	476,211
Diesel oil issued during the month..... barrels.			
Diesel oil on hand, March 1, 1920..... barrels.		1,396	1,396
Vessels supplied with water..... gals.	228	119	347
Water sold to ships..... gals.	13,215,607	2,493,250	15,708,857
Vessels on which miscellaneous repairs were made.....	51	86	137
Vessels drydocked.....	9	13	22
Commercial vessels furnished commissary supplies.....	171	94	265
Panama Railroad vessels furnished commissary supplies.....	9		9
Other U. S. Government vessels furnished commissary supplies.....	51	13	64
Total vessels furnished commissary supplies.....	231	107	338
Commissary sales to commercial vessels:			
Ice.....	\$2,035.98	\$649.68	\$2,685.66
Wholesale groceries.....	15,581.16	4,625.09	20,206.25
Wholesale cold storage.....	47,039.25	25,472.49	72,511.74
Laundry.....	2,645.16	508.25	3,153.41
Miscellaneous.....	3,560.53	2,295.08	5,855.61
Total.....	\$70,862.08	\$33,550.59	\$104,412.67
Commissary sales to Panama Railroad vessels:			
Ice.....	\$60.72		\$60.72
Wholesale groceries.....	1,034.10		1,034.10
Wholesale cold storage.....	3,975.30		3,975.30
Laundry.....	576.13		576.13
Miscellaneous.....	233.03		233.03
Total.....	\$5,879.28		\$5,879.28
Commissary sales to other Government vessels:			
Ice.....	\$755.07	\$259.61	\$1,014.68
Wholesale groceries.....	14,103.76	2,217.31	16,321.07
Wholesale cold storage.....	28,153.23	5,208.99	33,362.22
Laundry.....	161.20		161.20
Miscellaneous.....	4,511.90	810.38	5,322.28
Total.....	\$47,685.16	\$8,496.29	\$56,181.45
Total commissary sales to all vessels.....	\$124,426.52	\$42,046.88	\$166,473.40
Passengers arriving, including transit passengers:			
First cabin.....	2,856	1,292	4,148
Other than first cabin.....	1,173	1,119	2,292
Total.....	4,029	2,411	6,440
Passengers departing, including transit passengers:			
First cabin.....	2,602	1,293	3,895
Other than first cabin.....	1,136	1,128	2,264
Total.....	3,738	2,421	6,159
Total movement of passengers.....	7,767	4,832	12,599

Item.	Cristobal.	Balboa.	Total.
Passengers disembarking:			
First cabin.....	1,434	199	1,633
Other than first cabin.....	522	66	588
Total.....	1,956	265	2,221
Passengers embarking:			
First cabin.....	1,222	200	1,422
Other than first cabin.....	486	75	561
Total.....	1,708	275	1,983
Services to American seamen:			
Seamen shipped.....	323	91	414
Seamen paid off.....	201	36	237
Seamen deserted.....	5		5
Seamen lodged, subsisted, and repatriated.....	39	31	70
Wages of American seamen:			
Total amount earned.....	\$10,094.55	\$5,869.38	\$15,963.93
Deductions approved by Deputy Shipping Commissioners.....	580.00	2,414.42	2,994.42
Balance due seamen.....	\$9,514.55	\$3,454.96	\$12,969.51
Paid to seamen.....	6,253.16	259.68	6,512.84
Received on deposit for seamen.....	3,261.39	3,195.28	6,456.67
Services to American vessels:			
Crews shipped.....	2		2
Crews paid off.....	1		1
Shipping articles written.....	2		2
Marine notes of protest noted.....	15	6	21
Bills of health issued.....	164	118	282

LOCK OPERATIONS.

Lockages of commercial vessels for the month were as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	93	89	182	107	101	208
Pedro Miguel.....	93	84	177	109	101	210
Miraflores.....	95	92	188	109	101	210

All lockages, including Army and Navy vessels, those of the Panama Railroad and the Panama Canal, are included in the following statement of lockages for February:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial.....	182	177	188
Noncommercial, Army and Navy.....	12	18	17
Noncommercial, Canal equipment.....	5	24	11
Total.....	199	219	216
Vessels:			
Commercial.....	208	210	210
Noncommercial, Army and Navy.....	39	46	46
Noncommercial, Canal equipment.....	16	62	49
Total.....	263	318	305

The total consumption of water for lockages during February was 1,404,570,000 cubic feet. The consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	783,620,000	620,950,000	667,860,000
Leakage.....	20,000,000	23,530,000	15,000,000
Maintenance.....		92,140,000	8,070,000
Total.....	803,620,000	736,620,000	690,930,000

METEOROLOGY.

This was the driest February of record since the American occupation, being slightly drier than February, 1912, previously the driest February of record. Rainfall varied from none at Miraflores to 1.61 inches at Porto Bello. The greatest amount recorded on any one day was 0.32 inch at Gatun on the 13th and at Porto Bello on the 15th. The estimated rainfall over the Gatun Lake watershed was 0.44 inch, compared with a 10-year mean of 1.82 inches; over the Chagres River basin above Alhajuella it was 0.74 inch, compared with a 19-year mean of 1.63 inches. There was a decrease in

storage of 6,100 million cubic feet. The Gatun Lake watershed total yield was the lowest February yield on record, being 64 per cent below the 10-year mean, or 705 c. f. s. against a mean of 1,952 c. f. s. The maximum February total yield since the existence of Gatun Lake was 5,077 c. f. s. in 1915. The draft for lockages and electric power from Gatun Lake was 2,055 c. f. s., as compared with 2,284 c. f. s. for last month, and 1,951 c. f. s. for February of last year. The elevation of the lake varied from a maximum of 85.95 feet on the 1st to a minimum of 84.56 feet on the 29th. Miraflores Lake varied from a maximum elevation of 54.10 feet on the 11th to a minimum elevation of 53.06 feet on the 9th, ending the month at elevation 53.80. Five seismic disturbances were recorded during the month, all of which were too slight to be felt locally.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The gross output of this station for February was 5,221,000 KWH on a computed water consumption of 3,745,080,000 cubic feet. No interruptions in service occurred. Unit No. 2 was out of service during the month on account of burn-out in coils of auto-transformer; but has been repaired and will be placed in service soon.

Miraflores steam plant—This plant consumed 131,170 KWH in excess of its output, with generators floating on line for stand-by service. The oil consumption amounted to 2,155 barrels.

Total power output—The total gross output of both plants was 5,221,000 KWH; the total power distributed to consumers was 4,502,610 KWH. The total loss of power plant auxiliaries, transmission, transformation, and operation of the steam plant generators for stand-by service was 718,390 KWH, or 13.75 per cent of the gross output.

Transmission line—System service was interrupted on the 5th caused by the breaking of ground wire on line No. 2 at tower 15-2, resulting in slight interruptions at Cristobal, Darien, Gamboa, and Balboa. On the 19th trouble on 2,200-volt circuit out of Gamboa substation threw this station off the line for 1 hour and 8 minutes; and on the following day trouble at this substation resulted in an interruption at Gamboa for 8 minutes. The work of painting the transmission line towers has been advanced to 60 per cent completion.

Substations—There were 16 interruptions occurring at the substations; 2 at Cristobal, 2 at Gatun, 10 at Miraflores, and 2 at Balboa. With the exception of those at Miraflores, the interruptions were slight. Feeder D (Cucaracha) at the Miraflores substation was out of service on 10 occasions, causing a total interruption of 8 hours and 56 minutes.

New construction work—The installation of a new 8,400 KVA transformer and three new tie-line equipments at Gatun substation is 6 per cent complete. The electrical work in connection with the installation of equipment at Mount Hope cold storage plant has been completed. The work at Pier 6, Cristobal, was 99 per cent completed.

Marine work—This division installed and repaired miscellaneous electrical equipment on 56 vessels during the month, 35 at Cristobal and 21 at Balboa.

SHOP, FOUNDRY, AND DRY DOCK WORK.

The greater part of the wood decking of the steamship *Cristobal* was laid during February and a considerable amount of the partition work of the passenger accommodations completed; the engines and boilers were made ready for dock trial.

The oil-burning installation on the steamship *Acajula* will require about two more weeks for completion. Boilers were placed in the cruiser *Lima* and the work on this vessel very nearly completed. General overhaul work was done on the *Lake Fitch*, *Cawker*, C-32, and *Xenia*. The erection of the second sand crane at Gamboa was completed.

At the Cristobal shops, the repairing of the boiler of the steamship *Battonville* was completed and the ship was drydocked and caulked. The overhauling of the engine and the repairing of the boiler of the tug *Engineer* was completed. Extensive engine room repairs were made on the steamship *Chile*. The overhauling of the steamship *Culebra* was continued; and the necessary alterations to enable the steamship *Middlebury* to carry cattle from Colombia to Cuba were completed. The schooner *W. H. Marston* was drydocked and caulked as directed by the surveyors.

The steamship *Marne* was refloated and made ready for towing to docks for unloading of cargo. This ship, which was sunk in Cristobal harbor on January 24, for the purpose of extinguishing a fire aboard, was raised by forces of this division assisted by employees of the Dredging Division. The hull of the *Marne* was completely submerged and had several large holes produced by the shots fired into it when this method of sinking it was found necessary. The cargo, all oils and highly inflammable,

added a further difficulty to the work of salvage. As soon as possible after the fire had been extinguished the work of raising the vessel was begun. The bulkwarks of the ship were extended above the surface of the water by bolting to them sections formed of planks secured together in as nearly a water-tight manner as possible. Divers were employed in patching the holes in the hull; and when the bulwarks had been completed and the holes in the hull made as nearly water-tight as temporary patching permitted, several pumps were installed in various parts of the vessel. With these and with the aid of those of the ship, it was pumped out sufficiently to float, the stern rising first and several hours later the bow also came to the surface. As soon as all the water possible to reach with the pumps had been taken out, the vessel was towed to dock No. 6, Cristobal, reaching there March 1, when the work of removing cargo was immediately begun; this had proceeded until the 6th, when in the early morning a heavy explosion occurred in the vicinity of the engine room of the ship followed instantly by the outbreak of another fire. The *Marne* was immediately towed out from the dock to a position off the end of the mole where she sank again in about 40 feet of water, the bow remaining above the surface. This second fire was extinguished and the work of again bringing the ship to the surface is proceeding in much the same manner as has been described.

The following vessels received miscellaneous repairs at Cristobal shops and dry dock: U. S. S. *Bath*, *Brazos*, *Breakwater*, *Dreadnaught*, *Eagle No. 11*, *Eagle No. 31*, *Nevada*, *Oklahoma*, *R-24*, *Sonoma*, subchasers Nos. 282 and 285; U. S. Army cargo barge, *Maj. A. G. Forse*, and *C. W. Field*; steamships *Achilles*, *Agarista*, *Allianca*, *Arawa*, *Atenas*, *Balboa*, *Barbadian*, *Battonville*, *Beaumont*, *Bradford*, *Cacique*, *C. A. Canfield*, *Calamares*, *Caribbean*, *Carillo*, *Cathcoon*, *Cauca*, *Chile*, *Clauseus*, *Colon*, *Craigsmere*, *Craycroft*, *Crisfield*, *Edgar F. Luckenbach*, *General Goethals*, *General Gorgas*, *Guatemala*, *Haarlem*, *Holbrook*, *Jamaica*, *Lake Berdan*, *Lake Buckeye*, *Lake Fillion*, *Lake Lesa*, *Laura C. Hall*, *Manavi*, *Mantaro*, *Marne*, *Middlebury*, *Overbrook*, *Owatonna*, *Peru*, *Point Judith*, *Robin Adair*, *San Blas*, *San Juan*, *San Jose*, *Salvador*, *Santa Marta*, *Ucayali*, *Urubamba*, *Van Rensselear*, *W. L. Steed*, *W. S. Rheem*, *Wilfred Laurier*, and *Xenia*; launches *Capron*, *J. W. Mc Kee*, *Rodman*; tugs *Coco Solo*, *Engineer*, *La Boca*, *St. Ewe*, *St. Mabyn*, *St. Minver*, and *Tavernilla*; Swedish cruiser *Flygia*. The following vessels were drydocked at Cristobal: U. S. Army barge, *Maj. A. G. Forse* and *C. W. Field*; U. S. S. *Breakwater*, *Eagle No. 31*, steamships *Battonville*, *Boxley*, and *San Blas*; schooners *Linda S.* and *W. H. Marston*.

The following vessels were at Balboa shops and drydock for repairs: U. S. S. *Cleveland*, *Ontario*, *R-21*, *R-22*, *R-23*, *R-24*, *R-25*, *R-26*, and *R-27*; steamships *Acajulla*, *Alanthus*, *C-32*, *Cawker*, *City of Berkeley*, *Cculee*, *Conclene*, *Cristobal*, *David*, *Dryden*, *Eglantine*, *Firthcliffe*, *Grayson*, *Ipswich*, *Lady Sybil*, *Lake Capens*, *Lake Fabyan*, *Lake Filbert*, *Lake Fitch*, *Lake Frenchton*, *Lake Garza*, *Lake Gebhart*, *Lake Stobi*, *Los Santos*, *Masula*, *Mateo*, *Petunia*, *Rosalie Mahoney*, *West Hesseltine*, *Xenia*, and *Yosemite*; motorships *Cethana*, *Chiriqui*, and *Laura C. Hall*, schooner *Almirante*; cruiser *Lima*; tender *Perico*; yacht *Uncas*. The following were drydocked: Submarines *R-21*, *R-22*, *R-23*, *R-24*, *R-25*, *R-26*, and *R-27*; steamships, *C-32*, *Cawker*, *Lake Fitch*, *Lake Garza*, and *San Joaquin*; dredge *Paraiso*.

The output of the Mechanical Division in patterns made and foundry production for February is shown as follows:

	February.		January.	
	Patterns.	Pounds.	Patterns.	Pounds.
Iron.....	55	58,893	46	95,914
Steel.....	19	32,006	11	37,571
Brass.....	48	21,533	67	24,720

The usual repair and maintenance work of this division included among other items, the following:

Cars repaired.....	1,631
Locomotives and cranes repaired.....	773
Passenger coaches packed, cleaned, oiled, and inspected.....	3,474
Freight cars repacked.....	698
Locomotives hosted.....	1,469
Cranes hosted.....	209
Locomotives ridden.....	64
Locomotives inspected.....	78
Crews instructed in handling locomotives.....	18
Crews instructed in oil and fuel economy.....	32
Crews instructed in air brakes.....	11
Cranes, locomotive, inspected.....	22

BUILDING CONSTRUCTION.

The Building Division had the following items of construction underway during February, with the progress indicated:

	Percent completed.
Moving 3 type-18 houses from Las Cascadas to Balboa.....	100
Moving 7 type-15 houses and 1 type-7 house from Las Cascadas to Pedro Miguel:	
Three houses.....	100
Five houses.....	95
Installation of third unit, Gavilan Island incinerator.....	95
Colon stables:	
Two stables.....	50
Six stables.....	3
One stable.....	(*)
Five wagon sheds.....	5
One latrine.....	5
Feed rooms and quarters.....	60
Shop building.....	70
Deposit pits.....	45
Silver townsite, Mount Hope:	
Commissary.....	25
Eight quarters.....	(†)
Ten quarters.....	15
Two quarters.....	5
Balance.....	(*)
Reconstruction of Royal Mail Pier, Colon.....	(†)
Cristobal incinerator.....	20
Combination shop and storehouse, Cristobal:	
Excavation.....	50
Foundation forms and plant.....	100
Royal Mail Steam Packet Company's office, Cristobal: Excavation.....	50
Moving 3 type-7 houses from Las Cascadas to New Cristobal.....	10
Oil storage shed, Balboa store.....	100
Moving old police station from Las Cascadas to Gamboa.....	99
Converting old kitchen, Ancon Hospital, into family apartments.....	100
Converting Section F, Ancon Hospital, into family quarters.....	99
Converting different wards, Ancon Hospital, into family quarters:	
Ward 17.....	90
Ward 18.....	95
Ward 19.....	95
Moving building 210 and converting into maids' quarters.....	50
Playshed, Pedro Miguel.....	50
Playshed, Gatun.....	30
Field office, Paraiso, Dredging Division.....	5
Moving bachelor quarters and old pay office, Cristobal.....	100
Freight and rest room, Frijoles.....	90
Erection of steel signal tower, Pier No. 6, Cristobal.....	100

(*) Not started.

(†) Started.

(‡) Complete, except painting.

The construction work performed by the Building Division for the Army and Navy is separately reported.

DREDGING DIVISION.

Cucaracha slide became active on the 21st and during that night and the morning of the 22d, it is estimated that 100,000 cubic yards of material moved into the Canal. About 50,000 additional cubic yards of material developed between the east prism line and the old shore line on the east. The dredges *Cascadas* and *Paraiso* were moved from Balboa and Culebra, respectively, and immediately put in operation at this area, both dredges working double shifts for the remainder of the month. This slide extended from the south side of Gold Hill to the north slide of Purple Rock, reaching from the Canal eastward for approximately 2,000 feet in the break of the hill. Shoaling within the Canal prism took place between stations 1805 and 1813, extending entirely across the Canal to the west prism line. There was little interference with Canal traffic and a minimum channel depth of 33 feet was maintained during the time the slide was most active.

East Culebra slide showed no movement during the month. At barge repair slide a small surface movement continued throughout the month.

The total excavation by dredges during February was 314,915 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
(a) 29,500	5,900	23,600	Maintenance....	1889-50 to 1904-00 W.....	<i>Gamboa.</i>
(a) 8,800	1,800	7,000	Maintenance....	1889-50 to 1902-50 W.....	<i>Paraiso.</i>
				<i>Gaillard Cut.</i>	
(a) 1,700	1,700	.....	Maintenance....	1814-50 to 1816-C. L.....	<i>Gamboa.</i>
(a) 9,400	2,400	7,000	Maintenance....	1793-50 to 1791-50 W.....	<i>Paraiso.</i>
(a) 21,600	6,500	15,100	Maintenance....	1805-00 to 1813-00 E. and W.....	<i>Paraiso.</i>
(a) 16,300	6,500	9,800	Maintenance....	1805-00 to 1813-00 E. and W.....	<i>Cascadas.</i>

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment.
	Earth.	Rock.			
<i>Pacific Entrance.</i>					
(b) 70,000	70,000		Maintenance.....	2137-00 to 2115-00 W.....	No. 83.
(b) 46,000	46,000		Maintenance.....	2207-60 to 2214 20 E.....	No. 84.
(c) 19,850	19,850		Maintenance.....	Balboa inner harbor.....	Cascadas.
(c) 10,650	10,650		Construction.....	Balboa inner harbor.....	Cascadas.
(c) 3,500	3,500		Maintenance.....	Balboa, for Panama Railroad.....	Cascadas.
(c) 58,000	58,000		Maintenance.....	Balboa inner harbor.....	No. 84.
	Gravel.				
(d) 14,839	14,839		Aux. const'n....	Chagres River gravel bed.....	Marmot.
	Sand.				
(d) 2,326	2,326		Aux. const'n....	Chagres River gravel bed.....	Marmot.
	Mud.				
(d) 1,400	1,400		Aux. const'n....	Uncovering gravel bed.....	Marmot.
(d) 1,050	1,050		Aux. const'n....	Dredging at gravel plant and dock.....	Marmot.
314,915	252,415	62,500	Total for month.		

(a) Gaillard Cut. (b) Pacific entrance. (c) Balboa inner harbor. (d) Chagres River.

The material excavated was dumped as follows:

Gatun lake north of Gamboa.....	87,300	<i>Cu. yds.</i>
San Juan dump.....	104,000	
Flats west of Canal.....	70,000	
At sea.....	34,000	
Gamboa gravel plant.....	17,165	
Deep water, Chagres River.....	2,450	
Total.....	314,915	

The following excavation remained to be done on March 1:

Location.	Earth.	Rock.	Total.
	<i>Cu. yds.</i>	<i>Cu. yds.</i>	<i>Cu. yds.</i>
Gaillard Cut.....		25,000	25,000
Pacific entrance.....	50,500	86,900	137,400
Total Canal prism.....	50,500	111,900	162,400
Cristobal coaling station.....		2,100	2,100
Balboa inner harbor.....	116,850	13,400	130,250
Total, ocean to ocean.....	167,350	127,400	294,750

MUNICIPAL ENGINEERING DIVISION.

This division had the following items of construction work underway in the northern district during the month, with the progress on March 1, as shown:

	Per cent completed.
Roads, water, and sewers, ten 12-family silver quarters, Mount Hope:	
Water lines.....	100
Sewer lines.....	100
Roads and sidewalks.....	90
Grading, fill, and general municipal work for new silver townsite, Mount Hope:	
Fill and grading.....	100
Water lines.....	98
Streets and roads.....	98
Sewers, sanitary.....	92
Sewers, storm.....	98
Sidewalks.....	(*)
Municipal work, Block 54, Colon:	
Grading.....	100
Roads.....	95
Concreting railroad tracks.....	70
Water lines.....	100
Sanitary sewers.....	100
Storm sewers.....	100
Municipal work between 6th and 9th and "G" and "K" streets, Colon:	
Roads.....	5
Grading and rolling.....	10
Water lines.....	50
Sanitary sewers.....	75
Alleyways.....	(*)
Municipal work, New Cristobal townsite:	
Grading.....	5
Roads.....	15
Water lines.....	3
Sanitary sewers.....	50
Sidewalks.....	(*)
Construction modified, Imhoff tank, Mindi Farm.....	100
Tennis court, Cristobal.....	100
Two tennis courts, Gatun.....	10
Municipal work for west half, Colon stables.....	20
Extension of E Street, Colon.....	100

(*) Not started.

Construction work in the southern district progressed to the following status on March 1:

	Per cent completed
Storm sewer, Javillo fill.....	99
Sewer, Northern Avenue to beach.....	97
Box sewer, Panama Railroad yards.....	12
Municipal work for 8 houses, Pedro Miguel.....	100
Road from lumber shed to Diablo Hill.....	60
Demolition of Calidonia Bridge.....	12
Municipal work for 3 type-18 houses, Balboa.....	(*)
Industrial track between buildings 8 and 14, Balboa shops.....	(*)
Sewer and water lines for C. & S. A. Telegraph Company, Balboa.....	(*)

(*) No work done.

The total output of all pumping stations for February was 859,806,160 gallons; and that of the three filtration plants, 531,656,000 gallons. Panama City was furnished with 79,631,000 gallons, and Colon with 52,183,875 gallons. Sales of water to 347 vessels amounted to 15,708,857 gallons.

There were 2,813 tons of garbage and 7 dead animals consumed at the Gavilan Island incinerator during February:

WORKING FORCE.

(Effective February 4, 1920.)

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	36	50	86
Building Division.....	414	1,799	2,213
Electrical Division.....	256	369	625
Municipal Engineering Division.....	110	1,775	1,885
Lock Operation.....	164	642	806
Dredging Division.....	148	971	1,119
Mechanical Division.....	1,034	1,948	2,982
Marine Division.....	141	432	573
Fortifications.....	50	269	319
Total.....	2,353	8,255	10,608
Supply Department:			
Quartermaster.....	153	1,775	1,928
Subsistence.....	32	417	449
Commissary.....	271	1,626	1,897
Cattle Industry.....	30	1,367	1,397
Hotel Washington.....	6	97	103
Total.....	492	5,282	5,774
Accounting.....	238	11	249
Health.....	242	898	1,140
Executive Department.....	542	302	844
Total.....	1,022	1,211	2,233
Panama Railroad:			
Superintendent.....	78	563	641
Transportation.....	134	198	332
Receiving and Forwarding Agent.....	84	1,757	1,841
Coaling stations.....	84	965	1,049
Total.....	380	3,483	3,863
Grand total.....	4,247	18,231	22,478

The total gold force employed on February 4 was 133 more than the 4,114 at work on January 7, and the silver force was 17 more than the 18,214 working on that date. As compared with the gold force for the corresponding period of last year, reported as of February 5, 1919, the present force is an increase of 753 over the 3,494 employed on that date, and the silver force 7 less than the 18,238 on the payrolls of the same date.

STRIKE OF SILVER LABORERS.

As a result of my refusal to grant the demands of the organized silver laborers for an increase in pay of 7 cents an hour, and certain other conditions of employment, there was an organized strike of approximately 15,000 of 17,000 laborers on February 23. An investigation of the cost of living of these laborers and their rates of pay resulted in granting them an increase of 2 cents an hour, or \$5 a month to monthly employees, effective February 1. This increase was granted after it had been determined that the increase in cost of the essentials of food and clothing had over-reached increases in pay. No further increases were justified.

Realizing that the mass of these men had been misled and misinformed, I announced that all who were not back at work on February 26 would be considered as having voluntarily left the service without due notice. Rules of long standing provide that in such cases re-employment may be only at a lower rate of pay than that received at the time of quitting. Meanwhile steps were taken to clear the Canal quarters of

persons not employed, and to fill the places of the men who had quit work. On March 2, the strike leaders officially advised the men to return to work; and a few days later the force was at its normal strength.

Except for about 2,000 West Indians and native laborers who remained loyal to the work, the strike of silver roll employees was complete. Thanks to the readiness of the American employees to turn to whatever work was given them to do, it was possible to keep the Canal in operation, to feed and provide the force with water and light.

OCCUPATION OF QUARTERS.

The following statement shows the occupants by numbers, as classified, of Panama Canal and Panama Railroad quarters on February 29:

	Men.	Women.	Children.	Total.
Americans.....	3,593	2,190	2,494	8,277
Europeans.....	131	39	49	219
West Indians.....	3,754	1,493	2,576	7,823
Total.....	7,478	3,722	5,119	16,319

PUBLIC HEALTH.

There were 43 employees, 11 nonemployees, and 1 nonresident, discharged from Canal Zone hospitals on account of malaria during February; a total of 55 cases as compared with a total of 59 cases during January. There were no deaths from malaria. Influenza caused 26 admissions and 3 deaths as compared with 15 admissions and no deaths last month. Two deaths occurred from pneumonia and 9 cases were discharged as compared with 4 deaths and 7 discharges during January. There were 14 cases of chickenpox reported; 4 more than last month. One case of smallpox, a non-employee from Panama, was admitted during the month. Two cases of scarlet fever, both children from the same family in Panama, were admitted. Two cases of typhoid fever, also children from Panama, were admitted. There was 1 case of paratyphoid fever, a nonresident, and 1 case of relapsing fever, a colored employee living in Panama.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

Material ordered on United States requisitions was received during February in the total amount of \$530,558.37; receipts for January were \$733,946.90. Of the February receipts, \$442,748.27 was chargeable to Operation and Maintenance; \$81,161.38 to Construction and Equipment; and \$6,648.72 to miscellaneous departments. Cash sales on the Isthmus from storehouses and obsolete store amounted to \$115,488.57, of which \$37,393.93 was for stock material, \$76,556.52 for fuel oil, \$860.69 for obsolete material, and \$677.43 for scrap.

The total sales of material from storehouses to steamships for February was \$99,797.71, of which \$26,215.84 was for stock material, and \$73,581.87 for fuel oil. Sales of commissary supplies to all purchasers for February totaled \$1,007,830.62, made up as follows: To steamships, other than United States Government vessels and those of the Panama Railroad Steamship Line, \$105,780.90; to The Panama Canal, \$131,139.82; to the United States Government, including the Army and Navy, \$181,850.41; to individuals and companies, mainly through charge accounts in the retail commissaries, \$20,725.22; to the Panama Railroad, including its steamships and the Hotel Washington, \$32,321.52, and to individuals purchasing coupons, \$536,012.75.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on February 29, exclusive of Fortifications, was \$13,817,186.97; the balance in Fortifications was \$6,682,840.35. Payments from appropriations made by the Disbursing Clerk, Washington, amounted to \$622,458.08, and by the Paymaster on the Isthmus to \$1,513,030.60. Purchases of commissary books from the Panama Railroad Company amounted to \$370,653.45.

Collections of tolls on the Isthmus totaled \$658,141.86. Deposits of \$124,002.70 were made with the Assistant Treasurer of the United States in payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,165,378.38; and collections by the Disbursing Clerk, Washington, \$42,725.53. Receipts from Canal Zone and miscellaneous funds were \$217,396.93; disbursements from the same source were \$269,255.53. February payrolls on the Isthmus aggregated \$1,234,877.50 as compared with \$1,274,681.22 for January, a decrease for this month of \$39,803.72.

Respectfully,

CHESTER HARDING,
Governor.

Executive Order.*

The area of land hereinafter described situated in the jurisdiction of the Canal Zone is hereby set apart and assigned to the uses and purposes of a radio station and other naval purposes, under the control of the Secretary of the Navy; but the said area shall be subject to the civil jurisdiction of the Canal Zone authorities in conformity with the Panama Canal Act. The said area is described as follows:

PUNTA MALA NAVAL RADIO STATION.

The said radio station is part of the tract of land heretofore set apart for the uses and purposes of the Punta Mala Lighthouse of The Panama Canal, and comes within the following metes and bounds:

Commencing at the southernmost point of the said Radio Station, which point is designated on the blueprint herewith attached numbered 6030-2, dated June 18, 1919, and signed O. E. Malsbury, Assistant Engineer, as point "B," and is marked by a concrete monument; thence north seventy degrees, ten minutes, thirty-one seconds (N 70° 10' 31") west, five hundred and seventy eight feet (578') more or less, to a concrete monument at the intersection of this line with the western boundary of the Punta Mala Lighthouse Reservation, designated on said blueprint with the letter "D;" thence north (true) six hundred and ten feet (610'), more or less, to the intersection with the low water shore line of the cove at the northern end of the Reservation. The line then follows the shore line of the cove to the northern end of the small point, thence following the low water shore line in a southerly direction until the point "F," shown on the blueprint, is reached. The line then runs south sixty-one degrees, three minutes, twenty-nine seconds (S 61° 03' 29") west a distance of five hundred and eighty-nine and five tenths feet (589.5') to the place of beginning marked "B" on the said blueprint. The total area of the Radio Station is approximately thirteen and seven tenths (13.7) acres.

The shelter cove at the northern boundary of the Radio Station which is used at high tide for landing supplies for the lighthouse as well as the Radio Station, shall be available for use of both the Lighthouse and Radio services, and a right of way is hereby allowed the Punta Mala Lighthouse service through the Naval Reservation for the purpose of transporting supplies to and from the Lighthouse Reservation and the said landing.

THE WHITE HOUSE,

WOODROW WILSON

1 March, 1920.

[No. 3237.]

*Published as Panama Canal Circular No. 601-109.

Use of Codes in Telegraphic Communication with the Canal.

The Panama Canal and the Panama Railroad Company can handle cable messages in practically any of the leading commercial codes, but in order to expedite the handling of business, attention is invited to the fact that the following are among the codes usually employed in Canal business:

- Scott's Shipowners' Telegraphic Code (1906 ed.), designation *Scotts*;
- Bentley's Complete Phrase Code, designation *Bentleys*;
- Lieber's Standard Code, designation *Liebers*;
- ABC Universal Commercial Electric Telegraph Code, Improved 5th edition, designation *ABC*;
- Western Union Telegraphic Code (5-letter and Universal editions), designation *Wu*;
- General Telegraph Code, designation *General*.

The senders of messages in code are advised to precede the message proper with the designation indicating the code employed; while this is not absolutely necessary it saves time and affords protection against misinterpretations.

The cable address of The Panama Canal on the Isthmus is *Pan Canal, Panama*; in the United States, *Pan Canal, Washington*. The cable addresses of the Panama Railroad Company or Panama Railroad Steamship Line are *Panrailco, Panama*, and *Panrailco, New York*. Messages should not be sent to individuals, when they concern business with the Canal or Railroad. Addressed to the organization, as above, they will be placed in the hands of the proper individual.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight March 27, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Ucayali	16	19.15	22	6.09	25	22.21	26	8.32	Peruvian	Peruvian Line	374.7	46.3	18.6	Cristobal	Callao	General	500	4,278	2,244
Westmoreland	6	23.14	22	6.23	26	13.20	26	3.50	American	United States Shipping Board	411.0	55.0	27.5	Savannah	San Francisco	General	8,005	7,285	5,256
West Hembre	21	14.50	22	6.40	26	1.55	26	3.50	American	United States Shipping Board	409.7	54.2	19.7	Savannah	San Francisco	Cotton, rosin	4,200	6,689	4,916
Osaki	21	17.20	22	10.36	26	20.51	27	7.50	British	New Zealand Shipping Co	449.0	53.0	23.6	Newport News	Auckland	General	7,500	8,256	5,470
Port Lyttleton	22	7.15	22	11.16	26	1.05	26	2.18	British	Commonwealth and Dom. Line	450.0	55.2	25.1	New York	Auckland	General	7,500	8,219	5,824
Mercedes (a)	22	11.22	22	8.45	26	2.33	26	11.22	American	Chas. Simonsen	326.0	38.2	17.6	Cristobal	Gatun Lake	General	8	3,173	2,163
Newport	17	18.20	23	6.10	25	23.45	26	17.42	American	Pacific Mail Steamship Co	445.0	58.0	27.4	New York	San Francisco	General, steel	8,617	7,618	5,419
Tanuga Maru	22	13.52	23	6.15	26	17.42	26	23.09	Japanese	Nippon Yusen Kabushiki Kaisha	378.0	51.0	16.0	Genoa	Valparaiso	General	820	5,887	4,289
Ansaldo San	22	12.42	23	6.40	25	22.03	26	19.41	Italian	National Navigation Co	425.6	43.7	15.6	Genoa	Chile	General	820	5,887	4,289
Giorgio III	22	6.15	23	9.27	25	23.59	27	20.43	American	United States Shipping Board	448.6	55.0	26.0	Newport News	Chile	General	820	5,887	4,289
George Wash-	23	15.53	24	6.33	26	3.41	26	9.17	Norwegian	Peter Olsen	425.0	45.0	26.0	Copenhagen	San Francisco	General	8,300	7,440	5,627
ington	22	6.30	24	6.35	25	20.05	26	20.20	American	United States Shipping Board	409.5	54.2	23.8	Philadelphia	San Francisco	Gasoline, etc	(b)	6,232	4,517
West Cape	23	10.05	24	7.25	26	3.09	27	11.48	American	United States Shipping Board	409.0	54.2	21.3	Baltimore	San Francisco	General	6,150	6,617	4,855
Westboro	23	9.20	24	8.01	25	20.30	26	19.40	American	United States Shipping Board	410.0	54.0	23.9	New York	San Francisco	General	7,264	6,625	5,070
West Yaca	19	19.05	24	8.35	25	23.07	26	13.00	American	Colombian Maritime Line	380.0	29.0	12.7	Cristobal	Tumaco	General	550	1,741	350
Balboa	21	17.50	25	10.15	25	19.31	25	20.35	Italian	La Veloce Steamship Line	190.0	47.0	19.4	Genoa	Valparaiso	General	550	5,192	3,983
Bologna	20	18.35	26	6.24	26	21.42	26	24.50	British	Pacific Steam Navigation Co	216.0	35.1	13.6	Cristobal	Guayaquil	General	4,909	5,298	4,019
Manavi	25	12.54	26	6.32	26	19.13	27	13.22	Swedish	Johnson Steamship Line	362.0	51.2	21.7	Gothenborg	San Francisco	General	3,087	2,915	1,907
San Francisco	25	18.35	26	6.46	26	22.41	26	22.45	American	United States Shipping Board	423.0	44.0	24.0	New Orleans	Valparaiso	General	9,000	7,053	5,083
Lake Fithian	25	8.25	26	6.50	26	21.41	26	22.45	Norwegian	W. Wilhelmsen	453.8	57.0	27.0	Tampico	Tocopilla	Crude oil	9,000	7,053	5,083
La Habra	25	6.25	26	7.08	26	23.10	26	24.17	American	United States Shipping Board	385.0	51.0	15.6	Philadelphia	Tocopilla	General	5,966	4,966	4,442
East Wind	25	6.25	26	7.08	26	23.10	26	24.17	American	United States Shipping Board	385.0	51.0	15.6	Philadelphia	Tocopilla	General	5,966	4,966	4,442
Kenkon Maru	26	11.47	26	7.10	26	22.30	28	14.05	Japanese	Inui Gomei & Co.	340.0	43.1	16.0	Cardiff	Iquique	General	3,800	3,497	2,480
No. 12	26	11.30	27	6.27	27	17.39	27	20.35	British	Pacific Steam Navigation Co	449.0	57.0	24.8	New York	Talcahuano	General	3,800	9,089	6,215
Ebro	24	21.23	27	6.45	27	19.24	28	13.26	American	United States Navy	475.0	60.0	21.1	Port Arthur	Balboa	Fuel oil, etc	10,809	7,657	5,316
Sapelo	27	6.03	27	8.15	27	18.42	28	22.00	Japanese	Nippon Yusen Kabushiki Kaisha	447.0	58.0	26.6	New York	San Francisco	General	885	7,854	4,322
Tokwa Maru	23	6.15	27	9.40	27	20.20	27	22.00	Dutch	Royal Netherland W. I. Mail	370.0	50.0	16.6	Amsterdam	Valparaiso	General	885	7,854	4,322
Delft	23	6.15	27	9.40	27	20.20	27	22.00	Dutch	Royal Netherland W. I. Mail	370.0	50.0	16.6	Amsterdam	Valparaiso	General	885	7,854	4,322

(a) Launch. (b) 190,000 cases.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Peru	21	16.15	21	17.42	25	23.00	26	6.30	British	Pacific Steam Navigation Co	350.0	43.1	18.8	Guayaquil	Cristobal	General	1,773	3,225	1,702
Sorata	22	8.20	22	10.13	25	20.30	26	11.27	British	Pacific Steam Navigation Co	390.0	47.3	23.3	Coquimbo	Liverpool	General	5,132	4,506	2,938
Port Macquarie	22	23.00	23	7.42	25	21.43	26	12.15	British	Commonwealth and Dom. Line	426.0	54.1	23.4	Melbourne	Liverpool	General	5,409	6,022	4,528
Cawker	23	7.00	23	9.24	25	22.45	26	6.37	American	United States Shipping Board	267.3	46.0	25.0	Tocopilla	Charleston	Nitrate	3,062	2,552	1,528
Eastern Knight	24	16.00	25	0.10	26	19.55	27	12.11	American	United States Shipping Board	415.1	55.9	27.0	Tacoma	New York	Flour	10,400	10,400	8,600
Efina	24	2.15	25	8.52	26	20.10	26	20.30	American	United States Shipping Board	402.6	58.8	26.0	Antofagasta	Charleston	Nitrate	8,500	6,322	4,670
Lake Berdan	24	3.20	24	2.43	25	22.00	26	6.30	American	United States Shipping Board	250.5	43.5	21.0	Mexijlones	Wilmington	Nitrate, potash	2,828	2,342	1,413

PORT OF CRISTOBAL.

(c) For orders.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From.	Date.	Vessel.	Line.	For.
March 21	Chinampa	Standard Oil Co.	Tampico.	March 21	Caribbean	Panama Railroad Cattle Industry.	Cartagena.
March 21	Vancouver	Royal Mail Co.	Port Limon.	March 21	Bahadan	United States Shipping Board.	New York.
March 22	Electrician	Harrison Steamship Line	Liverpool and wayports.	March 22	W. H. Marston (e)	J. M. Scott.	Mobile.
March 22	Gen. G. W. Goethals.	Panama Railroad Steamship Line.	New York.	March 23	Arabia (d)	W. V. N. Powellson.	Colon.
March 22	Lake Lila	United States Shipping Board.	Hampton Roads.	March 23	Ulysses	Panama Railroad Steamship Line.	Norfolk.
March 22	Manuel Calvo	Spanish Steamship Line.	Habana.	March 24	Lake Lila	United States Shipping Board.	Bluefields.
March 23	Cartago	United Fruit Co.	New Orleans.	March 24	Electrician	Harrison Line.	Galveston and wayports.
March 23	Arabia (d)	W. V. N. Powellson.	Colon.	March 24	Cartago	United Fruit Co.	New Orleans, wayports.
March 24	Santa Leonora	United Fruit Co.	New York and Habana.	March 24	Manuel Calvo	Spanish Steamship Line.	Puerto Colombia.
March 24	Turrialba	United States Army.	New York and Kingston.	March 25	Chinampa	Standard Oil Co.	Tampico.
March 24	Caribbean	United Fruit Co.	Cartagena.	March 25	Vancouver	Royal Mail Company.	Cartagena and wayports.
March 25		Panama Railroad Cattle Industry.		March 25	C-43	French Government.	Saint Thomas.
				March 25	Colon	Panama Railroad Steamship Line.	New York and Haiti.
				March 25	Zacapa	United Fruit Co.	New York via Habana.
				March 25	Turrialba	United Fruit Co.	Colombian ports.

PORT OF BALBOA.

March 22	Cantabria	Magdaleno Bustillos.	Puntarenas, Costa Rica.
March 27	Seneca (f)	U. S. Navy.	San Diego.

d) Motor schooner. (e) Schooner. f) Tug. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 27, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caribbean.....	Panama Railroad Cattle Industry		March 21.....		43
Ucayali.....	Peruvian Line		March 22.....		590
Chinampa.....	Standard Oil Co.	March 21.....	March 25.....	7,400	(†)
Vancouver.....	Royal Mail Steam Packet Co.	March 21.....	March 25.....	301	1,415
Bologna.....	Italian Steamship Line	March 21.....	March 25.....	338	2
Ansaldo San Giorgio III.....	National Navigation Society	March 22.....	March 23.....	4	(†)
Arabia.....	San Blas Trading Corporation	March 22.....	March 23.....	(*)	10
Newport.....	Pacific Mail Steamship Co.		March 23.....		1,343
Electrician.....	Harrison Line	March 22.....	March 24.....	1,159	351
Manuel Calvo.....	Spanish Line	March 22.....	March 24.....	634	168
Lake Lida.....	United States Shipping Board	March 22.....	March 24.....	2,471	(†)
Gen. G. W. Goethals.....	Panama Railroad Steamship Line	March 22.....		2,863	
Balboa.....	Colombian Maritime Co.		March 24.....		231
Cartago.....	United Fruit Co.	March 23.....	March 24.....	1,630	55
Delft.....	Royal Netherland W. I. Mail	March 23.....	March 27.....	558	8
Zacapa.....	United Fruit Co.	March 24.....	March 25.....	631	72
Turrialba.....	United Fruit Co.	March 24.....	March 25.....	103	567
Colon.....	Panama Railroad Steamship Line		March 25.....		3,095
Caribbean.....	Panama Railroad Cattle Industry	March 25.....		250	
Urubamba.....	Peruvian Line	March 25.....		1,835	
Peru.....	Pacific Steam Navigation Co.	March 25.....		1,773	
Acajutla.....	Pacific Steam Navigation Co.	March 25.....		926	
Manavi.....	Pacific Steam Navigation Co.		March 26.....		592
Aysen.....	Chilean Steamship Co.	March 25.....		2,066	
Ambridge.....	United States Shipping Board	March 26.....		7,577	
Jamaica.....	Pacific Steam Navigation Co.	March 27.....		771	
Larne.....	Royal Mail Steam Packet Co.	March 27.....		266	
Sachem.....	Pacific Mail Steamship Line	March 27.....		1,924	

* No cargo discharged.

† No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending March 27, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Point Adams.....	Pacific Mail Steamship Co.		March 21.....		
Peru.....	Pacific Steam Navigation Co.	March 21.....	March 23.....	4	
Cantabria.....	Marlaleño Bustillos	March 22.....	March 25.....	13	
Acajutla.....	Pacific Steam Navigation Co.	March 25.....	March 25.....	4	
Newport.....	Pacific Mail Steamship Co.	March 25.....	March 26.....		34
Balboa.....	Columbia Maritime Co.	March 25.....	March 26.....		77
Ansaldo San Giorgio III.....	National Navigation Society	March 25.....	March 26.....	13	25
Manavi.....	Pacific Steam Navigation Co.	March 26.....	March 26.....		1
Sachem.....	Pacific Mail Steamship Co.	March 26.....	March 27.....	200	
Cordelia.....	C. T. Bowring & Co.	March 26.....		1,300	
San Francisco.....	Johnson Line	March 26.....	March 26.....	125	
Jamaica.....	Pacific Steam Navigation Co.	March 27.....	March 27.....	1	
Sapelo.....	United States Navy	March 27.....		3,000	

Official Circulars.

Rules of the Road.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 23, 1920.

All concerned—All vehicles of whatever character in the service of The Panama Canal and Panama Railroad Company must strictly observe the existing regulations relative to right of way for fire apparatus in the cities of Panama and Colon.

CHESTER HARDING,
Governor.

Promotions on Silver Roll.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 26, 1920.

To all concerned—In the case of those silver employees who were reemployed immediately

after the strike at a lower rate of pay, and whose services have been satisfactory in all respects other than that they participated in the strike, promotions to the next higher rate of pay may be made April 1.

CHESTER HARDING,
Governor.

Acting Chief Admeasurer.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 25, 1920.

All concerned—Effective March 29, 1920, and during the absence of Lieutenant M. C. Davis, U. S. Navy, on leave, Mr. Frederick de V. Sill will act as Member of the Board of Admeasurement and Chief Admeasurer at the Port of Balboa; and Mr. Timothy P. O'Shea will act as Engineer Member, Board of Local Inspectors.

CHESTER HARDING,
Governor.

Telephone Inquiries at Offices of Captains of the Ports.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., March 24, 1920.

To all concerned—Serious interference with the business of the Port Captains' offices (Cristobal and Balboa) is resulting from the number of telephone inquiries made daily by individuals on matters of merely personal interest.

Hereafter, such inquiries should be directed to the Information telephone operator (Cristobal or Balboa) and not to the Port Captains' offices.

Marine Division dispatchers will keep information telephone operators advised with regard to movements of passenger and mail steamers, and other matters of general interest. They will decline to furnish information direct to individuals in response to inquiries of the character above mentioned; but will, instead, refer the calling party to information telephone operator.

CHESTER HARDING,
Governor.

Quarters Status of Employees Returning from Military or Naval Service.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., March 25, 1920.

CIRCULAR No. 627-26:

Paragraph No. 21 of Circular No. 627-24, is amended to read as follows:

"21. The service of employees who resigned from The Panama Canal or Panama Railroad to enter military or naval service during the European War, and who are reinstated in their positions within 120 days from date of honorable discharge, will be considered continuous for the purpose of applying for quarters; and those employees who occupied family quarters at the time of such resignation will be placed at the head of the list for assignment to quarters of the same grade to which they were entitled. Those reporting for duty after 120 days will be given credit for time while in military or naval service, but will not be given preference over other employees for assignment to quarters."

CHESTER HARDING,
Governor.

Acting Chief Hydrographer.

THE PANAMA CANAL,

DEPT. OF OPERATION AND MAINTENANCE,

BALBOA HEIGHTS, C. Z., March 11, 1920.

To all concerned—Effective this date and until the return from leave of Mr. R. Z. Kirkpatrick, Mr. H. G. Cornthwaite is designated Acting Chief Hydrographer.

JAY J. MORROW,
Engineer of Maintenance.

Tuition in the Schools.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,

DIVISION OF SCHOOLS,

BALBOA HEIGHTS, C. Z., March 29, 1920.

To all concerned—The following regulation regarding the payment of tuition will go into effect at the beginning of the next school year:

"Tuition charges for children whose parents or guardians are alien nonresidents of the Canal Zone are:

	Alien nonem- ployees.	Alien em- ployees.
For grade school, per month...	\$8.00	\$4.00
For high school, per month...	12.00	8.00

A. R. LANG,
Superintendent of Schools.

Approved:

C. A. McILVAINE,
Executive Secretary.

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, February, 1920.—Continued from page 484.

From—	Japan.	Lytleton, New Zealand.	Millionnes, Chile.	Moji, Japan.	Pisagua, Chile.	Punarenas, Argentina.	San Fran- cisco, Cal.	San Pedro, Cal.	Shanghai, China.	Sydney, Australia.	Talcahuano, Chile.	Tumaco, Colombia.	Valparaiso, Chile.	Yokohama, Japan.	Total.
New Orleans, La.	6,500														7,431
Newport News, Va.															1,888
New York, N. Y.															125,945
Norfolk, Va.															15,090
Philadelphia, Pa.															7,500
Port Arthur, Tex.															8,143
Sabine, Tex.															15,016
Savannah, Ga.															16,115
Southampton, England.															
St. Thomas, West Indies.															
Tampico, Mexico.															
Weymouth, England.															25,984
Total.....	6,500	7,811	6,878	6,300	16,220	1,061	53,918	13,828	16,663	7,900	6,537	1,349	13,563	22,939	302,610

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 27, 1920.
CIRCULAR NO. 234:

Effective April 1, 1920, Mr. J. J. Noonan is designated an accountable official of The Panama Canal, *vice* Mr. Alfred Bryan, and as such will account for the Supply Department storehouse stock at Balboa Heights storehouse.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Information re Sailings of Army Transports.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 27, 1920.

To all concerned—Canal employees desiring information concerning sailings of Army transports, and reservations thereon should communicate with this office either by letter or by telephone, Balboa 184.

All authorities for transportation are issued and arrangements for reservations made by this office, and it is, therefore, unnecessary for employees to call on or telephone to the Department Transportation Officer, U. S. Army, concerning such matters.

C. A. McILVAINE,
Executive Secretary.

Motor Transportation.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 25, 1920.

All concerned—Circular issued on December 16, 1919, establishing new motor transportation rates to be charged against Departments and Divisions, which became effective January 1, 1920, is amended by the following:

A deduction of 33 cents per hour may be made for each Ford truck used without a chauffeur, and \$1.01 per hour for other trucks.

R. K. MORRIS,
Chief Quartermaster.

Approved:
CHESTER HARDING,
Governor.

Schools.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
DIVISION OF SCHOOLS,
BALBOA HEIGHTS, C. Z., March 27, 1920.

To all concerned—All Canal Zone schools closed on account of the influenza will open on Monday March 29. The quarantine period will take the place of the Easter vacation, except Good Friday, which will be observed as a holiday.

A. R. LANG,
Superintendent of Schools.

Approved:
C. A. McILVAINE,
Executive Secretary.

Shipping Commissioner's Sale.

The Shipping Commissioner, room 305, Administration Building, Balboa Heights, will accept written bids up to noon Monday, April 19, 1920, for the purchase of portions of the personal effects of Francis R. Trainor, deceased American seaman. The property to be sold is listed below, and bids may be made for the entire lot of the effects or be limited to individual articles. Prospective bidders desiring to examine the effects should apply to the Shipping Commissioner's office on any business day. Bids should be submitted in sealed envelopes, addressed to the

Shipping Commissioner, marked "Bid on effects of Francis R. Trainor, deceased." The right is reserved to reject any or all bids, and no advance deposit of money is required:

- 1 suitcase, black imitation leather
- 1 hand bag, leather
- 6 pairs cotton socks
- 2 pair wool socks
- 1 pair garters
- 1 overcoat
- 1 two-piece bathing suit
- 1 two-piece suit
- 1 vest
- 1 belt, leather
- 1 hat, felt
- 1 cap
- 3 undershirts
- 1 pair of drawers
- 2 union suits
- 2 pairs work trousers
- 1 whisk broom
- 6 handkerchiefs
- 1 sweater
- 2 pairs high black shoes
- 1 pair high canvas shoes
- 1 pair slippers
- 1 package of miscellaneous small articles
- 2 collars, soft
- 4 collars, linen
- 3 neckties
- 1 clothes cover
- 4 shirts, negligee
- 1 shirt, khaki
- 1 shirt, heavy
- 2 brushes, shoe
- 1 can of cocoa
- 1 can of shoe polish
- 2 spools darning cotton
- 1 fountain pen filler

C. H. CALHOUN,
Shipping Commissioner.

Sale of Confiscated Merchandise.

The Division of Civil Affairs, room 305, Administration Building, Balboa Heights, will accept written bids up to noon, Thursday, April 15, 1920, for the purchase of the following articles which were seized and confiscated under authority of Section 2 of Title VII of the Act of Congress approved June 15, 1917, known as the "Espionage Act." Persons desiring to examine the property should apply to the Division of Civil Affairs on any business day. Bids may be made for the entire lot, or be limited to individual articles, and should be submitted in sealed envelopes addressed to the above-mentioned division marked "Bid on Confiscated Merchandise." The right is reserved to reject any or all bids, and no advance deposit of money is required.

- 22 pairs ladies' black silk stockings, assorted sizes.
- 40 pairs ladies' white silk stockings, assorted sizes.
- 40 pairs ladies' brown silk stockings, assorted sizes.
- 6 pairs men's silk socks (2 pairs black, 2 pairs blue, and 2 pairs gray).
- 1 ladies' cotton crepe nightgown.
- 1 pair men's sock holders.
- 2 men's shirts, soft, size 15 1/2.
- 3 men's silk shirts (2 blue and white stripe and one green and white stripe).
- 4 boxes "Pompeia" face powder.
- 4 bottles "Pompeia" lotion.
- 2 pieces pongee silk, tan color (one piece about 15 yards and one piece about 7 yards, both pieces single width).
- 1 suit cotton BVD men's underwear.
- 1 silk doily.
- 1 men's white silk tie.
- 2 bottles Newbro's "Herpicide."
- 12 tins "Eclat" talc powder.
- 1 tin Mennen's talcum powder.
- 1 pair men's khaki riding trousers.
- 3 men's khaki shirts.
- 5 Panama hats.
- 1 tube "Pebecco" tooth paste.
- 1 Prophylactic tooth brush.

Additions to Commissary Stock.

Dry Goods Section.

Dress goods:	
Gingham, 27", yd.....	\$0.35
Linen, for dress, 35", yd.....	.96
Linen, for dress, 42", yd.....	1.15
Handkerchiefs, linen cambric, H. S., 19" ea. l.....	.41
Hats, straw, men's, Cuban, ea.....	1.50
Hats, straw, men's, Cuban, ea.....	2.20
Hats, straw, men's, Cuban, ea.....	2.25
Hats, straw, men's, Cuban, ea.....	2.35
Hats, straw, men's, Cuban, ea.....	2.45
Hats, straw, men's, Cuban, ea.....	2.55
Hats, straw, men's, Cuban, ea.....	2.80

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Volume XIII.

Balboa Heights, C. Z., April 7, 1920.

No. 34.

Work on the "Olockson."

In carrying out the plan for salvaging the steamship *Olockson*, towed in from sea and sunk in the outer harbor at Balboa to extinguish fire in her cargo of gasoline, a salvaging party went to the ship on April 6 to work on her till she is afloat. The first move is to replace her cargo winches, which have been overhauled at Balboa shops, and rig temporary cargo booms in place of those which were burned, so that her own gear can be used for hoisting the cargo, steam being supplied from a derrick barge alongside; during this time wrecking pumps will be installed, with steam supply from a derrick barge. Some of the cargo is accessible now, at low tide, and the plan in handling the cargo will be to keep the level of water just below the top of the cargo, so as to allow no spaces for the accumulation of gas pockets and loose oil. This plan is being followed now in discharging the *Marne* at Cristobal.

The salvaging party at the *Olockson* consists of 12 gold men, housed on derrick barge *No. 161*, and 30 silver men, on barge *No. 91*.

Cargo of the "Marne" Being Discharged in Harbor.

The steamship *Marne*, which sank a second time in Cristobal harbor on March 6 with fire in her cargo of gasoline was floated again last week and moved into the position selected for discharging her. This is near the outer end of the terminal mole. As sunk the second time, about 100 feet of her bow protruded at an angle into the channel; when she was raised she was towed back clear of the Canal. The plan is to remove the benzine and oil and flush the holds with water and steam to clear out loose oil and fumes, and then to take the vessel to a dock for the discharge of her general cargo. Cases are leaking, oil and benzine are loose all through the ship, and in some places the fumes are so strong that the men can work only a few minutes without coming up for air. Under such conditions extreme care is necessary and discharging is necessarily slow.

A representative of the United States Shipping Board, to which the *Marne* belongs, will arrive on the Isthmus shortly to make a survey of her and determine the procedure as to repairing her or otherwise disposing of her.

Record Lockage.

On the afternoon of March 25, 13 northbound ships which had been delayed on account of the closing of the cut for a few days made the transit of the Canal. These ships were locked down at Gatun in 5 hours and 57 minutes. Both chambers were used, and with one exception tandem lockages were made, all 16 locomotives being in use. Eleven of the ships were commercial and of the other two one was a United States Navy supply ship and the other a British tug.

Table of summary of record lockages is printed at top of page 494.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight April 3, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons		Panama Canal Tonnage
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Gross	Net	
Mary (a)	26	6 00	28	6 45	28	14 05			Panamanian	A. Baldeoliver	395.5	55.0	13.6	Cristobal	Panama	General	6,843	8	4,678
Ambridge	26	12 04	28	6 25	28	17 36	29	14 30	American	United States Shipping Board	400.0	52.0	20.0	Norfolk	Iouique		997	8	4,113
Bialla	27	21 30	28	6 47	28	16 36	28	18 28	British	Pacific Steam Navigation Co.	400.0	53.0	20.0	Newport News	Callao		4,366	6	4,889
Daleno	28	7 30	28	7 34	28	18 25	30	4 15	American	United States Shipping Co.	420.5	54.0	20.3	Philadelphia	Iouique		8,262	6	6,783
Tamaha	28	17 45	29	6 28	29	19 52	29	19 52	British	Standard Transportation Co.	402.0	53.0	20.0	Saline	San Francisco		1,843	1	1,237
Alta (b)	27	19 27	29	9 55	31	20 49	1	16 13	American	C. Henry Smith	236.0	44.0	18.0	Skien, Norway	Honolulu		2,232	2	2,080
Annie M. Reid (c)	26	10 30	29	12 57	31	17 37	1	8 15	British	James Rolph, Jr.	291.3	42.0	13.6	Ipswich	San Francisco				
Renown (c)	30	6 50	30	7 00	30	20 18	1	7 35	British	British Government	795.0	92.0	31.7	Barbados	New Zealand				
Calcutta (d)	30	6 55	30	7 15	30	21 25	(f)		British	British Government	432.0	42.0	16.0	Barbados	Balboa				
Aysen	25	22 40	30	8 35	30	22 44	30	23 26	Chilean	South American Steamship Line	379.6	44.3	21.9	Cristobal	Valparaiso		964	4	4,505
Stephen R.	29	18 55	30	9 16	30	22 47	30	23 26	American	Crowell & Thurlow	354.2	49.0	19.0	Norfolk	Arica		4,627	8	3,277
Acajutla	25	20 42	31	6 15	31	18 40	1	2 10	British	Pacific Steam Navigation Co.	215.7	33.5	15.6	Cristobal	Buenaventura		798	1	273
Herakles	30	12 02	31	6 18	31	17 35	31	19 31	Norwegian	Brugsgaard Koslerud	390.0	54.0	15.0	New Orleans	Talca		5,404	3	3,954
Angamos	30	9 00	31	6 30	31	20 00	1	15 20	Chilean	Chilean Government	377.0	44.0	16.6	Faya	Valparaiso		4,120	4	2,286
Urubamba	25	23 45	31	6 40	31	18 50	1	2 10	Peruvian	Peruvian Steamship Line	381.2	41.1	20.6	Cristobal	Mollendo		730	5	3,215
Peru	25	23 00	31	9 35	31	20 14	31	22 50	British	Pacific Steam Navigation Co.	350.0	67.0	25.8	Cristobal	Valparaiso		1,219	4	1,000
Orea	30	10 14	1	6 15	1	21 03	1	21 59	British	Pacific Steam Navigation Co.	556.0	67.0	25.8	Liverpool	Coronel		3,379	15	3,310
John Adams	27	11 00	1	6 37	1	19 00	2	11 35	British	Royal Mail Steam Packet Co.	351.0	45.0	20.6	London	Champerico		4,054	2	2,662
John Adams	31	3 42	1	6 27	1	22 00	3	17 15	American	United States Shipping Board	439.6	64.0	18.0	Jacksonville	Mejillones		3,400	8	3,973
Waipara	1	5 55	1	11 35	1	19 57	1	20 40	British	Slaw, Saville & Albon	426.0	54.0	25 11	New York	Auckland		3,400	7	468
Malu	9	11 50	2	6 06	2	15 15	2	16 19	American	United States Shipping Board	402.6	53.0	23.6	New York	Honolulu		8,072	6	5,433
Lake Licoro	1	6 47	2	6 38	2	15 50	3	9 44	American	United States Shipping Board	251.0	43.6	20.9	Newport News	Iouique		2,722	2	486
Lancaster	2	6 28	2	7 40	2	17 25	3	15 34	American	Green Star Steamship Co.	434.3	47.7	23.0	Newport News	Yokohama		10,000	7	943
Point Judith	1	3 30	2	7 48	2	17 08	3	13 30	American	Pacific Mail Steamship Co.	380.2	44.0	20.6	Baltimore	San Francisco		3,300	2	2,895
Santa Luisa	2	16 40	3	6 05	3	18 03	3	18 42	American	W. R. Grace & Co.	288.0	57.6	22.10	New York	Valparaiso		2,685	5	694
Culebra	27	19 35	3	6 19	3	20 26	4	7 20	American	The Panama Canal	288.0	47.0	11.0	Cristobal	Balboa		3,429	2	2,245
Sachem	27	19 35	3	8 00	3	19 02	4	7 20	American	Pacific Mail Steamship Co.	307.7	42.2	11.0	Cristobal	San Francisco		3,429	2	2,206

(a) Launch. (b) Barkentine. (c) Cruiser. (d) Returned north through the Canal. (e) Displacement, 33,379 tons. (f) Displacement, 4,754 tons.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Kaikoura	27	23 20	28	9 22	28	20 56	29	6 41	British	New Zealand Shipping Co.	460.0	58.2	24.0	Port Pirie	London	General	8,000	9	153
Kronprincess	25	7 30	29	7 28	29	20 05	29	21 12	Swedish	Johnson Line	377.0	51.3	23.1	Mejillones	Sweden	Nitrate	5,700	5	296
Margareta	27	19 24	29	8 28	29	19 05	1	6 30	American	United States Navy	477.1	60.0	17.6	Balboa	Coco Solo	Ballast	3,300	2	580
Sapele	28	17 03	29	8 35	29	21 34	30	1 04	American	United States Shipping Board	401.4	53.2	26.6	Portland	New York	Flour	7,698	6	611

Date	Vessel	Line	From	Date	Vessel	Line	For
March 28	C. A. Canfield	Pan-American Pet. & Trans. Co.	Tampico	March 28	Caribbean	Panama Railroad Cattle Industry	Cartagena
March 28	Yarmouth	Black Star Line	New York and way ports	March 28	Shirmeek C-42	French Government	San Juan, Porto Rico
March 29	Achilles	Panama Railroad Steamship Line	Norfolk	March 29	Gen. G. W. Goethals	Panama Railroad Steamship Line	New York
March 29	Darien (m)	Panama Railroad Steamship Line	Norfolk	March 29	Santa Leonora	United States Army	New Orleans
March 29	Bonham	United States Shipping Board	Cartagena	March 29	United States Shipping Board	United States Shipping Board	Habana
March 30	Ninian	Leyland Line	Liverpool and way ports	March 30	C. A. Canfield	Pan-Amor. Pet. & Transp. Co	Tampico
March 30	Arabia (n)	W. V. N. Powellson	Colon	March 30	Arabia (n)	United States Shipping Board	Colon
March 31	Heredia	United Fruit Co.	New Orleans and Habana	April 1	Lake Akkra	United States Shipping Board	Bluefields
March 31	Abangarez	United Fruit Co.	New York and Habana	April 1	Carrillo	United Fruit Co.	Colombian ports
March 31	Carrillo	United Fruit Co.	New York and Kingston	April 1	Abangarez	United Fruit Co.	New York, via wayports
March 31	Metapan	United Fruit Co.	New Orleans and Kingston	April 1	Heredia	United Fruit Co.	New Orleans and Bocas
March 31	Lake Akkra	United States Shipping Board	Ponce	April 2	Metapan	United Fruit Co.	New Orleans & wayports
April 1	Panama	Panama Railroad Steamship Line	New York and Haiti	April 2	Achilles	Panama Railroad Steamship Line	Norfolk
April 1	Caribbean	Panama Railroad Cattle Industry	Cartagena	April 2	Darien (m)	Panama Railroad Steamship Line	Norfolk

(g) Motor ship. (h) Sailor. (i) Light cruiser. (j) Tug. (k) For orders. (l) Cocoa, ivory nuts, hides, rubber, etc. (j) Returned from sea for repairs.

PORT OF CRISTOBAL

Date	Vessel	Line	From	Date	Vessel	Line	For
March 28	C. A. Canfield	Pan-American Pet. & Trans. Co.	Tampico	March 28	Caribbean	Panama Railroad Cattle Industry	Cartagena
March 28	Yarmouth	Black Star Line	New York and way ports	March 28	Shirmeek C-42	French Government	San Juan, Porto Rico
March 29	Achilles	Panama Railroad Steamship Line	Norfolk	March 29	Gen. G. W. Goethals	Panama Railroad Steamship Line	New York
March 29	Darien (m)	Panama Railroad Steamship Line	Norfolk	March 29	Santa Leonora	United States Army	New Orleans
March 29	Bonham	United States Shipping Board	Cartagena	March 29	United States Shipping Board	United States Shipping Board	Habana
March 30	Ninian	Leyland Line	Liverpool and way ports	March 30	C. A. Canfield	Pan-Amor. Pet. & Transp. Co	Tampico
March 30	Arabia (n)	W. V. N. Powellson	Colon	March 30	Arabia (n)	United States Shipping Board	Colon
March 31	Heredia	United Fruit Co.	New Orleans and Habana	April 1	Lake Akkra	United States Shipping Board	Bluefields
March 31	Abangarez	United Fruit Co.	New York and Habana	April 1	Carrillo	United Fruit Co.	Colombian ports
March 31	Carrillo	United Fruit Co.	New York and Kingston	April 1	Abangarez	United Fruit Co.	New York, via wayports
March 31	Metapan	United Fruit Co.	New Orleans and Kingston	April 1	Heredia	United Fruit Co.	New Orleans and Bocas
March 31	Lake Akkra	United States Shipping Board	Ponce	April 2	Metapan	United Fruit Co.	New Orleans & wayports
April 1	Panama	Panama Railroad Steamship Line	New York and Haiti	April 2	Achilles	Panama Railroad Steamship Line	Norfolk
April 1	Caribbean	Panama Railroad Cattle Industry	Cartagena	April 2	Darien (m)	Panama Railroad Steamship Line	Norfolk

(m) Barge. (n) Motorship.

(Continued on page 502, column 2.)

Record Lockage.—Continued from page 491.

Following is a summary of the lockages:

Name.	Length.	Arrived.			Entered.			Cleared.			Chamber and character of lockage.
		P. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.		
St. Athans.....	135.0	4.57	5.06	6.16	.....	.....	.....	.....	.....	.....	East—Tandem.
Beaver.....	380.0	5.17	5.22	6.19	.....	.....	.....	.....	.....	.....	East—Tandem.
Sorata.....	390.0	5.59	6.07	7.22	.....	.....	.....	.....	.....	.....	West—Tandem.
Otterstadt.....	314.0	6.11	6.18	7.26	.....	.....	.....	.....	.....	.....	West—Tandem.
Point Adams.....	289.0	6.11	6.31	7.47	.....	.....	.....	.....	.....	.....	East—Tandem.
Acajutla.....	215.0	6.29	6.45	7.50	.....	.....	.....	.....	.....	.....	East—Tandem.
Port Macquarie.....	437.0	6.46	7.41	8.35	.....	.....	.....	.....	.....	.....	West—Single.
Aysen.....	379.0	6.51	8.07	9.21	.....	.....	.....	.....	.....	.....	East—Tandem.
Lake Berdan.....	256.0	7.49	8.14	9.23	.....	.....	.....	.....	.....	.....	East—Tandem.
Peru.....	350.0	6.55	9.01	10.05	.....	.....	.....	.....	.....	.....	West—Tandem.
Cawker.....	267.0	8.15	9.07	10.07	.....	.....	.....	.....	.....	.....	West—Tandem.
Urubamba.....	381.0	8.19	9.41	10.49	.....	.....	.....	.....	.....	.....	East—Tandem.
Coutelene.....	253.0	9.16	9.49	10.54	.....	.....	.....	.....	.....	.....	East—Tandem.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending April 3, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Caribbean.....	Panama Railroad Cattle Industry.	.....	March 28.....	Tons.	Tons.
Gen. G. W. Goethals..	Panama Railroad Steamship Line.	.....	March 29.....	.....	7
C. A. Canfield.....	Pan-Amer. Pet. & Trans. Co.	March 28.....	March 30.....	9,000	4,431
Laura C. Hall.....	Pacific Metals Corporation	March 29.....	.....	49	(*)
Ninian.....	Harrison Steamship Line.	March 29.....	.....	632	.....
Aysen.....	Chilean Steamship Line.	.....	March 30.....	.....	986
Peru.....	Pacific Steam Navigation Co.	.....	March 31.....	.....	1,220
Acajutla.....	Pacific Steam Navigation Co.	.....	March 31.....	.....	825
Urubamba.....	Peruvian Steamship Line.	.....	March 31.....	.....	730
Achilles.....	Panama Railroad Steamship Line.	March 29.....	April 2.....	12,013}	(*)
Darien.....	Panama Railroad Steamship Line.	March 29.....	April 2.....	7,316	(*)
Larne.....	Royal Mail Steam Packet Co.	.....	April 1.....	.....	1,126
Orcus.....	Pacific Steam Navigation Co.	March 30.....	April 1.....	1,031	237
Heredia.....	United Fruit Co.	March 31.....	April 1.....	944	115
Abangarez.....	United Fruit Co.	March 31.....	April 1.....	710	125
Carrillo.....	United Fruit Co.	March 31.....	April 1.....	4	513
Panama.....	Panama Railroad Steamship Line.	April 1.....	.....	3,240	.....
Point Judith.....	Pacific Mail Steamship Line.	April 1.....	April 2.....	250	72
Caribbean.....	Panama Railroad Cattle Industry.	April 1.....	.....	205	.....
Allianza.....	Panama Railroad Steamship Line.	April 2.....	.....	1,786}	.....
Lake Charlottesville..	United States Shipping Board.	April 2.....	.....	2,664	.....
Cauca.....	Pacific Steam Navigation Co.	April 2.....	.....	1,080	.....
Perou.....	French Line.	April 2.....	.....	68	.....
Sachem.....	Pacific Mail Steamship Line.	.....	April 3.....	.....	2,325
Parismina.....	United Fruit Co.	April 3.....	.....	350	.....
Salvador.....	Pacific Steam Navigation Co.	April 3.....	.....	1,034	.....

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending April 3, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Laura C. Hall.....	Pacific Metals Corporation	March 28.....	March 29.....	Tons.	Tons.
Acajutla.....	Pacific Steam Navigation Co.	March 31.....	March 31.....	19	13
Annette Rolph.....	Rolph Navigation Co.	April 1.....	April 2.....	400	.....
Orcu.....	Pacific Steam Navigation Co.	April 1.....	April 1.....	18	.....
Point Judith.....	Pacific Mail Steamship Co.	April 2.....	April 2.....	73	.....
Cauca.....	Pacific Steam Navigation Co.	April 1.....	April 2.....	3	.....
Salvador.....	Pacific Steam Navigation Co.	April 2.....	April 3.....	134	.....
Chile.....	Pacific Steam Navigation Co.	April 3.....	April 4.....	20	.....
Sachem.....	Pacific Mail Steamship Co.	April 3.....	April 3.....	.....	3

Executive Order.—Carrying and Keeping of Arms.

By virtue of the authority vested in me by Section 4 of the Act of Congress authorizing the President to make rules and regulations relative to police powers in the Canal Zone, approved August 21, 1916, I hereby establish the following order for the Canal Zone:

SECTION 1. It shall be unlawful for anyone to carry on or about his person any firearm or any dirk, dagger or other knife, manufactured or sold for the purpose of offense or defense, or any slung shot, sword-cane, or any knuckles made of metal or other hard substance.

SEC. 2. The preceding section shall not apply to a person engaged in the military or naval service of the United States, or as a peace officer or officer authorized to execute judicial process of the United States or the Canal Zone, or in carrying mail or in the collection or custody of funds of the United States or the Canal Zone, nor to a member of a gun or pistol club organized for the promotion of target practice. A certified copy of the constitution and by-laws of which have been approved by the Executive Secretary of The Panama Canal and filed with the Chief of the Police and Fire Division, when such member is going to or from a target range or is engaged in practice at the target range. For the purposes of this order, a certificate of membership in the gun or pistol club shall be issued by the organization and approved by the Chief of the Police and Fire Division, which shall entitle the holder to carry firearms as is provided in this section.

Neither shall the preceding section apply to any person authorized to have or carry arms by permit granted under the terms of this order.

SEC. 3. The Executive Secretary of The Panama Canal may authorize the granting of permits to have and carry arms, as follows:

1. To hunt upon the public lands of the Canal Zone or upon lands occupied by private persons, when authorized by the latter.

2. To have arms in residences, offices, business places, and plantations, and to watchmen or overseers of plantations, factories, warehouses, docks, or piers. Applications for such permits shall be made to the Executive Secretary of The Panama Canal, and shall contain the full name, residence and occupation of the applicant; and if the applicant is a minor it shall not be granted without the consent of his parent or guardian; but no permit shall be granted to a minor under 15 years of age.

The Executive Secretary shall satisfy himself by due inquiry that the applicant is a proper person to have a permit to keep and carry arms; and he may grant or deny the application, as to him may seem proper.

SEC. 4. When an application is granted by the Executive Secretary for a permit to hunt, he shall endorse his approval thereon and file the application, and he shall cause a permit to be issued to the applicant upon his paying a fee of one dollar.

Hunting permits issued by virtue of this order will allow the holder thereof to have, carry, and use firearms in the area or areas prescribed by the Governor of The Panama Canal, and on the conditions imposed by him under such general or special rules and regulations as he may issue from time to time. And the Governor is hereby empowered to designate the area or areas of the Canal Zone in which hunting is permitted, and the class of arms that may be used in hunting in such areas; and no hunting shall be allowed outside of the areas so designated by him. And the Governor of The Panama Canal may, in such general or special rules and regulations, impose such other conditions in respect to hunting as he may deem necessary in the interests of public order, and to prevent injury to persons or property.

A permit granted under this section shall run for the fiscal year in which it is issued, and it may be revoked at any time for cause by the Executive Secretary of The Panama Canal.

SEC. 5. Permits heretofore issued by authority of law, to have and use firearms, shall not be affected by this order, but such permits shall continue in force until the expiration of the period for which they were issued.

SEC. 6. Any one not authorized by this order, who carries on or about his person any of the prohibited arms mentioned in Section 1 of this order, or who hunts or engages in hunting without first obtaining the permit provided for in this order, or who after obtaining such permit engages in hunting in violation of the provisions of this order or any rule or regulation established by the Governor hereunder, shall be punished by a fine not exceeding twenty-five dollars or by imprisonment in jail not to exceed thirty days, or by both such fine and imprisonment, in the court's discretion.

In addition to the punishment herein prescribed for a violation of this order, the courts shall adjudge the seizure and confiscation of the arms unlawfully had, used, or carried by the offending party, and the same shall be disposed of in such manner as the Executive Secretary of The Panama Canal shall determine.

SEC. 7. Penalties for the infringement of this order shall be in addition to such punishment as may be imposed upon the offending person for any other offense that he may have committed in connection with the carrying or using of arms in violation of this order.

SEC. 8. The Executive Order of November 7, 1913, and all other laws, orders, and regulations or parts thereof in conflict with this order are hereby repealed.

SEC. 9. This Order shall take effect thirty days from and after this date.

WOODROW WILSON

THE WHITE HOUSE,

6 March, 1920.

[No. 3243.]

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge, effective April 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.46
Brass, sheet.....	Lb.	.56
Bronze, Tobin.....	Lb.	.40
Cement, at Panama:		
Departments of United States Government (includes surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Departments of United States Government (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (includes surcharge and bags).....	Bag	1.58
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	.94
Copper, bar.....	Lb.	.50
Gasoline, in drums (motor grade).....	Gal.	.475
Lead, sheet.....	Lb.	.14
Lead pig.....	Lb.	.10
Lumber, ceiling, siding, and flooring, 1" by 6".....	M ft. B. M.	112.50
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B. M.	140.00
Lumber, yellow pine or fir (except ceiling).....	M ft. B. M.	90.00
Metal, yellow.....	Lb.	.375
Nuts, iron, machine, hexagonal.....	Lb.	.225
Nuts, iron, machine, square.....	Lb.	.15
Nails, common, wire.....	Lb.	.06
Nails, galvanized.....	Lb.	.09
Oakum, Navy, spun.....	Lb.	.20
Oakum, Navy, unspun.....	Lb.	.20
Oil, fuel, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same.....	42-gal. bbl.	1.50
Commercial vessels and individuals and companies.....	42-gal. bbl.	1.50
Individuals and companies from tank No. 116, Balboa.....	42-gal. bbl.	1.54
Oil, fuel, at Balboa and Cristobal—in drums and barrels:		
United States Army and Navy and vessels operated by same.....	42-gal. bbl.	1.75
Commercial vessels and individuals and companies.....	42-gal. bbl.	1.75
Oil, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.625
Oil, ammonia cylinder.....	Gal.	.44
Oil, burning.....	Gal.	1.38
Oil, cylinder, dark marine.....	Gal.	.875
Oil, cylinder, dark marine.....	Gal.	1.25
Oil, cylinder, ice machine, steam.....	Gal.	1.00
Oil, engine, dynamo.....	Gal.	.79
Oil, engine—in tins.....	Gal.	.69
Oil, engine—in barrels.....	Gal.	.56
Oil, gas engine, extra heavy—in drums.....	Gal.	.54
Oil, gas engine, heavy—in barrels.....	Gal.	.69
Oil, gas engine, heavy—in cases.....	Gal.	.75
Oil, gas engine, medium—in drums.....	Gal.	.56
Oil, kerosene—in drums.....	Gal.	.31
Oil, kerosene—in tins.....	Gal.	.34
Oil, linseed, boiled.....	Gal.	2.50
Oil, linseed, raw.....	Gal.	2.50
Oil, locomotive engine.....	Gal.	.35
Oil, lard.....	Gal.	2.375
Oil, marine engine.....	Gal.	1.06
Oil, marine engine.....	Gal.	.625
Oil, marine engine.....	Gal.	.44
Oil, marine engine.....	Gal.	.75
Oil, "Mineral Seal".....	Gal.	.34
Oil, nonliquid.....	Lb.	.10
Oil, stationary engine.....	Gal.	.375
Oil, sperm.....	Gal.	2.875

Commodity.	Unit.	Price.
Oils, greases, and lubricants—continued.		
Oil, signal.....	Gal.	\$1.375
Oil, valve.....	Gal.	.50
Oil, car.....	Gal.	.225
Wax, lamp.....	Lb.	.20
Grease, black, ecar.....	Lb.	.075
Grease, yellow, cup, No. 3.....	Lb.	.125
Grease, yellow, cup, No. 5.....	Lb.	.14
Grease, rod, special.....	Lb.	.225
Grease, tunnel bearing.....	Lb.	.19
Tallow.....	Lb.	.225
Turpentine.....	Gal.	2.69
Turpentine substitute.....	Gal.	.46
Vaseline.....	Lb.	.11
Paint, lead, white, dry.....	Lb.	.125
Paint, lead, white, in oil.....	Lb.	.15
Paint, zinc, white, dry.....	Lb.	.225
Paint, zinc, white, in oil.....	Lb.	.19
Paint, zinc, white leaded, 35 per cent in oil.....	Lb.	.19
Rivets.....	Lb.	.06
Rope, Manila, 1/2" diameter.....	C ft.	.75
Rope, Manila, 3/4" diameter.....	C ft.	1.25
Rope, Manila, 1" diameter.....	C ft.	2.19
Rope, Manila, 1 1/4" diameter.....	C ft.	4.06
Rope, Manila, 1 1/2" diameter.....	C ft.	4.69
Rope, Manila, 1 3/4" diameter.....	C ft.	6.25
Rope, Manila, 1 7/8" diameter.....	C ft.	7.50
Rope, Manila, 1 1/2" diameter.....	C ft.	11.25
Rope, Manila, 1 3/4" diameter.....	C ft.	16.56
Rope, Manila, 1 7/8" diameter.....	C ft.	25.00
Rope, Manila, 2" diameter.....	C ft.	30.00
Rope, Manila, 2 1/4" diameter.....	C ft.	47.50
Rope, Manila, 2 1/2" diameter.....	C ft.	77.50
Rope, Manila, 3 1/4" diameter.....	C ft.	102.50
Steel, bar.....	Lb.	.05
Steel, spring.....	Lb.	.125
Steel, cold rolled, round.....	Lb.	.09
Steel, sheet.....	Lb.	.05
Steel, structural (angles, beams, etc.).....	Lb.	.05
Tin, block.....	Lb.	.69
Tin, Banca.....	Lb.	.94
Tin, sheet.....	Lb.	.225
Washers, cut.....	Lb.	.09
Waste, colored.....	Lb.	.21
Waste, white.....	Lb.	.20
Zinc, boiler plate, 5/8" by 6" by 12".....	Lb.	.15

Community House for Soldiers and Sailors.

The National Catholic War Council has begun the erection of a community house for soldiers and sailors of the United States, on Balboa road, diagonally opposite the present location of the Army and Navy Y. M. C. A. in the old Balboa restaurant. The building will be of concrete, two stories in height, with a length of 100 feet and a depth of 57 feet.

The first floor will contain a lobby, billiard room, reading and writing room, and classrooms, in addition to the office and quarters for the three women who are to have charge of the house. The second floor will have a dance hall 84 feet by 31 feet, with balconies front and rear. In front of the building will be a portico, 11 feet wide by 68 feet long, with 8 circular columns 2 feet in diameter and 20 feet high, extending to the roof. A broad flight of steps extending across the front will lead from the ground level to the portico.

April Weather Probabilities.

The following weather conditions may be expected at the Canal entrances during the month of April, 1920. These predictions are based on the weather records at Cristobal and Balboa Heights for the last 12 and 14 years, respectively:

Winds—April marks the end of the dry season and some change toward rainy season conditions may be expected the latter part of the month. There will be a general decrease in wind movement. At the Atlantic entrance northerly winds will prevail with an average hourly velocity of about 13 miles. On the Pacific Coast

the prevailing direction will be from the northwest with an average hourly velocity of about 9 miles. A maximum velocity greater than 30 or 35 miles an hour is not likely to occur on either coast.

Rain—Light to moderate showers may be expected occasionally at both Canal entrances. The monthly average rainfall at Cristobal is 4.35 inches, and at Balboa Heights, 3.09 inches. About 16 days with rain (0.01 inch or more) may be expected on the Atlantic Coast and 9 on the Pacific Coast.

Fogs—No fogs are likely to occur at either Canal entrance. Occasional fogs may be expected over the Gaillard Cut section of the Canal, but these will probably be light and be dissipated before 8.30 a. m.

Temperature—The monthly mean temperature will average about 81 degrees Fahrenheit on both coasts, but the daily range will be much greater on the Pacific side. On the Atlantic side, 90 degrees Fahrenheit is the highest and 72 degrees Fahrenheit the lowest that may be expected, but a maximum of 97 degrees and a minimum of 64 degrees may possibly occur on the Pacific Coast.

Relative humidity—The relative humidity will average about 80 per cent on the Atlantic side and about 78 per cent on the Pacific side, but the daily range is much greater on the Pacific side.

Storms—No general storms are likely, except an occasional "Norther" may occur during the month. The "Norther" of April 3-6, 1915, was the most severe storm since the American occupation. A maximum wind velocity of 46 miles an hour from the north was recorded, the highest wind velocity on record for the Atlantic side. However, this was a storm of unusual intensity. Intensified northeast trades frequently cause rough seas and a heavy swell outside the breakwater at Colon. Smooth and moderate seas may be expected on the Pacific side.

Tides—Tidal fluctuations on the Atlantic side are too small to affect navigation Balboa tide predictions for April are given below:

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.			
W.	Mo.					W.	Mo.					W.	Mo.				
Th	1	2:05	8:16	2:31	8:47	S	11	3:04	9:05	3:33	9:20	W	21	5:20	11:33	5:28	11:57
		14.1	0.9	14.8	0.5			3.4	11.7	4.4	11.4			16.0	-0.6	16.6	-1.3
F	2	2:53	9:05	3:15	9:32	M	12	4:04	10:12	4:33	10:34	Th	22	6:11	12:19	6:29	.....
		14.6	0.4	15.2	-0.1			3.8	11.4	4.5	11.1			15.8	-0.1	16.1	.....
S	3	3:37	9:47	3:56	10:12	Tu	13	5:05	11:24	5:40	11:48	F	23	0:14	7:03	1:12	7:27
		14.9	0.0	15.4	-0.5			3.9	11.6	4.2	11.4			-0.7	15.5	0.7	15.4
S	4	4:18	10:27	4:35	10:50	W	14	6:06	12:24	6:38	.....	S	24	1:39	7:58	2:12	8:18
		15.0	-0.1	15.4	-0.5			3.6	12.3	3.5	.....			0.2	14.9	1.6	14.8
M	5	4:58	11:04	5:13	11:27	Th	15	0:48	7:02	1:13	7:32	S	25	2:41	8:57	3:19	9:23
		14.8	0.2	15.1	-0.2			12.1	3.0	13.2	2.6			1.2	14.2	2.2	13.7
Tu	6	5:37	11:38	5:50	.....	F	16	1:35	7:53	1:59	8:15	M	26	3:47	10:08	4:28	10:37
		14.5	0.7	14.7	.....			13.0	2.1	14.3	1.4			1.8	13.8	2.6	13.2
W	7	0:04	6:17	12:16	6:27	S	17	2:21	8:39	2:38	9:04	Tu	27	4:53	11:22	5:34	11:52
		0.3	14.0	1.4	14.2			13.9	1.2	15.2	0.3			2.2	13.2	2.6	13.2
Th	8	0:41	6:55	12:56	7:04	S	18	2:04	9:23	3:21	9:48	W	28	5:58	12:27	6:38	.....
		1.1	13.4	2.2	13.5			14.8	0.3	16.0	-0.7			2.3	14.0	2.3	.....
F	9	1:21	7:34	1:41	7:40	M	19	3:46	10:07	4:04	10:29	Th	29	0:55	6:58	1:21	7:35
		1.9	12.8	3.1	12.7			15.4	-0.4	16.5	-1.3			13.6	2.2	14.4	1.8
S	10	2:09	8:16	2:33	8:23	Tu	20	4:32	10:48	4:50	11:12	F	30	1:47	7:51	2:08	8:25
		2.7	12.2	3.9	12.0			15.9	-0.7	16.7	-1.5			14.0	1.9	14.8	1.2

The tides are placed in the order of their occurrence: the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; ante meridian figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

- Local and assistant inspector of boilers (male and female); \$2,100 to \$2,950 a year; No. 161; April 7 and 8, May 5 and 6, June 9 and 10, 1920; form 1087; age, 25 years but not 55 years.
- Local and assistant inspector of hulls (male and female); \$2,100 to \$2,950 a year; No. 161; April 7 and 8, May 5 and 6, June 9 and 10, 1920; form 1087; age, 25 years but not 55 years.
- Dairyman (male and female); \$840 to \$900 a year; No. 200; April 27, 1920; form 1800; age, 21 years and over.*
- Assistant in white-pine blister eradication, No. 241; assistant entomological inspector, No. 279; chemical laboratorian chemist's aid, No. 516-amended; shop apprentice, No. 653; receipt of applications will cease on March 30, 1920.
- Steamfitter's helper (male and female); \$3.20 a day; No. 196; April 27, 1920; form 1800; age, 18 years and over.*
- Mechanic, qualified as instrument maker (male and female); \$900 to \$1,800 a year; No. 1161-amended; forms 304 and 2029; age, 20 years and over.†
- Junior aid (male and female); \$720 to \$840 a year; No. 562-amended; form 1312; age, within reasonable age limits.†
- Laboratory apprentice (male and female); \$540 to \$660 a year; No. 562-amended; form 1312; age, within reasonable age limits.†
- Mechanical draftsman, Ordnance Department, War Department (male and female); grade 1, \$800 to \$1,400 a year; grade 2, \$1,400 to \$1,800 a year; grade 3, \$1,800 to \$2,500 a year; No. 65-amended; form 1312; age, 18 years and over.†
- Traveling auditor (male and female); \$2,500 to \$4,500 a year; No. 177; form 1312; age, within reasonable age limits.† Receipt of applications will cease July 1, 1920.
- Resident auditor (male and female); \$2,500 to \$4,500 a year; No. 177; form 1312; age, within reasonable age limits.† Receipt of applications will cease July 1, 1920.
- Salesman (male and female); \$2,200 a year; No. 192; April 20; form 1312; age, 21 years but not 45 years.*
- Assistant in package standardization (male and female); \$1,800 to \$2,760 a year; No. 204; April 27, 1920; form 2118; age, 22 years and over.*
- Apprentice (male and female); \$600 to \$700 a year, and \$2 a day; No. 312-amended; form 1312; age, 16 years and over.†
- Expert stenographer and typist (male and female); \$1,800 to \$2,200 a year; No. 206; April 27, 1920; form 304; age, 18 years and over.
- Insurance claims examiner (male and female); \$1,800 to \$2,500 a year; No. 201; April 28, 1920; form 1312; age, 21 years and over.
- Investigator in office management (male and female); grade \$1,400 to \$2,200 a year; grade 2, \$2,200 to \$3,000 a year; grade 3, \$3,000 to \$3,800 a year; No. 195; April 27, 1920; form 2118; age, within reasonable age limits.*
- Medical interne, Saint Elizabeth's Hospital (male and female); \$1,200 a year; No. 191; July 1, 1920; form 1312; age, 20 years and over.*
- Administrative assistant chief clerk or registrar (male and female); \$1,200 to \$1,560 a year; No. 23-amended; May 5, 1920; form 1312; age, 25 years but not 45 years.
- Administrative assistant, property officer (male and female); \$1,200 to \$1,560 a year; No. 23-amended; May 5, 1920; form 1312; age, 25 years but not 45 years.
- Laboratory assistant; No. 2-amendment; April 28-29; June 9-10; and July 21-22, 1920; \$6.40 instead of \$6 a day as stated in the original announcement of this examination.
- Expert designer; No. 168-amendment; salary has been increased from \$4,200 to \$4,500 a year.
- Salesman (machine tools); appraiser (machine tools); grade 1, \$1,800 to \$2,400 a year; grade 2, \$2,400 to \$3,500 a year; grade 3, \$3,500 to \$4,500 a year; No. 185-amendment; April 20, 1920.*
- The United States Civil Service Commission announces that for the position of salesman (machine tools), Ordnance Department at Large, experience in the selling or purchasing of machinery, machine tools or any other class of material of a similar nature, will be accepted in lieu of the experience as salesman required by the original announcement, for all grades.*
- Physician (male and female); No. 1957-amended (supplemental). Salaries stated in original announcement, No. 1957-amended with \$20 increase granted by Congress if services are satisfactory.
- Computer—Ordnance (male and female); No. 186; \$7.20 to \$12 a day; No. 186; April 28, 1920; form 1312; grade 1, 21 years to 30 years preferred; grade 2, 21 years to 35 years preferred.
- Laboratory assistant (male and female); \$5.20 to \$6 a day; No. 2-amended; April 28-29; June 9-10; and July 21-22, 1920; form 1312; age, 20 to 35 years.
- Mechanic and laboratory assistant (male and female); \$5.25 a day; No. 98-amended; April 28-29, 1920; form 1312; age, 18 years but not 40 years.
- Junior mechanical engineer (male and female); \$1,800 to \$2,000 a year; No. 207; April 27, 1920; form 1312; age, within reasonable age limits.*
- Automatic 3-addressograph feeder (male and female); \$1,100 to \$1,200 a year; April 7, May 19, and July 7, 1920; No. 184; form 304; age, 18 years and over.
- Automatic 3-A addressograph operator (male and female); grade 1, \$1,200 to \$1,500 a year; grade 2, \$1,500 to \$1,800 a year; No. 184; form 304; age, 18 years and over.
- Electric draftsman (male and female); grade 1, \$1,200 to \$1,500 a year; grade 2, \$1,500 to \$1,800 a year; grade 3, \$1,800 to \$2,400 a year; No. 183; July 1, 1920; form 1312; age, 18 years and over.*
- Posting machine operator (male and female); \$1,100 to \$1,320 a year; No. 182; April 7, May 19, and July 7, 1920; form 304; age, 18 years and over.
- Posting machine mechanic (male and female); \$1,400 to \$1,800 a year; No. 182; April 7, May 19, and July 7, 1920; form 304; age, 18 years and over.
- Posting machine expert (male and female); \$1,400 to \$1,800 a year; No. 182; April 7, May 19, and July 7, 1920; form 304; age, 18 years and over.
- Scientific assistant (male and female); \$1,320 to \$1,860 a year; No. 213; May 5 and 6, 1920; form 1312; age, 20 years and over.
- Teachers (male and female); \$1,000 to \$1,500 a year; No. 31-amended; form B. A. I. 2; age, females, 25 years but not 40 years; males, 21 years but not 40 years.†

- Primary specialists (male and female); \$1,500 to \$2,000 a year; No. 31-amended; form B. A. 1. 2; age, females 25 years but not 45 years; males, 21 years but not 40 years.†
- Model teachers for primary grades (male and female); \$1,200 to \$1,500 a year; No. 31-amended; form B. A. 1. 2; age, males and females, 21 years but not 40 years.†
- Animal husbandman (male and female); \$1,800 to \$2,500 a year; No. 193; April 27, 1920; form 2118; age, 21 years but not 45 years.*
- Metal-working pressman (male and female); \$3.75 a day plus 15 per cent; No. 217; April 27, 1920; age, 20 years and over.*
- Proof director, Ordnance Department at Large (male and female); \$2,000 to \$3,000 a year; No. 209; April 27, 1920; age, 21 years; form 1312.*
- Apprentice plate cleaner (male and female); \$600 to start; April 28, June 9, and July 21, 1920; No. 188; form 304; age, 16 years but not 18 years.
- Apprentice transferrer (male and female); \$600 to start; April 28, June 9, and July 21, 1920; No. 188; form 304; age, 16 years but not 18 years.
- Apprentice picture engraver (male and female); \$600 to start; April 28, June 9, and July 21, 1920; No. 188; form 304; age, 16 years but not 18 years.
- Apprentice letter engraver (male and female); \$600 to start; April 28, June 9, and July 21, 1920; No. 188; form 304; age, 16 years, but not 18 years.
- Radio clerk (male and female); \$1,400 a year; No. 187; April 28, 1920; form 1312; age, 18 years and over.
- Assistant metallurgist (male and female); \$1,400 a year; April 27, 1920; age, 20 years and over; form 1312.*
- Claims examiner (male); \$1,800 a year; April 28, 1920; form 1312; age, 21 years but not 50 years.
- Greek translator (male and female); \$1,200 to \$1,400 a year; May 5, 1920; form 304; age, 18 years and over.
- Petroleum engineer (oil and gas production), (male and female); \$3,000 to \$4,500 a year; April 27, 1920; No. 117-amended; form 2118; age, under 45 years.*
- Assistant petroleum engineer (oil and gas production), (male and female); \$2,100 to \$3,000 a year; April 27, 1920; No. 117-amended; form 2118; age, under 45 years.*
- Physician (male and female), (Panama Canal Service); \$200 a month; May 5 and July 7, 1920; No. 15-amended; form 1312; age, 22 years but not 31 years.
- Analyst (male and female); \$1,200 to \$1,500 a year; May 11, 1920; form 1312; age, 18 years but not 40 years.*
- Director of home education (male and female); \$2,000 to \$2,500 a year; May 11, 1920; form 2118; age, 21 years.*
- Laboratory aid, motion-picture laboratory (male and female); \$900 a year; May 5, 1920; form 304; age, 17 years but not 45 years.
- Metallurgist (male and female); \$7.60 a day; May 11, 1920; form 2118; age, under 40 years.*
- Mining accountant (male and female); \$3,000 to \$4,500 a year; May 11, 1920; form 2118; age, under 60 years.*
- Topographic draftsman (male and female); \$1,500 to \$1,880 a year; August 2, 1920; form 1312; age, 21 years and over.†
- Telephone auditor (male and female); \$1,600 a year; May 11, 1920; No. 227; form 1312; age, 23 years and over.*
- Superintendent of forest pathological field station (male and female); \$1,440 to \$1,620 a year; No. 7-amended; form 1312; April 21, 1920; age, 21 years but not 45 years.
- Assistant oil and gas inspector (male and female); \$2,000 to \$2,400 a year; April 27, 1920; No. 205; form 2118; age, 20 years but not 45 years.*
- Laboratory assistant, intermediate grade (male and female); \$1,080 a year; No. 329-amended; form 1312; age, within reasonable age limits.†
- Laboratory assistant, junior grade (male and female); \$1,000 a year; No. 329-amended; form 1312; age, within reasonable age limits.†
- Senior aid (male and female); \$900 a year; No. 329-amended; form 1312; age, within reasonable age limits.*
- Physicist (male and female); \$1,400 to \$2,800 a year; No. 1160-amended; form 1312; age, 20 years and over.†
- Deputy shipping commissioner (male and female); \$900 a year; No. 197; forms 1312 and 1141 or 2226; April 28, June 23, and August 18, 1920; age, 18 years and over.
- Associate technologist (male and female); \$2,000 to \$2,800 a year; No. 648-amended; form 1312; age, within reasonable age limits.†
- Assistant technologist (male and female); \$1,400 to \$1,800 a year; No. 648-amended; form 1312; age, within reasonable age limits.†

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled Applications will be received at any time until further notice

Local Civil Service Examinations.

The following examinations for the Panama Canal Service will be held at Balboa Heights, Canal Zone, on the following dates:

Clerk and postal clerk, April 25, 1920.

Stenographer and typist, May 2, 1920.

Usual entrance salaries are, Clerk and typist, \$106 to \$127 a month. Postal clerk, \$104 to \$125 a month. Stenographer and typist, \$116 to \$137 a month.

Full information in regard to the scope and character of examinations is contained in leaflets, forms 2203 and 2206, copies of which, including sample questions, may be obtained from the Secretary, Board of Civil Service Examiners, Room 244, Administration Building, Balboa Heights, Canal Zone, telephone Balboa 286.

Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are typewriting, bookkeeping, general business training and experience and timekeeping training and experience. If the third optional is taken three letters of recommendation from former or present employers, written on a business letterhead and signed by the persons recommending the applicants, should accompany the application.

Applicants for the Postal Clerk examination must have had one year's experience in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and must be familiar with the

receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Applicants must have reached their 18th but not their 45th birthday on the date of the examination. must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the date of the examination their photographs taken within two years, securely pasted on the admission card which will be sent to them after their applications have been filed and the questions have been received from the United States.

Applicants for the Clerk examination should state on the outside cover and also in answer to question No. 1 the optional subject or subjects desired in addition to the name of the examination.

In answer to question No. 4 applicants must show residence in some State or territory in the United States from the time of taking their residence therein to April, 1920, a ruling having been made by the Civil Service Commission that those temporarily employed on the Canal Zone retain their legal residence in the last State in which they resided prior to coming to the Isthmus.

Application form No. 1312 must be filled out, including the medical certificate but excluding the County Officer's Certificate, and should be filed promptly with the Board of Civil Service Examiners, Balboa Heights, Canal Zone.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
*Alexander Williams	41902	Jamaica	Panama	Cattle Industry	February 28, 1920.
*Herbert Smith	52588	Bahama Island	Colon	R. and F. Agency	March 10, 1920.
Wilton Heywood	42670	Demerara	Colon	Marine Division	March 17, 1920.
Samuel Harris	25365	Jamaica	Colon	Panama Railroad	March 19, 1920.
Alfred Hewitt	27824	Jamaica	Colon	Panama Railroad	March 21, 1920.
Romulo Roman	29102	Panama	Colon	Mun. Eng. Div.	March 16, 1920.
Joseph M. Glover	1826	United States	Balboa	Electrical Division	March 24, 1920.
Marino Ortez (Ortiz)	48005	Colombia	Colon	R. & F. Agency	March 26, 1920.
Ferming Pacheco (Pacheco)	51035	Panama	Camp Bierd	Coaling Plants	March 22, 1920.
Gaspar Quinonez	50789	Panama	Camp Bierd	Coaling Plants	March 25, 1920.
James Hubert Thompson, alias Herbert Thompson	36754	Jamaica	Panama	Mechanical Division	March 16, 1920.
Manuel Rivas (Riba or Rios)	40853	Panama	Capira, R. P.	Cattle Industry	March 17, 1920.
Pedro Quetro (Cueto)	50816	Panama	Panama	Coaling Plants	March 17, 1920.
Pedro Bueno	24292	Colombia	Gatun	Supply Department	March 18, 1920.
Joseph B. Bubb	48743	Grenada	La Boca	Mechanical Division	March 21, 1920.
Fred Hunt	38687	Barbados	Camp Bierd	Building Division	March 21, 1920.
Alfred Barbosa	39647	Panama	Camp Bierd	Coaling Plants	March 23, 1920.
Joseph Ford	29908	Jamaica	Colon	Mun. Eng. Div.	March 26, 1920.
Fred Harding	28885	Barbados	La Boca	Dredging Division	March 26, 1920.

*First two items above readvertised account of errors in first notice published.

Official Circulars.

Acting Chief, Police and Fire Division.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT.

BALBOA HEIGHTS, C. Z., April 3, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

Effective April 5, 1920, and during the absence on leave of Mr. Guy Johannes, Police Inspector Arthur W. Kennedy will act as Chief of the Police and Fire Division.

CHESTER HARDING, *Governor.*

Loans of Property to Army and Navy.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT.

BALBOA HEIGHTS, C. Z., March 31, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

In connection with Circular 656-14, "Loan of Property for other than Official Use," please note that the provisions of this circular do not apply to loans to the several departments of the United States Army or Navy operating on the Isthmus, which will be considered the same as our own work, although loans made should be limited to such periods of time as it takes the Army and Navy to secure their own property, unless otherwise authorized by this office.

CHESTER HARDING, *Governor.*

Executive Order—Punta Mala Naval Radio Station.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., March 25, 1920.

CIRCULAR No. 601-109:

The Executive Order quoted below is published for the information of all concerned.

CHESTER HARDING,
Governor.

The area of land hereinafter described situated in the jurisdiction of the Canal Zone is hereby set apart and assigned to the uses and purposes of a radio station, and other naval purposes, under the control of the Secretary of the Navy; but the said area shall be subject to the civil jurisdiction of the Canal Zone authorities in conformity with the Panama Canal Act. The said area is described as follows:

PUNTA MALA NAVAL RADIO STATION.

The said radio station is part of the tract of land heretofore set apart for the uses and purposes of the Punta Mala Lighthouse of The Panama Canal, and comes within the following metes and bounds:

Commencing at the southernmost point of the said Radio Station, which point is designated on the blueprint herewith attached numbered 6030-2, dated June 18, 1919, and signed O. E. Malsbury, Assistant Engineer, as Point "B,"

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., April 14, 1920. No. 35.

Canal Traffic in March.

Canal traffic for March, 1920, is shown as classified in the following tabulation:

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.	
						From—	To—
26	American..	94,783	62,105	71,444	119,766	W. coast S. America.....	E. coast U. S.
4	Norwegian.	13,119	8,643	10,579	20,573	W. coast S. America...	E. coast U. S.
1	Danish....	2,858	1,692	2,459	4,550	W. coast S. America...	E. coast U. S.
31	.....	110,760	72,440	84,482	144,892	W. coast S. America...	E. coast U. S.
11	British...	16,353	8,731	12,060	9,769	W. coast S. America...	Cristobal.
4	Peruvian...	17,085	9,104	10,698	8,233	W. coast S. America.....	Cristobal.
3	Chilean...	9,096	5,521	7,989	4,986	W. coast S. America....	Cristobal.
1	American..	615	372	350	508	W. coast S. America.....	Cristobal.
19	.....	43,149	23,728	31,097	23,496	W. coast S. America.....	Cristobal.
5	British...	23,521	14,229	19,692	25,658	W. coast S. America...	Europe.
3	Italian...	11,617	7,324	8,311	10,500	W. coast S. America....	Europe.
2	American..	13,064	9,668	10,615	18,202	W. coast S. America....	Europe.
2	French...	11,605	7,251	8,322	13,300	W. coast S. America....	Europe.
2	German...	9,691	6,124	7,847	9,869	W. coast S. America....	Europe.
1	Japanese...	8,134	5,046	5,900	11,400	W. coast S. America....	Europe.
1	Norwegian.	6,578	4,081	5,156	8,025	W. coast S. America....	Europe.
1	Swedish...	3,774	2,875	3,967	5,700	W. coast S. America....	Europe.
1	Spanish....	3,482	2,490	2,615	5,042	W. coast S. America....	Europe.
1	Peruvian..	3,161	1,683	2,273	3,410	W. coast S. America.....	Europe.
19	.....	94,658	60,771	74,698	111,106	W. coast S. America...	Europe.
7	British...	61,117	40,316	50,293	47,225	Australia and N. Z'land.	Europe.
1	American..	6,208	3,835	5,256	8,810	Australia and N. Z'land.	E. coast U. S.
9	American..	44,595	28,965	34,681	56,832	United States coastwise.	
1	British...	6,534	6,061	4,652	8,954	Far East.....	E. coast U. S.
1	Norwegian.	6,369	3,485	5,052	Ballast...	Far East.....	E. coast U. S.
1	Japanese...	5,965	4,257	4,722	8,297	Far East.....	E. coast U. S.
3	.....	18,868	13,803	14,426	17,251	Far East.....	E. coast U. S.
4	American..	19,982	13,414	15,085	20,842	W. coast U. S.	Europe.
1	Norwegian.	4,894	3,054	3,886	3,375	W. coast U. S.	Europe.
5	.....	24,876	16,468	18,971	24,217	W. coast U. S.	Europe.
2	Norwegian.	14,042	8,858	10,188	Ballast...	W. coast S. America ..	Mexico.
2	American..	13,874	9,711	11,218	Ballast...	W. coast S. America ..	Mexico.
4	.....	27,916	18,569	21,406	Ballast...	W. coast S. America...	Mexico.
4	French...	10,147	6,265	7,013	8,052	British Columbia	Europe.
1	British...	7,619	4,874	5,443	7,021	British Columbia	Europe.
5	.....	17,766	11,139	12,456	15,073	British Columbia	Europe.
2	American..	3,351	2,051	2,268	2,064	Central America	Cristobal.
1	British...	1,128	650	692	615	Central America	Cristobal.
3	.....	4,479	2,701	2,960	2,679	Central America	Cristobal.
2	American..	5,812	3,516	4,369	3,951	San Francisco.....	Cristobal.
1	American..	5,899	3,711	4,623	7,900	Far East.....	Cuba.
1	British...	3,271	2,108	2,585	746	W. coast Cen. America	Europe.
1	American..	2,730	1,693	1,976	1,865	West coast U. S.	Cuba.
1	Costa Rican	30	25	25	Ballast...	Panama.....	Port Limon, C. R.
112	.....	472,134	303,788	364,304	466,043	.....	.....

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.	
						From—	To—
23	American..	105,860	68,297	81,335	33,965	E. coast United States..	W. coast S. America.
3	British....	22,255	13,248	16,106	5,245	E. coast United States..	W. coast S. America.
2	Norwegian..	8,681	5,447	8,168	Ballast...	E. coast United States..	W. coast S. America.
1	Dutch.....	6,561	4,164	4,871	Ballast...	E. coast United States..	W. coast S. America.
1	Danish....	4,328	3,030	4,220	3,336	E. coast United States..	W. coast S. America.
30	.....	148,185	94,186	114,700	42,546	E. coast United States..	W. coast S. America.
9	British....	15,726	8,637	11,952	6,186	Cristobal.....	W. coast S. America.
2	American..	1,230	744	700	688	Cristobal.....	W. coast S. America.
5	Chilean....	14,779	9,101	12,632	2,174	Cristobal.....	W. coast S. America.
4	Peruvian..	17,085	9,104	9,841	2,030	Cristobal.....	W. coast S. America.
20	.....	48,820	27,586	35,125	11,078	Cristobal.....	W. coast S. America.
3	American..	21,523	15,488	16,461	27,893	Mexico.....	W. coast S. America.
3	Norwegian..	21,029	13,280	15,269	23,700	Mexico.....	W. coast S. America.
6	.....	42,552	28,768	31,730	51,593	Mexico.....	W. coast S. America.
4	British....	16,294	9,867	12,065	7,775	Europe.....	W. coast S. America.
2	Dutch.....	8,057	5,017	7,982	2,475	Europe.....	W. coast S. America.
2	Italian....	10,343	6,308	7,882	1,350	Europe.....	W. coast S. America.
1	French....	5,765	3,681	4,146	235	Europe.....	W. coast S. America.
1	Japanese....	3,390	2,044	2,480	Ballast...	Europe.....	W. coast S. America.
10	.....	43,849	26,917	34,555	11,835	Europe.....	W. coast S. America.
2	British....	907	37	216	Ballast...	St. Lucia.....	W. coast S. America.
1	Chilean....	3,599	2,367	2,286	Ballast...	Payal.....	W. coast S. America.
1	American..	2,917	1,708	1,828	Ballast...	Port Rico.....	W. coast S. America.
4	British....	26,249	16,510	19,555	21,831	E. coast U. S.....	Australia and N. Z.
3	American..	18,334	12,134	15,016	21,383	E. coast U. S.....	Australia and N. Z.
7	.....	44,583	28,644	34,571	43,214	E. coast U. S.....	Australia and N. Z.
5	British....	43,017	28,299	33,264	34,604	Europe.....	Australia and N. Z.
12	American..	74,176	48,558	62,420	88,397	E. coast U. S.....	Far East.
7	British....	42,337	26,571	33,782	53,363	E. coast U. S.....	Far East.
6	Japanese....	42,848	27,224	32,411	46,891	E. coast U. S.....	Far East.
25	.....	159,361	102,353	128,613	188,651	E. coast U. S.....	Far East.
1	American..	1,381	1,263	1,237	1,843	Europe.....	Honolulu.
3	American..	9,917	7,134	8,104	7,650	U. S. coastwise.	
2	American..	4,322	4,044	4,065	Ballast...	Europe.....	W. coast U. S.
1	Norwegian..	7,093	4,479	5,627	8,300	Europe.....	W. coast U. S.
1	Swedish....	3,745	2,858	4,019	4,950	Europe.....	W. coast U. S.
4	.....	15,160	11,381	13,711	13,250	Europe.....	W. coast U. S.
2	American..	4,796	2,963	3,756	2,992	Cristobal.....	W. coast U. S.
1	British....	1,128	650	692	590	Cristobal.....	W. coast Cen. America.
1	American..	6,188	3,821	5,256	9,127	E. coast U. S.....	W. coast Canada.
1	American..	7,045	4,352	5,341	9,500	Mexico.....	W. coast U. S.
1	American..	80	53	73	Ballast...	Kingston, Jamaica....	W. coast U. S.
121	.....	583,485	372,482	455,058	428,473		

In addition to above vessels, two British cruisers, the *Renown* and *Calcutta*, with a displacement tonnage of 33,379 and 4,754, respectively, were included in the southbound commercial traffic of the month.

Passage of Rebuilt "Cristobal" Through the Canal.

The steamship *Cristobal* of the Panama Railroad Steamship Line, rebuilt at Balboa shops and recently given a trial trip in the Bay of Panama, went through the Canal from Balboa to Cristobal in the afternoon of April 13. She left the repair wharf at Balboa shops at

12.34 and reached Cristobal at 10.05 p. m., tying up at Pier 7. Further work is to be done on her at Cristobal, especially in the woodwork of the forward saloon and in some of the cold storage spaces, after which she will load for New York. A number of shipwrights made the trip from Balboa aboard the ship, working while she was in passage, and other employees of the shops went across the Isthmus by train in the afternoon to join them in carrying the work to completion. They will be quartered in Cristobal for the duration of the job. The Superintending Engineer of the Panama Railroad, the Assistant Superintendent of the Mechanical Division, and several employees who had had especial connection with the installation of her fuel-oil system, boilers, engines, etc., went through the Canal on the ship. She performed excellently throughout, answered the helm readily, and made the approaches to the locks and pier and passage past Cucaracha slide without any difficulty.

Chilean Liner "Husasco" Dry-docked at Balboa.

The steamer *Husasco*, one of the vessels of the Compañía Sud Americana de Vapores, the Chilean Line, engaged in the freight and passenger service of that company between Cristobal and Valparaiso, with calls at important Peruvian and Chilean ports, went into the 1,000-foot dry dock at Balboa in the evening of April 12. While in dock repairs will be made to the rudder, the shell plates which were damaged and temporarily repaired some weeks ago, and such other underwater parts as may require work. The bottom will be cleaned and painted.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending April 10, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Laura C. Hall.....	Pacific Metals Corporation.....		April 4.....		24
Ninian.....	Harrison Steamship Line.....		April 4.....		2,323
Caribbean.....	Panama Railroad Cattle Industry.....		April 4.....		61
Chile.....	Pacific Steam Navigation Co.....	April 4.....	April 8.....	1,933½	608½
Lake Hurst.....	United States Shipping Board.....	April 5.....	April 6.....	2,889	(†)
Cauca.....	Pacific Steam Navigation Co.....		April 7.....		1,103
Perou.....	French Line.....		April 7.....		225½
Stuyvesant.....	Royal Netherland W. I. Mail.....	April 5.....	April 7.....	18	184
Atenas.....	United Fruit Co.....	April 5.....	April 8.....	221	105
Panama.....	Panama Railroad Steamship Line.....		April 8.....		3,481
Allianca.....	Panama Railroad Steamship Line.....		April 9.....		2,225
Salvador.....	Pacific Steam Navigation Co.....		April 9.....		948
Ulysses.....	Panama Railroad Steamship Line.....	April 6.....	April 9.....	12,236	(†)
San Pablo.....	United Fruit Co.....	April 7.....	April 8.....	536½	603
Carrillo.....	United Fruit Co.....	April 7.....	April 8.....	(*)	366
Victorious.....	United States Shipping Board.....	April 7.....	April 9.....	9,195	(†)
Trident.....	Pacific Steam Navigation Co.....	April 7.....	April 10.....	10	3,137
Caribbean.....	Panama Railroad Cattle Industry.....	April 8.....		250	
Husasco.....	Chilean Steamship Line.....	April 8.....		1,545	
Huallago.....	Peruvian Steamship Line.....	April 8.....		2,641	
Corning.....	Standard Oil Co.....	April 9.....		7,000	
Edencombe.....	United States Shipping Board.....	April 9.....		8,910	
Balboa.....	Colombian Maritime Co.....	April 9.....		653	

* No cargo discharged.

† No cargo laded.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Ma's for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight April 10, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From	For	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Slavic Prince.	3	10 20	4	6 20	5	21 52	5	23 08	British.	Prince Line, Ltd.	448.0	57.0	27.6	New York.	Honolulu.	General.	9,300	9,121	6,704
British Admiral.	3	15 10	4	6 35	4	20 03	4	20 56	British.	British Tanker Co.	429.0	57.0	21.9	Aronmouth.	San Francisco.	Iron and general.	7,066	5,158	
Oran.	3	17 35	4	6 47	4	21 07	6	13 55	American.	United States Shipping Board.	402.0	53.0	25.7	London.	Seattle.		6,770	6,577	4,948
LakeCharlottesville.	2	22 00	4	7 00	4	18 20	5	14 56	American.	United States Shipping Board.	266.0	44.0	11.0	Norfolk.	Coquimbo.			2,510	1,575
Benjamin.	3	22 15	4	7 25	4	22 01	4	24 10	American.	Standard Oil Co.	412.0	53.0	26.0	Tuxpan.	Pisagua.	Oil.	7,250	6,103	4,693
C'an Murdoch.	3	6 20	4	10 00	4	19 14	4	20 37	British.	Clan Line.	405.0	53.0	26.1	New York.	Honolulu.	Case oil.	7,500	6,382	4,240
Laura C. Hall.	3	29 22 05	4	10 05	4	18 15	6	7 50	British.	Pacific Metals Corporation.	81.0	25.0	10.0	Cristobal.	Buenaventura.	General.	24	130	69
Henry T. Scott.	4	8 00	5	6 20	5	20 50	5	21 49	American.	Alaska Steamship Co.	925.0	43.0	17.0	Philadelphia.	San Francisco.	General.	1,800	1,814	951
Calaveras.	4	6 57	5	6 25	5	21 54	8	7 30	American.	United States Shipping Board.	251.0	44.0	13.0	Savannah.	Juniu.	Oil.	2,510	1,575	
Brumfey (a).	4	10 07	5	6 28	8	15 22	9	11 30	British.	Standard Transportation Co.	266.0	40.0	22.0	New York.	Yokohama.		2,800	1,964	1,793
St. Keyne (b).	5	9 02	6	6 18	6	17 31	6	18 12	British.	British Government.	135.0	29.0	14.3	Saint Lucia.	Chile.	General.	5,008	5,376	3,883
Cascade.	5	18 33	6	6 25	6	17 35	6	18 29	American.	United States Shipping Board.	380.0	52.0	23.6	New York.	Pata.	Coal.	7,712	6,695	4,902
West Heselbine.	6	2 16	6	7 25	6	17 42	9	16 05	American.	United States Shipping Board.	410.0	54.0	24.0	Norfolk.	Pearl Harbor.	General.	5,071	5,071	3,883
Henry Clay.	6	6 42	6	7 50	6	18 33	6	19 36	American.	United States Shipping Board.	459.0	60.2	13.6	New York.	Antofagasta.	General.	8,674	6,256	
Caloreck.	6	9 40	6	10 10	6	18 31	6	9 36	American.	United States Shipping Board.	250.0	40.7	13.6	Norfolk.	Mojilones.	General.	2,510	1,575	
Remera.	6	13 50	6	15 15	8	14 17	8	15 07	British.	New Zealand Shipping Co.	485.0	62.0	27.0	London.	New Zealand.	General.	8,310	10,989	8,776
Nameri.	6	18 58	7	6 27	7	18 56	8	16 05	British.	Holder Weir & Boyd.	430.6	49.0	26.1	New York.	Honolulu.	General.	7,000	6,369	4,937
Cauca.	2	15 40	7	7 58	7	16 38	7	21 25	British.	Pacific Steam Navigation Co.	246.0	35.2	15.6	Cristobal.	Guayaquil.	General.	1,103	1,582	1,023
Caloreck.	2	16 08	7	8 15	7	17 09	7	21 25	American.	United States Navy.	200.0	25.0	12.2	Norfolk.	San Diego.	General.	6,580	6,106	4,355
Pagle No. 49.	2	16 10	7	8 15	7	17 10	8	17 52	American.	United States Navy.	390.0	54.0	24.0	Norfolk.	Honolulu.	General.	3,608	4,040	2,625
Schedack.	7	3 35	8	6 30	8	17 03	8	17 52	American.	United States Shipping Board.	360.0	43.0	17.1	Cristobal.	Guayaquil.	Coal.	3,209	2,751	1,699
Chilo.	4	22 20	8	9 26	8	18 13	8	21 20	British.	Pacific Steam Navigation Co.	253.0	43.7	25.4	Norfolk.	Antofagasta.	General.	1,645	2,835	1,795
Coverun.	8	22 05	9	6 05	9	17 43	10	19 00	American.	United States Shipping Board.	298.6	40.0	17.0	New York.	Buenaventura.	General.	948	1,213	692
Mineola.	8	16 50	9	6 15	9	17 55	9	23 25	American.	W. R. Grace & Co.	399.0	49.0	26.0	Norfolk.	Champatico.	General.	5,626	3,720	
Arcadia.	8	19 45	9	6 37	9	18 50	9	17 10	American.	United States Shipping Board.	215.0	33.0	14.8	Cristobal.	Champatico.	General.	8,328	5,969	
Salvador.	3	19 00	9	9 28	9	19 37	9	20 41	British.	United States Navigation Co.	440.0	56.0	16.3	Norfolk.	Yokohama.	General.	8,361	6,841	4,758
Victorious.	7	14 28	9	9 28	9	19 37	10	18 45	American.	United States Shipping Board.	395.0	55.0	27.9	New York.	Yokohama.	General.	8,361	6,841	4,758
Victorious.	9	18 20	10	6 13	10	17 48	10	18 45	American.	United States Shipping Board.	175.0	38.0	15.6	Habana.	San Francisco.	General.	1,431	696	393
Cooba.	9	21 15	10	6 13	10	15 05	10	17 23	American.	Caoba Corporation.	410.0	54.0	17.0	New York.	San Francisco.	General.	1,431	6,573	4,901
West Katon.	9	19 35	10	6 28	10	16 37	10	17 23	American.	United States Shipping Board.	410.0	54.0	17.0	New York.	San Francisco.	General.	1,431	6,573	4,901

(a) Bark. (b) Tug.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Origin (c)	3	15.50	4	6.40	4	22.00	5	2.10	American.	United States Shipping Board	402.6	54.8	26.6	Ionique.	Savannah	Nitrate.	8,600	6,932	5,096
Orion (c)	3	14.15	4	7.56	4	23.30	6	10.42	British.	United States Navy.	514.0	65.2	22.0	San Diego	Norfolk.	Naval stores	50		
Chile	3	15.40	4	10.28	4	22.20	8	9.26	British.	Pacific Steam Navigation Co.	350.3	43.1	20.6	Valparaiso	Cristobal	General	1,933.1	4,040	2,628
Buenapu	4	18.30	5	6.58	5	23.30	6	6.11	American.	New Zealand Shipping Co	457.3	58.2	24.0	Wilmington	Southampton	General	5,625	9,338	7,108
Ran (d)	5	6.00	5	6.00	6	2.00	6	10.32	British.	Georga Healey	30.0	7.2		Balboa	Gatun Lake.				
Hazel Branch	4	17.30	5	8.07	6	2.30	6	2.30	Portuguese.	F. & W. Risson.	400.4	51.2	23.6	Valparaiso	Liverpool.	Nitrate, general.	6,346	5,176	3,587
Goa	5	22.00	5	10.55	6	2.30	6	9.23	Portuguese.	Portuguese Government	425.0	53.0	26.0	Antofagasta.	Fishon	Nitrate, lumber.	6,775	6,409	4,501
Tampa	5	6.00	5	11.46	6	3.14	6	92.35	American.	United States Shipping Board	401.9	54.2	27.0	Ionique	(Cristobal (c))	Nitrate	8,784	6,859	5,070
National Bridge	5	9.50	5	11.54	6	4.32	6	7.30	British.	United States Shipping Board	324.0	46.2	23.6	Caleta Buena.	Wilmington.	Nitrate	4,759	3,959	2,649
Port Caroline	5	11.05	5	12.31	6	12.38	6	2.52	British.	Commonwealth & Dom. Line.	480.7	62.1	26.2	Wilmington.	London.	General	9,000	10,740	7,829
Commodore (d)	5	7.45	5	7.45	6	20.45			American.	United States Army				Balboa	Miraflores.				
Despores	5	16.00	6	7.40	6	20.45			Norwegian.	Braunsgaard Klosterud & Co.	389.8	54.1	25.6	Taltal	Cristobal (c)	Nitrate	8,094	5,678	4,214
Tenpansai																			
Maru	5	22.30	6	7.58	6	20.04	6	23.05	Japanese.	Mitau & Co.	380.7	53.6	23.1	Mejillones	Wilmington.	Nitrate	7,450	5,550	3,608
St. Avold	5	23.00	6	8.34	6	22.20	6	8.34	French.	French Government	195.6	40.7	14.0	Vancouver	London.	Lumber	754	1,183	700
Megantic	6	18.00	7	7.48	7	15.56	9	8.00	British.	White Star Line	550.4	67.3	28.0	Sydney	Liverpool.	Wood, general	2,000		
Orcus	6	22.00	7	8.20	7	22.45	8	3.40	American.	United States Shipping Board	380.2	53.1	24.0	Talcahuano	Baltimore.	Nitrate, wood.	6,829	5,667	4,220
Santa Tecla	7	3.40	7	8.36	7	20.34	8	12.50	American.	W. R. Grace & Co	299.2	60.2	21.6	Caleta Buena	New York.	Nitrate, cotton	3,203	2,835	1,795
Cordelia	3-26	1.30	7	11.20	7	20.55	7	20.55	British.	C. T. Bowring & Co.	420.3	54.6	17.0	Ionique	Cristobal (c)	Crude oil	6,690	4,971	
Huaseo	7	13.00	8	6.39	8	16.20	12	6.22	Chilean.	Chilean Line	379.7	44.3	21.1	Valparaiso	Cristobal	General	1,545	4,508	3,066
E a s t e r n																			
Mariner	8	6.50	8	8.46	8	19.58	9	11.30	American.	United States Shipping Board	415.1	55.7	27.5	Tarcoma	New York	Flour	9,823		
Hualлага	7	15.00	8	10.12	8	21.20	10	5.40	Peruvian.	Peruvian Line	360.0	46.7	23.0	Calbo	Cristobal	General	2,621	4,514	2,386
West-Carthon.	7	20.00	9	6.38	9	22.10	10	13.45	American.	Green Star Line	410.5	54.3	25.0	Hongkong	Santiago, Cuba	Rice, canned g ds	7,600	6,567	4,872
Delanson	8	13.00	9	7.14	9	22.40	10	13.45	American.	United States Shipping Board	400.7	54.2	24.6	Ionique	Charleston	Nitrate	(f)	6,529	4,658
St. Andrew	8	12.55	9	8.00	9	19.45	10	6.20	British.	Rankin & Gilmour Co.	369.6	53.0	24.0	Hongkong	New York	Rice, general	7,000		
Balboa	8	14.45	9	8.30	9	20.30			American.	Colombian Maritime Co.	190.0	29.1	15.2	Buenaventura.	Cristobal	General	(g)	741	350
Atholl	9	7.45	9	8.47	10	12.35	10	6.27	British.	Australian Steamship Co.	385.0	48.7	22.0	Port Pirie.	Boston	General	4,866	4,895	3,601
West Campgaw	9	9.30	10	10.42	10	12.35	10	21.35	American.	United States Shipping Board	410.3	54.2	23.0	Portland	New York	Flour	7,822		
Mebano	8	11.00	10	7.12	10	20.25	10	23.54	American.	United States Shipping Board	402.6	53.0	26.0	San Francisco	New York	Flour	6,682	6,512	4,787
Eastern Craig.	10	6.26	10	8.47	10	1.25	11	11.00	American.	United States Shipping Board.	345.3	50.2	22.0	Seattle	New York	Flour	5,459		
St. Minver (b)	10	4.30	10	10.30	10	10.30			British.	British Government.	135.0	29.1	11.9	Ionique	Cristobal (c)	Ballast.			
Lock City (d)									American.	W. C. Hpler	30.2	6.4		Tahoga Island	Gatun Lake.				

(c) Collier. (d) Lumber. (e) For orders. (f) 8,126.62 tons. (g) 653.66 tons.

PORT OF CRISTOBAL.

Date.	Vessel.	From—	Date.	Vessel.	For—
April 4	Lake Fackler.	Kingston.	April 4	Yarmouth.	Black Star Line.
April 4	Siceta.	United States Navy.	April 4	Caribbean.	Panama Railroad Cattle Industry.
April 5	Lake Hurst.	High seas.	April 4	Lake Fackler.	United States Shipping Board
April 5	Stuyvesant.	Norfolk.	April 6	Lake Hurst.	United States Shipping Board
April 5	Athena.	Ansterdam.	April 6	Parismina	United Fruit Co.
April 6	Ulyessa	New Orleans.	April 7	Perou	French Line.
April 7	San Pablo	Norfolk.	April 7	Stuyvesant	Royal Netherlands W. I. Mail
April 7	Trident	New York.	April 8	Carrillo	Colombian ports.
		London.			United Fruit Co.
					New York and Kingston.

(Continued on page 516, column 2.)

Tariff Supplement.

The Panama Canal has issued supplement No. 6 to Tariff No. 3, as follows:

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., April 1, 1920.

The following amendments are made to Tariff No. 3 and supplements thereto, Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at the Panama Canal:

ITEM 22—FUEL AND DIESEL OILS.

Effective April 15, 1920.

- 1. Fuel oil per barrel of 42 gallons, delivered to vessels at either Cristobal or Balboa..... \$2.00

ITEM 29—QUARANTINE.

Effective February 16, 1920.

- 4. Night quarantine service. For inspection on night of arrival if vessel arrives prior to 10 p. m., from ports not subject to yellow fever quarantine:
 - Passenger vessels..... \$40.00
 - Other vessels..... 20.00

ITEM 32—HOTEL WASHINGTON.

4. Table Board.

	Adults.	Nurses.	Children under 12 years of age
Monthly—Breakfast, luncheon, and dinner.....	\$85.00	\$60.00	\$60.00
Meals:			
Breakfast.....	<i>A la carte</i>	<i>A la carte</i>	<i>A la carte</i>
Luncheon.....	\$1.50	\$0.75	<i>A la carte</i>
Dinner.....	1.75	1.00	<i>A la carte</i>

ITEM 33—HOTEL TIVOLI.

5. Table Board.

	Adults.	Nurses.	Children under 12 years of age
Monthly—Breakfast, luncheon, and dinner.....	\$85.00	\$60.00	\$60.00
Meals:			
Breakfast.....	<i>A la carte</i>	<i>A la carte</i>	<i>A la carte</i>
Luncheon.....	\$1.50	\$0.75	<i>A la carte</i>
Dinner.....	1.75	1.00	<i>A la carte</i>

CHESTER HARDING,

Governor, The Panama Canal.

President, Panama Railroad Company.

Sugar Mill Machinery for Mormon Colony in Panama.

A whole cargo of sugar mill machinery for a Mormon colony in the Province of Chiriqui, Republic of Panama, was carried through the Canal by the steamship *Oregon* on April 11. The shipment was from New Orleans to Rabo de Puerco, R. P., a small port near the Costa Rican boundary, and consisted of 780 tons.

Exchange of Third and Fourth Issue Liberty Bonds.

The Liberty Loan Committee authorizes the following:

The Liberty Loan Committee of The Panama Canal is now prepared to receive coupon bonds of the third and fourth issues for exchange into permanent coupon bonds of the same issue bearing all interest coupons or into registered bonds of the same issue.

Due to the effort of this committee and that of the American Foreign Banking Corporation, in Panama, an arrangement has been completed whereby temporary coupon bonds can be converted into permanent coupon bonds of the same issue without sending them to Washington. The arrangement has been made through the Federal Reserve Bank of New York. Coupon bonds will be canceled here and

transmitted to New York, the permanent bonds being furnished through the Federal Reserve Bank of New York as soon as the requirements of the Canal Zone subscribers are known.

Forms to be filled out by subscribers who desire to exchange third and fourth issue temporary coupon bonds into permanent coupon bonds or registered bonds of the same issue will be ready for distribution in a few days. Canal Zone subscribers are informed that if they do not desire to exchange their bonds through The Panama Canal Liberty Loan Committee they can be forwarded direct to the Division of Loans and Currency, Treasury Department, Washington, D. C.

As no time limit has yet been fixed within which temporary bonds can be exchanged for permanent bonds, owners can have their bonds exchanged when they return to the United States if they so desire.

All interest coupons must be detached before submitting bonds for exchange.

Weather Conditions in March, 1920.

The rainfall for the month was generally below normal everywhere except along the Continental Divide. Totals ranged from 0.02 inch at Miraflores and Darien to 1.92 inches at the Chillibrillo station. The greatest amount of rainfall recorded on any one day was 0.73 inch at Juan Mina on the 25th.

The estimated rainfall over the Gatun Lake watershed was 0.61 inch, compared with a 10-year mean of 0.81 inch, and over the Chagres River basin above Alhajuela it was 0.60 inch, compared with a 19-year mean of 1.08 inches.

The air temperature was normal on the Pacific Coast and above normal on the Atlantic Coast, while the daytime cloudiness was slightly below normal on the Pacific Coast and slightly above on the Atlantic. The atmospheric pressure and relative humidity were below normal, while the temperature of the sea water was slightly above normal. The wind movement was approximately normal and the evaporation was above normal on the Pacific Coast, but below normal over the lake surface at Gatun.

A few fogs were observed during the month, all of which were dissipated by 8 a. m.

Light earthquakes were recorded on the 4th, 6th, 7th, 15th, 18th, and 20th.

Gatun lake hydrology—Mean elevation of Gatun Lake was 84.08 feet, maximum 84.64 feet on the 1st, minimum 83.47 feet on the 31st; evaporation from Gatun Lake surface, 6.967 inches; rainfall on Gatun Lake drainage basin, 0.61 inch; total yield of Gatun Lake watershed, 0.52 inch on the watershed; the total yield amounted to 85 per cent of the rainfall.

The following table gives a summary of weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Precipitation.				Wind.					
		Mean.	Maximum.	Date.	Minimum.	Date.	Mean relative humidity.	Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.	
Balboa																
Heights...	81.2	92	Mar. 27	70	Mar. 6	72.6	0.09	0.62	1	8,692	N.W.	32	N.	Mar. 8		
Colon	81.8	89	Mar. 24	73	Mar. 6	75.7	1.08	1.58	14	11,537	N.	30	N.	Mar. 8		
Gamboa	80.4	94	Mar. 27	68	Mar. 6 & 7	.....	.21	.71	6	5,758	N.E.	31	N.E.	Mar. 7
Gatun	80.5	89	*Mar. 23	70	Mar 10	.....	.71	1.99	10	7,879	N.	39	N.	Mar. 13

* And 27.

High Temperature—Atlantic Side.

A maximum air temperature of 93° F. was recorded at Cristobal on Sunday, April 11, 1920.

This is the highest temperature of record on the Atlantic side during the past 12 years; the previous maximum record being 92° F.

The highest air temperature ever recorded in the Canal Zone or vicinity is 97° F., recorded at the Naos Island Station on February 13, 1906, and again at Ancon on April 7, 1912.

A Week Without Admissions with Malaria from the Canal Zone.

During the week ending April 3 no patients with malaria were admitted to the Canal hospitals from the Canal Zone, and only two from areas outside the Zone. One of these was a white employee who

had made a 7-day trip from Summit to Nombre de Dios, and the other was a colored employee who had been released from jail at Porto Bello on March 2. Among the employees, 1,492 are in pasture camps or on plantations, where they are exposed to infection, and the good showing with respect to them is attributed principally to the regular use of quinine prophylaxis.

Streets of Ancon-Balboa.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., March 31, 1920.

To all concerned—The following plan for naming the residential streets in Ancon, Balboa Heights, and Balboa is approved. The plan affixes names of many old Canal settlements and neighboring localities to streets, gives the names of President Roosevelt and Senator Morgan to two important streets, and provides for naming a street in Balboa after each former Canal employee who lost his life in the military or naval service during the World War.

Beginning at the boundary line between Ancon and the city of Panama, the line road from the Ancon post office to Chorrillo shall retain the name of Fourth of July Avenue.

From Chorrillo, the road leading to Balboa is to be named Balboa Road. As such it extends past the restaurant, Balboa clubhouse, the ice plant, and Balboa shops to the end of the plot in which is situated the Pacific terminal office building. From this point, the new road leading to Diablo where it joins the Corozal Road shall be known as Diablo Road.

From the Ancon post office, the street extending along the boundary in front of the Tivoli Hotel to the Corozal Road shall be known as Tivoli Avenue.

The main road from Panama to the Administration Building at Balboa Heights extending from Tivoli Avenue opposite De Lesseps Plaza, shall be named Ancon Boulevard.

The road from the Ancon post office, through the grounds of Ancon Hospital, shall be known as Hospital Road to the top of the hill at the women's bachelor quarters, where it becomes the Heights Road, extending past the Governor's residence and the residence of the Marine Superintendent to the Administration Building.

The road branching to the south to the old site of Ancon Quarry shall be known as Quarry Road, to the entrance to the military reservation.

The short street roughly paralleling Quarry Road, branching from the Heights Road at a point about midway between the Governor's residence and the residence of the Engineer of Maintenance, shall be known as Prospect Street.

The road extending from the Heights Road through the area formerly occupied by Ancon cemetery, and now flanked by cottages on either side, shall be called Ridge Road.

The road running from the boundary line in front of Army Headquarters (the old Administration Building) to Hospital Road, just below the main entrance to the new ward buildings and above the Catholic chapel, shall be known as Columbia Road.

Opposite the Ancon post office, the street running parallel to Fourth of July Avenue, and winding up the hill until it joins Columbia Road at the beginning of the row of officials' houses, shall be known as Culebra Road.

The little park in front of the Ancon commissary shall be called Poinciana Plaza.

The street running from Tivoli Avenue, between the Masonic Temple and the Ancon schoolhouse to the commissary, shall be called San Blas Place.

The street from the Ancon commissary to Ancon Boulevard at the Ancon fire station, shall be called Mamei Place.

The street from Hospital Road, passing the west side and rear of the Ancon commissary and between the medical storehouse and the Ancon clubhouse to Ancon Boulevard, thence in the rear of the Tivoli Hotel to Tivoli Avenue near the railroad shall be called Porto Bello Street.

The street from Hospital Road, just above the admitting office, to Ancon Boulevard running between the Ancon restaurant and the medical storehouse, shall be called Frangipani Street.

The street extending from Ancon Boulevard north, past the greenhouse to Ancon laundry, shall be called Chame Street.

The road running from Ancon Boulevard to the Department Quartermaster's office and the bachelor quarters on the hill on which the old reservoir is situated, shall be called Reservoir Road.

Beyond the reservoir hill, the street running down the hill, toward the railroad, and popularly known as "Factory Row," shall be named Chagres Street. Chagres Street extends through the corral and up the steep hill just beyond the corral, rejoining Ancon Boulevard in the old asylum grounds.

The street branching off to the northwest from Chagres Street and extending on a low level near the railroad past the District Quartermaster's office to the Panama Railroad station at Balboa, shall be called Mindi Street.

The short road extending from Ancon Boulevard, in the old asylum grounds, up hill to the south, shall be known as San Juan Place.

The short street beyond this, on the opposite side of Ancon Boulevard at the foot of the hill, running to Mindi Street, shall be called Bohio Place.

The road just beyond Bohio Place and branching to the south from Ancon Boulevard, running uphill in the general direction of the Administration Building and swinging along the side of the hill on which is situated the residence of the Electrical Engineer, until it joins, opposite the residence of the Chief Quartermaster, the Heights Road coming down to the Administration Building, shall be known as Cascadas Road.

The steep road extending from Cascadas Road past the Governor's residence to the junction with the Heights Road and Hospital Road at the women's bachelor quarters shall be called Lion Hill Road.

In the old hospital grounds, the road extending from Hospital Road opposite upper end of old Ward 15, or the upper end of the present concrete ward buildings, to the old French ward buildings now being reconstructed into family quarters, shall be called Darien Place.

The road extending from Darien Place at the head of the old French steps to Hospital Road in front of the 3-story bachelor quarters for men, shall be called Sosa Place.

The road branching from Ancon Boulevard just above the Baptist Church at Balboa Heights, and leading down to the Balboa railroad station, shall be known as Gorgona Road. This road extends to the Prado, running past the Balboa fire station and between the Balboa police station and Balboa playground to its junction with the Prado.

The street branching from Gorgona Road at the Balboa railroad station and running straight to Balboa Road near the Electrical Substation, shall be known as Roosevelt Avenue; crossing Balboa Road, Roosevelt Avenue extends past the south side of the Balboa shops to junction with La Boca Road in the rear of the coaling plant.

The street extending from Roosevelt Avenue, past the Balboa fire station, to the front of the Administration Building, past the Balboa high school, uphill and along the foot of Ancon Hill to Balboa Road, at house 861, shall be called Morgan Avenue.

The street extending from the Prado at its end nearest the Administration Building, past the Balboa high school on the opposite side from Morgan Avenue, and between houses 1401 and 1402, down to House 1431 on the Balboa flats, shall be known as Carr Street.

The street extending from Carr Street in the rear of the 4-family quarters on the Prado nearest the high school to Balboa Road near the Union Church, shall be known as Barnebey Street.

The first street branching to the left from the Prado on the way from the Administration Building to the Balboa clubhouses, shall be called Enterprise Place.

The second street, at the district sanitary inspector's office, shall be called Las Cruces Avenue. It extends across Barnebey, Carr, Holden, Dohrmann, and Owen Streets to the circle at house 1461.

The street running from Carr Street to house 1431, crossing Las Cruces Avenue to the circle at house 1465, shall be known as Holden Street.

The street paralleling Holden Street from house 1472 to Las Cruces Avenue, shall be known as Dohrmann Street.

The street running from Balboa Road on the west side of the Army and Navy Y. M. C. A. to the circle at the end of Las Cruces Avenue, shall be known as Owen Street.

The street running from Balboa Road just below the junction of Morgan Avenue, parallel to the first part of Morgan Avenue to the street on the east side of the Army and Navy Y. M. C. A., shall be known as Pyle Street.

The highway running to the incinerator on Gavilan Island, on the other side of Balboa Road, shall be known as Gavilan Road.

The street extending from Gavilan Road to Amador Road, flanked on its south side by a number of cottages, shall be called Planck Street.

The road extending from Balboa Road at the Balboa restaurant to the military reservation at Fort Amador, shall be known as Amador Road.

The road branching from Amador Road south of the Balboa restaurant, and running roughly parallel to it and on a higher level with 4-family houses on both sides, shall be called Empire Street.

The road running from Balboa Road at the junction of Amador Road, to La Boca, shall be called La Boca Road.

The street extending from La Boca over the southeast side of Sosa Hill to Balboa Road at the Balboa clubhouse, shall be known as Tavernilla Street.

The street extending from house 783, the house highest up on Sosa Hill, across Tavernilla Street, past St. Mary's Church, and down past the Union Church to Balboa Road, shall be called San Pablo Street.

In La Boca the first street branching to the south from La Boca Road, shall be called Trinidad Street; the second, St. Thomas Street; and the main avenue extending to the school building, shall be called Jamaica Prado.

The most westerly of the streets paralleling Jamaica Prado, shall be called Martinique Street.

The three streets running perpendicular to Trinidad, St. Thomas, and Martinique Streets and Jamaica Prado, and parallel with La Boca Road, are, in order from La Boca Road: Guadeloupe, Barbados, and San Domingo streets, San Domingo Street being the southernmost street, on which are situated the clubhouse and the school building.

Of the names given in memory of men, one is for President Theodore Roosevelt, another for Senator John T. Morgan of Alabama, and the others for Canal employees who lost their lives during the war.

Barnebey Street is named after Walter Barnebey, formerly a wireman in the Electrical Division, who resigned prior to our entrance into the war, but later entered our aviation service and was killed in France, receiving the French Croix-de-Guerre.

Carr Street is named after Challis C. Carr, formerly general operator, Pacific Locks, killed in action in France.

Holden Street is named after Vernon A. Holden, formerly sanitary inspector, Health Department, killed in action in France.

Owen Street is named after Nathaniel J. Owen, formerly control house operator, Pacific Locks, killed in action in France.

Dohrmann Street is named after Howard J. Dohrmann, formerly postmaster, Civil Affairs, died of disease in France.

Pyle Street is named after Hugh H. Pyle, formerly progress foreman, Mechanical Division, died of disease in France.

Plank Street is named after William J. Plank, formerly draftsman, Mechanical Division, who died in training camp in the United States.

The following employees will have streets named for them in the Balboa area as the gold settlement is enlarged, all having died in service but not in France:

Carl B. Clinton, formerly commissary assistant.

Louis Pearson, formerly restaurant manager.

George W. Pendleton, formerly clerk, Division of Civil Affairs, together with any others whom our records as yet have failed to locate.

CHESTER HARDING,
Governor.

Local Civil Service Examinations.

The following examinations for the Panama Canal Service will be held at Balboa Heights, Canal Zone, on the following dates:

Clerk and postal clerk, April 25, 1920.

Stenographer and typist, May 2, 1920.

Usual entrance salaries are, Clerk and typist, \$106 to \$127 a month. Postal clerk, \$104 to \$125 a month. Stenographer and typist, \$116 to \$137 a month.

Full information in regard to the scope and character of examinations is contained in leaflets, forms 2203 and 2206, copies of which, including sample questions, may be obtained from the Secretary, Board of Civil Service Examiners, Room 244, Administration Building, Balboa Heights, Canal Zone, telephone Balboa 286.

Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are typewriting, bookkeeping, general business training and experience and timekeeping training and experience. If the third optional is taken three letters of recommendation from former or present employers, written on a business letterhead and signed by the persons recommending the applicants, should accompany the application.

Applicants for the Postal Clerk examination must have had one year's experience in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and must be familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Applicants must have reached their 18th but not their 45th birthday on the date of the examination, must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the date of the examination their photographs taken within two years, securely pasted on the admission card which will be sent to them after their applications have been filed and the questions have been received from the United States.

Applicants for the Clerk examination should state on the outside cover and also in answer to question No. 1 the optional subject or subjects desired in addition to the name of the examination.

In answer to question No. 4 applicants must show residence in some State or territory in the United States from the time of taking their residence therein to April, 1920, a ruling having been made by the Civil Service Commission that those temporarily employed on the Canal Zone retain their legal residence in the last State in which they resided prior to coming to the Isthmus.

Application form No. 1312 must be filled out, including the medical certificate but excluding the County Officer's Certificate, and should be filed promptly with the Board of Civil Service Examiners, Balboa Heights, Canal Zone.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Cheek No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Arcidez Martinez (<i>alias</i>)					
Arcedia Martinez....	48967	Panama.....	Panama.....	Building Division.....	March 22, 1920.
James Martin.....	40449	Jamaica.....	Camp Bierd.....	Coaling Station.....	March 25, 1920.
Emiliano Marquis (Marquez).....	42034	Colombia.....	Farfan.....	Cattle Industry.....	March 30, 1920
Thomas Nango (Mango).....	41135	Panama.....	Chorrera.....	Cattle Industry.....	March 30, 1920.
Robert Hanson.....	23236	Jamaica.....	Panama.....	Section of Surveys.....	November 3, 1919

Official Circulars.

Former Employees Discharged from Military Service.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., April 12, 1920.

To all concerned—The following excerpt from the Naval Appropriation Act of July 11, 1919, is quoted for the information of all concerned: "All former Government employees who have entered the military or naval service of the United States in the war with the German Government shall be reinstated on application to their former positions if they have received an honorable discharge and are qualified to perform the duties of the position."

CHESTER HARDING,
Governor.

Revised Travel Regulations.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 8, 1920.

To all concerned—The following Executive Order was signed by the President under date of February 20, 1920, and is now in effect in the Canal Zone with respect to the departure of alien enemies for European ports:

"By virtue of the authority vested in me by 'An Act to Prevent in Time of War Departure From and Entry Into the United States Contrary to the Public Safety,' approved May 22, 1918, I, Woodrow Wilson, President of the United States of America, hereby amend Executive Order of August 8, 1918, 'Governing the Issuance of Passports and the Granting of Permits to Depart From and Enter the United States,' by the following provisions:

"Hereafter, persons who by any statute or proclamation may be defined as alien enemies, and who desire to depart by vessel from any port of the United States for any European port, shall not be required to obtain a permit of this Government prior to such departure. Such persons will be permitted to depart upon presentation of a passport issued, renewed, or visaed by a representative of their respective Governments within six months prior to the proposed date of departure, accompanied by a certificate of compliance with the income tax law."

The above order repeals the provisions contained in the Revised Travel Regulations of July 19, 1919, that hostile aliens shall procure special permits by application at the police stations at Balboa or Cristobal to depart from the Canal Zone, as well as the provisions of the circular of March 9, 1920, issued by this office on the same subject.

CHESTER HARDING,
Governor.

Charges for Property Lost.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 6, 1920.

CIRCULAR NO. 237:

When form 5221, "Certificate of Charges on Pay Roll Covering Property Lost, Destroyed, or Damaged through Carelessness or Neglect of Responsible Parties," covers breakage in hotels, restaurants, and clubhouses, it will be used for financial accounting only and will be so marked. All broken articles shown thereon in such cases will be preserved and presented for survey as unserviceable property.

In all other instances the use of this form will be continued as heretofore.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

CHESTER HARDING,
Governor.

Acting General Manager, Commissary Division.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 9, 1920.

Memorandum to all concerned—Effective Friday, April 9, and during the absence on leave of Mr. J. J. Jackson, Mr. A. W. Goulet is appointed Acting General Manager of the Commissary Division.

R. K. MORRIS,
Chief Quartermaster.

Approved:

CHESTER HARDING,
Governor.

Shipment of Household Goods to New York.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 8, 1920.

All concerned—In connection with the plan whereby Canal Zone customs inspectors inspect and seal freight shipments of household goods made by employees of The Panama Canal and members of the Army and Navy from the Isthmus to the United States, the freight agent of the Panama Railroad Steamship Line has called attention to the fact that bill of lading and Canal Zone customs declaration covering shipments on Panama Railroad steamers must be presented to the customs officials at the pier in order to secure the release of the shipment. The parcels must then be removed from the dock at the expense of the consignee.

The delivery or forwarding of the shipment from the dock may be handled by a forwarding agency. The Hendrickson Trucking and Transfer Company of New York City, which has an office on the pier for the privilege of hauling the goods to freight offices or other destination at reasonable rates will, without further charge, procure the necessary customs release and deliver or reship parcels in accordance with whatever instructions may be given by the consignee. If it is desired to have the shipment handled by the above-named company, in order to avoid delay, two bills of lading and a customs declaration should be surrendered to the representative of the company on the pier immediately after landing, or in case the employee or member of the Army or Navy does not take passage on the steamer carrying his belongings, the bill of lading and customs declaration should be forwarded to the transfer company by mail so as to be received prior to the arrival of the freight. All charges should be prepaid to New York, as otherwise there will be charges for customs fees, customs brokerage, and other necessary expenses. When forwarding the above papers to the transfer company the person making shipment should be careful to give full instructions as to the exact disposition he desires made of his shipment.

C. A. McILVAINE,
Executive Secretary.

Appointments—Commissary Managers.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., April 10, 1920.

MEMORANDUM No. 761-48:

To all concerned—Effective as of April 12, 1920, Mr. F. P. Brugge is appointed Manager Balboa Commissary, and Mr. Henderson C. Smith, Manager Ancon Commissary.

J. J. JACKSON,
General Manager, Commissary Division.

Acting Commissary Managers.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., April 13, 1920.

MEMORANDUM No. 761-49:

To all concerned—Beginning April 12, Mr. Stephen Byrne is assigned to duty as Acting Manager Pedro Miguel commissary, *vice* Mr. Fred Metzger.

Also, effective as of April 9, Mr. S. L. Bourcy was appointed Acting Manager Camp Bied commissary, *vice* Mr. C. A. Jorgensen, on leave.

A. W. GOULET,
Acting General Manager, Commissary Division.

Beef Restrictions.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., April 9, 1920.

BULLETIN No. 917-3;

To commissary managers—My attention has been called to the fact that some commissary

managers are under the impression that the old regulations restricting the sale of tenderloin steak to the counter are still in effect. These regulations were withdrawn some time ago and it is now in order for solicitors to take orders for this cut.

Please bring this to the attention of your trade.

J. J. JACKSON,
General Manager, Commissary Division.

Joint Commission.**Decisions of the Umpire.**

In the matter of the consolidated claims of Guillermina Diez Vda. de Arias and the heirs of Agustin Arias Feraud, for property located on the La Boca Road at the base of Ancon Hill, originally a part of the "Los Pocitos" estate. Decision of the Umpire, award No. 215, docket Nos. 2797 and 2798, March 27, 1920.—An award is hereby made against the United States in the total sum of \$337.47, plus compound interest at the rate of six per centum per annum from December 5, 1912, the date of the depopulation order of the Canal Zone, until payment or tender of payment of this award is made, to be paid as hereinbelow set out:

To Guillermina Diez Vda. de Arias, the sum of \$182, United States currency, plus interest as above indicated, for all right, title and interest which the said Guillermina Diez Vda. de Arias may possess or may have possessed in and to 211 square meters of land located on the La Boca Road, subject of claim docket No. 2797, including any and all damages sustained by her on account of the expropriation of this property by the United States of America.

The sum of \$155.47, United States currency, plus interest as above indicated, representing my valuation of the 221.10 square meters of land claimed by the heirs of Agustin Arias Feraud, located on the La Boca Road, subject of claim docket No. 2798, is hereby ordered deposited in the District Court of the Canal Zone, Balboa Division, in accordance with the agreement of counsel on both sides, until that court shall have decided the conflict existing as to the ownership of this property.

Total, \$337.47.
Done in the National Palace, Panama, March 27, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of the Panama Freehold Estate Company, Limited, London, for property situated in Ancon known as "El Trapiche." Decision of the Umpire, award No. 216, docket No. 3258, March 27, 1920.—An award is hereby made in favor of the Panama Freehold Estate Company, Limited, in the sum of \$15,264, United States currency, for all right, title, and interest which the said Panama Freehold Estate Company, Limited, may possess or may have possessed in and to the property known as "El Trapiche," comprising 38,160 square meters of land, situated in Ancon, subject of claim docket No. 3258, including any and all damages sustained by the above-named claimant on account of the expropriation of this property by the United States of America.

This award shall be paid on or before the 27th day of April, 1920, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of six per centum per annum until paid.

Done in the National Palace, Panama, this 27th day of March, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of Josefina Vallarino de Aleman, Jose Maria Aleman, and Adolfo Aleman V., heirs of Adolfo Aleman, deceased, for property known as "La Gloria," situated in the district of Ancon. Decision of the Umpire, award No. 217, docket No. 3257, March 27, 1920.—An award is hereby made against the United States in the

total sum of \$377.73, United States currency, in favor of Josefina Vallarino de Aleman, Jose Maria Aleman, and Adolfo Aleman V., for all right, title and interest which the said Josefina Vallarino de Aleman, Jose Maria Aleman, and Adolfo Aleman V., may possess or may have possessed in and to the property known as "La Gloria," comprising 8.2 hectares, situated in the District of Ancon, including the improvements located thereon and any and all damages sustained by the above-named claimants on account of the expropriation of this property by the United States of America, this award to be paid in the proportions and amounts as follows:

To Josefina Vallarino de Aleman, one-half thereof.....	\$188.87
To Jose Maria Aleman, one-fourth thereof.....	94.43
To Adolfo Aleman V., one-fourth thereof.....	94.43
Total.....	\$377.73

This award shall be paid on or before the 27th day of April, 1920, and if payment or tender of payment is not made on or before that date said award shall thereafter bear interest at the rate of six per centum per annum until paid.

Done in the National Palace, Panama, this 27th day of March, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

*In the matter of the claims of Virginia and Pablo Bosque and the estate of Leonarda F. Solorzano, for property located in the city of Panama, decision of the umpire, rule of dismissal No. 458, docket No. 1788, April 5, 1920—*The claim of Virginia and Pablo Bosque, docket No. 1788, and the claim of the estate of Leonarda F. Solorzano, intervenor therein, are hereby dismissed for want of merit.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

*In the matter of the claim of Francisco de la Ossa, et al, for property known as "La Iseca," decision of the umpire, award No. 218, docket No. 1742, April 5, 1920—*An award is hereby made against the United States in the sum of \$19,999.98, United States currency, in favor of Francisco de la Ossa, Emilia de la Ossa de Lefevre, Maria de la Ossa, viuda de Amador, Manuela de la Ossa, viuda de Lewis, Angelica B. de la Ossa, viuda de Jeronimo de la Ossa and the legal representative of the widow of Ricardo de la Ossa, legitimate heirs of Dr. Jose Francisco de la Ossa, for all right, title, and interest the above-mentioned claimants may possess or may have possessed in and to the property known as "La Iseca" comprising 21 hectares of land situated between the main line of the Panama Railroad and the branch line to Balboa at the foot of Ancon Hill, near the City of Panama, subject of claim docket No. 1742, this award to include any and all damages sustained by the claimants above named on account of the expropriation of this property by the United States of America, and to be paid as follows:

To Francisco de la Ossa.....	\$3,333.33
To Maria de la Ossa, vda. de Amador.....	3,333.33
To Emilia de la Ossa de Lefevre.....	3,333.33
To Manuela de la Ossa, vda. de Lewis.....	3,333.33
To Angelica B. de la Ossa, vda. de Jeronimo de la Ossa.....	3,333.33
To the legal representative of the widow of Ricardo de la Ossa.....	3,333.33
Total.....	\$19,999.98

This award shall be paid on or before the 5th day of May, 1920, and if payment or tender of payment is not made on or before that date said award shall thereafter bear interest at the rate of six per centum per annum until paid.

The question of the private agreement entered into between Dr. Inocencio Galindo and the Ossa family is a matter to be decided by the claimants themselves.

Done in the National Palace, Panama, April 5, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

*In the matter of the claim of Francis Schuber, James B. Schuber, Clementina Schuber Kehrhahn, Alice Schuber Moore, Lottie Aylsbury, Harry Wilson, and Daisy Wilson Nay, for the expropriation of 372 hectares of "Manglares," a part of the tract known as "Juan Diaz Caballero" located in the District of Ancon, decision of the Umpire, award No. 219, docket No. 2728, April 12, 1920—*Taking into consideration the following:

1. The location of the tract in claim;
2. The boundaries of this property as shown in the public deed of October 3, 1908, admitted by counsel for the Government, by which document the claimants herein transferred to the United States a portion of the lands known as "Juan Diaz Caballero;"
3. The fact that the majority of the members of the Commission held that the manglares comprised within the San Lazaro tract were private lands;
4. Award No. 165 handed down by me on October 13, 1917, in the matter of the claim of the heirs of Agustin Ayala for the lands known as San Lazaro;

An award is hereby made against the United States of America in the total sum of \$18,600, United States currency, to be paid to the persons hereinafter named in the amounts specified, for all right, title, and interest which they may possess or may have possessed in and to 372 hectares of manglares, a portion of the property known as "Juan Diaz Caballero," located in the District of Ancon, subject of claim docket No. 2728, including any and all damages sustained by them on account of the expropriation of this property by the United States of America.

To Francis Schuber, 1/6 of \$18,600.....	\$3,100
To James B. Schuber, 1/6 of \$18,600.....	3,100
To Clementina Schuber Kehrhahn, 1/6 of \$18,600.....	3,100
To Alice Schuber Moore, 1/6 of \$18,600.....	3,100
To Lottie Aylsbury, 1/6 of \$18,600.....	3,100
To Harry Wilson, 1/12 of \$18,600.....	1,550
To Daisy Wilson Nay, 1/12 of \$18,600.....	1,550
Total.....	\$18,600

This award shall be paid on or before the 12th day of May, 1920, and if payment or tender of payment is not made on or before that date said award shall thereafter bear interest at the rate of six per centum per annum until paid.

Done in the National Palace, Panama, this 12th day of April, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

Current Net Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships including warships of all nations, delivered and trimmed in bunkers, at \$13.50 per ton of 2,240 pounds at Cristobal and \$15.50 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$13.50 per ton at Balboa. For ships taking less than carload lots from plants or less than 25 tons from lighters, the price is \$15 per ton at Cristobal, \$17 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$1.50 per barrel of 42 gallons.

Diesel oil is not sold by The Panama Canal, but may be obtained from private concerns at approximately \$3 per barrel. Cable arrangement should be made in advance of arrival of vessel.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. Prices quoted are United States currency, per pound net:

Beef hinds, 19 cents; beef fores, 14 cents; beef ribs, entire set, 20 cents; short loins, 25 cents. This beef is from Colombian cattle slaughtered on the Isthmus.

March Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1920.
	1920	1919	1918			
<i>Pacific section—</i>						
Balboa	0.35	T	1.32	0.62	21	1
Balboa Heights	.09	T	1.25	.62	22	1
Miraflores	.02		.20	.38	12	1
Pedro Miguel	.04	T	.03	.29	13	3
Rio Grande	1.30			.34	16	5
<i>Central section—</i>						
Culebra	.81	T	.02	.57	30	4
Camacho	.57	.03	.16	.41	14	4
Empire	.87	.05	.20	.36	15	5
Gamboa	.21	.03	.54	.71	36	6
Juan Mina	1.00	.04		.30	10	4
Alhajuela	.20	.07	.02	.46	21	4
Vigia	.22	.01	.17	.38	12	8
Frijoles	.05	.47	.31	.51	9	
Trinidad	.94	.38	.39	1.83	13	6
Monte Lirio	.78	.53	1.34	2.11	13	6
<i>Atlantic section—</i>						
Gatun	.71	.59	.55	1.89	16	10
Brazos Brook	.90	.73	.92	2.02	14	9
Colon	1.08	.61	.41	1.58	51	14
Porto Bello	1.07	1.18		2.02	9	12
Bocas del Toro	1.06	4.28	3.02	5.31	12	9

Rainfall from Mar. 1 to Mar. 31, Inclusive.

STATIONS.	Maximum in one day.		Date.	Total.
	Ins.	Ins.		
<i>Pacific section—</i>				
Balboa	0.35	.25	25	0.35
Balboa Heights	.09	.25		.09
Miraflores	.02	.26		.02
Pedro Miguel	.02	.26		.04
Rio Grande	.65	.25	25	1.30
<i>Central section—</i>				
*Culebra	.44	.25	25	.81
*Camacho	.35	.27	25	.57
Empire	.42	.25	25	.80
Gamboa	.15	.7	7	.21
*Juan Mina	.73	.25	25	1.00
Alhajuela	.09	.25	25	.20
*Vigia	.05	9 & 26	7 & 8	.22
Darien	.01	7 & 8		.02
Trinidad	.71	.22	22	.94
*Monte Lirio	.31	.8	8	.78
<i>Atlantic section—</i>				
Gatun	.17	9 & 22		.71
*Brazos Brook	.23	.22	22	.90
Colon	.26	.26	26	1.08
†Bocas del Toro	.25	.19	19	1.06
Porto Bello	.32	.7	7	1.07

*Standard rain gauge—readings at 5 p. m. daily.
 Automatic rain gauge at unstarred stations—values, midnight to midnight.
 †Standard rain gauge—readings at 8 a. m. daily.

Sale of Buildings at Las Cascadas.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., April 30, 1920, and then opened, for the purchase of a number of buildings located at Las Cascadas, Canal Zone. Information regarding the numbers and location of buildings and form of proposal may be had upon application to the office of the Chief Quartermaster. Bids will be received on the entire lot or any single building, but all bids must specify the amount bid for each particular house. The Panama Canal reserves the right to reject any or all bids.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 507.

PORT OF CRISTOBAL.—Continued.				PORT OF BALBOA.			
*ARRIVALS.		*DEPARTURES.		ARRIVALS.		DEPARTURES.	
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 7	Carrillo	United Fruit Co.	Santa Maria.	April 8	Atenas	United Fruit Co.	New Orleans and wayports.
April 8	Caribbean	Panama Railroad Cattle Industry.	Cartagena.	April 8	San Pablo	United Fruit Co.	Cartagena.
April 8	Calamares	United Fruit Co.	New York and wayports.	April 8	Panama	Panama Railroad Steamship Line.	New York and Haiti.
April 8	Arabian (h)	W. V. N. Powellson.	Colon.	April 8	Arabia (h)	W. V. N. Powellson.	Colon.
April 9	Corning	Standard Oil Co.	Tampico.	April 8	Alhucan	Panama Railroad Steamship Line.	New York.
				April 9	Calamares	United Fruit Co.	New York and wayports.
				April 9	Ulysses	Panama Railroad Steamship Line.	Norfolk.
				April 10	Trident	Hall Brothers Steamship Co.	London and wayports.
April 10	J. B. Stetson	Gulf Mail Steamship Co.	San Francisco.				

(h) Motor schooner.

*Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., April 6, 1920.

The following insufficiently addressed mail has been received in the office of the Director of Posts and may be obtained upon request of the addressee. Such request may be made by telephone, calling No. 182, Balboa:

Barton, Mrs. Thomas	Hepburn, Mrs. Mary N.
Beck, Miss Florence F.	Kelchner, Mrs. Alice
Behrens, Harry	Hernandez, A.*
Beyerling, Miss Selma	Knoop, R. M.
Beyerling, Miss Gertrude	LaPerre, Mrs. Mary
Chambers Wm. M.	McCourt, Miss Irene
Cross, E. W.	Moore, Bethcl
Cummings, E. C.	Pallas, George
Davis, Dinnie†	Parsons, Misses Marion
Dole, Mrs. Lillian	and Elizabeth
Easton, Mrs. E. R.	Ragner, W. O.
Garon, Arthur*	Schonberg, Miss Violet
Gibbs & Co.†	Tatum, R. N.
Hallfield, Hubert	Turk, Joseph
	Zuik, Raymond L.

*Paper. †Special delivery.

Additions to Commissary Stock.

Dry Goods Section.

Suiting:	
Alpaca, Mohair, blue or black, yd.....	\$2.50
Gray, yd.....	2.50
Gray, yd.....	3.50
Serge, blue, yd.....	4.10
Serge, blue, yd.....	4.55
Crash, brown cotton, 36", yd.....	.46
Crash, white cotton, 27", yd.....	.55
Towels, Union huck, H. S., 15" x 24", ea...	.39

Grocery Section.

Candies, Farley's, hard, House Party, assorted, 9½-oz. jar.....	\$0.59
Chocolates, Park & Tilford, assorted, 2-lb. box.....	2.65
Goulash, 18-oz. tin.....	.55
Cigarettes:	
Argyropulo No. 5, plain tip, 100s, tin....	2.05
Imperial No. 4, plain tip, 100s, tin....	1.80
Melachrino No. 4, cork tip, 50s, tin....	1.15
Melachrino No. 5, cork tip, 50s, tin....	1.10
Melachrino No. 9, plain tip, 100s, tin....	1.65

Hardware Section.

Chinaware, Doulton, Hunting and Coaching:	
Sets, tea, Cecil, E 3804, 3 pieces, set....	6.00
Doulton, miscellaneous:	
Plates, E 8079, 6", ea.....	.51
Plates, soup, E 8079, 8", ea.....	.61
Electrical goods:	
Batteries, storage, type 611 RHNS, Prest-O-Lite, 100-amp., ea.....	31.00
Stoves and accessories:	
Bowls, burner with pipes for Florence stoves, ea.....	.81
Chimneys, complete for Florence stoves, ea.....	1.20
Grates, top, for Florence stoves, ea....	.20
Kindlers for Florence stoves, ea.....	.07
Levers for Florence stoves, ea.....	.20
Mantels for 4-burner Florence stoves, ea.	8.10
Reservoir, upper, oil, with glass end, for Florence stoves, ea.....	1.20

COMMISSARY NOTES.

Sheet Music.

A large shipment of popular sheet music has just been received and distributed to the line commissaries.

Books.

Detective stories are achieving a wide vogue at present and in response to requests the Commissary Division has added to stock complete sets of Gaboriau's novels. These are now on sale.

Those who are completing sets in Everyman's Library will be glad to know that a new shipment of books has recently been received and distributed to the line stores.

Books received:

"Ireland's Case," by Shumas McManus; "Luna Benamer," by Blasco Ibañez; "Tom Sawyer" by Mark Twain; "Collected Poems of Rudyard Kipling."

Suitings.

Customers will be pleased to learn that a shipment of blue serge, priced at \$4.10 and \$4.55 the yard, has just been received. There has also been distributed a shipment of blue and gray serges and tweeds with self stripes and checks. Another item for which inquiries have been received is cotton and jute suiting at \$1.80 the yard, a new stock of which is now on hand.

Beef.

The Department of Justice has announced that it intends to begin shortly an intensive educational campaign designed to lower the consumer's meat bill. By stimulating the demand for forequarter beef and other neglected cuts, it is hoped that the bad economy of the uneven demand for the different parts of the beef carcass will be overcome. If patrons buy more freely of the forequarter meats, they can have many more pounds of good meat for much less money than they are getting at the present time.

The Commissary Division has always practiced this policy and maintains a material differential between the prices of hindquarter and forequarter cuts, as will be indicated by the table below:

<i>Hindquarter cuts.</i>		<i>Forequarter cuts.</i>	
Rump roast.....	\$0.20	Chuck roast (3 pounds up).....	\$0.14
Porterhouse roast.....	.27	Chuck steak.....	.15
Sirloin steak, choice cut.....	.26	Shoulder steak.....	.17
Porterhouse steak.....	.23 to .29	Rib steak.....	.19

Such items as are of interest in the department's campaign will be published from time to time.

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE NO. 30, EFFECTIVE DECEMBER 25, 1918.

	DAILY.				Daily except Sat'day	Sat'day only.	Sunday only.
	3	4	5	6			
MAIN LINE STATIONS.	MAIN LINE STATIONS						
Leave	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.
Colon.....	7.10	11.00	5.00	11.15	11.30	9.35	11.30
Mount Hope.....	7.15	11.05	5.05	11.20	11.35	9.40	11.35
New Gatun.....	7.27	11.17	5.17	11.28	11.45	9.52	11.41
Gatun.....	7.37	11.27	5.27	11.40	11.49	10.00	11.46
Monte Lirio.....	7.42	11.32	5.32	11.55	12.04	10.07	11.53
Frijoles.....	7.53	11.43	5.43	12.10	12.15	10.18	12.05
Darien.....	8.00	11.50	5.50	12.18	12.22	10.25	12.12
Gambao.....	8.14	12.02	6.02	12.30	12.33	10.37	12.28
Summit.....	8.30	12.14	6.14	12.42	12.45	10.49	12.32
Pedro Miguel.....	8.44	12.26	6.24	1.00	12.57	11.01	12.38
Red Tank.....	8.50	12.32	6.30	1.06	1.05	11.04	12.44
Miraflores Locks.....	8.54	12.36	6.34	1.10	1.05	11.09	12.48
Colon.....	9.00	12.45	6.40	1.15	1.10	11.14	12.52
Panama.....	9.05	12.50	6.45	1.20	1.15	11.20	12.57
Arrive	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	A. M.
3	4	5	6	7	101	8	11

All trains stop where time is shown except if indicates stop on signal only.

	DAILY.									
	30	31	32	33	34	35	36	37	38	39
LAS CASCADAS BRANCH STATIONS.	LAS CASCADAS BRANCH STATIONS.									
Leave	A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.
Empire.....	6.25	9.10	6.15	9.05	12.55	4.00	6.50	11.23	12.23	12.23
Culebra.....	6.00	8.30	6.00	8.51	12.35	3.41	6.31	11.19	12.20	12.20
Paraiso.....	5.56	8.25	5.56	8.48	12.32	3.38	6.28	11.03	12.04	12.04
Pedro Miguel.....	5.46	8.15	5.46	8.38	12.29	3.35	6.25	11.00	12.01	12.01
Red Tank.....	5.40	8.10	5.40	8.33	12.25	3.31	6.21	10.56	11.56	11.56
Miraflores Locks.....	5.44	8.36	5.44	8.36	12.21	3.26	6.16	10.51	11.51	11.51
Corozal.....	5.36	8.30	5.36	8.30	12.15	3.20	6.10	10.45	11.46	11.46
Balboa Heights.....	5.30	8.25	5.30	8.25	12.10	3.15	6.05	10.40	11.40	11.40
Panama.....	A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.
Arrive	A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.
30	31	32	33	34	35	36	37	38	39	40

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
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at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., April 21, 1920. No. 36.

The "Olockson" Floated and Towed into Inner Harbor.

The steamship *Olockson* was floated on Sunday, April 18, from the bank on which she had been sunk off Changarmi Rock, in the outer harbor of Balboa, to extinguish fire in her cargo of gasoline. In the evening of April 20 she was towed into the inner harbor and moored to dolphins in shallow water near Pier 18, so that the discharge of her cargo may be carried on with less difficulty than was being experienced in the outer harbor.

The sea in the outer harbor has been rough, with wind and a heavy swell that caused the *Olockson* to drag her anchor, and the distance over which the lighters of cargo had to be towed added to the difficulty and expense of discharging her. In the inner harbor conditions will be easier.

The work on the *Olockson* before she was floated was strenuous and dirty. Every man going on the ship became covered in a short time with the crude oil floating up from her tanks, and on account of the necessity for taking advantage of the tides, shifts were from 12 to 16 hours. When the men came off the job to the derrick barge on which they were quartered they would wash out their clothes and hang them up to dry while they slept.

The "Lady Sybil" Being Finished.

Repairs are to be completed this week to the steamship *Lady Sybil* of Barbados, which has been at Balboa shops for five weeks for extensive overhaul. This included overhauling the boilers, main engines, auxiliary machinery, and all deck machinery. Considerable work was done on the deck and rails, and the master's quarters were completely refitted. The hull and the interior of all the holds were scaled, cleaned, and painted.

The *Lady Sybil* belongs to the West India Oil Company and has been employed by it on the West Coast, largely in the handling of gasoline in drums.

Tolls Per Ton of Cargo.

With a net tonnage of 3,567, United States measurement, the steamship *Cajacet*, operated by Chas. Kurz & Co., arrived at Balboa on April 19 carrying a cargo of 9,730 tons of nitrate. She is to go through the Canal after receiving repairs at Balboa shops. Inquiry has been made as to whether this is not an extraordinarily large cargo for such net tonnage, and whether the tolls per ton of cargo would not accordingly be lower than any previous record.

The tolls on the *Cajacet* will be \$4,458.75, equivalent to 46.85 cents per ton of cargo. In THE PANAMA CANAL RECORD of April 4, 1917, was published an article, "The Cost of Tolls per Ton of Cargo Carried," which gave the prorated cost of Canal tolls per ton of cargo carried

on all the ships making the transit of the Canal during the last 6 months of the year 1916 with whole cargoes. A glance at that statement shows that a number of ships made transit with more tolls per net ton and at less cost per ton of cargo carried than the *Cajacet*. The minimum cost per ton for a ship loaded with nitrate, during the period, was 37 cents; the maximum was 85 cents, and the average, 55 cents. Of all the cargoes, the minimum prorated cost of tolls per ton of cargo carried was 32 cents, on a shipload of crude oil.

Whole Cargo of Lubricating Oil.

The American steamship *Dillwyn*, operated by the Standard Oil Company, arrived at Balboa in the afternoon of April 19 from San Francisco for Paulsboro, N. J., with a cargo of 8,334 tons of lubricating oil.

A Shipload of Pipes.

A whole cargo of pipes, 3,000 tons, was carried by the steamship *Delisle*, arriving at Cristobal in the evening of April 16, en route from Mobile to Los Angeles and San Francisco. They consisted of sewer water, and gas pipes.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending April 17, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caribbean.....	Panama Railroad Cattle Industry..		April 11.....		3
Huasco.....	Chilean Steamship Line.....		April 12.....		1,065
Huallaga.....	Peruvian Steamship Line.....		April 13.....		602
Belleplaine.....	United States Shipping Board.....	April 12.....	April 14.....	7,321	(*)
Balboa.....	Colombian Maritime Co.....		April 14.....		330
Jamaica.....	Pacific Steam Navigation Co.....		April 14.....		640
Acajutla.....	Pacific Steam Navigation Co.....	April 13.....		890	
Cartago.....	United Fruit Co.....	April 13.....	April 15.....	900	148
Point Bonita.....	Pacific Mail Steamship Line.....	April 13.....	April 15.....	744	19
Puerto Rico.....	French Line.....	April 13.....	April 16.....	90	345
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line..	April 13.....		3,312	
Ucayali.....	Peruvian Steamship Line.....	April 14.....		876	
Manavi.....	Pacific Steam Navigation Co.....	April 14.....		684	
Imperial.....	Chilean Steamship Line.....	April 15.....		1,073	
Tillamook.....	United States Shipping Board.....	April 15.....		2,884	
Santa Marta.....	United Fruit Co.....	April 15.....	April 15.....	253	524
Pastores.....	United Fruit Co.....	April 15.....	April 16.....	11	34
Caribbean.....	Panama Railroad Cattle Industry..	April 15.....		210	
Ancon.....	Panama Railroad Steamship Line..	April 16.....		5,174	
Gen. O. H. Ernst.....	Panama Railroad Steamship Line..	April 17.....		980	
Leon XIII.....	Spanish Steamship Line.....	April 17.....		648	

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending April 17, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Laura C. Hall.....	Pacific Metals Corporation.....	April 4.....	April 5.....		80
Cauca.....	Pacific Steam Navigation Co.....	April 7.....	April 8.....		33
West Cawthon.....	United States Shipping Board.....	April 7.....	April 8.....	600	
Mehanno.....	United States Shipping Board.....	April 8.....	April 10.....	768	
Arcadia.....	United States Shipping Board.....	April 9.....		5,050	
J. B. Stetson.....	Gulf Mail Steamship Co.....	April 10.....	April 11.....	355	
Ansaldo V.....	National Navigation Society.....	April 10.....	April 13.....	56	105
Point Bonita.....	Pacific Mail Steamship Co.....	April 11.....	April 13.....	363	25
Ethan Allen.....	United States Shipping Board.....	April 13.....		11,831	
Manavi.....	Pacific Steam Navigation Co.....	April 13.....	April 13.....	1	
Matinicoek.....	Standard Oil Co.....	April 14.....	April 16.....	11,000	
Jamaica.....	Pacific Steam Navigation Co.....	April 14.....	April 14.....		2
Balboa.....	Colombia Maritime Co.....	April 14.....	April 14.....		52
Koyo Maru.....	Toyo Kisen Kaisha.....	April 16.....	April 16.....	3	

Notice to Mariners.—Panama Canal Front Range Lights Changed from Flashing to Fixed.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 14, 1920.

CIRCULAR NO. 643-74.

On April 13, 1920, the lights in towers Nos. 3, 5, 7, 9, 12, 14, 16, 18, and 21, Gatun Lake Section, were changed from flashing to fixed. All front range towers now exhibit fixed white lights.

(H. O. Chart No. 5000.)

CHESTER HARDING,
Governor.

Soil Temperatures in the Canal Zone.

A record of soil temperature was kept at Balboa Heights during the year 1919, with water thermograph bulb buried in the ground 5 inches below a grass-covered surface, the automatic record being checked daily at 8 a. m. by eye readings of a soil thermometer buried alongside the thermograph bulb. In character the soil was an artificial fill consisting of a mixture of clay and gravel, well packed.

In this climate soil temperatures are affected by the following influences:

(1) Position of the sun in the sky, or the angle of incidence of solar rays.

(2) Cloudiness and humidity, or the degree of obstruction and absorption of solar rays.

(3) Soil covering.

(4) Moisture content of soil.

Average soil temperatures usually are highest near the times when the sun is in the zenith and its rays descend vertically (in April and August), and they are usually lowest in December and January, when the sun's rays fall most obliquely upon the earth's surface.

Heavy clouds serve as a blanket over the earth, obstructing solar radiation and preventing the excessive daytime heating of the soil. High humidity has a similar effect, though less pronounced.

A grassy covering tends to lessen the daytime heating of the soil. Excessive moisture tends, also, to lower the daytime temperature of the soil and to retard its night cooling. It follows that the diurnal range of soil temperature is *much greater* in the dry season than in the rainy season, when more uniform soil temperatures prevail, due to the combined influences of heavy cloudiness, excessive moisture content and grassy covering of the soil.

Soil temperatures average higher than the air temperatures during nearly all of the year. The average soil temperature in the year 1919 was 81.5° F.; air, 79° F. The maximum soil temperature observed during the year 1919 was 95° F. on April 11, and the minimum was 73° F. on January 6, compared with maximum and minimum air temperatures of 94° F. and 67° F., respectively.

Solar radiation penetrates the earth's crust very slowly and at a depth of a few feet soil temperatures in the tropics are nearly constant, diurnal and seasonal variations being very small or disappearing entirely.

The sun's heat penetrates the soil so slowly that in the temperate zone it requires approximately 6 months, or until the following winter, for summer heat to penetrate to a depth of 35 or 40 feet, at which depth earth temperatures are actually slightly higher in the winter than in summer.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight April 17, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Solt water draft	From—	For—	Cargo	Tons	Panama Canal	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Steel Voyager	10	9 43	11	6 15	11	19 57	12	5 15	American	United States Steel Products Co.	395.5	55.0	26.0	New York	Vancouver	Sugar and gen.	8,572	7,285	5,256
Lake Shore	10	13 10	11	6 27	11	19 09	12	23 35	American	United States Shipping Board	251.0	43.0	19.0	Newport News	Iquique	Coal	1,852	2,189	1,424
Sacama	10	18 30	11	6 22	11	18 15	12	2 00	American	Barber Steamship Line	370.0	49.0	27.6	New York	Shanghai	General	9,000	5,409	3,938
Chetopa	8	7 15	11	9 05	11	18 59	12	12 15	American	United States Shipping Board	402.0	53.0	25.6	New York	Melbourne	General	5,000	6,577	4,944
City of Omaha	10	21 43	11	10 25	11	21 34	12	1 37	American	United States Shipping Board	393.0	55.0	26.9	Baltimore	Honolulu	General	7,800	7,316	5,102
Oregon	11	5 38	11	11 05	11	19 51	12	9 37	American	Wilson Brothers & Co.	200.0	41.0	19.2	New Orleans	Rabo Puerto	Sugar machinery	780	1,095	585
Sahale	11	9 30	12	6 15	12	16 46	12	17 56	American	United States Shipping Board	390.0	54.0	16.6	New York	Tatal	General	6,106	4,355	
Hussco	8	16 20	12	6 22	12	17 50	12	12 18	Chilean	United States Shipping Board	379.7	44.0	23.6	Cristobal	Valparaiso	General	1,007	4,508	3,066
Walter Hard-castle	12	6 15	12	7 17	12	18 04	12	21 52	American	Sinclair Navigation Co.	304.0	44.0	25.0	Tampico	Corinto	Crude oil	4,500	3,240	2,316
Troja	12	2 06	13	6 10	13	17 27	13	18 17	Norwegian	Jous. Lindvig	251.0	43.6	24.1	Norfolk	Antofagasta	Coal	3,431	2,729	1,768
Hualagala	8	21 20	13	6 10	13	17 17	13	23 50	Peruvian	Peruvian Line	360.0	44.7	21.0	Cristobal	Callao	General indse.	544	4,514	2,386
West Hassay-ampa	12	8 57	13	6 20	13	18 20	13	19 10	American	United States Shipping Board	410.0	54.0	24.2	Philadelphia	Honolulu	Steel, etc.	6,980	6,578	4,769
Edgcombe	9	21 40	13	7 10	13	19 20	13	20 22	American	United States Shipping Board	409.0	54.0	15.0	Newport News	Iquique	Coal	11,831	8,987	5,937
Ethan Allen	12	18 05	13	9 20	13	20 28	17	16 25	American	United States Shipping Board	439.6	60.0	28.0	Newport News	Iquique	Coal	11,831	8,987	5,937
Potosi	12	23 13	13	9 40	13	20 45	14	11 53	British	Pacific Steam Navigation Co.	380.0	49.0	24.0	Liverpool	Valparaiso	General	4,860	5,567	4,296
Balboa	9	20 30	14	6 02	14	17 40	14	23 59	American	Columbian Maritime Co.	190.0	29.0	13.0	Cristobal	Buenaventura	General	328	741	350
Crater Hall	13	13 15	14	6 30	14	20 35	14	21 33	American	United States Steel Products Co.	380.0	50.0	22.6	New York	Salaverry	Steel products	5,085	4,955	3,523
Santa Teresa	13	15 20	14	6 35	14	17 50	14	18 55	American	W. R. Grace & Co.	860.0	51.6	26.0	New York	Valparaiso	General	1,344	5,726	4,086
Matinook	14	6 55	14	8 14	14	19 36	15	13 10	American	Standard Oil Co.	459.0	51.0	26.0	Tampico	Balboa	Crude oil	11,000	8,171	6,379
Saint Teath (a)	12	10 20	14	8 35	14	18 25	15	13 10	British	Green Star Line	350.0	29.0	14.0	Newport, Eng.	Valparaiso	General	645	1,187	622
Jamaica	8-27 20	45	14	9 41	14	20 20	14	23 10	British	Pacific Steam Navigation Co.	220.0	34.0	13.6	Cristobal	Tumaco	General	681	8,841	4,816
Bellephre	14	20 34	15	6 30	15	17 30	15	18 11	American	United States Shipping Board	395.0	55.0	26.0	Newport News	Iquique	General	3,265	6,744	4,804
Santa Rosa	14	20 34	15	6 30	15	17 30	15	18 11	American	W. R. Grace & Co.	404.6	54.0	20.8	New York	Honolulu	General	8,154	7,309	5,289
Camiba	15	18 40	16	6 05	16	18 28	17	7 40	Japanese	Green Star Line	445.0	40.0	26.6	Savannah	Tonopilla	General	3,000	6,195	4,247
Kawachi Maru	16	5 58	16	6 15	17	19 15	17	20 35	American	Nippon Yusen Kaisha	530.0	43.0	20.6	New York	San Francisco	General	6,000	6,920	4,973
Lake Elliott	16	19 30	17	6 20	17	17 59	17	19 05	American	United States Shipping Board	320.0	46.0	20.0	New Orleans	Valparaiso	General	3,000	3,803	2,341
Delisle	16	19 30	17	6 20	17	17 59	17	19 05	British	United States Shipping Board	320.0	46.0	20.0	Mohile	Los Angeles	Pipes	3,000	3,803	2,341
Port Melbourne	16	9 42	17	6 50	17	17 50	17	17 53	American	Commonwealth and Dom. Line	151.0	63.3	29.0	London	Anchard	General	7,396	11,861	9,069
Sciotia (a)	2	13 30	17	6 50	17	17 50	17	17 53	American	United States Navy	300.0	30.0		Cristobal	Balboa	General	8,111	6,524	4,741
City of Berke-ley	16	7 02	17	7 34	17	19 12	17	19 47	American	United States Shipping Board	402.0	53.0	27.0	New York	Yokohama	General	6,524	4,741	
Rosevic	17	6 33	17	8 00	17	20 10	18	0 20	British	Andrew Weir & Co.	405.0	52.0	19.0	New York	Chile	General	6,418	4,979	
Lothier Castle	17	8 10	17	9 25	17	20 12	18	20 16	British	James Chambers & Co.	400.0	52.0	24.0	New York	Yokohama	General	6,600	5,708	4,367
S. C. No. 285	17	9 32	17	9 32	17	17 46	17	17 53	American	United States Navy	300.0	30.0		Cristobal	Balboa	General	6,600	5,708	4,367

(a) Tug

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Origin	Date	Vessel	Line	Arrivals	Port of Call	Departures	Destination	Remarks
Manhan	10 14 41	11	6 59	11 22 55	12 9 54	American	United States Shipping Board	402.6
San Joaquin	11 4 45	11	7 45	11 20 50	12 2 00	N. Oregon	W. Wilhelmson	425.5
Suvero	11 12 01	11	8 08	12 1 02	12 3 54	British	United Weir & Co.	460.0
Texarkana (b)	11 12 01	11	8 44	11 23 00	11 21 25	American	United States Navy	385.0
Texarkana	11 2 00	11	8 23	11 23 05	12 7 20	American	United States Shipping Board	400.7
Martha E. (c)	11 7 00	11	7 00	11 19 42		American	M. Salazar	393.5
Clairton	12 7 30	12	9 35	12 20 15	12 23 12	American	United States Shipping Board	393.5
Lautaro	12 9 30	12	10 30	12 21 30	14 16 25	Catania	Borquez & Co.	274.9
York	10 4 30	12	12 47	11 30 30	15 12 03	American	North German Lloyd	483.0
Point Bonita	11 7 00	13	6 25	13 20 40	15 17 00	German	Pacific Mail Steamship Co.	269.0
Ansaldo V	10 5 00	13	8 13	13 08 14	12 50	Italian	National Navigation Society	360.0
Acapulco	13 6 00	13	8 40	13 19 26	19 5 57	British	Pacific Steam Navigation Co.	215.7
Cristobal	17 25 13	12	3 24	12 23 05		American	Panama Railroad Steamship Line	439.5
Saint Botolph a	13 11 30	14	6 31	14 20 05		British	British Admiralty	135.6
S. V. Harkness	3-30 18 30	14	8 23	14 20 51	15 6 27	American	Standard Oil Co. of New Jersey	419.4
Standard Arrow	13 22 00	14	8 04	14 20 48	15 8 40	American	Standard Transportation Co.	467.6
Manavi	13 22 45	14	8 53	14 21 45		British	Pacific Steam Navigation Co.	216.0
Ucayali	13 22 10	14	9 55	14 20 35		Peruvian	Peruvian Line	374.7
Western Glen	14 7 17	14	10 24	14 23 15	15 6 35	American	United States Shipping Board	409.8
Saint Ewe (a)	14 8 30	14	12 15	14 20 05		British	British Government	135.4
Lompo	15 7 00	15	9 26	15 20 00	15 20 10	British	C. T. Bovering	435.3
Suecia	15 12 30	15	12 08	15 21 32	15 23 15	Swedish	Johnson Line	359.4
Victoria	15 7 40	15	12 11	15 21 28	19 10 37	Chilean	Chilean Line	336.8
Matinecock	15 15 30	16	8 20	16 20 20	16 20 20	British	Pacific Steam Navigation Co.	401.4
Riol	14 8 30	16	10 54	17 12 50		American	Standard Oil Co.	459.1
Koyo Maru	10 8 30	16	12 40	16 21 30	17 15 07	Japanese	Toyo Kisen Kaisha	419.7
Utagarbo	10 22 00	17	8 39	17 23 12	18 4 09	American	United States Shipping Board	400.0
Glorieta	17 5 00	17	8 34	17 21 34	18 4 43	American	Munislas Steamship Corp.	289.0
Armagh	17 1 00	17	9 33	17 20 43	17 23 36	British	Union S. S. Co. of New Zealand	530.5
Abessinia	13 11 30	17	11 36	18 1 45		German	Hamburg-American Line	451.3

(b) Collier. (c) Launch. (d) Arrived April 29, 1919. (e) For orders.

PORT OF CRISTOBAL.

Date	Vessel	Line	Arrivals	From	Date	Vessel	Line	Departures	To
April 12	Arabia (f)	W. V. N. Powellson	Colon	Colon	April 11	Caribbean	Panama Railroad	Cattle Industry	Cartagena.
April 13	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York and Haiti	April 11	Corning	Standard Oil Co.	Tampico	Tampico	Tampico.
April 13	Boisford	United States Shipping Board	Cape Gracias	April 11	C-41	French Government	Saint Thomas	Saint Thomas	Saint Thomas.
April 13	Cartago	United Fruit Co.	New Orleans	April 12	San	United States Shipping Board	Colon	Colon	Port Arthur.
April 13	Puerto Rico	French Line	Bordeaux and waypoints	April 12	Arabia (f)	W. V. N. Powellson	Colon	Colon	Colon.
April 13	Norman Bridge	Pan-American Pet. and Transp. Co	Tampico	April 13	Arabia (f)	Pan-American Pet. and Transp. Co	Tampico	Tampico	Tampico.
April 14	Santa Leonora	United States Army	New Orleans	April 15	Norman Bridge	United Fruit Co.	Cartagena	Cartagena	Cartagena.
April 14	Louisa, Polleys (g)	A. N. Bryan	Colon	April 15	Santa Marta	United Fruit Co.	New Orleans and Boeas	New Orleans and Boeas.	
April 15	Pastores	United Fruit Co.	New York and waypoints	April 15	Cartago	United Fruit Co.	New Orleans and waypoints	New Orleans and waypoints.	
April 15	Pastores	United Fruit Co.	New York and waypoints	April 16	Pastores	United Fruit Co.	New Orleans and waypoints	New Orleans and waypoints.	

(f) Motor schooner. (g) Auxiliary schooner

(Continued on page 529, column 2.)

Supplement No. 7 to Tariff No. 3.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY.

BALBOA HEIGHTS, C. Z., *April 12, 1920.*

The following amendment is made to Tariff No. 3, Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at the Panama Canal:

ITEM 3—PILOTAGE.

Effective May 1, 1920.

1. Charges for port pilotage are based upon maximum draft; rates per foot, or fraction thereof, provided such fraction equals or exceeds 6 inches.... **\$2.00**

CHESTER HARDING,

*Governor, The Panama Canal.**President, Panama Railroad Company.***Present Permits Not Affected by New Executive Order on Carrying and Keeping Arms.**

The Chief of the Police and Fire Division advises that the Executive Order No. 3243, dated March 6, referring to the carrying and keeping of arms, published in THE PANAMA CANAL RECORD of April 7, does not require any change in the permits already granted for hunting, or to the members of gun or pistol clubs, and that the permits previously in effect are not affected by the order. This is stated in Section 5 of the order. The new order does not authorize carrying of arms by persons under 15 years of age. The purpose of the order was to establish closer restrictions on the keeping of arms in the Canal Zone and to give the Governor greater powers in fixing regulations and prescribing the areas and conditions for hunting. Regulations based on the Executive Order will be issued by the Governor in the near future.

Addition to Fotel Aspinwall Launch Service.

The launch service between Balboa and Taboga Island is to be supplemented, beginning this week, by the use of the gasoline tug *Coco Solo*, which will be operated for the present on Saturdays, Sundays, and holidays, to handle the extra passengers of those days. The *Coco Solo* is a launch of 40 gross tons, 60 feet in length by 16 feet beam and is licensed to carry 75 passengers. She is provided with a saloon amidships, with a toilet room, and with seats on the deck and on top of the cabin, with railing protection and awnings. Her speed is 11 to 12 knots, from which the time for a trip to Taboga is estimated at an hour. For the present the launch *Taboguilla* will be continued in the service.

Concrete Railroad Station at New Gatun.

A new railroad station is to be constructed at New Gatun, north of Gatun. It is to be built on the plans of the present station at Corozal, of reinforced concrete, and the estimated cost is approximately \$30,000. New Gatun was a station on the railroad during the period of the construction of Gatun Locks, but was subsequently abandoned. The reestablishment of a station there is on account of the new brigade post, Fort Davis, now under construction to the northeast of the old village of New Gatun.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at

Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Analyst (male and female); \$1,200 to \$1,500 a year; No. 230; May 11, 1920; form 1312; age, 18 years but not 40 years.*

Artist-illustrator (male and female); \$1,200 a year; No. 211; May 5, 1920; form 1312; age, under 50 years.

Assistant appraisal engineer (male and female); \$1,800 to \$3,300 a year; No. 216; August 2, 1920; form 1312; age, 25 years but not 55 years.†

Appraisal engineer (male and female); \$3,600 to \$4,800 a year; No. 216; August 2, 1920; form 1312; age, 25 years but not 55 years.†

Director of home education (male and female); \$2,000 to \$2,500 a year; No. 233; May 11, 1920; form 2118; age, 21 years and over.*

Extension specialist in canning and drying (male and female); \$2,200 to \$2,700 a year; No. 218; May 4, 1920; form 2118; age, 21 years but not 55 years.*

Civilian assistant (male and female); \$8 a day; No. 223; May 4, 1920; form 1312; age, 25 years.* Expert stenographer and typist. The United States Civil Service Commission announces the cancellation of this examination, No. 206, scheduled to be held on April 27, 1920.

Junior engineer, grade 1; and junior architect (male and female); No. 345-amended, supplemental. The United States Civil Service Commission calls attention to the fact that for the positions of junior engineer, grade 1, and junior architect, in the Interstate Commerce Commission, in connection with the valuation of the property of common carriers, the maximum entrance salary has been increased from \$1,680 to \$1,800 a year.

Reconstruction aide; No. 75-amendment. The United States Civil Service Commission announces the elimination of age limits for the continuous open competitive nonassembled examination for reconstruction aide.

Field superintendent in insect control (male and female); \$1,800 to \$2,400 a year; May 11, 1920; form 2118; age, under 50 years.*

Foreman automobile mechanic (male and female); \$2,100 a year; form 1312; age, 25 years.†

Fuel engineer (male and female); \$4,200 a year; No. 141-amended; form 2118; age, within reasonable age limits; April 27, 1920.*

Assistant fuel engineer (male and female); \$1,620 to \$2,160 a year; form 2118; age, under 36 years; April 27, 1920.*

Assistant mechanical engineer (experimental ordnance); No. 210; \$2,000 a year (male and female); form 1312; age, 21 years and over; April 27, 1920.*

Glassworker (male and female); \$1,200 to \$1,680 a year; No. 226; May 11, 1920; form 304; age, 25 years and over.*

Greek translator (male and female); \$1,200 to \$1,400 a year; No. 219; May 5, 1920; form 304; age, 18 years and over.

Junior economist (farm management) (male and female); \$1,800 to \$2,200 a year; No. 212; May 5, 1920; form 1312; age, 21 years but not 45 years.

Junior zoologist (male and female); \$1,500 a year; May 19, 1920; form 1312; age, under 45 years.

Laboratory aid, motion-picture laboratory (male and female); No. 229; \$900 a year; May 5, 1920; form 304; age, 17 years but not 45 years.

Logging engineer (male and female); \$2,400 to \$3,000 a year; May 11, 1920; form 1312; age, 25 years but not 55 years.*

Map printer (male and female); \$900 to \$1,200 a year; May 4, 1920; form 1800; No. 237; age, 20 years and over.*

Master shipfitter (male and female); \$9.92 a day; May 11, 1920; No. 241; form 1312; age, 30 years.* Metallurgist (male and female); \$7.60 a day; No. 231; May 11, 1920; form 2118; age, under 40 years.*

Mining accountant (male and female); \$3,000 to \$4,500 a year; No. 232; May 11, 1920; form 2218; age, under 60 years.*

Oil gauger (male and female); \$1,200 to \$1,500 a year; May 11, 1920; No. 238; form 1312; age, 20 years and over.*

Plumber's helper (male and female); \$1,000 a year; May 11, 1920; No. 245; form 1800; age, 18 years and over.*

Scientific assistant, Lighthouse Service (male and female); \$2,400 a year and \$1,500 a year; May 18, 1920; form 1312; age, 18 years but not 35 years.*

Senior dairy herdsman (male and female); \$1,500 a year; May 11, 1920; form 1312; No. 246; age, under 45 years.*

Senior structural engineer, grade 1 (male and female); \$3,000 to \$4,000 a year; No. 504-amended; form 1312; age, under 60 years.†

Senior structural engineer, grade 2 (male and female); \$1,800 to \$2,700 a year; No. 504-amended; form 1312; age, under 60 years.†

Senior mechanical engineer, grade 2 (male and female); \$1,800 to \$2,700 a year; No. 504-amended; form 1312; age, under 60 years.†

Senior electrical engineer, grade 2 (male and female); \$1,800 to \$2,700 a year; No. 504-amended; form 1312; age, under 60 years.†

Senior dairy herdsman (male and female); \$1,500 a year; No. 246; form 1312; May 11, 1920; age, under 45 years.*

No. 594-amended, supplemental. Senior structural engineer, grade 2, entrance salary increased from \$1,800 to \$1,920 a year.†

No. 504-amended, supplemental. Senior mechanical engineer, grade 2, entrance salary increased from \$1,800 to \$1,920 a year.†

No. 504-amended, supplemental. Senior electrical engineer, grade 2, entrance salary increased from \$1,800 to \$1,920 a year.†

The entrance salary for these positions will range from \$1,920 to \$2,700 a year, and in addition, appointees at annual compensation of \$2,500 or less, whose services are satisfactory may be allowed the temporary increase granted by Congress of \$20 a month.

The United States Civil Service Commission announces the cancellation of announcement No. 2-amended, of examinations for laboratory assistant under the Navy Department on April 28-29, June 9-10, and July 21-22, 1920, and that this examination will not be held on those dates.

No. 173-supplemental. The United States Civil Service Commission announces the cancellation of announcement No. 173.

Structural steel draftsman and designer (male and female); \$2,400 a year; No. 194; May 11, 1920; form 1312; age, 26 years but not 45 years.*

Superintendent of operations (male and female); \$2,500 to \$3,500 a year; May 18, 1920; form 1312; age, 21 years and over.*

Surveillance inspector (male and female); \$1,600 to \$2,400 a year; No. 225; May 11, 1920; form 1312; age, 21 years.*

Teacher of stenography (male and female); \$1,200 to \$1,500 a year; Philippine Service; No. 220; May 11, 1920; form B. I. A. 2; age (females), 25 years but not 40 years; (males), 21 years but not 40 years.

Telegraph operator (male and female); \$900 to \$1,600 a year; No. 215; April 28, June 23, and August 18, 1920; forms 304 and 1140; age, 18 years and over.

Topographic draftsman (male and female); \$1,500 to \$1,880 a year; No. 234; August 2, 1920; form 1312; age, 21 years and over.*

Transitman (male and female); \$100 to \$125 a month with subsistence; No. 236; May 5, 1920; form 1312; age, 20 years but not 40 years.

The Civil Service Commission announces that both men and women who are citizens of the United States, and meet the requirements, may enter the continuous, nonassembled, open competitive examinations listed below. Appointing officers reserve the right to specify the sex desired in requesting certification of eligibles. Detailed information respecting the examinations may be had from the bulletins posted in various public places, from THE PANAMA CANAL RECORD, or by conference with the Secretary of the Local Civil Service Board:

No. 49, 123, 237, 278, 359 (amended), 403, 433, 504 (amended), 654, 647, 526, 470, 462 (amended), 427, 408, 420, 375, 372 (amended), 328 (amended), 231 (amended), 142 (amended), 838, 1805 (amended), 2113 (amended), 2239, 1492 (amended).

No. 49; senior land appraiser; \$1,800 to \$2,700 a year; junior land appraiser; \$900 to \$1,500 a year; Interstate Commerce Commission.

No. 123; passenger rate clerk; \$1,200 to \$1,600 a year; freight rate clerk, \$1,200 to \$1,600 a year; different branches of the service.

No. 237; plant quarantine inspector; \$1,200 to \$2,500 a year; Federal Horticultural Board, Department of Agriculture.

No. 278; catalytical chemist; \$3,000 to \$4,000; assistant catalytical chemist; \$2,000 to \$3,000 a year; junior catalytical chemist; \$1,600 to \$2,000 a year; Ordnance Department at Large.

No. 359-amended; assistant instructor, motor transport training school, \$1,800 to \$2,400 a year; motor transport corps.

No. 403; junior electrical engineer, \$1,080 to \$1,200 a year; Bureau of Mines.

No. 433; training officer, \$2,400 to \$3,000; training assistant, \$1,500 to \$2,400; placement officer, \$2,400 to \$3,000; placement assistant, \$1,500 to \$2,400; district medical officer, \$1,800 to \$3,000; assistant medical officer, \$1,800 to \$2,750; Federal Board for Vocational Education.

No. 504-amended; senior structural engineer, grade 1, \$3,000 to \$4,000; senior structural engineer, grade 2, \$1,800 to \$2,700; senior mechanical engineer, grade 2, \$1,800 to \$2,700; Interstate Commerce Commission.

No. 654; electrician's helper; \$720. Departmental Service, Washington, D. C.

No. 647-amended; ceramic assistant, \$1,200 to \$1,500; Bureau of Standards.

No. 526; agriculturist for reclamation projects, \$1,800 to \$2,400 a year; Bureau of Plant Industry.

No. 470; junior civil engineer; \$1,500 to \$1,800 a year; surveyor, \$840 to \$1,500 a year; Engineer Department at Large.

No. 462-amended; bookbinder, 75 cents an hour; pressman, 75 cents an hour; electrotyper-finisher, 75 cents an hour; electrotyper-molder, 75 cents an hour; stereotyper, 75 cents an hour; Government Printing Office, Washington, D. C.

No. 427-amended; examiner of accounts, \$1,800 to \$3,000; Interstate Commerce Commission. No. 408; computer, Coast and Geodetic Survey, \$1,200 a year.

No. 420; mechanical laboratorian, \$1,000 to \$1,400; electrical laboratorian, \$1,000 to \$1,400 a year; different branches of the service.

No. 375-amended; hydrographic and topographic draftsman; \$900; Coast and Geodetic Survey.

No. 372-amended; associate engineer, \$2,000 to \$2,800; assistant engineer, \$1,400 to \$1,800 a year; Bureau of Standards.

No. 328; surveyor-draftsman, \$1,200 to \$1,500 a year; Forest Service.

No. 231-amended; electrician, \$840 to \$1,200 a year; elevator conductor, \$720 to \$900 a year; general mechanic, \$720 to \$1,000 a year; steam engineer, \$600 to \$1,200 a year or over; Departmental and Indian services.

No. 142-amended; aid, \$1,000 to \$1,100 a year; Coast and Geodetic Survey.

No. 838; nautical expert, \$1,000 a year; Hydrographic Office.

No. 1805-amended; machinist, \$1,200 to \$1,800 a year; toolmaker, \$1,200 to \$1,800 a year; Departmental Service, Washington, D. C.

No. 2113-amended; special field agent in entomology; \$1,200 to \$2,000 a year; Bureau of Entomology.

No. 2239; laboratory aid, \$4 per diem; Navy Yard or other service.

No. 1492-amended; associate physicist qualified in physical metallurgy, \$2,000 to \$2,800 a year; Bureau of Standards.

Physician, Panama Canal Service (male and female); \$200 a month; No. 15-amended; May 5 and July 7, 1920; form 1312; age, 22 years but not 31 years.

Expert driller (male and female); \$3,000 to \$3,600 a year; No. 162-amended; May 11, 1920; form 2118; age, 25 years but not 45 years.*

Assistant engineer (male and female); \$1,500 to \$2,000 a year; August 2, 1920; form 1312; age, 20 years but not 35 years.*

Junior engineer (male and female); \$1,200 to \$1,500 a year; August 2, 1920; form 1312; age, 20 years but not 35 years.*

Market milk specialist (male and female); \$2,000 to \$3,000 a year; May 25, 1920; form 2118; age, under 45 years.*

Assistant market milk specialist (male and female); \$1,500 to \$1,980 a year; May 25, 1920; form 2118; age, under 45 years.*

Highway economist (male and female); \$1,800 to \$3,000 a year; May 25, 1920; form 2118; age, under 45 years.*

Assistant observer, Weather Bureau (male and female); \$1,080 a year; May 19, 1920; form 304; age, 18 years but not 35 years.

Gas expert (male and female); \$3,600 a year; May 25, 1920; form 1312; age, within reasonable age limits.*

Law clerk and typist (male and female); \$1,400 to \$1,740 a year; May 25, July 27, and September 28, 1920; form 304; age, within reasonable limits.

Scientific assistant in library science (male and female); \$1,320 to \$1,620 a year; May 19, 1920; form 1312; age, 20 years and over.

Supervising metallurgist (male and female); \$4,000 to \$5,000 a year; May 25, 1920; form 2118; age, under 50 years.*

In the announcement of the examination for postal clerk, to be held at Balboa Heights, C. Z., on April 25, 1920, the entrance salary has been changed to \$125 a month.

*Nonassembled. Date given for nonassembled examination is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

‡Since receipt of announcement for physician (Panama Canal Service); No. 15-amended, the rates have been adjusted, making the entrance rate \$225. Promotions may be made to \$250, \$275, \$300, and \$340 a month and to higher rates for special positions.

Local Civil Service Examinations.

The following examinations for the Panama Canal Service will be held at Balboa Heights, Canal Zone, on the following dates:

Clerk and postal clerk, April 25, 1920.

Stenographer and typist, May 2, 1920.

Usual entrance salaries are, Clerk and typist, \$106 to \$127 a month. Postal clerk, \$104 to \$125 a month. Stenographer and typist, \$116 to \$137 a month.

Full information in regard to the scope and character of examinations is contained in leaflets, forms 2203 and 2206, copies of which, including sample questions, may be obtained from the Secretary, Board of Civil Service Examiners, Room 244, Administration Building, Balboa Heights, Canal Zone, telephone Balboa 286.

Applicants for the clerk examination must take at least one optional subject in addition to the regular basis subjects. The optional subjects are typewriting, bookkeeping, general business training and experience and timekeeping training and experience. If the third optional is taken three letters of recommendation from former or present employers, written on a business letterhead and signed by the persons recommending the applicants, should accompany the application.

Applicants for the Postal Clerk examination must have had one year's experience in the United States or Canal Zone post offices or as postmaster or as Navy mail clerk, and must be familiar with the receipt, distribution, and dispatch of mail matter, the issuance of money orders, registration of mail and the preparation of various reports required of postmasters.

Applicants must have reached their 18th but not their 45th birthday on the date of the examination. must be citizens of the United States, physically sound and in good health.

Applicants must submit to the examiner on the date of the examination their photographs taken within two years, securely pasted on the admission card which will be sent to them after their applications have been filed and the questions have been received from the United States.

Applicants for the Clerk examination should state on the outside cover and also in answer to question No. 1 the optional subject or subjects desired in addition to the name of the examination.

In answer to question No. 4 applicants must show residence in some State or territory in the United States from the time of taking their residence therein to April, 1920, a ruling having been made by the Civil Service Commission that those temporarily employed on the Canal Zone retain their legal residence in the last State in which they resided prior to coming to the Isthmus.

Application form No. 1312 must be filled out, including the medical certificate but excluding the County Officer's Certificate, and should be filed promptly with the Board of Civil Service Examiners Balboa Heights, Canal Zone.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death
Edgehill Taitt.....	28158	Barbados.....	Panama.....	Mun. Eng. Div.....	April 4, 1920.
Henrique Bonilla.....	44973	Panama.....	Panama.....	Cattle Industry.....	April 9, 1920.
David Boyce.....	39260	Barbados.....	Colon.....	Building Division.....	April 12, 1920.
Joseph Brown.....	20986	Jamaica.....	Panama.....	Health Department.....	April 12, 1920.
Walter Davis.....	24101	Jamaica.....	Colon.....	Panama Railroad.....	April 12, 1920.
Inez Dominguez.....	48034	Panama.....	Camp Bierd.....	R. & F. Agent.....	April 5, 1920.
Antonio Eru (Corud)..	41894	Panama.....	Farfan.....	Cattle Industry.....	April 5, 1920.
William Gunter.....	42802	Jamaica.....	Red Tank.....	Operation and Maint.....	April 7, 1920.
Isador Guerra.....	43291	Nicaragua.....	Mandingo.....	Supply Department.....	April 8, 1920.
Augustine Morales.....	49283	Panama.....	Panama.....	Quartermaster's Dept.....	April 1, 1920.
Aaron Naterra.....	40558	Panama.....	Panama.....	Cattle Industry.....	April 2, 1920.
Henry F. Newell.....	2898	United States.....	Ancon.....	Mun. Eng. Div.....	April 5, 1920.
Jose Sanchez.....	40468	Panama.....	Panama.....	Cattle Industry.....	April 3, 1920.
Joseph Ford.....	29908	Barbados.....	Colon.....	Mun. Eng. Div.....	March 26, 1920.
Romulo Roman.....	29102	Colombia.....	Colon.....	Mun. Eng. Div.....	March 16, 1920.
Wilton Heywood.....	42670	Trinidad.....	Colon.....	Locks.....	March 17, 1920.
Augusto Bolanos (Balloano).....	47773	Costa Rica.....	Camp Bierd.....	R. & F. Agency.....	March 12, 1920.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Circulars.**Inspection of Boilers.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 12, 1920.

To all concerned—Attention is invited to the fact that the heads of departments and divisions are, in many instances, failing to be guided by the monthly notices habitually forwarded to them by the Board of Local Inspectors of the dates when boilers under their respective jurisdictions must be made ready for inspection provided for in paragraph 71 of Circular 644, in order that the provisions of paragraph 23 of the same circular may be complied with.

The annual inspection of boilers and appurtenances of steam vessels throws around human life and property a safeguard which it is deemed wise to preserve, and compliance by all concerned with the letter and spirit of the above-referenced regulations is therefore imperative.

In this connection, attention is invited to the further fact that if departments and divisions concerned do not furnish the Board of Local Inspectors prompt written notice of every change in status of every steam boiler under their respective jurisdictions, the Board will, at least in many instances, be unable to compile correct monthly lists of boilers due for inspection and test.

It is further directed that in every instance in which it is found impracticable for the head of a department or division to comply with the Board's request for notification of the date and hour in the current month when, and the place where, any boiler under his jurisdiction is desired inspected and tested, he promptly notify the Board, in writing, the cause of his inability to comply, in order that the Board may be in position to advise me whether or not postponement of inspection and test is justifiable.

CHESTER HARDING,
Governor.

Rates for Service of Cranes.

THE PANAMA CANAL,
PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 10, 1920.
CIRCULAR NO. 692-8 (superseding Circular No. 692-7):

Effective April 15, 1920, the following rates will be charged between departments and divisions of The Panama Canal and Panama Railroad, and other branches of the U. S. Government, for the service of cranes:

	Per hour.
1. Locomotive cranes:	
With crew, including engineer, fireman, groundmen, fuel, lubricants, and repairs:	
Less than 75 tons capacity.....	\$6.00
75 tons capacity.....	7.00
Without crew, but including ordinary repairs and such operating materials as are normally carried at the time of loan, casualty expense to be borne by borrowing division:	
Less than 75 tons capacity.....	2.00
75 tons capacity.....	3.00
2. 50-ton dry dock crane.....	7.00
(NOTE—Locomotive service, when necessary, will be charged at the regular rates, in addition to the above.)	
3. 100-ton crane, wrecking.....	30.00
(NOTE—The rate for 100-ton wrecking cranes includes locomotive service in handling cranes from and to their regular stations.)	

All of the above rates cover both straight and overtime service. The minimum charge shall be for one hour.

CHESTER HARDING,
Governor, The Panama Canal.
President, Panama Railroad Company

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 15, 1920.
CIRCULAR NO. 661-85:

Effective this date, Capt. Earl P. Jessop, U. S. N., is appointed Marine Superintendent, and Chairman of the Board of Admeasurement, vice Capt. Leonard R. Sargent, U. S. N., relieved from duty with The Panama Canal.

CHESTER HARDING, Governor.

Acting Chief Quartermaster.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 14, 1920.

All concerned—Effective April 15, 1920, and continuing during the absence of Mr. R. K. Morris on leave, Mr. Roy R. Watson is placed in charge of the Supply Department as Acting Chief Quartermaster.

CHESTER HARDING, Governor.

Jury List.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 19, 1920.
HEADS OF DEPARTMENTS AND DIVISIONS:

The undersigned, having been appointed by Judge John W. Hanan of the United States District Court, for the Canal Zone, as Jury Commissioners for the ensuing year, and by him directed to secure a jury list of all the employees on the Canal Zone;

Therefore, you are hereby directed to furnish this Commission with a list of all white Americans on the gold roll, who are 21 years of age or over, showing opposite their names the town in which they reside, in order that this Commission can determine whether they reside north or south of the Chagres River.

As it is necessary that the jury list be secured at once, you will give this matter your prompt and careful attention.

Forward all lists to W. W. Belcher, Box 255, Balboa Heights.

B. C. POOLE, W. W. BELCHER,
Jury Commissioners

Approved:
C. A. McILVAINE,
Executive Secretary.

Commissary Selling Hours.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., April 17, 1920.

BULLETIN NO. 767-7:

To all concerned—The selling hours at Ancon market and Camp Biedr commissary will be as follows: effective May 1, 1920:

8.00 a. m. to 12.00 m.
2.30 p. m. to 5.30 p. m.

Please give this memorandum publicity.

A. W. GOULET,
Acting General Manager, Commissary Division.

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Hotel Aspinwall Launch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10.00 a. m.
Leave Taboga.....	8.00 a. m.

Sundays and Holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6.00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station.....	Leave on the hour and half hour.
Administration Building.....	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary.....	Leave 10 minutes and 40 minutes after the hour.
Balboa shops.....	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa Shops.....	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office.....	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary.....	Leave 20 minutes and 50 minutes after the hour.
Administration Building.....	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station.....	Arrive on the hour and half hour.

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast.....	\$2.00	
Employees.....	per day.. 2.75	
Children under 12 years of age.....	per day.. 1.25	
Servants of employees.....	per day.. 1.50	
Employees for stay of 7 days.....	per day.. 2.00	
Reduction of 10 per cent for employees on above rates for stay of 30 days.		
Further reduction of 10 per cent for families of four or more.		
Nonemployees.....	per day.. 3.50	
Children of nonemployees.....	per day.. 1.50	
Servants of nonemployees.....	per day.. 1.75	
Meals without room.....	{ Breakfast.....	1.00
	{ Luncheon.....	1.25
	{ Dinner.....	1.25

COMMISSARY NOTE.

Books.

Books received:

"Ireland's Fight for Freedom," by George Creel; "Story of a Lover," Anonymous; "Free Air," by Sinclair Lewis; "Four Horsemen of the Apocalypse," by Blasco Ibañez; "Great Impersonation," by E. Phillips Oppenheim; "Herself," and "Himself," by Dr. E. B. Lowry.

THE PANAMA CANAL RECORD

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Volume XIII.

Balboa Heights, C. Z., April 28, 1920.

No. 37.

Coal Storage.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 7, 1920.

CIRCULAR NO. 704-3:

1. Circular No. 703, of July 30, 1915, announced the policy of The Panama Canal, as approved by the Secretary of War, with regard to the establishment of private coal and fuel oil depots on the Isthmus for the supply of shipping passing through the Panama Canal.

2. Pursuant thereto private fuel oil depots have been established and are in operation. Similar action has not, however, been effected in connection with the storage of coal.

3. Experience to date is now accepted as demonstrating the necessity of reversing previous policy with regard to the establishment of private coal deposits. As indicated in Circular No. 703, private wharfage and private utilities for the handling of fuel have, from the first, been recognized as undesirable. Their establishment has not, at any time, been contemplated. So far as concerns fuel oil, the use of existing Government utilities in common connection with both Government and private storage has proved practicable, at least to the extent of justifying further trial. Similar duplicate use of utilities for storage and handling of coal can not, however, be applied without substantial reduction in the total quantity of coal that can be stored, or without serious interference with the operation of handling. It has been found that proper service demands the maximum capacity of existing plants, and that the factors involved apply with equal force to whatever extensions may hereafter be developed.

4. It is accordingly now announced that, with the approval of the Secretary of War, the policy of The Panama Canal no longer contemplates the establishment of private coal depots in the Canal Zone.

CHESTER HARDING,
Governor.

Approved:
NEWTON D. BAKER,
Secretary of War.

Record Fuel Oil Transactions During March.

A total of 698,805 barrels fuel oil were handled by The Panama Canal fuel oil plants during the month of March. Of this quantity, 363,723 barrels were received and 335,082 barrels were issued or sold by The Panama Canal and the private oil companies with tanks in the Canal Zone.

During the month, sales to shipping by The Panama Canal and by private companies amounted to 46,673 barrels and 13,926 barrels,

respectively, at Balboa, and 79,072 and 175,826 barrels, respectively, at Cristobal. The total quantity supplied to shipping was 314,897 barrels.

During February, the total business transacted at the fuel oil plants amounted to 594,703 barrels.

During the six months' period ending March 31, 1920, 2,937,919 barrels of fuel oil were handled by the fuel oil plants, of which quantity 1,479,607 barrels represent receipts and 1,458,312 barrels, issues and sales. During the period the sales to shipping by The Panama Canal and the private oil companies amounted to 302,222 barrels and 983,395 barrels, respectively.

Transfer Cargo to Be Specifically Routed to Connecting Carrier.

The Panama Railroad Company, in charge of the handling of transshipped cargo at the Canal terminals, has issued the following circular No. 734, dated April 3, 1920, to the agents of all European steamship lines on the subject of routing cargo brought to the Canal terminals for transfer to connecting carriers:

"Following the procedure adopted by this Company with regard to American cargo, it is requested that, beginning with your next arrivals, all bills of lading specifically name the connecting steamship line by which the goods are to be forwarded beyond Cristobal.

"Bills of lading not showing this information, or showing more than one carrier beyond Cristobal, will be returned for correction.

"It is believed that this method will result in just as rapid movement of cargo, and eliminate a certain amount of confusion."

With the publication of the above, it is required now that all cargo sent to the Isthmus for transshipment, from Atlantic or Pacific, be routed. As a matter of practice, practically all of the cargo sent here for some time has been routed, and in order to avoid difficulties which have arisen at times with reference to priority of arrival and otherwise to simplify handling it was decided to make specific routing a regular requirement.

In the days before the war practically all cargo sent to the Isthmus for Pacific carriers was unrouted, the shippers desiring to have it forwarded from the Isthmus by the first connecting steamer. At that time there was lively competition on the part of each line to secure cargo. During the war the condition was reversed: the Pacific carriers, having all the routed cargo they could accommodate, began to accept unrouted shipments only after they had taken care of their routed cargo. This resulted in congestion and a practice of picking the more remunerative cargo, with embarrassment to the Atlantic carriers and to the Panama Railroad Company in accepting unrouted cargo for transshipment. In consequence, the steamship lines bringing cargo from the United States were notified in July, 1918, that shippers should name definitely the Pacific carrier in their bills of lading, and it was decided that whenever it might be deemed advisable the same notice should be extended to the European lines. The circular quoted above is in harmony with this policy.

The question has been raised whether this policy will interfere with the development of the transfer business at the Canal and of the Isthmus as an entrepôt. The Panama Railroad Company states that the development of distribution of goods from the Isthmus is a matter of warehousing, with the storage of goods in quantity subject to order, and that it is not the function of the terminals to act as warehouses.

Goods sent here for storage and distribution would in any event be consigned to a broker or agent, with destination shown on the bills of lading as the Isthmus, and would not be in the status of goods consigned to a connecting carrier, which are the shipments affected by the requirements that transfer shipments be specifically routed. The present policy does militate against "tramp" or irregular services picking up cargo at the Isthmus consigned to first steamer, but in the present condition of shipping there are no such services offering at the Isthmus, and the advantages of specific routing for the bulk of the business are held to outweigh the possible occasional disadvantages which might occur.

New lines considering entering the Isthmian transshipping trade, or lines which use the Canal in through service which may from time to time break cargo at the Isthmus for transfer, may, of course, always enter into arrangements with connecting carriers and make specific routing for their cargo. A summary of the services through the Canal and to its terminal ports was published in THE PANAMA CANAL RECORD of March 24, 1920, and will be republished from time to time to keep the information up to date. Additional information may be secured at any time from the Panama Railroad Company, Balboa Heights, Canal Zone, or 24 State Street, New York.

Developing Traffic Between Cuba and the West Coast of North America.

The steamship *Sachem* of the Pacific Mail service, due at Balboa from San Francisco near the end of the month, is making a round voyage to Habana and return, and the *City of Para*, due approximately May 8, will also go to Habana. Since the Canal has been in operation 44 vessels have passed through it on their way from the west coast of North America to Cuba, 12 of them during the 9 months of the current fiscal year.

The *Sachem* was assigned to the San Francisco-Cristobal service, and made her first round voyage for the Pacific Mail between San Francisco and the Atlantic terminus of the Canal. Her voyage and that of the *City of Para* to Habana are in keeping with a policy of the company to extend the Panama service as demand warrants.

Around-the-World Service from San Francisco.

The Pacific Mail Steamship Company has sent two vessels, the *West Kasson* and the *West Boro*, through the Canal on their way to San Francisco in a newly established around-the-world service. From San Francisco the ports of call are Honolulu, Yokohama, Kobe, Darien, Tientsin, Shanghai, Manila, Saigon, Singapore, Calcutta, Colombo (which are reached by the regular trans-Pacific and East India services of the company), thence Bombay, Alexandria, Bizerta, Marseilles, Barcelona, Baltimore, and Cristobal, returning to San Francisco. Sailings are every month, and the entire voyage requires approximately 6 months. The service at present carries cargo only.

Examination for Panama Canal Service.

Board of Civil Service Examiners makes the following announcement:

Attention is called to the examination for stenographer and typewriter, for The Panama Canal service, to be held at the Administration Building, Balboa Heights, C. Z., on Sunday, May 2, 1920, beginning at 9 a. m. Applicants should make arrangements for having typewriters and typewriter tables for their individual use, also ink, pens, and pencils. Prospective applicants should make application on Form No. 1312, at once.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight April 24, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Net
Maple Branch.	17	11.48	18	6.24	18	19.07	18	20.12	British.	F. & W. Ritson.	400.0	52.0	23.7	London.	Valdivia.	General.	7,300	5,618
Belvidre.	17	2.55	18	6.35	18	18.39	18	19.35	Norwegian.	W. Wilhelmssen.	253.5	57.0	26.6	Tampico.	Tocopilla.	Oil.	8,000	7,065
Lake Maurepas.	18	6.27	18	8.35	18	18.00	19	1.30	American.	United States Shipping Board.	235.5	43.5	19.0	Norfolk.	Antofagasta.	Coal.	2,414	3,383
Acajutla.	13	19.26	19	5.57	19	18.56	19	20.46	British.	Pacific Steam Navigation Co.	215.7	33.5	13.8	Cristobal.	Guayaquil.	General.	514	1,273
Tokushima	18	18.52	19	6.20	19	18.07	19	19.24	Japanese.	Nippon Yusen Kaisha	422.0	55.0	25.0	New York.	Yokohama.	General.	8,700	6,461
Maru.	18	17.57	19	6.25	19	17.17	19	18.39	British.	Harrison Steamship Line.	400.0	40.0	23.1	Glasgow.	Vancouver.	General.	7,800	5,365
Magician.	18	16.13	19	6.40	19	20.02	19	20.48	American.	United States Shipping Board.	370.5	53.1	23.3	Philadelphia.	San Francisco.	Steel and coal.	5,700	5,692
Olen.	15	21.28	19	10.37	19	19.05	19	19.54	Chilean.	South American Steamship Line.	336.8	41.2	23.7	Cristobal.	Valparaiso.	General.	267	3,634
Imperial.	14	20.35	20	6.10	20	18.12	20	21.32	Peruvian.	Peruvian Line.	374.7	46.3	18.1	Cristobal.	Callao.	General mdse.	854	4,278
Ucayali.	19	12.35	20	6.28	20	17.50	22	14.12	British.	F. & W. Ritson.	370.0	51.7	19.0	London.	Valparaiso.	General.	2,849	4,465
Apple Branch.	16	6.05	21	6.15	21	16.32	21	21.34	American.	Panama Railroad Steamship Line	489.5	58.0	18.7	New York.	Arica.	General.	10,157	7,689
Pedro Chris-	20	6.57	21	6.32	21	17.20	22	20.02	Swedish.	Johnson Steamship Line.	360.0	51.6	19.3	Christiania.	Corral.	General.	3,332	5,281
tophersen.	21	21.10	22	6.20	22	14.42	22	20.20	American.	United States Shipping Board.	409.0	54.0	23.2	Norfolk.	Manila.	Coal.	6,586	6,755
West Isip.	22	16.20	23	6.11	23	15.37	23	16.39	Norwegian.	Christian Nicholson & Co.	345.0	48.0	22.7	Bergen.	Talara.	General.	3,830	4,297
Conrad Mohr.	23	17.12	24	6.18	24	17.43	24	18.51	Japanese.	Kobe Shosen & Co.	312.0	43.0	22.6	Boaca Grande.	San Francisco.	Phosphate rock.	3,830	3,177
Kiku Maru.	21	5.40	24	6.40	24	18.20	25	8.20	American.	United States Army.	475.0	60.0	28.0	New York.	Honolulu.	General.	6,802	9,272
Marica (a).	23	6.52	24	6.38	24	17.19	24	18.14	American.	Sudden & Christensen.	207.0	37.4	17.0	Philadelphia.	Puntarenas.	Coal.	2,000	2,000
Edna.	24	6.46	24	8.10	24	18.28	25	23.08	American.	United States Shipping Board.	410.3	54.2	19.0	New York.	Seattle.	General.	4,250	6,693
Nishimaba.	24	12.05	24	10.20	24	19.07	25	23.08	American.	U. S. & A. Line.	402.0	53.0	24.0	New York.	Lyttleton.	Gen. and case oil.	6,000	6,011
Hofuku Maru.	24	9.40	24	11.00	24	19.32	24	20.13	Japanese.	Kawaski Company.	385.0	51.0	24.0	Mobile.	San Francisco.	General.	5,500	5,907

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Net
Matatus.	18	2.30	18	8.33	18	21.21	18	22.55	British.	Shaw, Saville & Albion.	448.0	56.5	25.0	Wellington.	London.	Frozen, general.	4,875	8,535
Dunsyre (b).	16	12.01	18	11.30	18	11.55	21	16.20	American.	Robert Dollar Co.	217.8	41.8	22.6	Pisagua.	Savannah.	Nitrate.	3,500	2,199
S. C. No. 285.	17	17.46	18	9.20	18	14.19	19	16.20	American.	United States Navy.	110.0	16.0	16.0	Balboa.	Cristobal.	General.	5,104	6,321
Scottish Mon-	18	19.00	19	7.41	19	21.00	20	12.20	British.	Monarch Steamship Corp., Ltd.	420.5	54.3	25.1	Talca.	Cristobal (d).	Nitrate.	5,104	6,321
areh.	19	2.00	19	7.47	19	20.40	20	5.00	American.	A. H. Bull Steamship Co.	313.6	46.1	20.8	Guayaquil.	New York.	General.	4,000	5,324
Evelyn.	19	6.30	19	9.09	19	19.35	19	20.09	American.	Standard Oil Co.	428.0	54.8	25.0	San Pedro.	Tampico.	Ballast.	7,318	2,425
Bradford.	19	15.00	20	6.32	20	20.15	20	21.30	American.	United States Shipping Board.	268.6	46.6	24.6	Iquique.	Martique.	Nitrate.	3,000	2,884
Cap Feat.	19	15.00	20	7.11	20	20.15	20	21.30	American.	United States Shipping Board.	435.0	56.0	25.0	San Francisco.	Panama, N.J.	Lubricating oil.	8,334	7,602
Dillway.	19	15.30	20	8.51	20	21.05	20	21.30	British.	Pacific Steam Navigation Co.	350.3	43.1	20.6	Guayaquil.	Cristobal.	General.	8,374	4,040

(c) Transport.

(b) Sailer.

	21	1.30	21	7.58	21	19.48	22	5.27	Dutch.	Royal Netherland S. S. Co.	360.0	51.0	19.2	Caleta Colosa	Amsterdam	Nitrate, general.	4,800
Haarlem.....	21	1.40	21	8.05	21	18.19	26	9.25	Chilean.	Chilean Line.	350.0	42.1	19.5	Valparaiso.	Cristobal.	General.	3,639
Palona.....	21	1.40	21	8.05	21	18.19	26	9.25	Chilean.	Chilean Line.	350.0	42.1	19.5	Valparaiso.	Cristobal.	General.	3,639
Walter Hard-castle.	21	14.30	22	7.28	22	16.03	22	16.40	American.	Sinclair Navigation Co.	304.0	44.2	15.6	Corinto.	Tampico.	Ballast.	3,240
East Wind.	22	17.30	23	7.29	23	17.47	23	18.35	American.	United States Shipping Board	384.3	51.2	26.0	Tocoipilla.	Cristobal (d).	Nitrate.	5,966
San Jose.	22	5.45	23	10.03	23	17.54	23	18.35	American.	Pacific Mail Steamship Co.	283.0	37.0	18.0	San Francisco.	General.	2,352	
La Habra.	23	5.30	24	6.55	24	18.55	24	22.12	Norwegian.	W. Wilhelmsen	424.8	57.0	17.0	Antofagasta.	Ballast.	7,053	
Laura C. Hall e	23	9.30	24	6.41	24	19.45	24	21.40	British.	Pacific Metals Corporation.	81.0	25.6	10.0	Buenaventura.	Platinum, gold	(f)	
West Cheswald.	23	14.30	24	7.30	24	19.36	24	21.40	American.	United States Shipping Board.	409.8	54.2	21.9	Kobe.	Peanuts.	5,283	
Ambridge.	23	23.00	24	9.03	24	21.20	24	22.48	American.	United States Shipping Board.	399.5	55.0	26.6	Iquique.	Nitrate.	9,011	
West Kader.	24	10.45	24	11.35	24	21.30	24	21.30	American.	United States Shipping Board.	410.5	54.0	24.0	Hongkong.	Rice, tobacco.	6,742	

(c) Motor schooner. (d) For orders. (e) 1,036.187 tons. (f) 563.

PORT OF CRISTOBAL.

		*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—		
April 18	Bartholomew	United States Shipping Board.	New York.	April 18	Bartholomew	United States Shipping Board.	Cartagena.		
April 18	Volga	Royal Mail Steam Packet Co.	London via wayports.	April 18	Caribbean	Panama Railroad Cattle Industry.	Cartagena.		
April 18	Colon.	Panama Railroad Steamship Line.	New York and Haiti.	April 18	Santa Leonora.	United States Army.	New Orleans.		
April 19	Heredia	United Fruit Co.	New Orleans.	April 19	Gen. W. C. Gorgas.	Panama Railroad Steamship Line.	New York and Haiti.		
April 20	Arabia (e)	W. V. N. Powellson.	Colon.	April 20	Tillamook	United States Shipping Board.	Bluefields.		
April 21	Zacapa	United Fruit Co.	New York and Habana.	April 20	Arabia (e)	W. V. N. Powellson	Colon.		
April 22	Caribbean	Panama Railroad Cattle Industry.	Cartagena.	April 21	Leon XIII	Spanish Steamship Line.	Puerto Colombia.		
April 22	Batonville	United States Shipping Board.	New York and Kingston.	April 21	Boisford	United States Shipping Board.	Cape Gracias.		
April 23	Nubian	Leyland Steamship Line.	Bluefields.	April 21	Gen. O. H. Ernst.	United Fruit Co.	New York and Haiti.		
April 23	Gen. G. W. Goethals.	Panama Railroad Steamship Line.	Liverpool and wayports.	April 22	Volga	Royal Mail Steam Packet Co.	Cartagena.		
April 24	Heredia	United Fruit Co.	New York and Haiti.	April 22	Zacapa	United Fruit Co.	New York and wayports.		
			Bocas del Toro.	April 22	Turrialba.	United Fruit Co.	New Orleans.		
				April 23	Heredia	Panama Railroad Steamship Line.	New Orleans.		
				April 24	Colon.	Panama Railroad Steamship Line.	New York via Haiti.		
				April 24	C-44	French Government.	San Juan, P. R.		
				April 24	Arabia (e)	W. V. N. Powellson.	Colon.		

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 19	Auxox.	Coastwise Steamship and Barge Co.	Callao.	April 18	Mulpua	United States Shipping Board.	Kobe.
April 19	Baroda (g)	Coastwise Steamship and Barge Co.	Callao.				

(g) Barge. *Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending April 24, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caribbean	Panama Railroad Cattle Industry.		April 18.		1
Acajutla	Pacific Steam Navigation Co.		April 19.		547½
Gen. W. C. Gorgas.	Panama Railroad Steamship Line.		April 19.		3,460
Imperial	Chilean Steamship Line.		April 19.		276
Leon XIII.	Spanish Steamship Line.		April 21.		78½
Gen. O. H. Ernst.	Panama Railroad Steamship Line.		April 22.		2,009
Volga	Pacific Steam Navigation Co.	April 18.	April 22.	311	1,224½
Colon	Panama Railroad Steamship Line.	April 18.	April 24.	2,515	3,226
Heredia	United Fruit Co.	April 19.	April 21.	1,256	38
Pedro Christophersen.	Johnson Steamship Line.	April 20.	April 21.	135	(*)
Chile	Pacific Steam Navigation Co.	April 20.		1,950	
Zacapa	United Fruit Co.	April 21.	April 22.	600	4
Edisto	United States Shipping Board.	April 21.		9,030	
Palena	Chilean Steamship Line.	April 21.		1,036	
Caribbean	Panama Railroad Cattle Industry.	April 22.		210	
Turrialba.	United Fruit Co.	April 22.	April 23.	6	863
Nubian.	Leyland Steamship Line.	April 23.		790	
San Jose	Pacific Mail Steamship Line.	April 23.		1,676	
Gen. G. W. Goethals.	Panama Railroad Steamship Line.	April 23.		2,290	
Laura C. Hall.	Pacific Metals Corporation.	April 24.		56½	
Heredia	United Fruit Co.	April 24.	April 24.	8	10

* No cargo laded.

Census of the Canal Zone.

January, 1920.

A circular of the Acting Governor dated December 31, 1919, contains provisions for taking the 1920 census of the Canal Zone. The Zone was divided into the five districts therein designated, and the actual work of enumeration was begun and completed during January. This enumeration was of the civilian population only and includes no Canal or Panama Railroad employees or their families of any nationality living in Colon or Panama. Separate enumerations of the military population were made by the Army and Navy authorities, respectively. The population as shown by the Army census as of January 1, 1920, was 4,243, and that of the Navy of the same date as approximately 594.

The district designated Pedro Miguel was made to include several communities and camps in which only a scattering population exists; the detailed enumeration for this district is accordingly shown following the tabulated statement for the entire Zone.

TOTAL.

	Cristobal	Gatun.	Pedro Miguel.	Balboa.	Ancon.	Peni- tentiary.	Palo Seco leper asylum.	Total.
Relation to head of family:								
Husbands	808	594	997	1,243	542	6	12	4,202
Wives	609	540	927	1,073	403		9	3,561
Sons	586	456	919	1,022	243		2	3,228
Daughters	614	516	937	1,050	293		1	3,411
Widows	27.	15	43	50	41		8	184
Widowers	36	5	20	25	17	1	4	108
Divorced	5		7	11	25			48
Bachelors:								
Male	1,128	332	305	478	372	33	55	2,703
Female	44	67	75	83	240		10	519
Total names	3,857	2,525	4,230	5,035	2,176	40	101	17,964
Number of families	674	595	931	1,010	541	6	1	3,758
Age, January 1, 1920:								
Unknown			254					254
— 1 year	77	102	177	130	24			510
1 to 4 years	326	352	586	569	123			1,956
5 to 10 years	477	355	735	775	208		2	2,552
11 to 20 years	425	217	400	637	228	3	11	1,921
21 to 30 years	899	626	810	919	493	20	26	3,793

TOTAL.—Continued.

	Cristobal	Gatun.	Pedro Miguel.	Balboa.	Ancon.	Peni- tentiary.	Palo Seco leper asylum.	Total.
Age, January 1, 1920:—Continued.								
31 to 40 years.....	935	624	842	1,212	594	15	29	4,251
41 to 50 years.....	506	197	320	612	372	2	16	2,025
51 to 60 years.....	183	39	83	147	107	.....	14	573
61 to 75 years.....	29	13	23	34	27	.....	3	129
Place of birth:								
United States.....	884	555	564	2,201	1,474	3	3	5,684
Canal Zone.....	109	589	1,116	1,119	242	.....	.....	3,175
Foreign.....	2,750	1,366	2,477	1,574	387	37	98	8,689
Naturalized.....	114	15	73	141	78	.....	.....	416
Occupations:								
Attending school.....	522	370	134	1,026	233	.....	.....	2,285
Executive.....	5	8	2	6	17	.....	2	40
Clerical.....	267	18	78	366	265	1	1	996
Skilled trades.....	532	181	241	880	674	11	3	2,522
Professional.....	5	21	28	65	102	.....	.....	221
Laborer.....	987	706	1,135	579	75	25	19	3,526

WHITE.

	Cristobal	Gatun.	Pedro Miguel.	Balboa.	Ancon.	Peni- tentiary.	Palo Seco leper asylum.	Total.
Relation to head of family:								
Husbands.....	339	187	218	814	523	.....	1	2,082
Wives.....	214	184	187	701	398	.....	1	1,685
Sons.....	158	121	110	569	243	.....	.....	1,201
Daughters.....	138	125	136	555	293	.....	.....	1,247
Widows.....	11	3	12	38	37	.....	2	103
Widowers.....	25	3	6	18	17	.....	.....	69
Divorced.....	5	.....	3	11	25	.....	.....	44
Bachelors:								
Male.....	267	36	72	288	204	16	2	975
Female.....	32	15	19	42	186	.....	1	295
Total names.....	1,189	674	763	3,036	2,016	16	7	7,701
Number of families.....	288	188	185	663	522	.....	1	1,847
Age, January 1, 1920:								
Unknown.....	.....	.....	5	.....	.....	.....	.....	5
—1 year.....	19	23	20	59	24	.....	.....	145
1 to 4 years.....	69	88	66	263	123	.....	.....	609
5 to 10 years.....	111	86	94	383	208	.....	.....	882
11 to 20 years.....	115	62	74	420	208	3	.....	882
21 to 30 years.....	216	137	142	545	416	9	2	1,647
31 to 40 years.....	336	171	209	749	557	4	3	2,029
41 to 50 years.....	220	84	102	470	352	.....	1	1,229
51 to 60 years.....	91	13	39	120	103	.....	1	367
61 to 75 years.....	12	10	12	27	25	.....	.....	86
Place of birth:								
United States.....	880	555	560	2,189	1,474	3	3	5,664
Canal Zone.....	50	29	90	468	242	.....	.....	879
Foreign.....	145	75	43	238	227	13	4	745
Naturalized.....	114	15	70	141	73	.....	.....	413
Occupations:								
Attending school.....	156	109	134	613	233	.....	.....	1,245
Executive.....	5	8	2	6	17	.....	2	46
Clerical.....	139	18	39	262	265	.....	.....	714
Skilled trades.....	532	181	234	880	674	10	.....	2,511
Professional.....	5	21	21	57	102	.....	.....	206
Laborer.....	11	1	32	13	9	4	.....	70

COLORED.

	Cristobal	Gatun.	Pedro Miguel.	Balboa.	Ancon.	Peni- tentiary.	Palo Seco leper asylum.	Total.
Relation to head of family:								
Husbands.....	468	407	757	429	19	5	9	2,094
Wives.....	395	356	740	372	5	.....	8	1,876
Sons.....	428	335	809	453	.....	.....	2	2,027
Daughters.....	476	391	801	495	.....	.....	1	2,164
Widows.....	16	12	31	12	4	.....	6	81
Widowers.....	11	2	14	7	.....	1	4	39
Divorced.....	.....	.....	4	.....	.....	.....	.....	4
Bachelors:								
Male.....	845	296	232	190	78	16	53	1,710
Female.....	12	52	56	41	54	.....	9	224
Total names.....	2,651	1,851	3,444	1,999	160	22	92	10,219
Number of families.....	385	407	742	347	19	6	.....	1,906

COLORED.—Continued.

	Cristobal	Gatun.	Pedro Miguel.	Balboa.	Ancon.	Peni- tentiary.	Palo Seco Leper Asylum.	Total.
Age, January 1, 1920:								
Unknown			249					249
—1 year	58	79	157	71				365
1 to 4 years	257	264	520	306				1,347
5 to 10 years	366	269	641	392			2	1,670
11 to 20 years	310	155	326	217	20		11	1,039
21 to 30 years	683	489	664	374	77	10	24	2,321
31 to 40 years	591	453	621	463	37	10	25	2,200
41 to 50 years	280	113	212	142	20	2	14	783
51 to 60 years	89	26	44	27	4		13	203
61 to 75 years	17	3	10	7	2		3	42
Place of birth:								
United States	4		4	12				20
Canal Zone	59	560	1,026	651				2,296
Foreign	2,588	1,291	2,411	1,336	160	22	92	7,900
Naturalized			3					3
Occupations:								
Attending school	366	261		413				1,040
Executive								
Clerical	120		39	104			1	264
Skilled trades			7				3	10
Professional			7	8				15
Laborer	976	705	1,103	566	66	21	19	3,456

CHINESE.

	Cristobal	Gatun.	Pedro Miguel.	Balboa.	Ancon.	Peni- tentiary.	Palo Seco leper asylum.	Total.
Relation to head of family:								
Husbands	1		22			1	2	26
Wives								
Sons								
Daughters								
Widows								
Widowers								
Divorced								
Bachelors:								
Male	16		1			1		18
Female								
Total names	17		23			2	2	44
Number of families	1		4					5
Age, January 1, 1920:								
Unknown								
—1 year								
1 to 4 years								
5 to 10 years								
11 to 20 years			4			1		5
21 to 30 years							1	22
31 to 40 years	8		12			1		13
41 to 50 years	6		6					3
51 to 60 years	3							3
61 to 75 years			1					1
Place of birth:								
United States								
Canal Zone								
Foreign	17		23			2	2	44
Naturalized								
Occupations:								
Attending school								
Executive								
Clerical	17					1		18
Skilled trades						1		1
Professional								
Laborer								

Census of the Canal Zone, January, 1920 (Exclusive of Military Population).
WHITE.

Place of birth.	Hus- bands.	Wives.	Sons.	Daugh- ters.	BACHELORS.		Widow- ers.	Widows.	Divorced	Total.
					Male.	Female.				
United States	1,740	1,329	625	682	809	256	58	80	38	5,617
Canal Zone			470	464						934
Austria	2	7			4	1				14
Argentina		1	2							3
Belgium	1									1
Bolivia	1									1
Barbados		3			1					4
Canada	27	24	1	3	7				1	63
Costa Rica	4	15	11	5	1	3		1		40

Pedro Miguel District.
WHITE.

	Pedro Miguel.	Lirio.	Golden Green.	Paraiso.	Empire.	Las Cas-cadas.	Mandinga Plantation.	Far Fan Pastures.	Miraflores.	Corozal Hospital.	Corozal.	Floating Equipment.	Mindi Bracho Plantation.	Majagual Plantation.	Gamboa.	Red Tank.	Summit.	Culebra.	Total
Relationship to head of family:																			
Sons.....	99			10														1	110
Daughters..	108			15						1					1		4	1	136
Husbands..	181			11	1				3	9							3	3	218
Wives.....	161			7	1					6					6		3	3	187
Widows....	11														1				12
Widowers..	4			1					1										6
Divorced..	2														1				3
Bachelors:																			
Male.....	43				1				6	4		5			9		3	1	72
Female....	15									4									19
Number of—																			
Names....	624			44	3				10	24		5			31		13	9	763
Families..	161			5	1				1	6					6		3	3	186
Age Jan. 1, 1920:																			
— 1 year..	18			1											1				20
1 to 4 yrs.	58			4											2		1	1	66
5 to 10 yrs.	76			11						1					2		3	1	94
11 to 20 yrs.	61			8	1										4				74
21 to 30 yrs.	111			6					3	9					4		6	3	142
31 to 40 yrs.	176			5					5	9		3			4		2	1	209
41 to 50 yrs.	87			5	2				1	1		1			5			1	102
51 to 60 yrs.	22			4					2	4		1			2		1	2	39
61 to 75 yrs.	11														1				12
Unknown..	4														1				5
Attending school	114			13											4		3		134
Place of birth:																			
U. S.....	483			8	2				9	16		2			23		10	7	560
Foreign....	7			23						7		1					3		43
Naturalized.	58			4	1				1	1		2							70
Canal Zone.	76			9											3			2	90
Class of labor:																			
Executive..	1									1									2
Clerical....	30			2					1	1					2			3	39
Skilled trades.	197			4	2				9	2		4			12		3	1	234
Professional.	19									2									21
Labor.....	10			9						5		1			5		2		32

COLORED.

	Pedro Miguel.	Lirio.	Golden Green.	Paraiso.	Empire.	Las Cas-cadas.	Mandinga Plantation.	Far Fan Pastures.	Miraflores.	Corozal Hospital.	Corozal.	Floating Equipment.	Mindi Bracho Plantation.	Majagual Plantation.	Gamboa.	Red Tank.	Summit.	Las Cas-cadas Plantation.	Culebra.	Total.
Relationship to head of family:																				
Sons.....	1	56	60	267	1	16		2							51	345	9		1	809
Daughters..	1	78	50	260	6	17									32	349	8			801
Husbands..	1	51	44	230	5	10		1				8	3	6	47	336	8	4	1	757
Wives.....	6	49	45	239	5	10		1		1					45	332	8		1	740
Widows....	1		8	9											1	10			2	31
Widowers..	2		1	1				1		1						8				14
Divorced..															1	3				4
Bachelors:																				
Male.....	4	9	7	47	2			1		57		11	1	4	13	67		8	1	232
Female....	15	3	3	7	1				2	16					3	6				56
Number:																				
Names....	31	246	218	1,058	20	53		6	2	77		19	4	10	193	1,456	33	12	6	3,444
Families..		50	45	230	5	9		1		1		8			44	339	8	2	2	742
Age Jan. 1, 1920:																				
Years—																				
— 1.....		8	8	56	1	3									8	72	1			157
1 to 4...	1	37	39	160	3	10									31	232	7			520
5 to 10...		50	50	213		17									34	269	8			641
11 to 20...	9	38	15	99	3	3		2		3				13	136	2	1	2		326
21 to 30...	5	28	32	190	8	9			1	18		9		45	300	11	3	3		664
31 to 40...	10	38	31	185	3	5		2		20		6		35	275	2	2			621
41 to 50...	5	22	18	56	1	2		1	1	7		4		12	75	1	4			212
51 to 60...		5	5	11		1		1		4				2	1	12		2		44
61 to 75...				5										2	2	2			1	10
Unkn'n..	1	20	20	83	1	3				25					12	83	1			249

COLORED.—Continued.

	Pedro Miguel.	Lirio.	Golden Green.	Paraiso.	Empire.	Las Cascadas	Mandinga Plantation.	Far Fan Pastures.	Miraflores.	Corozal Hospital.	Corozal.	Floating Equipment.	Mindi Bracho Plantation.	Majagual Plantation.	Gamboa	Red Tank.	Summit.	Las Cascadas Plantation.	Culebra.	Total
Attend school.....		50	51	255	2	16		2							16	300	2		1	394
Place of birth:																				
U. S.....				3				1	2	77		19	4	10	133	1,066	26	12	6	4
Foreign.....	28	154	140	686	19	24		5	2											2,411
Nat zed Canal Zone.....	3		78	369	1	29									60	390	7			3
Class of labor:																				
Executive.....																				
Clerical.....		2	2	19											4	15				39
Skilled trades.....	5		2									1								8
Professional.....				4												3				7
Labor.....	42	68	66	288	9	10		3	2	77		18	4	10	61	433	8	12	3	1,114

CHINESE.

	Golden Green.	Paraiso.	Summit.	Total.
Relationship to head of family:				
Sons.....				
Daughters.....				
Husbands.....	2	1	19	22
Wives.....				
Widows.....				
Widowers.....				
Divorced.....				
Bachelors:				
Male.....		1		1
Female.....				
Number:				
Names.....	2	2	19	23
Families.....			4	4
Age January 1, 1920:				
— 1 year.....				
1 to 4 years.....				
5 to 10 years.....				
11 to 20 years.....				
21 to 30 years.....	1	1	2	4
31 to 40 years.....	1	1	10	12
41 to 50 years.....			6	6
51 to 60 years.....				
61 to 75 years.....			1	1
Unknown.....				
Attend school.....				
Place of birth:				
United States.....				
Foreign.....	2	2	19	23
Naturalized.....				
Canal Zone.....				
Class of labor:				
Executive.....				
Clerical.....				
Skilled trades.....				
Professional.....				
Labor.....	2	2	19	23

Official Circular.

Employees' Railroad Tickets.

PANAMA RAILROAD COMPANY,
OFFICE OF AUDITOR.

BALBOA HEIGHTS, C. Z., April 17, 1920.

CIRCULAR NO. R. A. 684:

To all concerned—Effective May 1, R. A. Circulars Nos. 492, 494, 536, 603, 603-2, 603-3, and 660, in so far as they conflict with the following rules governing the sale and use of what are known as employees' \$1.50 excursion tickets, and the U. S. tickets, forms S and SS, are amended and the following instructions will govern:

1. The sale of the \$1.50 excursion tickets and U. S. tickets to employees will be discontinued, and employees desiring the reduced rate of transportation should provide themselves with mileage books, which may be purchased on presentation

of commissary purchasing authority or 24-trip pass books.

2. The sale of U. S. tickets, form S and SS, will be confined strictly to service men in uniform, or holding proper identification, and will not be sold nor honored for members of their families, relatives, nor visitors. Service men desiring reduced transportation for members of their families, relatives, or nonresident visitors, should purchase employees' mileage books, which will be sold to service men in uniform or holding satisfactory identification.

3. Mileage books should indicate plainly what persons are authorized to use them.

4. All of the \$1.50 employees' excursion tickets should be returned to this office for cancellation at close of business April 30.

H. A. A. SMITH,
Auditor, The Panama Canal
Approved and compliance directed.
S. W. HEALD, Superintendent.

THE PANAMA CANAL RECORD

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Volume XIII.

Balboa Heights, C. Z., May 5, 1920.

No. 38.

Visit of General Pershing.

Gen. John J. Pershing, U. S. A., arrived at Cristobal on the transport *Northern Pacific* on April 29, and departed on his return to the United States at midnight, May 4. His visit to the Isthmus was primarily for the purpose of inspecting the military establishment here. In addition, however, he went through the Canal from Gatun Locks to Pedro Miguel Lock; attended a reception by the Commanding General of the Army on the Isthmus; addressed the children of Ancon and Balboa schools; reviewed a parade of the Ancient Arabic Order Nobles of the Mystic Shrine; received hundreds of Americans at a public reception in the Administration Building, Balboa Heights, on Sunday night, May 2; was a guest at a dinner given by the President of the Republic of Panama on the night of May 3, and made a visit to the Arias ranch near Panama on May 4.

The *Star & Herald* of Panama reported Gen. Pershing as saying:

"I am greatly impressed with the wonderful efficiency of the Panama Canal. I came here prepared to see an engineering marvel functioning perfectly, but I had no idea of the magnitude of the project or of the marvelous efficiency attained by every division of the forces operating the Canal."

Canal Traffic in April.

The following is a summary of the commercial traffic through the Canal, in April, 1920.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.	
						From—	To—
20	American...	92,631	61,840	71,947	122,255	W. coast South America	East coast U. S.
1	Japanese....	5,020	2,639	3,608	7,450	Do.	Do.
1	Norwegian..	4,341	2,723	4,214	8,094	Do.	Do.
22	.....	101,992	67,202	79,769	137,799	Do.	Do.
12	British.....	18,119	9,573	13,166	11,814	W. coast South America	Cristobal.
3	American...	10,562	7,814	8,654	1,271	Do.	Do.
3	Chilean....	9,167	5,486	8,073	3,654	Do.	Do.
3	Peruvian...	12,325	6,031	7,483	5,396	Do.	Do.
21	.....	50,173	28,904	37,381	22,135	Do.	Do.
9	British.....	38,250	23,134	30,249	37,036	W. coast South America	Europe.
4	German....	24,932	15,240	21,457	23,527	Do.	Do.
1	French.....	5,989	3,600	4,081	5,565	Do.	Do.
1	Portugese..	5,605	3,528	4,501	6,775	Do.	Do.
1	Italian.....	5,368	3,200	3,457	1,500	Do.	Do.
1	Dutch.....	3,589	2,291	3,660	4,800	Do.	Do.
1	Chilean....	1,885	1,308	1,577	2,736	Do.	Do.
18	.....	85,618	52,301	68,982	81,939	Do.	Do.
12	American...	63,755	40,101	50,438	72,707	United States.....	Coastwise.
8	British.....	78,629	49,870	63,744	44,349	Australia and New Z'land	Europe.
3	American...	17,784	11,223	13,301	19,444	Far East.....	E. coast U. S.
2	British.....	11,921	7,546	10,370	15,500	Do.	Do.
2	Japanese....	9,552	5,763	7,302	8,376	Do.	Do.
7	.....	39,257	24,532	30,973	43,820	Do.	Do.
2	American..	13,665	9,154	11,924	Ballast...	W. coast S. America...	Mexico.
2	British.....	13,803	8,751	10,313	Ballast...	Do.	Do.
2	Norwegian..	14,009	8,859	8,174	Ballast...	Do.	Do.
6	.....	41,477	26,764	30,411	.....	Do.	Do.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.	
						From—	To—
2	American...	11,723	8,110	9,765	14,342	Far East.....	Cuba.
1	Japanese...	4,105	2,523	2,936	5,362	Do.	Do.
3	.....	15,828	10,633	12,701	19,704	Do.	Do.
2	British....	16,916	10,909	12,266	12,531	Australia and N. Z'land.	E. coast U. S.
1	American...	2,532	1,496	1,693	1,507	W. coast U. S.....	Europe.
1	Swedish...	3,730	2,244	4,001	5,500	Do.	Do.
2	.....	6,262	3,740	5,694	7,007	Do.	Do.
1	American...	6,318	4,726	5,103	7,336	San Francisco.....	Alexandria, Egypt.
1	American...	6,303	3,932	5,458	Ballast...	W. coast U. S.....	Mexico.
1	American...	3,099	2,364	2,316	Ballast...	W. coast Cen. America.	Mexico.
1	American...	2,795	1,693	1,829	3,000	W. coast S. America...	Martinique.
1	American...	2,649	1,621	2,024	375	W. coast U. S.....	Cuba.
1	American...	2,135	1,319	1,602	1,540	San Francisco.....	Cristobal.
1	American...	2,108	1,927	1,947	2,535	W. coast Cen. America.	Europe.
1	French.....	1,175	699	700	754	British Columbia.....	Europe.
109	.....	526,489	333,237	413,338	457,531	Do.	Do.
No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.	
						From—	To—
27	American...	131,185	88,583	100,054	36,028	E. coast U. S.....	W. coast S. America.
2	British....	9,053	5,754	8,235	6,004	Do.	Do.
1	Japanese...	6,079	3,850	4,440	7,203	Do.	Do.
1	Norwegian..	2,716	1,653	1,766	3,463	Do.	Do.
31	.....	149,033	99,840	114,495	52,698	Do.	Do.
11	American...	67,104	43,178	52,712	88,031	East coast U. S.....	Far East.
6	British....	26,147	17,053	22,122	32,366	Do.	Do.
4	Japanese...	20,826	14,130	15,685	24,020	Do.	Do.
20	.....	114,077	74,361	90,519	144,417	Do.	Do.
7	British....	10,428	5,750	7,745	3,758	Cristobal.....	W. coast S. America.
3	Chilean....	9,080	5,505	8,078	2,648	Do.	Do.
2	Peruvian...	7,708	3,604	4,630	1,398	Do.	Do.
1	American...	615	372	350	328	Do.	Do.
13	.....	27,831	15,231	20,803	8,132	Do.	Do.
5	British....	29,207	18,496	22,457	18,416	Europe.....	W. coast S. America.
2	German....	950	268	272	22	Do.	Do.
1	French....	5,440	3,892	4,639	Ballast..	Do.	Do.
1	Swedish....	4,952	3,973	4,013	3,332	Do.	Do.
1	Norwegian..	4,009	2,056	3,009	Ballast...	Do.	Do.
10	.....	44,588	28,685	34,390	21,770	Do.	Do.
7	American...	30,664	20,497	24,431	27,493	United States.....	Coastwise.
3	American...	18,878	11,419	16,043	27,250	Mexico.....	W. coast S. America.
2	Norwegian..	14,007	8,842	10,176	17,400	Do.	Do.
5	.....	32,885	20,261	26,219	44,650	Do.	Do.
4	British....	37,368	23,848	29,872	23,874	Europe.....	Australia and N. Z.
3	American...	21,885	15,590	17,248	23,500	E. coast U. S.....	Australia and N. Z.
2	British....	15,389	9,877	14,498	10,796	Do.	Do.
5	.....	37,274	25,467	31,746	34,296	Do.	Do.
1	British....	6,842	4,243	5,158	Ballast..	Europe.....	W. coast U. S.
1	American...	6,041	4,506	4,948	6,770	Do.	Do.
2	.....	12,883	8,749	10,106	6,770	Do.	Do.
2	American...	5,305	3,181	3,808	2,071	Cristobal.....	W. coast U. S.
2	British....	2,169	1,265	1,451	1,297	Cristobal.....	W. coast Cen. Amer.
2	British....	846	5	227	Ballast...	St. Lucia.....	Chile.
1	American...	6,188	3,822	5,256	8,572	E. coast U. S.....	British Columbia.
1	American...	6,139	4,605	4,859	8,072	E. coast U. S.....	Manila.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.	
						From—	To—
1	British.....	5,187	3,327	3,872	7,800	Europe.....	British Columbia.
1	British.....	3,808	2,410	2,662	700	Europe.....	W. coast Cen. Amer.
1	American...	3,099	2,364	2,316	4,500	Mexico.....	W. coast Cen. Amer.
1	American...	989	628	535	920	New Orleans.....	Panama.
1	American...	684	386	403	Ballast...	Cuba.....	W. coast U. S.
110	.....	510,017	338,932	407,968	398,032	Do.	Do.

In addition, the British cruiser *Calcutta*, 4,754 tons displacement, passed through the Canal northbound.

CANAL WORK IN MARCH.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of March, 1920:

BALBOA HEIGHTS, C. Z., April 26, 1920.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of March, 1920:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal during the month was 235, exclusive of 9 United States Government vessels, as follows: Two destroyers, 2 tank ships, 1 collier, 1 minesweeper, 1 tug, 1 subtender, and 1 merchant ship with coal for the United States Navy. The month's traffic is classified in detail in a tabulation included in this report.

The net tonnage, Panama Canal measurement, of the 235 commercial vessels aggregated 819,362 tons, 115,900 greater than the preceding month. Their registered gross tonnage was 1,055,619, and registered net tonnage, 676,270. The total cargo carried was 894,516 tons of 2,240 pounds, 114,028 tons greater than for February. Of the total for this month, 2,906 tons were carried as deck cargo. The total number of vessels and craft of all kinds through the Canal was 246, as compared with 230 last month.

The average length of the commercial vessels was 356 feet, average beam 49 feet, and average draft in salt water 21 feet; their average tonnage, Panama Canal measurement, was 3,486; United States net equivalent, 2,894; registered gross, 4,492; and registered net, 2,878. The average cargo carried by the laden ships was 4,635 tons. The *Renown*, a British battle cruiser, carrying the Prince of Wales and staff, passed through the Canal southbound on March 30. This is the largest ship in length and displacement to have passed through the Canal. She is 795 feet in length, over all; her displacement as measured for the collection of Panama Canal tolls is 33,379 tons; and her beam, 91½ feet. At the time of transit her draft in fresh water was 31 feet 3 inches.

The United States coastwise trade for the month comprised 12 vessels with a total tonnage of 42,785, Panama Canal measurement, carrying 64,482 tons of cargo. There were 3 vessels from the Atlantic to the Pacific Coast with a total Panama Canal net tonnage of 8,104, and cargo of 7,650 tons; and from the Pacific to the Atlantic Coast, 9 vessels with a total Panama Canal net tonnage of 34,681, and cargo of 56,832 tons.

PRINCIPAL COMMODITIES.

Bulk shipments of whole cargoes of the different principal commodities included in the March traffic were:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Crude oil.....	2	16,393	.....	Tampico.....	Pisagua.
Crude oil.....	2	14,000	.....	Tampico.....	Tocopilla.
Crude oil.....	1	11,500	.....	Tampico.....	Balboa.
Crude oil.....	1	9,700	.....	Tampico.....	Taltal.
Crude oil.....	1	9,720	61,313	Port Arthur.....	Balboa.
Petroleum.....	1	11,305	.....	Sabine.....	Yokohama.
Petroleum.....	1	8,600	.....	Beaumont.....	China.
Petroleum.....	1	1,900	21,805	Philadelphia.....	China.
Crude naphtha.....	1	.....	9,500	Tampico.....	San Francisco.
Coke.....	1	.....	4,360	Baltimore.....	Iquique.
Coal.....	1	.....	3,336	Norfolk.....	Antofagasta.
Phosphate rock.....	1	.....	7,700	Baltimore.....	Osaki, Japan.

FROM PACIFIC TO ATLANTIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	1	11,400		Arica.....	Antwerp.
Nitrate.....	1	9,027		Taltal.....	Antwerp.
Nitrate.....	1	8,023		Mejillones.....	Dunkirk.
Nitrate.....	1	7,000		Iquique.....	La Palliee.
Nitrate.....	1	5,042		Caleta Buena.....	Bordeaux.
Nitrate.....	1	8,175		Mejillones.....	United Kingdom.
Nitrate.....	1	5,213		Pisagua.....	United Kingdom.
Nitrate.....	1	5,700		Mejillones.....	Sweden.
Nitrate.....	1	4,600		Iquique.....	Europe.
Nitrate.....	1	3,410		Antofagasta.....	Europe.
Nitrate.....	2	12,950		Antofagasta.....	New Orleans.
Nitrate.....	1	8,175		Iquique.....	New Orleans.
Nitrate.....	1	3,018		Taltal.....	New Orleans.
Nitrate.....	1	3,000		Caleta Buena.....	New Orleans.
Nitrate.....	2	15,236		Iquique.....	Charleston.
Nitrate.....	2	17,500		Antofagasta.....	Charleston.
Nitrate.....	1	7,007		Talcahuano.....	Charleston.
Nitrate.....	1	3,062		Tocopilla.....	Charleston.
Nitrate.....	1	4,550		Tocopilla.....	Savannah.
Nitrate.....	1	4,439		Mejillones.....	Savannah.
Nitrate.....	1	3,452		Caleta Buena.....	Savannah.
Nitrate.....	2	5,829		Mejillones.....	Wilmington.
Nitrate.....	1	3,002		Caleta Colosa.....	Wilmington.
Nitrate.....	1	3,250		Iquique.....	Norfolk.
Nitrate.....	1	2,614		Antofagasta.....	Norfolk.
Nitrate.....	1	8,158		Caleta Colosa.....	Delaware River.
Nitrate.....	1	4,112		Caleta Buena.....	Hampton Roads.
Nitrate.....	1	3,510		Caleta Colosa.....	Boston.
Nitrate.....	1	3,350		Mejillones.....	Pensacola.
Nitrate.....	1	3,200		Caleta Colosa.....	New York.
Nitrate.....	1	3,000		Antofagasta.....	Baltimore.
Nitrate.....	1	925	190,931	Pisagua.....	Mobile.
Flour.....	4	24,882		Portland.....	New York.
Flour.....	1	7,785		Everett.....	New York.
Flour.....	1	10,400	43,067	Tacoma.....	New York.
Food products:					
Cold storage.....	2	11,373		Wellington.....	London.
Cold storage.....	1	8,000		Lyttleton.....	London.
Cold storage.....	1	8,000		Port Pirie.....	London.
Beans and canned g'ds	1	3,112	30,485	San Francisco.....	Baltimore.
Lumber.....	1	1,971		Portland.....	United Kingdom
Lumber.....	1	2,248		Seattle.....	Have.
Lumber.....	1	1,779		Victoria.....	London.
Lumber.....	1	1,865		Tacoma.....	Cuba.
Lumber.....	1	1,625	9,488	Gray's Harbor.....	New York
Lubricating oil.....	1		11,000	San Francisco.....	London.
Rice.....	1		7,900	Hongkong.....	Cuba.

LATIN-AMERICAN TRAFFIC.

Commercial vessels passing through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	29	131,530	86,237	100,324	Tons. 62,546
British.....	18	55,182	31,789	40,339	19,206
Chilean.....	6	18,378	11,468	14,918	2,174
Norwegian.....	5	29,710	18,727	23,457	23,700
Peruvian.....	4	17,085	9,104	9,841	2,030
Dutch.....	3	14,618	9,181	12,653	2,475
Italian.....	2	10,343	6,308	7,832	1,350
French.....	1	6,765	3,681	4,146	235
Danish.....	1	4,828	3,030	4,220	3,336
Japanese.....	1	3,390	2,044	2,480	.....
Total.....	70	290,629	181,569	220,440	117,052

Of the 70 vessels above, 28 were in ballast; 25 from United States ports; 3 from Cristobal, 2 from the United Kingdom, 2 from St. Lucia, and 1 from the Azores. Of the 42 laden vessels, 11 were from United States ports, 10 with 39,210 tons of general cargo, and 1 with 3,336 tons of coal; 17 from Cristobal with 11,078 tons of general cargo; 6 from Tampico, Mexico, with 47,093 tons of fuel oil; and 8 from European ports, with 11,835 tons of general cargo. One ship of 692 tons, Panama Canal net measurement, with 590 tons miscellaneous cargo, was bound from Cristobal to Champerico, Guatemala; the remaining 69 vessels being destined to South American west coast ports.

The Latin-American traffic from the west coast of Central and South America for March is classified in the following tabulation:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo Tons.
United States.....	33	125,687	83,907	96,895	140,540
British.....	18	44,273	23,718	35,029	36,783
Norwegian.....	7	33,739	21,582	23,923	28,601
Peruvian.....	5	20,246	10,787	12,971	11,643
Italian.....	3	11,647	7,324	9,311	10,500
French.....	2	11,606	7,251	8,322	13,300
Chilean.....	3	9,096	5,521	7,989	4,988
German.....	2	9,691	6,124	7,817	9,869
Japanese.....	1	8,134	5,046	5,900	11,400
Swedish.....	1	3,774	2,875	3,967	5,700
Spanish.....	1	3,482	2,490	2,615	5,042
Danish.....	1	2,858	1,692	2,459	4,550
Total.....	77	284,235	180,317	218,228	282,910

Five of the above vessels, 4 oil tankers and 1 schooner, were in ballast. Sixty-seven per cent of the total cargo consisted of nitrate. Four vessels with a total net tonnage of 5,345, Panama Canal net measurement, carrying 5,425 tons of cargo, were from Central American ports; the balance were from South American west coast ports.

The registry of the vessels engaged in this traffic for the month, the kind and quantity of the cargo handled, and its destination are shown in the tabulation following:

No. vessels	Registry.	Tons cargo.	Commodity.	Total commodity.	Destined to—
21	United States.....	98,033	Nitrate.....		United States ports.
1	United States.....	9,027	Nitrate.....		Belgium.
1	United States.....	8,175	Nitrate.....	115,235	United Kingdom.
4	United States.....	20,320	General.....		United States ports.
2	United States.....	2,572	General.....	22,892	Cristobal.
1	United States.....		Manganese ore.....	2,413	United States ports.
2	United States.....		Ballast.....		Mexico.
1	United States.....		Cable ship.....		Cristobal.
11	British.....	10,284	General.....		Cristobal.
5	British.....	26,404	General.....	36,785	United Kingdom
1	British.....		Ballast.....		Cristobal.
4	Norwegian.....	20,576	Nitrate.....		United States ports
1	Norwegian.....	8,025	Nitrate.....	28,601	France.
2	Norwegian.....		Ballast.....		Mexico.
4	Peruvian.....		General.....	6,233	Cristobal.
1	Peruvian.....		Nitrate.....	3,410	France.
2	Italian.....		General.....	8,875	Italy.
1	Italian.....		Sugar.....	1,625	Europe, port unknown
1	French.....		Nitrate and general.....	6,300	France.
1	French.....		Nitrate.....	7,000	France.
3	Chilean.....		General.....	4,986	Cristobal.
2	German.....		Nitrate.....	9,869	United Kingdom
1	Japanese.....		Nitrate.....	11,400	Belgium.
1	Swedish.....		Nitrate.....	5,700	Sweden.
1	Spanish.....		Nitrate.....	5,042	France.
1	Danish.....		Nitrate.....	4,550	United States ports.
77				282,919	

Sixty-two of the vessels passing through the Canal this month were under control of the United States Shipping Board; combining a total Panama Canal net tonnage of 223,657 and carrying 266,099 tons of cargo. Thirty were southbound with 106,654 tons of cargo; 32 were northbound with 159,445 tons of cargo.

PRINCIPAL TRADE ROUTES.

Separate statements attached to this report show the ports of origin and destination for all cargo through the Canal for the month (see pages 560 to 562, and 571); the tabulation below gives the distribution according to the principal trade routes.

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America.....	30	114,700	42,546	20	73,853
United States to Far East.....	25	128,613	188,651		

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage
<i>Atlantic to Pacific.—Continued.</i>					
Cristobal to west coast of South America	20	35,125	11,078	3	4,292
Europe to west coast of South America	10	34,535	11,835	2	2,534
United States to Australia and New Zealand	7	34,571	43,214		
Mexico to west coast of South America	6	31,730	51,593		
Europe to Australia and New Zealand	5	33,264	34,604		
Europe to west coast of United States	4	13,711	13,250	2	4,065
United States coastwise	3	6,104	7,650	1	1,325
Cristobal to west coast of United States	2	3,756	2,992		
St. Lucia to west coast of South America	2	216		2	210
Mexico to west coast of United States	1	5,341	9,500		
East coast of United States to British Columbia	1	5,256	9,127		
Azores to west coast of South America	1	2,286		1	2,286
Porto Rico to west coast of South America	1	1,828		1	1,828
Europe to Honolulu	1	1,237	1,843		
Cristobal to west coast of Central America	1	692	590		
Kingston, Jamaica, to west coast of United States	1	73		1	73
Total	121	455,058	428,473	33	90,519
(Two British cruisers with a displacement tonnage of 38,133 are not included.)					
<i>Pacific to Atlantic.</i>					
West coast of South America to United States	31	84,482	144,892		
West coast of South America to Europe	19	74,698	111,106		
West coast of South America to Cristobal	19	31,097	23,496	1	105
United States coastwise	9	34,681	56,532		
Australia and New Zealand to Europe	7	50,293	47,225		
West coast of United States to Europe	5	18,971	24,217		
British Columbia to Europe	5	12,456	15,073		
West coast of South America to Mexico	4	21,406		4	21,406
Far East to east coast of United States	3	14,426	17,251	1	5,052
West coast of Central America to Cristobal	3	2,960	2,679		
West coast of United States to Cristobal	2	4,369	3,951		
Australia and New Zealand to United States	1	5,246	8,810		
Far East to Cuba	1	4,623	7,900		
West coast of Central America to Europe	1	2,585	746		
West coast of United States to Cuba	1	1,976	1,865		
Panama to Port Limon, Costa Rica	1	25		1	25
Total	112	364,304	466,043	7	26,591

SERVICES TO CANAL SHIPPING.

Miscellaneous repairs were made at Balboa and Cristobal shops on 166 vessels during the month; 108 at Cristobal and 58 at Balboa; 22 vessels were drydocked; 10 at Cristobal and 12 at Balboa. Bunker coal in the amount of 41,236 tons was furnished to 146 commercial vessels; 35,214 tons to 124 vessels at Cristobal, and 6,022 tons to 22 vessels at Balboa. Forty-one ships were furnished a total of 98,148 barrels of fuel oil; 21 at Cristobal with 61,728 barrels, and 20 at Balboa with 36,420 barrels. There were 300 vessels supplied with 14,076,880 gallons of water; 194 at Cristobal with 11,349,880 gallons, and 106 at Balboa with 2,727,000 gallons. Sales of commissary supplies to commercial ships other than those of the Panama Railroad Steamship Line aggregated \$112,182.44, including \$3,490.30 for laundry service at Cristobal and Ancon laundries; these sales having been made to 189 vessels at Cristobal in the amount of \$78,578.74, and to 107 vessels at Balboa in the amount of \$33,603.70. Charges for tug service for vessels using the Canal and the terminal ports totaled \$28,757.05, of which \$16,518.75 was earned at Cristobal, and \$12,238.30 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Canal terminals are included in the following tabulation:

Item.	Cristobal.	Balboa.	Total
Commercial ships making transit of Canal	123	112	235
Net tonnage of commercial ships, Panama Canal measurement	455,058	364,304	819,362
United States equivalent net tonnage of commercial ships	378,991	301,045	680,036
Registered gross tonnage of commercial ships	583,485	472,134	1,055,619
Registered net tonnage of commercial ships	372,482	303,783	676,270
Cargo through Canal in commercial ships, tons of 2,240 pounds	428,473	466,043	894,516
Deck load cargo, included in above	429	2,477	2,906
Nationality of commercial ships through the Canal:			
British	*37	27	64
Chilean	6	3	9
Costa Rican		1	1

*Includes 2 British cruisers with a total displacement tonnage of 38,133.

Item.	Cristobal.	Balboa.	Total.
Nationality of commercial ships through the Canal—Continued.			
Danish.....	1	1	2
Dutch.....	3		3
French.....	1	6	7
German.....		2	2
Italian.....	2	3	5
Japanese.....	7	2	9
Norwegian.....	6	9	15
Peruvian.....	4	5	9
Spanish.....	1	1	2
Swedish.....	1	1	2
United States.....	55	51	106
Total.....	123	112	235
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	127,632	95,417	223,049
Chilean.....	14,918	7,989	22,907
Costa Rican.....		25	25
Danish.....	4,220	2,459	6,679
Dutch.....	12,853		12,853
French.....	4,146	15,335	19,481
German.....		7,847	7,847
Italian.....	7,882	8,311	16,193
Japanese.....	34,891	10,622	45,513
Norwegian.....	29,064	34,861	63,925
Peruvian.....	9,841	12,971	22,812
Spanish.....	1	2,615	2,615
Swedish.....	4,019	3,967	7,986
United States.....	205,392	161,883	367,275
Total.....	455,058	364,304	819,362
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	104,822	75,666	180,488
Chilean.....	10,930	4,927	15,857
Costa Rican.....		25	25
Danish.....	4,165	2,471	6,636
Dutch.....	10,266		10,266
French.....	3,600	13,273	16,873
German.....		6,090	6,090
Italian.....	6,526	7,226	13,752
Japanese.....	30,710	8,853	39,563
Norwegian.....	24,048	28,858	52,906
Peruvian.....	7,764	8,799	16,563
Spanish.....	1	2,236	2,236
Swedish.....	2,244	2,295	4,539
United States.....	173,916	140,326	314,242
Total.....	378,991	301,045	680,036
Registered gross tonnage of commercial ships through the Canal:			
British.....	167,913	119,543	287,456
Chilean.....	13,378	9,096	22,474
Costa Rican.....		30	30
Danish.....	4,828	2,858	7,686
Dutch.....	14,618		14,618
French.....	5,765	21,753	27,518
German.....		9,691	9,691
Italian.....	10,343	11,647	21,990
Japanese.....	46,238	14,099	60,337
Norwegian.....	36,803	45,002	81,805
Peruvian.....	17,055	20,245	37,301
Spanish.....	1	3,482	3,482
Swedish.....	3,745	3,774	7,519
United States.....	257,769	210,913	468,682
Total.....	583,485	472,134	1,055,619
Registered net tonnage of commercial ships through the Canal:			
British.....	103,819	76,969	180,788
Chilean.....	11,468	5,521	16,989
Costa Rican.....		25	25
Danish.....	3,030	1,692	4,722
Dutch.....	9,181		9,181
French.....	3,681	13,516	17,197
German.....		6,124	6,124
Italian.....	6,308	7,324	13,632
Japanese.....	29,268	9,303	38,571
Norwegian.....	23,206	28,121	51,327
Peruvian.....	9,104	10,787	19,891
Spanish.....	1	2,490	2,490
Swedish.....	2,858	2,875	5,733
United States.....	170,559	139,041	309,600
Total.....	372,482	303,788	676,270
Cargo carried by ships according to nationality:			
British.....	129,594	99,983	229,577
Chilean.....	2,174	4,980	7,154

Item.	Cristobal.	Balboa.	Total.
Cargo carried by ships according to nationality—Continued.			
Danish.....	3,336	4,550	7,886
Dutch.....	2,475		2,475
French.....	235	21,352	21,587
German.....		9,869	9,869
Italian.....	1,350	10,500	11,850
Japanese.....	46,891	19,697	66,588
Norwegian.....	32,000	31,976	63,976
Peruvian.....	2,030	11,643	13,673
Spanish.....		5,042	5,042
Swedish.....	4,950	5,700	10,650
United States.....	203,438	240,740	444,178
Total.....	428,473	466,043	854,516
Tolls levied against commercial ships, by nationality:			
British.....	\$148,267.20	\$94,509.70	\$242,776.90
Chilean.....	11,580.00	6,168.75	17,738.75
Costa Rican.....		18.75	18.75
Danish.....	5,064.00	2,950.80	8,014.80
Dutch.....	12,832.50		12,832.50
French.....	4,500.00	16,591.25	21,091.25
German.....		7,612.50	7,612.50
Italian.....	8,157.50	8,985.90	17,143.40
Japanese.....	37,187.80	11,066.25	48,254.05
Norwegian.....	29,099.71	30,498.20	59,597.91
Peruvian.....	8,633.75	10,998.75	19,632.50
Spanish.....		2,716.25	2,716.25
Swedish.....	2,805.00	2,868.75	5,673.75
United States.....	198,021.53	170,179.36	368,200.89
Total.....	\$166,148.99	\$365,155.21	\$831,304.20
Vessels passing through the Canal free of tolls:			
U. S. Navy destroyers.....	2		2
U. S. Navy collier.....	1		1
U. S. Navy minesweeper.....	1		1
U. S. Navy tug.....	1		1
U. S. Navy tankships.....	1	1	2
Merchant ship.....	1		1
Merchant ship with coal for U. S. Navy.....	1		1
U. S. Navy sub tender.....		1	1
Total.....	7	2	9
Total ocean-going ships passing through the Canal.....			
Launches through Canal.....	130	114	244
Net tonnage of above, Panama Canal measurement.....	2		2
Total vessels and craft passing through the Canal.....	16		16
Cargo on which no tolls were charged..... tons.	132	114	246
Commercial ships through Canal without cargo but not in ballast.....	34,298		34,298
Net tonnage of above, Panama Canal measurement.....	2	1	3
Displacement tonnage.....	38,133		38,133
Commercial ships through Canal in ballast.....	32	7	39
Net tonnage of above, Panama Canal measurement.....	88,691	26,591	115,282
Total commercial ships without cargo transiting the Canal.....	34	8	42
Displacement tonnage of 2 ships from Cristobal.....	38,133		38,133
Net tonnage of above, exclusive of the displacement tonnage above, Panama Canal measurement.....	88,691	27,266	115,957
Motor ships through the Canal.....	1	5	6
Net tonnage of above, Panama Canal measurement.....	69	9,731	9,800
Sailing ships through the Canal.....	2	3	5
Net tonnage of above, Panama Canal measurement.....	3,317	1,532	4,849
Yachts through the Canal.....	1		1
Net tonnage of above, Panama Canal measurement.....	73		73
Tolls levied on laden ships through the Canal.....	\$378,266.65	\$345,243.20	\$723,511.85
Tolls levied on ships in ballast.....	68,815.84	19,910.01	88,725.85
Tolls levied on displacement tonnage.....	19,066.50		19,066.50
Tolls levied on launches.....	15.60		15.60
Total tolls levied.....	\$456,164.59	\$365,155.21	\$831,319.80
Total ships entering port, including Canal transit.....	282	260	542
Total ships clearing port, including Canal transit.....	292	262	554
Total ships handled.....	574	522	1,096
Net registered tonnage of vessels entering port.....	890,593	759,668	1,650,261
Net registered tonnage of vessels clearing port.....	1,072,104	714,326	1,786,430
Total for vessels entering and clearing.....	1,962,697	1,473,994	3,436,691
Registered gross tonnage of vessels entering port.....	1,362,267	1,164,377	2,526,644
Registered gross tonnage of vessels clearing port.....	1,534,547	1,113,870	2,648,417
Total for vessels entering and clearing.....	\$2,896,814	\$2,278,247	\$5,175,061
Vessels entering port but not passing through the Canal.....	61	10	71
Net tonnage of above.....	164,037	16,972	181,009
Gross tonnage of above.....	274,871	24,276	299,147
Vessels clearing port but not passing through the Canal.....	66	12	78
Net tonnage of above.....	353,747	17,998	371,745
Gross tonnage of above.....	402,719	24,638	427,357

Item.	Cristobal.	Balboa.	Total.
Vessels passing through Canal and handling passengers or cargo at port, entering.....	32	48	80
Net tonnage of above.....	75,947	93,263	169,215
Gross tonnage of above.....	128,712	155,575	284,287
Vessels passing through Canal, and handling passengers or cargo at port, clearing.....	31	49	80
Net tonnage of above.....	70,022	91,704	161,726
Gross tonnage of above.....	118,635	153,842	272,477
Transit cargo arriving..... tons.	888,498	925,798	1,814,296
Transit cargo cleared..... tons.	853,415	910,884	1,764,299
Total transit cargo handled..... tons.	1,741,913	1,836,682	3,578,595
Local cargo arriving..... tons.	106,564	19,907	126,471
Local cargo shipped..... tons.	3,885	2,074	5,959
Total local cargo handled..... tons.	110,449	21,981	132,430
Cargo received for transshipment..... tons.	45,039	128	45,167
Cargo transhipped..... tons.	40,305	2	40,307
Total cargo arriving..... tons.	1,040,101	945,833	1,985,934
Total cargo cleared..... tons.	897,605	912,960	1,810,565
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	74,207	2,970	77,177
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	62,170	4,307	66,477
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.	1,609	209	1,818
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	137,986	7,486	145,472
Cargo stevedored, included in above..... tons.	68,808	4,211	73,019
Commercial vessels other than P. R. R., supplied with bunker coal..... tons.	120	21	141
Coal supplied above vessels..... tons.	34,581	6,019	40,600
Panama Railroad vessels supplied with bunker coal..... tons.	4	1	5
Coal supplied above vessels..... tons.	633	3	636
U. S. Army vessels supplied with coal..... tons.	4	1	5
Coal supplied above vessels..... tons.	182	2	184
Total vessels supplied with coal from Panama Railroad deposits..... tons.	128	23	151
Total coal furnished above vessels..... tons.	35,396	6,024	41,420
Coal supplied to P. R. R. departments..... tons.	1,016		1,016
Coal supplied Army, excepting vessels..... tons.	91		91
Coal supplied The Panama Canal..... tons.	1,938	975	2,913
Coal supplied individuals and companies..... tons.	402		402
Total coal furnished from Panama Railroad deposits..... tons.	38,843	6,999	45,842
Coal received during March..... tons.	52,759	94	52,853
Coal on hand April 1, 1920..... tons.	67,828	6,828	74,656
Coal on hand March 1, 1920..... tons.	53,912	13,733	67,645
<i>Coal, U. S. Navy Account.</i>			
Coal furnished U. S. Navy, including vessels..... tons.	9	1,753	1,762
Coal received during March..... tons.	13,264		13,264
Coal on hand, April 1, 1920..... tons.	41,871	15,227	57,098
Coal on hand, March 1, 1920..... tons.	28,616	16,980	45,596
Commercial vessels supplied with fuel oil from Panama Canal tanks..... tons.	18	19	37
Fuel oil sold to above vessels..... barrels.	44,407	29,656	74,063
Fuel oil sold to Panama Railroad vessels..... barrels.	17,321	6,764	24,085
Fuel oil issued to U. S. Navy..... barrels.	204	2,664	2,868
Fuel oil issued to U. S. Army..... barrels.	17,141		17,141
Fuel oil issued to Canal departments..... barrels.	6,998	34,828	41,826
Fuel oil delivered to individuals and companies..... barrels.		6,990	6,990
Total fuel oil furnished from Panama Canal tanks..... barrels.	86,071	80,902	166,973
Fuel oil received during the month..... barrels.	50,621	76,918	127,539
Fuel oil on hand, April 1, 1920..... barrels.	11,715	36,005	47,720
Fuel oil on hand, March 1, 1920..... barrels.	47,165	39,989	87,154
Other oil pumped for individuals and companies..... barrels.	384,960	58,369	443,329
Diesel oil on hand, April 1, 1920..... barrels.		1,396	1,396
Vessels supplied with water..... gals.	194	106	300
Water sold to ships..... gals.	11,349,880	2,727,000	14,078,880
Vessels on which miscellaneous repairs were made.....	108	58	166
Vessels drydocked.....	10	12	22
Commercial vessels furnished commissary supplies.....	189	107	296
P. R. R. vessels furnished commissary supplies.....	11	1	12
Other U. S. Government vessels furnished commissary supplies.....	21	16	37
Total vessels furnished commissary supplies.....	221	124	345
Commissary sales to commercial vessels:			
Ice.....	\$3,151.58	\$1,282.15	\$4,433.73
Wholesale groceries.....	18,688.07	5,073.70	23,761.77
Wholesale cold storage.....	49,886.99	24,676.16	74,563.15
Laundry.....	3,452.41	37.89	3,490.30
Miscellaneous.....	3,399.69	2,533.80	5,933.49
Total.....	\$78,578.74	\$33,603.70	\$112,182.44
Commissary sales to Panama Railroad vessels:			
Ice.....	\$132.00	\$2.40	\$134.40
Wholesale groceries.....	1,442.88	18.68	1,461.56
Wholesale cold storage.....	6,175.74	24.70	6,200.50
Laundry.....	1,192.69		1,192.69
Miscellaneous.....	348.19	.93	349.12
Total.....	\$9,291.50	\$46.77	\$9,338.27

Item.	Cristobal.	Balboa.	Total.
Commissary sales to other Government vessels:			
Ice.....	\$231.84	\$196.00	\$427.84
Wholesale groceries.....	2,382.98	12,530.89	14,913.87
Wholesale cold storage.....	12,332.40	9,996.87	22,329.27
Laundry.....	446.30	19.55	465.85
Miscellaneous.....	659.25	1,577.45	2,236.70
Total.....	16,052.77	24,320.76	40,373.53
Total commissary sales to all vessels.....	\$103,923.01	\$57,971.23	\$161,894.24
Passengers arriving, including transit passengers:			
First cabin.....	3,309	1,805	5,114
Other than first cabin.....	3,215	2,079	5,294
Total.....	6,524	3,824	10,408
Passengers departing, including transit passengers:			
First cabin.....	3,338	1,672	5,010
Other than first cabin.....	3,053	2,052	5,105
Total.....	6,391	3,724	10,115
Total movement of passengers.....	12,915	7,608	20,523
Passengers disembarking:			
First cabin.....	1,486	373	1,859
Other than first cabin.....	1,639	117	1,756
Total.....	3,125	490	3,615
Passengers embarking:			
First cabin.....	1,648	240	1,888
Other than first cabin.....	1,487	90	1,577
Total.....	3,135	330	3,465
Services to American seamen:			
Seamen shipped.....	230	120	350
Seamen paid off.....	115	241	356
Seamen deserted.....	16	5	21
Seamen deceased.....	1	1	2
Seamen lodged, subsisted, and repatriated.....	43	52	95
Wages of American seamen:			
Total amount earned.....	\$14,584.67	\$61,084.17	\$75,668.84
Deductions approved by Deputy Shipping Commissioners.....	5,122.74	21,359.80	26,482.54
Balance due seamen.....	\$9,461.93	\$39,724.37	\$49,186.30
Paid to seamen.....	1,691.16	37,467.05	39,158.21
Received on deposit for seamen.....	7,770.77	*2,807.32	10,578.09
*Includes immigration deposits of \$550.			
Services to American vessels:			
Crews shipped.....	1	.....	1
Crews paid off.....	1	.....	1
Shipping articles written.....	1	1	2
Marine notes of protest noted.....	27	13	40
Marine notes of protest extended.....	2	3	5
Bills of health issued.....	144	146	290
Clearances issued.....	163	137	300

LOCK OPERATION.

Lockages of commercial vessels for March were as follows:

	Number of lockages.			Number of vessels		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	90	113	203	112	127	239
Pedro Miguel.....	95	101	196	112	127	239
Miraflores.....	96	107	203	112	127	239

All lockages, including Army and Navy vessels, those of the Panama Railroad and The Panama Canal, are included in the following statement of lockages for March:

Lockages.	Gatun	Pedro Miguel.	Miraflores.
Commercial.....	203	196	203
Noncommercial, Army and Navy.....	6	6	6
Noncommercial, Canal equipment.....	12	26	17
Total.....	221	228	226
Vessels.	Gatun	Pedro Miguel.	Miraflores.
Commercial.....	239	239	236
Noncommercial, Army and Navy.....	20	22	24
Noncommercial, Canal equipment.....	26	55	47
Total.....	285	316	310

The total consumption of water for lockages during March was 1,541,890,000 cubic feet. The consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	836,130,000	705,760,000	726,590,000
Leakage.....	20,000,000	16,770,000	15,000,000
Maintenance.....		119,030,000	
Total.....	856,130,000	841,560,000	741,590,000

METEOROLOGY.

Although not the driest March of record, rainfall was generally below normal everywhere except along the Continental Divide where there was a slight excess totals ranging from 0.02 inch at Miraflores and Darien to 1.92 inches at the Chilibrillo station. The greatest daily precipitation recorded was 0.73 inch at Juan Mina on the 25th. The estimated rainfall over Gatun Lake watershed was 0.61 inch, compared with a 10-year mean of 0.81 inch; and 0.60 inch over the Chagres River basin above Alhajuella, compared with a 19-year mean of 1.08 inches. The Chagres River discharge at Alhajuella was 45 per cent below the 19-year March average, or 410 c. f. s. against a mean of 739 c. f. s., and furnished 69 per cent of the Gatun Lake total yield; the discharge this month being the second lowest of record for March, the minimum of 382 c. f. s. occurring in 1912; The maximum Chagres River March discharge for the 19 years of record was 1,625 c. f. s., in 1910.

The Gatun Lake watershed total yield was the lowest March yield of record, being 49 per cent below the 10-year mean, or 594 c. f. s. against a 10-year mean of 1,611 c. f. s. Although water consumption at the Gatun hydroelectric station was reduced to approximately 50 per cent of the usual draft by utilizing Miraflores steam plant for generating load, there was a decrease in Gatun Lake storage of 4,950,000,000 cubic feet for the month. This reduction in water consumption saved approximately 1,890,000,000 cubic feet for the month, equivalent to 0.4 foot on Gatun Lake. Due to the diminished total yield and the excessive evaporation for the month, the net yield was -385 c. f. s., the lowest of record for March. The maximum net yield for the month was 1,250 c. f. s. in 1911. The lake varied from a maximum elevation of 84.64 on the 1st to a minimum of 83.47 on the 31st.

Six slight seismic tremors were recorded during the month, on the 4th, 6th, 7th, 15th, 16th, and 20th. Two light shocks were felt at Balboa Heights and vicinity on the 15th and 18th, respectively; that of the 18th was of close origin, 53 miles distant as indicated by the seismograph trace, and while its rapid movement caused it to be generally felt, the amplitude was too small to cause any damage.

ELECTRICAL DIVISION.

Gatun hydroelectric station—There were no service interruptions at this station during the month. In order to conserve water supply in Gatun Lake, part of the load of this station was transferred to the Miraflores steam plant. Sufficient generating capacity was kept on the line at the hydroelectric station to carry the balance of regular load and handle load swings and peaks. The gross output of the station for the month was 2,504,200 KWH. on a computed water consumption of 2,118,014.900 cubic feet.

Miraflores steam plant—About 4,000 KW was transferred to this station. The gross output was 2,928,590 KWH. The oil consumption amounted to 16,988 barrels. The average net generated output per barrel of oil for the month was 169 KWH.

Total power output—The total gross output of both stations was 5,432,790 KWH, the total power distributed to consumers was 4,752,618 KWH. The total loss of power plant auxiliaries, transmission, and transformation was 680,172 KWH, or 12.5 per cent of the gross output.

Transmission line—There were no interruptions to service during the month. The painting of the towers was 95 per cent completed.

Substations—There were 9 interruptions occurring at the substations; 2 at Cristobal, 6 at Miraflores, and 1 at Balboa, aggregating a delay in service of 3 hours, 45 minutes. With the exception of one interruption of 30 minutes at the Cristobal substation, all were due to feeder troubles.

New construction work—The various items of new construction work handled by this division during the month had the status shown in the following statement, on March 31:

Substations.

	Per cent completed
Installation of new battery at Miraflores substation.....	98
Installation of 4 K-5 switches at Miraflores substation.....	57
Installation of 2 1,000-ampere, K-13 switches, Cristobal substation.....	55
Installation of new 8,400-KVA transformer and 3 new tie line equipments, Gatun substation...	8
Installation of 2 complete feeder equipments, Balboa substation.....	60

Northern District.

Installation of electrical equipment, Pier 6, Cristobal.....	90
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*No work done during month.

Marine work—This division repaired and installed miscellaneous electrical equipment on 62 vessels during the month; 33 at Cristobal, and 29 at Balboa.

Delays in progress on many of the items were due to lack of material on order, and in some instances to the fact that structures had not advanced to a stage permitting further electrical work.

The construction work performed for the Army and Navy is covered in a separate report. There were 351 work orders issued for work to be performed by the different sections of this division during March.

SHOP, FOUNDRY, AND DRY DOCK WORK.

Fires were lighted under the boilers of the steamship *Cristobal* for the first time on March 9. On the 10th various auxiliaries were tried out by steam. Dock trials of the main engines were made from the 11th to the 13th, and successful sea trials of the vessel run on the 21st. At the end of the month the ship remained at Balboa for unfinished work in the passenger spaces.

The oil-burning installation on the steamship *Acajutla* was completed, sea trial-run, and the ship turned over to the owners on the 19th. This ship was received at the Balboa plant on December 4, 1919. Extensive overhauling work on the Peruvian cruiser *Lima* and of the machinery of the *Western Cross* were in progress at Balboa during the month; the work on the *Lima* was completed.

The Mechanical Division, Balboa plant, rendered assistance in extinguishing the fire occurring on board the steamship *Olockson* on the 13th; cutting holes in the side of the hull for sinking the vessel and later making preparations for salvaging the cargo and vessel. This work was conducted on much the same lines as that on the steamship *Marne* originally sunk in Cristobal harbor on January 24, sinking again after being moored at the Cristobal docks, on March 6. Salvaging on both vessels progressed as rapidly during the month as conditions permitted. The *Olockson* with fire in her holds and above decks was towed from a point at sea off Morro Puercos beyond Cape Mala, to Changarme Rock in the outer harbor at Balboa and sunk there at a depth which left the decks awash at high tide. It was found extremely difficult to extinguish the fire from the cargo of gasoline, and hazardous as well. The ship was sunk at Changarme Rock on the 17th and despite all possible efforts the fire was not finally extinguished until the 21st. At the depth at which the ship lay, it was considered that with vigorous pumping she would float at high tide. It was necessary to have the cargo winches of the ship overhauled at the Balboa shops and also to replace her cargo booms, so that her own gear could be utilized in removing the cargo. This preparatory work consumed so much time that no cargo could be removed from the *Olockson* during March. Salvaging of the cargo of the steamship *Marne* at Cristobal was continued during the month, The Panama Canal performing the work and turning the salvaged material over to the ship's representatives on the Isthmus.

The concrete ship, *Cape Fear*, was repaired at the Cristobal shops. This involved unusual methods, as the damage had been sustained to the ship's side several feet below the water permitting leakage into the hold. The repair was effected by fitting and installing a cofferdam of wood. The damaged portion of the hull's side was cut out and after the installation of steel reinforcing rods, fresh concrete was poured. It was necessary to keep the cofferdam in place for 5 days after pouring to enable the concrete to reach the proper condition for carrying the water pressure against the ship's side. The Cristobal shops conducted the repairs to the steamship *C-34*, steamship *Jamaica*, and steamship *Colon*; these consisting of the overhauling of the main engines and auxiliaries, and calking of the hull of the *C-34*, the general overhauling of the engines and auxiliaries and repairs to the underwater part of the hull of the *Jamaica*, and reboring the low-pressure cylinder of the port main engine and making new piston and rod for the *Colon*. The engine and boiler repairs on the tugs, *Porto Bello*, *Tavernilla*, and U. S. Supply Boat *No. 1* were also completed at the Cristobal plant. In addition, the following vessels received miscellaneous repairs at Cristobal U. S. S. *Henshaw*, *McCauley*, *Moody*, *R-23*, *R-24*, *R-25*, *Undaunted*, Army transport *Northern Pacific*, and mineplanter *Grakam*; Panama Railroad vessels *Achilles*

Allianca, Ancon, Caribbean, General Ernst, General Gorgas, and Ulysses; commercial steamships *Abangarez, Aberdeen, Acajulla, Alberta, Alta, Ambridge, Astmacho III, Ayser, Baladan, Bologna, C-42, C-44, C-43, C-50, Cajacet, Calamares, Cauca, Cartago, Clackamas, Coulee, Delanson, Delft, Ecosse, Egremont, Eglantine, Guatemala, Haiti, Lake Cathoon, Lake Elkwater, Lake Festina, Lake Glasgow, Lake Licoco, Lake Lida, Lake Maurepas, Larne, Lorraine, Louvelle, Mantaro, Metapan, Mexico, Marshfield, Marne, Mulpua, Newport, Oriana, Poe, Peru, Port McAurrie, St. Andre, Santa Leonora, Sachiem, Sardegna, San Juan, Salmon, Steelmaker, Tampa, Tulsa, Texarkana, West Coyote, West Henshaw, Westmoreland, and Yarmouth*; schooners *W. H. Marston and Arabia*; yacht *Kemah*; tug *Engineer*; barges; air compressor barge *No. 20*, barges *Nos. 1 and 2, Arien*, and crane boat *La Valley*; launches *Activo, Capron, Cutter, Dixie, Mary B. Nard, Pequeni, Putnam, and Wilhelm*. Ten vessels were dry-docked at Cristobal, viz., *Jamaica, Poe, C-34, Cyrus W. Fields, Major A. G. Forse*, schooner *W. H. Marston*, tugs *Coco Solo* and *Supply Boat No. 1*, Panama Railroad barges *Nos. 1 and 2*.

In addition to those already mentioned, the following vessels were repaired at Balboa shops and dry dock: *U. S. S. McCauley, Moody, Scotia, Tacoma*, destroyer *Sinclair*, submarine chaser *V-12, R-275, and R-284*; commercial steamships *Ambridge, Anita, Benjamin Brewster, Caddo, Cantabria, Cheron, Clackamas, Cordelia, Coulee, cruiser Lima, Culburra, Diablo, Gen. H. F. Hodges, Grayson, Juneau, Kiyo Maru, Lady Sybil, Lake Capens, Lake Cathoon, Lake Fabyan, Lake Fibre, Lake Filbert, Lake Fitch, Lake Fithian, Lake Flymus, Lake Garza, Lake Stobi, Laura C. Hall, Orotina, Rosalie Mahoney, San Juan, Santa Paula, S. V. Harkness, West Cape, West Henshaw, Westboro, Westmoreland, and Woodara*. Twelve vessels were drydocked at Balboa, as follows: *U. S. S. R-27*; steamships *Benjamin Brewster, Cristobal, Lake Flymus, and Lady Sybil*; cable ship *Relay*; cruiser *Lima*, tugs *Empire* and *La Boca*; dredges *Cascadas* and *No. 86*; and Panama Railroad barge *No. 13*.

The output of the Mechanical Division in patterns, castings, and foundry production for March, as compared with the February production, is shown, as follows:

	March.			February.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron.....	34	3,157	94,371	55	1,687	58,893
Steel.....	50	1,383	55,439	19	773	32,006
Brass.....	44	1,036	9,460	48	2,357	21,533
Total.....	128	5,576	159,270	122	4,817	112,432

The ordinary monthly repair and maintenance work of the Mechanical Division included among other items the following:

Cars repaired.....	1,712
Locomotives and cranes repaired.....	973
Passenger coaches packed, cleaned, oiled, and inspected.....	3,589
Freight cars repacked.....	230
Locomotives hosted.....	1,642
Cranes hosted.....	246
Locomotives ridden.....	61
Locomotives inspected.....	69
Crews instructed in handling locomotives.....	16
Crews instructed in oil and fuel economy.....	27
Crews instructed in air brakes.....	15
Cranes, locomotive, inspected.....	25

BUILDING CONSTRUCTION.

The different items of construction by the Building Division during March are shown as follows with the status of completion at the end of the month as indicated:

	Per cent completed.
Moving 7 type-15 houses and 1 type-7 house, from Las Cascadas to Pedro Miguel.....	100
Installation of third unit, Gavilan Island incinerator.....	100
Colon stables:	
Four stables.....	109
One stable.....	80
One stable.....	60
Three wagon sheds.....	100
Two wagon sheds.....	25
One latrine.....	75
Feed room and quarters.....	70
Shop building.....	100
Deposit pits.....	95
Silver townsite, Mount Hope:	
Commissary.....	50
Eight married quarters.....	7
Two married quarters.....	60
Two married quarters.....	45

	Per cent completed.
Silver townsite, Mount Hope—Continued.	
Four married quarters.....	40
Two married quarters.....	35
Two married quarters.....	20
Cristobal incinerator.....	60
Combination shop and storehouse, Cristobal.....	5
Royal Mail Steam Packet Company's office, Cristobal:	
Excavation.....	95
Foundation walls for first floor.....	90
Rough plumbing.....	35
Moving 3 type-7 houses from Las Cascadas to New Cristobal.....	25
National Catholic War Council building, Balboa.....	5
Bake shop, work room, and storage room building, Ancon Hospital.....	5
Moving old police station from Las Cascadas to Gamboa.....	100
Converting old kitchen, Ancon Hospital, into family apartments.....	100
Converting Section F, Ancon Hospital, into family apartments.....	100
Converting different wards, Ancon Hospital, into family quarters:	
Ward 17.....	95
Ward 18.....	99
Ward 19.....	99
Moving building 210 and converting into maids' quarters.....	99
Playshed, Pedro Miguel.....	100
Playshed, Gatun.....	40
Field office, Paraiso, Dredging Division.....	100
Freight and rest room, Frijoles.....	100
Railroad station, Summit.....	25
Manufacturing 44,000 feet sectional drain tile.....	50

The construction work performed by the Building Division for the Army and Navy is separately reported.

DREDGING DIVISION.

The channel conditions in front of Cucaracha Slide, following the slide of February 22, improved daily during the first part of March due to the operations of the dredging fleet. On March 12 there was another movement of the slide. That night and the two days following approximately 120,000 cubic yards of material moved into the prism, reducing the channel to a minimum depth of 30 feet over a width of 75 feet along the west side of the Canal. Between this date and March 19 the channel was widened from the west prism to the center line, on which date a channel of 35 feet in depth, over a width of 150 feet was available.

On the 20th another movement occurred, when approximately 170,000 cubic yards of material moved into the Canal, reducing the channel to a minimum depth of 15 feet over a width of 60 feet. This closed the Canal to all shipping for 4½ days (March 21-24, inclusive). By the end of the month the channel extended from the west prism to the center line, a width of 150 feet, with a depth of 35 feet; while there still remained about 180,000 cubic yards in the prism between stations 1805 and 1814.

East and West Culebra Slides showed no movement during March. A small surface movement continued throughout the month at Barge Repair Slide.

The total excavation by dredges during March was 417,525 cubic yards, as follows

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment
	Earth.	Rock.			
<i>Cucaracha Slide.</i>					
(a) 20,200	8,100	12,100	Maintenance.....	1805-00 to 1813-00.....	<i>Cascaras.</i>
(a) 127,600	38,300	89,300	Maintenance.....	1805-00 to 1813-00.....	<i>Paraiso.</i>
(a) 116,000	46,400	69,600	Maintenance.....	1805-00 to 1813-00.....	<i>Gamboa</i>
<i>Pacific Entrance.</i>					
(b) 60,000	60,000	.....	Maintenance.....	2127-00 to 2102-00.....	<i>No. 83.</i>
(b) 13,900	13,900	.....	Maintenance.....	Opposite dock 6, Balboa.....	<i>No. 84.</i>
(c) 50,000	50,000	.....	Maintenance.....	Dock 6, reloader wharf, Balboa (P. 1-40).....	<i>No. 84.</i>
(c) 11,100	11,100	.....	Maintenance.....	Dock 7, unloader wharf, Balboa (P. 1-34).....	<i>No. 84.</i>
(d) 18,725	18,725	Sand. Gravel.	Aux. construction..	Chagres River gravel beds.....	<i>Marmoa.</i>
417,525	246,525	171,000			

(a) Gaillard Cut.

(b) Pacific entrance.

(c) Balboa inner harbor.

(d) Chagres River.

The material excavated was dumped as follows:

Gatun Lake north of Gamboa.....	242,300
Canal prism south of Cucaracha Slide.....	21,500
Flats west of Canal.....	135,000
Gamboa gravel plant.....	18,725
Total.....	417,525

Cu. yds.
242,300
21,500
135,000
18,725

The following excavation remained to be done on April 1:

Location.	Earth.	Rock.	Total.
	<i>Cu. yds.</i>	<i>Cu. yds.</i>	<i>Cu. yds.</i>
Gaillard Cut.....	25,000		25,000
Pacific entrance.....	50,500	86,900	137,400
Total Canal prism.....	50,500	111,900	162,400
Cristobal coaling station.....		2,100	2,100
Balboa inner harbor.....	116,850	13,400	130,250
Total, ocean to ocean.....	167,350	127,400	294,750

MUNICIPAL ENGINEERING DIVISION.

Northern District.

This division had the following items of construction work under way during March, with the progress on April 1 as shown:

	Per cent completed.
Grading, fill, and general municipal work for new silver townsite, Mount Hope:	
Fill and grading.....	100
Water lines.....	99
Streets and roads.....	99
Sewers, sanitary.....	92
Sewers, storm.....	98
Sidewalks.....	(*)
Municipal work, block 54, Colon.....	100
Municipal work between 6th and 9th and "G" and "K" streets, Colon:	
Roads.....	65
Grading.....	15
Water lines.....	75
Alleyways.....	55
Sanitary sewers.....	75
Storm sewers.....	(†)
Municipal work, New Cristobal townsite:	
Grading.....	15
Roads.....	15
Water lines.....	25
Sanitary sewers.....	65
Sidewalks.....	(*)
Two tennis courts, Gatun.....	60
Municipal work for west half, Colon stables:	
Grading.....	85
Roads.....	20
Water lines.....	95
Sanitary sewers.....	85
Road to new incinerator, Mount Hope.....	10

(*) Not started. (†) Started.

No work was done during the month on the ten 12-family silver quarters at Mount Hope.

Southern District.

	Per cent completed.
Storm sewer, Javillo fill.....	*99
Sewers, Northern Avenue to beach.....	99
Box sewer, Panama Railroad yards.....	30
Road from lumber shed to Diablo Hill.....	80
Demolition of Calidonia Bridge.....	50
Concreting Panama Tramway line, Calidonia crossing.....	5
Municipal work for 3 type-17 houses, Balboa.....	*60
Industrial track between buildings 8 and 14, Balboa shops.....	*99
Sewer and water lines for C. & S. A. Telegraph Company, Balboa.....	*90

(*) No work done.

Construction work performed by the Municipal Engineering Division for the Army and Navy is separately reported.

The total output of all pumping stations for March was 883,393,100 gallons; and that of the three filtration plants, 532,335,000 gallons. Panama City was furnished with 83,552,000 gallons, and Colon with 51,818,075 gallons. Sales of water to 300 vessels totaled 14,076,880 gallons.

The third unit of the Gavilan Island incinerator was completed and turned over to this division during the month for operation. There were 2,775 tons of garbage and 35 dead animals consumed at this plant in March.

WORKING FORCE.
(Effective March 24, 1920.)

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	35	42	77
Building Division.....	421	1,382	1,803
Electrical Division.....	261	401	662
Municipal Engineering Division.....	114	1,628	1,742
Lock Operation.....	167	585	752
Dredging Division.....	163	1,034	1,197
Mechanical Division.....	1,102	1,786	2,888
Marine Division.....	147	453	600
Fortifications.....	51	247	298
Total.....	2,461	7,558	10,019
Supply Department:			
Quartermaster.....	218	1,909	2,127
Subsistence.....	43	435	478
Commissary.....	322	1,594	1,916
Cattle Industry.....	32	838	870
Hotel Washington.....	11	98	109
Total.....	626	4,874	5,500
Accounting.....	249	10	259
Health Department.....	249	910	1,159
Executive Department.....	559	240	799
Total.....	1,057	1,160	2,217
Panama Railroad:			
Superintendent.....	80	550	630
Transportation.....	146	177	323
Receiving and Forwarding Agent.....	110	2,201	2,311
Coaling Stations.....	95	1,140	1,235
Total.....	431	4,068	4,499
Grand total.....	4,575	17,660	22,235

The total gold force on March 24 was 328 more than the 4,247 on February 4, and the silver force was 571 less than the 18,231 working on that date. As compared with the gold force for the corresponding period of last year, reported as of March 19, 1919, the present force is an increase of 1,028 over the 3,547 employed on that date, and the silver force 267 more than the 17,393 on the payrolls of the same date.

OCCUPATION OF QUARTERS.

The statement following shows the occupants by numbers, as classified, of Panama Canal and Panama Railroad quarters on March 31:

	Men.	Women.	Children.	Total.
Americans.....	3,713	2,233	2,595	8,541
Europeans.....	211	41	60	312
West Indians.....	4,843	1,543	2,963	9,349
Total.....	8,767	3,817	5,618	18,202

PUBLIC HEALTH.

There were 59 cases of malaria, 27 of which were nonresident, reported during March, with no deaths. There was an epidemic of influenza on the Isthmus during the month; 801 cases were reported, 29 of which were nonresidents; 50 deaths resulted for 21 of which the cause was given as influenza, and 29 as pneumonia. Effective March 14, all assemblages of more than 20 persons in the Canal Zone and terminal cities, were prohibited; this prohibition was lifted on March 28, leaving certain restrictions, however, on moving-picture theaters, and similar assemblage places. Two cases of smallpox, both nonresident, were reported. There were 63 cases of chickenpox reported. Five cases of typhoid fever were reported, 3 of which were nonresidents; 1 death occurred from typhoid fever.

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

Material ordered on United States requisitions was received during March in the total amount of \$546,820.66; February receipts were \$530,558.37. Of the March receipts, \$503,423.21 was chargeable to operation and maintenance; \$34,082.57 to construction and equipment; and \$9,314.88 to miscellaneous departments. Cash sales on the Isthmus from storehouses and obsolete store amounted to \$160,417.75, of which \$157,774.32 was for stock material, \$2,263.18 for scrap, and \$380.25 for obsolete and second-hand material.

The total sales of material from storehouses to steamships for March was \$133,509.-58, of which \$32,056.92 was for stock material, and \$101,452.66 for fuel oil. Sales of commissary supplies to all purchasers for March totaled \$1,078,280.66, made up as follows: To steamships other than United States Government vessels and those of the Panama Railroad Steamship Line, \$110,240.52; to The Panama Canal, \$153,439.20; to the United States Government, including the Army and Navy, \$193,781.12; to individuals and companies, mainly through charge accounts in the retail commissaries, \$25,614.04; to the Panama Railroad, including its steamships and the Hotel Washington, \$32,769.99; and to individuals purchasing coupons, \$562,877.87.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on March 31, exclusive of Fortifications, was \$13,624,043.66; the balance in Fortifications was \$5,647,407.22. Payments from appropriations made by the Disbursing Clerk, Washington, amounted to \$1,054,-353.17, and by the Paymaster on the Isthmus to \$1,496,340.48. Purchases of commissary books from the Panama Railroad Company amounted to \$355,532.22.

Collections of tolls on the Isthmus totaled \$831,411.05. Deposits of \$128,864.75 were made with the Assistant Treasurer of the United States in payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,689,538.83; and collections by the Disbursing Clerk, Washington, \$27,034.56. Receipts from Canal Zone and miscellaneous funds were \$234,-319.53; disbursements from the same source were \$240,124.53. March payrolls on the Isthmus aggregated \$1,333,885.74, as compared with \$1,234,831.34 for February, an increase for this month of \$99,054.40.

Respectfully,

CHESTER HARDING,

Governor.

Rebuilt "Cristobal" Sails with Cargo.

The steamship *Cristobal* of the Panama Railroad Steamship Line, which has been rebuilt by the Mechanical Division of The Panama Canal, sailed for New York on May 2, carrying 10,085 tons of cargo.

The *Cristobal* was sent to Balboa shops in May, 1919, for general reconstruction. Every part that was worn was replaced, from hull plates to railing around the deck. The system of coal-burning boilers was changed to oil burners, with a general reconstruction of the burner and boiler spaces. New boilers were installed, and all worn parts of the engines, main and auxiliary, replaced with new. The capacity for cold storage was increased to over 13,000 cubic feet. Passenger accommodations were renovated and increased; she can now accommodate approximately 150 first class passengers.

New smoking room, social hall, and dining room were built, and finished throughout in *caoba blanca* or the light mahogany of Panama. This is a kind of wood never used prior to 1917 and unknown commercially, outside of the local uses on the Isthmus and in the shops of the Canal. It possesses an unusual beauty in grain and color, and offers an excellent surface for the most artistic finish in cabinet work. Practically all of the ship above the main deck is entirely new.

The *Cristobal* is a ship of 9,332 gross tons, 489 feet 6 inches in length by 58 feet beam and 28 feet 10 inches depth. She was built in 1902 at Sparrows Point, Md., and purchased in 1909 by the Panama Railroad Steamship Line for \$850,000. To-day her value is estimated at around \$3,000,000.

After the completion of the installation of furnishings in New York, the *Cristobal* will go back on the run of the Panama Railroad Steamship Line between New York and the Canal Zone.

Distribution Among Ports of Cargo Passing Through the Canal From Pacific to Atlantic, March, 1920.

From—	Antwerp, Belgium.	Bordeaux, France.	Dunkirk, France.	Genoa, Italy.	Gibraltar, Spain.	Havre, France.	La Pallice, France.	London, England.	Liverpool, England.	Madrid, Spain.	Marseilles, France.	Rotterdam, Netherlands.	Sweden.	United Kingdom.	Baltimore, Md.
Antofagasta, Chile.....										3,410					3,000
Arica, Chile.....	11,400														
Buenaventura, Colombia.....															
Caleta Buena, Chile.....		5,042													
Callao, Peru.....															
Caleta Colosa, Chile.....								746							
Champetico, Guatemala.....									5,132						
Coquimbo, Chile.....															
Everett, Wash.....															
Gray's Harbor, Wash.....															
Guayaquil, Ecuador.....															
Hongkong, China.....			7,000												
Iquique, Chile.....															
Kobe, Japan.....															
Lyttelton, New Zealand.....								8,000					5,700	8,175	
Majilones, Chile.....			8,025												
Melbourne, Australia.....								12,931							
Molendo, Peru.....														1,971	
Pisagua, Chile.....															
Portland, Oreg.....															
Port Pirie, Australia.....								8,000							
Puntarenas, Argentine.....								5,297	5,438					2,413	
Salaverry, Peru.....															
San Francisco, Cal.....								11,000							3,112
Seattle, Wash.....			2,248									5,623			
Supe, Peru.....					1,625										
Singapore, Straits Settlements.....															
Sydney, Australia.....								6,921							
Tacama, Wash.....															
Talcahuano, Chile.....						6,300			9,791						
Taltal, Chile.....	9,027														
Tocopilla, Chile.....															
Tunao, Colombia.....															
Valparaiso, Chile.....				8,875											
Vancouver.....								9,876							
Victoria, British Columbia.....								1,779							8,810
Wellington, New Zealand.....								11,373							
Totals.....	20,427	5,042	8,025	8,875	1,625	8,548	7,000	75,923	20,361	3,410	3,418	5,623	5,700	10,146	17,335

Distribution Among Ports of Cargo Passing Through the Canal From Pacific to Atlantic, March, 1920.—Continued.

	Charleston, S. C.	Delaware River.	Galveston, Tex.	Mobile, La.	New Orleans, La.	New York, N. Y.	Norfolk, Va.	Pensacola, Fla.	Savannah, Ga.	Wilmington, Del.	Cristobal Canal Zone	Nipe Bay, Cuba.	Santiago, Cuba.	Total
Antofagasta, Chile.....	17,500				12,950		2,614							39,474
Arica, Chile.....														11,400
Buenaventura, Colombia.....					3,000			3,452			1,543			1,542
Caleta Buena, Chile.....											4,112			15,006
Callao, Peru.....						3,200				3,002	5,701			5,701
Caleta Colosa, Chile.....		8,158									3,510			17,870
Champerico, Guatemala.....											2,679			3,425
Coquimbo, Chile.....														5,132
Everett, Wash.....						7,785								7,785
Gray's Harbor, Wash.....						1,625								1,625
Guayaquil, Ecuador.....											5,072			5,072
Hongkong, China.....													7,900	7,900
Iquique, Chile.....	11,807				8,175	8,297	3,250		4,439		7,849			38,081
Kobe, Japan.....														8,000
Lyttelton, New Zealand.....														8,297
Mojilones, Chile.....							3,201	3,350		2,628				35,518
Melbourne, Australia.....														12,931
Milendo, Peru.....				925										2,532
Pisagua, Chile.....														6,194
Portland, Oreg.....						24,882								26,853
Port Pirie, Australia.....														8,000
Puntarenas, Argentine.....														13,143
Salaverry, Peru.....						3,043								3,043
San Francisco, Cal.....			3,375			9,028					3,951			30,466
Seattle, Wash.....														7,871
Super, Peru.....						8,954								1,625
Singapore, Straits Settlements.....														8,954
Sydney, Australia.....						10,400								6,921
Tacoma, Wash.....														12,265
Talcahuano, Chile.....					3,018							1,865		12,045
Taltal, Chile.....	7,007							4,550						7,612
Tocopilla, Chile.....														1,490
Tumaco, Colombia.....	3,062										1,490			23,053
Valparaiso, Chile.....					4,212	4,226					5,770			13,294
Vancouver, British Columbia.....														1,779
Victoria, British Columbia.....														20,183
Wellington, New Zealand.....														466,043
Totals.....	39,376	8,158	3,375	925	31,355	81,440	9,065	3,350	12,441	5,630	59,705	1,865	7,900	

Distribution Among Ports of Cargo Passing Through the Canal From Atlantic to Pacific, March, 1920.

From—	27,104	4,246	25,663	5,983	15,900	9,731	10,102	23,255	8,000	38,793	7,264	7,700	61,082	5,046	7,630	6,998	4,360
Amsterdam, Netherlands.....																	
Antwerp, Belgium.....																	
Baltimore, Md.....																	
Beaumont, Tex.....																	
Bordeaux, France.....																	
Boston, Mass.....																	
Cristobal, C. Z.....																	
Genoa, Italy.....																	
Gothenburg, Sweden.....																	
Liverpool, England.....																	
London, England.....	27,104																
New Orleans, La.....																	
Newport News, Va.....																	
New York, N. Y.....																	
Norfolk, Va.....																	
Philadelphia, Pa.....																	
Plymouth, England.....																	
Port Arthur, Tex.....																	
Sabine, Tex.....		4,246															
Savannah, Ga.....																	
Tampico, Mexico.....																	
Totals.....	27,104	4,246	25,663	5,983	15,900	9,731	10,102	23,255	8,000	38,793	7,264	7,700	61,082	5,046	7,630	6,998	4,360
From—																	
Amsterdam, Netherlands.....																	
Antwerp, Belgium.....																	
Baltimore, Md.....																	
Beaumont, Tex.....																	
Bordeaux, France.....																	
Boston, Mass.....																	
Cristobal, C. Z.....																	
Genoa, Italy.....																	
Gothenburg, Sweden.....																	
Liverpool, England.....																	
London, England.....																	
New Orleans, La.....																	
Newport News, Va.....																	
Peru.....																	
Callao.....																	
Salaverry.....																	
Guayaquil.....																	
Champerico.....																	
Honolulu.....																	
San Francisco, Cal.....																	
Vancouver, B. C.....																	
Viadivostok, Siberia.....																	
Total.....																	

(Continued on page 571, column 2.)

Luckenbach Coastwise Service to be Reestablished.

Advice has been received from the Luckenbach Steamship Co., Inc., that it will shortly establish a service between the Atlantic and Pacific coasts of the United States.

When the Canal was opened the Luckenbach Company became one of its most important users, operating principally in the United States coastwise trade, later in traffic to Australia and New Zealand and the Far East, but subsequently its vessels were transferred to the transatlantic trade, and by the autumn of 1917 the company's use of the Canal had practically ceased. In February, 1918, the *Hattie Luckenbach* made use of the Canal, and 2 years later, in February, 1920, the *Edgar F. Luckenbach* passed through on the way to Chile in ballast, returning through the Canal on March 9 with 11,807 tons of nitrate for Charleston. Details of the new coastwise service have not been given.

Six Passenger Steamers to Be Added to Genoa-Valparaiso Service.

The Transatlantica Italiana and the Societa Nazionale di Navigazione, with head offices in Genoa, announce that passenger service will be established in a short time over the route between Genoa and Valparaiso by way of the Canal. Six steamers, the *Cesare Battisti*, *Nazairo Sauro*, *Leonardo da Vinci*, *Giuseppe Mazzini*, *Francesco Crispi*, and *Ammiraglio Bettolo*, will be used in the passenger service.

Other vessels of these companies which have passed through the Canal to date have been the *Ansaldo SanGiorgio I*, *Ansaldo SanGiorgio II*, *Ansaldo SanGiorgio III*, *Nicolaos*, *Ansaldo I*, *Ansaldo III*, and *Ansaldo V*. The route is from Genoa via Marseilles, Barcelona, Cadiz, Tenerife, Trinidad, La Guaira, Puerto Cabello, Curaçao, Puerto Colombia, Cartagena, Cristobal, Balboa, Guayaquil, Mollendo, Arica, Iquique, and Antofagasta to Valparaiso. The homeward voyage is over the same course with calls in reverse order. Sailings definitely scheduled for the remainder of this year are for May 16, July 1, August 15, September 30, November 15, and December 30, from Genoa.

Completing Shipment of Old Canal Equipment to Alaska.

The steamship *Anyox*, with the barge *Baroda* in tow, cleared from Balboa for Anchorage, Alaska, in the afternoon of May 1, with full cargoes of railroad equipment for the Alaska Engineering Commission. The *Anyox* was loaded with 987 tons in 3,245 pieces, and the *Baroda* with 1,904 tons in 283 pieces, a total of 2,891 tons. This material was used in the construction of the Panama Canal and its terminals, and after being retired was placed in condition for sale. Six car bodies and 55 trucks, for Lidgerwood cars, loaded on the *Baroda*, were removed on account of making the deck load topheavy, and left behind; they are all that is left of the equipment destined to Alaska.

Examination for Panama Canal Service.

Board of Civil Service Examiners makes the following announcement:

On Sunday, May 16, 1920, there will be held an examination for the position of junior engineer in The Panama Canal service. The examination will be held in the board room of the Administration Building, and will begin at 9 a. m. This examination is open to all recorders, surveyors, and draftsmen.

For information concerning this examination, apply to the Secretary of the Local Board, Balboa Heights, C. Z. (telephone, Balboa 286).

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight May 1, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal Tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Ionic	24	17-52	25	6-10	2	17-35	25	18-32	British	White Star Line	500-0	63-0	31-0	Newport News	Auckland	General	7,500	12,852	9,590
Edisto	21	19-50	25	6-10	2	17-38	26	8-50	American	United States Shipping Board	410-0	54-0	16-7	Norfolk	Antofagasta	Coal	7,489	5,858	5,003
Ardayne	24	18-22	25	6-42	2	18-38	25	23-47	British	Walter Haysburn & Co.	304-0	50-0	23-4	Newport News	Mejillones	Coal	6,004	4,655	3,902
Paparoa	25	7-04	25	8-12	2	19-21	26	7-48	British	New Zealand Shipping Co.	439-0	51-0	26-8	Liverpool	Auckland	Coal	7,580	8,174	6,992
Hoyesan Maru	23	12-35	25	9-38	25	19-25	20-41	Japanese	Mitsui & Co.	407-0	51-0	26-1	Norfolk	Mejillones	Coal	7,203	6,178	4,440	
Koketikitui	25	6-22	25	10-26	25	20-03	27	10-55	American	United States Shipping Board	402-6	53-0	26-2	New York	Yokohama	General, gasoline	7,950	6,371	4,866
Wm. Henry	25	10-45	25	11-00	26	10-32	.....	.....	American	United States Shipping Board	400-0	54-0	24-6	New York	Yokohama	General	7,500	6,528	4,735
Webb	25	10-40	26	6-05	26	16-56	.....	.....	American	United States Navy	320-0	31-0	12-0	Cristobal	Balboa	.....	.....	441	105
Mahan	23	23-50	26	6-32	26	16-36	17-20	19-31	British	British Government	216-0	29-0	15-0	London	Iquique	General	349	1,241	759
Saint Faith (b)	14	21-45	26	8-57	26	18-30	26	19-30	British	Pacific Steam Navigation Co.	350-0	42-1	23-9	Cristobal	Cortizo	General	1,374	3,639	2,537
Manavi	21	18-19	26	9-25	26	18-24	26	19-13	Chilean	South American Steamship Line	320-3	42-1	26-0	Valparaiso	Valparaiso	General	9,000	6,690	4,971
Palena	26	16-13	27	6-25	27	18-09	27	18-51	British	C. T. Bowring & Co.	425-0	54-0	25-0	Tampico	Iquique	Fuel oil	3,484	7,449	5,414
Cordelia	26	16-13	27	9-12	27	17-49	29	15-20	British	Shaw, Saville and Albion Co.	81-0	25-0	9-0	Cristobal	Buenaventura	General	9	130	69
Kumara	24	19-45	27	9-50	27	18-25	27	7-29	British	Pacific Metals Corporation	406-5	51-0	22-0	New Orleans	Shanghai	Oil	6,644	5,967	4,321
Laura C. Hall	27	15-55	28	6-15	28	17-33	28	18-12	American	Anglo-Saxon Petroleum Co.	360-2	51-6	24-0	New York	Valparaiso	General	1,300	5,842	4,150
Nautica	20	21-05	28	9-42	28	16-37	28	18-41	British	W. R. Grace & Co.	350-4	42-0	18-3	Cristobal	Valparaiso	General	833	4,040	2,628
Santa Ana	27	6-17	29	6-05	29	18-31	29	19-24	French	Pacific Steam Navigation Co.	400-0	48-0	16-8	Bordeaux	Guayaquil	General	500	475	149
Chile	28	14-25	29	6-20	29	17-35	29	18-19	German	French Steamship Line	138-0	29-0	30-0	Hamburg	Antofagasta	General	12,500	9,943	7,530
Marvaland	28	14-25	29	6-20	29	17-35	29	18-19	British	German Government	460-0	62-8	14-3	Hamburg	Auckland	General	9,400	7,059	5,081
Achilles (b)	28	14-25	29	6-20	29	17-35	29	18-13	British	New Zealand Shipping Co.	164-0	29-0	27-9	Tampico	Tocopilla	Crude oil	7,059	5,081	1,602
Somerset	28	16-10	29	6-25	29	17-22	29	19-05	German	W. Wilhelmson	425-0	57-5	18-5	Tampico	Cristobal	General	2,852	1,602	.....
Arbat (b)	28	17-00	29	6-33	29	17-41	29	21-23	American	Pacific Mail Steamship Co.	283-0	37-0	18-5	Cristobal	San Francisco	General	6,17	1,187	.....
San Joaquin	28	17-54	29	8-20	29	17-24	29	21-23	American	Pacific Mail Steamship Co.	283-0	37-0	18-5	Cristobal	San Francisco	General	6,17	1,187	.....
San Jose	29	10-38	29	18-31	.....	.....	.....	.....	American	United States Navy	400-7	54-2	14-0	Norfolk	Balboa	.....	6,329	4,737	.....
S. C. 284	28	7-14	30	6-25	30	18-33	30	19-20	American	United States Shipping Board	400-7	54-2	14-0	Norfolk	Antofagasta	.....	6,329	4,737	.....
City of Alma	29	17-48	30	6-30	30	18-14	30	19-03	American	United States Shipping Board	401-7	54-6	23-3	Baltimore	San Francisco	Coal, general	8,000	6,928	5,102
Elkridge	28	12-53	30	7-18	30	17-03	30	17-50	American	United States Shipping Board	231-0	43-6	25-0	Norfolk	Mejillones	Coal	3,027	2,856	2,800
Lake Fansdale	29	16-16	30	7-40	30	19-02	30	19-53	American	United States Shipping Board	385-0	51-0	14-3	Norfolk	Iquique	Coal	5,945	4,524	.....
Eastern	27	9-35	30	7-54	30	17-45	.....	.....	American	United States Navy	315-0	35-0	12-0	Boston	San Diego	General	9,403	6,653	.....
Thornion (a)	30	12-25	1	6-14	1	17-37	1	20-12	Dutch	Royal Netherland Steamship Co.	460-0	32-0	17-0	Hamburg	Chile	General	9,403	6,653	.....
Almeo	27	20-13	1	6-25	1	16-29	1	20-27	British	Pacific Steam Navigation Co.	220-0	32-0	11-6	Cristobal	Buenaventura	General	617	1,187	.....
Jamaica	27	20-13	1	6-25	1	16-29	1	20-27	British	Pacific Steam Navigation Co.	220-0	32-0	11-6	Cristobal	Buenaventura	General	617	1,187	.....
City of Sher-	30	11-45	1	6-35	1	16-28	1	17-20	American	United States Shipping Board	400-7	54-0	14-0	Pensacola	Chile	General	6,539	4,708	.....
man	30	8-42	1	7-10	1	19-36	.....	.....	American	United States Navy	514-0	65-0	28-0	New York	San Diego	General, coal	9,730	11,365	6,346
Jason (c)	30	8-42	1	7-10	1	19-36	.....	.....	American	United States Navy	514-0	65-0	28-0	New York	San Diego	General, coal	9,730	11,365	6,346
J. A. Bostwick	1	7-00	1	8-25	2	18-03	.....	.....	American	Standard Oil Co.	465-2	60-0	28-0	Tampico	Balboa	Crude oil	8,497	7,443	5,545
S. V. Harkness	1	6-45	1	8-25	2	18-03	.....	.....	American	Standard Oil Co.	465-2	60-0	28-0	Tampico	Balboa	Crude oil	8,497	7,443	5,545
Point Lobos	30	5-50	1	11-03	1	19-06	1	20-03	American	Pacific Mail Steamship Co.	289-0	44-0	19-0	Baltimore	San Francisco	General	2,863	2,895	1,967

(a) Destroyer. (b) Tug. (c) Collier. (d) 8,000 barrels.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 1, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caribbean	Panama Railroad Cattle Industry.		April 25.		1
Palena	Chilean Steamship Line.		April 26.		1,383
Manavi	Pacific Steam Navigation Co.		April 26.		341
Atenas	United Fruit Co.	April 26.		63½	
Nubian	Leyland Steamship Line.		April 27.		1,282
Laura C. Hall	Pacific Metals Corporation		April 27.		9
Chile	Pacific Steam Navigation Co.		April 28.		883
Maryland	French Steamship Line.	April 27.	April 29.	222	(*)
San Jose	Pacific Mail Steamship Co.		April 29.		1,911
Saint Jean	French Steamship Line.	April 27.	May 1.	1,500	497
Cauca	Pacific Steam Navigation Co.	April 27.		1,045	
Jamaica	Pacific Steam Navigation Co.	April 27.	May 1.	802	617
Parismina	United Fruit Co.	April 27.	April 29.	1,392	124
Balboa	Colombian Maritime Co.	April 27.		617	
E. L. Doheny	Pan.-Amer. Pet. & Transp. Co.	April 27.	April 29.	9,000	(*)
Easterner	United States Shipping Board.	April 27.	April 30.	7,074	(*)
Gen. C. W. Goethals.	Panama Railroad Steamship Line.		April 30.		3,743
City of Alma	United States Shipping Board.	April 28.	April 30.	8,283	(*)
Caribbean	Panama Railroad Cattle Industry.	April 29.		400	
Abangarez	United Fruit Co.	April 29.	April 29.	329	10
Northern Pacific	United States Government.	April 29.		57	
Mantaro	Peruvian Steamship Line.	April 29.		1,899	
Guatemala	Pacific Steam Navigation Co.	April 29.		2,314	
Jason	United States Government.	April 30.	May 1.	11	(*)
Point Lobos	Pacific Mail Steamship Co.	April 30.	May 1.	201	145
Alliance	Panama Railroad Steamship Line.	May 1.		1,504	

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending May 1, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caoba*	Caoba Corporation.	April 10.	April 17.		804*
Pedro Christophersen.	Johnson Line.	April 21.	April 22.	221	
San Jose	Pacific Mail Steamship Co.	April 22.	April 23.	187	
Laura C. Hall	Pacific Metals Corporation.	April 23.	April 24.	19	
Marico	United States Army.	April 24.	April 25.	318	
Lady Sybil	International Petroleum Co.	March 15.	April 27.		44
Eelbeck	United States Shipping Board.	April 24.	April 26.	1,175	
Jamaica	Pacific Steam Navigation Co.	April 26.	April 27.	6	
Balboa	Colombia Maritime Co.	April 26.	April 27.	1	
Laura C. Hall	Pacific Metals Corporation.	April 27.	April 29.		23
Cauca	Pacific Steam Navigation Co.	April 26.	April 27.	1	
Kiyo Maru	Toyo Kisen Kaisha	April 28.	April 28.		91
Guatemala	Pacific Steam Navigation Co.	April 29.	April 29.	5	
San Jose	Pacific Mail Steamship Co.	April 29.	April 29.		26
Anoyx	Coastwise Steamship and Barge Co	April 19.	May 1.		987
Baroda	Coastwise Steamship and Barge Co	April 19.	May 1.		1,904
Point Lobos	Pacific Mail Steamship Co.	May 1.	May 1.	1	
Nika	Hodge Shipping Co.	May 1.	May 1.	4	

* Information unavailable for last report.

May Weather Probabilities.

The following weather conditions may be expected at the Canal entrances during the month of May, 1920. These predictions are based on the weather records at Cristobal and Balboa Heights for the last 12 and 14 years, respectively:

Winds—The first of May usually marks the beginning of settled rainy season weather. The trade wind belt moves northward at this season of the year and the wind force on the Isthmus is greatly lessened. Compared with April, there is a decrease in wind movement of approximately one-third. Although the prevailing wind direction continues from the north over the Atlantic side and from the northwest over the interior and Pacific side, the percentage of light and variable winds is greatly increased. The average hourly velocity for the month is about 8 miles at Cristobal and about 6 miles at Balboa Heights. A maximum velocity greater than 30 miles an hour is not likely, although higher velocities have occurred during thunder squalls.

Rain—Heavy rains may be expected on both coasts and over the interior. The monthly average rainfall at Cristobal is 12.60 inches and at Balboa Heights, 8.46

inches. About 22 days with rain (0.01 inch or more) may be expected on the Atlantic Coast and 20 on the Pacific Coast. The average number of days with 1 inch or more has been 2 on the Pacific Coast and 5 on the Atlantic.

Fogs—No fogs are likely to occur at either Canal entrance. Night and early morning fogs may be expected quite frequently over the interior. Most of these will be light, however, and will be dissipated before 8.30 a. m.

Temperature—The monthly mean temperature will average about 80° F. on both coasts. The mean daily range in temperature will probably be about 9° on the Atlantic Coast and about 14° on the Pacific Coast. On the Atlantic Coast no temperature higher than 91° nor lower than 71° may be expected while on the Pacific Coast 96° and 69° are the extremes of record.

Relative humidity—The relative humidity will average about 85 per cent on both coasts, but the daily range will be considerably greater on the Pacific side.

Storms—No general storms are probable, but thunder squalls may be expected at both Canal entrances. During these storms, comparatively high wind velocities may be attained, but the storms are of too short duration to cause a rough sea. The average number of days with thunderstorms on the Atlantic side is 12, and on the Pacific side, 14. Generally cloudy weather may be expected during the month on both coasts.

Tides—The tidal fluctuations on the Atlantic side are too small to affect navigation. Balboa tide predictions for May are given below. These are taken from *Tide Tables for 1920*, published by the Department of Commerce, Washington, D. C.

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.			
W.	Mo.					W.	Mo.					W.	Mo.				
S	1	2:33	8:38	2:49	9:08	W	12	4:23	10:33	4:59	10:59	S	23	1:23	7:47	1:58	8:08
		14.3	1.5	15.1	0.7			3.9	12.5	4.2	11.8			0.1	15.7	1.5	15.2
S	2	3:12	9:21	3:28	9:48	Th	13	5:20	11:37	5:56	.....	M	24	2:23	8:44	3:02	9:08
		14.5	1.3	15:2	0.4			3.8	13.0	3.6	.....			1.0	15.1	2.2	14.3
M	3	3:53	9:59	4:04	10:24	F	14	0:05	6:16	12:32	6:51	Tu	25	3:26	9:57	4:08	10:14
		14.6	1.2	15.2	0.3			12.4	3.3	13.9	2.7			1.9	14.5	2.6	13.6
Tu	4	4:31	10:37	4:40	10:59	S	15	0:59	7:12	1:21	7:43	W	26	4:28	10:55	5:10	11:28
		14.5	1.3	15.0	0.4			13.3	2.6	14.9	1.6			2.5	14.2	2.8	13.3
W	5	5:10	11:14	5:19	11:37	S	16	1:49	8:05	2:08	8:34	Th	27	5:24	11:59	6:11	.....
		14.3	1.6	14.6	0.8			14.3	1.7	15.8	0.5			2.9	14.2	2.8	.....
Th	6	5:50	11:50	5:55	.....	M	17	2:34	8:54	2:51	9:21	F	28	0:29	6:27	12:54	7:07
		14.1	2.1	14.2	.....			15.2	0.8	16.5	-0.5			13.4	3.1	14.3	2.5
F	7	0:13	6:29	12:28	6:32	Tu	18	3:23	9:42	3:39	10:07	S	29	1:22	7:22	1:41	7:59
		1.4	13.7	2.7	13.7			15.9	0.1	17.9	-1.2			13.6	3.0	14.6	2.1
S	8	0:51	7:09	1:10	7:12	W	19	4:12	10:28	4:29	10:54	S	30	2:09	8:11	2:23	8:44
		2.1	13.3	3.4	13.1			16.4	-0.4	17.2	-1.6			13.9	2.8	14.8	1.7
S	9	1:36	7:50	2:02	7:54	Th	20	5:03	11:17	5:21	11:40	M	31	2:50	8:56	3:01	9:25
		2.8	12.9	4.0	12.5			16.6	-0.4	17.1	-1.4			14.1	2.5	14.9	1.4
M	10	2:28	8:34	2:58	8:44	F	21	5:57	12:05	6:15	.....					
		3.4	12.6	4.4	12.0			16.5	0.0	16.6	.....					
Tu	11	3:23	9:30	3:59	9:47	S	22	0:29	6:52	12:57	7:10						
		3.8	12.4	4.5	11.7			-0.8	16.2	0.8	16.0						

The tides are placed in the order of their occurrence; the *times* of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The *elevations* of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Revision of Telephone Directory.

The copy for a revised telephone directory, to be issued as of June 15, 1920, will go to the printer June 1. All changes or corrections in the present directory should be forwarded to the Supervisor of Telephones, Balboa Heights, not later than June 1. Proof corrections will be made to June 6.

Sunshine and Cloudiness in the Canal Zone.

The degree of daytime cloudiness in the Canal Zone is less during the dry season than in the rainy season, but even in the dry season the sky is by no means cloudless, the average degree of daytime cloudiness being about 50 per cent of the sky obscured in the dry season and about 75 per cent of the sky obscured in the rainy season. There is not the intense unobstructed solar radiation in the Canal Zone that is experienced in dry sections of the United States. The cloudless skies so common in the semi-arid sections of the southwestern United States are practically unknown in the Canal Zone.

March is generally the month of minimum cloudiness in the Canal Zone, while June and November are usually the months of maximum cloudiness and least sunshine. The maximum *duration* of sunshine occurs during the dry season, usually in January, and the maximum *intensity* occurs in March or April.

The daytime cloudiness is somewhat greater in the interior and over the Pacific section than on the Atlantic side. The prevailing winds during the greater part of the year blow from off the Atlantic. These winds reach the Isthmus with water vapor mostly uncondensed, and therefore not visible as clouds. In crossing the Isthmus a large part of the water vapor carried by these winds is condensed and becomes visible as cloud, the most effective agents of condensation being the ascending air currents that develop over the excessively heated land surface and the upward deflection of the winds approaching and passing over the Continental Divide. Any increase in elevation of a mass of air, from whatever cause, results in a corresponding decrease in its temperature. When the temperature of the ascending air current has been lowered to the dew point, its invisible water vapor condenses and becomes visible as cloud.

NIGHT CLOUDINESS.

No actual records are available of nighttime cloudiness, but in general the cloudiness is much greater during the daytime than at night. This is especially noticeable during the dry season, when heavy cumulus clouds form regularly during the daytime, and as regularly disappear with the approach of night.

Over the interior night cloudiness often takes the form of fogs, which are numerous during the rainy season, but which usually lift or dissipate before 8.30 a. m. Few fogs occur along either coast in the vicinity of the Canal Zone.

During the rainy season, night and early morning cloudiness is heavier along the Atlantic Coast, where approximately half of the total rainfall occurs during the nighttime.

MONTHLY EXTREMES.

The maximum monthly daytime cloudiness recorded during any one month of the past 12 years was 93 per cent at Colon in July, 1915, and the least average monthly cloudiness was 30 per cent at Balboa Heights in February, 1918.

The maximum duration of sunshine recorded during any one month was 89 per cent of possible at Balboa Heights in January, 1915; and the least duration of sunshine for any month was 15 per cent at Balboa Heights in May, 1913.

PREVAILING CLOUD TYPES.

The cumulus form of lower clouds are most numerous during the dry season and the strato-cumulus, stratus and nimbus forms during the rainy season. All of the common types of upper clouds are well represented throughout the year, but in the rainy season they are frequently obscured by the lower clouds.

COMPARISONS.

Compared with conditions in many sections of the United States, cloudiness in the Canal Zone is relatively heavy, especially during the rainy season; but prevailing rainstorms usually are of short duration, followed by clearing weather and sunshine and the cloudiness is so broken and intermittent that there are very few days with *no sunshine*. But when general storms visit the Isthmus (such as "northers") there may be periods of 2 or 3 consecutive days with the sun entirely obscured.

The average number of days *without sunshine* during the past 12 years has been about 12 per year on the Pacific side and 10 on the Atlantic side. The longest consecutive period of authentic record in the Canal Zone without sunshine is about 4 days.

The average number of clear days per year has been 36 at Balboa Heights and 54 at Colon; partly cloudy days 172 at Balboa Heights and 166 at Colon; and cloudy

days 157 at Balboa Heights and 145 at Colon. A clear day being one with average cloudiness of 3 tenths or less; partly cloudy from 4 tenths to 7 tenths; and cloudy 8 tenths or more.

The following table shows average monthly conditions of cloudiness and sunshine in the Canal Zone:

AVERAGE MONTHLY CLOUDINESS AND PERCENTAGE OF POSSIBLE SUNSHINE,

	Cloudiness—Per cent of sky obscured.			Sunshine—Per cent of possible.	
	Balboa Heights. (Pacific Coast.) (13 years.)	*Culebra. (Interior.) (7 years.)	Colon. (Atlantic Coast.) (11 years.)	Balboa Heights. (Pacific Coast.) (12 years.)	Colon. (Atlantic Coast.) (12 years.)
January.....	47	49	46	75	73
February.....	51	50	47	71	71
March.....	53	47	45	68	72
April.....	65	63	54	50	65
May.....	78	77	72	36	48
June.....	81	81	74	34	44
July.....	74	80	75	39	44
August.....	77	78	75	36	47
September.....	75	77	72	40	53
October.....	75	79	72	41	47
November.....	73	80	75	42	44
December.....	60	61	58	59	59
Year.....	67	68	64	49	56
Dry season.....	54	52	48	66	70
Rainy season.....	74	77	72	41	48

*Station closed in 1914.

Cloudiness records are from bi-hourly eye observations. Sunshine records are from automatic electric sunshine recorders.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

- Research assistant (male and female); \$1,500 a year; June 9, 1920; form 1312; age, 21 years but not 35 years.
- Specialist in agronomy (male and female); \$1,800 to \$2,400 a year; May 25, 1920; form 2118; age, under 45 years.*
- Architectural designer (male); \$2,250 to \$3,000 a year; June 1, 1920; form B. I. A. 2 (of November, 1916); age, 25 years but not 40 years.*
- Estimator and specification writer (male); \$2,250 to \$3,000 a year; June 1, 1920; form B. I. A. 2 (of November, 1916); age, 25 years but not 40 years.*
- Specialist in science teaching (male and female); \$3,500 a year; May 25, 1920; form 2118; age, 30 years and over.*
- No. 184-amended. This announcement cancels announcement No. 129, issued February 13, 1920, of examination for F-1 addressograph operator and automatic 3 addressograph operator.
- Automatic 3-A addressograph operator (male and female); Grade 1, \$1,200 to \$1,500 a year; No. 184-amended; May 19 and July 7, 1920; form 304; age, 18 years and over.
- Automatic 3-A addressograph operator (male and female); Grade 2, \$1,500 to \$1,800 a year; No. 184-amended; May 19 and July 7, 1920; form 304; age, 18 years and over.
- Agent for agricultural education (male and female); \$3,000 to \$3,500 a year; No. 275; May 25, 1920; form 2118; age, under 50 years.*
- Assistant engineer (male and female); \$1,500 to \$2,000 a year; No. 2129-amended; August 2, 1920; form 1312; age, 25 years and over.*
- Junior engineer (male and female); \$1,200 to \$1,500 a year; No. 2129-amended; August 2, 1920; form 1312; age, 20 years but not 35 years.*
- Assistant observer, Weather Bureau (male and female); \$1,080 a year; No. 266; May 19 and July 21, 1920; form 304; age, 18 years but not 35 years.
- Dairy husbandman (male and female); \$2,000 to \$3,000 a year; No. 257; May 25, 1920; form 2118; age, 21 years but not 50 years.*
- Draftsman, architectural, and structural steel (male and female); \$1,560 a year; No. 276; May 25, 1920; form 1312; age, 18 years but not 45 years.*
- Expert driller (male and female); \$2,000 to \$3,600 a year; No. 162-amended; May 11, 1920; form 2118; age, 25 years but not 45 years.*
- Gas expert (male and female); \$3,600 a year; No. 263; May 25, 1920; form 1312; age, within reasonable age limits.*
- Highway economist (male and female); \$1,800 to \$3,000 a year; No. 258; May 25, 1920; form 2118; age, under 45 years.*
- Insect delineator (male and female); \$1,400 to \$1,800 a year; No. 269; June 9, 1920; form 1312; age, under 50 years.
- Legal assistant (male and female); \$2,400 to \$4,500 a year; No. 270; June 1, 1920; form 2118; age, 25 years but not 55 years.*

- Market milk specialist (male and female); \$2,000 to \$3,000 a year; No. 259; May 25, 1920; form 2118; age, under 45 years.*
- Assistant market milk specialist (male and female); \$1,500 to \$1,980 a year; No. 259; May 25, 1920; form 2118; age, under 45 years.*
- Special investigator (male and female); \$2,400 a year; No. 253; May 18, 1920; form 1312; age, within reasonable age limits.*
- Supervising metallurgist (male and female); \$4,000 to \$5,000 a year; No. 265; May 25, 1920; form 2118; age, under 50 years.*
- Computer and designer of heating and ventilating work (male and female); \$1,440 a year; June 8, 1920; form 1312; age, 20 years and over.
- Expert aid (optical) (male and female); \$2,400 to \$3,000 a year; June 8, 1920; form ; age, under 45 years.†
- Multigraph operator (male and female); \$1,100 a year; June 9, 1920; form 304; age, 18 years and over.
- Preparator in nematology (male and female); \$660 to \$1,100 a year; June 9, 1920; form 304; age, 18 years and over.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
James Black.....	49878	Jamaica.....	Panama.....	Supply Department....	April 5, 1920.
George Dickson (Dixon).....	36010	Jamaica.....	Panama.....	Building Division.....	April 13, 1920.
Frederick E. Goree....	1139	United States....	Balboa.....	Supply Department....	January 17, 1920.
Jose Salazar.....	47087	Guatemala.....	Panama.....	Building Division.....	April 9, 1920.
Henrique Bonilla.....	44993	Panama.....	Panama.....	Cattle Industry.....	April 9, 1920.
Antonio Alvarez.....	23369	Colombia.....	Camp Bied.....	Coaling station.....	April 17, 1920.
Juan Arrevalo.....	48069	Venezuela.....	Camp Bied.....	Panama Railroad.....	April 24, 1920.
Verdun Felix.....	22142	Martinique.....	Panama.....	Panama Railroad.....	April 22, 1920.
Melrose Fenton.....	37066	Jamaica.....	Panama.....	Mechanical Division....	April 25, 1920.
Alonso Gomez.....	35748	Colombia.....	Colon.....	Mechanical Division....	April 23, 1920.
Benjamin Morrison....	29441	Jamaica.....	Colon.....	Panama Railroad.....	April 22, 1920.
Manuel Mora.....	42426	Colombia.....	Camp Bied.....	Panama Railroad.....	April 27, 1920.
Solomon Martin.....	25389	Antigua.....	Colon.....	Panama Railroad.....	April 29, 1920.

Official Circulars.

Revised Travel Regulations.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., April 23, 1920.

To all concerned—This office is advised that there is some misunderstanding of the provisions of my circular of April 8, 1920, "Revised Travel Regulations," and to correct this misunderstanding the following is stated for the information and guidance of all:

The provisions of "Revised Travel Regulations" circular of July 19, 1919, requiring hostile aliens to procure special permits, on applications at the police stations at Balboa or Cristobal, to depart from the Canal Zone, are repealed by the provisions of the Executive Order of the President of February 20, 1920, when such hostile aliens are departing for European ports. However, only departures from the Canal Zone for European ports were intended to be covered by the law; and those hostile aliens arriving at Canal Zone ports for transit of the Canal or the Canal Zone are not relieved from the requirement that they should have in their possession and submit to the appropriate authorities passports properly visaed by the American Consular officer at the port of departure for the Canal Zone.

CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 16, 1920.

CIRCULAR No. 238:

Effective April 19, 1920, Mr. George Cartwright is designated an accountable official of The Panama Canal, vice Capt. Frederick Kariger, and as such will account for all nonexpendable property in use by the Lighthouse Subdivision.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Steamship Transportation.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 30, 1920.

To all concerned—Owing to the increasing steamship passenger traffic and demand for accommodations for employees and their families entering upon leaves of absence, it is necessary to temporarily discontinue the issuance of reduced rates to nondependent relatives of employees from New York to Cristobal via the Panama Railroad Steamship Line.

This arrangement will remain in effect until further notice (in all probability about 5 months).
By direction of the Governor.

C. A. McILVAINE, Executive Secretary.

Use of \$1.50 Tickets.

PANAMA RAILROAD COMPANY,
OFFICE OF AUDITOR,

BALBOA HEIGHTS, C. Z., May 1, 1920.

CIRCULAR R. A. 687 (Amendment to circular R. A. 684.

1. The return portion of special \$1.50 tickets should be honored for transportation up to the last train leaving terminal May 1, 1920.

2. The return portion of the U. S. tickets (S) now in the hands of civilians should be honored to the date of expiration which is 10 days after the date of sale as indicated by station stamp.

3. Civilians boarding trains at nonagency stations or when stations are closed, must have mileage or pay full fare.

4. Persons in the U. S. military and naval service when in uniform or holding proper identification, when boarding trains at nonagency stations, or when stations are closed, will be allowed one-half of tariff rates.

5. Persons in the U. S. military and naval service (properly identified as per paragraph 4), purchasing tickets at stations when no U. S. tickets are provided, will be furnished simplex tickets at one-half of tariff rate. These simplex tickets are to be stamped "Employee's rate" and will be honored from military and naval service men only.

6. No one-half rate requests will be honored under any circumstances.

H. A. A. SMITH,

Auditor, The Panama Canal.

Approved and compliance directed.

S. W. HEALD,

Superintendent.

Acting Architect.

THE PANAMA CANAL,

DEPT. OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., April 24, 1920.

All concerned—Mr. Meade Bolton is appointed acting architect during the period Mr. S. M. Hitt, architect, is on leave of absence. Effective this date.

T. C. MORRIS, Resident Engineer.

Examination for Junior Engineer.

THE PANAMA CANAL,

EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., April 27, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

An examination for junior engineer in The Panama Canal service is hereby announced to be given at Balboa Heights, Canal Zone, in the board room of the Administration Building on Sunday, May 16, 1920, beginning at 9 a. m. Five hours will be allowed for completing the examination.

According to Circular 603-13, all promotions to the grade of junior engineer shall be made by selection from an eligible list established by means of an examination held by the Local Board of Examiners for the promotion of recorders and surveyors. This examination will include the following subjects:

1. Mathematics.
2. Surveying.
3. Design and construction.

The weights to be given these subjects will be decided at later date, but the applicants will be given this information before beginning the examination.

The board will endeavor to make this examination as practical as possible to the work of The Panama Canal by incorporating in the examination questions made up from suggestions by the heads of the various departments and divisions who employ engineers.

This examination is open to all recorders, surveyors and draftsmen now in the service of The Panama Canal.

Application to take this examination should be made to the Secretary of the Local Board at Balboa Heights, from whom further detailed information may be obtained relative to this examination.

Local Board of Examiners.

A. WILSON, Secretary.

Telephone No. 5.

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, March, 1920.—Continued from page 562.

From—	Pisagua, Chile.	Talahuano, Chile.	Talca, Chile.	Toopilla, Chile.	Valparaiso, Chile.	Buena Ventura, Col.	Callao, Peru.	Salaverry, Peru.	Guayaquil, Ecuador.	Balboa Canal Zone.	Champerico, Guatemala.	Honolulu, Hawaii.	San Francisco, Cal.	Vancouver, B. C.	Vladivostok, Siberia.	Total
New York, N. Y.																165,017
Norfolk, Va.																10,277
Philadelphia, Pa.																8,000
Plymouth, England.																9,900
Port Arthur, Tex.																1,843
Sabine, Tex.																4,246
Savannah, Ga.																19,507
Tampico, Mexico.	16,393		9,700							11,500			9,500			12,203
Totals.	16,393	9,030	9,700	3,500	19,769	3,637	4,655	3,000	2,880	11,500	500	1,843	33,392	9,127	8,000	428,473

Hotel Aspinwall Launch Schedule.

Following is the schedule of launch service maintained by the Supply Department between Balboa and the Hotel Aspinwall on Taboga Island:

Daily.

Leave Port Captain's boat landing, near dock 19.....	10.00 a. m.
Leave Taboga.....	8.00 a. m.

Sundays and Holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	4.30 p. m.
Leave Taboga returning.....	6.00 p. m.

Saturdays and days preceding holidays.

Leave dock 19, Balboa.....	10.00 a. m.
Leave Taboga returning.....	11.30 a. m.
Leave dock 19, Balboa.....	6.00 p. m.
Returning from Taboga the following day.....	8.00 a. m.

Fares (each way)—Employees, 35 cents; nonemployees, 60 cents; children of employees over 6 and under 12 years old, 25 cents; of nonemployees, 40 cents.

Hotel patrons desiring to send trunks should arrange to have them delivered at the launch landing by 9.30 a. m., addressed to themselves, care of Hotel Aspinwall. Freight will be transported on the a. m. trip on Mondays, Thursdays, and Saturdays.

For further information address Manager, Hotel Aspinwall, Taboga, via Balboa, C. Z.

COMMISSARY NOTES.**Music.**

Popular music compositions have recently been received from New York and are being sold in all commissaries.

Electric Irons.

A shipment of electric irons, which have been out of stock for a long time, has been received and placed on sale at all commissaries.

Silk Dress Goods.

A shipment of silk dress goods from an American exporter of established reputation has recently been distributed to the line stores. In this lot were received silk and wool brocade, radium silk, indestructible voile, and silk-knit jersey de lux.

Prices.

Commissary patrons are requested to pay no attention to rumors of a general advance in prices. Such rumors are absolutely without foundation and patrons are assured that prices will continue to reflect purchases at the best terms obtainable in the world's markets.

Linens.

There is being offered for sale at Balboa, Cristobal, Gatun, and Pedro Miguel commissaries, a shipment of Madeira hand-embroidered linens recently received from abroad. Among the items of particular interest may be mentioned a range of 36", 45", 54", and 72" square tea cloths in several different patterns and 12" x 12" tea napkins, likewise in assorted patterns. Besides, there are round centerpieces, round doilies, oval doilies, and Dutchess dresser sets which are considered very good values.

Tobacco.

It was recently necessary to withdraw from sale a popular brand of chewing tobacco which had become moldy, besides which a large consignment of another favorite was damaged at sea and never received. This naturally caused the consumption of other brands to increase so that the Commissary Division is practically out of stock of all brands. Accidents like this cause serious embarrassment as it must be borne in mind that only limited stocks can be carried on account of climatic conditions, and deliveries from the States are most uncertain these days. It is expected that the line will be complete shortly.

COMMISSARY NOTES.

Woolens.

A very good line of woolens was recently received from the United States and distributed to the five large commissaries and the Ancon tailor shop. Numbers of especial interest are the tropical weight worsteds in plain and fancy patterns.

Collars.

A variety of styles in stiff and soft collars, at 11 cents each, have been placed on sale at all commissaries except Gamboa and Culebra. The styles offered have been discontinued as regular items and there is not a full run of sizes in all of the styles, but for those who can be fitted rare values can be obtained.

Citrate of Magnesia.

Citrate of magnesia, a mild laxative prepared in the industrial laboratory and carried as a cold storage item, is now available at all commissaries at 26 cents per bottle, 5 cents being allowed for the return of the bottle. It is prepared with the approval of the Health Department and the necessary precautions have been taken to keep it fresh at all times.

Enamel Ware.

The commissary purchasing agent advises that the enamel ware situation is getting worse every day. One of the bidders for supplies on a commissary requisition wrote recently: "We are accepting orders only subject to price changes and to take prices in effect when shipments can be made, which will be at least six months from time orders are received at the factory."

Coloring.

Household coloring solutions for coloring cakes, jellies, ice creams, ices, beverages, etc., are now on sale at the commissaries. They are put up in the industrial laboratory and are guaranteed to conform to the requirements of the National Food and Drug Act, enacted June 30, 1906. The following colors are available at 15 cents each for a 4-ounce bottle: Strawberry red, orange, lemon yellow, burnt sugar brown, brilliant green, and chocolate brown.

Books.

A small shipment of popular juvenile books to sell at 53 cents each has been received and distributed to the line stores. Commissaries are also offering at 85 cents each reprints by well-known authors. There are 17 volumes by Robert W. Chambers, and other novelists represented are George Barr McCutcheon, Samuel Hopkins Adams, Owen Wister, Sophie Kerr, B. M. Bower, and Anna Katherine Green.

"Penrod," by Booth Tarkington; "Commy," by Axelson; "We need the business," by Joseph C. Austrian; "Admirable Crichton," James M. Barrie; "Complete works of Richard Harding Davis;" "A Man for the Ages," by Irving Bacheller; "The Young Visitors," by Daisy Ashford; "Tales of Three Hemispheres," by Lord Dunsany; "Polished Ebony," by Octavus Ray Cohen; "How to Run an Automobile," by Page; "Tom Sawyer Abroad," by Mark Twain.

"Save-Money-on-Meat" Week.

The campaign announced by the Department of Justice to fight the high cost of living by popularizing the least expensive meat cuts (forequarter meat especially) was recently opened in nine States with a "Save-Money-on-Meat" week. The following schedule was suggested for the week:

	Choice.	Alternate.
Monday.....	Beef stew.....	Liver.
Tuesday.....	Pot roast.....	Ox tails.
Wednesday.....	Soup meat.....	Beef hearts.
Thursday.....	Lamb stew.....	Chopped meat.
Friday.....	Veal stew.....	Sausage meat.
Saturday.....	Corned beef.....	Chuck roast.

THE PANAMA CANAL RECORD

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Volume XIII. Balboa Heights, C. Z., May 12, 1920. No. 39.

Three Ships in the Balboa Dry Docks at the Same Time.

The photograph reproduced on page 579 shows three ships dry-docked together at Balboa, the Pacific terminus of the Panama Canal. The total length of the three ships is 968 feet. The dry dock is 1,000 feet long by 110 feet wide, with a depth of 45 feet over the keel blocks at high tide, and can accordingly accommodate the largest ships in the world.

The ship nearest the reader is the *Lake Fitch*, 262 feet long and of 2,939 gross tons. She had her hull cleaned, repaired, and painted, and repairs made to her boilers and main engines, propellers, stern tube, tail shaft, steering gear and rudder, auxiliary machinery, sea valves, and forepeak tank.

The *Lake Garza*, 261 feet, 2,482 tons, is in the center. Work on her included hull repairs, cleaning and painting, repairs to feed and bilge pumps, sea valves, windlass, fireroom ventilator, and telegraph.

The ship next the entrance is the *San Joaquin*, 445 feet, 7,059 tons. Boiler repairs, cleaning and painting, and winch repairs were the principal items for her.

On the far side of the dry dock is seen the 50-ton steam crane which travels around the coping of the dock and out on the repair wharf, beyond the shop buildings in the right middle distance. The large ship at the repair wharf is the 9,000-ton *Cristobal*, which was virtually rebuilt at Balboa shops and sailed for New York on May 3, as told in THE PANAMA CANAL RECORD of last week.

The photograph shows about a third of the shops, which employ over 2,000 men. On the extreme left is the coaling plant of the Pacific terminus of the Canal.

General Pershing and the Canal.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 5, 1920.

All concerned—It gives me great pleasure to quote for the information of the Canal forces the following letter addressed to me by Gen. John J. Pershing, under date of the 4th instant:

"HIS EXCELLENCY GENERAL CHESTER HARDING,
Governor of Panama Canal Zone, Balboa, C. Z.

My dear Governor:

"Before leaving the Canal Zone I wish to express to you my very sincere thanks for your courtesy to me during my stay and for the many arrangements made for my comfort and convenience carried out by your subordinates. I have thoroughly enjoyed this opportunity to see the Canal and to gain some idea of the remarkable achievement of American engineers and sanitary experts connected with its construction and present operation. I have been particularly impressed with the splendid personnel in your organization.

"I also wish * * * especially to thank you for arranging an opportunity for me to meet so many of the residents of the Canal Zone.

"With assurance of my warm regard, believe me,

Cordially yours, JOHN J. PERSHING."

CHESTER HARDING, Governor.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight May 8, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Net
Canca.....	27	18.55	2	6.13	2	20.36	2	23.43	British	Pacific Steam Navigation Co.	246.0	35.3	15.3	Cristobal	Guayaquil	General	776	1,582
Talaralit.....	1	15.10	2	6.20	2	20.32	2	22.13	British	International Petroleum Co.	230.0	43.8	22.6	Turpan	Arica	Oil	2,600	2,631
Editor.....	2	6.28	2	7.00	2	17.45	4	8.00	American	United States Shipping Board	402.6	54.8	23.0	New Orleans	Yokohama	General	6,866	6,934
Pasadena.....	30	18.32	2	10.40	3	10.45	4	15.04	American	United States Shipping Board	402.0	53.0	25.0	Norfolk	Yokohama	Coal	6,000	6,329
Kathamba.....	2	2.17	2	10.55	2	21.05	2	21.05	British	Ellerman & Bucknall	431.0	54.0	27.0	New York	Yokohama	General	8,489	8,114
Mantaro.....	29	20.36	4	6.22	4	18.15	4	22.08	Peruvian	Standard Oil Co.	307.3	46.7	19.3	Cristobal	Callao	General indse.	908	4,731
Silyan Arrow.....	3	15.43	4	6.34	4	19.59	4	21.06	American	Robbin Line Steamship Co.	467.7	62.7	27.6	Sabme	Shanghai	Petroleum	10,100	9,983
Rubin Adair.....	3	3.27	4	6.42	4	18.42	4	19.22	American	Pacific Steam Navigation Co.	424.8	35.2	18.3	Norfolk	Arica	General	7,487	5,628
Guatemala.....	29	20.20	4	6.48	4	18.59	4	21.15	British	Pacific Steam Navigation Co.	359.3	43.3	17.0	Cristobal	Guayaquil	Cotton and steel	9,450	8,105
King/Templar.....	3	18.50	4	7.25	4	20.26	4	21.25	British	Alfred Holt & Co.	271.0	58.0	27.1	New Orleans	Honolulu	Coal	1,866	2,067
Lake Lesa.....	4	6.12	5	6.17	5	16.37	5	17.30	American	United States Shipping Board	251.0	43.7	21.6	Norfolk	Iquique	Coal	1,866	2,067
Winifred.....	5	12.05	5	10.32	6	17.51	6	22.55	British	British Government	407.0	55.1	26.8	Norfolk	Callao	Coal	6,845	6,635
Bothwell.....	5	2.45	5	11.00	5	16.25	5	16.25	American	United States Navy	200.0	26.4	9.0	New London	Seattle	Coal	6,845	6,635
Lompoc.....	5	11.06	6	6.22	6	21.12	7	5.20	British	C. T. Bowring & Co.	435.3	55.0	28.5	Tampico	Talial	Fuel oil	7,438	5,342
Minerie.....	6	22.53	6	6.53	6	16.52	6	18.25	British	Andrew Weir & Co.	405.0	52.0	14.6	Leith	Iquique	General	6,131	4,698
Duquesne.....	6	11.24	6	7.45	6	19.30	7	19.17	American	United States Shipping Board	395.0	55.0	27.0	New York	Yokohama	General	8,050	7,285
Salvador.....	2	20.00	6	10.30	6	18.35	7	6.22	British	Pacific Steam Navigation Co.	215.0	33.0	15.6	Cristobal	Champerico	General	8,930	1,213
Bradford.....	5	15.42	7	6.20	7	20.55	8	7.40	American	Standard Oil Co.	427.0	55.0	23.0	Tampico	Crude oil	Crude oil	8,800	7,318
Australport.....	7	5.28	7	10.05	7	21.48	7	22.35	British	Commonwealth Government	365.0	51.0	23.6	Norfolk	Brisbane	Refined oils	8,000	4,478
Newby/Hall.....	7	16.15	8	6.20	8	18.40	8	19.21	British	Ellerman Hall Line	375.0	47.0	19.0	New York	Brisbane	General	3,042	4,750
Australad.....	8	9.13	8	9.49	8	19.51	8	19.51	British	Australian Steamship Co.	384.0	50.0	25.0	Sabme	Melbourne	Crude sulphur	5,500	5,654
Port Haekling.....	7	8.30	8	10.47	8	20.42	8	21.26	British	Commonwealth & Dominion Line	449.0	55.0	28.6	New York	Auckland	General	6,500	7,885

(a) 71,000 barrels. (b) 37,000 cases.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Benjamin	1	16.30	2	7.41	2	22.56	3	1.45	American	Standard Oil Co.	411.6	53.4	19.0	Antofagasta	Tampico	Ballast	6,360	4,337
Brewster.....	1	15.45	2	7.53	2	21.13	4	21.10	American	Skinner & Eddy Corp.	424.8	55.2	24.3	Seattle	Habana	Rice and general	7,811	7,472
Stephen R.....	1	22.00	2	8.10	2	23.45	3	9.23	American	Grovel & Thurlow	354.0	49.0	23.6	Talial	Cristobal (c)	Nitrate	6,000	6,627
Ballena.....	2	3.30	2	9.00	2	22.30	3	7.50	British	Pacific Steam Navigation Co.	470.0	52.0	25.3	Talial	Cristobal (c)	Nitrate of soda	1,077	1,213
Salvador.....	1	18.00	2	9.27	2	22.03	6	10.30	British	Pacific Steam Navigation Co.	215.0	33.5	15.0	San Jose, Guan	Cristobal	General	3,000	2,586
Nick.....	2	12.30	2	10.31	2	22.03	3	18.00	American	Hodge Shipping Co.	547.3	46.0	24.0	Iquique	Cristobal (c)	Nitrate, general	7,000	5,473
Madawaska.....	2	12.30	3	6.39	3	20.39	3	23.07	British	Andrew Weir & Co.	373.0	51.1	25.6	Melillones	Liverpool	Nitrate	7,000	5,473
Herkes.....	3	3.30	3	9.43	3	22.06	4	2.15	Norwegian	Braunsgardt Knivserud & Co.	380.0	54.1	24.6	Talial	Cristobal (c)	Nitrate	8,041	8,404
Eastern Ocean.....	2	13.30	4	6.32	4	20.29	4	23.07	American	United States Shipping Board	335.3	51.2	26.6	Seattle	New York	Flour	7,818	6,224
Ebro.....	3	20.45	4	6.43	4	21.15	5	6.45	British	Pacific Steam Navigation Co.	450.3	57.8	25.0	Talcahuano	New York	General	3,472	9,080

(c) For orders.

Conrad Mohr	4	3.00	4	8.21	4	22.30	5	9.43	Norwegian	C. Michalsen Co.	345.0	45.0	23.6	Talara	Wallu, Norw'y	5.647	4,267	3,009
Steel Age	5	4.00	5	8.34	5	19.08	6	1.55	American	United States Steel Products Co.	395.5	55.0	28.0	Tocopilla	Savannah	9,150	7,285	5,256
Aysen	5	4.30	5	9.18	5	19.08	10	9.05	Chilean	Chilean Line	379.9	44.3	20.6	Valparaso	Cristobal	1,223	4,505	2,977
J. A. Bostwick	2	18.03	5	11.25	5	19.30	9	19.30	American	Standard Oil Co.	465.2	60.9		Balboa	Tampico			
Acajutla	5	14.45	6	6.30	6	20.15	9	6.40	British	Pacific Steam Navigation Co.	215.7	33.5	11.0	Guayaquil	Cristobal	721	1,273	706
Stanley Dollar	5	15.30	6	6.35	6	21.20	7	3.20	American	Robert Dollar Line	288.8	44.6	20.6	Taku Bar	New York	2,900	3,460	2,404
Eastern Crown	5	5.24	6	9.20	6	22.10	6	23.25	American	United States Shipping Board	399.7	57.7	24.0	Tacoma	New York	6,752	6,167	4,444
Cajacat	19	8.45	7	7.07	7	23.25	8	3.40	American	United States Shipping Board	434.3	57.7	26.0	Iquique	Wilmington	9,730	7,983	5,882
Urubamba	6	18.20	7	8.35	7	21.50			Peruvian	Peruvian Line	381.2	45.9	19.0	Callao	Cristobal	1,375	5,018	3,215
Lake Char-	7	10.00	7	11.95	7	12.10	8	10.25	American	United States Shipping Board	251.0	43.7	21.6	Coquimbo	Cristobal (c)			
lottesville	(f)		8	6.29					Panamanian	L. F. Schuber	72.0	16.5	6.2	Balboa	Gambou, C. Z.	3,025	2,510	1,575
Laura C. Hall(e)	6	16.15	8	6.37	8	14.19			British	Pacific Metals Corporation	81.0	25.6	10.0	Buenaventura	Cristobal	69	130	69
Victorious	7	13.54	8	8.13	8	23.30	8	23.54	American	United States Shipping Board	440.0	56.0	23.6	Antofagasta	Charleston	10,100	8,328	5,969
Liberty	7	18.00	8	8.58	9	2.29	9	15.28	American	United States Shipping Board	393.5	55.0	23.6	Auckland	New York	8,500		
Mineola	7	22.40	8	9.05	8	20.10	9	6.27	American	W. R. Grace & Co.	298.6	40.0	21.0	Eten	New York	2,900	2,835	1,795
Tottori Maru	8	5.50	8	11.05	8	21.05	9	6.25	Japanese	Nippon Yusen Kaisha	423.4	56.0	22.2	Yokohama	New York	8,342	6,470	4,697
Sabala	8	12.01	8	11.27	8	22.40	9	5.20	American	United States Shipping Board	390.0	54.2	23.8	Taltal	Cristobal (c)			

(d) Schooner. (e) Motor schooner. (f) Arrived October 20, 1919.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Ves-el.	Line.	From—	Date.	Vessel.	Line.	For—
May 3	Cartago	United Fruit Co.	New Orleans.	May 3	Battonville	United States Shipping Board	New York.
May 4	Lake Fariston	United States Shipping Board	Norfolk.	May 3	Aienas	United Fruit Co.	New Orleans and Bonas.
May 4	Alexandrian	Leyland Line	Liverpool.	May 4	Northern Pacific	United Fruit Co.	New York and Porto Rico.
May 4	Calamates	United Fruit Co.	New York and Habana.	May 4	Calamates	United Fruit Co.	Port Limon.
May 5	Trivives	United Fruit Co.	New York and Kingston.	May 5	Cartago	United Fruit Co.	New Orleans and Bocas.
May 5	St. Mellons (g)	British Government.	Bermuda.	May 5	Lake Fariston	United States Shipping Board	Cartagena.
May 5	Metapan	United Fruit Co.	New Orleans.	May 5	Alexandrian	Leyland Line	New Orleans.
May 6	Advance	Panama Railroad Steamship Line.	New York and Haiti.	May 6	Trivives	United Fruit Co.	Colombia.
May 7	San Pablo	United Fruit Co.	Boston.	May 6	St. Mellons (g)	British Government	Kingston.
May 7	Panama	Panama Railroad Steamship Line.	New York and Haiti.	May 7	San Pablo	United Fruit Co.	Port Limon.
May 8	L. J. Drake	Standard Oil Co.	Tampico.	May 7	Metapan	United Fruit Co.	New Orleans.
				May 8	Allianca	Panama Railroad Steamship Line.	New York and Haiti.

PORT OF BALBOA.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 5	Kenkon Maru No. 12	Kubara Trading Co.	Iquique.	May 6	Guardian (i)	All-American Cables Co.	Salina Cruz.
May 6	Anyo Maru	United States Navy.	Hongkong.	May 8	Kenkon Maru No. 12	Kubara Trading Co.	Kobe.
May 7	Tacoma (h)	United States Navy.	San Jose.	May 8	Lake Flynn	United States Shipping Board	Tacoma.

(A) Third class cruiser. (i) Cableship. *Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

S. S. "Orcoma" Carries 515 Passengers Through Canal.

The steamship *Orcoma* of the Pacific Steam Navigation Company, Straits Line, passed through the Canal May 8 en route from Port Stanley, Valparaiso, and other South American west coast ports to Liverpool with 515 passengers in transit.

Hodge Service Extended.

The Hodge Ship Company advises that its service between New Orleans and the west coast of South America, described in THE PANAMA CANAL RECORD of February 11, 1920, as to ports of Colombia and Ecuador, including Buenaventura, Tumaco, Esmeraldas, Bahia, and Guayaquil, now extends as far south as Valparaiso, Chile, touching each of the major ports en route. Stops are made at Cristobal and Balboa, the terminals of the Canal, when cargo is to be discharged or loaded here.

The steamship *Kennebec*, the second vessel to be sent out on this service, arrived at Cristobal on May 7, and discharged cargo there, before proceeding through the Canal. The *Nika*, which passed through the Canal southbound on February 1, arrived at Balboa on her return passage northbound on May 1 from Iquique, with 3,000 tons of nitrate and general cargo. She passed through the Canal, and cleared for Matanzas on May 3.

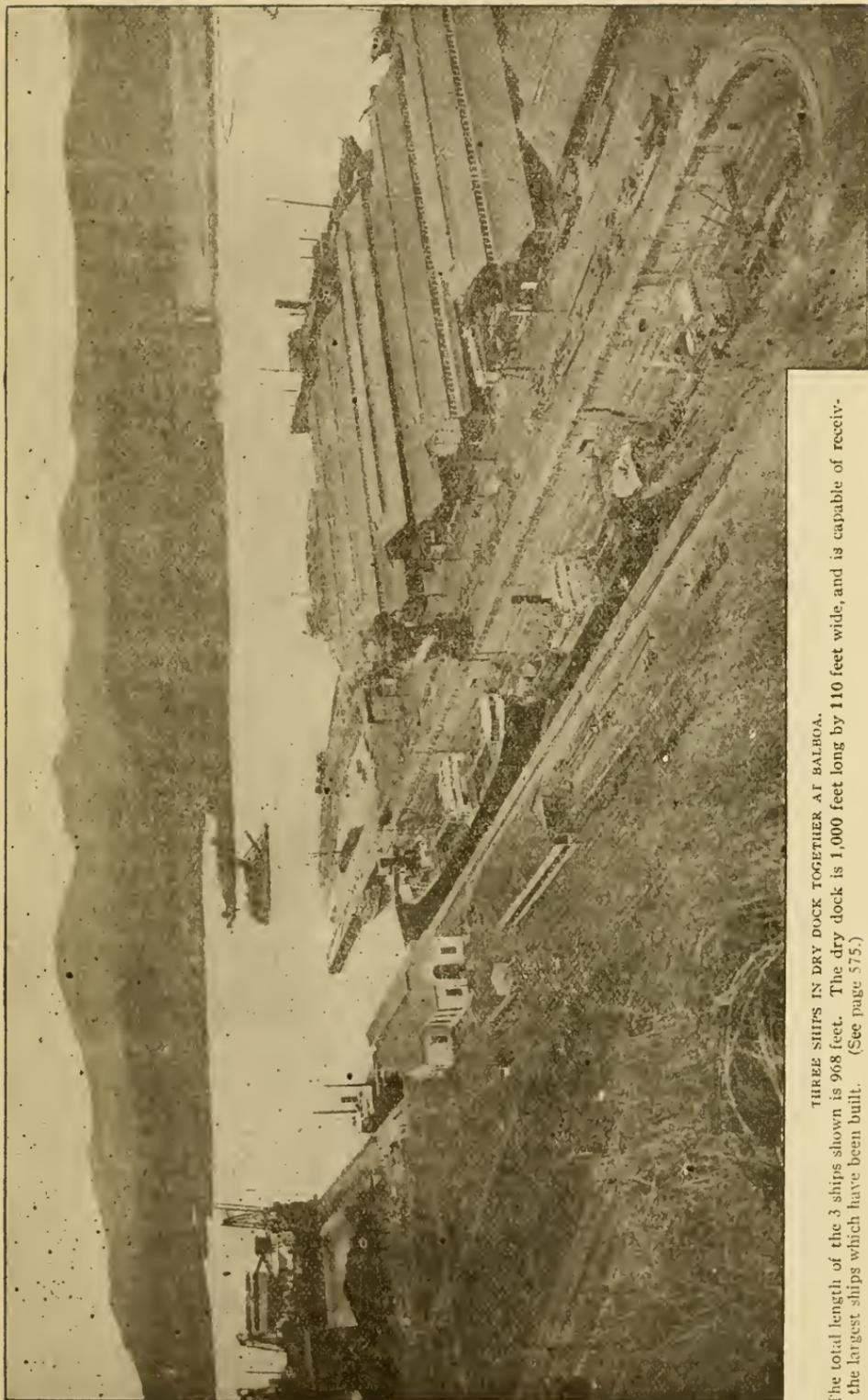
Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 8, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded
				Tons.	Tons.
Cauca.....	Pacific Steam Navigation Co.....		May 2.....		780
Cristobal.....	Panama Railroad Steamship Line.....		May 4.....		10,085
Salvador.....	Pacific Steam Navigation Co.....	May 2.....	May 6.....	1,077	930
Cartago.....	United Fruit Co.....	May 3.....	May 5.....	1,272	66
Alexandrian.....	Leyland Line.....	May 4.....	May 6.....	992	594½
Calamares.....	United Fruit Co.....	May 4.....	May 5.....	379	82
Northern Pacific.....	United States Army Transport.....		May 4.....		24
Mantaro.....	Peruvian Line.....		May 4.....		910
Aysen.....	Chilean Steamship Co.....	May 5.....		1,222	
Tivives.....	United Fruit Co.....	May 5.....	May 6.....	18½	620
Acajutla.....	Pacific Steam Navigation Co.....	May 6.....		224	
Metapan.....	United Fruit Co.....	May 6.....	May 7.....	230	33
Advance.....	Panama Railroad Steamship Line.....	May 7.....		478½	
Panama.....	Panama Railroad Steamship Line.....	May 7.....		2,524	
Urubamba.....	Peruvian Line.....	May 7.....		1,375	
Belfort.....	United States Shipping Board.....	May 8.....		8,994	
L. J. Drake.....	Standard Oil Co. of New Jersey.....	May 8.....		10,000	
Alkmaar.....	Royal Dutch West India Mail Line.....	May 8.....		275	
Allianca.....	Panama Railroad Steamship Line.....		May 8.....		2,029
Laura C. Hall.....	Pacific Metals Corporation.....	May 8.....		69	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 8, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
*Jamaica.....	Pacific Steam Navigation Co.....	May 1.....	May 1.....		18
J. A. Boetwick.....	Standard Oil Co.....	May 1.....	May 5.....	12,121	
Cauca.....	Pacific Steam Navigation Co.....	May 2.....	May 2.....		18
Laura C. Hall.....	Pacific Metals Corporation.....	May 6.....	May 7.....	9	
Anyo Maru.....	Toyo Kisen Kaisha.....	May 6.....		2,410	1

* Not available for last report.



THREE SHIPS IN DRY DOCK TOGETHER AT BALBOA.

The total length of the 3 ships shown is 968 feet. The dry dock is 1,000 feet long by 110 feet wide, and is capable of receiving the largest ships which have been built. (See page 575.)

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge, effective May 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.	Lb.	80.46
Brass, sheet.	Lb.	.56
Bronze, Tobin.	Lb.	.40
Cement, at Panama:		
Departments of United States Government (including surcharge and bags)	Bag	1.1925
Credit for empty bags returned.	Bag	.085
Individuals and companies (includes surcharge and bags)	Bag	1.765
Credit for empty bags returned.	Bag	.25
Cement, at Colon:		
Departments of United States Government (includes surcharge and bags)	Bag	1.0475
Credit for empty bags returned.	Bag	.085
Individuals and companies (includes surcharge and bags)	Bag	1.58
Credit for empty bags returned.	Bag	.25
Charcoal.	Cwt.	.94
Copper, bar.	Lb.	.56
Gasoline, in drums (motor grade).	Gal.	.475
Lead, sheet.	Lb.	.14
Lead, pig.	Lb.	.10
Lumber, ceiling, siding, and flooring, 1" by 6".	M ft. B. M.	118.75
Lumber, flooring, 1" by 3" and 1" by 4".	M ft. B. M.	143.75
Lumber, yellow pine or fir (except ceiling).	M ft. B. M.	100.00
Metal, yellow.	Lb.	.375
Nuts, iron, machine, hexagonal.	Lb.	.225
Nuts, iron, machine, square.	Lb.	.115
Nails, common, wire.	Lb.	.06
Nails, galvanized.	Lb.	.09
Oakum, Navy, spun.	Lb.	.20
Oakum, Navy, unspun.	Lb.	.20
Oil, fuel, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same, barrel of 42 gallons.	Bbl.	2.00
Commercial vessels and individuals and companies, barrel of 42 gallons.	Bbl.	2.00
Oil, fuel, at Cristobal and Balboa—in drums and barrels:		
United States Army and Navy and vessels operated by same, barrel of 42 gallons.	Bbl.	2.25
Commercial vessels and individuals and companies, barrel of 42 gallons.	Bbl.	2.25
Oils, greases, and lubricants:		
Oil, air compressor cylinder.	Gal.	.56
Oil, ammonia cylinder.	Gal.	.50
Oil, burning.	Gal.	1.38
Oil, cylinder, dark marine.	Gal.	.875
Oil, cylinder, dark marine.	Gal.	1.25
Oil, ice machine, steam.	Gal.	1.00
Oil, engine, dynamo.	Gal.	.79
Oil, engine—in tins.	Gal.	.63
Oil, engine—in barrels.	Gal.	.56
Oil, gas engine, extra heavy—in drums.	Gal.	.54
Oil, gas engine, heavy—in barrels.	Gal.	.69
Oil, gas engine, heavy—in cases.	Gal.	.75
Oil, gas engine, medium—in drums.	Gal.	.56
Oil, kerosene—in drums.	Gal.	.31
Oil, kerosene—in tins.	Gal.	.34
Oil, linseed, boiled.	Gal.	2.50
Oil, linseed, raw.	Gal.	2.56
Oil, locomotive engine.	Gal.	.35
Oil, lard.	Gal.	2.07
Oil, marine engine.	Gal.	1.06
Oil, marine engine.	Gal.	.625
Oil, marine engine.	Gal.	.44
Oil, marine engine.	Gal.	.75
Oil, "Mineral Seal".	Gal.	.34
Oil, nonliquid.	Lb.	.10
Oil, stationary engine.	Gal.	.375
Oil, sperm.	Gal.	2.875
Oil, signal.	Gal.	1.375
Oil, valve.	Gal.	.50
Oil, var.	Gal.	.225
Oil, car.	Lb.	.20
Wax, lamp.	Lb.	.075
Grease, black, gear.	Lb.	.125
Grease, yellow, cup, No. 3.	Lb.	.14
Grease, yellow, cup, No. 5.	Lb.	.225
Grease, rod, special.	Lb.	.19
Grease, tunnel bearing.	Lb.	.225
Tallow.	Gal.	2.69
Turpentine.	Gal.	.46
Turpentine substitute.	Lb.	.11
Vaseline.	Lb.	.125
Paint, lead, white, dry.	Lb.	.15
Paint, lead, white, in oil.	Lb.	.225
Paint, zinc, white, dry.	Lb.	.19
Paint, zinc, white, in oil.	Lb.	.19
Paint, zinc, white, 35 per cent in oil.	Lb.	.19
Rivets.	Lb.	.10
Rope, Manila, 1/2" diameter.	Cft.	.75

Commodity.	Unit.	Price.
Rope, Manila, 1/8" diameter.....	C ft.	81.25
Rope, Manila, 1/4" diameter.....	C ft.	2.19
Rope, Manila, 1/2" diameter.....	C ft.	4.06
Rope, Manila, 3/4" diameter.....	C ft.	4.69
Rope, Manila, 1" diameter.....	C ft.	6.25
Rope, Manila, 1 1/4" diameter.....	C ft.	8.75
Rope, Manila, 1 1/2" diameter.....	C ft.	11.25
Rope, Manila, 1 3/4" diameter.....	C ft.	16.56
Rope, Manila, 2" diameter.....	C ft.	27.50
Rope, Manila, 2 1/4" diameter.....	C ft.	30.00
Rope, Manila, 2 1/2" diameter.....	C ft.	47.50
Rope, Manila, 3" diameter.....	C ft.	77.50
Rope, Manila, 3 1/2" diameter.....	C ft.	102.50
Steel, bar.....	Lb.	.05
Steel, spring.....	Lb.	.21
Steel, cold rolled, round.....	Lb.	.13
Steel, sheet.....	Lb.	.05
Steel, structural (angles, beams, etc.).....	Lb.	.05
Tin, block.....	Lb.	.79
Tin, Banca.....	Lb.	.94
Tin, sheet.....	Lb.	225
Washers, cut.....	Lb.	.09
Waste, colored.....	Lb.	.21
Waste, white.....	Lb.	.20
Zinc, boiler plate, 5/8" by 6" by 12".....	Lb.	.15

Food Drafts for Relief of Central and Eastern Europe Children's Fund.

Food drafts on the American Relief Administration, operating in Central and Eastern Europe, may be purchased on the Isthmus from the American Foreign Banking Corporation, with branches in Panama and Cristobal. The "food draft" is an order on the Relief Administration to deliver a certain quantity of food to a designated recipient at one of its warehouses. The food is sold in units or combinations, at \$10 or \$50 per unit. Combination "A," for example, consists of 24 1/2 pounds of flour, 10 pounds of beans, 8 pounds of bacon, and 8 cans of milk, for \$10. Operations are limited to the following staples: Flour, bacon, beans, corned beef, lard, or vegetable oils, and condensed or evaporated milk. On payment of the requisite amount the bank issues the draft or order on the Relief Administration and gives it to the purchaser, who forwards it to the person to whom he wishes the food delivered, and this person presents it at the warehouse and receives for it the designated quantity of food.

Orders must be presented within 90 days of date of issue. The bank selling the draft forwards an advice of its purchase, and if the draft is not presented at the warehouse within 90 days the warehouse declares it canceled, and directs a refund to the purchaser of the draft.

If a surplus accrues to the Relief Administration through these sales of food, it is turned over to the European Children's Fund.

Central warehouses have been established in Warsaw for Poland, Vienna for Austria, Prague for Czecho-Slovakia, Hamburg for Germany, and Budapest for Hungary. The governments of these countries have endorsed the food-draft plan, and will facilitate the entry and distribution of foodstuffs.

If anyone desires to contribute to general relief rather than to a designated beneficiary, the words "General Relief" can be inserted in the space for name of recipient. Such drafts will be used to supply the soup kitchens and authorized relief agencies.

The European Children's Fund, to which any accruing profits go, was set up in July, 1919, to provide one supplementary meal a day for children weak in body and mind from lack of proper food. The Relief Administration states that nearly 3,000,000 children in 9 countries of Central and Eastern Europe are receiving a daily meal

from its kitchens, and more than 1,250,000 have been given an outfit of clothing. Only those children are admitted to the kitchens who are shown to be in especial need of extra food, after a medical examination. Many are being turned away because the Relief Administration can not undertake a larger burden upon the resources available.

Requesting the sending of food drafts to friends in Europe, rather than funds, the chairman of the American Relief Administration has stated:

"Throughout the whole of Central and Eastern Europe the food supply of the people falls into two classes: First, the ration issued by the government; second, illicit circulation of food available to those who have a sufficient amount of money. The government ration is necessarily meagre and nowhere sufficient to properly maintain life, and must be supplemented. Under these circumstances, the scramble for such supplementary margin has placed the price of the illicit food supplies entirely beyond the reach of the great bulk of the population. To illustrate: A single ham outside the ration system sells for as high as \$150.

"The object of this plan is to add to the total stock of available food supplies in Central and Eastern European countries. Under an arrangement set up with the governments of these countries, this food will be allowed to revolve outside the rationing system, with the hope that enough food will be injected to reduce the pressure on the narrow marginal supplies. The officials of these new governments are endeavoring to impress upon the American people that it is useless to remit money to a family in Central or Eastern Europe with the hope of improving its food situation. The sum total of food now available in Central Europe is insufficient to keep the population alive, and under these circumstances money thus becomes that much paper so far as nutrition is concerned. A hungry man wants food, not money, and under the arrangement outlined above, we can meet his need."

New High Record for Temperature.

A maximum temperature of 98° F. was recorded at Alhajuela on April 13, 1920. This is the highest shade air temperature of record on the Isthmus since the American occupation, being 1 degree Fahrenheit higher than the previous maximum record of 97° F., which was recorded at Naos Island on February 13, 1906, and again at Ancon on April 7, 1912.

It is interesting to note that maximum air temperatures in the Canal Zone and vicinity usually occur near the end of a long dry season under the influence of intensified solar radiation due to vertical solar rays, clear skies, and low humidity.

The dry, parched condition of the soil near the end of the dry season also tends to increase air temperatures near the ground, on account of the heat reflected or radiated from its surface.

Executive Order.—Fort Randolph and France Field Military Reservations and Coco Solo Naval Reservation.

The areas hereinafter described respectively as Fort Randolph Reservation, France Field Reservation and Coco Solo Reservation, situated within the Canal Zone, are hereby set apart and assigned as follows: Fort Randolph and France Field, to the uses and purposes of military reservations, to be under the control of the Secretary of War; and Coco Solo to the uses and purposes of a naval reservation, to be under the control of the Secretary of the Navy. All of the above areas, however, shall be subject to the civil jurisdiction of the Canal Zone authorities in conformity with the Panama Canal Act.

The said areas are described as follows: (Panama Canal Circular No. 601-111 contains these boundaries):

* * * * *

In addition to the above, the Secretary of War shall have control of all lands and water for a distance of one hundred yards out to sea from the high water line on all shores of Fort Randolph and France Field Reservations, and the Secretary of the

Navy shall have control of all lands and water for a distance of one hundred yards out to sea from the high water line on all shores of Coco Solo Reservation.

The transfer of the Fort Randolph and France Field Reservations is made subject to the continued right of the Supply Department of the Panama Canal to use areas not contiguous to barracks or quarters for pasturage of cattle for the supply of beef to the Canal Zone; the pasturage areas, however, to be available for use by the troops when required for military maneuvers or for target practice.

THE WHITE HOUSE,
April 9, 1920.

WOODROW WILSON

The foregoing has been published as Canal circular No. 601-111.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Truck foreman (male and female); \$1,000 to \$1,200 a year; No. 282; June 8, 1920; form 1800; age, 25 years and over.*

Food and drug inspector (male and female); \$1,600 a year; No. 267; June 9, 1920; form 1312; age, 20 years but not 45 years.

Scientific assistant in library science (male and female); \$1,320 to \$1,620 a year; No. 264; May 19, 1920; form 1312; age, 20 years and over.

Technician (hydrophones); \$8.80 a day (male and female); No. 274; May 25, 1920; form 1312; age, 24 years and over.*

Law clerk and typist (male and female); \$1,400 to \$1,740 a year; No. 268; May 25, July 27, and September 28, 1920; form 304 and announcement No. 807-amended; age, within reasonable age limits.

Assistant explosives chemist (male and female); \$2,400 to \$3,000 a year; June 15, 1920; form 2118; age, within reasonable age limits.*

Assistant in crop acclimatization (male and female); \$1,200 to \$1,800 a year; June 9, 1920; form 1312; age, 18 years or over.*

Chemical engineer, oil and lubrication research (male and female); \$3,000 to \$4,000 a year; June 15, 1920; form 2118; no age stated.*

Dairy manufacturing specialist (male and female); \$1,800 to \$2,700 a year; June 15, 1920; form 2118; age, under 45 years.*

Drainage engineer (male and female); \$2,100 to \$2,700 a year; June 15, 1920; form 1312; age, under 40 years.*

Educational director (male and female); \$1,500 to \$2,400 a year; August 1, 1920; (announcement No. 433); age, within reasonable age limits.*

Teachers (male and female); \$1,400 to \$2,400 a year; August 1, 1920 (announcement No. 76) or (announcement No. 75); age, within reasonable age limits.*

Junior drainage engineer (male and female); \$1,200 to \$1,920 a year; June 9, 1920; form 1312; age, under 30 years.

Specialist in kindergarten education (male and female); \$2,000 to \$2,500 a year; June 15, 1920; form 2118; age, within reasonable age limits.*

Wood technologist (male and female); \$2,160 to \$3,600 a year; June 15, 1920; form 1312; age, within reasonable age limits.*

Assistant wood technologist (male and female); \$1,500 to \$2,100 a year; June 15, 1920; form 2118; age, within reasonable age limits.*

Agriculturist, irrigated field crops (male and female); \$1,800 to \$2,400 a year; June 22, 1920; form 2118; age, under 45 years.*

Assistant for fishery food laboratory (male and female, male eligibles desired); \$2,000 to \$2,400 a year; June 22, 1920; form 2118; age, within reasonable age limits.*

Graphotype operator (male and female); \$660 to \$1,200 a year; June 9, 1920; form 304; age, 18 years and over.

Plant breeder (male and female); \$2,000 to \$2,400 a year; June 22, 1920; form 2118; age, 25 years but not 45 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Rafael Guardia.....	46512	Panama.....	New Culebra...	Cattle Industry.....	April 30, 1920.
Henry Regis (Rejle)...	35865	St. Lucia.....	Panama.....	Building Division.....	April 28, 1920.
Thomas Brissett.....	38917	Jamaica.....	Colon.....	Building Division.....	May 5, 1920.
Howard Chisholm, alias Herbert Smith..	52888	Bahama Islands.	Colon.....	R. & F. Agent.....	March 10, 1920.

Official Circulars.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 6, 1920.

CIRCULAR No. 240:

Effective May 3, 1920, Mr. T. S. Booz is designated an accountable official of The Panama Canal, *vice* Mr. A. J. Scott, and as such will account for all nonexpendable property in use by the Clubs and Playgrounds Division of the Executive Office.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

CHESTER HARDING,
Governor.

Nonexpendable Property.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 5, 1920.

CIRCULAR No. 239:

To all concerned—As there seem to be some misunderstanding and violation of the rules pertaining to accounting for nonexpendable property surveyed as surplus, obsolete, or unserviceable, you are advised that in the future the following rules will govern:

All property surveyed and not destroyed must be tagged with the survey number and shipped to the party or parties designated by the Surveying Officer separate from any other shipment. It must be checked by the receiving official, whether it is designated as scrap or otherwise, and the survey accomplished only for the number of articles actually received. Credit will be given on the property records only for the number of articles receipted for by the receiving official.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

CHESTER HARDING,
Governor.

Joint Commission.

Decisions of the Umpire.

In the matter of the claim of the heirs of Agustin Arias F., for property fronting on the Balboa Road in the District of Ancon, known as "El Mangal," decision of the Umpire, award No. 219, docket No. 2799, May 8, 1920—The above entitled claim was certified to the Umpire on the question of the value of the land only, the Commission having made an award to the claimants herein covering the value of the improvements.

The area of the property is 16,800 square meters and in accordance with the evidence introduced by claimants 11,260 square meters are suitable for building purposes, and the remaining 5,540 square meters are not suitable for building purposes. In the opinion of the American members of the Commission the value of this property is \$4,020.80 while the Panamanian members appraise it at \$33,840 plus interest at 6 per cent from the date of its expropriation.

In view of the fact that the property in claim is bounded by the San Lazaro, Punta Mala, and Los Pocitos estates, the present decision is based on an average of the awards which I made for those tracts.

An award is therefore hereby made in favor of Guillermina Diaz Vda. de Arias, Guillermina Agusta Arias de la Guardia, Maria Luisa Arias de la Guardia, Delia Martina Arias, Jose Antonio Arias, Luis Carlos Arias, and Rogelio Arias, heirs of Agustin Arias F., in the total sum of \$12,000 United States currency, for all right, title, and interest the claimants before mentioned may possess or may have possessed in and to the land

known as "El Mangal" described in claim docket No. 2799, located within the Canal Zone in the District of Ancon, this award to include any and all damages sustained by claimants above named on account of the expropriation of this property by the United States of America, and to be paid in the proportions and amounts as follows, to wit:

To Guillermina Diez vda. de Arias, $\frac{1}{2}$ thereof.....	\$6,000
To Guillermina Augusta Arias de la Guardia, 1/12 thereof.....	1,000
To Maria Luisa Arias de la Guardia, 1/12 thereof.....	1,000
To Delia Martina Arias, 1/12 thereof....	1,000
To Jose Antonio Arias, 1/12 thereof....	1,000
To Luis Carlos Arias, 1/12 thereof....	1,000
To Jose Rogelio Arias, 1/12 thereof....	1,000

Total..... \$12,000

This award shall be paid on or before the 8th day of June, 1920, and if payment or tender of payment is not made on or before that date said award shall thereafter bear interest at the rate of 6 per centum per annum until paid.

Done in the National Palace, Panama, this 8th day of May, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of Julia del Carmen Bermudez de Alcan, Enrique Bermudez and Rodolfo Manuel Bermudez, for a portion of the lands known as "Punta Paitilla," decision of the Umpire, award No. 220, docket No. 2982, May 8, 1920—According to the description given in the written opinion of the American members of the Commission, "Punta Paitilla" is a very picturesque property and the view from it is very beautiful. Panama City lies across the bay from it, and this city and the American city of Ancon, and the islands in the bay are all within plain view."

On account of its location in the vicinity of the residential section of this capital the Government of Panama intended to convert a portion of this property into a park, and to erect therein a monumental statue of Balboa subscribed for by the Spanish-American Republics. This project had to be abandoned, however, when in October, 1913, the United States Government took possession of the property for its coast defenses.

In 1914 when the claimants presented their claim to the Joint Commission it was impossible for them to state the exact area taken by the Government for the reason that they were not permitted to enter upon their property to survey it, and it was not until the year 1918, when the Governor of the Canal Zone addressed a communication to the Secretary of Foreign Affairs of the Republic of Panama stating that the United States Government would require 50.6 hectares, that the exact area expropriated was definitely known. This information was given the Republic of Panama on account of the fact that the property lies outside the Canal Zone and within the limits of the City of Panama.

In addition to the 50 hectares actually expropriated the Government of the United States occupied an area of about 100 hectares. During the war trenches were dug within this area, and after a period of about five years it was returned to the claimants.

Counsel for the Government admits the validity of the title of the claimants to the property, and the Commission has disagreed on the question of the value only, this claim being one of the largest in area which has been submitted to the undersigned Umpire for decision.

In connection with the value of this property as estimated by one of the witnesses for the Government, the American members of the Commission state:

"We can not agree with the Government's witnesses as to the value of said lands prior to 1903. We are of the opinion that they had a much greater value prior to November, 1903, than the amount testified to by said witnesses. In placing

a value upon these lands we must take into consideration the conditions existing on the Isthmus prior to 1903 and subsequent thereto, and when we do this, we must conclude that the lands, prior to November 18, 1903, had a higher value than that placed upon them by said witnesses."

Nevertheless, these same Commissioners appraise the value of a tract of land consisting of one-half million square meters, situated in the immediate vicinity of the residential section of Panama, within the limits of the City of Panama and consequently belonging to the Republic of Panama according to the Treaty, in the sum of \$3,795; that is to say, three-fourths of a cent per square meter. For the occupation of 100 hectares for a period of 5 years they consider that claimants should be compensated in the sum of \$300 or at the rate of \$60 a year.

The Panamanian members of the Commission, however, taking into consideration the fact that this land was within the limits of the City of Panama when the United States Government decided upon the exact area to be taken, appraise its value in \$101,200, and estimate the damages sustained by the claimants on account of the 5 years' occupation of the 100 hectares contiguous to the expropriated section, in the sum of \$1,200.

With reference to that portion of the estate known as "Juan Diez Caballero" located outside the Canal Zone at the time of its expropriation, my award No. 199 dated August 2, 1919, states:

"The remaining 12 hectares, having belonged to the City of Panama up to the year 1914, form an exception in these claims. Due to the circumstances, I feel that the provisions of Article VI of the Treaty of November 18, 1903, to which I have strictly adhered since my appointment as Umpire, should not in this instance be applied for the purpose of valuation. Article II of the Treaty covers this point clearly and explicitly. That article reads:

"The Republic of Panama grants to the United States in perpetuity the use, occupation, and control of a zone of land and land under water for the construction, maintenance, operation, sanitation, and protection of said canal of the width of 10 miles extending to the distance of 5 miles on each side of the center line of the route of the Canal to be constructed; the said zone beginning in the Caribbean Sea 3 marine miles from mean low water mark and extending to and across the Isthmus into the Pacific Ocean to a distance of 3 marine miles from mean low water mark with the proviso that the cities of Panama and Colon and the harbors adjacent to said cities, which are included within the boundaries of the zone above described, shall not be included within this grant. * * *

Consequently, I consider that in this very particular case also, the general principles of law relative to forcible expropriation are applicable, and I concur with the Panamanian members of the Commission in their opinion that claimants should be compensated in the sum of \$101,200 for the 50.6 hectares expropriated, and \$1,200 for the damages sustained by them on account of the occupation by the United States of 100 hectares for a period of 5 years.

An award is therefore hereby made against the United States of America in the total sum of \$102,400 United States currency, in favor of Julia del Carmen Bermudez de Aleman, Enrique Bermudez and Rodolfo Manuel Bermudez, for all right, title, and interest which they may possess or may have possessed in and to the 50.6 hectares of the property known as "Punta Paitilla" located within the limits of the City of Panama, subject of claim docket No. 2982, including any and all damages sustained by them on account of the expropriation of this property by the United States and on account of the occupation by the United States of an additional area of 100 hectares for a period of 5 years. This award shall be paid in the proportions and amounts as follows:

To Julio del Carmen Bermudez de Aleman, $\frac{1}{3}$ thereof.....	\$34,134
To Enrique Bermudez, $\frac{1}{3}$ thereof.....	34,133
To Rodolfo Manuel Bermudez, $\frac{1}{3}$ thereof.....	34,133
Total.....	\$102,400

This award shall be paid on or before the 8th day of June, 1920, and if payment or tender of payment is not made on or before that date said award shall thereafter bear interest at the rate of 6 per centum per annum until paid.

Done in the National Palace, Panama, this eighth day of May, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of the heirs of Oscar Muller, for sand taken at Chame Point and for damages resulting to the estate of "Punta de Chame," from the removal of such sand, decision of the Umpire, rule of dismissal No. 459, docket No. 3108, May 8, 1920—"Punta de Chame" is a peninsula on the coast of the Republic of Panama about 27 miles west of the City of Panama. In December, 1908, the Government of the United States obtained permission from the Government of the Republic of Panama to remove sand below high water mark, the property of the nation, from the shores of this point for Canal construction purposes.

The American members of the Commission deny claimants' title to the property while the Panamanian members are of the opinion that claimants have a legal title and estimate the value of the sand taken and the damages sustained by them in \$30,151.80. None of the Commissioners, however, have visited this property in order to decide the questions involved in the claim.

As stated by counsel for claimants, "This claim is—

(a) for sand taken out of the estate known as "Punta de Chame" and

(b) for the damage to the said estate caused by the removal of sand therefrom which has brought about

(c) the sinking of considerable portions of the estate, as well as

(d) the damages resulting from the changing of the water currents in that section which has interrupted and stopped the accretions at that place."

After having made an ocular inspection of "Punta de Chame" accompanied by counsel for the Government, counsel for the claimants, and an expert witness who testified during the trial of the case; and after hearing arguments made on the ground by counsel for both sides, the undersigned is of the opinion that:

(a) On account of the flat formation of the beach and the great distance the waters recede from the shores at low tide, and the draught of the dredges engaged in the work of removing the sand, which dredges required not less than 19 feet of water in which to operate; it would not only have been a physical impossibility to take sand from the mainland itself, as alleged by claimants, but the dredging operations even near the shore had to be limited to the high tides;

(b) The fact that the storm which occurred the night before the inspection trip did considerable damage to the opposite side of the property from which no sand was taken, uprooting trees, washing away a melon patch, etc., goes to show that any changes which have taken place on this point have been brought about by the storms and tides in this section and are not the result of the dredging operations of the United States Government;

(c) In view of the fact that counsel for the Government of the United States introduced in evidence an old English navigator's chart dated 1847 which shows that the general outline of the coast of "Punta de Chame" at that time was about the same as it is to-day, claimants in failing to produce a navigators' chart showing any change in the coast line have also failed to prove their assertion as to the "sinking of the property."

(d) The assumption to the effect that the local currents, as well as the great Peruvian current, have changed as a result of the above-mentioned dredging operations, is rather chimerical.

It having been proved that all of the sand taken was from below high-water mark, the property of the nation, and therefore beyond the limits of

any privately owned property, and being convinced that no damage has resulted to the estate known as "Punta de Chame" from the removal of sand as above mentioned, the claim of the heirs of Oscar Muller, docket No. 3108, is hereby dismissed.

Done in the National Palace, Panama, this 8th day of May, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

In the matter of the claim of the Playa de Flor Land and Development Company, for property located in the District of Cristobal, decision of the Umpire, judgment No. 460, docket No. 2900, May 8, 1920—At the request of the Government of the Republic of Panama, dated April 23, 1920, to pass upon the disagreement of the Joint Commission in regard to the rule of default entered in the above-entitled case on November 21, 1919, I have carefully studied the record and in my opinion inasmuch as the claim has not been heard, and in view of the fact that no formal rule has been signed by the Commission dismissing the case, the claim of the Playa de Flor Land and Development Company, docket No. 2900, is still pending decision and should be tried whenever the Joint Commission is reorganized.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

Cockerels for Sale.

There are available for sale at the Summit poultry farm 50 single-comb white Leghorn young breeding cockerels at \$3 each, f. o. b. Summit. Prospective purchasers may inspect these cockerels at the farm.

Sale of Bus Bodies.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., June 1, 1920, and then opened, for the purchase of four bus bodies, removed from Panama Railroad busses which formerly operated in the Ancon-Balboa district. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Building at Las Cascadas.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., May 16, 1920, and then opened, for the purchase of house No. 111, located east of the railroad track at Las Cascadas. The Panama Canal reserves the right to reject any or all bids. Forms of proposal may be had upon application to the Chief Quartermaster.

Additions to Commissary Stock.

Dry Goods Section.

Embroideries, flouncing, yd.....	\$0.56
Kimonos, crepe, embroidered, cotton, ea..	3.25
Powder, Talcum, Mennen's, large tin.....	.20

Ribbon, satin, forget-me-not, 2-tone color, No. 1½, yd.....	\$0.16
Ribbon, satin, forget-me-not, 2-tone color, No. 2, yd.....	.21
Ribbon, satin, forget-me-not, 2-tone color, No. 3, yd.....	.32
Ribbon, satin, forget-me-not, 2-tone color, No. 5, yd.....	.43
Ribbon, hair, satin, taffeta, assorted colors, yd.....	.60
Ribbon, hair, satin, taffeta, fancy, yd....	.86
Ribbon, hair, satin, taffeta, fancy, yd....	.90
Ribbon, hair, satin, taffeta, black, yd....	1.00
Ribbon, hair, satin, taffeta, fancy, yd....	1.05
Ribbon, taffeta, green, No. 1½, yd.....	.10
Ribbon, taffeta, green, No. 5, yd.....	.19
Ribbon, taffeta, green, No. 2, yd.....	.13
Ribbon, satin, taffeta, yd.....	.60
Sheets, 90 x 108, ea.....	3.15
Shirts, men's negligee, white, with laun- dered cuffs, ea.....	2.60
Shirts, men's negligee, coat style, soft cuffs, ea.....	2.20
Stationery:	
Books, stenographer's note, 4½ x 9, ea..	.08
Books, stenographer's note, 6 x 9, ea..	.10
Books, ledger, 300 pages, 8½ x 14, ea..	1.40
Books, journal, 300 pages, 8½ x 14, ea..	.95
Books, journal, 300 pages, 8½ x 14, ea..	1.25
Books, record, 300 pages, 8½ x 14, ea..	1.35
Books, ledger, 300-pages, 8½ x 14, ea..	1.85
Envelopes, plain white, 9½", 25s, pkg...	.09
Suitsings:	
Tweed, 55/56", yd.....	2.55
Serge, blue, all wool, London shrunk, 54/56", yd.....	4.60
Serge, blue, all wool, London shrunk, 54/56" yd.....	4.90
Serge, blue, all wool, London shrunk, 54/56", yd.....	5.20
Duck, union, bleached, yd.....	.75
Duck, union, bleached, yd.....	.92
Serge, black, botany, yd.....	3.00
Suits, sleeping, with feet, drop seat, suit..	1.70
Ties, 4-in-hand, silk, fancy, ea.....	.84
Ties, 4-in-hand, embroidered, wash, ea...	.58
Ties, tubular, wash, 4-in-hand, ea.....	.56
Ties, wash, 4-in-hand, ea.....	.23
Towels, huck, H. S., linen, 22 x 40, ea....	.83
Vests, gauze, ladies', pink, ea.....	.41
Vests, gauze, white, ea.....	.43
Wrappers, crepe, embroidered, cotton, ea.	2.75
Wrappers, crepe, embroidered, cotton, ea.	3.00

Hardware Section.

Athletic goods:

Gut, trimming for tennis rackets, extra quality, 10', ea.....	.17
Balls, red, infant's, ea.....	.11
Blades, Ever Ready, safety razor, 6s, pkg.	.24
Chinaware, Minton, No. G-6262; pots, tea, 18", ea.....	6.30
Cribs, baby, 3' x 5' ea.....	14.85
Holders, cigarette, ea.....	1.30
Holders, cigarette, ea.....	1.75
Holders, cigarette, ea.....	2.25
Holders, cigar, ea.....	1.75
Mattresses, single, kopak, ea.....	12.20
Pans, dust, with brushes, tin, Japanned, set	.59
Pipes, wood, smoking, ea.....	.51
Pipes, wood, smoking, ea.....	.24

COMMISSARY NOTES.

Books.

Books received:

"Four Horsemen of the Apocalypse," by Blasco Ibañez; "The Man Who Understood Women," by Leonard Merrick.

Laundry.

Occasional delays in the return of laundry are experienced by employees due to the fact that they fail to write the address on the laundry list. All employees are urged to be sure to give the address, for when this is not done it means inconvenience to them as well as extra work on the part of the laundries.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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The Panama Canal, Washington, D. C.

Entered as second-class matter, February 6, 1918, at the Post Office at
Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., May 19, 1920. No. 40.

Panama Railroad Steamship Line Service to Atlantic Ports of Colombia.

The steamship *Allianca* of the Panama Railroad Steamship Line will sail from Cristobal for Cartagena and Puerto Colombia, Colombia, about June 3 or 4, to secure cargo for Cristobal, New Orleans, and New York, and will accept cargo and passengers from Cristobal for these Colombian ports.

The *Allianca* is due to sail from New York May 25, and to reach Cristobal by June 1.

Diesel Oil.

The price of Diesel oil, sold by three companies with tanks at the Balboa terminal, has been advanced to \$3.50 per barrel of 42 gallons.

Passage of a Steam Yacht.

The British yacht *Emerald*, property of Sir Arthur du Cros, arrived at the Canal on May 17, on the way to Southampton, via Bermuda. She is a vessel of 854 gross tons, 212 feet long by 30½ feet beam, and carries a crew of 43. Her coal consumption was stated at 17 tons per day, at 9 knots.

Sales of Liquid Fuel to Ships.

The forms of liquid fuel sold to vessels at the Canal are crude fuel oil, Diesel oil, and gasoline.

The quantities sold per month have varied considerably, due to a fluctuating demand, price changes, etc., as well as to variations in the contracts of the companies selling oil at the Canal.

For the six months ending March 31 the average sale of crude fuel oil per month was 214,270 barrels of 42 gallons each. The consumption has been increasing and it may be stated that sales are now running on an average of about 240,000 barrels per month, of which 55,000 are sold at Balboa and 185,000 at Cristobal.

Diesel oil is sold only at Balboa. The average sales are approximately 10,000 barrels per month. A tank is being erected at Cristobal for Diesel oil storage at the Atlantic terminal.

Gasoline is sold from tanks in bulk and in drums at Balboa and Cristobal. Sales have fluctuated greatly, but 20,000 gallons per month at Balboa and 30,000 gallons at Cristobal may be taken as the average.

With respect to the average time required to load these products on board, fuel and Diesel oil may be delivered as fast as the intakes of the ship will permit. In actual practice the delivery is at about 900 barrels per hour, though the facilities are equal to supplying oil as fast as 3,500 barrels per hour. Deliveries of gasoline can be made at the rate of approximately 200 barrels (8,400 gallons) an hour, which is in practice faster than the vessels have been able to receive it.

Savannah	Iquique	United States Shipping Board	American	10	21	08	7	23	10	18	57	9	14	00	10	9	23	00	10
395.5	55.0	Royal Dutch Co.	Dutch	11	5	25	8	34	10	22	12	9	23	00	10	9	23	00	10
370.0	50.0	Pacific Steam Navigation Co.	British	15	6	37	9	27	10	20	14	10	5	30	11	10	5	30	11
220.0	34.0	British Government	British	16	6	38	7	10	21	14	12	10	18	45	11	10	18	45	11
261.6	41.8	United States Shipping Board	American	19	22	15	8	28	11	19	13	10	14	30	11	10	14	30	11
439.0	60.6	United States Shipping Board	American	19	3	53	8	35	11	19	13	10	12	35	11	10	12	35	11
251.0	43.7	United States Shipping Board	American	13	15	30	8	33	12	21	14	11	11	15	12	11	15	12	11
250.5	43.7	United States Shipping Board	American	13	15	30	8	33	12	21	14	11	11	15	12	11	15	12	11
247.0	43.7	Garland Steamship Co.	British	13	7	20	8	42	12	21	00	12	23	00	12	23	00	12	23
490.2	61.4	Commonwealth and Dom. Line	British	12	23	43	8	58	12	19	50	12	23	43	12	23	43	12	23
360.2	51.6	W. R. Grace & Co.	American	12	22	20	9	42	12	18	25	12	22	20	12	22	20	12	22
399.9	54.7	United States Shipping Board	American	13	15	05	10	12	21	44	13	15	05	12	15	13	15	05	12
253.4	43.7	United States Shipping Board	American	13	2	55	6	26	13	20	30	14	2	55	12	16	15	13	2
400.3	54.5	United States Shipping Board	American	13	22	25	6	40	13	20	40	13	22	25	13	16	45	13	22
283.0	43.7	Pacific Mail Steamship Co.	American	10	19	10	10	13	10	13	07	13	8	00	13	8	00	13	10
440.5	58.7	Standard Transportation Co.	American	13	19	10	12	26	13	22	36	14	4	50	13	9	05	13	19
400.3	43.7	Sherman Steamship Co.	American	13	20	36	14	36	14	22	29	15	11	34	13	9	15	13	20
345.0	38.6	Pacific Mail Steamship Co.	American	15	12	45	6	44	14	22	09	15	12	45	13	17	20	14	22
250.2	43.7	United States Shipping Board	British	15	10	15	7	34	14	19	15	15	10	15	13	20	14	7	34
400.1	52.3	Andrew Wear & Co.	American	15	3	45	10	01	14	21	08	15	3	15	13	20	14	10	01
384.8	54.2	United States Shipping Board	American	15	3	15	10	01	14	21	08	15	3	15	13	20	14	10	01
400.7	54.2	United States Shipping Board	American	16	7	10	6	33	15	20	30	16	7	10	14	18	15	15	6
252.0	53.5	United States Shipping Board	American	16	7	10	11	00	15	22	15	16	7	10	15	22	00	15	11
439.5	60.0	United States Shipping Board	American	16	7	03	11	00	15	22	15	16	7	03	15	22	00	15	11

(c) Sailer. (d) For orders.

PORT OF CRISTOBAL

Date	Vessel	Line	From	Date	Vessel	Line	To
May 9	Calamares	United Fruit Co.	Port Limon	May 9	Calamares	United Fruit Co.	New York and Habana
May 9	Van Renslaer	Royal Dutch West India Mail Co.	Port Limon	May 10	L. J. Drake	Standard Oil Co.	Tampico
May 9	Ulysses (e)	Panama Railroad Steamship Line	Norfolk	May 11	Santa Leonora (g)	United States Army	San Juan, P. R.
May 9	Botsford	United States Shipping Board	Colorado Bar	May 11	St. Kitts (f)	Choctobham & Sons	Kingston, Jamaica
May 10	Tiverton	Associated Oil Carriers	Manchester	May 11	Van Renslaer	Royal Dutch West India Mail Co	Cartagena
May 10	St. Kitts (f)	Choctobham & Sons	St. Lucia	May 12	Pastores	United Fruit Co	Port Limon
May 11	Santa Leonora (g)	United States Army	New Orleans	May 12	Lake Flattery	United States Shipping Board	New York
May 11	Pastores	United Fruit Co.	New Orleans and Habana	May 13	Panama	Panama Railroad Steamship Line	New York and Haiti
May 11	Ed Captain	United Fruit Co.	New York via Habana	May 13	Ed Captain	Standard Oil Co.	Kingston
May 11	Santa Marta	Standard Oil Co.	New York	May 13	Tiverton	Associated Oil Carriers	Cartagena
May 12	Lake Flattery	United Fruit Co.	New York and Kingston	May 13	Santa Marta	United Fruit Co.	New York via waypoints
May 12	Lake Flattery	United States Shipping Board	Port Limon	May 13	Heredia	United Fruit Co.	New Orleans and Bocas
May 13	Caldas	Caribbean Steamship Co.	Port Limon	May 14	Arabia (h)	W. V. N. Powellson	Colon
May 14	Arabia (h)	W. V. N. Powellson	New York and Kingston	May 14	Ulysses (e)	Panama Railroad Steamship Line	Norfolk
May 15	Haiti	French Line	Bordeaux and waypoints	May 14	Caldas	Caribbean Steamship Co.	New York and Nicaragua
May 15	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York and Haiti	May 14	Botsford	United States Shipping Board	New York and Haiti
May 15				May 15	Advance	Panama Railroad Steamship Line	

(e) And barge *Darien*. (f) *Tug*. (g) *Transport*. (h) *Motor schooner*.

*DEPARTURES

Date	Vessel	Line	To
May 9	Calamares	United Fruit Co.	New York and Habana
May 10	L. J. Drake	Standard Oil Co.	Tampico
May 11	Santa Leonora (g)	United States Army	San Juan, P. R.
May 11	St. Kitts (f)	Choctobham & Sons	Kingston, Jamaica
May 11	Van Renslaer	Royal Dutch West India Mail Co	Cartagena
May 12	Pastores	United Fruit Co	Port Limon
May 12	Lake Flattery	United States Shipping Board	New York
May 13	Panama	Panama Railroad Steamship Line	New York and Haiti
May 13	Ed Captain	Standard Oil Co.	Kingston
May 13	Tiverton	Associated Oil Carriers	Cartagena
May 13	Santa Marta	United Fruit Co.	New York via waypoints
May 13	Heredia	United Fruit Co.	New Orleans and Bocas
May 14	Arabia (h)	W. V. N. Powellson	Colon
May 14	Ulysses (e)	Panama Railroad Steamship Line	Norfolk
May 14	Caldas	Caribbean Steamship Co.	New York and Nicaragua
May 14	Botsford	United States Shipping Board	New York and Haiti
May 15	Advance	Panama Railroad Steamship Line	

(Continued on page 597, column 2.)

Another Service Between West Coast of Central America and New Orleans.

The New Orleans and South American Steamship Company which operates a monthly service between New Orleans and ports of Ecuador, Peru, and Chile, as well as a Caribbean service, calling at Habana, Porto Rican ports, Trinidad, Guadeloupe, and other West Indian ports, thence to Cristobal to load for New Orleans, has established connections with the Pacific Mail, to handle shipments from the west coast of Central America to New Orleans. Shipments are transferred at Cristobal. Special attention is being devoted to the coffee and sugar traffic.

The through service of the New Orleans and South American Company to the west coast of South America operates a steamer each way approximately monthly, and the Caribbean service sends a ship to Cristobal also about once a month. At present only the ships in the latter service are handling cargo at the Canal; the line down the west coast handles through cargo in both directions.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 15, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Van Renselaer.....	Royal Dutch Steamship Co.....	May 9.....	May 11.....	118	33
Ulysses.....	Panama Railroad Steamship Line.....	May 9.....	May 13.....	†12,041	.....
Darien (*).	Panama Railroad Steamship Line.....	May 9.....	May 13.....	†7,029	.....
Calamares.....	United Fruit Co.....	May 9.....	May 13.....	23	.....
Sudbury.....	Royal Mail Steam Packet Co.....	May 10.....	May 12.....	20	461
Tiverton.....	Royal Mail Steam Packet Co.....	May 10.....	May 13.....	160	68
Santa Leonora.....	United States Army.....	May 11.....	May 11.....	.....	.....
Heredia.....	United Fruit Co.....	May 11.....	May 13.....	316	62
Pastores.....	United Fruit Co.....	May 11.....	May 12.....	32	26
Santa Marta.....	United Fruit Co.....	May 12.....	May 13.....	2	249
Ansaldo San Giorgio II	Italian Navigation Co.....	May 12.....	May 13.....	11	.....
San Juan.....	Pacific Mail Steamship Co.....	May 13.....	.....	1,166	.....
Dunclutha.....	Pacific Steam Navigation Co.....	May 13.....	May 15.....	1	290
Caldas.....	Caribbean Steamship Co.....	May 14.....	May 14.....	33	.....
Chinampa.....	Standard Oil Co.....	May 15.....	.....	†9,550	.....
Gen. W. C. Gorgas....	Panama Railroad Steamship Line.....	May 15.....	.....	855	.....
Haiti.....	French Line.....	May 15.....	.....	35	.....
Jamaica.....	Pacific Steam Navigation Co.....	.....	May 15.....	.....	541
Manavi.....	Pacific Steam Navigation Co.....	.....	May 13.....	.....	401

*Barge.

†Coal.

‡Oil.

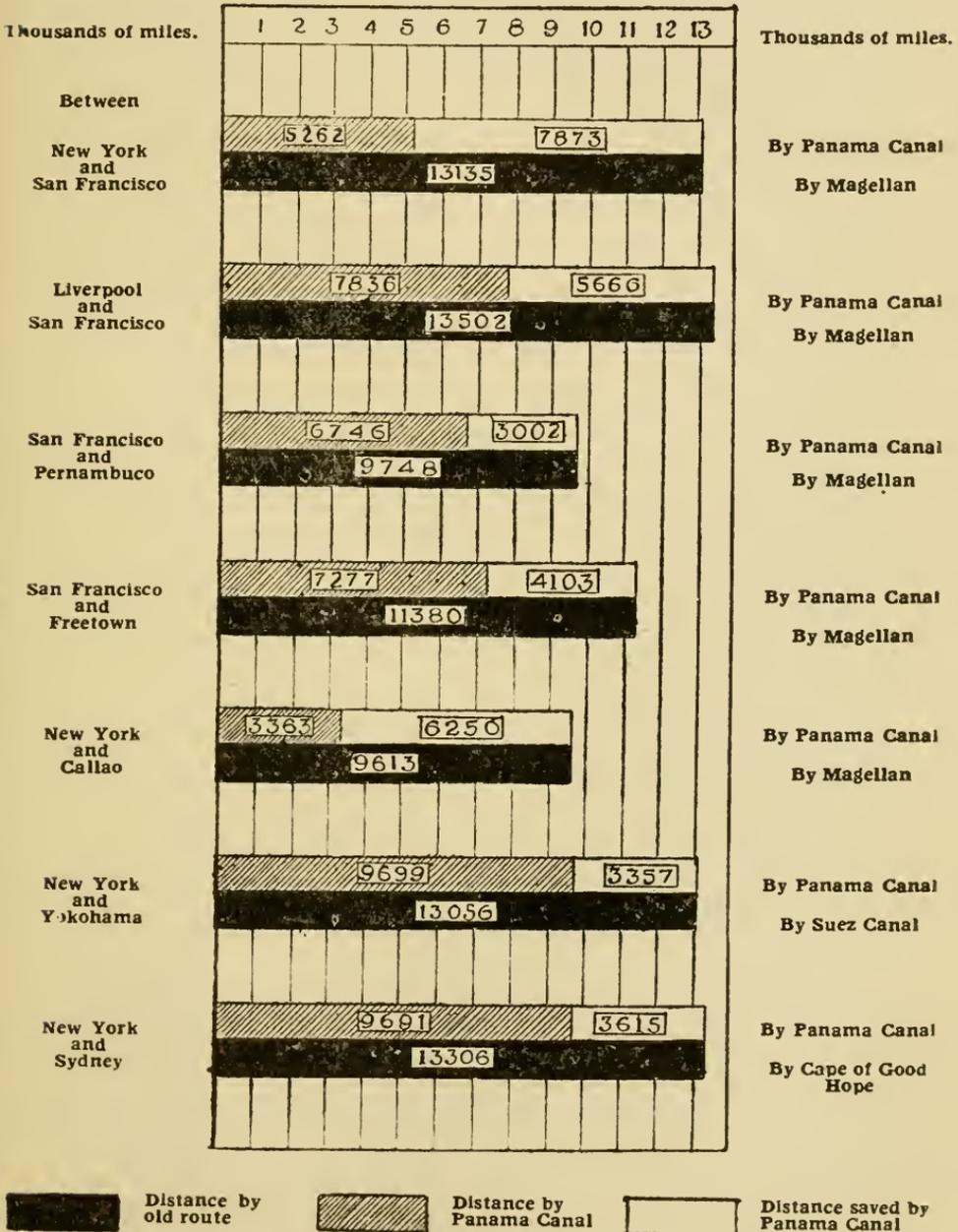
Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 15, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Manavi.....	Pacific Steam Navigation Co.....	May 8.....	May 9.....	5	.....
Jamaica.....	Pacific Steam Navigation Co.....	May 10.....	May 10.....	13	.....
San Juan.....	Pacific Mail Steamship Co.....	May 11.....	May 12.....	355	1
Cansumset.....	United States Shipping Board.....	May 12.....	.....	2,408	.....
Constance.....	Panama American Timber Corp.....	May 12.....	May 14.....	100	.....
Joan of Arc.....	Rolph Mail Steamship Co.....	May 13.....	May 15.....	282	.....
Ansaldo San Giorgio II	National Navigation Society.....	May 13.....	.....	75	16
Balboa.....	Columbia Maritime Co.....	May 14.....	May 14.....	.....	70
City of Para.....	Pacific Mail Steamship Co.....	May 13.....	May 14.....	1	.....
Jamaica.....	Pacific Steam Navigation Co.....	May 15.....	May 15.....	.....	21

Distances Saved by the Panama Canal.

The great savings in distances at sea brought about by the Canal have been illustrated in many ways. The chart on following page gives a graphic presentation of the shortening of distances between some of the representative ports. The heavy black lines or areas represent the

distances between the ports indicated by the routes other than the Canal. Imposed above this black line, the hatched area indicates the distance by the Canal, and the area in white shows the nautical miles saved by the Canal. For example, the old distance between New York and San Francisco, 13,135 miles, has been reduced to 5,262 miles, a saving of 7,873 miles. The areas are drawn to scale, and show at a glance the relative distances and economies.



Dollar Line Trying Out Atlantic-Far East Service.

The steamships *Stanley Dollar*, arriving at the Canal May 5, and *Grace Dollar*, arriving on May 9, going in opposite directions, are engaged in a tentative service of the Robert Dollar Line between New York and the Far East. If business warrants, a regular service over this route is to be established by the operators.

Service to and from Costa Rica.

The United Fruit Company has reestablished a weekly freight and passenger service between Cristobal and Port Limon, Costa Rica. The ships leave Cristobal on Wednesday afternoon, arriving at Port Limon the next morning; and returning, leave Port Limon at 5 p. m., Saturday, and reach Cristobal Sunday morning. The distance between Cristobal and Port Limon is 192 nautical miles.

The vessels engaged in this service are the *Calamares*, *Pastores*, *Toloa*, and *Ulua*, which ply between New York and Cristobal by way of Habana and make a side trip to Port Limon. The service was begun with the steamship *Calamares*, which arrived at Cristobal from Habana on May 4, left on the 5th for Port Limon, returned to Cristobal on May 9, and cleared the same day for Habana, on the way to New York.

On the Pacific side, the Pacific Mail operates semimonthly freight and passenger service between the Canal ports and Puntarenas, Costa Rica, employing the ships in the regular San Francisco-Panama line, and the Pacific Steam Navigation Company operates freight and passenger service with the steamship *Salvador*, which goes as far north as Champerico, Guatemala, with calls at Puntarenas both ways. The *Salvador* makes the voyage every 25 days. The distance to Puntarenas from Balboa is 471 miles.

The Royal Mail Steam Packet Company has an approximately monthly sailing between Puntarenas and Cristobal, as also a monthly steamer from Port Limon to Cristobal.

Bound Volumes I and IX Wanted.

The reserve stock of bound Volumes I and IX of THE PANAMA CANAL RECORD has become practically exhausted and these volumes have been withdrawn from sale. In order to secure a stock, it would be appreciated if anyone who may have official or personal copies which are no longer needed, would return them to the Executive Office. Copies of other volumes may be obtained in exchange for Volumes I and IX.

Cable Censorship.

The All-America Cables advises that censorship has been established in Honduras and Salvador and Vera Cruz and Puerto Mexico. All messages must have name of code used, and be sent at sender's risk.

Revision of Telephone Directory.

The copy for a revised telephone directory, to be issued as of June 15, 1920, will go to the printer June 1. All changes or corrections in the present directory should be forwarded to the Supervisor of Telephones, Balboa Heights, not later than June 1. Proof corrections will be made to June 6.

Insurance in the Canal Zone.

A statement of insurance business transacted in the Canal Zone in 1919, as taken from the annual reports of the companies, follows:

	Gross premiums.	Gross losses paid.
<i>American Surety Company.</i>		
Fidelity.....	\$15.09	\$38.38
Surety.....	106.67	
Total.....	\$91.58	\$38.38
<i>Maryland Casualty Company.</i>		
Accident.....	\$31.19	
Health.....	6.00	
Liability.....	2,567.57	379.28
Workmen's compensation.....	557.89	10.88
Fidelity.....	120.34	
Surety.....	2,117.92	
Burglary and theft.....	102.60	
Auto and teams property damage.....	28.27	
Total.....	\$5,195.66	\$390.17
<i>Maryland Assurance Company.</i>		
Accident.....	\$12,203.05	\$2,721.92
Health.....	924.46	325.11
Total.....	\$13,127.51	\$3,047.03
<i>National Surety Company.</i>		
Fidelity.....	\$154.68	\$1,050.98
Surety.....	773.05	
Total.....	\$927.73	\$1,050.98
<i>United States Fidelity and Guaranty Company.</i>		
Fidelity.....	\$53.25	
Surety.....	\$1,507.49	
Total.....	\$1,560.74	

† Return premiums

	Number.	Amount.
<i>Home Life Insurance Company.</i>		
Policies in force December 31, 1918.....	347	\$603,951.00
Policies issued during 1919.....	118	357,943.00
Total.....	465	\$961,894.00
Policies lapsed during 1919.....	27	59,149.00
Total.....	438	\$902,745.00
Losses and claims unpaid December 31, 1918.....	1	1,000.00
Losses and claims incurred during 1919.....	1	1,000.00
Losses and claims settled during 1919.....	1	1,000.00
Losses and claims unpaid December 31, 1919.....	1	1,000.00
Premiums collected in 1919.....		\$33,918.09
<i>Manufacturers Life Insurance Company.</i>		
Policies in force December 31, 1918.....	1	1,500.00
Policies issued during 1919.....		
Total.....	1	1,500.00
Policies lapsed during 1919.....		
Policies in force December 31, 1919.....	1	1,500.00
Losses and claims unpaid December 31, 1918.....		
Losses and claims incurred during 1919.....		
Losses and claims settled during 1919.....		
Losses and claims unpaid December 31, 1919.....		
Premiums collected in 1919.....		\$93.15
<i>Pan-American Life Insurance Company.</i>		
Policies in force December 31, 1918.....	140	\$266,800.00
Policies issued during 1919.....	107	250,500.00
Total.....	247	517,300.00
Policies lapsed during 1919.....	27	46,500.00
Policies in force December 31, 1919.....	220	\$470,800.00
Losses and claims unpaid December 31, 1918.....	1	2,000.00
Losses and claims incurred during 1919.....		
Losses and claims settled during 1919.....	1	2,000.00
Losses and claims unpaid December 31, 1919.....		
Premiums collected in 1919.....		\$16,438.71

RECAPITULATION. Miscellaneous Companies.	Premiums received in 1919.	Losses paid in 1919.
Accidents.....	\$12,171.86	\$2,721.92
Auto and teams property damage.....	28 27	
Burglary and theft.....	102.60	
Fidelity.....	313.18	1,089.36
Health.....	918.46	325.11
Liability.....	2,567.57	379.29
Surety.....	4,505.13	
Workman's compensation.....	557.89	10.98
Total.....	\$20,908.22	\$4,526.56

¹ Return premiums.

Life Insurance Companies.	Number.	Amount.
Policies in force December 31, 1918.....	488	\$872,251.00
Policies issued during 1919.....	225	808,443.00
Policies lapsed during 1919.....	54	105,649.00
Policies in force December 31, 1919.....	659	1,375,045.00
Losses and claims incurred during 1919.....	1	1,000.00
Losses and claims settled during 1919.....	2	3,000.00
Losses and claims unpaid December 31, 1919.....	1	1,000.00
Premiums collected in 1919.....		50,449.95

No fire, marine, or tornado insurance companies did business in the Canal Zone in 1919.

The absence of fire insurance companies is due to the fact that practically all real estate in the Canal Zone is owned by the Government of the United States, which does not insure its property. The fire losses have been kept down to a remarkably low figure by the Canal Zone fire department.

In the report for 1918, a statement of the population of the Canal Zone was given, based on the police census of June, 1918, showing a total of 21,707, divided roughly as follows: 2,874 male Americans, mostly employees; 7,842 male aliens, mostly employees; 3,816 American women and children, consisting of female employees and families of employees; 7,175 alien women and children, consisting largely of families of employees.

The police census of August, 1919, showed a total population of 21,759, exclusive of the military population—an increase of 52 over the civil population of June, 1918. The census of 1919 showed the following approximate divisions of the population: 3,141 male Americans, mostly employees; 7,376 male aliens, mostly employees; 3,890 American women and children, consisting of female employees and families of employees; 7,352 alien women and children, consisting largely of families of employees.

Weather Conditions in April, 1920.

Rainfall for the month was below normal everywhere except at Pedro Miguel, the deficiency being extremely marked in the Atlantic section and over most of the Gatun Lake drainage basin. Totals ranged from 0.06 inch at Frijoles and Bohio to 5.08 inches at Pedro Miguel. The greatest amount of rainfall recorded on any one day was 1.98 inches at Balboa Heights on the 17th.

The estimated rainfall over the Gatun Lake watershed was 0.87 inch, compared with a 10-year mean of 4.76 inches, and over the Chagres River basin above Alhajuela it was 1.53 inches, compared with a 19-year mean of 4.60 inches.

The air temperature, surface temperature of the sea, and the evaporation were above the average, while the atmospheric pressure, relative humidity, and daytime cloudiness were below normal. The wind movement was slightly below normal on both coasts and slightly above normal over the interior.

A few fogs were observed at interior stations, all of which were dissipated by 7.30 a. m.

Slight earthquake shocks were recorded on the 8th and 27th.

The 4-month dry season rainfall is the lowest on record since the American occupation, being slightly lower than that of 1912.

Gatun lake hydrology—Mean elevation of Gatun Lake was 82.98 feet; maximum, 83.54 feet on the 1st; minimum, 82.29 feet on the 30th; evaporation from Gatun Lake surface, 7.257 inches; rainfall on Gatun Lake drainage basin, 0.87 inch; total yield of Gatun Lake watershed, 0.36 inch on the watershed; the total yield amounted to 41 per cent of the rainfall.

The following table gives a summary of weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.				Precipitation.				Wind.					
		Mean.	Maximum.	Date.	Minimum.	Date.	Mean relative humidity.	Total inches.	Station average.	Days with 0.1 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa Heights...	29.837	82.4	94	April 5	73	April 21	76.8	3.02	3.09	8	6,026	N.W.	34	N. E.	April 17
Colon.....	29.848	83.0	93	April 12	75	April 21	78.0	1.72	4.29	9	8,528	N.	27	N.	April 30
Gamboa.....	.....	82.7	96	April 11	72	April 2*	.....	1.43	3.64	6	4,474	N.E.	24	N. E.	April 30
Gatun.....	.....	82.4	93	April 18	74	April 4*	.....	.14	5.63	2	6,433	N.	24	N.	April 7

* And other dates.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Proof director (male and female); \$2,000 to \$3,000 a year; No. 209-amended; June 8, 1920; form 1312; age, 21 years and over.*

Mine inspector (male and female); \$2,000 to \$3,500 a year; No. 316; June 15, 1920; form 1312; age, 25 years but not 50 years.*

Administrative assistant, chief clerk or registrar, administrative assistant, property officer; No. 23-amended, supplemental; postponed from May 5 to May 19, 1920. Applicants will be admitted to this examination regardless of their age; but at the request of the department certification may be made of eligibles who are within reasonable age limits, except in the case of persons entitled to preference because of military or naval service, to whom age limits do not apply.

Assistant superintendent (male and female); \$10 to \$10.40 a day; No. 326; June 15, 1920; form 1312; age, 25 years and over.*

Senior architect (male and female); \$1,800 to \$2,700 a year; No. 311; June 22, 1920; form 1312; age, 25 years but not 50 years.*

Linotype machinist (male and female); 80 cents an hour; No. 305; June 23, 1920; forms 304 and 1745; age, 20 years and over.

Calculating-machine operator (male and female); \$900 to \$1,200 a year; No. 120-amended; June 23, August 18, and October 20, 1920; form 304; age, 18 years and over.

Operative (male and female); \$900 to \$1,000 a year; No. 120-amended; June 23, August 18, and October 20, 1920; form 304; age, 18 years and over.

Trained nurse (male and female); \$720 to \$960 a year; No. 1952-amended; form 1312; age, 20 years but not 50 years.†

Trained nurse (Indian Service) (male and female); \$840 a year; No. 1952-amended; form 1312; age, 20 years but not 45 years.†

Mechanican qualified for work on laboratory and mining apparatus (male and female); \$1,400 to \$1,800 a year; No. 290; June 8, 1920; form 1800; age, 20 years but not 50 years.*

Foreman, 14,000-ton press for armor plate and large-caliber guns (male and female); \$11.84 to \$13.28 a day; No. 292; June 8, 1920; form 1371; age, within reasonable age limits.*

Preparator in nematology (male and female); \$660 to \$1,000 a year; No. 294; June 9, 1920; form 304; age, 18 years and over.

Chief ballistician (male and female); \$3,000 to \$3,600 a year; No. 291; June 15, 1920; form 1312; age, under 45 years.*

Wet plate process photographer (male and female); \$1,200 a year; No. 297; June 8, 1920; form 1312; age, 20 years and over.*

Physician (Panama Canal Service) (male and female); \$225 a month; No. 15-amended; July 7 and September 8, 1920; form 1312; age, 22 years but not 31 years.

Trained nurse (Panama Canal Service) (male and female); females, \$95 a month with laundry of uniform but without subsistence; males, \$100 a month without subsistence or laundry; May 23, 1920; No. 269-amended; form 1312; age, females 20 to 35 years; males 20 to 40 years.

Mechanical draftsman, Ordnance Department at Large (male and female); grade 1, \$800 to \$1,400 a year; grade 2, \$1,400 to \$1,800 a year; grade 3, \$1,800 to \$2,500 a year; form 1835; age, 18 years and over.†

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications, and they must be in the hands of the Commission at Washington prior to the hour of closing business on that date.

†Nonassembled. Applications will be received at any time until further notice

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
William Blackett	31078	Barbados	Colon	Supply Department	May 7, 1920.
Daniel Crooks	35458	Jamaica	Colon	Mechanical Division	May 9, 1920.
Adolphus Curling	25692	Panama	Colon	Panama Railroad	May 10, 1920.
Raoul Abelard	39689	Martinique	Camp Bjerd	Coaling Station	May 11, 1920.
Ricardo Jimenez	29690	Panama	Panama	Coaling Station	April 4, 1920.

Official Circulars.**Acting Governor.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., May 18, 1920.

All concerned—Effective May 19, 1920, and during my absence on leave, Col. Jay J. Morrow, U. S. A., Engineer of Maintenance, will be Acting Governor.

CHESTER HARDING,
Governor.

Acting President on the Isthmus.

PANAMA RAILROAD COMPANY,
OFFICE OF THE PRESIDENT,

BALBOA HEIGHTS, C. Z., May 18, 1920.

All concerned—Effective May 19, 1920, and during my absence on leave, Col. Jay J. Morrow, U. S. A., 2d Vice President, will exercise such duties of the President as relate to the operations of the company on the Isthmus.

CHESTER HARDING,
President, Panama Railroad Company.

Acting Assistant Engineer, Section of Surveys.

THE PANAMA CANAL,
DEPT. OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., May 18, 1920.

To all concerned—Effective this date and during Mr. O. E. Malsbury's absence on leave, Mr. F. R. Fitch is designated Acting Assistant Engineer in charge of the Section of Surveys.

JAY J. MORROW,
Engineer of Maintenance.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 12, 1920.
CIRCULAR No. 241:

Effective May 12, 1920, Mr. R. Z. Kirkpatrick is designated an accountable official of The Panama Canal, *vice* Mr. H. G. Cornthwaite, and as such will account for all nonexpendable property in use in the Section of Meteorology and Hydrography.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Transportation on Army Transports.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 12, 1920.

To all concerned—In making application for transportation to New York or New Orleans, on Army transports, employees are requested to show on form 194, the name, relationship, and

address of some person, either in the United States, or on the Isthmus, to be notified in case of illness or accident. This information is required by the Department Transportation Officer, United States Army, and must be furnished in all cases before transportation can be authorized.

Passage money must be paid to the Port Transportation Officer, office of Captain Decker, Cristobal, C. Z., at least 48 hours before sailing of the transport. Passage money may be paid in cash, in person, or sent by mail in form of money order payable to the Port Transportation Officer, Cristobal, C. Z. If paid in cash the original transportation request (signed) must be presented; if paid by money order it must be attached thereto.

C. A. McILVAINE,
Executive Secretary.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., May 18, 1920.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee. Such request may be made by telephone, calling No. 182, Balboa:

Armstrong, Lloyd, Mrs.	Hunter, Miss Myra*
Ayer, Mrs. F. C.	Hutchison, Charles E.
Bielitz, Mrs. Adolph	Lawrentew, W.
Bean, Dr. Dorf	Leich, John, Mrs.
Burdick, H. E.	Mayer, Mrs. Frank
Cabey, Jacob	Sargent, R. Harvey
Clark, H. A.	Sperling, Martin
Clark, Waldo Emerson	Sturdee, J. M.
Foster, Rev. Earl W.	Von Redhead, J.
Henson, Charles	Smart, Miss Linda
Hill, G. A.	Welby, J. P.
Humphrey, Favell	Whitaker, Mrs. Lydia

*Card.

Sailings of Panama Railroad Passenger Ships.

The following are the expected dates of departure from Cristobal for New York, via Port-au-Prince, of passenger-carrying ships of the Panama Railroad Steamship Line, but employees are advised that these sailings are subject to change:

General Gorgas	May 21	Panama	June 13
Colon	May 29	General Gorgas	June 21
General Goethals	June 3	Colon	June 24
Allianca	June 9	General Goethals	July 5

Sale of Old French Lighter.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., June 1, 1920, and then opened, for the purchase of an old French lighter, situated on part of lot 18, block 2, Folks River, Colon. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Bending Roll Machine.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., June 5, 1920, and then opened, for the purchase of one bending roll machine, now at Mount Hope storehouse. Form of proposal may be had upon application to Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Two Pile Drivers.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., May 21, 1920, and then opened, for the purchase of two pile drivers, located at Cristobal storehouse. Description and form of proposal may be had upon application to the office of the Chief Quartermaster. Bids will be received on one or both of the pile drivers. The Panama Canal reserves the right to reject any or all bids.

Cockerels for Sale.

There are available for sale at the Summit poultry farm 50 single-comb white Leghorn young breeding cockerels at \$3 each, f. o. b. Summit. Prospective purchasers may inspect these cockerels at the farm.

Sale of Bus Bodies.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, up to 10.30 a. m., June 1, 1920, and then opened, for the purchase of four bus bodies, removed from Panama Railroad buses which formerly operated in the Ancon-Balboa district. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Additions to Commissary Stock.*Dry Goods Section.*

Belts, women's, leather, black, 1½", ea....	\$0.45
Blouses, boys', pongette, ea.....	1.35
Chemises, envelope, ea.....	3.05
Cloths, wash, ea.....	.15
Cloths, wash, ea.....	.17
Cream, dental, Lyon's, tube.....	.22
Cream, shaving, Ezonall, tube.....	.36
Curtain, voile, printed, 36", yd.....	.47
Curtain, scrim, reversible, 36", yd.....	.51
Curtain, cretonne, 36", yd.....	.47
Dress goods:	
Not linen, 35/6", yd.....	.66
Not linen, 35/6", yd.....	.69
Voile, white, fancy, 36", yd.....	.56
Voile, white, fancy, 36", yd.....	.88
Handkerchiefs, men's, white, ea.....	.15
Holders, Dribrush, No. 2, Alberite, ea....	.47
Hose, men's, interwoven, dark tan, pr....	1.25
Hose, men's, interwoven, cordovan, pr....	1.25
Hose, men's, interwoven, navy, pr.....	1.25
Hose, men's, interwoven, slate, pr.....	1.25
Hose, men's, interwoven, black, pr.....	1.25

Hose, men's, interwoven, white, pr.....	\$1.25
Hose, men's, mercerized cotton, white, pr.	.42
Hose, men's, mercerized cotton, white, pr.	.51
Needles, White sewing machine, No. 1 and F. R. Co., ea.....	.40
Nightgowns, ladies', ea.....	3.40
Shirts, men's negligee, attached collar, khaki color, ea.....	2.05
Shirtwaists, women's, white voile, ea.....	5.40
Stationery, ink, white, Carter's, 1-oz. bot.	.11
Suitings:	
Cotton and jute, mercerized, 27", yd....	.49
Duck, white linen, Imperial, 27/8", yd....	1.80
Duck, white linen, Imperial, 27/8", yd....	1.75
Duck, white linen, Imperial, 26½/7¼", yd	1.35
Ties, 4-in-hand, silk poplin, ea.....	.93
Ties, 4-in-hand, fancy silk, ea.....	1.55
Ties, 4-in-hand, silk, assorted, ea.....	.68
Ties, tubular, wash, ea.....	.38
Ties, 4-in-hand, fancy silk, ea.....	.93
Ties, 4-in-hand, fancy silk, open end, ea..	.93
Ties, batwing, fancy silk, ea.....	.51
Ties, 4-in-hand, knitted cotton, ea.....	.44
Ties, 4-in-hand, knitted, cotton, ea.....	.52
Ties, 4-in-hand, knitted, cotton, ea.....	.66
Vaseline, hair tonic, No. 1, bot.....	.27

Grocery Section.

Corn, sugar, 1s tin.....	.14
Food, oat, 2-minute, pkg.....	.19
Peaches, sliced, 1s tin.....	.17
Peas, extra sifted, 1s tin.....	.19
Household coloring solution, P. C.:	
Burnt sugar brown, 4-oz. bot.....	.15
Lemon yellow, 4-oz. bot.....	.15
Brilliant green, 4-oz. bot.....	.15
Strawberry red, 4-oz. bot.....	.15
Orange, 4-oz. bot.....	.15
Chocolate brown, 4-oz. bot.....	.15
(NOTE—One cent allowed for return of empty bottle.)	
Soup, sea green turtle, clear, 1s tin.....	.27
Soup, sea green turtle, thick, 1s tin.....	.27
Vinegar, cider, P. C., pint bot.....	.17
(NOTE—Three cents allowed for return of empty bottle.)	

Hardware Section.

Pipes, Bakelite socket, ea.....	4.05
Pipes, Bakelite socket, ea.....	4.75
Pipes, Bakelite socket, ea.....	3.70
Pipes, Bakelite socket, ea.....	5.05
Razors, Durham Duplex, set.....	4.05
Razors, safety, Gillette, Big Fellow's, set.	4.05
Rings, key, bead chain, ea.....	.06
Rugs, Crex, De Lux, 54" x 90", ea.....	8.80

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama," in the United States, "Panacanal, Washington."

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

COMMISSARY NOTE.**Books.**

A small shipment of popular books to retail at the special price of 81 cents has just been received from New York and distributed to Cristobal, Gatun, Pedro Miguel, Ancon, and Balboa commissaries.

Books received:

"The Actor Manager," by Leonard Merrick; "Cynthia," by Leonard Merrick; "The Position of Peggy Harper," by Leonard Merrick; "Going Some," by Rex Beach; "In the Shadow of Great Peril," by Horace Wade; "Moments with Mark Twain," by Albert Payne; "Secret of Sarek," by Maurice Leblanc.

Juvenile books received:

"A Child's Garden of Verse," by Robert Louis Stevenson; "Little Folks in Busyland," "Trail of Sandhill Stag," "Monarch Big Bear."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.
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at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII.

Balboa Heights, C. Z., May 26, 1920.

No. 41.

The "Mount Vernon" Returns with Czecho-Slovak Soldiers.

The United States Army transport *Mount Vernon* arrived at Balboa on May 24, bound from Vladivostok, by way of San Francisco, for Hamburg, by way of Norfolk, carrying 3,220 Czecho-Slovak soldiers, 294 first class passengers, consisting of Czecho-Slovak and French officers and the families of officers and men, and 698 German prisoners of war. Some of these men were engaged in the world war from its beginning, and are nearing the completion of six years of service. The German prisoners were originally captured by the Russians, liberated after the formation of the Russian Republic, and later recaptured by the Czecho-Slovak forces, which had worked their way into Russia across the former Austrian frontier. Prisoners as well as the soldiers are being repatriated. The *Mount Vernon* left Vladivostok on April 13. She had passed through the Canal on October 28, 1919, outward bound from New York.

When the *Mount Vernon* arrived a case of fever, supposed to be typhus, had developed since leaving San Francisco. The case was landed and taken to Ancon Hospital, for laboratory diagnosis and treatment. The ship was kept in quarantine during her stay in Canal waters. Transit of the Canal was made on May 25, the ship drawing 32 feet of water, fore and aft. She is 685.4 feet long, and exceeded in length among the ships which have used the Canal by only the British battle cruiser *Renown*.

At Balboa the *Mount Vernon* took on 401 tons of coal, and was awaiting orders at Cristobal as to bunkers, at time of going to press. She consumes 375 tons a day, traveling at 13½ knots. Her full speed is rated between 23 and 24 knots.

Steamboat-Inspection Service.—Investigation of Marine Accidents.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., May 22, 1920.

CIRCULAR No. 644-5:

Hereafter, in event of an accident or casualty affecting any floating property in Canal waters, which under existing regulations imposes on the Board of Local Inspectors an obligation to investigate, no change in the physical status of the floating property affected by the accident or casualty will be permitted prior to inspection by properly constituted authority, unless such change in status be imperative in order to preserve life or property.

It will be noted that the above requirement does not in any degree contravene the provisions of paragraph 71 of Circular 644, inasmuch as that paragraph lays down procedure to be followed in the preparation of boilers for periodic inspection.

JAY J. MORROW,
Acting Governor.

The "Sachem" Renamed the "Cuba."

The Pacific Mail Steamship Company advises that its steamship *Sachem*, operating on the Panama Line, and to Cuba, has been renamed the *Cuba*.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight May 22, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Gross	Net
Eagle No. 57 (a)	14	23.07	16	6.25	16	15.47	22	17.30	American	United States Navy	209.0	33.0	13.0	Guantanamo	Los Angeles	Coal	2,732	2,472
Cerro Gardo	15	12.17	16	6.35	16	16.03	20	19.40	American	United States Shipping Board	251.0	46.0	21.9	Baltimore	Guayaquil	General	5,000	5,360
Pacific (b)	16	6.27	16	7.35	16	16.49	18	12.52	Swedish	Johnson Steamship Line	302.0	52.0	22.0	Cristobal	San Francisco	General	5,000	5,360
Eagle No. 4 (a)	4-2	10.05	17	6.03	17	16.52	18	10.28	American	United States Navy	200.0	30.0	12.3	Cristobal	David	General	5,000	5,360
Lake Elkwater	10	7.18	17	6.20	17	17.04	18	20.50	American	United States Shipping Board	273.0	43.6	14.9	Nuevitas	Tocopilla	Steel and cotton	5,400	2,939
Malay Maru	17	9.18	17	9.40	17	18.00	17	18.47	Japanese	Oaska Shosen Kaisha	379.0	50.0	23.8	New Orleans	San Francisco	Steel and cotton	5,400	5,163
La Habra	17	14.48	18	6.08	18	18.03	18	19.06	Norwegian	W. Wilhelmssen	405.0	57.8	27.0	Tampico	San Francisco	Crude oil	9,820	6,032
Crisford	18	6.56	18	6.30	18	20.10	20	10.26	American	United States Shipping Board	425.0	54.8	25.3	Norfolk	Antofagasta	Crude oil	8,024	6,932
G. A. Flag	18	8.45	18	8.14	18	18.58	19	7.53	American	Rolland & Cornelius	332.0	42.0	20.3	Pensacola	Callao	Timber	(c)	3,436
S. C. No. 285	18	18.42	19	6.27	19	15.33	18	17.15	American	United States Navy	110.0	14.0	4.0	Cristobal	Punta Mala	Coke	1,861	2,862
Lake Farber	18	19.10	19	6.45	19	16.27	19	17.35	American	United States Shipping Board	251.0	43.6	19.0	Philadelphia	Valparaiso	General	4,500	5,025
Rifuku Maru	13	20.07	19	7.02	19	15.12	20	7.12	Japanese	Kawasaki Dockyard Co.	385.0	51.0	21.0	New Orleans	Yokohama	General	1,685	3,379
San Juan	19	4.40	19	7.24	19	19.15	20	15.17	British	Pacific Mail Steamship Co.	475.0	56.1	29.0	Cristobal	San Francisco	General	9,500	9,530
Westmeath	19	6.25	19	10.25	19	19.30	20	7.47	American	U. S. Co. of New Zealand	435.0	56.0	26.6	Newport News	Auckland	General	9,400	9,602
Dilwyn	18	25.30	19	10.37	19	20.16	19	20.43	American	United States Shipping Board	253.0	43.0	25.2	Tampico	San Francisco	Crude naphtha	2,555	2,724
Conlee	16	17.17	19	11.00	19	19.37	19	20.43	American	United States Shipping Board	250.0	43.8	22.1	Norfolk	Mollendo	Briquettes fuel	2,685	2,597
Lake Larga	16	20.43	21	6.05	21	13.39	21	17.38	Peruvian	United States Shipping Board	374.7	46.3	18.6	Cristobal	Mollendo	Coal	380	4,278
Ucayali	17	13.55	21	6.22	21	17.45	21	18.34	Italian	La Veloce Steamship Line	454.7	53.4	26.6	Cristobal	Callao	General	57	8,052
Europa	20	14.03	21	6.30	21	15.30	21	16.50	American	United States Shipping Board	250.0	43.5	20.0	Norfolk	Valparaiso	Coal	2,443	2,510
Lake Berdan	20	18.37	21	6.45	21	16.58	21	20.36	American	United States Shipping Board	411.6	53.0	25.6	Tuxpan	Pisaca	Crude oil	7,500	6,390
Brewster	20	18.37	21	7.35	21	18.39	22	1.45	American	Standard Oil Co.	402.5	53.0	18.6	Mobile	San Pedro	Gen., iron pipe	3,373	6,563
Cockaponser	21	6.45	21	8.30	21	15.20	22	23.23	American	United States Navy	200.0	48.0	25.8	Cristobal	Cape Mala	General	6,200	5,316
Sciota (c)	21	6.45	21	11.15	21	18.37	21	6.05	American	United States Navy	200.4	45.0	20.0	Cristobal	Balboa	General	2,346	3,235
S. C. No. 284	21	6.50	22	6.08	22	17.05	22	18.07	Japanese	Katsuda Steamship Co.	400.0	48.0	25.8	Galveston	Yokohama	Steel and cotton	6,200	5,316
Shinbu Maru	22	5.45	22	8.27	22	16.15	22	22.55	American	W. R. Grace & Co.	209.4	45.0	20.0	New York	Mollendo	General	2,346	3,235
Garfield	21	14.22	22	6.35	22	18.00	22	18.42	American	United States Navy	514.0	63.0	26.0	Norfolk	San Diego	Coal and general	6,600	6,600
Oron (d)	21	14.22	22	6.35	22	18.00	22	18.42	American	United States Navy	514.0	63.0	26.0	Norfolk	San Diego	Coal and general	6,600	6,600

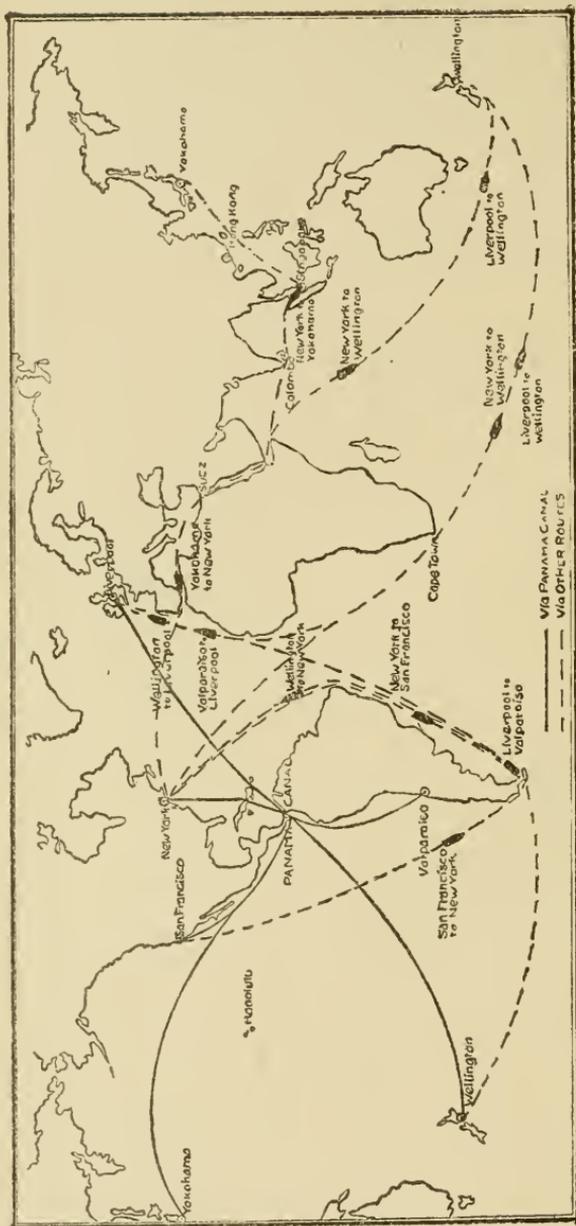
(a) Eagle boat. (b) Motor ship. (c) Tug. (d) Collier. (e) 1,500,000 feet.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Lake Fanbush	14	6.30	16	8.19	16	19.04	18	15.20	American	United States Shipping Board	251.0	43.6	24.6	Salaverry	New Orleans	Frozen and gen.	3,750	1,812
Whakataene	16	6.27	16	9.16	16	20.43	16	23.40	British	New Zealand Shipping Co.	420.0	54.0	23.0	Auckland	London	General	6,000	7,146
Guatemala	15	16.00	16	9.19	16	18.15	23	6.10	Peruvian	Pacific Steam Navigation Co.	359.3	43.0	18.1	Guayaquil	Cristobal	Cocoa, nuts, hats	1,847	4,967
Ucayali	16	8.40	16	12.02	16	20.04	21	6.05	British	Peruvian Line	374.7	46.3	21.6	Callao	Cristobal	General	2,240	4,278
Naurus	16	9.39	17	6.50	18	12.35	18	12.35	American	United States Shipping Board	402.6	53.0	27.0	San Francisco	New York	Flour	7,478	6,583
Suffolk	16	12.10	17	7.00	17	23.20	18	6.57	British	Federal Steam Navigation Co.	460.0	58.2	23.0	Milbourne	New York	General	5,046	8,975

(f) Nitrate of soda and sugar

Ships Traveling by the Panama Canal and by Alternate Routes.



On the accompanying chart courses of ships between representative ports by way of the Panama Canal are shown in solid lines. Courses by alternate routes are shown by broken lines.

The black spots, indicating ships, along the dotted lines, show where a ship traveling over the longer course between two ports would be at the time a similar ship making the voyage by way of the Panama Canal would reach its destination. Equal and constant speed is assumed, and consideration of delays for fuel, supplies, repairs, etc., are omitted though in general the advantage in this respect is with the Canal on account of the excellent facilities at its terminals for quick service of all classes.

On the voyage from New York to Yokohama, for example, when a ship going by way of Panama (9,699 miles) had reached her destination, one sailing eastward by the European route (farther than from Colon to San Francisco or from New York to London) yet to go. On a voyage with some 3,357 miles (farther than from Colon to San Francisco or from New York to London) yet to go. On a voyage from Yokohama to New York, when a ship using the Panama Canal had reached New York, one passing through the Mediterranean would be about 150 miles to the east of Gibraltar.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 22, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Pastores.....	United Fruit Co.....	May 16.....	May 16.....	1	4
Ucayali.....	Peruvian Steamship Co.....	May 16.....	May 21.....		3
Parismina.....	United Fruit Co.....	May 17.....	May 19.....	604	6
Ulua.....	United Fruit Co.....	May 17.....	May 18.....	50	9
Europa.....	Italian Steamship Co.....	May 17.....	May 21.....	30	
Zacapa.....	United Fruit Co.....	May 19.....	May 20.....	20	88
Huasco.....	Chilean Steamship Co.....	May 19.....		15	
Cauca.....	Pacific Steam Navigation Co.....	May 19.....		4	
Santa Marta.....	United Fruit Co.....	May 20.....	May 20.....	4	3
San Juan.....	Pacific Mail Steamship Co.....		May 19.....		38
Haiti.....	French Line.....		May 19.....		6
Orion.....	United States Navy.....	May 21.....		14	
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....		May 21.....		295
Ansaldo SanGiorgio III	Societa Nazionale Italiana.....	May 22.....		16	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 22, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Pacific.....	Johnson Line.....	May 16.....	May 18.....	234	
Guatemala.....	Pacific Steam Navigation Co.....	May 16.....	May 16.....	10	
Point Judith.....	Pacific Mail Steamship Co.....	May 18.....		190	
Cauca.....	Pacific Steam Navigation Co.....	May 18.....	May 19.....	1	
Cathwood.....	United States Shipping Board.....	May 18.....	May 21.....	9,800	
Ansaldo SanGiorgio III	National Navigation Society.....	May 19.....	May 22.....	3	814
San Juan.....	Pacific Mail Steamship Co.....	May 19.....	May 19.....		219
City of Almeda.....	United States Shipping Board.....	May 19.....	May 21.....	1,938	
Bearport.....	United States Shipping Board.....	May 11.....	May 22.....		4,390

Pascagoula Shipping through the Canal.

Pascagoula, Miss., began direct use of the Canal with the passage of the steamship *G. A. Flagg*, which arrived at Cristobal on May 18 on her way from Pascagoula, via Pensacola, to Callao with a cargo of 1,500,000 feet of ship timbers. The *G. A. Flagg* is an American ship of 3,299 gross tons, 332 feet in length by 42 feet beam, and is operated by the Hodge Ship Company.

"Guatemala" Brings Crew of Foundered "Carawa."

The steamship *Guatemala* of the Pacific Steam Navigation Company, which arrived at the Canal on May 16 from south Pacific ports, brought to the Isthmus the crew of the British steamship *Carawa*, belonging to the Government of Australia, which had foundered on San Cristobal or Chatham Island, one of the Galapagos group, on March 24. The *Carawa* had passed through the Canal on March 15, on the way from Port Arthur, Tex., to Melbourne, carrying 4,246 tons of general cargo. Her foundering is reported to have been occasioned by her going in close to the island to take a disabled launch which she had picked up at sea, whose crew wanted to land on San Cristobal. The crew of the *Carawa*, stranded on the island, finally made their way to Guayaquil on a schooner, and there were put aboard the *Guatemala* for return to Great Britain.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Chilean Line Extending Service to New York.

The South American Steamship Company (the Chilean Line), which has operated a west coast service between Valparaiso and the Isthmus since 1890, and is now one of the principal transshipping lines passing through the Canal to Cristobal, announces the inauguration of a through service between Valparaiso and New York with the steamship *Renaico*. Both passengers and cargo will be carried, as on the present Valparaiso-Cristobal line.

The *Renaico* is due to reach the Isthmus from Valparaiso on June 2 on the initial voyage of the new service. She was recently purchased from the Toyo Kisen Kaisha, in whose service she was known as the *Nippon Maru*, and given a general overhauling at Valparaiso. The cabins, saloons, etc., were entirely refitted. The *Renaico* was built in 1898 at Sunderland, and is a steel twin-screw ship, of 5,919 gross and 2,959 net tons, 431 feet in length by 50 feet beam.

Ex-German Steamers from Chilean Waters.

In connection with the passage of British and German tugs through the Canal, outward for Chile and returning with former German vessels in tow, reported in THE PANAMA CANAL RECORD of January 7 and from time to time in the weekly tabular statement, "Movements of Ocean Vessels," there are reprinted below portions of a comment of the last of the German steamers in Chile, originally appearing in *The South Pacific Mail* of Valparaiso, in its issue of April 1:

One by one the ex-German vessels are raising their anchors receiving the tow rope from the British Admiralty tugs, and obediently submitting to be towed to England. The *Santa Theresa* has now arrived at Colon on her way to Falmouth. On Monday last, the *St. Ewe* towed the *Riol* from Coloso where she had been loading nitrate for a British firm, on her way to Colon. The *St. Botolph* is busy towing the *Abessinia* from Junin on her way to Colon, calling at Callao to coal, and the *St. Blasey* has just sailed from Iquique with the *Holstein* as a captive. The whole of the West Coast is now one long line of British tugs towing the German vessels home. The next vessels to leave are the *Rhodopis*, from Iquique, the *Gotha* from Coloso, the *Santa Ines* from Taltal, the *Karnak* from Antofagasta, the *Rameses* from Iquique, the *Hathor* from Antofagasta, the *Negada*, *Santa Rita* and *Gottingen* from Valparaiso.

* * * * *

The Germans are now doing what they can to make good the damage they have done, by recovering by means of divers the valuable parts of machinery which they had thrown overboard. Very many of these can not now be recovered, either because they have already been brought up by other divers as a speculation and sold, or they lie in too deep water for divers to work, or, the moorings of the steamers having been changed, it is now impossible to find the original site where they were thrown overboard.

The coal strike is occasioning some difficulty as regards the coaling of the tugs, which, as can well be imagined, can not carry very much coal for the long slow journey with the towed vessels. But some of the tugs are preceding to the coaling ports and taking their own coal from the canchas by means of their crews.

The loss of the *Schelde* has also considerably impeded the work. The original intention, as laid down in the Peace Treaty, was that the German Government should mobilize all the towing craft in the ports of Germany, and send them out to the coast to effect the work of towing the steamers home. But as a punishment for the Scapa Flow affair, all the harbor material, including the tugs, of the German Empire had to be handed over to the Allies, and Germany was left with no powerful tugs for the work, and had to arrange with the British Admiralty to hire British tugs and send them out at the expense of the German Government. Of the tugs which were left to Germany she is sending out 4, of these the *Einigkeit* and *Schelde* are samples, neither of them fit for towing across the Atlantic.

In addition to the 4 German tugs, the British Admiralty has sent out 16 powerful tugs for the work. It was found that one of these, even, was not sufficiently powerful to tow the first of the ex-German steamers to be towed from the coast, the *Santa*

Maria, and accordingly a second tug has been despatched to Kingston to assist the first. The tug *St. Athan* arrived at Panama with the *Osiris* in tow, last week, but was delayed there by the Canal slide.

The fate of the sailing vessels was to have been decided at a meeting to be held in London about the middle of March; but the latest German revolution has postponed any definite decision. In the meantime permission has been given to the *Helios*, the smallest of the detained vessels, a little schooner of 1,200 tons, to continue on the voyage which she started in 1914 to Germany, as she is below the tonnage limit, above which all vessels which formerly belonged to German owners must be surrendered to the Allies, according to the Peace Treaty.

The item in THE PANAMA CANAL RECORD of January 7, referred to in the first paragraph, stated that prior to the passage of the tugs *Einigkeit* and *Schelde* on January 2, 1920, the only vessel to have passed through the Canal under the German flag was the launch *Germania*. on February 19, 1915. A reader has called attention to the inaccuracy of this statement, pointing out that the launch *Emden*, of 3 net tons, made the transit of the Canal, flying the German flag, on October 15, 1916, going from Cristobal to Balboa.

The "Allianca" Not to Go to New Orleans.

The statement appearing in THE PANAMA CANAL RECORD of last week to the effect that the steamship *Allianca* would sail for Cartagena and Puerto Colombia to secure cargo for Cristobal, New Orleans, and New York, has been understood by some to mean that the *Allianca* would sail for New Orleans. She will not, as any cargo secured for New Orleans will be transhipped at Cristobal to some other carrier.

Transportation of Passengers from New Orleans on Army Transports.

On some of the future voyages of Army transports from New Orleans to Cristobal, passengers will not be carried on account of shipments of explosives on the vessels, but passengers will continue to be carried regularly on the return voyages from Cristobal. The Chief of Office in Washington will inquire in advance of each sailing from New Orleans whether passengers can be assigned. He requests that employees making requests on the Washington Office for return transportation for themselves or families on a transport from New Orleans give ample notice and specify alternative line.

In this connection, it should be understood that the passenger accommodations allotted to The Panama Canal for the use of its employees are limited by the needs of the Army, and in most cases do not exceed 25 persons per trip.

Examinations for Apprentices.

The Superintendent of the Mechanical Division has issued the following circular notice, addressed to all concerned, under date of May 25, 1920:

On Friday and Saturday of this week, May 28 and 29, examinations will be held in the apprentice schoolroom, third floor, Mechanical Division office building, Balboa shops, for establishing a list of eligibles for appointment as apprentices.

This examination will be confined to boys of American parentage, between the ages of 16 and 20.

All those eligible and desiring to take the examination will report at the above-designated place promptly at 9 o'clock Friday morning, May 28. The examination will be both mental and physical, to determine the general fitness of applicants for the duties of an apprentice.

Date of examination for Panamanian boys will be announced later.

Special Taboga Launch Service for Memorial Day Holiday.

In connection with the Memorial Day holiday, special launch service to Taboga will be provided on Sunday, May 30, with the departure of one launch from Dock 19, Balboa, at 7 a. m., and a second launch at 10 a. m. The *Coco Solo*, *Pequeni*, and *Taboga* are to be in service. The return trips will be according to the usual schedule, with extra trips as needed, and the service on Saturday, May 29, will be on regular schedule, a launch leaving Dock 19 at 6 p. m.

Commuting to and from Taboga Contemplated.

With the idea of increasing the permanent patronage of the Aspinwall Hotel and offering some relief to the numerous employees with families who have no Canal quarters, the Supply Department is considering the establishment of a commuting service between Balboa and Taboga. Under present rates the wife of an employee can live at the Aspinwall for \$54 a month, for lodging and 3 meals a day. This is to be continued and a rate of \$50 per month, to cover transportation to Taboga in the evening, dinner, lodging, breakfast, and return transportation in the morning, is contemplated if enough employees desire to avail of it. Reasonably reduced rates will be arranged for children. Adequate daily launch service can be provided. The launch would leave Balboa after working hours in the afternoon; and, returning, leave Taboga in time to reach Balboa before the beginning of work. The trip is about an hour's run, each way. Employees interested are requested to express their opinions or offer suggestions to the Chief Quartermaster.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Bacteriologist (male and female); \$2,500 a year; No. 302; June 22, 1920; form 1312; age, 26 years and over.*

Electrical aid (fire control) (male and female); \$8.80 a day; No. 301; June 15, 1920; form 1312; age, 21 years and over.*

Electrician, \$1,400 a year plus bonus of \$20 a month; No. 231-amended, supplemental; form 1312; and electrician, 80 cents an hour plus bonus of \$20 a month; No. 231-amended, supplemental; form 1312.†

Expert clock repairman (male and female); \$1,600 a year; No. 317; June 22, 1920; form 304; age, 20 years and over.*

Ordinance research engineer (male and female); \$4,000 to \$5,000 a year; No. 300; June 22, 1920; form 1312; age, within reasonable age limits.*

Railway mail clerk (male and female); \$1,300 a year; No. 307; June 16, July 14, and August 11, 1920; form 304; age, 18 years but not 35 years.

Clerk, Panama Canal Service (male and female); \$106 to \$127 a month; July 17, 1920; form 1312; age, 18 years but not 45 years.

Postal clerk, Panama Canal Service (male and female); \$104 to \$125 a month; July 10, 1920; form 1312; age, 18 years but not 45 years.

Stenographer and typewriter, Panama Canal Service (male and female); \$116 to \$137 a month; July 10, 1920; form 1312; age, 18 years but not 45 years.

Aid, Division of Plants, National Museum (male and female); \$1,200 a year; June 23, 1920; age, 20 years but not 40 years.

Engineer in forest products (male and female); \$2,160 to \$3,600 a year; June 22, 1920; assistant engineer in forest products (male and female); \$1,560 to \$2,100 a year; June 22, 1920.

Immigrant inspector (male and female); \$1,380 a year with bonus of \$20 a month; June 23, 1920; form 1312 and form 2226, or, form 1141; age, 20 years but not 55 years.

Safety engineer (male and female); \$2,500 to \$3,000 a year; June 22, 1920; form 1312; age, within reasonable age limits.*

Specialist in natural gas conservation (male and female); \$2,160 to \$2,500 a year; June 22, 1920; form 2118; age, 21 years but not 40 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Nonassembled. Applications will be received at any time until further notice.

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Volume XIII.

Balboa Heights, C. Z., June 2, 1920.

No. 42.

CANAL WORK IN APRIL.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of April, 1920:

BALBOA HEIGHTS, C. Z., May 26, 1920.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of April, 1920:

CANAL TRAFFIC.

The number of ocean-going commercial ships passing through the Canal during the month was 220, exclusive of 10 United States Navy vessels, 2 United States Army vessels, 4 merchant ships with coal for the Navy, and 1 British tug with negative United States tonnage. A detailed classification of the month's traffic is included in this report.

The net tonnage, Panama Canal measurement, of the 220 commercial vessels aggregated 822,471, 3,109 tons greater than for the preceding month. Their registered gross tonnage was 1,050,481, and registered net tonnage, 674,565. The total cargo carried was 867,521 tons of 2,240 pounds, 26,995 tons less than for March. Of the total for this month, 1,964 tons were carried as deck cargo. The total number of vessels and craft of all kinds through the Canal was 240, as compared with 246 last month.

The average length of the commercial vessels was 356 feet, average beam 48 feet, and average draft in salt water 22 feet; their average tonnage, Panama Canal measurement, was 3,739; United States net equivalent, 3,103; registered gross, 4,775; and registered net, 3,066. The average cargo carried by the laden ships was 3,943 tons.

The United States coastwise trade for the month included 20 vessels with a total Panama Canal net tonnage of 80,210, carrying 108,074 tons of cargo. There were 7 vessels from the Atlantic to the Pacific Coast with a total Panama Canal net tonnage of 24,451, and cargo of 27,493 tons; and from the Pacific to the Atlantic Coast, 13 vessels with a total Panama Canal net tonnage of 55,779 and cargo of 80,581 tons.

PRINCIPAL COMMODITIES.

Bulk shipments of whole cargoes of the different principal commodities included in the April traffic were:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Coal.....	3	9,086		Norfolk.....	Antofagasta.
Coal.....	2	16,881		Norfolk.....	Balboa.
Coal.....	1	7,712		Norfolk.....	Pearl Harbor.
Coal.....	1	7,203		Norfolk.....	Mejillones.
Coal.....	1	6,586		Norfolk.....	Manila.
Coal.....	1	6,004		Newport News.....	Mejillones.
Coal.....	1	2,802		Newport News.....	Iquique.
Coal.....	1	1,901		Newport News.....	Tocopilla.
Coal.....	1	2,000	60,178	Philadelphia.....	Punta Arenas, C. R.
Fuel oil.....	2	17,400		Tampico.....	Tocopilla.
Fuel oil.....	1	9,000		Tampico.....	Iquique.
Fuel oil.....	1	11,000		Tampico.....	Balboa.
Fuel oil.....	1	4,500		Tampico.....	Corinto, Nicaragua.
Fuel oil.....	1	7,250	49,150	Tuxpan.....	Pisagua.
Case oil.....	1	7,500		New York.....	Nagasaki.
Case oil.....	1	2,800		New York.....	Yokohama.
Case oil.....	1	6,644	16,944	New Orleans.....	Shanghai.
Gasoline.....	1		7,534	New York.....	Yokohama.
Phosphate rock.....	1		3,820	Boea Grande.....	Japan.
Pipe.....	1		3,000	Mobile.....	San Francisco.

FROM PACIFIC TO ATLANTIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	2	17,384		Iquique.....	Savannah.
Nitrate.....	1	3,500		Pisagua.....	Savannah.
Nitrate.....	2	17,138		Iquique.....	Charleston.
Nitrate.....	1	8,700		Antofagasta.....	Charleston.
Nitrate.....	1	8,500		Pisagua.....	Charleston.
Nitrate.....	1	7,450		Mejillones.....	Wilmington.
Nitrate.....	1	4,759		Caleta Buena.....	Wilmington.
Nitrate.....	1	3,000		Tocopilla.....	Wilmington.
Nitrate.....	1	8,300		Caleta Buena.....	New York.
Nitrate.....	1	8,094		Taltal.....	Delaware River.
Nitrate.....	1	3,510		Tocopilla.....	Norfolk.
Nitrate.....	1	7,500		Tocopilla.....	New Orleans.
Nitrate.....	1	3,150		Taltal.....	Baltimore.
Nitrate.....	1	8,104		Iquique.....	United Kingdom.
Nitrate.....	1	6,072		Mejillones.....	United Kingdom.
Nitrate.....	1	6,000		Iquique.....	United Kingdom.
Nitrate.....	1	5,755		Caleta Colosa.....	United Kingdom.
Nitrate.....	1	5,700		Junin.....	United Kingdom.
Nitrate.....	1	2,736		Iquique.....	Nantes.
Nitrate.....	2	5,000	140,352	Iquique.....	Martinique.
Flour.....	2	10,933		San Francisco.....	New York.
Flour.....	3	15,751		Seattle.....	New York.
Flour.....	1	9,823		Tacoma.....	New York.
Flour.....	1	7,522		Portland.....	New York.
Flour.....	1	6,267	50,296	Astoria.....	New York.
Food products:					
Cold storage.....	2	11,076		Wellington.....	London.
Cold storage.....	1	7,000		Auckland.....	London.
Cold storage.....	1	6,000		Sydney.....	Hull, England.
Rice and canned goods	1	7,600		Hongkong.....	Cuba.
Rice.....	1	5,362	37,040	Saigon.....	Cuba.
Crude oil.....	1	9,358		San Francisco.....	New York.
Crude oil.....	1	9,300	18,658	San Pedro.....	New York.
Lubricating oil.....	1		8,834	San Francisco.....	Paulshoro, N. J.
Wheat.....	1		7,336	San Francisco.....	Alexandria, Egypt.
Peanuts.....	1		5,283	Kobe.....	Galveston.
Lumber.....	1	2,651		Punta Arenas, C. R.....	Havre.
Lumber.....	1	1,661		Portland.....	United Kingdom.
Lumber.....	1	866	5,178	Vancouver.....	London.
Manganese ore.....	1		3,450	Coquimbo.....	Philadelphia.

LATIN-AMERICAN TRAFFIC.

Commercial vessels through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	33	154,766	103,366	119,296	<i>Tons.</i> 69,026
British.....	19	55,511	33,680	42,777	30,197
Norwegian.....	4	20,732	12,551	14,951	20,863
Chilean.....	3	9,080	5,505	8,078	3,184
Peruvian.....	2	7,708	3,604	4,630	1,398
German.....	2	980	268	272	.....
Japanese.....	1	6,079	3,850	4,440	7,203
French.....	1	5,440	3,892	4,639	.....
Swedish.....	1	4,932	3,973	4,013	3,332
Total.....	66	265,248	170,689	203,096	135,203

Of the 66 vessels above, 21 were in ballast; 15 from United States ports, 4 from European ports, and 2 from St. Lucia. Of the 45 laden vessels, 17 were from United States ports, 9 with 24,619 tons of mixed cargo, and 8 with 28,999 tons of coal; 15 from Cristobal with 9,965 tons of general cargo; 6 from Mexican ports with 49,150 tons of fuel oil; and 7 from European ports with 22,470 tons of general cargo. Three of the laden vessels aggregated 4,113 tons, Panama Canal net measurement, with 1,997 tons of miscellaneous cargo, were bound to Central American ports; the remaining 63 vessels were destined to South American west coast ports.

The Latin-American traffic from the west coast of Central and South America for April is classified in the following tabulation:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	27	118,066	81,134	93,276	<i>Tons.</i> 122,515
British.....	25	70,174	41,403	52,728	51,895
German.....	4	24,923	15,240	21,457	23,544
Chilean.....	4	10,965	6,813	9,655	6,360
Norwegian.....	3	18,350	11,683	14,388	8,694
Peruvian.....	3	12,325	6,031	7,483	5,397
French.....	1	5,681	3,600	4,081	5,565
Portuguese.....	1	5,605	3,528	4,501	6,775
Japanese.....	1	5,005	2,637	3,603	7,450
Italian.....	1	5,368	3,200	3,457	1,504
Dutch.....	1	3,639	2,291	3,660	4,800
Total.....	69	280,151	177,460	218,294	243,899

Twelve of the above vessels were in ballast, 7 oil tankers, 4 British tugs, and 1 freight vessel. Thirty per cent of the total cargo consisted of nitrate. Three vessels with a total Panama Canal net tonnage of 4,955, carrying 3,685 tons of cargo, were from Central American ports; the remainder were from South American west coast ports.

The registry of the vessels engaged in this northbound traffic for the month, the kind and quantity of the cargo handled, and its destination are shown in the following statement:

No. vessels	Registry.	Tons cargo.	Commodity.	Total commodity.	Destined to—
13	United States.....	85,441	Nitrate.....	.....	United States ports.
1	United States.....	5,000	Nitrate.....	90,441	Martinique.
5	United States.....	24,619	General.....	.....	United States ports.
2	United States.....	1,354	General.....	25,973	Cristobal.
1	United States.....	.....	Manganese ore.....	3,450	Philadelphia.
1	United States.....	.....	Lumber.....	2,651	Havre, France.
1	United States.....	.....	Ballast.....	.....	New York.
3	United States.....	.....	Ballast.....	.....	Mexico.
10	British.....	11,859	General.....	.....	Cristobal.
6	British.....	31,932	General.....	43,791	United Kingdom.
1	British.....	.....	Nitrate.....	8,104	United Kingdom.
2	British.....	.....	Ballast.....	.....	United Kingdom.
2	British.....	.....	Ballast.....	.....	Mexico.
2	British.....	.....	Ballast.....	.....	Cristobal.
4	German.....	.....	Nitrate.....	23,544	United Kingdom.
3	Chilean.....	.....	General.....	3,624	Cristobal.
1	Chilean.....	.....	Nitrate.....	2,736	Nantes, France.
1	Norwegian.....	.....	Nitrate.....	8,094	Delaware River.
2	Norwegian.....	.....	Ballast.....	.....	Mexico.
3	Peruvian.....	.....	General.....	5,397	Cristobal.
1	French.....	.....	General.....	5,565	Bordeaux, France.
1	Portuguese.....	.....	General.....	7,775	Lisbon, Portugal.
1	Italian.....	.....	General.....	1,504	Genoa, Italy.
1	Dutch.....	.....	General.....	4,800	Amsterdam.
69	.....	.....	.....	243,899	.....

Sixty-eight of the vessels passing through the Canal this month were under control of the United States Shipping Board, combining a total Panama Canal net tonnage of 277,924 and carrying 345,934 tons of cargo. Thirty-seven were southbound with 138,485 tons of cargo; 31 were northbound with 207,449 tons of cargo.

PRINCIPAL TRADE ROUTES.

Separate statements attached to this report show the ports of origin and destination for all cargo through the Canal this month (see pages 621, 622, 623, and 630); the tabulation below gives the distribution according to the principal trade routes:

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America.....	31	114,493	52,698	15	69,093
United States to Far East.....	20	90,519	144,417	.....	.....
Cristobal to west coast of South America.....	13	20,803	8,668	.....	.....
Europe to west coast of South America.....	10	34,390	21,770	4	7,920
United States coastwise.....	7	24,431	27,493	.....	.....
United States to Australia and New Zealand.....	5	31,746	34,906	.....	.....

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
Mexico to west coast of South America.....	5	26,219	44,650		
Europe to Australia and New Zealand.....	4	29,872	23,874		
Europe to west coast of United States.....	2	10,106	6,770		
Cristobal to San Francisco.....	2	3,808	2,071	1	1,602
Cristobal to west coast of Central America.....	2	1,451	1,297		
St. Lucia to Chile.....	2	227		2	227
East coast of United States to British Columbia.....	1	5,256	8,572		
East coast of United States to Manila.....	1	4,859	8,072		
Europe to British Columbia.....	1	3,872	7,800		
Europe to west coast of Central America.....	1	2,662	700		
Mexico to west coast of Central America.....	1	2,316	4,500		
New Orleans to Republic of Panama.....	1	535	920		
Cuba to west coast of United States.....	1	403		1	403
Total.....	110	407,968	398,568	23	79,250
<i>Pacific to Atlantic.</i>					
West coast of South America to United States.....	23	82,547	129,054	2	9,119
West coast of South America to Cristobal.....	19	28,735	21,200	2	226
West coast of South America to Europe.....	18	67,982	84,960	2	205
United States coastwise.....	13	55,779	80,581	1	7,090
Australia and New Zealand to Europe.....	8	63,744	50,772		
Far East to east coast of United States.....	7	30,973	44,228		
West coast of South America to Mexico.....	6	32,411		6	32,411
Far East to Cuba.....	3	12,701	19,704		
Australia and New Zealand to United States.....	2	12,266	12,531		
West coast of United States to Europe.....	2	5,694	7,161		
West coast of United States to Mexico.....	1	5,458		1	5,458
West coast of United States to Egypt.....	1	5,103	7,336		
West coast of Central America to Mexico.....	1	2,316		1	2,316
West coast of United States to Cuba.....	1	2,024	375		
West coast of Central America to Europe.....	1	1,947	2,651		
West coast of South America to Martinique.....	1	1,829	5,000		
West coast of United States to Cristobal.....	1	1,602	1,500		
British Columbia to Europe.....	1	700	866		
West coast of Central America to Cristobal.....	1	692	1,034		
Total.....	110	414,503	468,953	15	55,825

(One British cruiser with a displacement tonnage of 4,675 is not included.)

SERVICES TO CANAL SHIPPING.

Miscellaneous repairs were made at Balboa and Cristobal shops on 140 vessels during the month; 77 at Cristobal and 63 at Balboa; 16 vessels were dry-docked, 8 at Cristobal and 8 at Balboa. Bunker coal in the amount of 38,356 tons were supplied to 129 commercial vessels, 35,392 tons to 114 vessels at Cristobal, and 2,964 tons to 15 vessels at Balboa. Forty-three commercial vessels were furnished a total of 88,669 barrels of fuel oil; 23 with 43,259 barrels at Cristobal, and 20 with 45,410 barrels at Balboa. There were 320 vessels supplied with 11,656,377 gallons of water; 202 at Cristobal with 9,116,127 gallons, and 118 at Balboa with 2,540,250 gallons. Sales of commissary supplies to commercial ships other than those of the Panama Railroad Steamship Line totaled \$95,998.04, including \$4,570.47 for laundry service; these sales having been made to 175 vessels at Cristobal in the amount of \$63,650.80, and to 111 vessels at Balboa in the amount of \$32,347.24. Charges for tug service for vessels using the Canal and the terminal ports totaled \$27,593.85, of which \$13,232.50 was earned at Cristobal, and \$14,361.35 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Canal terminals are included in the following tabulation:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	110	110	220
Net tonnage of commercial ships, Panama Canal measurement.....	407,968	414,503	822,471
United States equivalent net tonnage of commercial ships.....	341,330	340,328	682,658
Registered gross tonnage of commercial ships.....	521,017	529,464	1,050,481
Registered net tonnage of commercial ships.....	338,932	335,633	674,565
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	398,568	468,953	867,521
Deck load cargo, included in above..... tons.....	763	1,201	1,964
Nationality of commercial ships through the Canal:			
British.....	32	35	67
Chilean.....	3	4	7
Dutch.....		1	1
French.....	1	2	3
German.....	2	4	6
Italian.....		1	1
Japanese.....	5	4	9

Item.	Cristobal.	Balboa.	Total.
Nationality of commercial ships through the Canal—Continued.			
Norwegian	4	3	7
Peruvian	2	3	5
Portuguese		1	1
Swedish	1	1	2
United States	60	51	111
Total	110	110	220
Panama Canal net tonnage of commercial ships through the Canal:			
British	118,299	139,108	257,407
Chilean	8,078	9,655	17,733
Dutch		3,660	3,660
French	4,639	4,781	9,420
German	272	21,457	21,729
Italian		3,457	3,457
Japanese	20,125	13,846	33,971
Norwegian	14,951	14,388	29,339
Peruvian	4,630	7,483	12,113
Portuguese		4,501	4,501
Swedish	4,013	4,001	8,014
United States	232,961	188,166	421,127
Total	407,968	414,503	822,471
United States equivalent net tonnage of commercial ships through the Canal:			
British	95,595	112,367	207,962
Chilean	4,928	6,535	11,463
Dutch		2,322	2,322
French	4,613	4,208	8,821
German	259	16,718	16,977
Italian		3,053	3,053
Japanese	17,645	11,562	29,207
Norwegian	13,107	11,631	24,738
Peruvian	2,297	4,549	6,846
Portuguese		4,419	4,419
Swedish	3,556	3,256	6,812
United States	199,330	159,708	359,038
Total	341,330	340,328	681,658
Registered gross tonnage of commercial ships through the Canal:			
British	146,444	180,492	326,936
Chilean	9,080	10,965	20,045
Dutch		3,689	3,689
French	5,440	6,856	12,296
German	950	24,923	25,903
Italian		5,368	5,368
Japanese	26,905	18,662	45,567
Norwegian	20,732	18,350	39,082
Peruvian	7,708	12,325	20,033
Portuguese		5,605	5,605
Swedish	4,952	3,769	8,721
United States	298,776	238,460	537,236
Total	521,017	529,464	1,050,481
Registered net tonnage of commercial ships through the Canal:			
British	92,028	110,716	202,744
Chilean	5,505	6,813	12,318
Dutch		2,291	2,291
French	3,892	4,299	8,191
German	268	15,240	15,503
Italian		3,200	3,200
Japanese	17,980	10,923	28,903
Norwegian	12,551	11,583	24,134
Peruvian	3,604	6,031	9,635
Portuguese		3,528	3,528
Swedish	3,973	2,853	6,826
United States	199,131	158,156	357,287
Total	338,932	335,633	674,565
Cargo carried by ships according to nationality:			
British	105,011	130,698	235,709
Chilean	3,184	6,360	9,544
Dutch		4,800	4,800
French		6,431	6,431
German	22	23,544	23,566
Italian		1,504	1,504
Japanese	31,223	21,688	52,911
Norwegian	20,863	8,094	28,957
Peruvian	1,398	5,397	6,795
Portuguese		6,775	6,775
Swedish	3,332	5,500	8,832
United States	233,535	248,162	481,697
Total	398,568	468,953	867,521
Tolls levied against commercial ships, by nationality:			
British	\$116,875.05	\$136,189.06	\$252,864.11
Chilean	6,160.00	8,032.40	14,212.40
Dutch		4,070.00	4,070.00

Item.	Cristobal.	Balboa.	Total.
Tolls levied against commercial ships, by nationality—Continued.			
French.....	\$5,566.80	\$5,260.00	\$10,826.80
German.....	283.20	20,589.05	20,872.25
Italian.....		3,816.25	3,816.25
Japanese.....	21,843.85	14,452.50	36,296.35
Norwegian.....	15,297.73	10,742.78	26,040.51
Peruvian.....	2,871.25	5,686.25	8,557.50
Portuguese.....		5,401.20	5,401.20
Swedish.....	4,445.00	2,902.50	7,347.50
United States.....	226,573.21	188,693.42	415,266.63
Total.....	\$399,716.09	\$405,855.41	\$805,571.50
Vessels passing through the Canal free of tolls:			
U. S. Navy destroyers.....	2	1	3
U. S. Navy colliers.....		2	2
U. S. Navy cargo steamer.....		1	1
U. S. Navy tugs.....		2	2
U. S. Navy eagle boats.....	2		2
U. S. Army transport.....	1		1
U. S. Army subchaser.....		1	1
Merchant ships with coal for U. S. Navy.....	4		4
British tugs with negative U. S. equivalent tonnage.....		1	1
Total.....	9	8	17
Yachts, ocean-going, through the Canal.....			
Total ocean-going ships passing through the Canal.....	119	118	237
Launches through Canal.....		3	3
Net tonnage of above, Panama Canal measurement.....		40	40
Total vessels and craft passing through the Canal.....	119	121	240
Cargo on which no tolls were charged..... tons.....	37,981	748	38,729
Commercial ships through Canal without cargo but not in ballast.....	24	15	39
Commercial ships through Canal in ballast.....	84,390	55,721	140,111
Net tonnage of above, Panama Canal measurement.....		4,675	4,675
Displacement tonnage.....	2	1	3
Motor ships through the Canal.....	138	69	207
Net tonnage of above, Panama Canal measurement.....		2	2
Sailing ships through the Canal.....		3,974	3,974
Net tonnage of above, Panama Canal measurement.....			
Tolls levied on laden ships through the Canal.....	\$333,245.25	\$365,730.95	\$698,976.20
Tolls levied on ships in ballast.....	66,479.84	40,000.71	106,471.55
Tolls levied on displacement tonnage.....		2,337.50	2,337.50
Tolls levied on launches.....		30.00	30.00
Total tolls levied.....	\$399,716.09	\$408,099.16	\$807,815.25
Total ships entering port including Canal transit.....	278	242	520
Total ships clearing port, including Canal transit.....	285	242	527
Total ships handled.....	563	484	1,047
Net registered tonnage of vessels entering port.....	\$20,529	714,296	1,534,825
Net registered tonnage of vessels clearing port.....	\$32,185	757,528	1,589,713
Total for vessels entering and clearing.....	1,652,714	1,471,824	3,124,538
Registered gross tonnage of vessels entering port.....	1,295,484	1,117,738	2,413,222
Registered gross tonnage of vessels clearing port.....	1,313,070	1,161,772	2,474,842
Total for vessels entering and clearing.....	2,608,554	2,279,510	4,888,064
Vessels entering port but not passing through the Canal.....	69	10	79
Net tonnage of above.....	130,775	19,311	150,086
Gross tonnage of above.....	213,297	28,106	241,403
Vessels clearing port but not passing through the Canal.....	75	7	82
Net tonnage of above.....	149,122	14,970	164,092
Gross tonnage of above.....	244,477	21,719	266,196
Vessels passing through Canal, and handling passengers or cargo at port, entering.....	41	50	91
Net tonnage of above.....	113,419	112,405	225,824
Gross tonnage of above.....	179,766	185,909	365,675
Vessels passing through Canal, and handling passengers or cargo at port, clearing.....	37	51	88
Net tonnage of above.....	105,624	120,086	225,710
Gross tonnage of above.....	164,603	195,958	360,561
Transit cargo arriving..... tons.....	877,886	924,271	1,802,157
Transit cargo cleared..... tons.....	870,192	915,005	1,785,197
Total transit cargo handled..... tons.....	1,748,078	1,842,276	3,590,354
Local cargo arriving..... tons.....	105,539	49,447	154,986
Local cargo shipped..... tons.....	3,882	1,201	5,083
Total local cargo handled..... tons.....	109,421	50,648	160,069
Cargo received for transshipment..... tons.....	36,055	242	36,297
Cargo transhipped..... tons.....	35,240	87	35,327
Total cargo arriving..... tons.....	1,019,430	973,960	1,993,440
Total cargo cleared..... tons.....	909,314	919,293	1,828,607
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.....	64,113	1,519	65,632
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.....	56,933	4,196	61,129
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.....	3,921	152	4,073
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.....	124,967	5,867	130,834

Item.	Cristobal.	Balboa.	Total.
Cargo stevedored, included in above..... tons..	58,405	634	59,039
Commercial vessels, other than P. R. R. supplied with bunker coal.....	108	15	123
Coal supplied above vessels..... tons..	34,802	2,964	37,766
Panama Railroad vessels supplied with bunker coal.....	6		6
Coal supplied above vessels..... tons..	590		590
U. S. Army vessels supplied with coal.....	4	1	5
Coal supplied above vessels..... tons..	130	10	140
Total vessels supplied with coal from Panama Railroad deposits.....	118	16	134
Total coal furnished above vessels..... tons..	35,522	2,974	38,496
Coal supplied Panama Railroad departments..... tons..	1,095	60	1,155
Coal supplied Army, excepting vessels..... tons..	134		134
Coal supplied The Panama Canal..... tons..	1,820	955	2,775
Coal supplied individuals and companies..... tons..	396		396
Total coal furnished from Panama Railroad deposits..... tons..	38,967	3,989	42,956
Coal received during April..... tons..	45,980	200	46,180
Coal on hand, May 1, 1920..... tons..	74,841	3,039	77,880
Coal on hand, April 1, 1920..... tons..	67,828	6,828	74,656
<i>Coal, U. S. Navy Account.</i>			
Coal furnished U. S. Navy, including vessels..... tons..	959	455	1,414
Coal received during April..... tons..	24,514	16,881	41,395
Coal on hand, May 1, 1920..... tons..	65,426	31,653	97,079
Coal on hand April 1, 1920..... tons..	41,871	15,227	57,098
Commercial vessels, other than P. R. R., supplied with fuel oil from Panama Canal tanks.....	22	19	41
Fuel oil sold to above vessels..... barrels..	40,599	42,751	83,350
Fuel oil sold to Panama Railroad vessels..... barrels..	2,660	2,659	5,319
Fuel oil issued to U. S. Navy..... barrels..	102	153	255
Fuel oil issued to U. S. Army..... barrels..		8,494	8,494
Fuel oil issued to Canal departments..... barrels..	7,437	39,738	47,175
Fuel oil sold to individuals and companies..... barrels..		4,853	4,853
Total fuel oil furnished from Panama Canal tanks..... barrels..	50,798	98,653	149,451
Fuel oil received during the month..... barrels..	107,170	75,892	183,062
Fuel oil on hand May 1, 1920..... barrels..	68,087	13,244	81,331
Fuel oil on hand April 1, 1920..... barrels..	11,715	36,005	47,720
Other oil pumped for individuals and companies..... barrels..	248,119	31,057	279,176
Diesel oil issued during the month..... barrels..		185	185
Diesel oil on hand May 1, 1920..... barrels..		1,211	1,211
Vessels supplied with water.....	202	118	320
Water sold to ships..... gallons..	9,116,127	2,540,250	11,656,377
Vessels on which miscellaneous repairs were made.....	69	55	124
Vessels dry-docked.....	8	8	16
Commercial vessels furnished commissary supplies.....	175	111	286
P. R. R. vessels furnished commissary supplies.....	10	1	11
Other U. S. Government vessels furnished commissary supplies.....	16	10	26
Total vessels furnished commissary supplies.....	201	122	323
Commissary sales to commercial vessels:			
Ice.....	\$2,659.43	\$845.25	\$3,504.68
Wholesale groceries.....	11,794.76	5,695.81	17,490.57
Wholesale cold storage.....	41,676.72	22,823.94	64,500.66
Laundry.....	3,949.75	620.72	4,570.47
Miscellaneous.....	3,570.14	2,361.52	5,931.66
Total.....	\$63,650.80	\$32,347.24	\$95,998.04
Commissary sales to Panama Railroad vessels:			
Ice.....	199.60	14.40	214.00
Wholesale groceries.....	1,673.80	924.79	2,598.68
Wholesale cold storage.....	7,464.27	995.06	8,459.33
Laundry.....	1,420.21		1,420.21
Miscellaneous.....	379.63		379.63
Total.....	\$11,137.60	\$1,934.25	\$13,071.85
Commissary sales to other Government vessels:			
Ice.....	171.12	99.06	270.18
Wholesale groceries.....	2,253.34	395.04	2,648.38
Wholesale cold storage.....	6,595.46	1,671.74	8,267.20
Laundry.....	296.73	49.60	346.33
Miscellaneous.....	546.09	15.71	561.80
Total.....	9,862.74	\$2,231.15	\$12,093.89
Total commissary sales to all vessels.....	\$84,651.14	\$36,512.64	\$121,163.78
Passengers arriving, including transit passengers:			
First cabin.....	3,229	2,077	5,306
Other than first cabin.....	2,974	2,540	5,514
Total.....	6,203	4,617	10,820
Passengers departing, including transit passengers:			
First cabin.....	3,353	1,876	5,229
Other than first cabin.....	2,583	2,545	5,128
Total.....	5,936	4,421	10,357
Total movement of passengers.....	12,139	9,038	21,177

Item.	Cristobal.	Balboa.	Total.
Passengers disembarking:			
First cabin.....	1,422	321	1,743
Other than first cabin.....	1,029	74	1,103
Total.....	2,451	395	2,846
Passengers embarking:			
First cabin.....	1,698	120	1,818
Other than first cabin.....	757	79	836
Total.....	2,455	199	2,654
Services to American seamen:			
Seamen shipped.....	170	176	346
Seamen paid off.....	201	69	270
Seamen deserted.....	22	2	24
Seamen deceased.....	1	1	2
Seamen lodged, subsisted, and repatriated.....	75	28	103
Wages of American seamen:			
Total amount earned.....	\$28,188.42	\$9,890.54	\$38,078.96
Deductions approved by Deputy Shipping Commissioners.....	10,311.05	3,870.62	14,181.67
Balance due seamen.....	\$17,877.37	\$6,019.92	\$23,897.29
Paid to seamen.....	9,193.73	3,851.80	13,045.53
Received on deposit for seamen.....	8,683.64	*3,653.12	12,336.76
Services to American vessels:			
Crews shipped.....	2		3
Crews paid off.....	2		3
Shipping articles written.....	2	1	3
Marine notes of protest noted.....	12	5	17
Bills of health issued.....	153	125	278
Clearances issued.....	158	127	285

*Includes \$1,485 repatriation deposit and money left for safe-keeping.

LOCK OPERATION.

Lockages of commercial vessels for April were as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	96	98	194	111	114	225
Pedro Miguel.....	105	107	212	113	116	229
Miraflores.....	104	102	206	113	116	229

Total lockages, including Army and Navy vessels, those of the Panama Railroad and The Panama Canal, are included in the following statement of lockages for April:

	Gatun.	Pedro Miguel.	Miraflores.
Commercial.....	194	212	206
Noncommercial, Army and Navy.....	8	10	11
Noncommercial, Canal equipment.....	3	22	23
Total.....	205	244	240
	<i>Vessels.</i>		
Commercial.....	225	229	229
Noncommercial, Army and Navy.....	18	19	26
Noncommercial, Canal equipment.....	23	49	48
Total.....	266	297	303

The total consumption of water for lockages for April was 1,478,380,000 cubic feet. This consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>		
Lockage.....	763,780,000	714,600,000	748,110,000
Leakage.....	20,000,000	17,710,000	15,000,000
Maintenance.....		62,740,000	2,610,000
Total.....	783,780,000	795,050,000	765,720,000

METEOROLOGY.

The 4-months' dry season rainfall for 1920 is the lowest of record since the American occupation, being slightly lower than the 1912 dry season rainfall. During April the rainfall was below normal everywhere except at Pedro Miguel and was extremely marked in the Atlantic section and over most of the Gatun Lake drainage basin. Totals ranged from a minimum of 0.06 inch at Frijoles and Bohio to 5.08 inches at Pedro Miguel. The greatest daily precipitation recorded was 1.98 inches at Balboa Heights on the 17th. The estimated rainfall over the Gatun Lake watershed was

0.87 inch, compared with a 10-year mean of 4.76 inches; and 1.53 inches over the Chagres River basin above Alhajuela, compared with a 19-year mean of 4.60 inches. The Chagres River discharge at Alhajuela was 72 per cent below the 19-year April average, or 3.04 c. f. s., against a mean of 1,079 c. f. s., and furnished 72 per cent of the total Gatun Lake yield; the discharge this month being the lowest April discharge for the 19 years of record, the maximum April discharge for this period was 3,140 c. f. s. in 1910.

The Gatun Lake watershed total yield was the lowest April yield of record, being 80 per cent below the 10-year mean, or 422 c. f. s., compared with a 10-year mean of 2,133 c. f. s. The maximum April total yield, 6,263 c. f. s., and the maximum April net yield, 5,400 c. f. s., occurred in 1915; this month's total yield, 422 c. f. s., and net yield, —613 c. f. s., constitute a minimum record for the month. The Miraflores steam plant was utilized throughout the month in furnishing current to relieve consumption from Gatun Lake, serving to reduce the consumption at Gatun to 40 per cent of the usual draft; despite which there was a decrease in storage for the month of 5,009,000,000 cubic feet. The lake varied from a maximum elevation of 83.54 on the 1st to a minimum of 82.29 on the 30th.

Two slight seismic disturbances were recorded at Balboa Heights during April; the first on the 8th and the second on the 27th. Both disturbances were too slight to be felt.

ELECTRICAL DIVISION.

Gatun hydroelectric station.—No service interruptions at this station occurred during April. The Miraflores steam plant relieved the station of a load of from 4,000 KW to 4,250 KW. The gross output of the station for the month was 2,132,500 KWH on a computed water consumption of 1,742,828,500 cubic feet.

Miraflores steam plant.—This station carried a load of 4,250 KW from the 1st of the month to about the 20th, when it was reduced to 4,000 KW. The gross output was 3,005,350 KWH. The consumption of oil amounted to 16,920 barrels.

Total power output.—The total gross output of both stations was 5,137,850 KWH; the total power distributed to consumers was 4,507,733 KWH. The total loss of power through plant auxiliaries, transmission, and transformation was 630,117 KWH, or 12.26 per cent of the gross output.

Transmission line.—One interruption to transmission line service occurred on the 14th caused by a locomotive crane coming in contact with the line at Monte Lirio. Service was interrupted at different points on the line for intervals of from 1 to 7 minutes. The painting of the towers was 96 per cent completed at the end of the month.

Substations.—All substations were operated throughout the month without unusual occurrences.

New construction work.—Construction work performed for the Army is separately reported. That for The Panama Canal and Panama Railroad had the following status at the end of the month:

Substations:	Per cent completed.
Installation of new battery at Miraflores substation.....	*98
Installation of 4 K-5 switches at Miraflores substation.....	62
Installation of two 1,000-ampere, K-13 switches, Cristobal substation.....	79
Installation of new 8,400 KVA transformer and 3 new tie line equipments, Gatun substation	8
Installation of two complete feeder equipments, Balboa substation.....	80

*No work done.

Northern District.

Installation of electrical equipment, Pier 6, Cristobal..... 100

Marine work.—Miscellaneous repairs and installations of various electrical equipment were made on 66 vessels during April; 32 at Cristobal and 34 at Balboa.

SHOP, FOUNDRY, AND DRY DOCK WORK.

The steamship *Cristobal* which was turned over to the Mechanical Division on May 19, 1919, for general overhauling and refitting left the Balboa plant for the Atlantic side on the 13th. Work on her was continued at the Cristobal plant and at the docks while taking on cargo, mainly by a force from the Balboa shops aided by the men and facilities of the Cristobal shops. The vessel left the Isthmus at the end of the month with a full cargo for New York, complete as to repairs except for a part of the trim in the social hall and smoking room, which, together with the upholsteries, draperies, and other fittings will be completed at New York. The repairs and alterations to the *Cristobal* constitute one of the most extensive jobs of this nature handled thus far by the Mechanical Division. The vessel had 4 new boilers installed, her fuel system changed from coal to oil burning; the main engines removed, rebuilt, and installed; the passenger-carrying capacity trebled with full stateroom accommoda-

tions; the dining saloon and smoking room rebuilt and enlarged; and various other lines of alterations incident to placing the vessel in first-class condition for the trade in which she is to be engaged.

Repairs to the steamship *Western Cross* were completed at the Balboa plant and satisfactory trials of the vessel made. Extensive repairs were made on the steamship *Lady Sybil*, and a general overhaul given the *S. V. Harkness*, *Cordelia*, and *William Henry Webb*. The steamship *Cajacet* arrived at the plant with the air pump and low pressure piston wrecked; the bottom of the air pump barrel was completely pushed out. After considering the alternative of supplying a new air pump, the welding of the wrecked pump barrel was undertaken and a completely satisfactory job obtained. A new low pressure piston was made and the remaining damages repaired.

The steamship *Olockson* which was scuttled in the entrance to Balboa harbor on March 17 to extinguish the fire aboard her was raised by the Mechanical Division during the month and towed to the inner harbor where discharge of her cargo was begun. This work was also continued throughout the month on the steamship *Marne* at Cristobal docks.

After a 2-year delay, due to the inability of the Alaskan Engineering Commission to obtain bottoms in which to transport the material, the steamship *Anyox* and a barge were secured and called at Balboa during the month taking aboard the remainder of flat cars and locomotives which the Mechanical Division had in readiness for delivery. The shipment consisted of 350 flat cars and 4 locomotives, and closes the contract for this class of equipment.

The following items of repairs to vessels were among those handled at the Cristobal plant during April: The semiannual overhaul of the U. S. mine planter *Graham* was made and the hull repaired. All furnace crown bolts on 2 boilers of the steamship *Allianca* were reinstalled during her regular stay at Cristobal. Extensive repairs were made to the towing arrangement and chafing gear of the tugs *St. Ewe* and *St. Botolph* prior to their departure for England with German ships from Chile. General repairs were made to the boilers, engines, and auxiliaries of the steamship *Battonville*. The cylinder of the main engine of the steamship *Chile* was bored, new pistons, rings, and rods installed and considerable deck repairs made. A new tail shaft was made and 3 plates renewed on the hull of the U. S. S. *Eagle No. 31*. This vessel was floated in dry dock with plates off and shaft out to permit changing of vessels in dry dock. In addition, the following vessels received miscellaneous repairs at Cristobal: U. S. S. *Eagle No. 49*, U. S. A. T. *Northern Pacific*, *Abangarez*, *Abysinnian*, *Ancon*, *Balboa*, *Belleplaine*, *Botsford*, *Cajacet*, *Cape Fear*, *Caribbean*, *Cauca*, *C-44*, *Chepadora*, *City of Berkeley*, *Colon*, *Corning*, *Crisfield*, *Cristobal*, *Easterner*, *Edgecomb*, *Edisto*, *General Ernst*, *General Goethals*, *General Gorgas*, *Guatemala*, *Hoyeisan Maru*, *Huallaga*, *Imperial*, *Lake Charlotteville*, *Lake Fansdale*, *Lake Fibre*, *Laura C. Hall*, *Manavi*, *Manlaro*, *Mehanno*, *Metapan*, *Palena*, *Panama*, *Parismina*, *Pasadena*, *Perou*, *Point Judith*, *Puerto Rico*, *Salvador*, *San Jose*, *Steelvoyager*, *Stuyvesant*, *Tampa*, *Tillamook*, *Trident*, *Ucayali*, *Ulysses*, *Urubamba*, *Victorious*, *Waivera*, *West Campgaw*, *Wonabee*; schooners *James Rolph* and *Cantabria*; tugs *Engineer*, *Porto Bello*, *Sanidad*, and *Tavernilla*; barge *Darien*; crane boat *La Valley*; and launches *Adair*, *Dixie*, *Rodman*, and *Wilhelm*. Eight vessels were dry-docked, viz., U. S. S. *Eagle No. 31*, U. S. mine planter *Graham*; steamships *C-44*, *Jamaica*, *Manavi*, and *Salvador*; launch *Wilhelm*; and tug *Sanidad*.

In addition to those vessels previously mentioned the following were repaired at Balboa shops and dry dock: U. S. S. *Eagle No. 49*, *Gen. Geo. W. Getty*, submarine *R-25*; submarine chasers *No. 284* and *V-12*, tug *Sciota*; steamships *Annette Rolph*, *Anyox*, *Arcadia*, *Ashland County*, *Calaveras*, *Calico Rock*, *Cartago*, *Cauca*, *Cheron*, *City of Omaha*, *Coaba*, *Corinthic*, *Coverun*, *David*, *Dewey*, *Ethan Allen*, *Huasco*, *Jamaica*, *John Adams*, *Keketicut*, *Kenkon Maru No. 12*, *Kronprinsessen Margareta*, *La Habra*, *Lake Flynnus*, *Lompoc*, *Manham*, *Matinicock*, *Mulhua*, *Potosi*, *Sachem*, *Sahale*, *Saint Andrew*, *San Joaquin*, *Sencia*, *Water Hardcastle*, *West Cape*, *West Hesseltine*, *Westmoreland*, Panama Railroad steamship *General Ernst*; cable ship *Guardian*; motor ships *Ansaldo V* and *Chiriqui*; barge *Baroda*; dredges *Cascadas*, *Culebra*, and *No. 86*; Panama Railroad barge *No. 13*; launch *Vacuum*; and scow *No. 139*. The 9 vessels dry-docked were: U. S. S. *Gen. Geo. W. Getty*; steamships *Cordelia*, *Huasco*, and *S. V. Harkness*; cable ship *Guardian*; dredges *Cascadas* and *No. 86*; Panama Railroad barge *No. 13*; and scow *No. 139*.

The foundry output of the Mechanical Division in patterns and castings for the month, as compared with March, is shown as follows:

	April.			March.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron.....	32	1,137	76,801	34	3,157	94,371
Steel.....	12	1,151	48,683	50	1,383	55,439
Brass.....	10	1,903	14,388	44	1,036	9,460

The ordinary repair and maintenance work of the Mechanical Division for the month included among other items the following:

Cars repaired.....	2,074
Locomotives and cranes repaired.....	756
Passenger coaches packed, cleaned, oiled, and inspected.....	2,382
Freight cars repacked.....	300
Locomotives hostled.....	1,560
Cranes hostled.....	206
Locomotives ridden.....	56
Locomotives inspected.....	73
Crews instructed in handling locomotives.....	13
Crews instructed in oil and fuel economy.....	22
Crews instructed in air brakes.....	9
Cranes, locomotive, inspected.....	18

BUILDING CONSTRUCTION.

The different items of construction by the Building Division during April are shown as follows with the status of completion at the end of the month as indicated. Construction work performed for the Army and Navy is separately reported:

Colon stables:	Per cent completed.
East half—	(*)
Six stables.....	100
Five wagon sheds.....	85
One latrine.....	70
Feed room and quarters.....	195
Deposit pits.....	
West half—	
Six stables.....	5
Five wagon sheds.....	5
One feed room.....	5
One shop building.....	5
Silver townsite, Mount Hope:	
Commissary.....	60
Two houses, married quarters.....	90
Four houses, married quarters.....	60
Four houses, married quarters.....	50
Two houses, married quarters.....	40
Eight houses, married quarters.....	10
Cristobal incinerator.....	85
Combination shop and storehouse, Cristobal.....	30
Royal Mail Steam Packet Company's office, Cristobal.....	14
Moving 3 type-7 houses from Las Cascadas to New Cristobal.....	50
Oil tank (55,000 barrels capacity), Cristobal.....	10
Shed between roadway and cattle pens, abattoir.....	99
Playshed, New Cristobal.....	50
Alterations, Cristobal clubhouse.....	90
Ten-stall addition to garage, New Cristobal.....	5
Demolition of old warehouse, Cristobal commissary.....	100
National Catholic War Council building, Balboa.....	17
Bake shop, work room, and storage room, building, Ancon Hospital.....	40
Oil tank (55,000 barrels capacity), Balboa.....	(†)
Converting different wards, Ancon Hospital, into family quarters.....	100
Moving building 210 and converting into maids' quarters.....	100
Alterations, Balboa clubhouse.....	85
Alterations, Red Tank schoolhouse.....	100
Railroad station, Summit.....	100
Alterations, Ancon restaurant.....	70
Demolition of old French pier.....	55
Moving 3 type-7 houses from Las Cascadas to Pedro Miguel.....	40

(*) Completed except plastering.

(†) No work done.

(‡) Foundations begun.

DREDGING DIVISION.

Cucaracha slide continued to be more or less active throughout the month. Two dredges working constantly removed 297,700 cubic yards of earth and rock from the slide area, leaving at the end of the month still 235,000 cubic yards within the Canal slopes between stations 1805 and 1814. A channel with a minimum depth of 32 feet over an average width of 155 feet was available daily for shipping, except in two or three instances when the width was about 120 feet. With slight interference to Canal traffic a reliable channel was maintained. Pipe line suction dredge *No. 84* was moved from Balboa to the south side of the slide area and put to work on the 28th. At the end of the month the dredges had removed a total of 599,600 cubic yards of earth and rock since the slide occurring February 22. Graders *No. 1* and *No. 3*, working one and two shifts, respectively, were engaged all the month in sluicing at Cucaracha slide; it being estimated that about 40,000 cubic yards of earth and rock were sluiced from the slide during April. East Culebra and barge repair slides showed no movement during the month.

The total excavation by dredges during April was 519,483 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment
	Earth.	Rock.			
(a) 158,600	79,300	79,300	Maintenance.....	<i>Cucaracha Slide.</i> 1805-00 to 1814-00 E. and W.....	<i>Paraiso.</i>
(a) 88,209	35,300	52,900	Maintenance.....	1805-00 to 1814-00 E. and W.....	<i>Gambao.</i>
(a) 50,900	20,400	30,500	Maintenance.....	1805-00 to 1814-00 E. and W.....	<i>Cascadas.</i>
(b) 15,000	15,000	.....	Maintenance.....	<i>Pacific Entrance.</i> Opposite dry dock slip.....	<i>No. 84.</i>
(b) 8,000	8,000	.....	Maintenance.....	2102-00 to 2105-00 W.....	<i>No. 83.</i>
(b) 90,000	90,000	.....	Maintenance.....	2137-50 to 2157-90 E.....	<i>No. 83.</i>
(b) 7,000	7,000	.....	Maintenance.....	<i>Miraflores P. I.</i> 2102-00 to 2105-00 W.....	<i>No. 83.</i>
(c) 29,000	29,000	.....	Maintenance.....	Dry dock slip in front of dock 7 (P-134).....	<i>No. 84.</i>
(c) 2,000	2,000	.....	Construction.....	Dry dock slip in front of dock 7 (Charge Balboa Inner Harbor).	<i>No. 84.</i>
(c) 5,000	5,000	.....	Construction.....	Balboa inner harbor.....	<i>No. 84.</i>
(c) 44,000	44,000	.....	Construction.....	Balboa inner harbor.....	<i>No. 84.</i>
(a) 200	200	.....	Maintenance.....	<i>Cucaracha Slide.</i> 1805-00 to 1814-00.....	<i>No. 84.</i>
(d) 21,583	21,583	.....	Aux. construction..	Chagres River gravel beds.....	<i>Marmot.</i>
519,483	356,783	162,700			

(a) Gaillard Cut.

(b) Pacific entrance.

(c) Balboa inner harbor.

(d) Chagres River.

The material excavated was dumped as follows:

	Cubic yards.
Gatun Lake north of Gamboa.....	294,350
Canal north of Gold Hill.....	3,350
Canal south of Cucaracha slide.....	200
Flats west of Canal.....	55,000
Arsenal fill at Corozal.....	90,000
San Juan dump.....	55,000
Gamboa gravel plant.....	21,583
Total.....	519,483

The following excavation remained to be done on May 1:

Location.	Earth.	Rock.	Total.
	<i>Cu. yds.</i>	<i>Cu. yds.</i>	<i>Cu. yds.</i>
Gaillard Cut.....		25,000	25,000
Pacific entrance.....	50,500	86,900	137,400
Total Canal prism.....	50,500	111,900	162,400
Cristobal coaling station.....		2,100	2,100
Balboa inner harbor.....	109,850	13,400	123,250
Total, ocean to ocean.....	160,350	127,400	287,750

MUNICIPAL ENGINEERING DIVISION.

This division had the following items of construction work under way during April, with the progress on May 1 as shown:

Northern District.

	Per cent completed.
Grading, fill, and general municipal work for new silver townsite, Mount Hope:	
Water lines.....	99
Streets and roads.....	99½
Sewers, sanitary.....	95
Sewers, storm.....	98
Sidewalks.....	(*)
Municipal work between 7th and 9th and "G" and "K" streets, Colon:	
Roads.....	85
Grading.....	20
Water lines.....	99
Alleyways.....	95
Sanitary sewers.....	95
Storm sewers.....	50
Municipal work, New Cristobal townsite:	
Grading.....	15
Roads.....	30
Water lines.....	65
Sanitary sewers.....	75
Municipal work for west half, Colon stables:	
Grading.....	100
Roads.....	95
Water lines.....	100
Sanitary sewers.....	100
Road to new incinerator, Mount Hope.....	35
Two tennis courts, Gatun.....	95

(*) Not started.

No work was done during the month on the ten 12-family silver quarters at Mount Hope:

Southern District.

Storm sewer, Javillo fill.....	*99
Sewers, Northern Avenue to beach.....	*99
Box sewer, Panama Railroad yards.....	35
Road from lumber shed to Diablo Hill.....	95
Demolition of Calidonia bridge.....	75
Concreting Panama Tramway line, Calidonia crossing.....	75
Municipal work for 3 type-18 houses, Balboa.....	*60
Industrial track between buildings 8 and 14, Balboa shops.....	100
Sewer and water lines for Central & South American Telegraph Company, Balboa.....	*90

(*) No work done.

Construction work performed for the Army and Navy is separately reported.

The total output of all pumping stations for the month was 845,325,250 gallons; and that of the 3 filtration plants, 532,439,000 gallons. Panama City was furnished with 87,517,000 gallons, and Colon with 51,041,150 gallons. Sales of water to 320 vessels at Cristobal and Balboa totaled 11,656,377 gallons.

Unit No. 1 of the Gavilan Island incinerator was closed down for repairs throughout the month. There were 2,586 tons of garbage and 136 dead animals consumed at this plant during April:

WORKING FORCE.

(Effective April 21, 1920.)

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	37	44	81
Building Division.....	450	1,660	2,110
Electrical Division.....	261	325	586
Municipal Engineering Division.....	109	1,498	1,607
Lock Operation.....	168	461	629
Dredging Division.....	173	1,062	1,235
Mechanical Division.....	1,116	1,952	3,068
Marine Division.....	166	429	595
Fortifications.....	53	235	288
Total.....	2,533	7,666	10,199
Supply Department:			
Subsistence.....	40	413	453
Quartermaster.....	218	1,903	2,121
Commissary.....	329	1,605	1,934
Cattle Industry.....	29	996	1,025
Hotel Washington.....	10	106	116
Total.....	626	5,023	5,649
Accounting.....	260	10	270
Health Department.....	254	899	1,153
Executive Department.....	564	239	803
Total.....	1,078	1,148	2,226
Panama Railroad:			
Superintendent.....	68	561	629
Transportation.....	151	181	332
Receiving and Forwarding Agent.....	116	2,163	2,279
Coaling stations.....	111	1,286	1,397
Total.....	446	4,191	4,637
Grand total.....	4,683	18,028	22,711

The total gold force on April 21 was 108 more than the 4,575 on March 24, and the silver force was 368 more than the 17,660 working on that date. As compared with the gold force for the corresponding period of last year, reported as of April 23, 1919, the present force is an increase of 1,202 over the 3,481 employed on that date, and the silver force 1,073 more than the 16,955 on the payrolls of the same date. The increase of the gold force over that of the corresponding period of last year is due to considerably increased forces in the Building and Mechanical Divisions on account of Army building construction work and the salvaging work in progress on the steamships *Marne* and *Olockson*, also to the fact that a considerable number of silver employees were replaced in different divisions by gold employees after the strike of the former in February. The increased silver force is due largely to additions to forces of the Building and Dredging Divisions, the Supply Department, and dock employees of the coaling stations and Receiving and Forwarding Agency of the Panama Railroad.

OCCUPATION OF QUARTERS.

The statement following shows the occupants by numbers, as classified, of Panama Canal and Panama Railroad quarters on April 30:

	Men.	Women.	Children.	Total.
Americans.....	3,844	2,244	2,470	8,558
Europeans.....	168	27	43	238
West Indians.....	4,793	1,641	3,167	9,601
Total.....	8,805	3,912	5,680	18,397

PUBLIC HEALTH.

There were but 22 cases of malaria, including employees and nonemployees, reported during April, 7 of which were nonresident, with no deaths. Influenza cases totaled 314 as compared with 801 in March. There were 24 deaths from influenza and 28 from pneumonia. Forty-four cases of chickenpox were reported as compared with 63 cases the preceding month. Two cases of typhoid fever were reported, 1 nonresident, with no deaths.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The total value of material ordered on United States requisitions and received during April was \$754,085.60; March receipts were \$546,820.66. Of the April receipts, \$671,065.53 was chargeable to Operation and Maintenance; \$76,253.80 to Construction and Equipment; and \$6,766.27 to miscellaneous departments. Total cash sales on the Isthmus from storehouses and obsolete store amounted to \$212,483.60, of which \$209,888.42 was for stock material, \$1,186.50 for scrap, and \$1,408.68 for obsolete and second-hand material.

The total sales of material from storehouses to steamships for April was \$186,239.39, of which \$30,265.29 was for stock material, and \$155,974.10 for fuel oil. Sales of commissary supplies to all purchasers for April aggregated \$1,096,016.16 made up as follows: To steamships other than United States Government vessels and those of the Panama Railroad Steamship Line, \$96,827.39; to The Panama Canal, \$143,946.03; to the United States Government, including the Army and Navy, \$163,670.19; to individuals and companies, mainly through charge accounts in the retail commissaries, \$24,950.58; to the Panama Railroad, including its steamships and the Hotel Washington, \$44,575.19; and to individuals purchasing coupons, \$622,046.78.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on April 30, exclusive of Fortifications, was \$13,131,199.17; the balance in Fortifications was \$5,545,344.66. Payments from appropriations made by the Disbursing Clerk, Washington, amounted to \$697,636.10, and by the Paymaster on the Isthmus to \$1,635,293.88. Purchases of commissary books from the Panama Railroad Company amounted to \$327,191.84.

Collections of tolls on the Isthmus totaled \$807,815.25. Deposits of \$196,779.31 were made with the Assistant Treasurer of the United States to be applied in payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,834,328; and collections by the Disbursing Clerk, Washington, \$66,093.54. Receipts from Canal Zone and miscellaneous funds were \$196,839.43; disbursements from the same source were \$258,421.46. April payrolls on the Isthmus totaled \$1,357,461.56, as compared with \$1,336,016.07 for March, an increase of \$21,445.49 for this month.

Respectfully,

JAY J. MORROW,
Acting Governor.

Notice to Steamship Lines.

THE PANAMA CANAL, BALBOA HEIGHTS, May 26, 1920.

1. Due to fuel shortage, on and after June 1, 1920, The Panama Canal will engage to supply coal and oil to meet the needs of those ships only which transit the Canal or form connecting links with Canal ports.

2. On and after the above date, and until further notice, Canal ports therefore can not be considered bunkering ports for vessels calling at these ports merely for fuel

JAY J. MORROW,
Acting Governor.

Distribution Among Ports of Cargo Passing Through the Canal From Pacific to Atlantic, April, 1920.

From—	Alexandria, Egypt.	Amsterdams, Netherlands.	Bordeaux, France.	Genoa, Italy.	Havre, France.	London, England.	Liverpool, England.	Lisbon, Portugal.	Nantes, France.	Southampton, England.	Stockholm, Sweden.	United Kingdom.	Baltimore, Md.	Boston, Mass.	Charleston, S. C.
Antofagasta, Chile.....								6,775					9,263		8,700
Buenaventura, Colombia.....															
Caleta Buena, Chile.....		4,800													
Calaia Calosa, Chile.....															
Callao, Peru.....															
Coquimbo, Chile.....							5,245								
Coronel, Chile.....															
Guayacan, Chile.....															
Guayaquil, Ecuador.....									2,736						17,138
Iquique, Chile.....															
Junin, Peru.....															
Mejillones, Chile.....															
Pisagua, Chile.....					2,651	7,456	4,006						6,829		8,500
Punta Arenas, Costa Rica.....			5,565										3,150		
Talcahuano, Chile.....															
Taltal, Chile.....															
Tocopilla, Chile.....															
Tumaco, Colombia.....				1,504			9,925					5,300			
Valparaiso, Chile.....															
Astoria, Oreg.....															
Portland, Oreg.....															
San Francisco, Cal.....	7,336														
San Pedro, Cal.....															
Seattle, Wash.....															
Tacoma, Wash.....															
Vancouver, B. C.....						866									
Hongkong, China.....															
Saigon, China.....															
Kobe, Japan.....															
Singapore, Straits Settlements.....							7,013								
Auckland, New Zealand.....							20,127								
Wellington, New Zealand.....							10,000			5,632				4,866	
Port Pirie, Australia.....							2,000								
Sydney, Australia.....															
Champerno, Guatemala.....															
Totals.....	7,336	4,800	5,565	1,504	2,651	35,462	31,176	6,775	2,736	5,632	5,500	6,961	19,035	4,866	34,338

Distribution Among Ports of Cargo Passing Through the Canal From Pacific to Atlantic, April, 1920.—Continued.

From—	Galveston, Tex.	New Orleans, La.	Newport News, Va.	New York, N. Y.	Norfolk, Va.	Paulsboro, N. J.	Philadelphia, Pa.	Savannah, Ga.	Wilmington, Del.	Cristobal, C. Z.	Matanzas, Mexico.	Habana, Cuba.	Martinique.	Santiago, Cuba.	Totals.
Antofagasta, Chile.....										1,410					21,738
Buenaventura, Colombia.....										8,300					1,410
Cajeta Buena, Chile.....				3,203					4,759	5,755					16,262
Caleta Calosa, Chile.....										5,397					10,555
Callao, Peru.....							3,450								5,397
Coquimbo, Chile.....															3,450
Coronel, Chile.....															3,245
Guayacan, Chile.....				4,089						4,817					4,089
Guayaquil, Ecuador.....								8,600		14,784			5,000		4,817
Iquique, Chile.....										5,717					4,817
Junin, Peru.....									7,450	6,072					43,258
Mejillones, Chile.....							3,500								5,717
Pisagua, Chile.....															13,522
Punta Arenas, Costa Rica.....										1,073					12,000
Talcahuano, Chile.....										16,198					10,197
Taltal, Chile.....										7,500					17,473
Tocopilla, Chile.....					3,510					1,730					19,348
Tumaco, Colombia.....									3,000	6,773					14,010
Valparaiso, Chile.....				4,235											1,730
Astoria, Ore.....				6,267											27,737
Portland, Ore.....				7,322											6,267
San Francisco, Cal.....				20,291		8,834				1,500					9,183
San Pedro, Cal.....				9,300							375				46,629
Seattle, Wash.....				15,751											9,300
Tacoma, Wash.....				9,823											13,731
Vancouver, B. C.....															9,823
Hongkong, China.....				7,000											806
Saigon, China.....				17,189								6,742		7,600	21,342
Kobe, Japan.....				8,500								5,362			5,362
Singapore, Straits Settlements.....												5,362			22,472
Auckland, New Zealand.....		6,256										5,362			14,756
Wellington, New Zealand.....															7,013
Port Pirie, Australia.....			6,000												35,759
Sydney, Australia.....				7,865											4,866
Champorico, Guatemala.....										1,034					15,665
Totals.....	5,283	6,256	6,000	120,835	3,510	8,834	3,450	12,100	15,209	88,060	375	12,104	5,000	7,600	468,953

Distribution Among Ports of Cargo Passing Through the Canal From Atlantic to Pacific, April, 1920.

From—	Antofagasta, Chile.	Buenaventura, Col.	Callao, Peru.	Coronel, Chile.	Corral, Chile.	Cunayquil, Ecuador.	Iquique, Chile.	Majillones, Chile.	Paita, Peru.	Pisagua, Chile.	Punta Arenas, Costa Rica.	Salaverry, Peru.	Teopilla, Chile.	Tumaco, Colombia.	Valdivia, Chile.	Valparaiso, Chile.	Auckland, New Zealand.	Adelaide, Australia.	Brisbane, Australia.	
Christiania, Nor.					3,332															
Glasgow, Scotland							22													
Hamburg, Ger.																				
London, Eng.				3,379													7,500	3,484		
Liverpool, Eng.			4,878														4,580			
Baltimore, Md.																				
Boca Grande, Fla.																				
Galveston, Tex.																				
Mobile, Ala.																				
New Orleans, La.																				
New York, N. Y.							2,802	6,004	5,158											
Newport News, Va.							7,203													
Norfolk, Va.	10,751										2,000									
Philadelphia, Pa.																				
Savannah, Ga.																				
Cristobal, C. Z.			361			2,243														
Tampico, Mexico.			1,398																	
Tuxpan, Mexico.										7,250										
Orientegos, Cuba.													17,400							
Totals.....	10,751	361	6,276	3,379	3,332	2,243	11,824	13,207	5,158	7,250	2,000	5,173	22,069	649	10,262	10,709	22,876	3,484		12,500

From—	Lyttelton, New Zealand.	Melbourne, Australia.	New Zealand.	San Francisco, Cal.	Seattle, Wash.	Vancouver, B. C.	Hakodate, Japan.	Kobe, Japan.	Manila, P. I.	Nagasaki, Japan.	Shanghai, Straits Settlements.	Vladivostok, Siberia.	Yokohama, Japan.	Bahia, C. Z.	Champerio, Guatemala.	Corinto, Nicaragua.	Rabo de Puerto, R. de P.	Totals.
Christiania, Norway																		3,332
Glasgow, Scotland																		7,800
Hamburg, Germany							7,800											7,800
London, England			8,310		6,770													36,923
Liverpool, England															700			12,837
Baltimore, Md.																		19,132
Boca Grande, Fla.				11,312														3,820
Galveston, Tex.						3,820												7,396
Mobile, Ala.																		8,500
New Orleans, La.																		10,564
New York, N. Y.	6,000	5,000			5,681			13,012	8,072	7,500	6,644		65,996				920	142,706

(Continued on page 630, column 1.)

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight May 29, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Cauca.....	19	19, 15	23	6, 10	23	12, 55	23	16, 55	British	Pacific Steam Navigation Co.	246.0	35.2	16.3	Cristobal	Guayaquil	General	404	1,589	1,023
Guatemala.....	16	18, 15	23	6, 10	23	13, 55	23	18, 32	British	Pacific Steam Navigation Co.	359.3	43.0	17.6	Cristobal	Valparaiso	General	472	4,207	2,700
J. A. Bostwick.....	22	16, 32	23	6, 20	23	15, 34	23	18, 32	British	Standard Oil Co.	465.0	60.0	29.0	Tampico	Batavia	Crude oil	11,500	8,518	6,423
Ortolan (s).....	22	16, 35	23	6, 40	23	16, 42	23	18, 05	American	United States Navy	187.0	37.6	23.0	Guantanamo	San Diego	General	6,624	6,576	4,886
Alloy.....	22	7, 50	23	7, 35	23	16, 30	23	17, 20	American	United States Shipping Board	402.6	53.6	24.6	New York	Kobe	General	7,300	6,564	4,806
West Carnifax.....	21	16, 58	23	9, 36	23	18, 10	23	22, 58	American	United States Shipping Board	410.5	53.6	24.6	New York	Yokohama	General	7,300	6,564	4,806
Queen Charlotte.....	23	10, 55	23	11, 20	23	19, 57	24	6, 15	American	Wessel Duval & Co.	253.4	43.7	25.0	Newport News	Iquique	Coal	3,469	2,653	1,680
City Blanche.....	23	7, 54	23	11, 30	23	20, 40	24	6, 15	Norwegian	Bendix J. Grafstad	300.0	42.0	19.0	Baltimore	Antofagasta	Coal	3,094	2,385	1,689
Quesnada.....	22	19, 37	24	6, 15	24	18, 01	24	19, 00	British	Shaw Saville & Albion Co.	460.0	60.0	25.0	Southern	Auckland	General	7,500	10,035	7,504
Arawa.....	23	21, 20	24	6, 15	24	18, 05	24	19, 00	American	A. H. Bull Steamship Co.	313.6	45.1	20.6	Baltimore	Talcahuano	Gen., coke, etc.	3,698	3,524	2,425
Evelyn.....	23	21, 20	24	6, 15	24	18, 05	24	19, 00	American	South American Line	379.7	44.3	22.6	Cristobal	Valparaiso	General	167	4,508	3,066
Huasco.....	19	18, 00	24	9, 30	24	20, 15	25	8, 23	Chilean	United States Shipping Board	400.7	54.2	25.2	Cristobal	Pearl Harbor	Coal	7,482	6,524	4,721
Watowan.....	24	18, 15	25	6, 10	25	21, 10	25	22, 20	American	United States Army	440.0	56.0	28.1	New York	Vladivostok	General	8,900	8,349	6,201
Heffron (s).....	24	18, 15	25	6, 10	25	21, 10	25	22, 20	American	W. R. Grace & Co.	360.0	51.6	21.0	New York	Valparaiso	General	1,225	5,694	3,975
Vulcan (s).....	25	3, 39	25	7, 56	25	20, 00	26	2, 26	American	United States Navy	410.0	58.0	27.7	Norfolk	San Diego	General	6,550	6,180	4,721
Santa Luisa.....	24	1, 45	25	7, 58	25	22, 11	26	12, 30	American	Pacific Steam Navigation Co.	215.7	33.5	13.6	Cristobal	Acapulco	General	180	1,273	706
Vulcan (c).....	24	1, 45	25	7, 58	25	22, 11	26	12, 30	British	Sandford & Co.	125.6	23.6	16.0	Medeira	Auckland	General	180	1,273	706
Jas. Cosgrove(d).....	23	19, 55	26	6, 09	26	14, 14	27	12, 30	British	Pacific Metals Corporation	81.0	25.6	9.6	Cristobal	Buenaventura	General	12	130	105
Laura C. Hall(e).....	25	12, 27	26	6, 23	26	14, 16	26	15, 05	British	New Zealand Shipping Co.	454.0	56.0	28.6	Avonmouth	Auckland	General	10,000	7,981	5,597
West Raritans.....	27	1, 00	27	6, 29	27	15, 33	27	16, 45	American	United States Shipping Board	410.0	54.0	25.0	New Orleans	Yokohama	General	7,000	6,389	4,775
Artigas.....	26	14, 50	27	7, 40	27	16, 37	27	17, 50	American	United States Shipping Board	390.0	54.2	20.0	Philadelphia	Seattle	General	5,200	6,161	4,427
Newport.....	24	18, 45	29	6, 15	29	16, 58	29	21, 08	American	Pacific Mail Steamship Co.	326.0	38.2	17.8	Cristobal	San Francisco	General	1,884	3,173	2,163
D. G. Scofield.....	29	12, 25	29	7, 37	29	19, 45	29	21, 08	American	Standard Oil Co.	439.0	58.0	28.0	Tampico	San Francisco	Oil	10,300	8,683	6,540
Elro.....	28	13, 35	29	10, 19	29	20, 37	29	21, 45	British	Pacific Steam Navigation Co.	450.0	58.0	25.8	Baltimore	Valparaiso	General	2,800	9,089	6,215
Windber.....	28	22, 45	29	10, 47	29	20, 40	30	2, 25	American	Pacific American Fisheries	290.0	40.0	21.8	Baltimore	San Francisco	General	3,400	3,036	2,126
Atholl.....	28	22, 15	29	10, 57	29	21, 18	29	22, 25	British	Australind Steamship Co.	385.0	49.0	25.0	Sabine	Freemantle	Sulphur	5,650	4,825	3,601

(a) Towing barge 277. (b) Transport. (c) Collier. (d) Tug. (e) Power schooner.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port	Entered Canal	Completed transit	Cleared for sea	Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage					
	Day	Hour	Day	Hour										Gross	Net				
Lake Maurepas.....	22	12, 30	23	6, 35	23	16, 10	23	19, 35	American	United States Shipping Board	253.5	43.5	20.0	Meillones	Wilmington	Nitrate	2,638	2,383	1,517
Eagle No. 4 (f).....	22	6, 38	23	6, 38	23	14, 30	23	16, 30	American	United States Navy	200.0	25.0	0	High seas	Cristobal				
Canadian Raider.....	22	15, 30	23	8, 59	23	16, 15	24	13, 12	British	Canadian Government	331.0	46.6	18.0	Auckland	New York	General	2,500	3,647	2,307
Edgewood.....	17	1, 38	23	10, 00	23	20, 30	24	5, 35	American	United States Shipping Board	409.0	54.2	28.0	Iquique	Savannah	Nitrate	9,400	7,473	5,937
Boynon.....	22	22, 00	23	11, 18	23	19, 37	24	11, 40	American	United States Shipping Board	266.9	41.6	22.0	Seattle	Nuevitas	Lumber	1,410	2,637	1,708

(f) Eagle boat.

Date	Vessel	Line	From	Date	Vessel	Line	To
23 7 40	23 11 30	23 20 42	24 18 30	24 18 30	American	United States Shipping Board	San Francisco
23 13 30	24 6 29	24 22 25	25 1 35	25 1 35	Norwegian	United States Shipping Board	San Francisco
23 19 43	24 7 14	24 20 59	24 22 47	24 22 47	British	White Star Line	San Francisco
23 1 00	24 9 24	24 19 52	24 22 47	24 22 47	British	White Star Line	San Francisco
23 5 08	24 10 31	24 18 45	24 22 47	24 22 47	American	Robin Line Steamship Co.	San Francisco
23 1 00	24 12 55	24 23 25	24 3 30	24 3 30	British	Pacific Mail Steamship Co.	San Francisco
23 7 30	25 6 37	25 18 36	25 11 30	25 11 30	Peruvian	Commonwealth and Dom. Line	Sydney
23 15 34	25 9 25	25 20 25	25 20 00	25 20 00	American	Peruvian Line	Callao
24 6 00	25 10 25	25 22 35	25 20 00	25 20 00	American	Standard Oil Co. of New Jersey	Balboa
23 23 30	26 7 57	26 14 30	26 15 10	26 15 10	American	United States Government	San Francisco
25 18 00	27 6 32	27 18 00	27 21 25	27 21 25	British	W. R. Grace & Co.	Valparaiso
27 2 30	27 8 34	27 19 29	27 10 12	27 10 12	Chilean	Shaw, Saville & Albion Co.	Auckland
27 13 00	28 6 57	28 15 35	28 15 55	28 15 55	Norwegian	Chilean Line	Talcahuano
28 8 00	28 10 43	28 18 18	28 1 6 10	28 1 6 10	British	Peter Olsen	Seattle
27 16 05	28 11 27	28 18 48	28 31 10 29	28 31 10 29	British	Pacific Steam Navigation Co.	Buenaventura
27 17 15	28 11 29	28 19 35	29 13 10	29 13 10	American	Pacific Mail Steamship Co.	Coronel
29 1 00	29 8 25	29 20 42	29 6 25	29 6 25	Dutch	Royal Netherland Line	Habana
25 20 30	29 8 43	29 23 04	30 8 57	30 8 57	British	London Steamship Co.	Catca Colosa
29 6 00	29 8 51	29 21 40	30 15 44	30 15 44	British	Pacific Steam Navigation Co.	Hongkong
28 19 00	29 9 28	30 12 07	30 17 42	30 17 42	American	Green Star Line	Talcahuano
29 10 00	29 11 15	30 12 38	30 4 14	30 4 14	British	Andrew Weir & Co.	Saigon, China

(g) Motor schooner. (h) Ex Sackem.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date	Vessel	Line	From	Date	Vessel	Line	To
May 23	Ulua	United Fruit Co.	Port Licia	May 23	Caribbean	Panama Railroad Cattle Industry	Cartagena.
May 24	Cape Fear	United States Shipping Board	Saint Lucia	May 23	Ulua	United Fruit Co.	New York and Habana.
May 25	Cartago	United Fruit Co.	New Orleans and Habana.	May 23	Atenas	United Fruit Co.	New Orleans and Bocas.
May 25	Tolon	United Fruit Co.	New York and Habana.	May 25	Santa Leonora	United States Army	New Orleans.
May 25	Geo. W. Barnes	Pan-American Pet. and Transp. Co.	Tampico	May 26	Tolon	United Fruit Co.	Port Limon.
May 26	Colon	Panama Railroad Steamship Line.	New York and Haiti.	May 27	Cape Fear	United States Shipping Board	Bluefields.
May 26	Crynossen	Royal Dutch West India Mail Co.	Amsterdam	May 27	Cartago	United Fruit Co.	Cartagena.
May 26	Montevideo	Spanish Steamship Line.	Galveston	May 27	Crynossen	United Fruit Co.	Cartagena.
May 27	Governor	Harrison Railroad Cattle Industry	New York and Kingston.	May 28	Geo. W. Barnes	Royal Dutch West India Mail Co.	New Orleans and Bocas.
May 27	Cartago	United Fruit Co.	Liverpool and waypoints.	May 28	Montevideo	Pan-American Pet. and Transp. Co.	Tampico.
May 28	Cartago	United Fruit Co.	Cartagena.	May 28	San Pablo	Spanish Steamship Line.	Puerto Colombia.
May 28	Antigone (b)	United States Army	Boston.	May 28	Governor	Harrison Steamship Line.	Port Limon.
May 28	Achilles (c)	Panama Railroad Steamship Line.	Norfolk.	May 29	Ulua	United Fruit Co.	New Orleans.
May 29	Gen. G. W. Goethals.	Panama Railroad Steamship Line.	Norfolk.				
May 29		Panama Railroad Steamship Line.	New York and Haiti.				

(Continued on page 630, column 2.)

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending May 29, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Ulua.....	United Fruit Co.....	May 23.....	May 23.....	14½	11
Cauca.....	Pacific Steam Navigation Co.....		May 23.....		2
Atenas.....	United Fruit Co.....	May 18.....	May 23.....		½
Guatemala.....	Pacific Steam Navigation Co.....	May 16.....	May 23.....		6
Caribbean.....	Panama Railroad Cattle Industry.....		May 23.....		237
Vulcan.....	United States Navy.....	May 24.....	May 25.....	27	
Heffron.....	United States Army.....	May 24.....	May 25.....	124	
Newport.....	Pacific Mail Steamship Co.....	May 24.....	May 29.....	231	92½
Huasco.....	Chilean Line.....		May 24.....		29
Geo. W. Barnes.....	Anglo-American (Standard Oil Co.).....	May 25.....	May 28.....	*8,500	
Cartago.....	United Fruit Co.....	May 25.....	May 27.....	186	25
Tolosa.....	United Fruit Co.....	May 25.....	May 26.....	24	74
Santa Leonora.....	United States Army.....	May 22.....	May 25.....	1,210	171½
Colon.....	Panama Railroad Steamship Line.....	May 26.....		1,200	
Carrillo.....	United Fruit Co.....	May 26.....	May 27.....	15	
Crijnsen.....	Royal West India Dutch Mail.....	May 26.....	May 27.....	92	20
Montevideo.....	Compañia Transatlantica.....	May 26.....	May 27.....	5	4½
Governor.....	Leyland Line.....	May 27.....		100	
Cuba.....	Pacific Mail Steamship Co.....	May 28.....	May 29.....	5	
Antigone.....	United States Army.....	May 28.....		600	
Peru.....	Pacific Steam Navigation Co.....	May 28.....			½
Jamaica.....	Pacific Steam Navigation Co.....	May 28.....		64	
Gen G. W. Goethals.....	Panama Railroad Steamship Line.....	May 29.....		1,420	

* Oil.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending May 29, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Newport.....	Pacific Mail Steamship Co.....	May 23.....	May 24.....	322	67
J. A. Bostwick.....	Standard Oil Co.....	May 23.....	May 25.....	12,121	
Northland.....	Albers Brothers Milling Co.....	May 25.....	May 26.....	248	74
Cuba.....	Pacific Mail Steamship Co.....	May 27.....	May 28.....	133	17
Peru.....	Pacific Steam Navigation Co.....	May 27.....	May 28.....	40	
Jamaica.....	Pacific Steam Navigation Co.....	May 28.....	May 28.....	4	
Salvador.....	Pacific Steam Navigation Co.....	May 29.....	May 30.....	100	

June Weather Probabilities.

The following weather conditions may be expected in the Canal Zone during the month of June, 1920. These predictions are based on the weather records at Cristobal and Balboa Heights for the last 13 and 15 years, respectively.

Winds—June weather is a continuation of the rainy season conditions of May, with no material change in any of the meteorological elements. Light variable winds will prevail with southeast winds predominating on the Atlantic Coast, and northwest winds over the interior and on the Pacific Coast. The average hourly velocity will be about 7 miles on the Atlantic Coast and about 6 miles on the Pacific Coast.

Rains—Heavy showers may be expected over the Isthmus. The average monthly rainfall at Cristobal is 13.35 inches, and at Balboa Heights, 7.56 inches. The average number of days with rainfall of 0.01 inch or more is 25 on the Atlantic side and 20 on the Pacific side, while the average number of days with 1 inch or more is 5 and 2, respectively.

Fogs—No fogs are likely to occur at either Canal entrance. Night and early morning fogs may be expected quite frequently over the interior. Most of these will be light, however, and will be dissipated before 8.30 a. m.

Temperature—The average monthly mean temperature is about 80° Fahrenheit on both coasts. The mean daily range in temperature is about 14° on the Pacific side and about 9° on the Atlantic side. No material departure from these averages may be expected. The extremes of record are 95° and 70° but this great a range in temperature seldom occurs.

Relative humidity—The relative humidity will average about 85 per cent on both coasts; the daily range, however, will be considerably greater on the Pacific side.

Storms—Local rain and thunder storms may be expected quite frequently during the month. During these storms wind velocities of from 30 to 35 miles may be ob-

tained, but they are of too short duration to cause a rough sea. Generally cloudy weather with smooth to moderate seas may be expected at both Canal entrances.

Tides—The tidal fluctuations on the Atlantic side are too small to affect navigation. Balboa tide predictions for June are given below: These are taken from "Tide Tables for 1920," published by the Department of Commerce, Washington, D. C.

Day of- W. Mo.		Time and Height of High and Low Water.				Day of- W. Mo.		Time and Height of High and Low Water.				Day of- W. Mo.		Time and Height of High and Low Water.			
Tu	1	3:29	9:37	3:37	10:02	F	11	4:35	10:46	5:14	11:18	M	21	1:03	7:29	1:36	7:47
		14.2	2.3	14.9	1.1			3.8	13.6	3.6	12.7			-0.1	16.5	1.2	15.8
W	2	4:09	10:16	4:15	10:38	S	12	5:34	11:50	6:12	.....	Tu	22	1:58	8:20	2:35	8:41
		14.3	2.2	14.9	1.0			3.5	14.2	2.9	.....			0.9	15.8	2.0	14.9
Th	3	4:48	10:52	4:53	11:16	S	13	0:29	6:34	12:46	7:11	W	23	2:55	9:15	3:37	9:40
		14.4	2.2	14.7	1.2			13.4	3.0	15.0	2.0			1.9	15.0	2.7	13.8
F	4	5:28	11:30	5:31	11:51	M	14	1:21	7:34	1:41	8:07	Th	24	3:54	10:14	4:36	10:45
		14.3	2.4	14.5	1.5			14.3	2.3	15.9	1.0			2.8	14.3	3.2	13.2
S	5	6:06	12:07	6:11	.....	Tu	15	2:13	8:29	2:34	8:59	F	25	4:51	11:19	5:35	11:53
		14.2	2.8	14.1	.....			15.2	1.4	16.6	-0.1			3.5	13.9	3.4	12.9
S	6	0:28	6:45	12:48	6:49	W	16	3:03	9:22	3:20	9:50	S	26	5:50	12:19	6:35	.....
		1.9	14.1	3.2	13.7			16.1	0.6	17.2	-0.9			4.0	13.8	3.5	.....
M	7	1:07	7:23	1:32	7:30	Th	17	3:56	10:13	4:14	10:38	S	27	0:53	6:49	1:12	7:29
		2.5	13.9	3.7	13.3			16.7	0.0	17.5	-1.4			12.9	4.1	13.9	3.2
Tu	8	1:53	8:08	2:22	8:13	F	18	4:39	11:01	5:07	11:26	M	28	1:44	7:43	1:58	8:19
		3.0	13.6	4.0	12.9			17.1	-0.3	17.5	-1.4			13.2	3.9	14.2	2.8
W	9	2:42	8:49	3:19	9:04	S	19	5:43	11:51	6:02	.....	Tu	29	2:30	8:33	2:38	9:03
		3.5	13.5	4.2	12.6			17.2	-0.1	17.1	.....			13.5	3.6	14.4	2.3
Th	10	3:38	9:45	4:16	10:07	S	20	0:14	6:36	12:42	6:58	W	30	3:11	9:17	3:19	9:43
		3.7	13.4	4.0	12.4			-0.9	17.0	0.5	16.4			13.9	3.1	14.6	1.5

The tides are placed in the order of their occurrence; the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; ante meridian figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Sunday Afternoon Launch Trips from Taboga to Taboguilla.

Hotel Aspinwall at Taboga has made arrangements to carry parties from the hotel to the beach on Taboguilla Island, and return, Sunday afternoons. The launch will leave the hotel landing at 2 o'clock and leave Taboguilla at 4 o'clock. The fare for the round trip is 25 cents.

College Entrance Examinations.

College entrance examinations will be held in the office of the Superintendent of Schools, Administration Building, Balboa Heights, during the week beginning June 21 and ending June 26, 1920. These are the examinations prescribed by the College Entrance Examination Board for the leading colleges in the United States.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286);

Expert and special agent (male and female); \$1,200 to \$1,600 a year; July 7 to 8, 1920; form 1312; age, 20 years but not 40 years.

Natural gas engineer (male and female); \$4,140 to \$5,040 a year; July 6, 1920; form 2118; age, under 45 years.*

Associate natural gas engineer (male and female); \$3,240 to \$3,840 a year; July 6, 1920; form 2118; age, under 45 years.*

Organic chemist (male and female); \$3,000 a year; July 6, 1920; form 2118; and B. I. A. 2; age, under 40 years.*

Inorganic chemist (male and female); \$3,000 a year; July 6, 1920; form B. I. A. 2 and form 2118; age, under 40 years.*

Technical examiner for mineral and metal claims investigations (male and female); \$3,300 to \$4,800 a year; July 6, 1920; form 1312; age, under 65 years.*

No. 311-amendment; senior architect; June 22, 1920. The United States Civil Service Commission announces that the entrance salary of the position of senior architect in the Interstate Commerce Commission, under the act providing for the valuation of the property of common carriers, will range from \$1,920 to \$2,700 a year, instead of from \$1,800 to \$2,700 a year as stated in the original announcement of the examination to be held on June 22, 1920, for this position.

No. 242-amendment; statistical agent; June 9, 1920. The United States Civil Service Commission announces the postponement from May 19 to June 9, 1920, of the open competitive examination for statistical agent, to be held at the places listed on original announcement No. 242, for filling vacancies in the Bureau of Fisheries, Washington, D. C., and in positions requiring similar qualifications, at \$1,000 a year or higher or lower salaries.

The maximum age limit of 35 years prescribed in the original announcement has been raised to 55 years. Applicants must have reached their 20th but not their 55th birthday on the date of the examination, except in the case of persons entitled to preference because of military or naval service, to whom age limits do not apply.

No. 578-amendment; field assistant in insect control. The United States Civil Service Commission announces that for the position of field assistant in insect control, Bureau of Entomology, Department of Agriculture, the entrance salary will range from \$1,200 to \$1,800 a year; instead of from \$900 to \$1,800 a year, as stated in the original announcement. The salaries of the three grades will be as follows: grade 1, \$1,200 to \$1,400 a year; grade 2, \$1,400 to \$1,600 a year; grade 3, \$1,600 to \$1,800 a year. Appointees whose services are satisfactory may be allowed the temporary increase granted by Congress of \$20 a month.†

Special agent (male and female); Special Intelligence Unit, Bureau of Internal Revenue; grade 1, \$1,500 to \$2,250 a year; grade 2, \$2,500 to \$3,000 a year; No. 324; June 23, 1920; form 1312; age, 25 years but not 45 years.

Superintendent of motor transportation (male and female); No. 333; \$2,100 to \$2,400 a year; June 22, 1920; age, 25 years and over.*

Typewriter repairman (male and female); \$900 to \$1,500 a year; No. 335; \$900 to \$1,500 a year; June 22, 1920; form 304; age, 18 years and over.*

Typist. Clerk with knowledge of stenography (male and female); \$900 to \$1,200 a year; June 4, 1920; form 304; age, 18 years and over.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Applications will be received at any time until further notice.

Official Circulars.

Paymaster.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 23, 1920.

To all concerned—Effective June 1, 1920, and during the absence on leave of Mr. R. W. Glaw, Paymaster, Mr. C. L. Bryan, Assistant Paymaster, will perform the duties of Paymaster.

JAY J. MORROW,
Acting Governor.

Maintaining Water Level—Gatun Lake.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 22, 1920.

All concerned—The following schedule for maintaining Gatun Lake during the 1920 rainy season will be adhered to as closely as conditions permit:

The lake will be allowed to fill to elevation +85.5 feet before any water is wasted over the spillway. This elevation should be reached in June or July.

The lake will be held between elevations +85.5 feet and +86 feet until the 1st of October; filled to elevation +86.5 feet in October; and the filling will be completed to elevation +87 feet in November.

The allowable variation in lake level is increased to 0.5 foot to lessen the number of spillway gates operated simultaneously in regulating the lake level.

JAY J. MORROW,
Acting Governor.

Names of Streets.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., May 22, 1920.

To all concerned—Supplementing circular of March 31, 1920, names are given to the following:

The blind street leading from Fourth of July Avenue up Ancon Hill on which are located the quarters occupied by the cable company's employees shall be known as Field Place.

The blind road leading from La Boca Road and ascending Sosa Hill on which are located quarters occupied by the Union Oil Company of California employees shall be known as Union Place.

The road leading from Amador Road, near the Radio Station, to the Quarantine Station, Mafiana Club, and Balboa Yacht Club shall be known as Quarantine Road.

JAY J. MORROW,
Acting Governor.

Acting Master of Transportation.

THE PANAMA RAILROAD COMPANY,
OFFICE OF SUPERINTENDENT,
BALBOA HEIGHTS, C. Z., June 1, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

Effective this date, and during the absence on leave of Mr. W. F. Foster, Mr. W. J. Bissell will act as Master of Transportation for the Panama Railroad Company.

S. W. HEALD,
Superintendent.

Approved:
CHESTER HARDING,
President.

Timekeeping Rules—Relief Days.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 20, 1920.

To all concerned—Effective at once, the use of special authorities to cover time off on account of work performed on Sundays or holidays will be discontinued.

The time off must be shown in timebooks by writing the letter "R" and the date of the Sunday or holiday worked which entitled the employee to time off. To illustrate: Where an employee worked Sunday, May 2, and was granted a relief day May 26 the timebook for May 26 will show

R 5—2

In case the employee worked one-half day the 26th and was granted a half day relief time in the afternoon, the time book will show

$R \ 5 - 2\frac{1}{2}$

Existing Timekeeping Rules as contained in Sections 52, 53, 54, and 85, are hereby amended as regards relief days only.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

JAY J. MORROW, Acting Governor.

Procurement of Supplies by the Army from The Panama Canal.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 22, 1920.

To all concerned—Please note the following which has been transmitted to this office by the Department Quartermaster, Panama Canal Department under date of May 18, 1920:

"PURCHASE AND STORAGE"
NOTICE No. 96.

Subject: Procurement of Supplies from the Panama Canal Government.

1. Under existing agreements between the Panama Canal Government and this office certain supplies are procured from the Panama Canal Government for use of the Army stationed on the Panama Canal Zone at cost, plus a surtax of 10 per cent, and there being no competition in securing these supplies the execution of formal contracts is not required.

2. Hereafter, supplies procured from the Panama Canal Government where authority for such procurement has been given will be procured on purchase orders (Q. M. C. form No. 108-B), and formal contracts covering such procurements will not hereafter be required. In the use of the above form for this purpose the contract provisions should be crossed out, as these are not applicable between different departments of the Government.

By authority of the Quartermaster General,
Director of Purchase and Storage,

M. H. HANSON,
Lieut. Colonel, Q. M. Corps,
Executive Officer."

H. A. A. SMITH,
Auditor, The Panama Canal.

Joint Commission.

Decisions of the Umpire.

In the matter of the claim of Francisco Filos and Isabel Hernandez for property located near the town of Las Cascadas in the District of Empire, known as "Cuatro Caminos." Decision of the Umpire, award No. 222, docket No. 3046, May 29, 1920—The above-entitled claim was certified to the undersigned Umpire on the questions of liability and title.

The American Members of the Commission deny claimants' right to compensation holding:

- (a) That claimants' title is not sound;
- (b) That the title presented by them is dated December 5, 1903, "17 days after the Panama Canal Treaty had been negotiated between the United States and the Republic of Panama;
- (c) That no evidence was introduced showing an actual occupancy of the land by claimants;
- (d) That in the French Canal Company's maps these lands are marked "tierras baldias" (public lands).

The Panamanian members, on the other hand, contend:

(a) That this claim is based on a public deed which was duly recorded in the Office of Registration of public instruments in conformity with the laws of the Republic governing title to real estate;

(b) That the rights of claimants to the lands known as "Cuatro Caminos" originated in the vendor to the present claimants who had been in possession of this property from "California times," and that which was done in 1903 (in April, 1903, and not subsequent to November, 1903, when the Treaty was signed, page 112, transcript) was to reconstruct the titles; furthermore a title can not be declared good or bad by reason of its being before or after the date of the treaty;

(c) That the Civil Code of Colombia in force in the Republic of Panama and in the Canal Zone does not require physical occupation of lands to prove ownership to real estate (Articles 756, 769, 785, and 789).

(d) That the validity of a public deed can not be extinguished by data appearing on a topographical map made by a company which has not the power to give or withdraw rights of private individuals, and the fact that the Government of the United States by direct settlement and by awards of the Joint Commission paid for lands adjoining "Cuatro Caminos" is in favor of the present claimants.

The Panamanian Commissioners further state that the Joint Commission has formally adopted a rule with reference to the admissibility of evidence to the effect that "the Commission will follow the procedure of a commission of inquiry rather than the technical rules of evidence," and it is their opinion that in right and equity claimants are entitled to an award of \$6,597 or at the rate of \$30 per hectare for the damage sustained by them on account of the expropriation of this lot of land.

Inasmuch as claimants have acquired title in accordance with the laws of the Republic of Panama, and in view of the fact that the above appraisal is in conformity with awards which I have made for lands in this vicinity, an award is hereby made against the United States in favor of Francisco Filos and Isabel Hernandez in the sum of \$6,597, for all right, title, and interest the said Francisco Filos and Isabel Hernandez may possess or may have possessed in and to the 219.9 hectares of land known as "Cuatro Caminos" located in the Canal Zone near the town of Las Cascadas, subject of claim docket No. 3046, including any and all damages sustained by the said Francisco Filos and Isabel Hernandez on account of the expropriation of this property by the United States of America. This award shall be paid in the proportions and amounts as follows:

To Francisco Filos, one-half (½) thereof.....	\$3,298.50
To Isabel Hernandez, one-half (½) thereof.....	3,298.50

Total..... \$6,597.00

This award shall be paid on or before the 29th day of June, 1920, and if payment or tender of payment is not made on or before that date, said award shall thereafter bear interest at the rate of 6 per centum per annum until paid.

Done in the National Palace, Panama, on the 29th day of May, 1920.

(Sgd.) MANUEL WALLS Y MERINO,
Umpire.

Distribution Among Ports of Cargo Passing Through the Canal From Atlantic to Pacific, April, 1920.—Continued from page 623.

From—	Lytleton, New Zealand	Melbourne, Australia	New Zealand	San Francisco, Cal.	Seattle, Wash.	Vancouver, B. C.	Hakodate, Japan	Kobe, Japan	Manila, P. I.	Nagasaki, Japan	Shanghai, Straits Settlements	Vladivostok, Siberia	Yokohama, Japan	Balboa, C. Z.	Champerico, Guatemala	Corinto, Nicaragua	Rabo de Puerto, R. de F.	Totals
Newport News, Va.																		23,210
Norfolk, Va.												6,980						17,054
Philadelphia, Pa.				7,500									18,194					16,480
Savannah, Ga.																		18,154
Cristobal, C. Z.				2,071											948	349		10,493
Tampico, Mexico														11,000	4,500			41,000
Tuxpan, Mexico																		7,250
Chetumal, Yucatan																		8,572
Totals	6,000	5,000	8,310	23,883	12,451	16,372	3,820	18,512	8,072	7,500	15,655	6,980	91,950	11,000	1,648	4,849	920	397,025

MOVEMENTS OF OCEAN VESSELS.—Continued from page 625.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 23.	Edna	Sudden & Christenson	Punta Arenas, Chile.	May 27.	Northland	Albers Bros. Milling Co.	San Francisco.
May 25.	Kifaku Maru	Kabushiki Kaisha Kawasaki	High seas. (i)	May 25.	Guardian (j)	All American Cables Co.	Callao.
May 25.	Northland	Albers Bros. Milling Co.	San Francisco.				
May 26.	Guardian	All American Cables Co.	Salina Cruz.				

PORT OF BALBOA.

(i) Returning from high seas for repairs. (j) Cable ship. *Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

THE PANAMA CANAL RECORD

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Volume XIII.

Balboa Heights, C. Z., June 9, 1920.

No. 43.

Departure of the "Mount Vernon."

The United States Army transport *Mount Vernon*, which passed through the Canal on May 25, on her way from Vladivostok to Hamburg with Czecho-Slovak soldiers and German prisoners, cleared from Cristobal on June 5. Under a change of orders she cleared for Hamburg direct, instead of by way of Norfolk, after receiving 5,610 tons of coal from the Cristobal coaling plant. Delay of several days was occasioned by repairs to the refrigerating equipment.

While the *Mount Vernon* was tied up at Cristobal the Czecho-Slovak soldiers were quartered in a part of Pier 6, where shower baths, cots, etc., were arranged for their accommodation. The prisoners remained aboard the ship.

The case of fever taken off at Balboa and transferred to Ancon Hospital for laboratory diagnosis was found not to be typhus fever, or other quarantinable disease, and the quarantine against the ship was removed. This patient, and another taken from the ship for hospital treatment, are still in the hospital.

Canal Traffic in May.

Canal traffic for May, 1920, is shown as classified in the following tabulation:

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.	
						From—	To—
29	American...	150,633	99,940	117,891	199,625	W. coast S. America...	E. coast U. S.
2	British....	13,960	8,390	10,328	10,972	W. coast S. America...	E. coast U. S.
2	Norwegian...	7,055	4,377	5,720	11,902	W. coast S. America...	E. coast U. S.
1	Dutch.....	4,370	2,727	4,322	7,000	W. coast S. America...	E. coast U. S.
34	.....	175,748	115,434	138,261	229,499	W. coast S. America...	E. coast U. S.
10	British....	13,911	7,676	10,012	8,397	W. coast S. America...	Cristobal.
3	Chilean....	10,341	6,193	8,518	3,037	W. coast S. America...	Cristobal.
2	Peruvian...	8,065	4,587	5,459	3,615	W. coast S. America...	Cristobal.
15	.....	32,317	18,456	23,989	15,049	W. coast S. America...	Cristobal.
6	British....	42,317	26,939	32,521	39,470	W. coast S. America...	Europe.
2	Italian....	10,343	6,308	7,882	5,829	W. coast S. America...	Europe.
1	Dutch....	6,899	4,417	6,633	9,856	W. coast S. America...	Europe.
1	Peruvian...	4,403	2,090	2,386	1,338	W. coast S. America...	Europe.
1	Norwegian..	4,009	2,056	3,009	5,647	W. coast S. America...	Europe.
11	.....	67,971	41,810	52,451	62,140	W. coast S. America...	Europe.
9	American...	51,195	32,633	40,287	60,832	U. S. coastwise.	
6	British....	49,232	31,279	40,430	33,610	Australia and N. Z'land	Europe.
1	American...	5,642	3,479	4,741	5,800	Australia and N. Z'land	Europe.
7	.....	54,874	34,758	45,171	39,410	Australia and N. Z'land	Europe.
4	American...	28,755	19,882	23,060	Ballast...	W. coast S. America...	Mexico.
2	British....	13,803	8,691	10,313	Ballast...	W. coast S. America...	Mexico.
1	Norwegian..	7,020	4,420	5,095	Ballast...	W. coast S. America...	Mexico.
7	.....	49,578	32,993	38,468	Ballast...	W. coast S. America...	Mexico.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.	
						From—	To—
2	Japanese....	13,709	8,547	10,326	17,772	Far East.....	East coast U. S.
2	American....	9,090	5,903	6,759	6,886	Far East.....	East coast U. S.
1	British.....	4,757	3,050	4,364	7,000	Far East.....	East coast U. S.
5	.....	27,556	17,500	21,449	31,658	Far East.....	East coast U. S.
2	British.....	12,222	7,766	8,764	7,546	Australia and N. Z'land	East coast U. S.
2	American....	9,832	9,754	9,909	16,016	Australia and N. Z'land	East coast U. S.
4	.....	22,054	17,520	18,673	23,562	Australia and N. Z'land	East coast U. S.
4	American....	15,548	10,289	11,456	15,050	West coast U. S.....	Cuba.
2	British.....	8,264	5,215	6,111	10,195	West coast U. S.....	Europe.
1	Norwegian..	7,093	4,479	5,627	9,100	West coast U. S.....	Europe.
3	.....	15,357	9,694	11,738	19,295	West coast U. S.....	Europe.
3	British.....	15,136	9,556	13,911	22,209	W. coast S. America...	Egypt.
3	American....	6,854	4,178	4,746	8,410	W. coast S. America...	Cuba.
3	British.....	3,297	1,915	2,143	2,799	W. coast Cen. America.	Cristobal.
2	American....	14,116	8,711	10,653	Ballast...	W. coast U. S.....	Mexico.
2	American....	4,796	2,963	3,756	3,206	West coast U. S.....	Cristobal.
1	British.....	6,828	4,247	5,272	Ballast...	*W. coast U. S.....	East coast U. S.
1	American....	6,330	3,863	4,391	Ballast...	British Columbia.....	Mexico.
1	American....	5,900	3,670	4,798	7,139	Far East.....	Cuba.
1	Swedish....	5,765	3,544	5,051	7,582	West coast U. S.....	Egypt.
1	British.....	3,808	2,410	2,662	3,476	W. coast Cen. America.	United Kingdom.
1	American....	3,404	2,163	2,459	2,695	West coast U. S.....	N. Colombian ports.
1	American....	2,265	1,350	1,650	2,230	West coast U. S.....	Porto Rico.
119	.....	590,697	379,657	463,435	556,241		

*Not coastwise.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.	
						From—	To—
22	American....	86,369	57,207	66,312	57,822	East coast U. S.....	W. coast S. America.
3	British.....	18,548	11,518	15,598	9,645	East coast U. S.....	W. coast S. America.
1	Dutch.....	5,850	3,761	4,256	Ballast...	East coast U. S.....	W. coast S. America.
1	Norwegian..	2,095	1,302	1,689	3,095	East coast U. S.....	W. coast S. America.
27	.....	112,862	73,788	87,855	70,562	East coast U. S.....	W. coast S. America.
11	British.....	17,484	9,669	13,119	3,780	Cristobal.....	W. coast S. America.
3	Peruvian....	12,682	7,014	8,312	1,708	Cristobal.....	W. coast S. America.
2	Chilean....	7,612	4,560	6,043	639	Cristobal.....	W. coast S. America.
1	American....	615	372	350	571	Cristobal.....	W. coast S. America.
17	.....	38,393	21,615	27,824	6,698	Cristobal.....	W. coast S. America.
9	American....	60,053	37,293	49,389	75,392	East coast U. S.....	Far East.
3	British.....	21,369	13,768	19,431	25,657	East coast U. S.....	Far East.
3	Japanese....	15,694	10,926	12,318	16,100	East coast U. S.....	Far East.
15	.....	97,116	61,987	81,188	117,149	East coast U. S.....	Far East.
8	British.....	44,550	28,584	35,948	49,222	East coast U. S.....	Australia and N. Z'd.
1	American....	5,504	3,394	4,730	5,000	East coast U. S.....	Australia and N. Z'd.
9	.....	50,054	31,978	40,678	54,222	East coast U. S.....	Australia and N. Z'd.
5	American....	34,640	24,137	28,186	44,725	Mexico.....	W. coast S. America.
2	British.....	9,901	5,907	7,060	13,040	Mexico.....	W. coast S. America.
1	Norwegian..	7,022	4,438	5,093	9,280	Mexico.....	W. coast S. America.
8	.....	51,563	34,482	40,339	67,045	Mexico.....	W. coast S. America.
7	American....	35,522	24,637	28,090	28,205	U. S. coastwise.	

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.	
						From—	To—
2	Dutch.....	13,843	8,831	13,460	700	Europe.....	W. coast S. America.
2	Italian.....	13,793	8,103	9,204	100	Europe.....	W. coast S. America.
2	British.....	7,725	4,913	6,246	8,058	Europe.....	W. coast S. America.
6	.....	35,361	21,847	28,910	8,858	Europe.....	W. coast S. America.
3	British.....	18,828	12,013	14,491	17,230	Europe.....	Australia and N. Z'd.
2	American...	15,642	9,629	11,881	19,700	Mexico.....	W. coast U. S.
1	Swedish....	3,767	2,865	4,089	5,044	Europe.....	W. coast U. S.
1	American...	2,341	2,273	2,185	Ballast...	Europe.....	W. coast U. S.
2	.....	6,108	5,138	6,274	5,044	Europe.....	W. coast U. S.
2	American...	4,796	2,963	3,756	3,589	Cristobal.....	W. coast U. S.
2	British.....	2,298	1,304	1,398	1,110	Cristobal.....	W. coast C. America.
1	British.....	5,919	3,656	4,209	6,500	East coast U. S.....	W. coast C. America.
1	Japanese....	5,725	3,566	4,116	6,761	East coast Mexico....	Far East.
1	American...	4,230	2,655	3,047	5,615	East coast U. S.....	W. coast Canada.
1	British.....	3,618	2,333	2,958	390	Europe.....	W. coast C. America.
1	American...	2,730	1,693	1,976	Ballast...	Cuba.....	W. coast S. America.
105	.....	490,765	315,284	388,990	418,678		

Projected Colombian Steamship Services.

In response to a request from The Panama Canal for information regarding press reports of the proposed establishment of a steamship line connecting Puerto Colombia, Cartagena, Santa Marta, San Andres, Kingston, Santiago, and New York, the following has been furnished by the American Vice Consul in Cartagena, Colombia:

The *Empresa de Scharberg* which has been handling the river freight of the Atrato and Sinú is to be taken over by the Carib Trading Company, a new corporation controlled by the Carib Syndicate, Limited, of New York, and capitalized for \$2,000,000. The two vessels now in the service of the *Empresa de Scharberg*, of which Mr. Frank A. Scharberg, an American, is proprietor, will be overhauled and continue in the coast-wise trade of Colombia, the steamer *Sinú* running between this port and the Sinú River, and the *Buffalo* running on the Atrato.

The Carib Trading Company is now fitting out the *Catco*, a steamship of 600 tons, which will shortly leave New York for Cartagena. This vessel will be used in the trade along the Pacific Coast of Colombia, passing through the Panama Canal, and calling at the Atlantic coast ports of Colombia.

Should this venture be successful the company intends to add two more steamships, making more extensive runs to Caribbean ports. It is also the intention of the company to place river boats on the Magdalena, making use of the Dique to bring the freight to the coast.

Agents have been appointed at Barranquilla, Santa Marta, Cristobal, Buenaventura, and Tumaco.

Regular Service Between San Francisco and Habana.

The Pacific Mail Steamship Company has established a regular passenger and cargo service between San Francisco and Habana. Sailings are now every two months, using the steamer *Cuba* (formerly the *Sachem*). Passengers and cargo are handled at the Canal ports, and usually a stop of several days is made in Canal waters, which gives the passengers opportunity to see the Canal Zone and Colon and Panama. Additional ships are slated for this service when they can be released from the Oriental service of the company.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight June 5, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Golden Gate (a)	28	12 25	30	6 14	30	15 44	30	22 57	American	Rolph Navigation and Coal Co.	293.0	42.0	13.6	Leith	San Francisco	Ballast	2,380	2,186	
Robin Hood	28	6 03	30	11 00	30	20 23	30	21 13	American	Robin Line Steamship Co.	425.0	55.0	28.0	Norfolk	Mejillones	Coal	7,473	5,622	
Lake Foxboro	30	1 05	30	11 55	30	20 07	30	21 55	American	United States Shipping Board	251.0	43.0	22.3	Norfolk	Mtlenido	Coal briquettes	2,643	2,754	
Australrange	30	14 46	31	6 20	31	14 59	31	19 30	British	Commonwealth Government	390.0	52.3	24.3	Texas City	Sydney	Sulphur	5,800	4,698	
City of Winchester	30	13 05	31	6 28	31	13 43	31	14 30	British	Hall Line, Ltd.	456.0	58.0	24.3	New York	Auckland	General	6,520	8,783	
Clan Monroe	30	19 10	31	6 38	31	15 47	31	16 40	British	Chan Line, Ltd.	410.0	53.0	28.8	Philadelphia	Kobe	Case oil	6,500	6,313	
Donald McKay	31	6 08	31	7 32	31	17 11	31	2 55	American	United States Shipping Board	400.7	54.2	24.0	New York	Melbourne	General	5,000	6,528	
Saucun	31	8 27	31	9 00	31	18 11	31	9 58	American	United States Shipping Board	390.0	54.0	24.0	New York	Chempou	Case oil	6,000	6,106	
Peru	28	18 40	31	9 20	31	18 21	31	17 25	British	Pacific Steam Navigation Co.	350.0	43.1	17.3	Cristobal	Guayaquil	General	5,000	2,646	
Australia	28	18 18	31	6 10	31	13 05	31	13 35	British	Pacific Steam Navigation Co.	220.0	33.1	12.7	Cristobal	Buenaventura	General	760	1,187	
City of Madras	27	9 30	31	10 01	31	16 53	31	7 14	British	Ellerman Steamship Line	395.4	49.5	21.6	Hull	Brisbane	General	6,529	3,649	
Imperial	27	19 23	31	10 12	31	17 40	31	18 33	Chilean	South American Steamship Line	336.8	41.2	22.6	Cristobal	Valparaiso	General	710	3,634	
Empire	2	12 50	2	7 07	2	14 23	3	10 45	American	United States Shipping Board	402.6	54.8	21.0	New York	Seattle	General	5,200	6,939	
Santa Fe (a)	2	9 05	3	6 15	3	18 55	4	17 17	American	W. R. Grace & Co.	298.6	40.0	19.1	New York	Valparaiso	General	1,963	8,249	
Polaris	25	18 48	3	6 17	3	20 07	3	21 18	British	Andrew Weir & Co.	461.0	52.0	29.0	Glasgow	Yokohama	General	8,200	2,855	
Chantier	2	22 01	3	7 23	3	18 13	4	1 39	American	United States Shipping Board	251.0	55.0	31.0	New York	Talca	Coal	2,740	2,472	
Coaluga	2	17 55	3	6 20	3	16 24	3	22 45	British	United States Shipping Board	471.0	55.0	31.0	Puerto Lobos	San Francisco	Crude oil	10,000	8,108	
Manavi	30	20 40	4	6 09	4	14 30	4	16 38	British	Union Oil Co.	216.0	34.5	14.3	Cristobal	Guayaquil	General	730	1,241	
Santa Elena	2	9 00	4	6 33	4	15 00	4	17 17	American	W. R. Grace & Co.	218.3	42.5	16.0	New York	Valparaiso	Coal	546	1,953	
Maten Maru	4	5 40	4	7 03	4	15 50	5	14 17	Japanese	Taisho Kaifu Kaisha	145.0	49.0	26.0	Tampa	Buenaventura	Phosphate	5,858	4,416	
Balboa	2	16 40	5	6 05	5	13 15	5	22 58	American	Colombian Maritime Co.	300.0	28.0	14.0	Cristobal	Osaki	General	504	741	
Penguin (c)	2	11 10	5	6 10	5	13 12	5	16 42	American	Peruvian Railroad Co.	123.0	29.0	11.6	Brest, France	Yokohama	General	7,711	5,919	
Shinkoku Maru	4	13 57	5	6 25	5	15 14	5	16 42	Japanese	Kishimoto Kisen Kaishiki	385.0	51.0	27.0	New York	Sydney	Sugar	6,464	5,771	
Kia-Ora	5	7 12	5	6 21	5	17 55	6	8 00	British	Slaw, Saville & Albion Co.	448.0	56.5	27.0	London	Gatun Lake	Ballast	6,464	5,771	
Romer (b)	29	20 00	3	6 40	3	10 03	3	10 03	American	Bell & Dexter	448.0	56.5	27.0	Cristobal			6,464	5,771	

(a) Bark. (b) Launch. (c) Tug.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Rajah	26	6 45	30	6 25	30	15 30	30	22 55	American	United States Shipping Board	283.0	42.1	17.0	San Francisco	San Juan, P. R.	General	2,230	2,389
Salvador	29	4 30	30	6 52	30	14 15	30	16 30	British	Pacific Steam Navigation Co.	215.0	33.5	16.0	San Jose, Guat	Cristobal	General	1,120	1,213
Easterner	29	12 22	30	7 50	30	16 38	30	19 46	American	United States Shipping Board	385.0	51.0	27.2	Pisagua	Wilmington	Nitrate of soda	8,088	6,692
Lompoc	30	12 45	30	9 35	30	16 55	30	16 55	British	C. T. Bowring	425.0	58.8	19.0	Talca	Tampico	Ballast	4,497	4,497
Amor Maru	30	7 00	30	9 41	30	18 42	30	19 15	Japanese	Osaka Shosen Kaisha	435.0	56.2	28.0	Singapore	New York	General	7,488	5,342
Manavi	30	10 30	30	12 57	30	20 40	4	6 09	British	Pacific Steam Navigation Co.	216.0	31.5	12.9	Guayaquil	Cristobal	General	9,430	6,002

City of Sher-	30	10.45	30	13.05	30	20.57	1	10.20	American...	Brooks Scanka Corp.	272.8	46.1	21.0	Portland.....	Nuevitas,Cuba	Lumber.....	2,952	3,031	1,924
anson S. Brooks	30	12.30	31	6.39	31	15.10	31	16.35	American...	United States Shipping Board.	401.2	54.0	25.0	Iquique.....	Wilington.....	Nitrato.....	8,000		
City of Sher-	31	5.00	31	7.40	31	16.10	31	20.35	British	C. T. Bowring	420.3	54.6	18.6	Tocopilla.....	Tampico.....	Ballast.....	6,690	4,971	
Cordoba.....	31	17.55	1	6.48	1	16.50	2	14.35	British	Pacific Steam Navigation Co.	550.3	67.3	27.9	Valparaiso.....	Liverpool.....	General.....	7,755		
Eastern Ad-	31	20.40	1	7.51	1	17.45	2	1.25	American...	United States Shipping Board.	414.7	55.7	27.0	Tacoma.....	New York.....	Flour.....	8,917		
miral	16	10.55	1	9.09	1	13.30	2	6.00	American...	Pacific Mail Steamship Co.	289.1	44.1		San Francisco	Baltimore.....	General.....	3,010	2,895	1,982
Point Judith.	21	22.30	2	6.40	2	15.14	2	13.14	Norwegian	W. Wilhelmssen	435.2	57.1	17.0	Tocopilla.....	Tampico.....	Ballast.....	7,059	5,081	
San Joaquin..	1	15.00	2	6.32	2	16.40	5	6.03	American...	Colombian Maritime Co	190.0	29.1	12.3	Buenaventura.	Cristobal.....	General.....	669	741	850
Balboa.....	30	4.30	2	7.03	2	17.55	4	13.25	American...	United States Steel Products Co.	395.5	55.0	24.5	Vancouver.....	London.....	General, lumber	(e)	7,285	5,256
Steel Maker..	25	5.08	3	7.23	3	19.18	3	19.32	American...	Standard Oil Co.	419.4	57.2	22.0	Iquique.....	Tampico.....	Ballast.....	7,443	5,545	
S. V. Harkness	3	4.20	3	7.34	3	20.20	3	20.38	American...	United States Shipping Board.	403.7	57.0	27.0	Mejillones.....	Wilmingon.....	Nitrato.....	8,300	6,529	4,217
City of Alma.	3	7.00	3	9.03	3	21.25	5	6.04	American...	United States Shipping Board.	425.8	57.0	27.0	San Francisco	Guthenberg.....	Diesel, gas oil	(f)	7,484	5,217
City of Reno.	3	10.25	3	11.40	3	23.12	5		French	Transatlantic Steamship Co.	367.0	50.3	25.0	Talcahuano	Bordeaux.....	General.....	6,681	5,917	4,146
Saint Andre..	3	14.00	4	6.39	4	15.34			Peruvian	Peruvian Line Shipping Co.	390.9	46.0	22.6	Callao.....	Cristobal.....	General.....	3,417	4,731	2,853
Mantaro.....	4	7.00	4	7.50	4	16.05	5	3.00	American...	United States Shipping Board.	231.0	43.6	21.0	Tacoma.....	Nuevitas,Cuba	Lumber.....	1,730	2,766	1,778
Lake Frenchton	3	21.00	4	9.39	4	17.55	5	12.12	American...	United States Shipping Board.	409.6	54.2	28.3	Antofagasta.....	Charleston.....	Nitrato.....	9,639	7,489	5,858
Edisto.....	4	15.30	5	7.13	5	14.35			British	Pacific Metals Corp.	51.0	25.6	10.0	Buenaventura.	Cristobal.....	Coffee.....	69	130	69
Laura C. Hall d																			

(d) Motor schooner. (e) General, 2,923 tons; lumber 3,000,000 feet. (f) 77,500 barrels.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From--	Date.	Vessel.	Line.	For--
May 30.....	Toledo.....	United Fruit Co.	Port Limon.	May 30.....	Toledo.....	United Fruit Co.	New York and Habana.
May 31.....	Antonio Lopez.	Spanish Steamship Line.	Barcelona and waypoints.	May 30.....	Achilles.....	Panama Railroad Steamship Line.	Norfolk.
May 31.....	Heredia.....	United Fruit Co.	New Orleans.	June 1.....	Colon.....	Panama Railroad Steamship Line.	New York and Haiti.
May 31.....	Allanica.....	Panama Railroad Steamship Line.	New York.	June 2.....	Antigone (g)	Spanish Steamship Line.	Puerto Colombia.
June 1.....	Calamares	United Fruit Co.	New York via Habana.	June 2.....	United States Army.	United States Army.	New York and San Juan.
June 1.....	Panama	Panama Railroad Steamship Line.	New York via Haiti.	June 2.....	Calamares	United Fruit Co.	Port Limon.
June 3.....	Gen. H. F. Hodges.	Panama Railroad Steamship Line.	New York via Haitian ps	June 4.....	Heredia.....	United Fruit Co.	New Orleans and waypoints
June 3.....	Medan.....	Leyland Line.	Liverpool and waypoints.	June 4.....	Allanica.....	Panama Railroad Steamship Line.	Cartagena and Pt. Colon.
June 3.....	Arabia (d)	W. V. N. Powellson	Colon.	June 5.....	Gen. G. W. Goethals.	Panama Railroad Steamship Line.	New York and Haiti.
				June 5.....	Arabia (d)	W. V. N. Powellson	Colon.

(g) Transport.

PORT OF BALBOA.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From--	Date.	Vessel.	Line.	For--
June 3.....	Lake Fitch.....	United States Shipping Board	Seattle.	June 3.....	Edna.....	Sudden & Christensen.....	San Francisco.

*Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending June 5, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Carrillo.....	United Fruit Co.....		May 27.....		57
Achilles.....	Panama Railroad Steamship Line..	May 28.....	May 30.....	†12,048	
Manavi.....	Pacific Steam Navigation Co.....	May 30.....	June 4.....	12	
Tolosa.....	United Fruit Co.....	May 30.....	May 30.....	9	½
Heredia.....	United Fruit Co.....	May 31.....	June 2.....	662	34
Allianca.....	Panama Railroad Steamship Line..	May 31.....	June 4.....	833	341
Antonio Lopez.....	Cia. General Transatlantica.....	May 31.....	June 2.....	30	1½
Calamares.....	United Fruit Co.....	June 1.....	June 2.....	105	23
Colon.....	Panama Railroad Steamship Line..		June 1.....		300
Segura.....	Royal Mail Steam Packet Co.....	June 2.....	June 5.....	10	10
Balboa.....	Columbian Maritime Marine.....	June 2.....	June 5.....		5½
*Antigone.....	United States Army.....		June 2.....		19½
Panama.....	Panama Railroad Steamship Line..	June 4.....		1,037	
Gen. Geo. W. Goethals.....	Panama Railroad Steamship Line..		June 4.....		233
Gen. H. F. Hodges.....	Panama Railroad Steamship Line..	June 5.....		217	
Median.....	Leyland Line.....	June 5.....		5	

* U. S. A. transport.

† Coal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending June 5, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Olockson.....	United States Shipping Board.....	April 15.....		8,000	
*Edna.....	Sudden, Christensen & Co.....	May 23.....	June 1.....		2,168
*Newport.....	Pacific Mail Steamship Co.....	May 29.....	May 29.....		1
Manavi.....	Pacific Steam Navigation Co.....	May 30.....	May 31.....	6	
Balboa.....	Colombia Maritime Co.....	June 1.....	June 2.....	3	
Lake Fitch.....	United States Shipping Board.....	June 3.....		4,600	
Balboa.....	Colombia Maritime Co.....	June 5.....	June 5.....		63
Orani.....	United States Shipping Board.....	June 5.....		610	

*Information unavailable previous to this report.

Cable Office at Balboa.

The principal office of the All-America Cables, formerly the Central and South American Telegraph Company, was moved the first of this month from the city of Panama to the company's new building on Gavilan Road, in Balboa. A branch office for the receipt of messages is maintained in Panama, at the corner of 14th and "B" Streets.

The new building is a 2-story concrete structure, 60 by 70 feet in plan. On the first floor are the instrument room, electricians' room, manager's office, and filing room, comprising the actual office space. The second floor is devoted to men's bachelor quarters, containing 12 chambers, a recreation room, bathrooms, and two small rooms for the storage of trunks.

A 1-story structure, also of concrete, known as the "battery house," was erected about 30 feet to the south and rear of the office building. It is divided into two rooms, one used as the battery room and the other as a storeroom.

Diesel Oil \$4 a Barrel.

The price of Diesel oil to ships from the several private companies handling it at the Canal has been advanced to \$4 per barrel. It is suggested that ships requiring Diesel oil make arrangements in advance of arrival for delivery, as the supplies are limited and the companies are protecting the lines which have fueling contracts with them. The companies handling Diesel oil at the Canal now are the Panama Agencies Company, the Union Oil Company, and the West India Oil Company.

Passage of First Chilean Line Ship for New York.

Beginning the service of the South American Steamship Company (Chilean Line) between Valparaiso and New York, via the Canal and Habana, the steamer *Renaico* passed through the Canal northbound on June 7, clearing in the evening of that day for Habana. The ship arrived from Valparaiso, via Peru, direct with 82 first class and 4 third class passengers, discharged 14 of the former and 3 of the latter at Cristobal, and took on 18 first class and 100 third class passengers there, mostly for Habana. The *Renaico* carried 3,915 tons of through cargo, and did not handle cargo at Cristobal.

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge, effective June 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.46
Brass, sheet.....	Lb.	.70
Bronze, Tobin.....	Lb.	.38
Cement, at Panama:		
Departments of United States Government (including surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (including surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Departments of United States Government (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (including surcharge and bags).....	Bag	1.53
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	.94
Copper, bar.....	Lb.	.44
Gasoline, in drums (motor grade).....	Gal.	.475
Lead, sheet.....	Lb.	.14
Lead, pig.....	Lb.	.125
Lumber, ceiling, siding, and flooring, 1" by 6".....	M ft. B. M.	118.75
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B. M.	143.75
Lumber, yellow pine or fir (except ceiling).....	M ft. B. M.	100.00
Metal, yellow.....	Lb.	.375
Nuts, iron, machine, hexagon.....	Lb.	.25
Nuts, iron, machine, square.....	Lb.	.175
Nails, common, wire.....	Lb.	.125
Nails, galvanized.....	Lb.	.16
Oakum, Navy, spun.....	Lb.	.20
Oakum, Navy, unspun.....	Lb.	.20
Oil, fuel, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same, barrel of 42 gallons.....	Bbl.	2.50
Commercial vessels and individuals and companies, barrel of 42 gallons.....	Bbl.	2.50
Oil, fuel, at Cristobal and Balboa—in drums and barrels:		
United States Army and Navy and vessels operated by same, barrel of 42 gallons.....	Bbl.	2.75
Commercial vessels and individuals and companies, barrel of 42 gallons.....	Bbl.	2.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.56
Oil, ammonia cylinder.....	Gal.	.50
Oil, burning.....	Gal.	1.56
Oil, cylinder, dark marine.....	Gal.	.875
Oil, cylinder, dark marine.....	Gal.	1.25
Oil, ice machine, steam.....	Gal.	1.00
Oil, engine, dynamo.....	Gal.	.79
Oil, engine—in tins.....	Gal.	.69
Oil, engine—in barrels.....	Gal.	.44
Oil, gas engine, extra heavy—in drums.....	Gal.	.54
Oil, gas engine, heavy—in barrels.....	Gal.	.69
Oil, gas engine, heavy—in cases.....	Gal.	.75
Oil, gas engine, heavy—in drums.....	Gal.	.56
Oil, gas engine, medium—in drums.....	Gal.	.31
Oil, kerosene—in drums.....	Gal.	.34
Oil, kerosene—in tins (cases).....	Gal.	2.50
Oil, linseed, boiled.....	Gal.	2.50
Oil, linseed, raw.....	Gal.	.35
Oil, locomotive engine.....	Gal.	2.07
Oil, hard.....	Gal.	1.06
Oil, marine engine.....	Gal.	.625
Oil, marine engine.....	Gal.	.44
Oil, marine engine.....	Gal.	.75
Oil, marine engine.....	Gal.	.375
Oil, "Mineral Seal".....	Lb.	.10
Oil, nonliquid.....	Gal.	.375
Oil, stationary engine.....	Gal.	2.875
Oil, sperm.....	Gal.	1.375
Oil, signal.....	Gal.	1.375

Commodity.	Unit.	Price.
Oils, greases, and lubricants—Continued.		
Oil, valve.....	Gal.	\$0.50
Oil, car.....	Gal.	.225
Grease, black, gear.....	Lb.	.075
Grease, yellow, cup, No. 3.....	Lb.	.125
Grease, yellow, cup, No. 5.....	Lb.	.14
Grease, rod, special.....	Lb.	.225
Grease, tunnel bearing.....	Lb.	.19
Tallow.....	Lb.	.225
Turpentine.....	Gal.	2.69
Turpentine substitute.....	Gal.	.46
Vaseline.....	Lb.	.11
Paint, lead, white, dry.....	Lb.	.125
Paint, lead, white, in oil.....	Lb.	.15
Paint, zinc, white, dry.....	Lb.	.225
Paint, zinc, white, in oil.....	Lb.	.19
Paint, zinc, white, 35 per cent in oil.....	Lb.	.19
Rivets.....	Lb.	.10
Rope, Manila, 1/4" diameter.....	C ft.	.75
Rope, Manila, 1/2" diameter.....	C ft.	1.25
Rope, Manila, 3/4" diameter.....	C ft.	2.19
Rope, Manila, 1" diameter.....	C ft.	4.06
Rope, Manila, 1 1/4" diameter.....	C ft.	4.69
Rope, Manila, 1 1/2" diameter.....	C ft.	6.25
Rope, Manila, 1 3/4" diameter.....	C ft.	8.75
Rope, Manila, 2" diameter.....	C ft.	12.50
Rope, Manila, 2 1/4" diameter.....	C ft.	16.56
Rope, Manila, 2 1/2" diameter.....	C ft.	27.50
Rope, Manila, 2 3/4" diameter.....	C ft.	30.00
Rope, Manila, 3" diameter.....	C ft.	47.50
Rope, Manila, 3 1/2" diameter.....	C ft.	77.50
Rope, Manila, 3 3/4" diameter.....	C ft.	102.50
Steel, bar.....	Lb.	.06
Steel, spring.....	Lb.	.21
Steel, cold round (rolled).....	Lb.	.20
Steel, sheet.....	Lb.	.06
Steel, structural (angles, beams, etc.).....	Lb.	.06
Tin, block.....	Lb.	.79
Tin, Banca.....	Lb.	.94
Tin, sheet.....	Lb.	.225
Washers, cut.....	Lb.	.09
Waste, colored.....	Lb.	.21
Waste, white.....	Lb.	.20
Zinc, boiler plate, 3/8" hv 6" hv 12".....	Lb.	.15

Travelers Visiting the Isthmus during the Rainy Season.

The Marendaz Steamship and Tourist Agency, with headquarters in Waterbury, Conn., has advised the Hotel Tivoli that it will have a "tour de luxe" with about 20 persons leaving New York July 10 on the steamship *Tolosa* and arriving at the Isthmus about July 21.

This is the first touring party to come to the Isthmus since the past dry season. It is expected that it will be followed by others. It has been customary for the large tours to visit the Isthmus during the dry season, but with the spread of knowledge in the United States as to conditions on the Isthmus during the "rainy" season, and the realization that many permanent residents here prefer the rainy season to the dry, more persons will probably avail themselves of an opportunity to visit the Canal at any time of the year.

Comment on the weather was included in a folder entitled, "Panama—a place to visit," recently issued by The Panama Canal, as follows:

June weather—The climate of Panama is approximately that of June in the North Atlantic States of the United States, from Virginia to New Hampshire. The mornings are bright and fresh, the days warm, the evenings refreshing, the nights cool.

Temperature—The highest temperature ever known on the Isthmus is 98° Fahrenheit, the lowest 59°. The annual mean temperature is approximately 80°. The maximum daily range is 27° on the Atlantic side and 19° on the Pacific side; the average daily ranges are about 8° and 16°, respectively.

Rainfall—The "dry" season begins about Christmas, and ends about the middle of April. The rest of the year is the so-called "rainy" season. During the "rainy" season it does not rain all the time, usually not more than 1 or 2 hours in 24. As spread over the season, the rain falls about 1/20 of the time. This is equivalent to

about 40 minutes of the daylight time of each 24 hours. About 20 days in each month have 1/100 of an inch or more of precipitation; the other 10 days have less than 1/100 of an inch of rainfall.

Breezes—Moderate winds occur. The breezes seldom run above 25 miles an hour, though winds blowing as high as 59 miles an hour have been recorded during brief storms.

Pleasant for the visitor—In brief, the weather on the Isthmus, far from being the hot, humid, oppressive condition frequently imagined as existing throughout the tropics, is distinctly pleasant for the traveler and visitor. Under the régime of sanitation and municipal cleanliness carried on by the United States, the Isthmus is healthful and wholesome, a place of summery charm and freshness. Any land of continuous summer is enervating in the long run, of course, but for visits, as for a stay at a summer resort, the climate of Panama is delightful.

Earthquakes Recorded by Canal Zone Seismographs.

Four hundred and fifty-seven earthquake tremors were recorded by seismographs installed in the Canal Zone from 1906 to the end of the year 1919, according to a summary recently prepared in the Section of Hydrography and Meteorology. None of them, however, caused more than trivial damage to any of the Canal structures, and the centers of disturbance were in all cases outside the Canal Zone. A large proportion were local disturbances, occurring in the Republic of Panama, not recorded by seismographs more distant than those of the Canal Zone.

The Chief Hydrographer states that the records do not indicate that Panama is typical "earthquake country," since the disturbances have been slight, with no approach to the violence of those which have occurred in Italy, Japan, Guatemala, Costa Rica, various Caribbean islands, the west coast of the United States, and many other countries. Seismographs all over the world record numbers of tremors not perceived by the population. The most interesting feature about the local records, he concludes, is the fact that nearly one-third have occurred within 200 miles of the Canal Zone, without any of them attaining very considerable violence.

The following general data are abstracted from a report which has been prepared on the subject:

No record of quakes is available between 1904 and 1906, but from 1906 to 1908, inclusive, such quakes as were sufficiently intense were recorded by an old French seismoscope. During these 3 years 28 disturbances were recorded in this manner.

In December, 1908, 4 modern seismographs, forming 2 dual sets, were installed at Ancon. One set was transferred to Jurapo Island near Gatun dam, in April, 1911, but was returned to Ancon in February, 1914. Both sets were installed in their present location in the Administration Building at Balboa Heights in October, 1914.

Four hundred and twenty-nine seismic tremors were recorded in the 11-year period from the installation of the modern seismographs to the end of the year 1919. This is an average of 39 per year. Of these tremors, 32 per cent had origins within 200 miles; 28 per cent within 200 to 500 miles; 12 per cent within 500 to 1,000 miles; 14 per cent over 1,000 miles; and 14 per cent were classified as of indefinite origin. The last named were slight tremors not sufficiently marked to admit of calculation.

The most important disturbances, so far as the Isthmus and Canal works are concerned, are those tremors which have originated less than 200 miles away. These have ranged in distance from 11 to 200 miles with the majority between 100 and 150 miles.

These tremors with an origin between 100 and 200 miles are seldom perceptible unless more pronounced than those of nearer origin; nearly all the more violent disturbances experienced in the Canal Zone have had their origin a little more than 100 miles distant. Sufficient evidence was obtained during the many disturbances of October, 1913, to establish that their origin is to the southwest of Balboa Heights. Seismic tremors of a previous or later date, whose indicated distances are from 100 to 200 miles, all have similar markings on the seismograms, tending to indicate a common point of origin.

Those disturbances occurring between 200 and 500 miles away are occasionally felt in the Canal Zone but are quite often more noticeable at Bocas del Toro, 166 miles west of Colon. In fact, those at a distance of 200 to 300 miles have much the same relation to Bocas del Toro in intensity as the first group have to the Canal Zone, which would seem to indicate that their epicenters occur in a westerly direction from the Balboa Heights station.

On May 5, 1910, a violent earthquake was experienced in Costa Rica, the town of Cartago being practically destroyed, many persons killed and many more injured. As far as is known this disturbance was not felt in the Canal Zone, though the records obtained on the seismographs were very pronounced. The distance of the epicenter of this disturbance as shown by the instrumental records was 322 miles. The earthquake was felt at other points in Central America.

The disturbances recorded between 500 and 1,000 miles away include all those occurring in Nicaragua, Salvador, Honduras, and Guatémala, and those occasional disturbances of northern South America. The seismic tremors in Central America are by far the most numerous, at least during the 11 years that the records at Balboa Heights embrace.

The disturbances occurring at a distance greater than 1,000 miles include the comparatively close Mexican and Caribbean quakes and those of extremely remote and questionable epicenter. Probably the most important disturbances of which the Canal Zone instruments have obtained a record were the Mexican quake of July 30, 1909, the Martinique quake of January 1, 1910, and the Peruvian quake of July 24, 1912.

By referring to U. S. Navy Hydrographic Chart No. 526, it can be seen that there is an abrupt break or fault line in the ocean floor extending all along the Pacific Coast, and at no great distance from the shore line. It is probable that this fault line, in the majority of cases, is the seat of the seismic disturbances recorded at Balboa Heights. It would also seem that the adjustment which takes place along this fault occurs at different localities at different periods and that the movement is more active to the southwest, west, and northwest of the Canal Zone, at least, at the present time. The violent disturbances in Panama of September 7, 1882, probably had their origin along this fault, and it is reasonably safe to assume that the queer displacement recorded by the Canal Zone mareograph on January 31, 1916, was due to some movement of the ocean floor, perhaps along this same fault.

All dates given in this report are in Greenwich time, midnight to midnight, and all distances have been calculated from the difference in time between the arrival of the first and second preliminary tremors.

Areas of Danger of Malarial Infection.

The Chief Health Officer authorizes the following:

During the calendar year 1919, 83 employees (exclusive of those from pasture camps and plantations) and many members of their families were admitted to Panama Canal hospitals for treatment of malaria, with infection probably received outside the sanitized areas.

It has required frequent reminders to the people that there are places in the Canal Zone where they are almost certainly safe from infection, and that there are other places where they are almost equally certain to become infected if exposed after nightfall. The ruins of old Panama, the Sabanas, the golf links, Pearl Islands, and numerous native villages, are attractive places of resort to which infections have been traced. In the dry season this danger is considerably lessened, but it is only inside the sanitized areas that one can be reasonably safe from infection at all times

Hotel Aspinwall to Conduct Swimming Meet.

A swimming exhibition, with races, will take place at Taboga on Sunday, June 13, under the auspices of the Hotel Aspinwall.

A number of children who have distinguished themselves at the Balboa pool will take part in the exhibition.

Hotel Aspinwall Launch Service.

Effective June 1, the following is the schedule of Panama Canal launch service to the Hotel Aspinwall, Taboga, employing the 39-ton tug *Coco Solo*:

From Balboa—Leave Dock 19 daily, including Sunday, at 10 a. m.; Saturdays, extra launch at 6 p. m.

From Taboga—Daily except Sunday, 12.30 p. m.; Sundays, 8 a. m. and 6.30 p. m.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

- Acetylene welder (male and female); \$1,500 a year; No. 327; June 22, 1920; form 1800; age, 20 years and over.*
- Clerk-colorist (male and female); \$1,100 a year; July 7, 1920; form 304; age, 18 years and over.
- Designing engineer, electrical and mechanical, or radio (male and female); \$2,500 to \$3,000 a year; June 29, 1920; form 2118; age, within reasonable age limits.*
- Library assistant (male and female); No. 323; \$900 a year; June 23, 1920; form 1312; age, 18 years and over.
- Mining draftsman (male and female); \$1,200 a year; No. 325; June 23, 1920; form 1312; age, 20 years and over.
- Radio draftsman (male and female); \$2,500 or less; June 29, 1920; form 1312; age, 18 years and over.*
- Radio draftsman (male and female); grade A, \$1,000 to \$1,400 a year; grade B, \$1,400 to \$2,000 a year; grade C, \$2,000 to \$3,000 a year; June 29, 1920; form 1312; age, 18 years and over.*
- Reconstruction assistant (a) physiotherapy, (b) occupational therapy (male and female); \$600 to \$960 a year; September 7, 1920; form 304; age, 21 years and over.†
- Assistant chief, office equipment and sundries section (male and female); \$2,100 a year; No. 340; June 22, 1920; form 1312; age, 20 years and over.*
- Assistant mechanical engineer (male and female); \$1,680 a year; July 6, 1920; form 1312; age, within reasonable age limits.*
- Junior physicist (qualified in fuel-gas analysis and high-temperature measurements) (male and female); \$1,500 a year; July 6, 1920; form 1312; age, under 40 years.*
- Junior topographer and topographic aid (male and female); \$720 to \$1,500 a year; form 1312; age, 20 years but not 35 years.†
- Lockmaker (male and female); \$4.50 a day plus temporary increase granted by Congress of \$1.07 a day; No. 341; June 22, 1920; form 1800; age, 20 years and over.*
- Radio engineer (aeronautical) (male and female); \$3,600 to \$5,000 a year; July 6, 1920.
- Assistant radio engineer (male and female); \$2,500 to \$3,600 a year; July 6, 1920.
- Scientific assistant (male and female); \$1,200 to \$1,400 a year; June 23, 1920; No. 336; form 1312; age, 20 years but not 40 years.
- Shop manager, officers' uniform shop (male and female); \$3,500 to \$5,000 a year; No. 342; June 29, 1920; form 1312; age, within reasonable age limits.*
- Assistant shop manager, officers' uniform shop (male and female); \$2,400 to \$4,000 a year; No. 342; June 29, 1920; age, within reasonable age limits.*
- Local and assistant inspector of boilers (male and female); \$2,100 to \$2,950 a year; No. 161; June 16 and 17, 1920; form 1087; age, 25 years but not 55 years.
- Local and assistant inspector of hulls (male and female); \$2,100 to \$2,950 a year; No. 161; June 16 and 17, 1920; form 1087; age, 25 years but not 55 years.
- Physician (Panama Canal service) (male and female); \$225 a month; promotion may be made to \$250, \$275, \$300, \$340 a month and to higher rates for special positions; No. 15-amended; July 7, 1920; form 1312; age, 22 but not 31 years.

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Maximino Mendoza...	37125	Panama.....	Panama.....	Mechanical Division...	April 24, 1920.
William Dean.....	27320	Haiti.....	Colon.....	R. & F. Agency.....	May 8, 1920.
Benjamin Davis.....	145396	Jamaica.....	Colon.....	Commissary Division...	May 21, 1920.
John Valentine.....	51125	Jamaica.....	Panama.....	Coaling Station.....	May 24, 1920.
Joseph Alleyne (Allen)	37227	Barbados.....	Panama.....	Mechanical Division...	May 24, 1920.
Nathaniel Gittens.....	27129	St. Lucia.....	Colon.....	R. & F. Agency.....	May 29, 1920.
Michael Kahn.....	1303	*United States...	Aneon.....	Supply Department...	June 4, 1920.

*Naturalized.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."
 Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."
 The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Official Circulars.

Steamboat Inspection Service—Investigation of Marine Accidents.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., May 22, 1920.

CIRCULAR NO. 644-5:

Hereafter, in event of an accident or casualty affecting any floating property in Canal waters, which under existing regulations imposes on the Board of Local Inspectors an obligation to investigate, no change in the physical status of the floating property affected by the accident or casualty will be permitted prior to inspection by properly constituted authority, unless such change in status be imperative in order to preserve life or property.

It will be noted that the above requirement does not in any degree contravene the provisions of paragraph 71 of Circular 644, inasmuch as that paragraph lays down procedure to be followed in the preparation of boilers for periodic inspection.

JAY J. MORROW,
Acting Governor.

Night Quarantine Service.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., May 24, 1920.

CIRCULAR NO. 626-5 (superseding Circular Nos. 626-2 and 626-4):

Effective June 1, 1920, night quarantine inspections will be made as follows:

1. Vessels from ports not subject to a yellow fever quarantine, passing breakwater at Cristobal harbor before 10 p. m., will be boarded and inspected by the quarantine officer, if quarantine inspection on the night of arrival is desired.

2. Vessels from ports not subject to a yellow fever quarantine, arriving at Balboa, on a line between San Jose Rock and No. 2 Buoy, before 10 p. m., will be boarded and inspected by the quarantine officer provided masters of said vessels desiring pratique on arrival have notified the Port Captain, Balboa, previous to 4 p. m., on day of arrival.

3. A charge of \$40 for passenger vessels, and \$20 for others, will be made against all vessels availing themselves of quarantine inspection after sunset. When vessels, bound for Balboa, notify the Port Captain of their desire for night boarding, this charge will be made whether or not the ship arrives in time for such boarding.

4. Final disposition of vessels inspected after sunset may be deferred at the discretion of the quarantine officer.

5. Vessels from ports subject to a yellow fever quarantine will be inspected only by daylight.

JAY J. MORROW,
Acting Governor.

Changes of Status—Silver Employees.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 26, 1920.

All concerned—Effective at once the use of Form 262 will be restricted to that of a clearance for silver employees leaving the service. All promotions of silver employees must hereafter be shown in the "Remarks column" of the timebooks.

EXAMPLE—Artisan receiving \$50 during June to be promoted to Artisan at \$52.50 effective July 1, the "Remarks column" in June timebook must read "To artisan \$52.50 effective 7-1-20" and bear the initials of the foreman of the gang.

Circular 666 provides that the effective date of promotions of silver employees shall be the 1st day of the month. All promotions must be indicated, as shown above, on the 16th to 20th

period timebooks for the preceding month prior to sending them to the Bureau of Payrolls on the 29th. To illustrate: for a promotion to be effective July 1 it must be indicated in the "Remarks column" of the June timebook for the period ending June 20. *If not so shown it will be disregarded.*

In a like manner demotions, changes in rating, and transfers will be shown in the "Remarks column" of the timebooks as of the effective date.

Transfers must be shown as per the examples following: "To Gang No. 628 eff. 7/15," and "From Gang No. 1113 eff. 7/15."

All changes pertaining to American citizens on the silver roll and to aliens who are entitled to leave privileges shall be submitted to the Personnel Bureau, Executive Office, in accordance with Circular 666, as heretofore.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:

JAY J. MORROW,
Acting Governor.

Allotments for 1921.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., June 7, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

1. Appropriations for the support of the Canal for the fiscal year ending June 30, 1921, have been made as follows:

Maintenance and operation.....	\$7,531,851.00
Sanitation.....	850,000.00
Civil government.....	900,000.00

2. No funds were appropriated for new projects. Requests for allotment of these funds as well as for balances to cover uncompleted work for which allotments were made during the present fiscal year, should be submitted to the Auditor in duplicate by June 14, 1920.

3. Requests for allotments of funds by the Divisions of Maintenance and Operation should be submitted on form 5494-2, a supply of which will be furnished by the Auditor's office. These requests should be accompanied by statements showing the amount requested for each special numbered allotment in which a balance will be available June 30, 1920.

CHESTER HARDING,
Governor.

Surveying Instruments.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 2, 1920.

CIRCULAR NO. 631-7 (superseding Circular No. 631-4):

1. *Stock of instruments*—A stock of engineer's transits and levels will be maintained by the Storekeeper, Balboa Heights, under the supervision of the Assistant Engineer of Surveys and all requisitions for additional instruments will be approved by the latter.

2. *Surplus or unserviceable instruments*—Whenever instruments become surplus or unserviceable, they will be invoiced and shipped with their respective tripods and boxes to the Storekeeper, Balboa Heights. Serviceable instruments will be invoiced at their book value, and unserviceable instruments for physical accounting only.

3. *Inspection of instruments*—The Assistant Engineer of Surveys will make an inspection and record of each instrument when received; all instruments in serviceable condition will be held in stock and the balance delivered to the instrument repair shop by the storekeeper on memorandum receipt. The Mechanical Division will inspect each instrument as received and forward a report to the Assistant Engineer of Surveys, giving the condition, a detailed estimate of the cost of repairs and recommendation as to the disposition.

4. *Disposition of unserviceable instruments*—Final recommendation as to the disposition of unserviceable instruments will be made by the Assistant Engineer of Surveys to the Surveying Officer, after considering the Mechanical Division report and the needs of the service, together with his own recorded values of the instruments.

5. *Cost of repairs to instruments*—When an instrument is to be repaired, the storekeeper will forward work request charging cost of repairs to the division which turned same in to him, and furnish the head of the division with a copy of the work request which will be his authority to forward supplemental invoice covering book value of instrument. The cost of inspection will be billed against the division turning in the instrument.

6. *Disposition of scrapped instruments*—All instruments which are scrapped will be invoiced to the Mechanical Division at scrap value and used in the repair of other government instruments.

CHESTER HARDING,
Governor.

Cooperation with Police Authorities in Securing Evidence to be Used Before Canal Zone Courts.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 4, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

The following circular, issued under date of October 22, 1915, by the Governor, is reissued for your information and guidance:

"The following letter addressed to this office by the District Attorney, under date of October 21, 1915, is quoted for the information and guidance of all concerned:

"I request that heads of departments employing inspectors and others for the purpose of investigating violations of the laws of the Canal Zone be instructed to direct that their inspectors or other investigators secure the cooperation of the police when it appears that a criminal charge is going to be made and that it will be necessary to secure proper and legal evidence for the trial.

"When inspectors make and prosecute these cases the police are not especially called upon to cooperate in the matter of securing evidence, and they feel no responsibility in the case. This may result in a loss of necessary evidence to convict.

"The inspectors or others employed to investigate a case which may result in a criminal prosecution should of course consult with the District Attorney as to the kind of charge to be made and as to instructions generally, but the police are accustomed to making these cases and are better advised as to the evidence necessary to convict, and their cooperation should be secured in obtaining evidence."

CHESTER HARDING,
Governor.

Annual Reports.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 4, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

1. It is desired that annual reports for the fiscal year ending June 30, 1920, be submitted to this office not later than July 20, 1920.

2. The report will be prepared in quadruplicate, on the same size and grade of paper as that used for previous annual reports, namely, 8 by 14 inches. Reports will be submitted to the Governor by heads of departments and divisions covering the work under their jurisdiction as follows: the Engineer of Maintenance; the Marine Superintendent; the Superintendent of the Mechanical Division; the Chief Quartermaster; the Chief Health Officer; the Auditor; the Executive Secretary; the General Purchasing Officer and

Chief of the Washington office; the Special Attorney; and the District Attorney.

3. Where certain duties or certain parts of the work have been transferred from one department or division to another, or where new departments or divisions have been created, the department or division in which the work or duties are lodged as of June 30, 1920, will submit report for the entire fiscal year, obtaining any necessary data from the official previously in charge of the work, or from the records maintained by him, if such official has left the service.

4. The official photographer will take appropriate photographs to illustrate the report. Heads of departments or divisions whose reports require illustration should notify this office immediately what photographs are desired, in order that the work may be properly planned. The photographs are intended to show the progress of the work, especially new features, and no photographs will be included if the subject has been sufficiently covered in a previous report.

5. The Washington office will report any increases in pay and organization of that office, in compliance with the Sundry Civil Act, approved July 19, 1919.

6. No organization charts need be submitted.

7. The size of your report should be limited as much as possible and only statements and tables of general or permanent value be submitted. So far as possible, tables should be comparative, and graphic charts should be used where they will convey the desired information without increased cost.

CHESTER HARDING, Governor.

Promotion of Silver Employees.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 2, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

In connection with circular to "All concerned," dated May 26, 1920, directing that increases in pay for silver employees be shown on the 16th to 20th period timebooks, you are advised that such increases must have the approval of the head of department or division concerned before they will be effective.

In order to facilitate the work of approving these increases, the Chief, Bureau of Payrolls, will send addressograph lists for each payroll to the heads of departments or divisions concerned, showing the metal check numbers, names, occupations, and rates of pay only, on which will be overprints showing proposed occupations and rates.

It is imperative that these lists be either approved or disapproved and returned without delay to the Chief, Bureau of Payrolls.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., June 8, 1920.

The following insufficiently addressed mail has been received in the office of the Director of Posts, and may be obtained upon request of the addressee: Such request may be made by telephone, calling No. 182, Balboa:

Avila, Jose	Jordan, Josephine
Baker, Lum L.	Kocher, Loretta
Bates, Albert	Levins, Leon I.
Boat, Peter	McLaughlin, Frederick C.
Boomer, George	Miller, C. J.
Campbell, George W.	Perez, Manuel
Cockrell, James K.	Rogers, George B.
Carter, Omar L.	Root, Anna M.
Dunham, Fred	Stotarsky, Marks*
Ellison, Paris	Walters, Frank
Fish, Mrs. Geo. A.	Wiggins, Mrs. M. S.
Gano, Albert M.	Yale, Allen
Garrett, Edman	Zink, Raymond
Hobbs, Atwood B.	

*Card.

Eggs for Hatching.

Eggs for hatching are available for sale at the Summit poultry farm from the following breeds: White Plymouth Rocks, White Leghorns, Rhode Island Reds.

Prices for eggs are as follows, f. o. b. Summit: 15 eggs (one setting), \$3.00; 30 eggs, \$5.50; 45 eggs, \$7.50; 100 eggs, \$14.00.

Shipping Commissioner's Sale.

The Shipping Commissioner, room 305, Administration Building, Balboa Heights, C. Z., will accept written bids up to noon Monday, June 21, 1920, for the purchase of the personal effects of Fred Gordon, deceased American seaman. The property to be sold is listed below, and bids may be made for the entire lot of the effects, or be limited to individual articles. Prospective bidders desiring to examine the effects should apply to the Shipping Commissioner's office on any business day. Bids should be submitted in sealed envelopes, addressed to the Shipping Commissioner, marked "Bid on effects of Fred Gordon, deceased." No advance deposit of money is required. The right is reserved to reject any or all bids:

One suitcase, imitation leather; 2 hats; 2 pairs shoes, size 9; 1 belt, leather; 1 pair garters; 2 shirts, size 15½; 1 undershirt; 1 pair socks; 1 pair slippers; 1 bath towel; 1 hand towel; 1 coat hanger, 1 pocketknife; 1 souvenir book; "Views of the Panama Canal;" 1 Everready safety razor with 10 blades; 1 shaving brush; 1 hand mirror; 7 bars soap; 1 jar shoe cream; 1 small metal box; 1 small wood box; 1 box stationery.

Sale of Tug "Miraflores."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., June 30, 1920, and then opened, for the purchase of the tug *Miraflores*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Cockerels for Sale.

There are available for sale at the Summit poultry farm 50 single-comb white Leghorn young breeding cockerels at \$3 each, f. o. b. Summit. Prospective purchasers may inspect these cockerels at the farm.

Additions to Commissary Stock.

Boot and Shoe Section.

Boys' dark russet army Munson, Blucher, sizes 2 to 5½, pr.....	\$6.95
Women's gun metal pumps, with tongue and buckle, Louis heel, pr.....	5.50
Leggings, leather, with puttee straps 12½", pr.....	2.00
Leggins, leather, with center strap, 12" and 12½" high, pr.....	3.95
Leggins, pigskin, with center strap, 12" and 12½" high, pr.....	6.15

Dry Goods Section.

Belts, men's, leather, black (16962), ea...	1.00
Belts, men's, leather, black (16963), ea...	1.00
Belts, men's, leather, black, ea.....	.62
Belts, men's, leather, tubular, black, ea...	1.70
Belts, men's, leather, black, ea.....	.62
Belts, men's, leather, black, ea.....	.90
Buckles, belt, initialed, sterling silver, ea...	1.50
Buckles, belt, initialed, sterling silver, front, ea.....	.68
Buckles, belt, initialed, sterling silver, front, ea.....	.56
Buckles, belt, initialed, sterling deposit, ea...	.39
Handkerchiefs, men's, linen, H. S., ea....	.27
Handkerchiefs, men's, linen, H. S., ea....	.29
Hose, men's, cotton, gray, pr.....	.24
Shirts, men's, negligee, coat style, colored stripes, assorted, ea.....	2.05
Soap, Packer's, liquid tar, bot.....	.43

Grocery Section.

Biscuits, soda, 4-lb. tin.....	1.20
Candies, Pascall's Sweets, assorted, 7½-oz. jar.....	.28
Milk, sugar of, 1s bot.....	.43
Aerated waters and beverages:	
White Rock, split, bot.....	.10
Grape juice, Welch's, qt. bot.....	.55

Route Service Jitney—Cristobal-Mt. Hope.

The following is the schedule of the official jitney service between the Terminal building at Cristobal and Mount Hope. Cars stop at the office of the Commissary Division each way:

Leave Terminal Building.		Leave Mount Hope.	
A. M.	P. M.	A. M.	P. M.
8.00	12.30	8.15	12.45
8.30	1.00	8.45	1.15
9.00	1.30	9.15	1.45
9.30	2.00	9.45	2.15
10.00	2.30	10.15	2.45
10.30	3.00	10.45	3.15
	3.30		3.45

Rates at Hotel Aspinwall, Taboga.

The following are the current rates at the Aspinwall:

Employees: Dinner, lodging, and breakfast.....	\$2.00
Employees..... per day..	2.75
Children under 12 years of age..... per day..	1.25
Servants of employees..... per day..	1.50
Employees for stay of 7 days..... per day..	2.00
Reduction of 10 per cent for employees on above rates for stay of 30 days.	
Further reduction of 10 per cent for families of four or more.	
Nonemployees..... per day..	3.50
Children of nonemployees..... per day..	1.50
Servants of nonemployees..... per day..	1.75
Meals without room.....	{
Breakfast.....	1.00
Luncheon.....	1.25
Dinner.....	1.25

Locations of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the new Ancon Hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Present number of beds.	Visiting hours.	
Section "A"—White American, male:			
Ward No. 1, Medical, Eye and Ear	44	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. Sundays and holidays, 9.30 to 11 a. m. and 2.30 to 4.30 p. m.	
Ward No. 2, Medical, Eye and Ear	41		
Ward No. 3, Surgical	44		
Ward No. 4, Surgical	41		
Cells (2)	2		
	172		
Section "B":			
White American, female	23	Daily except Sunday 2 to 4.30 p. m.; 6.30 to 8 p. m. Sundays and holidays, 10 to 11 a. m.; 2 to 4.30 p. m. 6.30 to 8 p. m. No visitors permitted. Daily, 9.30 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m.	
White foreign, female	15		
Nursery	16		
Private Rooms, (40)	46		
Cells (2)	2		
	102		
Section "C":			
Ward No. 9, White foreign, male	39	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.	
Ward No. 10, Colored, eye and ear, convalescent medical	39		
Ward No. 11, Colored Acute surgical	39		
Ward No. 12, Colored Acute medical	39		
Ward No. 13, Colored Convalescent surgical	39		
Ward No. 14, Colored Convalescent surgical	39		
Cells (6)	6		
Rooms (7)	7		
	247		
Section "D":			
Ward No. 15	41	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m. Daily, 9.30 to 10 a. m.; 2 to 4 p. m. Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.	
Ward No. 16	39		
Ward No. 17, Colored children	32		
Ward No. 18, White children	30		
Ward No. 19, Colored female medical	41		
Ward No. 20, Colored female surgical	34		
Rooms (6)	6		
Cells (6)	6		
	229		
Isolation:			No visitors permitted
Floor No. 1	14		
Floor No. 2	29		
Floor No. 3	28		
Floor No. 4	28		
	99		
Total number of beds	849		

Emergency passes are issued only by and in the discretion of the section nurse.

COMMISSARY NOTES.

Books.

A number of new books may be found in the retail stores, recent shipments including not only fiction but the latest juveniles.

Milk.

Commissary patrons will be glad to know that Mindi milk is again available for sale over the counter at all commissaries with every indication that this condition will continue for some months to come.

Commencement Presents.

Delightful as commencement presents for girls are: Electric chafing dishes, bonbon dishes, olive dishes, almond dishes. These came in a shipment just received and distributed to the line stores, which also contained electric coffee percolators, mahogany trays, and other items.

COMMISSARY NOTES.

Sweet Potatoes.

The commissary purchasing agent advises that due to the lateness of the season sweet potatoes have no life in them and are not holding up. Shipments have been discontinued until the new crop arrives.

Alarm Clocks.

In connection with an order for a very popular make of small alarm clock, the Commissary Division has been advised by the suppliers that they were reducing the quantity ordered owing to their over-sold condition and the impossibility of supplying customers in excess of their normal average of past purchases.

Sugar of Milk.

Sugar of milk has been placed on sale in the various commissaries. A good many patrons are not familiar with the fact that this is an excellent item to add to milk for bottle-fed babies. Before using, however, customers should secure the advice of a physician as to the advisability of its use in each particular case.

Woolen Suitings.

With a view to informing the trade of the difficulties being encountered in the upkeep of stock of woolen suitings, the following letter from a prominent supplier in the States is quoted: "In regard to your Requisition 8353 for our suiting, we beg to advise that this is now in process in the machines, but that our factory is standing idle owing to the railroad strike. We have not received a ton of coal nor have we been able to ship a piece of goods for nearly three weeks. At the moment of writing it is hard to say just when the goods will be ready because we don't know when we will get coal to run but if we should start up, say, within the next week the goods should be ready about May 15. We will give the matter special attention as soon as our factory starts up."

Beef.

Forequarter meat is becoming increasingly popular with commissary customers and it is believed that as patrons learn the various attractive ways in which these cuts can be served, they will continue to grow in favor.

Flavor is closely associated with the juiciness of meat. The tougher cuts of meat often contain the most flavor, because they are found in the parts of the animal where the muscle is toughened from constant use but which, for this same reason, has a greater blood supply and is necessarily more juicy. If properly cooked, these cuts may be made palatable and delicious and are always less expensive in actual money expended, though they consume more fuel and a longer time to prepare.

Two recipes for the proper preparation of inexpensive cuts from the chuck are printed below:

Chuck steak with onions—Requires 2 pounds chuck steak, 5 or 6 onions, salt, butter, oleomargarine, or other preferred fat. Slice onions in water. Drain thoroughly. Place onions in a shallow saucepan, cover closely and cook over a slow fire for 15 or 20 minutes till tender. Use no water or fat, as the onions contain both moisture and richness. When the onions are done, uncover and brown slightly, if preferred, but they are more digestible without browning. Heat a frying pan smoking hot, and brown the steak quickly on both sides; reduce the heat and turn the meat frequently until it is cooked through. Season the steak and salt the onions. Serve the meat on a platter with onions around it. Add butter or butter substitute if desired.

Chuck roast—Score the fat side of the meat to prevent the skin from curling and crisp each side quickly over the gas flame, or in a hot oven. Reduce the heat, baste the meat with the fat that cooks out and add salt, after it is well browned. Trimmings of meat with bits of tomato and celery, slices of carrots and onions added, cooked in a pint of water will form a good stock. This stock can be cooked with the same heat, but in a separate utensil. The roast may have small potatoes (boiled 10 minutes and skins removed) placed around it, the last half hour; or a Yorkshire pudding can be baked below it (the meat standing on a trivet). An hour and a half is ample time to cook a medium 6-pound roast. Brown gravy is made from the beef fat in the pan and the strained stock, with the addition of flour for thickening.

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Volume XIII.

Balboa Heights, C. Z., June 16, 1920.

No. 44.

Passage of Squadron on Practice Cruise.

The battleships *Connecticut*, *New Hampshire*, *Michigan*, *Kansas*, *Minnesota*, and *South Carolina*, forming Battleship Squadron Two of the Atlantic Fleet, Vice-Admiral Hilary A. Jones, commanding, and carrying the midshipmen of the United States Naval Academy on their midsummer practice cruise, arrived at the Canal in the afternoon of June 12, and cleared from Balboa for Honolulu in the morning of June 16. During the stay of the squadron a number of special trains were operated over the Panama Railroad for sightseeing tours to the locks, fortifications, shops, and other points of interest.

Four of the battleships coaled at Cristobal, receiving a total of 5,560 tons; 2 coaled at Balboa, with 2,666 tons. The supply ship *Culgoa*, which arrived in advance of the battleships and sailed on June 14, took 372 tons of coal at Cristobal and a deck load of 150 tons at Balboa.

Tariff No. 4.

The Panama Canal has issued Tariff No. 4, a booklet of 33 pages, containing the schedule of rates for supplies and services furnished to shipping and allied interests at the Panama Canal, effective June 1, 1920, and superseding Panama Canal Tariff No. 3 and all supplements thereto.

The following items are included in Tariff No. 4:

Ashes, handling; baggage, allowance; bakery products; basin charge; berth, shifting; bills of health; bills, payment of; cablegrams advising deposits; chandlery, ship; coal; cold storage; collections, agency fee; cordage; cranage; craneboats; cranes; customs fees; deck hands; Diesel oil; dispensaries; divers; dry docks; floating cranes; fruits; fuel oil; garbage; groceries; guards, quarantine and rat; handling lines; holiday and Sunday work; hospital treatment; hotels; ice; launches; laundry; lighters; locks, handling lines in; lubricants; meats; medical supplies; medical treatment; moorings to buoys; oil; overtime; Panama Railroad passenger tariff; pangas; physicians; pilotage; provisions and supplies; pumping oil; quarantine; repairs; ship chandlery and stores; special Sunday and holiday rates; special trains; stevedoring and transferring cargo; storage on docks; supplies; switching; Tivoli Hotel; tolls; tugs and supply boats; vegetables; Washington Hotel; water; whaleboats; wharfage; wrecking cranes; wrecking operations.

Distribution of the Tariff No. 4 has been made to firms on the mailing list. Additional copies may be obtained from The Panama Canal, Balboa Heights, Canal Zone, or Washington, D. C.

Motor Vessel Equipped in Panama for Passenger Service.

The 90-ton motor vessel formerly known as the *Orotina*, which under that name was engaged for some time in hauling produce from Costa Rica to Cristobal for the Commissary Division, and was sold in March of this year to Colombian owners, passed through the Canal on June 8, bound from the city of Panama for Cartagena, Colombia, under the name of *Cartagena*. She had been fitted with cabins and her engines had been overhauled in Panama. The *Cartagena* is to be used in passenger and cargo-carrying service between Cartagena and points on the Atrato River.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight June 12, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Alps Maru	6	7 30	6	8 12	6	16 16	7	7 42	Japanese	Ozaka Shosen Co.	425 0	56 0	29 9	New York	Yokohama	General	9,867	8,006	5,680
Ortega	6	6 05	6	6 10	6	10 52	7	18 15	British	Pacific Steam Navigation Co.	453 0	56 0	23 0	Liverpool	Colonel	General	2,882	8,345	4,998
Australmount	6	14 03	7	6 37	7	17 50	7	19 40	British	Australian Government	376 0	52 0	23 11	Matanzas	Melbourne	Sugar	5,700	4,777	3,520
Republic	7	9 36	7	10 10	7	19 00	7	22 50	American	Chile Steamship Co.	345 0	49 0	24 0	Baltimore	Valparaiso	General and coke	3,600	4,623	3,372
Mina Br	7	15 16	8	7 17	8	15 40	8	22 00	British	International Petroleum Co.	360 0	49 0	23 0	Tampico	Arica	Crude oil	5,000	4,437	2,038
Eastern Pilot	8	9 20	8	10 05	8	16 48	9	4 20	American	United States Shipping Board	305 0	44 0	23 7	New York	Los Angeles	General	2,200	3,288	2,188
Benoni	8	10 53	8	11 18	8	18 20	9	1 20	American	United States Shipping Board	409 6	54 0	23 7	New York	Yokohama	General	7,516	6,731	4,863
Hopewell	8	10 04	9	6 10	9	13 33	9	17 15	American	C. W. Wiley	85 0	16 0	5 6	Morehead City	Seattle	General	1,807	5,726	4,080
Santa Teresa	8	10 45	9	6 15	9	13 35	9	15 08	American	United States Navy	360 0	51 0	23 0	New York	Valparaiso	Coal	9,998	.....	69
Proteus (b)	8	16 28	9	6 23	9	14 56	12	10 05	American	United States Navy	500 0	62 0	30 6	Hampton Rds.	Honolulu	Coal	.....	.....	.....
Laura C. Hall (c)	9	14 35	9	6 47	9	15 18	10	13 20	British	Pacific Metals Corporation	82 0	25 0	9 0	Cristobal	Buenaventura	General	13	130	.....
Mercury (d)	9	8 25	9	8 50	9	15 30	11	13 49	American	United States Navy	215 0	51 0	22 0	St. Thomas	Champerico	General	.....	.....	.....
Salvador	5-30	14 15	9	9 10	9	16 19	9	20 00	British	Pacific Steam Navigation Co.	455 0	33 0	14 6	Cristobal	Gatun Lake	General	.....	.....	.....
Favorite (e)	8	16 12	9	9 25	9	12 08	.....	.....	American	The Panama Canal	185 0	43 0	.....	New York	Yokohama	General and steel	951	1,213	692
West Campang	8	15 32	10	6 16	10	14 34	10	15 35	American	United States Shipping Board	410 0	54 0	23 9	New York	Yokohama	General	6,940	6,587	4,812
Statesman	9	10 30	10	6 26	10	15 24	10	16 15	British	Harrison Steamship Line	423 0	53 0	21 7	Antwerp	San Francisco	Coal and general	4,800	6,361	4,502
Oreus	10	6 23	10	7 07	10	16 52	10	23 55	American	United States Shipping Board	380 2	53 0	21 0	New York	Talcahuano	General	5,111	5,067	4,250
Maniara	4	15 34	11	6 14	11	15 17	11	20 30	Peruvian	Peruvian Line	360 0	47 0	19 5	Cristobal	Valparaiso	General	1,005	4,731	3,553
Sorata	10	6 55	11	6 23	11	14 35	11	15 32	British	Pacific Steam Navigation Co.	390 0	46 0	23 6	Liverpool	Yokohama	General	7,000	9,308	6,582
Oanfa	10	12 27	11	6 31	11	14 03	11	14 57	British	Alfred Holt & Co.	500 0	58 0	29 6	New York	Yokohama	General	4,305	4,782	3,336
Caddo	11	4 50	11	7 04	11	16 16	12	10 05	American	Standard Oil Co.	427 0	55 0	29 6	Tampico	Pisagua	Crude petroleum	8,800	6,438	4,391
Lake Elmore	11	5 45	11	7 15	11	15 19	12	14 47	American	United States Shipping Board	248 0	44 0	23 6	New York	Liquique	Coal	3,400	2,823	1,740
Lake Elmore	11	13 43	12	6 03	12	13 52	12	14 47	American	United States Shipping Board	401 0	43 6	25 6	Norfolk	Liquique	Coal	3,670	2,823	1,740
Greenland	10	19 42	12	6 17	12	14 29	12	15 24	American	United States Shipping Board	250 0	54 0	24 0	Baltimore	Kobe	General	6,300	6,528	4,692
Point Adams	11	7 00	12	6 05	12	17 46	12	20 45	American	Pacific Mail Steamship Co.	289 0	44 0	19 0	Baltimore	Hong I lu	General	3,199	2,895	1,967
Minnesota (f)	12	9 45	12	6 23	12	14 40	.....	.....	American	United States Navy	450 0	76 0	27 6	Philadelphia	Honolulu	General	.....	.....	.....
Connecticut (f)	12	12 33	12	13 00	12	22 00	.....	.....	American	United States Navy	430 0	76 0	27 0	Philadelphia	Honolulu	General	.....	.....	.....
Hope (g)	8	5 45	12	6 15	8	16 53	.....	.....	American	E. P. Wheeler	430 0	76 0	27 0	Cristobal	Balboa	General	.....	.....	.....

(a) Yacht. (b) Collier. (c) Power sloop. (d) Transport. (e) Tug. (f) Battleship. (g) Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Melville Dollar	5	18 00	6	6 44	6	13 59	6	14 27	British	Canadian Robert Dollar Co.	370 0	50 0	24 0	Manila	New York	General	5,411	5,153	3,938
Orani	5	3 00	6	7 25	6	15 30	6	15 30	American	United States Shipping Board	402 3	53 1	26 5	San Francisco	Alexandria	Flour	8,100	6,577	4,954
Genoa Maru	6	7 00	7	8 32	6	16 38	6	18 47	Japanese	Nippon Yusen Kaisha	435 0	54 0	22 1	Hongkong	New York	General	7,954	6,897	5,063
Orbita	7	6 00	7	9 49	7	20 12	8	16 05	British	Pacific Steam Navigation Co.	550 3	67 3	30 0	Talcahuano	Liverpool	General	7,259	16,822	11,508

Remainder	6	15	30	7	11	10	7	24	00	Chilean	Chilean Line	420	0	49	0	29	0	Valparaiso	New York	General	3,915	6,050
Kinkasan Maru	7	10	30	7	12	17	7	22	10	Japanese	Mitsui Bussan Kaisha	350	0	53	5	24	0	Saigon	Habana	Rice	6,500	5,520
Hyetsun Maru	8	6	30	8	17	43	8	19	50	Japanese	Mitsui & Co.	407	2	50	8	24	0	Toceopilla	Baltimore	Nitrate	8,175	6,189
Port Victor	8	9	00	8	10	12	8	21	30	British	Commonwealth and Dom. Line	476	0	58	2	26	0	Wellington	London	C. S., general	9,343	9,336
Baja California	7	11	00	9	6	37	9	15	10	Norwegian	South American Pacific Line	236	7	30	5	15	0	San Francisco	Habana	General	2,200	1,900
Sillahave	8	23	30	9	8	49	9	17	55	0	Astamaveret Steamship Co.	376	0	58	0	26	0	Puntareas	New York	Copper bars, wool	4,369	5,572
Santa Elisa	9	10	00	9	8	43	9	16	37	0	W. R. Grace & Co.	360	5	51	5	24	1	W. coast, S. A.	New York	General	4,254	5,957
Acajutla	9	10	00	9	10	30	9	18	28	American	Pacific Steam Navigation Co.	245	7	33	5	17	6	Acajutla	Cristobal	General	1,187	1,273
Gen. W. M. Graham (h)	8	15	20	10	6	30	10	13	10	American	United States Army	460	6	62	8	25	4	Balboa	Cristobal	C. S., general	8,400	10,503
Kent	9	21	00	10	8	00	10	16	11	British	Federal Steam Navigation Co.	477	8	61	1	24	0	Sydney	London	C. S., general	4,740	10,631
Taini	9	19	00	10	8	27	10	17	18	British	Shaw Saville & Albion	246	0	35	2	16	3	Wellington	London	General	1,001	1,882
Cauca	10	2	30	10	9	07	10	16	12	British	Pacific Steam Navigation Co.	251	0	43	7	21	0	Guayaquil	Cristobal	General	3,168	2,805
Lake Lesa	9	16	00	10	10	02	10	19	09	11	United States Shipping Board	253	4	43	8	29	6	Cajeta Buena	Wilmington	Nitrate	5,900	7,285
Lake Fiech	3	1	35	10	10	18	10	18	25	11	United States Shipping Board	395	5	55	0	29	6	Toceopilla	Habana	Ballast	5,965	6,373
West Katon	10	10	00	10	12	00	10	19	35	10	United States Shipping Board	410	5	54	3	23	4	San Francisco	Liverpool	General	3,300	2,856
Lake Fansdale	8	12	28	10	12	55	10	20	42	11	United States Shipping Board	135	0	43	6	23	0	Majlones	Boston	Nitrate	5,965	6,373
Saint Faith (e)	10	13	15	11	6	41	11	14	24	11	British Government	251	5	29	1	13	0	Iquique	Cristobal (f)	Ballast	3,300	2,856
Cartagena (ex Orotina) (g)	8	14	00	11	9	55	11	18	00	12	Rumie Bros.	92	0	22	0	6	11	Panama	Cartagena	Ballast	129	95
Holly Leaf	11	9	00	11	9	56	11	18	23	12	British Tanker Co.	397	1	50	0	24	8	San Francisco	Alexandria	Fuel oil	6,702	5,500
Rhodopis	10	13	50	11	07	12	12	43	13	11	Alied Commission	355	7	53	2	24	0	Iquique	Cristobal (f)	Nitrate of soda	5,500	5,500
Palena	11	15	00	12	6	27	12	14	08	Chilean	Chilean Line	350	0	42	1	19	5	Valparaiso	Cristobal	General	(f)	3,639
Morristown	12	6	30	12	10	05	12	18	30	12	United States Shipping Board	377	0	52	0	24	6	Antofagasta	Charleston	Nitrate	6,400	5,206
Jamaica	12	10	30	12	11	55	12	18	45	British	Pacific Steam Navigation Co.	220	0	34	0	12	7	Buenaventura	Cristobal	General	785	1,187

(h) Mine planter. (i) For orders. (j) 1,742,065 tons.

PORT OF CRISTOBAL

		*ARRIVALS				*DEPARTURES			
Date	Vessel	Line	From	Date	Vessel	Line	For		
June 6	Calamares	United Fruit Co.	Port Limon	June 6	Calamares	United Fruit Co.	New York and Habana		
June 6	Capo Fear	United States Shipping Board	Colorado Bar	June 7	Cape Fear	United States Shipping Board	Colorado Bar		
June 7	Larrie	Royal Mail Steam Packet Co.	High seas for repairs	June 9	Median	Leifland Line	New Orleans		
June 8	Parisma	United Fruit Co.	New Orleans and Habana	June 9	Parisma	United Fruit Co.	New Orleans and Bocas		
June 8	Lake Frances	United States Shipping Board	New Orleans	June 10	Panama	Panama Railroad Steamship Line	New York and Haiti		
June 9	Santa Marta	United Fruit Co.	New York via Kingston	June 10	Santa Marta	United Fruit Co.	N. Y., Col., and Jamaica		
June 10	Arabia	W. V. N. Powellson	Colon	June 10	Arabia	W. V. N. Powellson	Colon		
June 12	Pastores	United Fruit Co.	New York via Habana	June 11	Gen. H. F. Hodges	Panama Railroad Steamship Line	New York and Haiti		
				June 12	Pastores	United Fruit Co.	N. Y., Limon, and Habana		
				June 12	Lake Frances	United States Shipping Board	Juacaro, Cuba		

PORT OF BALBOA

		*ARRIVALS		*DEPARTURES	
Date	Vessel	Line	From	Date	Vessel
June 11	Relief (e)		San Pedro	June 7	Kifuku Maru
June 11	Acapulco (f)		Ocean Shipping Agency		

(f) Barge. *Other than ships passing through the Canal.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending June 12, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Calamares.....	United Fruit Co.....	June 6.....	June 6.....	9	.....
Parismina.....	United Fruit Co.....	June 8.....	June 9.....	399	3
Santa Marta.....	United Fruit Co.....	June 9.....	June 10.....	2	196
Acajutla.....	Pacific Steam Navigation Co.....	June 9.....	.....	100	.....
Median.....	Leyland Line.....	.....	June 9.....	.....	17
Cauca.....	Pacific Steam Navigation Co.....	June 10.....	.....	4	.....
Panama.....	Panama Railroad Steamship Line..	.....	June 10.....	.....	1,187
Point Adams.....	Pacific Mail Steamship Co.....	June 11.....	.....	217	.....
Aylesbury.....	Royal Mail Steam Packet Co.....	June 11.....	.....	94	.....
Mantaro.....	Peruvian Line.....	.....	June 11.....	.....	11
Gen. H. F. Hodges..	Panama Railroad Steamship Line..	.....	June 11.....	.....	175
Pastores.....	United Fruit Co.....	June 12.....	.....	64	.....
Jamaica.....	Pacific Steam Navigation Co.....	June 12.....	.....	22	.....
Palena.....	South American Steamship Co.....	June 12.....	.....	123	.....

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending June 12, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Baja California.....	South America Pacific Line.....	June 7.....	June 9.....	200	.....
West Katan.....	United States Shipping Board.....	June 8.....	June 10.....	1,092	.....
Laura C. Hall.....	Pacific Metals Corporation.....	June 9.....	June 9.....	.....	53
Acajutla.....	Pacific Steam Navigation Co.....	June 9.....	June 9.....	76	.....
Cauca.....	Pacific Steam Navigation Co.....	June 10.....	June 10.....	7	.....
Point Adams.....	Pacific Mail Steamship Co.....	June 12.....	June 12.....	53	5

Resumption of Luckenbach Coastwise Service.

The Luckenbach Steamship Company, has resumed United States coastwise service, advance notice of which was published in THE PANAMA CANAL RECORD of May 5. The first ship through the Canal in the new service was the *Eastern Pilot* of Seattle, a Shipping Board vessel operated by the Luckenbach Company. She made the transit of the Canal on June 8, bound from New York direct to Los Angeles, with 2,200 tons of general cargo. The *Eastern Pilot* is a ship of 1,924 net tons, 305 feet in length by 44 feet beam.

“Lake Gatun” and “Lake Miraflores.”

Lake Gatun and *Lake Miraflores* are the names which two vessels of the United States Shipping Board are to bear, in honor of Gatun and Miraflores lakes of the Panama Canal. This information is contained in a letter from the Chairman of the Shipping Board to the Governor, which further states that the vessels are to be launched in August or September of this year. They are under construction at the plant of the Saginaw Shipbuilding Company, Saginaw, Mich.

Production of Iron Rods and Bars at Balboa Shops.

In February of this year a reclaiming roll was placed in operation at Balboa shops, principally for the rerolling of scrap steel and iron into rods and bars. The installation has proven very satisfactory and is considered an important addition to the equipment of the plant.

The rolls will take scrap material up to 2½ inches, round or square, and produce round rods from ¾ inch to 1½ inches diameter or ¼ inch by 1 inch to 1 inch by 3 inch flat bars. This size and type of machine is in extensive use by railroads in the United States. The actual pro-

duction secured here up to the present is as follows: $\frac{5}{8}$ -inch rod, $3\frac{1}{4}$ tons per day; $\frac{3}{4}$ -inch rod, 6 tons per day; $\frac{7}{8}$ -inch rod, $6\frac{1}{2}$ tons per day; and $1\frac{1}{4}$ -inch rod, 7 to $8\frac{1}{4}$ tons per day.

A number of rods have been turned out for reinforcing the 55,000-barrel concrete oil tank being constructed at Cristobal. These are $1\frac{1}{4}$ inches in diameter, and some of them are over 60 feet in length.

The machine is driven by an alternating current motor of 100 horsepower. The metal to be rerolled is heated in an oil-fired furnace containing two chambers, each 8 by 4 feet. A single furnace of 16-foot length is used for rolling rods of extra length. A grating, constructed of old railroad rails, is used as a cooling bed for the rods produced. An overhead trolley handles the heavier scrap.

At present the scrap is sorted in the main scrap yard of The Panama Canal located at Mount Hope and only scrap suitable for rerolling is sent to the mill. Arrangements are under way for securing a shear which will be located in the reclaiming building, or near it, so that a certain amount of scrap may be sorted and cut to the necessary length at the rolls. The machine is fitted with a splitting attachment for trimming down pieces of plate and other materials which are too wide to enter the roll. A special splitting attachment has been devised at the shops for splitting railroad rails and they are successfully rerolling rails after they have been split into three pieces.

A number of laboratory tests have been made to determine the physical characteristics of the rerolled rods. They have been found very good and almost equal to new rods. As there is a large demand for rods, both round and flat, on the Isthmus, it is expected to be able to dispose of the output of the mill locally. There is a large accumulation of scrap on the Isthmus but it is being rapidly disposed of by sale to junk dealers. That part of the scrap suitable for the rerolling mill is being reserved.

It has also been found a great advantage to have the mill on the Isthmus on account of being able to produce rods of any size urgently required, on short notice.

Baking.

The Canal bakery at Cristobal on May 28 recorded the largest output in several months, baking 41,550 loaves—13,500 were for the transport *Mount Vernon* and 28,050 were to meet the needs of other shipping and the demand on the Canal Zone. Baking 41,550 loaves of bread requires the use of approximately 131 barrels flour, 1,840 gallons water, and 460 pounds of yeast. As packed in the usual bread crate, 20 by 20 by 33 inches in size, this production would fill 416 crates.

Rates, Hotel Aspinwall, Taboga.

Effective June 20, 1920, the following rates will be placed into effect at the Hotel Aspinwall, Taboga. For reservations address, Manager, Hotel Aspinwall, Taboga, via Balboa Post Office. The rates below include the commutation rates and reduced rates for children designed for the accommodation of Canal employees who have no Government quarters.

Nonemployees, board and lodging—Adults, \$3.50 per day; adults, week or month's stay, \$2.50 per day; children under 2 years of age, free; children, 2 years to 5 years, inclusive, \$1 per day; children, 2 years to 5 years, week or month's stay, 80 cents per day; children, over 5 years, under 12 years, \$1.75 per day; children, over 5 years, under 12 years, week or month's stay, \$1.25 per day.

Employees, board and lodging—Adults, \$2.75 per day; adults, week's stay, \$2 per day; adults, month's stay, \$54 per month; children under 2 years, free; children, 2 years to 5 years, inclusive, 75 cents per day; children, 2 years to 5 years, week or month's stay, 60 cents per day; children, 6 years and under 12 years, \$1.25 per day; children, 6 years and under 12 years, week or month's stay, \$1 per day. For employee's family of 4 paying members or more, a reduction of 10 per cent is allowed, not including servants.

Servants, board and lodging—For nonemployees, \$1.50 per day; for employees, \$1.25 per day.
Commutation rate, lodging, breakfast, and dinner, including launch transportation—Nonemployees, \$17.50 per week; nonemployees, \$70 per month; employees, \$12.50 per week; employees, \$50 per month.

Launch rates, nonemployees—Adults, 65 cents each way; children, 6 years and under 12 years, 45 cents each way. *Employees*—Adults, 40 cents each way; children, 6 years and under 12 years, 30 cents each way.

Meals, without room—Breakfast, 75 cents; luncheon, \$1.25; dinner, \$1.25.

LAUNCH SCHEDULE.

Effective June 20, 1920, the following launch service will be established employing the launch *Coco Solo*, which was recently overhauled thoroughly in the Canal shops and subjected to a series of inclination tests to determine her stability:

Week days—Leave Taboga, 6.30 a. m.; leave Balboa, 5 p. m.

Saturdays and days preceding holidays—Leave Taboga, 6.30 a. m.; leave Balboa, 10 a. m.; leave Taboga, 12.30 p. m.; leave Balboa, 5 p. m.

Sundays—Leave Taboga, 6.30 a. m.; leave, Balboa 10 a. m.; leave Taboga, 6.30 p. m.; leave Balboa, 8 p. m.

Renewal of Bicycle Licenses.

Holders of bicycle licenses in the Canal Zone may now have them renewed for the fiscal year beginning July 1, 1920. New licenses will not be issued until July 1 to persons who are not licensees already, but present holders of licenses may secure renewals now. Applications stating the make and number of the bicycle should be addressed to the Chief, Division of Civil Affairs, Balboa Heights, and check or money order for the fee of \$1 should be made payable to the Collector, The Panama Canal. It will assist in the rapid renewal of licenses if the holders will give the number of the present license when making application.

As official bicycle licenses are issued for an indefinite period of time, the tags with black letters on a white background will continue to be valid.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Metallurgist (male and female); \$3,600 to \$4,000 a year; July 13, 1920; form 2118; age, under 50 years.*

Tariff clerk (male and female); \$1,620 a year; July 9 and August 20, 1920; form 1312; age, 21 years but not 50 years.

Junior physiologist (male and female); \$2,000 a year; No. 350; July 6, 1920; form 1312; age, 21 years and over.*

Plant engineer (male and female); \$5,000 a year; No. 363; July 15, 1920; form 1312; age, under 45 years.*

Laboratory aid in agricultural technology (male and female); \$840 a year; No. 348; July 7, 1920; form 1312.

Superintendent (director), Bureau of Fisheries (male and female); \$1,800 a year; No. 362; July 1, 1920; form 1312; age, within reasonable age limits.*

Assistant explosives engineer (male and female); \$1,620 to \$2,400 a year; July 20, 1920; form 2118; age, 21 years but not 45 years.*

Computer, Coast and Geodetic Survey (male and female); \$1,400 a year; No. 408 (amended); July 21, 22, 1920.*

Examiner of claims, Ordnance Department at Large (male and female); \$1,700 to \$5,000 a year; July 20, 1920.*

Highway bridge engineer (male and female); \$2,100 to \$2,700 a year; junior highway bridge engineer (male and female); \$1,320 to \$1,920 a year; July 13, 1920; form 1312; age, highway bridge engineer, not less than 35 years, junior highway bridge engineer, not less than 30 years.*

Research engineer (male and female); \$3,000 to \$3,600 a year; July 20, 1920; form 2118; age, not less than 45 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Joseph Felix.....	32152	Panama.....	Colon.....	Supply Department....	June 8, 1920.
Stauley Jonas.....	32271	Jamaica.....	Colon.....	Supply Department....	June 5, 1920.
Michael Kahn.....	858	France.....	Ancon.....	Supply Department....	June 4, 1920.
Joshua Lovell.....	25847	Barbados.....	Colon.....	Panama Railroad.....	June 4, 1920.
Riley Murithun alias Obrin Martin.....	27342	St. Lucia.....	Colon.....	Panama Railroad.....	June 3, 1920.
Stephanie Pradier....	33119	Guadeloupe.....	Panama.....	Supply Department....	June 1, 1920.
Albert Tull.....	26586	Barbados.....	Colon.....	Docks.....	June 5, 1920.

Official Circulars.**Carrying and Keeping of Arms.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 1, 1920.

CIRCULAR No. 645-2:

By virtue of the authority vested in me by the Executive Order of March 6, 1920, published as Panama Canal circular No. 601-108, relating to the keeping and carrying of firearms in the Canal Zone, I hereby establish the following regulations to govern the issuance of permits under said Order and to prescribe the areas in which hunting may be permitted.

(a) Blank applications for permits to have or carry firearms will be furnished to applicants on application to Headquarters, Police and Fire Division, or any Canal Zone Police Station.

(b) Applications for hunting permits must be accompanied by the prescribed fee of one dollar (\$1), which will be returned to the applicant in the event his application is disapproved.

(c) Applications for permits to be issued to watchmen or overseers of plantations, factories, warehouses, docks or piers must be endorsed by the head of the department in which the applicant is employed.

(d) Applications by members of gun and pistol clubs for permits to carry firearms going to and from target range must be certified by the secretary of the club of which applicant is a member.

(e) The Executive Secretary has designated the Chief of Police and Fire Division to issue permits under the said Executive Order on such applications as are approved by the Executive Secretary.

(f) Permits will be issued by the Chief of the Police and Fire Division in the form of a small card, numbered serially as issued, each class of permit having a separate series of numbers as well as a distinctive color. Permits must be in possession of all persons carrying arms and shall be exhibited on request of any police officer.

(g) All permits issued hereunder shall be valid only during the fiscal year in which issued and may be renewed by the holder thereof returning his permit to the Executive Secretary, with written request for renewal of the permit for the succeeding fiscal year. The application for renewal of hunting permits must be accompanied by the prescribed fee.

(h) Permits which have been lost or destroyed may be renewed for the remainder of the fiscal year upon affidavit of such loss or destruction, and in case of hunting permits the payment of the regular fee of one-dollar (\$1) shall also be required.

(i) Hunting permits will allow the carrying of rifles and shotguns and do not authorize the carrying of revolvers or pistols.

AREAS IN WHICH HUNTING IS ALLOWED.

(j) Hunting with rifles or shotguns is permitted in that part of the Canal Zone north from the Carabali River, on the west side of the Canal, to the Atlantic Ocean, excluding therefrom the

entire area of Gatun Dam and the area contiguous thereto north, west, and south of the western end of Gatun Dam for a distance of 1 mile.

(k) Hunting with shotguns only is permitted in areas outside of townsites or within one hundred (100) yards of metalled roads on the west side of the Canal, from the Pacific Ocean to the Carabali River, except in the watershed reservations of the Camacho and Rio Grande reservoirs.

(l) Hunting with shotguns is permitted in the areas outside of townsites or within one hundred (100) yards of metalled roads on the east side of the Canal and the Panama Railroad, north from the southern boundary of the Canal Zone to the south arm or branch of Gatun River arm of Gatun Lake.

These regulations shall be in effect in the Canal Zone from and after July 1, 1920.

CHESTER HARDING, Governor.

Coupon Books for New Employees.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 10, 1920.

CIRCULAR No. 663-9:

1. When a new employee wishes to purchase coupon books before the regular authority card, form 5513, is received, a card, form 5753, may be issued by the head of the department or division or such foreman or chief clerk as may be designated by him, authorizing the purchase of coupon books in amount not to exceed \$15, if such card is presented within 3 days from date of issue. The card will be lifted by sales clerk at time of sale.

2. These cards must be signed by the new employee and by the official issuing, who will also fill in date of issue.

3. A supply of cards, form 5753, may be secured from the Bureau of Payrolls, Balboa Heights, upon proper request.

4. New employees arriving from the United States may be issued coupon books to the value of \$10, and if any employee to whom a book is issued fails to earn an amount sufficient to equal the value of the book or books, the unearned value will be charged to recruiting.

CHESTER HARDING, Governor.

Preservation of Finish on Walls.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., June 7, 1920.

Memorandum for all concerned—The walls of the Administration Building are being painted. When painting is completed, it is requested that employees refrain from putting tacks, pins, etc., in the walls for the purpose of hanging calendars and pictures.

If official printed matter is needed on the walls in offices, for quick reference, please call on the custodian to have same placed.

R. K. MORRIS,
Chief Quartermaster.

Shipment of Uncrated Trunks on Panama Railroad Steamship Line.

PANAMA RAILROAD COMPANY,
AND

PANAMA RAILROAD STEAMSHIP LINE,
OFFICE OF SUPERINTENDENT,
BALBOA HEIGHTS, C. Z., June 10, 1920.

CIRCULAR No. 690:

To all concerned—Uncrated trunks will be accepted for shipment on Panama Railroad steamers only when destination is New York. Trunks for points beyond must be crated or boxed. Uncrated trunks will only be accepted when owners release the Panama Railroad from all claims for damage, breakage, or pilferage.

S. W. HEALD,
Superintendent.

Appointments.

THE PANAMA CANAL,
CATTLE INDUSTRY DIVISION,
CRISTOBAL, C. Z., June 2, 1920.

CIRCULAR No. 140:

To all concerned—Effective June 1, 1920, Mr. J. S. McCarthy, accountant and cashier in this office, is promoted to the position of assistant to the superintendent of the Cattle Industry Division, *vice* Mr. E. M. Reinhold, transferred. Effective the same date Mr. G. A. Dryden, clerk, is promoted to the position of accountant and cashier, *vice* Mr. J. S. McCarthy, promoted.

W. B. BROWN,
Superintendent.

Approved:

R. K. MORRIS,
Chief Quartermaster.

Sale of Roofing Paper.

Sealed bids will be received in the office of the Chief Quartermaster, Balboa Heights, C. Z., up to 10.30 a. m., June 25, 1920, and then opened for the purchase of about 470 rolls of roofing paper (containing about 216 square feet each), which was rejected by The Panama Canal. About 294 rolls are at section "E," Balboa storehouse, and about 176 rolls at Cristobal storehouse. Form of proposal may be had upon application at the office of the Chief Quartermaster, or at Balboa and Cristobal storehouses. The Panama Canal reserves the right to reject any or all bids.

COMMISSARY NOTES.

Books.

A number of new books may be found in the retail stores, recent shipments including not only fiction but the latest juveniles.

Milk.

Commissary patrons will be glad to know that Mindi milk is again available for sale over the counter at all commissaries with every indication that this condition will continue for some months to come.

Satin Pumps.

Occasionally claims are received in connection with satin pumps sold in the commissaries and when such claims are based on defective fabric and no other fault of manufacture, it is necessary to decline them. The durability of satin can not be guaranteed in this climate and slippers of this fabric were stocked merely to satisfy a demand from the trade, with the understanding that all sales would be made at customer's risk except in case of defects in workmanship or material, other than the satin fabric.

Eggs for Hatching.

Eggs for hatching are available for sale at the Summit poultry farm from the following breeds: White Plymouth Rocks, White Leghorns, Rhode Island Reds.

Prices for eggs are as follows, f. o. b. Summit: 15 eggs (one setting), \$3.00; 30 eggs, \$5.50; 45 eggs, \$7.50; 100 eggs, \$14.00.

Shipping Commissioner's Sale.

The Shipping Commissioner, room 305, Administration Building, Balboa Heights, C. Z., will accept written bids up to noon Monday, June 21, 1920, for the purchase of the personal effects of Fred Gordon, deceased American seaman. The property to be sold is listed below, and bids may be made for the entire lot of the effects, or be limited to individual articles. Prospective bidders desiring to examine the effects should apply to the Shipping Commissioner's office on any business day. Bids should be submitted in sealed envelopes, addressed to the Shipping Commissioner, marked "Bid on effects of Fred Gordon, deceased." No advance deposit of money is required. The right is reserved to reject any or all bids:

One suitcase, imitation leather; 2 hats; 2 pairs shoes, size 9; 1 belt, leather; 1 pair garters; 2 shirts, size 15½; 1 undershirt; 1 pair socks; 1 pair slippers; 1 bath towel; 1 hand towel; 1 coat hanger; 1 pocketknife; 1 souvenir book; "Views of the Panama Canal;" 1 Everready safety razor with 10 blades; 1 shaving brush; 1 hand mirror; 7 bars soap; 1 jar shoe cream; 1 small metal box; 1 small wood box; 1 box stationery.

Sale of Tug "Miraflores."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., June 30, 1920, and then opened, for the purchase of the tug *Miraflores*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Cockerels for Sale.

There are available for sale at the Summit poultry farm 50 single-comb white Leghorn young breeding cockerels at \$3 each, f. o. b. Summit. Prospective purchasers may inspect these cockerels at the farm.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII.

Balboa Heights, C. Z., June 23, 1920.

No. 45.

Repairing the Propeller of a Destroyer.

An interesting repair was made on the starboard propeller of the destroyer *Thornton*, in the 1,000-foot dry dock at Balboa in May. The propeller had been damaged by touching one of the banks while in transit through the Canal. The ends of the blades had been turned back through half of a circle. The blades were straightened and brought back to their original surface. Cracks were welded, the broken tips of two blades were repaired by burning (casting new metal into a mold at the end of the tips in such a manner that it fused with the old metal), and the propeller was balanced and replaced.

Inasmuch as this is a high-speed turbine propeller, transmitting heavy horsepower and attached to a light hull, lack of balance or truth of surface in the repaired propeller would have set up a serious vibration. After the destroyer had gone to sea the commander telegraphed that the propeller was performing very satisfactorily, and congratulated The Panama Canal on "a difficult repair well carried out."

Modifying Yellow Fever Quarantine Requirements.

The quarantine service of The Panama Canal is making efforts to minimize the delays to ships and passengers which are involved in the protective measures necessary to prevent the entrance of quarantinable diseases. The Chief Quarantine Officer has returned from an inspection of the ports on the west coast of Central America, as far north as San Jose de Guatemala, against which quarantine has been maintained for yellow fever, and will leave shortly for the west coast of South America, inspecting the ports against which quarantine is maintained for yellow fever and bubonic plague.

In these inspections the effort is directed toward gaining accurate knowledge of conditions, establishing first-hand, personal relations with the authorities, and stimulating preventive measures. In consequence, the restrictions at the Canal can be modified to correspond with actual conditions and necessities. At the same time it has been possible in some cases to modify the requirements for the treatment of ships in those ports, eliminating protective practices which are now seen to be no longer necessary. The requirements by the Canal are being made adaptable, while adhering to primary principles, so that no unnecessary hardships may be imposed and improvements may be promptly reflected in a lessening of restrictions.

Among the changes which have been made as result of the recent visit to Central American ports are the removal of the requirement that vessels at La Union leave the wharf by 5 p. m., or be subject to fumigation at Balboa; and the removal of the requirement that vessels at Corinto anchor in the stream at night and be fumigated before sailing. Modification of the requirements with respect to Puntarenas is anticipated, following an improvement of conditions there, toward which steps are now being taken. In this work the quarantine service has invited and is receiving the cooperation of the steamship lines affected.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight June 19, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
South Carolina	12	10.07	13	6.16	13	16.26	16	6.49	American	United States Navy	450.0	80.0	28.4	Annapolis	Honolulu	General	4,589	5,188	4,105
Michigan (a)	12	9.55	13	6.21	13	15.18	16	6.49	American	United States Navy	450.0	80.0	28.2	Philadelphia	Honolulu	General	4,880	5,188	4,105
Oak Branch	12	14.32	13	7.20	13	17.26	13	18.29	British	F. & W. Rison	385.0	49.7	23.0	London	Tacahuano	General	780	1,273	706
Acajuta	9	18.40	13	7.26	13	16.32	13	18.40	British	Pacific Steam Navigation Co.	215.7	33.5	15.0	Cristobal	Buenaventura	General	936		
Cajulota (b)	10	19.42	13	9.00	13	17.43	16	7.51	American	United States Navy	361.4	43.0	23.1	New York	Honolulu	Naval stores	6,900	7,285	5,255
Mercer	12	22.47	13	9.16	13	18.34	13	23.45	American	United States Shipping Board	395.5	55.0	24.8	Philadelphia	Yokohama	General	384	3,567	2,570
Avlesbury	11	3.07	13	9.27	13	18.40	19	4.00	British	Cupper Alexander	335.6	42.5	13.0	London	Guatemala (d)	Coal	3,255	2,886	1,811
Lake Tebha	13	12.13	14	8.22	14	13.38	14	18.55	American	United States Shipping Board	551.0	43.6	22.8	Norfolk	Caldera	General	6,700	5,827	4,132
Garbeta	14	7.53	14	8.25	14	15.11	14	22.00	British	British India Steam Nav. Co.	400.0	52.0	25.3	Newport News	Melbourne	General	12,090	11,519	6,910
Ulysses	14	8.00	14	8.35	14	15.56	14	17.25	American	Panama Railroad Steamship Line	536.0	65.0	29.0	Norfolk	Balboa	Coal			
Kansas (c)	12	12.53	14	14.00	15	15.52	16	7.05	American	United States Navy	450.0	76.0	28.0	Philadelphia	Honolulu	General			
New Hamp-shire (d)	12	12.45	14	15.23	15	14.34	16	7.05	American	United States Navy	450.0	76.0	28.6	Philadelphia	Honolulu	General	1,780	2,835	1,822
Minnesota	14	10.55	15	6.13	15	12.43	15	13.38	American	W. R. Grace & Co.	298.6	40.0	18.1	New York	Salaverry	General	4,702	5,271	3,592
Ceylon Maru	14	19.00	15	6.28	15	15.12	15	16.09	Japanese	Nippon Yusen Kaisha	385.0	48.0	24.0	New York	Kobe	General	717	3,696	2,577
Palena	12	14.08	16	6.15	16	13.04	16	14.25	Chilean	South American Steamship Line	435.0	42.1	23.8	Cristobal	Valparaiso	General	9,800	7,488	5,342
Lompoe	15	21.00	16	6.30	16	15.15	16	16.45	British	C. T. Bowering & Co.	446.0	55.8	27.0	Tampico	Antofagasta	Petroleum	6,577	1,582	1,023
Cauca	10	16.12	17	6.00	17	12.38	17	15.35	British	Pacific Steam Navigation Co.	246.0	25.2	15.7	Cristobal	Guayaquil	General	6,051	7,285	5,256
Bellbuckle	16	16.34	17	6.15	17	14.51	14	17.08	American	United States Shipping Board	396.0	55.0	27.7	New York	Brisbane	General	7,900	6,090	4,389
Egremont/Castle	16	12.27	17	6.25	17	13.56	17	15.00	British	James Chambers & Co.	400.0	52.0	27.0	New York	Shanghai	General	4,606	6,224	4,465
Jamaica	12	18.54	17	7.08	17	14.34	17	16.27	British	Pacific Steam Navigation Co.	220.0	34.0	13.0	Cristobal	Tumaco	General	1,531	1,187	622
Eastern Ocean	17	21.35	18	6.18	18	13.35	18	14.32	American	United States Shipping Board	385.0	51.0	21.6	New York	Los Angeles	General	4,606	5,710	4,017
Grangepark	17	17.30	18	7.35	18	14.36	18	15.35	British	J. J. Denbigh	400.0	52.0	22.1	New York	Coronel	General	1,531	6,887	4,575
Viatica	17	11.53	18	9.43	18	16.09	18	16.38	British	Pacific Steam Navigation Co.	401.4	52.3	22.0	Liverpool	Valparaiso	General	60	11,197	8,322
Ruabine	18	14.40	19	6.06	19	13.45	19	14.40	British	New Zealand Shipping Co.	480.4	60.0	27.0	London	New Zealand	Iron, tex. goods			
Edouard	15	14.15	19	6.15	19	15.27	19	16.57	French	Bureau Freres el Baillegan	260.0	42.0	12.6	Marseilles	San Francisco	General	468	2,226	2,013
Bureau (c)	14	16.50	19	10.46	19	17.18	19	22.10	Peruvian	Peruvian Line	381.2	46.0	19.7	Cristobal	Callao	General		4,803	2,951
Urubamba	14	16.50	19	10.46	19	17.18	19	22.10	Peruvian	Peruvian Line	381.2	46.0	19.7	Cristobal	Callao	General		4,803	2,951

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

(a) Battleship. (b) Supply ship. (c) Bark. (d) San Jose.

Steel Voyager	11	20.00	13	6.50	13	14.00	13	14.00	American	Isthmian Shipping Line	395.6	55.0	28.3	Vancouver	Avonmouth	Flour, lumber	7,961	7,285	5,256
Eastern Cloud	12	14.35	13	7.09	13	15.18	13	15.18	American	United States Shipping Board	385.0	51.0	25.0	Seattle	New York	Flour	7,707	6,242	4,471
Ben Salem	13	6.25	13	8.21	13	18.55	14	1.03	American	United States Shipping Board	400.7	54.2	22.0	Mamla	Philadelphia	Sugar, hemp, gen	7,600		
Peru	13	5.06	13	11.47	13	19.20	20	6.07	British	Pacific Steam Navigation Co.	350.0	43.1	19.4	Guayaquil	Cristobal	General	1,783	4,100	2,646

	13	17	55	14	7	37	14	15	38	14	19	25	American	W. R. Grace & Co.	404.6	53.7	28.2	Puntarenas	New York	(h)	8,800	6,745	4,798
Santa Olivia	14	3	00	14	8	28	14	16	30	19	10	46	Peruvian	Peruvian Line	381.2	45.9	22.0	Callao	Cristobal	General	3,133	5,018	3,215
Urubamba	14	14	20	15	7	36	15	17	07	15	22	16	American	Standard Oil Co	414.6	53.4	15.0	Iquique	Tampico	Ballast	6,360	4,337	
Brewster	14	17	10	15	7	59	15	17	48	15	19	20	Norwegian	W. Wilhelmsen	424.8	57.0	18.0	Toconipala	Tampico	Ballast	7,050	5,093	
La Habra	14	22	30	15	8	20	15	19	45	16	12	35	American	United States Steel Products Co	400.0	50.0	25.0	Hongkong	New York	Rice and general	6,500	5,096	4,267
Charlton Hall	15	2	30	15	8	30	15	18	40	15	20	10	British	Dollar Steamship Co	376.5	52.2	23.0	Singapore	New York	Rubber, etc.	6,150	5,224	3,940
Harold Dollar	16	3	00	16	7	52	16	14	48	21	6	10	Chilean	Chilean Line	370.6	44.3	21.0	Valparaiso	Cristobal	General	942.27	4,505	2,977
Aysen	16	3	00	16	8	09	16	15	55	17	14	10	American	United States Shipping Board	402.5	53.0	23.0	Seattle	Liverpool	General	4,000	6,521	4,820
Causumset	5-12	7	16	16	9	09	16	17	30	16	22	10	American	United States Shipping Board	251.0	43.0	23.0	Talca	Philadelphia	Nitrate	3,812	2,857	1,767
Ashland County	3	10	15	16	9	09	16	17	30	16	22	10	American	Pacific Mail Steamship Co	289.0	44.1	19.7	Iquique	Baltimore	General	3,277	2,895	1,907
Point Lobos	16	2	50	16	13	23	16	21	15	17	15	42	American	United States Shipping Board	251.0	43.6	22.6	Balboa	Baltimore	Nitrate	3,400	2,866	1,832
Lake Glaseo	14	14	00	17	6	43	17	14	20	17	14	20	American	United States Government	514.0	68.0		Balboa	Norfolk	Ballast	11,519	6,910	
Olysses (c)	14	15	56	18	6	40	18	13	45	18	13	50	American	United States Navy	155.0	30.0		Balboa	Cristobal	Ballast			
Sejota (f)	17	19	30	18	7	49	18	13	45				British	Colombian Maritime Co	135.0	29.0	14.6	Antofagasta	Colon (g)	Ballast	444	122	
Saint Keyne (f)	18	15	00	19	6	30	19	14	05				American	Vacuum Oil Co	193.0	29.1	12.3	Buenaventura	Texas City	General	692.63	741	350
Balboa	17	11	00	19	7	22	19	15	00	19	15	00	American	United States Government	423.8	57.0		San Francisco	New York	Ballast	7,100	4,955	3,523
Vacuum	19	8	00	19	9	05	19	17	00	19	19	35	American	United States Steel Products Co	380.0	60.0	24.6	Caletta Buena	New York	Nitrate			
Crazer Hall	17	19	30	19	10	34	20	12	05				German	Kosmos Line	471.9	60.0	21.7	Antofagasta	Colon (g)	Nitrate	8,000		
Karnak																							

(c) Collier. (f) Tug. (g) For orders. (h) Manganese ore, nitrate of soda, wool, and sheep skins.

PORT OF CRISTOBAL.

Date	Vessel	* ARRIVALS.			* DEPARTURES.			For—
		Line	From—	Date	Vessel	Line		
June 14	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	New York via Haiti.	June 13	Caribbean	Panama Railroad Cattle Industry.	Cartagena.	
June 14	Cartago	United Fruit Co	New Orleans.	June 16	Ulua	United Fruit Co	Port Limon.	
June 14	Santa Leonora	United States Army	N Orleans and Porto Rico	June 17	San Pablo	United Fruit Co	Boaca, Habana, N. Orleans	
June 15	Ulua	United Fruit Co	New York via Hebaona	June 18	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	Port Limon and Boston.	
June 16	Balsa (f)	American Balsa Co.	New York via waypoints.	June 19	Santa Leonora	United States Army	Haiti and New York.	
June 16	Asian	Leyland Line	Liverpool via waypoints.	June 19	Asian	Leyland Line	Porto Rico and N. Orleans	
June 17	Alliance	Panama Railroad Steamship Line.	Colombian ports.	June 19			New Orleans.	
June 17	Caribbean	Panama Railroad Cattle Industry.	Cartagena.					
June 17	Perou	French Steamship Line.	St. Nazaire and waypoints.					
June 18	San Pablo	United Fruit Co.	Boston.					
June 18	Faraday (f)	Liemens Brothers & Co.	London via St. Thomas.					

(f) Schooner. (g) Cable ship.

PORT OF BALBOA.

Date	Vessel	* ARRIVALS.			* DEPARTURES.		
		Line	From—	Date	Vessel	Line	
June 15	Laake Elkwater	United States Shipping Board	Junin.	June 15	Relief (f)	Rolph Coal and Navigation Co.	Antofagasta.
June 19	Anyo Maru	Toyo Kisen Kaisha	Valparaiso.	June 15	Acapulco (k)	Ocean Shipping Agency	Antofagasta.

(k) Barge. *Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal for Week Ending June 19, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Acajutla.....	Pacific Steam Navigation Co.....		June 13.....		½
Caribbean.....	Panama Railroad Cattle Industry.....		June 13.....		89
Cartago.....	United Fruit Co.....	June 14.....	June 17.....	700	52
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....	June 14.....	June 19.....	1,154	81
Ulua.....	United Fruit Co.....	June 15.....	June 16.....	24	11
Asian.....	Leyland Line.....	June 16.....	June 19.....	178	12
Palena.....	South American Steamship Co.....		June 16.....		25
Allianza.....	Panama Railroad Steamship Line.....	June 17.....		59	
Caribbean.....	Panama Railroad Cattle Industry.....	June 17.....		200	
Perou.....	Cia. General Transatlantic.....	June 17.....		13	
Jamaica.....	Pacific Steam Navigation Co.....		June 17.....		8
Cauca.....	Pacific Steam Navigation Co.....		June 17.....		½
San Pablo.....	United Fruit Co.....	June 18.....	June 18.....	3	
Urubamba.....	Peruvian Steamship Co.....		June 19.....		½
Santa Leonora.....	United States Army.....		June 19.....		1,200
Peru.....	Pacific Steam Navigation Co.....		June 19.....		11

Direct Passenger Service to New Orleans.

The United Fruit Company has established a weekly service from Cristobal to New Orleans direct, requiring 4½ to 5 days at sea. Ships leave Cristobal in the afternoon of Wednesday and are due to arrive at New Orleans in the morning of Monday. A rate of \$69 is quoted for Canal employees, which is \$10.50 less than the rate for indirect voyages heretofore in effect.

With the establishment of this service the United Fruit Company has two sailings a week to and from New Orleans, calling at Cristobal. One line comes from New Orleans direct, returning by way of Bocas del Toro and Habana. The other sails from New Orleans via Habana, Kingston, and Bocas del Toro to Cristobal, returning direct to New Orleans.

United Fruit Company's Passenger Sailings from Cristobal.

With the establishment of weekly direct service to New Orleans, the following is the schedule of sailings of vessels of the United Fruit Company from Cristobal, carrying passengers and cargo:

To New Orleans direct, every Wednesday; to New Orleans via Bocas del Toro and Habana, every Wednesday; to New York via Habana, every Sunday at noon; to New York via Cartagena, Puerto Colombia, Santa Marta, Kingston, and Santiago, Cuba, every second Thursday; to Limon, Costa Rica, every Wednesday.

Freight Service Between Boston and Cristobal.

The United Fruit Company has established a freight service, carrying no passengers, between Boston and Cristobal, with sailings every three weeks. The service was begun by the steamship *San Pablo*, which arrived at Cristobal on June 18 and cleared for Boston on the return voyage via Limon on the same day.

Precautions Against Plague from Paita.

A conference between the Chief Quarantine Officer and the agents of steamship lines calling at Paita, Peru, and discharging cargo at Cristobal was held at Cristobal on June 21, to consider procedure for the protection of the Canal ports against infection by plague from Paita, where the plague was recently reported as over 100 cases. One

of the lines has stopped calling at Paita. The others suggested that they bring cargo from Paita in a hold separated from the rest of the cargo and unload it in lighters, where it would be fumigated before being discharged on the piers. This will be tried, with the expectation that fumigation for the entire ship every voyage can be done away with. All ships making the Canal a terminus are fumigated from top to bottom while empty, once every three months. This has been found to be very effective in reducing the number of rats aboard the ships and consequently lessening the chances of the spread of plague through infected rats that may get aboard.

Local Foundry Clay in Use by Mechanical Division.

The foundry of Balboa shops has been making successful use of a clay found on the Isthmus for steel molding and for lining converters. It is found to be quite equal to that which had formerly been imported from the United States but was increasingly difficult to secure, and its use will result in appreciable savings. The clay is secured at Diablo Hill, near Balboa, from part of a cut originally made in a borrow pit. Experiments had been made before on local clays but this is the first which has been found satisfactory for these uses.

One-day Trip to Pearl Islands on 1,200-ton Vessel.

If as many as 100 people will go, the Supply Department offers to run an excursion to the Pearl Islands on Sunday, July 4, using the lighthouse tender *Favorite* which is 195 feet in length by 43 feet beam. Not more than 125 people will be taken. The charge will be \$5 per person including light luncheon and dinner on the ship. This low rate is possible because the vessel is already engaged for transportation to Taboga for the 4th of July holiday and the side trip can be made at reduced cost.

The schedule contemplated is: Leaves Balboa 10 a. m.; reach the islands about 2 p. m.; cruise through the archipelago, making a landing at San Miguel; returning at dusk and arriving at Balboa about 9 p. m.

Those desiring to go should notify the Chief Quartermaster by mail or telephone (Balboa 187). Whether the trip is to be made will be decided not later than Wednesday, June 30, and those desiring the trip should put in their applications without delay.

Conversion or Exchange of Liberty Bonds.

The Liberty Loan Committee advises that it will not receive bonds for exchange or conversion after June 30, 1920.

After that date it will be necessary for subscribers to have their bonds converted or exchanged through a bank.

Weather Conditions in May, 1920.

The rainfall for the month was below normal everywhere, a number of stations receiving the least May rainfall of record. The average May rainfall at most stations exceeds the total rainfall recorded since January 1. May totals ranged from 2.24 inches at Balboa to 9.31 inches at Trinidad. The greatest amount of precipitation recorded on any one day was 3.60 inches at Pedro Miguel on the 28th. Rainy season conditions began to be noticeable about the 15th of the month.

The estimated rainfall over the Gatun Lake watershed was 6.18 inches, compared with a 10-year mean of 11.90 inches, and over the Chagres River basin above Alhajuela it was 5.92 inches compared with a 19-year mean of 12.49.

The air temperature, surface temperature of the sea, wind movement, and evaporation were above normal, while the relative humidity and daytime cloudiness were below the average. The atmospheric pressure was approximately normal on both coasts.

A number of fogs, most of which were light, were observed at interior stations during the month, all of which had lifted or were dissipated by 8.30 a. m.

Light seismic tremors were recorded on the 7th and 10th of the month.

GATUN LAKE HYDROLOGY.

Mean elevation of Gatun Lake was 81.94 feet; maximum, 82.40 feet, on the 1st; minimum, 81.65 feet, on the 28th. Evaporation from Gatun Lake surface was 6.124 inches; rainfall on Gatun Lake drainage basin was 6.18 inches; total yield of Gatun Lake watershed was 1.26 inches on the watershed. The total yield amounted to 20 per cent of the rainfall.

Conditions are summarized in the following table:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation			Wind.								
		Mean.	Maximum.	Date.	Minimum.	Date.		Total inches.	Station average.	Days with 0.1 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.				
Balboa																			
Heights...	29.838	81.2	93	May 6	72	May 27	79.4	3.31	8.23	9	5,792	N.W.	26	N.	May 1				
Colon.....	29.843	82.6	93	May 19	73	May 24	79.2	5.48	12.45	11	7,435	N.	27	S.	May 25				
Gambaa.....	81.8	95	May 29	70	May 27*	....	7.59	10.62	11	4,280	N.E.	28	N.E.	May 21				
Gatun.....	82.5	92	May 20	73	May 18	....	2.65	13.22	11	5,853	N.	29	S.	May 21				

* And other dates.

Dance at Hotel Aspinwall.

The Hotel Aspinwall will hold a dance on Saturday, June 26. The launch will leave dock 19 at Balboa at 5 p. m. on regular schedule, with return service on Sunday at 6.30 a. m. and 6.30 p. m. The following are the rates for Government employees at the Aspinwall:

Employees, board and lodging—Adults, \$2.75 per day; adults, week's stay, \$2 per day; adults, month's stay, \$54 per month; children under 2 years, free; children, 2 years to 5 years, inclusive, 75 cents per day; children, 2 years to 5 years, week or month's stay, 60 cents per day; children, 6 years and under 12 years, \$1.25 per day; children, 6 years and under 12 years, week or month's stay, \$1 per day. For employee's family of 4 paying members or more, a reduction of 10 per cent is allowed, not including servants.

Closing Notice.

The retail commissaries will be closed for quarterly inventory all day on Tuesday, June 29 and the morning of Wednesday, June 30. The cold storage and grocery sections will be opened Wednesday afternoon at the regular hour and other departments as soon thereafter as check has been completed by the inspectors.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Arthur Thorington....	31770	Barbados.....	Empire.....	Panama Railroad Co...	June 6, 1920.
Joseph Felix.....	32152	St. Lucia.....	Colon.....	Commissary Division...	June 8, 1920.
John T. Waters.....	4250	U. S. A.....	Balboa.....	Mechanical Division...	June 18, 1920.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Circulars.

Acting Auditor.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 19, 1920.
HEADS OF DEPARTMENTS AND DIVISIONS:
Effective this date, and during the absence of
Mr. H. A. A. Smith on leave, Mr. Elwyn Green
will act as Auditor of The Panama Canal.
CHESTER HARDING,
Governor.

Supplements to List of Nonexpendable Property.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 11, 1920.
CIRCULAR No. 244:

To all concerned—Supplement No. 2 to the list of nonexpendable property is now ready for mailing. Distribution will be made by the Property and Requisition Bureau direct to the responsible officials whose property accounts are handled by that bureau. The Dredging Division, Mechanical Division, and district quartermasters are being supplied from this office. Additional copies will be supplied on written application to this office.

All material foremen, storekeepers, commissary managers, storemen, property and requisition clerks, and all persons authorized to sign foremen's orders should have copies of the nonexpendable list and supplements available at all times, and should familiarize themselves with the nomenclature and observe the instructions contained therein.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 14, 1920.

CIRCULAR No. 246:
Effective June 11, 1920, Capt. Frederick Kariger is designated an accountable official of The Panama Canal, *vice* Mr. George Cartwright, and as such will account for all nonexpendable property in use by the Lighthouse Subdivision.

H. A. A. SMITH,
Auditor, The Panama Canal.

Approved:
CHESTER HARDING,
Governor.

Acting General Manager.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 16, 1920.
All concerned—Effective noon, Wednesday, June 16, and during the absence on leave of Mr. J. J. Jackson, Mr. A. W. Goulet is appointed acting general manager of the Commissary Division.

R. K. MORRIS,
Chief Quartermaster.

Approved:
CHESTER HARDING,
Governor.

Inventory, The Panama Canal Press.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 16, 1920.

To all concerned—A complete inventory will be taken at The Panama Canal Press, Mount Hope, on June 27, 28, 29, and 30, and no stock issues will be made on those dates.

Please arrange immediately to protect your requirements in advance of June 27.

R. K. MORRIS,
Chief Quartermaster.

Acting Physiologist.

THE PANAMA CANAL,
MUNICIPAL ENGINEERING DIVISION,
BALBOA HEIGHTS, C. Z., June 9, 1920.
To all concerned—During the absence of Mr. George C. Bunker, physiologist, on leave, Mr. A. G. Nolte, assistant physiologist, is appointed acting physiologist. Effective June 9, 1920.
D. E. WRIGHT,
Municipal Engineer.

Spices.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
CRISTOBAL, C. Z., June 17, 1920.
MEMORANDUM No. 563-60:
To all concerned—Spices formerly furnished in 2-oz. tins are now being ordered in bottles with aluminum caps. One cent each will be allowed for the return of these bottles provided the aluminum screw cap is in good condition.
J. J. JACKSON,
General Manager, Commissary Division.

Additions to Commissary Stock.

<i>Boot and Shoe Section.</i>	
Trees, shoe, men's and women's, japanned metal, pr.	\$0.16
Women's white kid opera turn sole pumps, pr.	13.25
Women's white canvas lace boots, leather sole and heels, pr.	6.30
Women's black glazed kid beaded vamp Verdun pumps, pr.	10.70
<i>Dry Goods Section.</i>	
Beads, shell, 17", 90s string	2.60
Coats, Palm Beach, cotton and wool, ea.	12.60
Gloves, canvas, with leather palms and gauntlet cuffs, pr. . . . .	.44
Hose, men's, mercerized lisle, black, pr. . . . .	.44
Hose, men's, mercerized lisle, tan, pr. . . . .	.44
Pants, Palm Beach, cotton and wool, pr.	6.60
Sets, guest, Turknit, set.	1.45
Suitings:	
Serge, blue, 54", yd.	5.45
Serge, black, 54", yd.	4.50
Serge, blue, 54", yd.	4.65
Serge, blue, 54", yd.	4.35
<i>Grocery Section.</i>	
Aerated waters and beverages: Lime juice, P. C., 8-oz. bot.	
Candies: Pralines, pecan, Creole, pc. . . . .	.12
Capers, 2-oz. bot. . . . .	.16
Hash, corned beef, 1s tin. . . . .	.26
Peas, sifted, 5s tin. . . . .	.62
Powder, baking, Rumford's, 1/2-lb. tin. . . . .	.09
Powder, baking, Rumford's, 3/8 tin. . . . .	.16
Rice, screenings, first grade, 2s sack. . . . .	.16
Rice, screenings, first grade, 4s sack. . . . .	.32
Snuff, Copenhagen, 1 1/2-oz. tin. . . . .	.10
Soap, scouring, Dutch, cake. . . . .	.07
<i>Hardware Section.</i>	
Bags, cricket, solid leather, ea.	19.50
Comports, nickel plated, ea.	3.05
Cups and saucers, enamel, white, set. . . . .	.48
Dishes, chafing, electric, nickel plated, ea.	11.70
Dishes, almond, nickel plated, ea.	2.45

May Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1920.
	1918	1919	1920			
<i>Pacific section—</i>						
Balboa	6.45	5.92	2.24	7.81	22	12
Balboa Heights	6.75	5.21	3.31	8.23	22	9
Miraflores	8.36	6.07	4.38	9.19	12	12
Pedro Miguel	9.36	7.37	7.45	10.35	13	14
Rio Grande	13.68	6.35	7.38	10.33	16	15
<i>Central section—</i>						
Culebra	16.20	6.90	6.78	10.85	29	12
Camacho	15.30	5.03	9.27	10.94	14	11
Empire	13.56	7.01	7.66	9.78	16	15
Gamboa	11.45	5.82	7.59	10.62	39	11
Juan Mina	10.29	7.77	3.98	9.91	10	11
Alhajuela	11.34	6.11	4.46	11.55	20	11
Vigia	11.46	4.30	6.07	10.87	12	15
Frijoles	11.29	8.23	4.02	10.64	9	.....
Trinidad	15.10	7.28	9.31	12.74	13	12
Monte Lirio	14.51	5.20	6.34	12.02	13	10
<i>Atlantic section—</i>						
Gatun	11.64	7.16	2.65	13.22	16	11
Brazos Brook	16.99	8.71	4.99	12.73	14	13
Colon	19.26	6.95	5.48	12.45	50	11
Porto Bello .....	.....	13.86	5.05	15.73	9	20
Bocas del Toro	22.91	9.98	6.93	10.91	12	21

Rainfall from May 1 to May 31, Inclusive.

STATIONS.	Maximum in one day.	Date.	Total.
<i>Pacific section—</i>			
Balboa	1.03	28	2.24
Balboa Heights	1.66	28	3.31
Miraflores	2.30	28	4.38
Pedro Miguel	3.60	28	7.45
Rio Grande	2.83	28	7.38
<i>Central section—</i>			
*Culebra	2.70	29	6.78
*Camacho	3.46	29	9.27
Empire	2.13	28	7.66
Gamboa	2.11	28	7.59
*Juan Mina	1.74	31	3.98
Alhajuela	2.22	28	4.46
*Vigia	1.86	28	6.07
*Darien	1.95	31	7.30
*Trinidad	2.26	21 & 31	9.31
*Monte Lirio	2.58	18	6.34
<i>Atlantic section—</i>			
Gatun	1.08	17	2.65
*Brazos Brook	2.00	18	4.99
Colon	1.99	24	5.48
†Bocas del Toro	1.11	23	6.93
†Porto Bello	1.13	29	5.05

*Standard rain gauge—readings at 5 p. m. daily.
 Automatic rain gauge at unstarred stations—values, midnight to midnight.
 †Standard rain gauge—readings at 8 a. m. daily.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., June 21, 1920.
 The following insufficiently addressed mail matter has been received in the office of the Director of Posts and may be obtained upon request of the addressees. Requests for forwarding may be made by telephone, calling No. 182, Balboa.
 Bellamy, Arthur H., Johnson, Werner.
 Box 798 Jolly, J. H.
 Berger, Pearl D. Joseph, Irwin
 Bossert, Armand McClellan, Miss Hannah
 Cornwall, Miss Martha Mitchell, Mrs. Julia
 Crawford, Mrs. W. Munday, James
 Earle, Lyon H. Ogden, Albert
 Edey, G. A. Parker, Raymond
 Ehrman, G. H. Richer, Julius
 Ehrman, Wm. E. Stouter, Rev. Charles
 Glahn, Miss Louise Surr, L. B.
 Gray, Miss Edna Svitak, Eniss
 Griffith, Joseph Towler, Mrs. H. H.
 Honeycut, Lawton Walker, Miss Madeline
 Jester, W. A. Willoughby, Henry

Sale of Tug "Miraflores."

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., June 30, 1920, and then opened, for the purchase of the tug *Miraflores*. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Roofing Paper.

Sealed bids will be received in the office of the Chief Quartermaster, Balboa Heights, C. Z., up to 10.30 a. m., June 25, 1920, and then opened for the purchase of about 470 rolls of roofing paper (containing about 216 square feet each), which was rejected by The Panama Canal. About 294 rolls are at section "E," Balboa storehouse, and about 176 rolls at Cristobal storehouse. Form of proposal may be had upon application at the office of the Chief Quartermaster, or at Balboa and Cristobal storehouses. The Panama Canal reserves the right to reject any or all bids.

Current Net Prices on Coal, Fuel Oil, and Beef.

Coal is being supplied to steamships including warships of all nations delivered and trimmed in bunkers, at \$13.50 per ton of 2,240 pounds at Cristobal and \$15.50 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$13.50 per ton at Balboa. For ships taking less than car load lots from plants or less than 25 tons from lighters, the price is \$15 per ton at Cristobal, \$17 at Balboa.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa for \$2.50 per barrel of 42 gallons.

Diesel oil is not sold by The Panama Canal, but may be obtained from private concerns at approximately \$4.00 per barrel. Cable arrangements should be made in advance of arrival of vessel.

The following are current prices on fresh beef sold from the cold storage plant of the Canal. Prices quoted are United States currency, per pound net:

Beef hinds, 19 cents; beef fores, 14 cents, beef ribs, entire set, 20 cents; short loins, 25 cents. This beef is from Colombian cattle slaughtered on the Isthmus.

COMMISSARY NOTE.

Books.

Books received:

"Best Short Stories of 1919," by E. J. O'Brien; "The Career of Leonard Wood," by Joseph Hamblen Sears; "Poor Relations," by Compton MacKenzie; "Baker's Dictionary of Musical Terms," "Peter Middleton," by Henry K. Marks; "The Web," by Emerson Hough; "Spanish-American Short Stories"; "In Lincoln's Chair," by Ida M. Tarbell; "The Novels and Tales of Jack London" (21 volumes); "The Swing in Golf and How to Learn It," by A. Q.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$1.00 per year; foreign, \$1.50; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII.

Balboa Heights, C. Z., June 30, 1920.

No. 46.

The "Koyo Maru" Aground at Serrana Bank.

A radio message received in the morning of June 29 carried information of the grounding of the steamship *Koyo Maru* on Serrana Bank, and steps were immediately taken to despatch the salvage vessel *Favorite*, recently placed in the Canal service, to her assistance. The *Favorite* was called in by radio from lighthouse work in the Gulf of Panama, passed through the Canal, and sailed from Cristobal at 4.30 in the morning of June 30.

The *Koyo Maru* is a 400-foot steamship of approximately 8,000 tons, and is on her way from New Orleans to the Canal. She passed through the Canal on April 16, on her way from Singapore to New Orleans with a general cargo of 6,256 tons, and was then on her maiden voyage, beginning a service of the Toyo Kisen Kaisha between the Far East and New Orleans.

Serrana Bank lies about 300 miles to the north of the Atlantic end of the Canal, about 50 miles beyond Roncador Bank, on which The Panama Canal maintains a light. There is a light on Serrana Bank, maintained by the United States Lighthouse Division. It is about 180 miles east of the coast of northern Nicaragua.

Continuing Panama Railroad Steamship Service to Colombia.

The steamship *Gen. G. W. Goethals* of the Panama Railroad Steamship Line sailed from Cristobal with passengers and cargo for Cartagena and Puerto Colombia in the afternoon of June 29, continuing the service which was begun by the *Allianca* with her sailing for these ports on June 4. No fixed schedule of sailings has been announced, the development of the service being for the present according to demand and the tonnage available.

Peruvian Line Extending to Europe.

The Peruvian Steamship and Dock Company of Callao (the Peruvian Line) announces the establishment of a direct service between Peruvian and European ports, with the sailing of the steamship *Paita*, which is due to pass through the Canal early in July. Efforts are being made to increase the company's fleet by the purchase of 4 additional passenger and cargo ships.

The Peruvian Line has been transferring cargo at the Isthmus since 1909, at Balboa before the opening of the Canal and at Cristobal since. It will continue its connections at the Isthmus, under present plans, while developing the direct service. It has a weekly service between Cristobal and ports as far south as Mollendo and Ilo, with principal calls at Guayaquil, Paita, Eten, Pacasmayo, Salaverry, Callao, and southern ports.

The steamship *Paita* was the ex-German steamer *Annubis*. She is an 8,000-ton ship, and was interned in Peru by the Peruvian Government during the European war. Peru broke relations with Germany and took over all the German steamers and sailing vessels lying in Peruvian waters.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight June 26, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Peru.....	13	19	20	6	07	20	12	56	20	Pacific Steam Navigation Co.	350	43	18	Cristobal	Valparaiso	General	829	4,095	2,655
Houston (c).....	18	13	20	6	30	20	15	07	20	United States Navy	392	50	25	New York	Seattle	Naval supplies	4,800		
Mahana.....	19	11	29	20	7	55	20	16	37	Shaw, Saville & Albion Co.	500	63	29	Liverpool	Wellington	General	8,803	12,151	8,727
Jinsho Maru.....	20	6	50	20	9	00	20	16	59	Ocean Steamship Co.	305	44	27	Savannah	Kobe	Steel and cotton	3,950	3,241	3,316
Nile.....	20	10	40	20	11	00	20	18	20	United States Shipping Board	410	54	26	New York	Kobe	Case oil	8,514	7,495	5,687
Aysen.....	16	14	48	21	6	10	21	13	41	South American Steamship Line	379	44	32	Cristobal	Valparaiso	General	392	4,535	3,063
Annie M.....	20	8	30	21	6	35	21	14	05	Rolph Navigation Co.	231	4	12	Sharpness	San Francisco	Ballast		1,432	1,228
Monzilon (b).....	20	14	45	21	6	39	21	14	43	Princes Line, Ltd.	423	0	25	New York	Kobe	General	8,600	6,460	4,735
Port Abner.....	21	7	30	21	8	05	21	13	17	Commonwealth and Dom. Line	450	55	26	New York	Sydney	General	7,000	8,283	6,232
Crown of Toledo.....	21	19	35	22	6	10	22	13	11	T. & J. Harrison	455	56	30	Glasgow	San Francisco	General mdsc, etc	3,650	7,699	5,443
Balboa.....	19	14	05	22	7	42	22	15	31	Colombian Maritime Co.	190	29	12	Cristobal	Turkey	General	3,217	741	350
Cathana (c).....	21	23	20	22	7	42	22	15	12	J. E. Chillberg	202	46	21	Galveston	Portland	Sulphur	3,100	2,411	1,712
Katherine (d).....	21	17	10	22	9	18	22	17	18	Philippine Vegetable Oil Co.	275	0	22	New York	Binalagan	Sugar mill mach.	2,350	2,557	1,795
Santa Ana.....	22	16	35	23	6	09	23	15	45	W. R. Grace & Co.	360	51	22	New York	Valparaiso	General	1,805	3,842	4,190
Alsace.....	22	16	52	23	6	20	23	16	45	A. D. Bordes	413	52	26	La Pallice	Arica	Coal	6,884	5,879	4,156
Laura C. Hall (e).....	20	16	45	23	6	26	23	15	40	Pacific Metals Corporation	81	25	9	Cristobal	Buena Ventura	Ballast		130	69
West Cheswald.....	23	14	05	23	7	45	23	17	47	United States Shipping Board	410	54	25	Port Arthur	Shanghai	Case oil	8,691	6,589	4,829
Barotse.....	23	2	45	23	11	15	23	18	35	Ellerman & Bucknall	360	40	25	New York	Melbourne	General	4,000	4,543	2,928
Saiota (f).....	18	13	50	21	6	27	24	14	14	Ellerman Wilson	155	30	20	Cristobal	Balboa	Ballast			
Aristo.....	23	16	30	21	6	27	24	14	14	United States Navy	380	49	22	New York	Freemantle	General	5,214	4,687	3,494
S. V. Harkness.....	23	15	35	21	6	32	24	13	56	Standard Oil Co.	419	57	26	Tampico	Pisagua	Crude oil	8,743	7,443	5,545
Orcho.....	23	13	20	24	6	46	24	15	20	United States Shipping Board	396	1	24	Norfolk	Bremerton	Govt. coal	6,325	5,659	4,034
Gen. O. H. Ernst.....	22	6	20	24	7	15	24	15	31	Panama Railroad Steamship Line	356	4	23	Norfolk	Tocepilla	Ballast		4,503	2,764
West Hargrave.....	21	14	35	24	9	31	24	18	12	United States Shipping Board	410	54	23	New York	Yokohama	General and steel	7,981	4,880	3,571
Inca.....	24	7	40	25	6	23	25	13	12	Pacific Steam Navigation Co.	360	43	20	New York	Guayaquil	General	5,537	3,952	2,751
Louise (g).....	5-20	19	00	25	7	24	25	13	37	E. Burr	105	14	0	Miami, Fla	San Diego	Ballast		58	44
Belleplaine.....	25	10	35	25	12	00	25	19	05	United States Shipping Board	395	55	27	Newport News	Arica	Coal	7,853	6,841	4,816
City of Para.....	26	6	40	26	6	04	26	13	49	Pacific Mail Steamship Co.	345	38	24	Habana	San Francisco	Ballast	2,526	3,739	2,459
Arbit (h).....	23	14	53	26	6	20	26	11	33	German Fleet	164	31	14	Cristobal	Balboa	Ballast		558	123
Cordeila.....	25	23	35	26	6	35	26	11	33	Union Oil Co.	420	56	27	Tampico	Talita	Oil	9,000	6,690	4,971
Coolcha.....	25	20	40	26	8	05	26	15	35	J. E. Chillberg	204	46	23	Galveston	Vancouver	Sulphur	3,100	2,474	1,769
Santa Paula.....	26	2	15	26	9	30	26	16	37	W. R. Grace & Co.	404	53	20	New York	Valparaiso	General, cement	4,683	6,744	4,825
San Joaquin.....	26	11	32	25	11	45	26	19	05	W. Wilhelmsen	425	57	26	Tampico	Tocepilla	Oil	9,300	7,059	5,081

(a) Supply ship. (b) Bark. (c) Motor ship. (d) Motor schooner. (e) Power schooner. (f) Yacht. (g) Yacht.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Origin	12.30	20	8.30	20	16.48	21	6.45	British	Leopold Wolford	377.0	52.2	21.0	Thio	Havre	General	5,700	4,839	3,632
Yonne	19	23.00	20	8.38	20	16.45	23	6.26	Pacific Metals Corporation	81.0	25.6	10.0	Buenaventura	Cristobal	Coffee	7,199	6,529	4,712
Laurea C. Hall	19	22.00	20	8.42	20	15.55	21	8.25	United States Shipping Board	400.7	54.2	25.0	Portland	Glasgow	Flour	4,689	4,976	3,273
Kaysecka	21	4.00	21	7.48	21	16.22	22	2.26	Pacific Steam Navigation Co.	390.0	47.2	24.0	Coronel	Liverpool	General	806	1,273	700
Corovado	21	5.00	21	9.56	21	16.16	28	7.30	Pacific Steam Navigation Co.	305.0	33.5	16.6	Buenaventura	Cristobal	Coffee, hides	3,511	3,266	2,170
Aesquita	21	14.30	22	8.33	22	14.32	22	18.35	United States Shipping Board	400.7	45.8	22.0	Seattle	New York	Flour	7,600	6,529	4,793
Eastern Maid	21	23.00	22	8.47	22	17.20	23	22.22	United States Shipping Board	216.0	35.1	14.3	Guayaquil	Cristobal	General	679	1,241	759
Winyah	22	7.00	22	9.18	22	17.55	28	6.13	Pacific Steam Navigation Co.	164.3	31.1	14.0	Talca	Cristobal	General	5,250	6,905	4,972
Manavi	22	16.30	23	6.48	23	18.40	28	6.20	German Government	374.8	46.3	21.6	Talca	Cristobal	Nitrates	4,069	5,684	3,975
Santa Inez	22	23.30	23	9.01	23	18.40	27	17.00	Hamburg S. A. Steamship Co.	360.0	51.0	24.0	Callao	New York	Copper, cotton	1,950	4,040	2,628
Ucayali	22	23.30	23	10.57	23	17.26	23	17.55	Peruvian Line	374.8	46.3	21.6	Callao	New York	General	7,082	5,376	3,883
Santa Luisa	23	4.30	23	12.17	23	19.27	26	8.00	W. R. Grace & Co.	350.3	43.1	18.8	Valparaiso	Cristobal	Nitrates	5,400	5,298	4,019
Kasuga (h)	23	18.00	24	6.47	24	16.05	26	9.05	Pacific Steam Navigation Co.	366.0	56.0	21.8	Yokosuka	Portland	Ballast			
Casade	23	13.00	24	6.45	24	16.28	25	9.05	Japanese Government	380.0	53.1	23.6	Toconilla	Portland	Nitrates			
San Francisco (d)	25	2.30	25	11.35	25	18.30	25	18.30	United States Shipping Board	362.0	51.2	23.6	San Francisco	Christiana	Coffee, general			
San Jose	25	5.30	25	6.43	26	15.00	26	15.00	Johnson Line	283.0	37.0	19.0	San Francisco	Cristobal	General	1,464		
									Pacific Mail Steamship Co.									

PORT OF CRISTOBAL.

		*ARRIVALS.			*DEPARTURES.				
Date.	Vessel.	Line.	From	Date.	Vessel.	Line.	For		
June 20.	Ulua	United Fruit Co.	Port Limon.	June 20.	Ulua	United Fruit Co.	New York via Habana.		
June 21.	Heredia	United Fruit Co.	New Orleans.	June 21.	Perou	Panama Railroad Cattle Industry.	Cartagena.		
June 21.	Puerto Rico	French Line.	Havre and waypoints.	June 21.	Paralay	French Line.	Puerto Colombia.		
June 21.	Lake Crescent	United States Shipping Board.	New Orleans.	June 22.	Arabia (d)	Liemens Brothers & Co.	Cartagena.		
June 22.	Caldas	Caribbean Steamship Co.	New York and Kingston.	June 22.	Lake Crescent	Panama Plantation Syndicate	Colon.		
June 22.	Tolosa	United Fruit Co.	New York via Habana.	June 23.	Caldas	United States Shipping Co.	Port Limon.		
June 22.	Stuyvesant	United Fruit Co.	Amsterdam.	June 23.	Larne	Caribbean Steam Packet Co.	N. Y., Colombia, Jamaica.		
June 22.	Ara Via (d)	Panama Plantation Syrciate.	New Orleans and waypoints.	June 23.	Metapan	Royal Mail Steam Packet Co.	Azores.		
June 23.	Colon	Spanish Steamship Line.	Halaina.	June 23.	Allanca	Panama Railroad Steamship Line	New Orleans.		
June 23.	Colon	Panama Railroad Steamship Line.	New York and Haiti.	June 23.	Tolosa	United Fruit Co.	Port Limon.		
June 24.	Advance	Panama Railroad Steamship Line.	New York via Kingston.	June 24.	Stuyvesant	Royal Dutch West India Mail Co.	Cartagena.		
June 24.	Advance	Panama Railroad Cattle Industry.	Cartagena.	June 24.	Carrillo	United Fruit Co.	N. Y., Colombia, Jamaica.		
June 24.	Buford (t)	United States Army	New York via Haiti.	June 24.	Heredia	United Fruit Co.	N. O. via Bocas, Halaina.		
June 26.			New York.	June 24.	Puerto Rico	French Line.	Puerto Colombia.		
				June 25.	Manuel Calvo	Spanish Line.	Ponce, P. R.		
				June 26.	Equatorial (j)	Carib Syndicate.	Cartagena, Colombia.		

PORT OF BALBOA.

		*ARRIVALS.			*DEPARTURES.		
Date.	Vessel.	Line.	From	Date.	Vessel.	Line.	For
June 26.	Tacoma (h)	United States Navy	La Union.	June 20.	Anyo Maru	Toyo Kisen Kaisha	Hongkong.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

*Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending June 26, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ulua.....	United Fruit Co.	June 20.....	June 20.....	32	
Caribbean.....	Panama Railroad Cattle Industry.	June 17.....	June 20.....		199
Heredia.....	United Fruit Co.	June 21.....	June 24.....	674	1
Acajutla.....	Pacific Steam Navigation Co.	June 21.....	June 21.....	1	
Puerto Rico.....	Company General Transatlantic.	June 21.....	June 24.....	36	1
Perou.....	Company General Transatlantic.	June 17.....	June 21.....		1 1/2
Aysen.....	South American Steamship Co.	June 16.....	June 21.....		24
Tolosa.....	United Fruit Co.	June 22.....	June 23.....	8 1/2	18
Gen. O. H. Ernst.....	Panama Railroad Steamship Line.	June 22.....	June 24.....	\$3,489	
Manavi.....	Pacific Steam Navigation Co.	June 22.....	June 22.....	276	
Stuyvesant.....	Royal Netherlands W. I. S. S. Co.	June 22.....	June 23.....	26 1/2	90
*Arabia.....	Panama Plantations Co.	June 22.....	June 22.....		20
Balboa.....	Colombian Maritime Co.	June 19.....	June 22.....		60
†Paraday.....	Cable Co., Colon	June 18.....	June 22.....		2 1/2
Colon.....	Panama Railroad Steamship Line.	June 23.....	June 23.....	2,400	
Metapan.....	United Fruit Co.	June 23.....	June 23.....	1	9
Carrillo.....	United Fruit Co.	June 23.....	June 24.....	38	47
Manuel Calvo.....	Compañia Transatlantica.	June 23.....	June 25.....	18	2 1/2
Hermes.....	Royal Netherlands W. I. S. S. Co.	June 23.....	June 27.....	50	
Caribbean.....	Panama Railroad Cattle Industry.	June 24.....	June 27.....	150	
Inca.....	Pacific Steam Navigation Co.	June 24.....	June 25.....	2	
Advance.....	Panama Railroad Steamship Line.	June 26.....	June 26.....	166	
Buford.....	United States Army	June 26.....	June 26.....	284	
San Jose.....	Pacific Mail Steamship Co.	June 26.....	June 26.....	15	
City of Para.....	Pacific Mail Steamship Co.	June 22.....	June 26.....		145

*Schooner.

†Cable ship.

‡Coal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending June 26, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Peru.....	Pacific Steam Navigation Co.	June 13.....	June 13.....	31	
Acajutla.....	Pacific Steam Navigation Co.	June 13.....	June 13.....	8	
Culgoa.....	United States Navy	June 13.....	June 15.....	165	
Lake Elkwater.....	United States Shipping Board	June 15.....	June 15.....	2,167	
Point Lobos.....	Pacific Mail Steamship Co.	June 16.....	June 16.....	180	
Canca.....	Pacific Steam Navigation Co.	June 17.....	June 17.....		10
Vacuum.....	Vacuum Oil Co.	June 17.....	June 19.....	10,000	
Balboa.....	Colombian Maritime Co.	June 18.....	June 18.....	3	
Anyo Maru.....	Toyo Kisen Kaisha	June 19.....	June 20.....		127
Acajutla.....	Pacific Steam Navigation Co.	June 21.....	June 22.....	32	
Chile.....	Pacific Steam Navigation Co.	June 23.....	June 23.....	23	
Balboa.....	Colombian Maritime Co.	June 22.....	June 22.....		82
Laura C. Hall.....	Pacific Metals Corporation	June 23.....	June 23.....		70
San Jose.....	Pacific Mail Steamship Co.	June 25.....	June 26.....	303	
San Francisco.....	Johnson Line	June 25.....	June 25.....	2	
City of Para.....	Pacific Mail Steamship Co.	June 26.....	June 26.....	3	279

Fourth of July Excursion Rate.

PANAMA RAILROAD COMPANY, BALBOA HEIGHTS, C. Z., June 23, 1920.

CIRCULAR NO. RA 692:

To all concerned—The Governor has approved an excursion rate of \$1 from any station on the Panama Railroad to Colon and return, for all Americans attending the patriotic exercises at Colon-Cristobal, on July 5, 1920.

Special ticket form MR 57192 will be sent to all station agents south of Gatun for sale on this occasion, good on all regular passenger trains July 5, only. All unsold tickets must be returned to the Auditor, July 6.

Enlisted men of the United States Army and Navy, in uniform, will be carried on all trains free, but civilian participants in any of the events, and Army and Navy men, not in uniform, will be required to have transportation.

ELWYN GREENE,
Acting Auditor.

Approved and compliance directed:

S. W. HEALD,
Superintendent.

Transportation for Fourth of July Celebration.

Circulars RA-692 and 1563, published in this issue, establish conditions of transportation on the Panama Railroad for the celebration of the Fourth of July to be held at Cristobal on July 5.

The schedule is the regular schedule for Sundays and holidays, on the main line, with the addition of the special trains leaving Panama at 8.30 a. m., July 5, and Colon at 12.15 a. m., July 6.

Special tickets, sold for \$1.00 to all Americans, will be good for transportation from any station to Colon and return on all trains on July 5, except the two special trains. On the special trains only American employees and their families, and soldiers and sailors in uniform, will be carried, and no tickets will be required from them on the specials.

All regular forms of tickets, passes, and mileage will be honored from the general public on all trains except the specials, under the usual conditions.

Features of the celebration are: Patriotic exercises, field, track, and aquatic events, daylight and night fireworks, dirigible ascension, submarine and air-craft exhibitions, band concert, and dancing.

Excursion to the Pearl Islands May Be Canceled.

The projected excursion to the Pearl Islands from Balboa on July 4, notice of which was published last week, will probably be canceled on account of the necessity of despatching the steamship *Favorite* which was to have been used on the trip, to the assistance of the steamship *Koyo Maru*, reported by wireless aground on Serrana Bank.

The *Favorite* should reach Serrana Bank in the forenoon of July 1, and if it should be possible to free the *Koyo Maru* in good condition in a short time, would be able to return to the Canal in time for the excursion. Her master states that he will advise by radio as to the prospects, not later than noon of July 1.

Over 200 applications had been made for passage, and officials in charge greatly regret the probability of giving up the excursion. It is hoped that the *Favorite* can be secured for the trip at a later date, if not available for July 4.

Commuting to and from Taboga.

Over 50 persons have made reservations for board and lodging at the Hotel Aspinwall on Taboga Island, under the commuting plan outlined in THE PANAMA CANAL RECORD of May 26. This arrangement includes a rate of \$54 a month for lodging and three meals a day for the wife of a Government employee, and a rate of \$50 a month for the employee, covering transportation to Taboga in the evening, dinner, lodging, breakfast and return transportation to Balboa in the morning. The launch leaves Balboa at 5 p. m. and Taboga at 6.30 a. m.

Postal Clerk Examinations.

Until further notice, no further examinations will be held in the United States for the position of postal clerk for duty on the Canal Zone, it being desired to fill such positions either by the transfer of experienced clerks from the United States postal service, or by examinations held on the Canal Zone. Instead of being a first grade examination, it has now been changed to a second grade examination, to conform to that held in the United States for the postal service.

The next examination is scheduled for July 10, 1920, at Balboa Heights.

Dry Season Rainfall Records.

In order to make comparison of the past dry season, which was abnormally long, with previous dry seasons and use all available records, the following table was compiled for the normal 4-month dry season. This table gives the total rainfall for the different sections and the entire Canal Zone and vicinity for the 4-month dry seasons since American occupation; also the normal 4-month dry season rainfall:

RAINFALL IN INCHES; FOUR-MONTH (JANUARY-APRIL) DRY SEASON.

Year.	Pacific section.	Central section.	Atlantic section.	Canal Zone.
1905.....	5.68	7.17	12.55	8.14
1906.....	5.97	7.99	10.94	8.22
1907.....	.40	1.44	7.93	2.80
1908.....	1.86	4.85	9.43	5.25
1909.....	8.64	12.93	23.07	15.64
1910.....	8.84	15.37	23.38	15.74
1911.....	7.63	6.65	11.10	8.01
1912.....	1.82	2.55	4.32	2.81
1913.....	2.88	5.61	13.28	6.84
1914.....	3.62	4.74	8.30	5.35
1915.....	7.58	12.80	23.42	14.15
1916.....	7.06	10.31	12.41	10.02
1917.....	2.37	3.78	6.19	4.03
1918.....	7.77	8.38	11.20	8.93
1919.....	1.30	2.86	4.93	2.99
1920.....	2.39	2.07	4.10	2.66
Normal dry season.....	4.25	7.31	12.70	7.89

Gatun Lake at New Minimum Level in Past Dry Season.

The past dry season, beginning about the middle of December, 1919, and ending on May 13, 1920, was the driest since the American occupation of the Canal Zone, which began on May 4, 1904. It was, however, slightly shorter than that of 1911-12, which began about December 1 and ended on May 7. The average precipitation recorded at the 12 stations on the Isthmus, Porto Bello, Colon, Gatun, Monte Lirio, Trinidad, Gamboa, Alhajuela, Vigia, Culebra, Empire, Pedro Miguel, and Balboa Heights, was 5.37 inches in the season of 1911-12 and 3.93 inches in the season 1919-20.

The scanty rainfall of the past season resulted in lowering the surface of Gatun Lake below any previous level since the opening of the Canal in 1914. The lowest point reached was elevation 81.76 feet above sea level. This occurred on May 28, after the rains had begun but before the run-off of the lake drainage basin had increased. On June 28 the surface of the lake had reached 82.76, a rise of a foot from the minimum level.

The storage depletion of the lake, represented in the drop of 5.24 feet from the 87-foot level at which the dry season began, amounted to 20.46 billion cubic feet. On March 3 the water consumption at the hydroelectric station was reduced, and about 50 per cent of the load was carried by the steam generating plant at Miraflores until June 3. If the hydroelectric station had continued using water throughout the dry season at the rate of consumption of the month of February, the elevation of the lake on May 28 would have been 80.55, or about 14½ inches lower than it actually was. A surface elevation of 79 feet has been considered as giving ample depth of water for navigation through the completed Canal.

The water supply of the Canal depends principally on rainfall in the Atlantic section and over the upper basin of the Chagres River, which is the principal tributary to Gatun Lake, ordinarily producing

60 per cent of the dry season total yield for the lake. The discharge from the Chagres, and in general the elevation of the lake, will be dependent on the rainfall occurring in this section.

The Chagres River discharge at Alhajuela was 56 per cent below the 19-year 4-month dry season average, or 565 c. f. s. against a mean of 1,275 c. f. s. The minimum momentary discharge, 231 c. f. s., occurred after the 4-month period, on the 11th of May. The maximum momentary discharge between January 1 and May 15 was 1,813 c. f. s. on January 7, 1920.

Had the proposed Alhajuela Lake of 15 billion cubic feet capacity been available for replenishing the Gatun Lake storage depletion, Gatun Lake would have been at elevation below, under conditions mentioned:

Under operation losses incident to 1919-1920 dry season Gatun Lake would have fallen to elevation 84.95 above sea level on May 28, 1920.

Had the hydroelectric station continued using water as in February, 1920, throughout the whole dry season, Gatun Lake would have been at elevation 83.85 on May 28.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights, (telephone 286):

Junior engineer and deck officer, U. S. Coast and Geodetic Survey (male and female); \$2,000 a year; July 14-15, 1920; form 1312; age, under 26 years.

Psychological investigator in employment tests (male and female); \$3,000 to \$3,800 a year; July 27, 1920; form 2118; age, 25 years and over.*

Accounting and statistical clerk (male and female); \$1,300 to \$2,100 a year; July 14, 1920, and August 18, 1920; form 1312; age, 21 years but not 50 years.

Associate agricultural economist (male and female); \$3,240 to \$3,840 a year; July 27, 1920; form 2118; age, 30 years and over.*

Examiner of accounts (male and female); grade 1, \$2,520 to \$3,900 a year, with an allowance for expenses when absent from headquarters in the discharge of official duties; grade 2, \$2,100 to \$2,400 a year and such allowances; No. 427-amended; form 2039; age, under 48 years.†

Preparator in entomology (male and female); \$720 a year; No. 365; July 7, 1920; form 304; age, 18 years and over.

Senior engineer, grade 2, civil, electrical, mechanical, signal, structural, telegraph, and telephone; \$1,920 to \$2,700 a year; No. 364; July 20, 1920; form 1312; age, 25 years but not 50 years.*

Shop apprentice (male and female); \$720 a year; No. 380; July 20, 1920; form 1312; age, 16 years but not 18 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings, or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Cheek No.	Native of—	Isthmian residence.	Employed by—	Date of death.
William John.....	27674	Guadeloupe....	Colon.....	R. & F. Agency.....	June 17, 1920.
Samuel Osorio.....	41532	Panama.....	Panama.....	Cattle Industry.....	June 17, 1920.
Norman (Harman) Sinclair.....	22764	Jamaica.....	Colon.....	Coaling Station.....	June 12, 1920.
Samuel Williams.....	38971	St. Lucia.....	Colon.....	Mun. Eng. Div.....	June 13, 1920.
Pablo Henriquez.....	40446	Panama.....	Panama.....	Cattle Industry.....	June 14, 1920.
Egbert Burrell.....	27269	Jamaica.....	Colon.....	R. & F. Agency.....	June 19, 1920.

Official Circulars.

Claims for Salvage.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 22, 1920.

To masters, officers and members of crews of Panama Canal and Panama Railroad vessels and floating equipment—It is desired that hereafter masters, officers, and members of crews of vessels and floating equipment of The Panama Canal and the Panama Railroad Company consult with the Governor before instituting libel suits or claims at law for salvage. If it is considered that they have legal claims, their rights will not be abrogated. However, it is desired to avoid embarrassment to the Canal and railroad administrations through crews bringing action in cases which are not justified, and therefore this circular is being issued.

CHESTER HARDING,
Governor, The Panama Canal.
President, Panama Railroad Co.

Prize Fighting and Boxing Prohibited.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 22, 1920.

CIRCULAR No. 606-3:

1. Prize fighting, boxing, and sparring are prohibited in the Canal Zone by Sections 288 and 289 of the Laws of the Canal Zone, which read as follows:

Sec. 288. A person who engages in, instigates, aids, encourages, or does any act to further a contention or a fight, without weapons, between two or more persons, or a fight commonly called a ring or prize fight, or who engages in a public or private sparring exhibition, with or without gloves, within the Canal Zone, who sends or publishes a challenge for such a contention, exhibition or fight, or carries or delivers such a challenge or acceptance, or trains or assists any person in training or preparing for such a contention, exhibition or fight, shall be guilty of a felony, and upon conviction shall be fined not less than one thousand dollars nor more than five thousand dollars and be imprisoned in the penitentiary not less than one year nor more than three years.

Sec. 289. Every person willyfully present as a spectator at any fight or contention mentioned in the preceding section, is guilty of a misdemeanor.

2. Also, the participation of employees of The Panama Canal and the Panama Railroad Company in prize fighting, boxing, or sparring matches in the Republic of Panama, as principals, promoters, managers, trainers, seconds, or backers is prohibited.

CHESTER HARDING,
Governor.

Acting Port Captain—Local Inspector and Chairman of Board.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS C. Z., June 28, 1920.

All concerned—Effective this date, Captain H. L. Eden will act as Captain of the Port, Cristobal, and Member of the Board of Local Inspectors, and Lieutenant-Commander Chas. Svensson, U. S. N. R. F., will act as Chairman of the Board of Local Inspectors.

CHESTER HARDING,
Governor.

Special Train Service for Celebration of Fourth of July.

PANAMA RAILROAD COMPANY,
OFFICE OF MASTER OF TRANSPORTATION,
BALBOA HEIGHTS, C. Z., June 28, 1920.

CIRCULAR No. 1563:

To all concerned—The Panama Railroad will operate the following trains in addition to the regular schedule, Monday, July 5.

Special train, first-class only, free transportation, for the exclusive use of American employees and their families, and soldiers and sailors in uniform, leaving Panama 8.30 a. m. on the following schedule, stopping at stations shown:

Balboa Heights.....	8.35 a. m.
Corozal.....	8.40 a. m.
Pedro Miguel.....	8.50 a. m.
Summit.....	9.05 a. m.
Gamboa.....	9.17 a. m.
Darien.....	9.25 a. m.
Monte Lirio.....	9.40 a. m.
Gatun.....	9.52 a. m.
Colon (arrive).....	10.05 a. m.
Train No. 12, leaving Panama.....	9.35 p. m.
Train No. 11, leaving Colon.....	9.35 p. m.

TUESDAY, JULY 6.

Special train, first-class only, free transportation, for the exclusive use of American employees and their families, and soldiers and sailors in uniform, leaving Colon 12.15 a. m., stopping at all stations, except Frijoles, Red Tank, and Miraflores.

Transportation will be collected on all trains, except the 8.30 a. m. special from Panama July 5, and the 12.15 a. m. special from Colon July 6, which specials are for the exclusive use of American employees and their families, and soldiers and sailors in uniform, from whom no transportation will be collected.

W. J. BISSELL,
Acting Master of Transportation.

Approved:

S. W. HEALD,
Superintendent.

Motor Transportation.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., June 9, 1920.

To all concerned—Effective June 1, 1920, the following motor transportation rates will be charged against departments and divisions of The Panama Canal. This supersedes previous circulars:

	Per hour.
Jitneys.....	\$1.00
Ford $\frac{1}{2}$ -ton delivery trucks.....	.75
Ford and form A 1-ton trucks.....	.80
Ford 1-ton garbage trucks.....	1.00
One and one-half ton trucks.....	2.20
Two and one-half ton trucks.....	2.40
Three and one-half ton trucks.....	3.00

A deduction of 33 cents per hour may be made for each Ford truck used without a chauffeur, and \$1.01 per hour for other trucks.

R. K. MORRIS,
Chief Quartermaster.
Approved:
CHESTER HARDING,
Governor.

Sale of Empty Sand Bags.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., July 6, 1920, and then opened, for the purchase of approximately 500 empty silica sand bags, made of strong, finely woven burlap, on hand at Balboa storehouse. Form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

Sale of Second-Hand Lumber.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z. up to 10.30 a. m., July 3, 1920, and then opened, for the purchase of about 17,000 feet of old lumber located on the sites of former Panama Railroad Company stables A, B, C, and D, in Colon. Detailed information and form of proposal may be had upon application to the office of the Chief Quartermaster. The Panama Canal reserves the right to reject any or all bids.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII.

Balboa Heights, C. Z., July 7, 1920.

No. 47.

CANAL WORK IN MAY.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of May, 1920:

BALBOA HEIGHTS, C. Z., June 29, 1920.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of May, 1920:

CANAL TRAFFIC.

The number of ocean-going commercial vessels passing through the Canal during the month was 224, not including 6 United States Navy vessels, 1 United States Army transport, and 1 merchant ship with coal for the United States Navy. A detailed classification of the month's traffic is included with this report.

The Panama Canal net tonnage of the 224 commercial vessels aggregated 852,425 tons; 29,954 greater than for the preceding month. Their registered gross tonnage was 1,081,462, and registered net tonnage, 694,941. The total cargo carried was 974,919 tons of 2,240 pounds, 107,398 tons greater than for April. Of the total for this month, 2,258 tons were carried as deck cargo. The total number of vessels and craft of all kinds through the Canal was 237, as compared with 240 last month. The total tolls earned for the month were \$834,487.54; the average toll-paying vessels per day were 7.35; and the average tolls per vessel, \$3,660.03. Tolls collected amounted to \$828,476.21.

The average tonnage, Panama Canal measurement, was 3,805; United States net equivalent, 3,100; registered gross, 4,828; and registered net, 3,102. The average cargo carried by the laden ships was 4,899 tons.

The United States coastwise trade for the month included 16 vessels with a total Panama Canal net tonnage of 68,377, carrying 89,037 tons of cargo. There were 7 vessels from the Atlantic to the Pacific Coast with a total tonnage of 28,090, and cargo of 28,205 tons; and from the Pacific to the Atlantic Coast, 9 vessels with a total tonnage of 40,287, and cargo of 60,832 tons.

PRINCIPAL COMMODITIES.

Bulk shipments of whole cargoes of the different principal commodities included in the May traffic were:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Coal.....	3	10,309		Norfolk.....	Iquique.
Coal.....	2	11,119		Norfolk.....	Antofagasta.
Coal.....	1	9,114		Norfolk.....	Mejillones.
Coal.....	1	6,845		Norfolk.....	Callao.
Coal.....	1	3,469		Newport News.....	Iquique.
Coal.....	1	2,695		Newport News.....	Mollendo.
Coal.....	1	2,732	46,283	Baltimore.....	Guayaquil.
Fuel oil.....	2	19,928		Tampico.....	Balboa.
Fuel oil.....	2	16,300		Tampico.....	Pisagua.
Fuel oil.....	1	10,410		Tampico.....	Taltal.
Fuel oil.....	1	10,300		Tampico.....	San Francisco.
Fuel oil.....	1	9,280		Tampico.....	Antofagasta.
Fuel oil.....	1	8,497		Puerto Lobos.....	Pisagua.
Fuel oil.....	1	2,600	77,345	Tuxpan.....	Arica.
Case oil.....	1	10,604		Beaumont.....	Hongkong.
Case oil.....	1	10,100		Sabine.....	Shanghai.
Case oil.....	1	6,590		Philadelphia.....	Salina Cruz.
Case oil.....	1	6,200		Norfolk.....	Brisbane.
Case oil.....	1	6,000	39,404	New York.....	Chemulpo.
Sulphur.....	1	5,800		Texas City.....	Sydney.
Sulphur.....	1	5,650		Sabine.....	Fremantle.
Sulphur.....	1	5,500	16,950	Sabine.....	Melbourne.
Briquettes.....	2		5,198	Norfolk.....	Mollendo.
Naphtha.....	1		9,490	Tampico.....	San Francisco.
Phosphate.....	1		6,761	Tampa.....	Kobe.
Ship's timbers.....	1		3,365	Pensacola.....	Callao.
Coke.....	1		1,861	Philadelphia.....	Valparaiso.

FROM PACIFIC TO ATLANTIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	3	21,100		Taltal.....	Wilmington, N. C.
Nitrate.....	2	17,730		Iquique.....	Wilmington, N. C.
Nitrate.....	1	8,083		Pisagua.....	Wilmington, N. C.
Nitrate.....	1	6,720		Tocopilla.....	Wilmington, N. C.
Nitrate.....	1	3,500		Antofagasta.....	Wilmington, N. C.
Nitrate.....	1	2,638		Mejillones.....	Wilmington, N. C.
Nitrate.....	1	12,037		Caleta Buena.....	Charleston, S. C.
Nitrate.....	1	11,033		Tocopilla.....	Charleston, S. C.
Nitrate.....	1	11,000		Caleta Colosa.....	Charleston, S. C.
Nitrate.....	1	10,100		Antofagasta.....	Charleston, S. C.
Nitrate.....	1	9,000		Iquique.....	Charleston, S. C.
Nitrate.....	1	12,860		Mejillones.....	New Orleans.
Nitrate.....	1	8,041		Taltal.....	New Orleans.
Nitrate.....	1	3,750		Salaverry.....	New Orleans.
Nitrate.....	1	3,710		Talcahuano.....	New Orleans.
Nitrate.....	2	17,800		Iquique.....	Savannah, Ga.
Nitrate.....	1	9,150		Tocopilla.....	Savannah, Ga.
Nitrate.....	1	8,850		Antofagasta.....	Norfolk.
Nitrate.....	1	8,600		Iquique.....	Norfolk.
Nitrate.....	1	6,400		Taltal.....	Norfolk.
Nitrate.....	1	3,861		Iquique.....	Philadelphia.
Nitrate.....	1	3,100		Caleta Colosa.....	New York.
Nitrate.....	1	3,014		Junin.....	Baltimore.
Nitrate.....	2	5,410		Mejillones.....	Matanzas, Cuba.
Nitrate.....	1	3,000		Iquique.....	Matanzas, Cuba.
Nitrate.....	1	7,600		Mejillones.....	Alexandria, Egypt.
Nitrate.....	1	7,409		Antofagasta.....	Alexandria, Egypt.
Nitrate.....	1	7,200		Caleta Buena.....	Alexandria, Egypt.
Nitrate.....	1	7,072		Iquique.....	Liverpool, England.
Nitrate.....	1	7,000		Mejillones.....	Liverpool, England.
Nitrate.....	1	9,856	256,624	Caleta Colosa.....	Amsterdam, Netherlands.
Flour.....	3	16,469		Tacoma.....	New York.
Flour.....	2	15,535		San Francisco.....	New York.
Flour.....	2	13,444		Portland.....	New York.
Flour.....	1	7,818		Seattle.....	New York.
Flour.....	1	7,566		Astoria.....	New York.
Flour.....	1	7,582	68,414	Tacoma.....	Alexandria, Egypt.
Food products:					
Cold storage.....	1	7,433		Wellington.....	London.
Cold storage.....	1	6,000		Auckland.....	London.
Cold storage.....	1	5,555		Sydney.....	London.
Rice.....	1	7,139		Saigon.....	Cuba.
Rice.....	1	2,421	28,548	San Francisco.....	Habana, Cuba.
Copra.....	1		5,800	Sydney.....	London.
Lumber.....	1	3,158		Portland.....	Nuevitas, Cuba.
Lumber.....	1	1,660	4,818	Seattle.....	Nuevitas, Cuba.
Manganese ore.....	1		3,025	Coquimbo.....	Baltimore.
Barley.....	1		2,500	Valparaiso.....	Ipswich.

LATIN-AMERICAN TRAFFIC.

Commercial vessels through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	29	124,354	83,409	96,824	<i>Tons.</i> 103,118
British.....	22	65,493	39,300	50,586	42,523
Dutch.....	3	19,693	12,592	17,716	700
Peruvian.....	3	12,682	7,014	8,312	1,708
Italian.....	2	13,793	8,103	9,204	100
Norwegian.....	2	9,117	5,740	6,782	12,375
Chilean.....	2	7,612	4,560	6,043	639
Total.....	63	252,744	160,718	195,469	161,163

Of the 63 vessels above, 11 were in ballast; 7 from United States ports, 2 from Cristobal, 1 from Germany, and 1 from Cuba. Of the 52 laden vessels, 21 were from United States ports, 10 with 46,283 tons of coal, and 11 with 50,779 tons of mixed cargo; 17 from Cristobal with 7,808 tons of general cargo; 8 from Mexican ports with 67,045 tons of fuel oil; and 6 from European ports with 9,248 tons of general cargo. Four of the laden vessels aggregating 8,565 tons, Panama Canal net measurement, with 6,500 tons of case oil and 1,500 tons of general cargo, were routed to Central American ports; the remaining 59 vessels were bound to South American west coast ports.

The Latin-American traffic from the west coast of Central and South America for May is classified in the following tabulation:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	36	186,242	124,000	145,697	<i>Tons.</i> 208,035
British.....	27	105,962	65,577	81,890	87,323
Norwegian.....	4	18,084	10,853	13,824	17,549
Peruvian.....	3	12,468	6,677	7,845	4,953
Chilean.....	3	10,341	6,193	8,518	3,037
Dutch.....	2	11,269	7,144	10,975	16,856
Italian.....	2	10,343	6,308	7,832	5,829
Total.....	77	354,709	226,752	276,631	343,582

Seven of the above vessels, all oil tankers, were in ballast. Seventy-four per cent of the total cargo consisted of nitrate. Four vessels with a total Panama Canal net tonnage of 4,805, carrying 6,275 tons of cargo, were from Central American ports, the remainder were from South American west coast ports.

The registry of the vessels engaged in this northbound traffic for May, the kind and quantity of the cargo handled, and its destination are shown in the following statement:

No. vessels	Registry.	Tons cargo.	Commodity.	Total commodity	Destined to—
23	United States.....	175,675	Nitrate.....	.....	United States ports.
2	Norwegian.....	11,902	Nitrate.....	.....	United States ports.
1	British.....	7,500	Nitrate.....	.....	United States ports.
1	Dutch.....	7,000	Nitrate.....	202,077	United States ports.
6	United States.....	23,950	General.....	.....	United States ports.
1	British.....	3,472	General.....	27,422	United States ports.
13	British.....	11,196	General.....	.....	Cristobal.
3	Chilean.....	3,037	General.....	.....	Cristobal.
2	Peruvian.....	3,615	General.....	17,848	Cristobal.
4	British.....	.....	General.....	26,374	United Kingdom.
2	British.....	.....	Nitrate.....	14,072	United Kingdom.
1	British.....	.....	Barley.....	2,500	United Kingdom.
1	Peruvian.....	.....	General.....	1,338	United Kingdom.
2	Italian.....	.....	General.....	5,829	Genoa, Italy.
1	Norwegian.....	.....	General.....	6,647	Norway.
1	Dutch.....	.....	Nitrate.....	9,856	Netherlands.
3	British.....	.....	Nitrate.....	22,209	Alexandria, Egypt.
2	United States.....	.....	Nitrate.....	5,410	Cuba.
1	United States.....	.....	Nitrate and general.....	3,000.	Cuba.
4	United States.....	.....	Ballast.....	.....	Mexico.
2	British.....	.....	Ballast.....	.....	Mexico.
1	Norwegian.....	.....	Ballast.....	.....	Mexico.
77	.....	.....	.....	343,582	.....

Sixty-four of the vessels passing through the Canal this month were under direct control of the United States Shipping Board, combining a total Panama Canal net tonnage of 250,509 and carrying 332,471 tons of cargo. Twenty-six were southbound with 109,731 tons of cargo; 38 were northbound with 222,740 tons of cargo.

PRINCIPAL TRADE ROUTES.

Separate statements attached show the ports of origin and destination for all cargo through the Canal this month (see pages 684, 685, 686, and 694). The tabulation below gives the distribution according to the principal trade routes.

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America.....	27	87,855	70,562	7	30,131
Cristobal to west coast of South America.....	17	27,824	6,698	2	5,436
United States to Far East.....	15	81,188	117,149	.....	.....
United States to Australia and New Zealand.....	9	40,678	54,222	.....	.....
Mexico to west coast of South America.....	8	40,339	67,045	.....	.....
United States coastwise.....	7	28,000	28,205	.....	.....
Europe to west coast of South America.....	6	28,910	8,858	.....	6,653
Europe to Australia and New Zealand.....	3	14,491	17,230	1	105
Mexico to west coast of United States.....	2	11,881	19,700	.....	.....
Europe to west coast of United States.....	2	6,274	5,044	1	2,185
Cristobal to west coast of United States.....	2	3,756	3,589	.....	.....

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific—Continued.</i>					
Cristobal to west coast of Central America.....	2	1,398	1,110		
United States to Central America.....	1	4,209	6,500		
Mexico to Far East.....	1	4,116	6,761		
United States to British Columbia.....	1	3,047	5,615		
Europe to Central America.....	1	2,958	390		
Cuba to west coast of South America.....	1	1,976		1	1,976
Total.....	105	388,990	418,678	13	46,486
<i>Pacific to Atlantic.</i>					
West coast of South America to United States.....	34	138,261	229,499		
West coast of South America to Cristobal.....	15	23,989	15,049		
West coast of South America to Europe.....	11	52,451	62,140		
United States coastwise.....	9	40,287	60,832		
Australia and New Zealand to Europe.....	7	45,171	39,410		
West coast of South America to Mexico.....	7	38,468		7	38,468
Far East to east coast of United States.....	5	21,449	31,658		
Australia and New Zealand to United States.....	4	18,673	23,562		
West coast of United States to Cuba.....	4	11,456	15,050		
West coast of South America to Egypt.....	3	13,911	22,209		
West coast of United States to Europe.....	3	11,738	19,295	1	406
West coast of South America to Cuba.....	3	4,746	8,410		
West coast of Central America to Cristobal.....	3	2,143	2,799		
West coast of United States to Mexico.....	2	10,653		2	10,653
West coast of United States to Cristobal.....	2	3,756	3,206		
West coast of United States to east coast of United States (not coastwise).....	1	5,272		1	5,272
West coast of United States to Egypt.....	1	5,051	7,582		
Far East to Cuba.....	1	4,798	7,139		
British Columbia to Mexico.....	1	4,391		1	4,391
West coast of Central America to United Kingdom.....	1	2,662	3,476		
West coast of United States to north Colombian ports.....	1	2,459	2,695		
West coast of United States to Porto Rico.....	1	1,650	2,230		
Total.....	119	463,435	556,241	12	59,190

SERVICES TO CANAL SHIPPING.

Miscellaneous repairs were made on 103 vessels at Balboa and Cristobal shops during the month; 56 at Cristobal and 47 at Balboa; 19 vessels were dry-docked, 12 at Cristobal and 7 at Balboa. Bunker coal aggregating 37,131 tons was supplied to 115 commercial vessels; 33,784 tons to 98 vessels at Cristobal, and 3,347 tons to 17 vessels at Balboa. Sixty-nine commercial vessels were furnished a total of 154,735 barrels of fuel oil; 49 with 102,553 barrels at Cristobal, and 20 with 52,182 barrels at Balboa. There were 303 vessels supplied with 13,149,742 gallons of water; 188 with 9,845,242 gallons at Cristobal, and 115 with 3,304,500 gallons at Balboa. Sales of commissary supplies to commercial ships other than those of the Panama Railroad Steamship Line totaled \$109,836.89, including \$5,406.58 for laundry service; these sales having been made to 160 vessels at Cristobal in the amount of \$76,128.45, and to 83 vessels at Balboa in the amount of \$33,708.44. Charges for tug service to vessels using the Canal and the terminal ports totaled \$24,419.50, of which \$13,649 was collected at Cristobal, and \$10,770.50 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Canal terminals are included in the following tabulation:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	105	119	224
Net tonnage of commercialships, Panama Canal measurement.....	388,990	463,435	852,425
United States equivalent net tonnage of commercial ships.....	314,728	379,867	694,595
Registered gross tonnage of commercial ships.....	490,765	590,697	1,081,462
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	418,678	556,241	974,919
Deck load cargo, included in above,..... tons.....	1,303	955	2,258
Nationality of commercial ships through the Canal:			
British.....	36	39	75
Chilean.....	2	3	5
Dutch.....	3	2	5
Italian.....	2	2	4
Japanese.....	4	2	6
Norwegian.....	2	5	7
Peruvian.....	3	3	6
Swedish.....	1	1	2
United States.....	52	62	114
Total.....	105	119	224

Item.	Cristobal.	Balboa.	Total.
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	120,508	146,831	267,339
Chilean.....	6,043	8,518	14,561
Dutch.....	17,716	10,975	28,691
Italian.....	9,204	7,882	17,086
Japanese.....	16,434	10,326	26,760
Norwegian.....	6,782	19,451	26,233
Peruvian.....	8,312	7,845	16,157
Swedish.....	4,089	5,051	9,140
United States.....	199,902	246,556	446,458
Total.....	388,990	463,435	852,425
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	93,747	119,109	212,856
Chilean.....	3,675	5,237	8,912
Dutch.....	13,707	7,010	20,717
Italian.....	7,049	5,985	13,034
Japanese.....	14,712	8,642	23,354
Norwegian.....	5,771	16,645	22,416
Peruvian.....	5,703	4,655	10,358
Swedish.....	2,248	4,618	6,866
United States.....	168,116	207,966	376,082
Total.....	314,728	379,867	694,595
Registered gross tonnage of commercial ships through the Canal:			
British.....	150,240	187,265	337,505
Chilean.....	7,612	10,341	17,953
Dutch.....	19,693	11,260	30,962
Italian.....	13,793	10,343	24,136
Japanese.....	21,419	13,709	35,128
Norwegian.....	9,117	25,177	34,294
Peruvian.....	12,682	12,463	25,150
Swedish.....	3,767	5,765	9,532
United States.....	252,442	314,360	566,802
Total.....	490,765	590,697	1,081,462
Registered net tonnage of commercial ships through the Canal:			
British.....	93,665	117,134	210,799
Chilean.....	4,560	6,193	10,753
Dutch.....	12,592	7,144	19,736
Italian.....	8,103	6,308	14,411
Japanese.....	14,492	8,547	23,039
Norwegian.....	5,740	15,332	21,072
Peruvian.....	7,014	6,677	13,691
Swedish.....	2,865	3,544	6,409
United States.....	166,253	208,778	375,031
Total.....	315,284	379,657	694,941
Cargo carried by ships according to nationality:			
British.....	134,632	145,674	280,306
Chilean.....	639	3,037	3,676
Dutch.....	700	16,856	17,556
Italian.....	100	5,829	5,929
Japanese.....	22,861	17,772	40,633
Norwegian.....	12,375	26,649	39,024
Peruvian.....	1,708	4,953	6,661
Swedish.....	5,044	7,582	12,626
United States.....	240,619	327,889	568,508
Total.....	418,678	556,241	974,919
Tolls levied against commercial ships, by nationality:			
British.....	\$116,974.85	\$143,184.57	\$260,159.42
Chilean.....	4,593.75	6,546.25	11,140.00
Dutch.....	15,026.98	8,762.50	23,789.48
Italian.....	8,811.25	7,481.25	16,292.50
Japanese.....	18,075.90	10,802.50	28,878.40
Norwegian.....	7,213.75	18,923.40	26,137.15
Peruvian.....	7,128.75	5,818.75	12,947.50
Swedish.....	2,810.00	5,772.50	8,582.50
United States.....	201,632.36	244,869.33	446,501.69
Total.....	\$382,267.59	\$452,161.05	\$834,428.64
Vessels passing through the Canal free of tolls:			
U. S. Navy colliers.....	3		3
U. S. Navy destroyer.....		1	1
U. S. Navy subchaser.....		1	1
U. S. Navy eagle boat.....		1	1
U. S. Army transport.....		1	1
Merchant ships with coal for U. S. Navy.....	1		1
Total.....	4	4	8
Yachts, ocean-going, through the Canal.....			
Net tonnage of above, Panama Canal measurement.....		2	2
		472	472
Total ocean-going ships passing through the Canal.....			
Launched through Canal.....	109	123	232
Net tonnage of above, Panama Canal measurement.....	3		3
Total vessels and craft passing through the Canal.....	112	125	237

Item.	Cristobal.	Balboa.	Total.
Cargo on which no tolls were charged..... tons.	30,562		30,562
Commercial ships through Canal in ballast.....	13	12	25
Net tonnage of above, Panama Canal measurement.....	46,486	59,190	105,676
Motor ships through the Canal.....	3	4	7
Net tonnage of above, Panama Canal measurement.....	4,427	10,054	14,481
Sailing ships through the Canal.....	1	1	2
Net tonnage of above, Panama Canal measurement.....	2,185	1,699	3,884
Tolls levied on laden ships through the Canal.....	\$348,617.20	\$409,544.25	\$758,161.45
Tolls levied on ships in ballast.....	33,650.39	42,665.55	76,315.94
Tolls levied on displacement tonnage.....			
Tolls levied on launches.....	10.15		10.15
Total tolls levied.....	\$382,277.74	\$452,209.80	\$834,487.54
Total ships entering port, including Canal transit.....	269	250	519
Total ships clearing port, including Canal transit.....	273	252	525
Total ships handled.....	542	502	1,044
Net registered tonnage of vessels entering port.....	869,860	762,762	1,632,622
Net registered tonnage of vessels clearing port.....	886,761	752,065	1,639,426
Total for vessels entering and clearing.....	1,756,621	1,515,427	3,272,048
Registered gross tonnage of vessels entering port.....	1,369,438	1,187,899	2,557,337
Registered gross tonnage of vessels clearing port.....	1,390,893	1,173,795	2,564,688
Total for vessels entering and clearing.....	2,760,331	2,361,694	5,122,025
Vessels entering port but not passing through the Canal.....	55	9	64
Net tonnage of above.....	186,846	16,285	203,131
Gross tonnage of above.....	307,498	25,482	332,980
Vessels clearing port but not passing through the Canal.....	54	11	65
Net tonnage of above.....	174,520	15,432	189,952
Gross tonnage of above.....	287,585	24,793	312,378
Vessels passing through Canal, and handling passengers or cargo at port, entering.....	35	50	85
Net tonnage of above.....	79,031	103,826	182,877
Gross tonnage of above.....	132,472	169,713	302,185
Vessels passing through Canal, and handling passengers or cargo at port, clearing.....	42	49	91
Net tonnage of above.....	107,174	101,263	208,437
Gross tonnage of above.....	178,411	166,862	345,273
Transit cargo arriving..... tons.	981,081	999,837	1,980,918
Transit cargo cleared..... tons.	1,012,730	1,003,679	2,016,409
Total transit cargo..... tons.	1,993,811	2,003,516	3,997,327
Local cargo arriving..... tons.	73,627	42,441	116,068
Local cargo shipped..... tons.	4,439	7,611	12,050
Total local cargo handled..... tons.	78,066	50,052	128,118
Cargo received for transshipment..... tons.	33,202	491	33,693
Cargo transhipped..... tons.	35,331	1,007	36,338
Total cargo arriving..... tons.	1,047,798	1,042,769	2,090,567
Total cargo cleared..... tons.	1,052,500	1,012,297	2,064,797
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	52,690	7,021	59,711
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	37,448	6,676	44,124
Cargo rehandled by Receiving and Forwarding Agency of P. R. R..... tons.	4,181	3,198	7,379
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	94,319	16,895	111,214
Cargo stevedored, included in above..... tons.	39,183	726	39,909
Commercial vessels, other than P. R. R. supplied with bunker coal.....	91	17	108
Coal supplied above vessels..... tons.	32,414	3,347	35,761
Panama Railroad vessels supplied with bunker coal.....	7		7
Coal supplied above vessels..... tons.	1,370		1,370
U. S. Army vessels supplied with coal.....	5	1	6
Coal supplied above vessels..... tons.	5,504	401	5,905
Total vessels supplied with coal from Panama Railroad deposits.....	103	18	121
Total coal furnished above vessels..... tons.	39,283	3,748	43,036
Coal supplied Panama Railroad departments..... tons.	546		546
Coal supplied Army, excepting vessels..... tons.	214		214
Coal supplied The Panama Canal..... tons.	1,448	873	2,321
Coal supplied individuals and companies..... tons.	411		411
Total coal furnished from Panama Railroad deposits..... tons.	41,907	4,621	46,528
Coal received during May..... tons.	31,362	1,582	32,944
Coal on hand, June 1, 1920..... tons.	*62,714		*62,714
Coal on hand, May 1, 1920..... tons.	74,841	3,039	77,880
Coal, U. S. Navy Account.....			
Coal furnished U. S. Navy, including vessels..... tons.	527	2,570	3,097
Coal received during May..... tons.	8,994		8,994
Coal on hand, June 1, 1920..... tons.	73,893	29,083	102,976
Coal on hand May 1, 1920..... tons.	63,426	31,653	97,079
Commercial vessels, other than P. R. R., supplied with fuel oil from Panama Canal tanks.....	45	20	65
Fuel oil sold to above vessels..... barrels.	89,922	52,182	142,104
Fuel oil sold to Panama Railroad vessels..... barrels.	12,631		12,631
Fuel oil issued to U. S. Navy..... barrels.	306		306
Fuel oil issued to U. S. Army..... barrels.	467	54	521
Fuel oil issued to Canal departments..... barrels.	5,103	35,570	40,673
Fuel oil sold to individuals and companies..... barrels.	773	7,133	7,906
Total fuel oil furnished from Panama Canal tanks..... barrels.	109,202	94,939	204,141

*1,582 tons transferred from Cristobal to Balboa.

Item.	Cristobal.	Balboa.	Total.
Fuel oil received during the month.....	barrels 121,886	149,773	271,659
Fuel oil on hand June 1, 1920.....	barrels 80,771	68,108	148,879
Fuel oil on hand May 1, 1920.....	barrels 68,087	*13,274	81,361
Fuel oil pumped for individuals and companies.....	barrels 163,013	101,837	267,850
Diesel oil issued during the month.....	barrels	27	27
Diesel oil on hand June 1, 1920.....	barrels	11,154	11,154
Vessels supplied with water.....	188	115	303
Water sold to ships.....	gallons 9,845,242	3,304,509	13,149,742
Vessels on which miscellaneous repairs were made.....	56	47	103
Vessels dry-docked.....	12	8	20
Commercial vessels furnished commissary supplies.....	160	83	243
P. R. R. vessels furnished commissary supplies.....	11		11
Other U. S. Government vessels furnished commissary supplies.....	15	13	28
Total vessels furnished commissary supplies.....	186	96	282
Commissary sales to commercial vessels:			
Ice.....	\$2,241.95	\$714.60	\$2,956.55
Wholesale groceries.....	15,804.37	5,456.76	21,261.13
Wholesale cold storage.....	48,996.38	25,826.17	74,822.55
Laundry.....	5,406.58		5,406.58
Miscellaneous.....	3,679.17	1,710.91	5,390.08
Total.....	\$76,128.45	\$33,708.44	\$109,836.89
Commissary sales to Panama Railroad vessels:			
Ice.....	\$113.60		\$113.60
Wholesale groceries.....	2,207.10		2,207.10
Wholesale cold storage.....	7,321.06		7,321.06
Laundry.....	1,227.90		1,227.90
Miscellaneous.....	523.09		523.09
Total.....	\$11,392.75		\$11,392.75
Commissary sales to other Government vessels:			
Ice.....	\$321.08	\$103.63	\$426.71
Wholesale groceries.....	2,550.40	13,117.25	15,667.65
Wholesale cold storage.....	10,892.69	9,490.73	20,383.42
Laundry.....	1,333.00	14.61	1,347.61
Miscellaneous.....	2,597.73	3,893.94	6,491.67
Total.....	\$17,694.90	\$26,622.16	\$44,317.06
Total commissary sales to all vessels.....	105,216.10	60,330.60	165,546.70
Passengers arriving, including transit passengers:			
First cabin.....	3,153	2,744	5,897
Other than first cabin.....	6,976	5,624	12,600
Total.....	10,129	8,368	18,497
Passengers departing, including transit passengers:			
First cabin.....	2,990	2,418	5,408
Other than first cabin.....	3,684	5,503	9,187
Total.....	6,674	7,921	14,595
Total movement of passengers.....	16,803	16,289	33,092
Passengers disembarking:			
First cabin.....	1,586	463	2,049
Other than first cabin.....	786	171	957
Total.....	2,372	634	3,006
Passengers embarking:			
First cabin.....	1,675	137	1,812
Other than first cabin.....	1,478	50	1,528
Total.....	3,153	187	3,340
Services to American seamen:			
Seamen shipped.....	312	84	396
Seamen paid off.....	295	129	424
Seamen deserted.....	11	1	12
Seamen deceased.....			
Seamen lodged, and subsisted.....	37	14	51
Seamen repatriated.....	36	3	39
Wages of American seamen:			
Total amount earned.....	\$19,578.80	\$11,688.22	\$31,267.02
Deductions approved by Deputy Shipping Commissioners.....	6,108.30	3,255.05	9,363.35
Balance due seamen.....	13,470.50	8,433.17	21,903.67
Paid to seamen.....	4,596.70	6,932.87	11,529.57
Received on deposit for seamen.....	8,873.80	12,075.30	20,949.10
Services to American vessels:			
Crews shipped.....	2		2
Crews paid off.....	2		2
Shipping articles written.....	2		2
Marine notes of protest noted.....	17	9	26
Bills of health issued.....	145	125	270
Clearances issued.....	157	121	278

* A revised statement of the General Storekeeper corrects the balance of fuel oil on hand at Balboa, May 1, 1920, from 13,214 barrels to 13,274 barrels.

† A revised statement of the General Storekeeper corrects the balance of Diesel oil on hand at Balboa, May 1, 1920 from 1,211 to 1,181 barrels.

‡ Includes \$575 repatriation deposits and money left for safe-keeping.

LOCK OPERATION.

Lockages of commercial vessels for May were as follows:

	Number of lockages.			Number of vessels.		
	North	South	Total	North	South	Total
Gatun.....	115	95	210	124	110	234
Pedro Miguel.....	117	102	219	120	105	225
Miraflores.....	115	101	216	120	105	225

Total lockages, including Army and Navy vessels, those of the Panama Railroad and The Panama Canal, are combined in the following statement for the month:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial.....	210	219	216
Noncommercial, Army and Navy.....	11	10	11
Noncommercial, Canal equipment.....	3	21	18
Total.....	224	250	245
	Vessels.		
Commercial.....	234	225	225
Noncommercial, Army and Navy.....	18	21	25
Noncommercial, Canal equipment.....	10	48	47
Total.....	262	294	297

The total consumption of water for lockages for May was 1,485,140,000 cubic feet. The consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	788,940,000	696,200,000	740,710,000
Leakage.....	20,000,000	18,300,000	15,000,000
Maintenance.....		61,980,000	4,920,000
Total.....	808,940,000	776,480,000	760,630,000

METEOROLOGY.

Rainfall for the month was below normal, 14 stations showing the lowest May rainfall on record. Rainy season conditions began about the 15th of the month. The estimated May rainfall over the Gatun Lake watershed was 6.18 inches, compared with a 10-year mean of 11.90 inches; and 5.92 inches over the Chagres River basin above Alhajuela, compared with a 19-year mean of 12.49 inches. The Chagres River discharge at Alhajuela was 79 per cent below the 19-year May average, or 491 c. f. s., against a mean of 2,292 c. f. s., and furnished 34 per cent of the Gatun Lake total yield. The discharge for this month is the lowest May record in 19 years; the maximum May discharge was 5,220 c. f. s. in 1910.

The Gatun Lake watershed total yield was the lowest May yield on record, being 72 per cent below the 10-year mean, or 1,440 c. f. s., against a 10-year mean of 5,075 c. f. s. The maximum May total yield of Gatun Lake was 8,665 c. f. s., in 1918, and the minimum total yield was 1,440 c. f. s. this month. The maximum May net yield was 7,964 c. f. s. in 1918; the minimum May net yield was 606 c. f. s. this year. There was a decrease in storage of 2,539,000,000 cubic feet, very nearly equal to the amount of water consumed by the Gatun hydroelectric plant. The lake varied from a maximum elevation of 82.40 on the 1st to a minimum elevation of 81.65 on the 28th, ending on the 31st at elevation 81.80.

ELECTRICAL DIVISION.

Gatun hydroelectric station—This station operated without service interruption throughout the month. Auto transformer on Unit No. 2 failed on May 2 and was dismantled for repairs; this incident causing no interruption in service. The gross output of the station for May was 3,027,400 KWH, the computed water consumption being 2,501,305,000 cubic feet.

Miraflores steam plant—This station carried a load of 3,000 KW during practically all of the month. The gross output of the plant was 2,300,440 KWH on an oil consumption of 13,146 barrels.

Total power output—The total gross output of both stations was 5,327,840 KWH; the total power distributed to consumers was 4,685,090 KWH, the total loss of power in plant auxiliaries, transmission, and transformation being 642,750 KWH, or 12.06 per cent of the gross output.

Transmission line—There were no interruptions to transmission line service during the month. The work of taking the insulator resistance readings on all of the transmission line insulator units was completed; 1,915 units were found to test below 2 megohms, and were marked for replacement.

Substations—All of the substations were operated throughout the month without unusual incidents. Considerable work was accomplished in filtering oil in high tension circuit breakers, and samples of insulation oils were taken at all substations.

New construction work—Construction work performed for the Army and Navy is separately reported. Work for The Panama Canal had reached the following status of completion at the end of the month:

	Per cent completed.
Installation of new battery at Miraflores substation.....	100
Installation of 4 K-5 switches at Miraflores substation.....	*62
Installation of two 1,000-ampere, K-13 switches, Cristobal substation.....	80
Installation of new 8,400 KVA transformer and 3 new tie-line equipments, Gatun substation...	*8
Installation of 2 complete feeder equipments, Balboa substation.....	95

*No work done.

Marine work—Miscellaneous repairs and installations of electrical equipment were made on 58 vessels during the month; 22 at Cristobal, and 36 at Balboa.

SHOP, FOUNDRY, AND DRY DOCK WORK.

For the first time in 2 years no large marine job involving the reconstruction of a ship has been in progress at the Balboa plant of the Mechanical Division. The marine work has been confined to routine overhauls and repairs or repairing breakdowns. Practically the same conditions have prevailed at the Cristobal plant.

A new intermediate piston was manufactured and installed on the Japanese steamship *Kifuku Maru* at the Balboa shops. This was a rush job necessitating a night force for the work, and was completed in considerably less time than estimated by the surveyor. Repairs to the reduction gears of the steamship *Dewey* were completed. The United States torpedo boat destroyer *Thornton* was dry-docked to repair damages to the starboard propeller which had been encountered through touching the bank while transiting the Canal. The ends of the blades were turned back through half of a circle; the blades were straightened and brought back to the original surface; cracks were welded; and the broken tips of 2 blades repaired by casting new metal into a mold at the end of the tips in such manner that it fused with the old metal. The propeller was balanced and replaced; a message received from the vessel after departure from the port stating that the repaired propeller was performing very satisfactorily. The salvaging of the steamships *Olochon* and *Marne* was completed during the month and these vessels are now lying awaiting the disposition of the United States Shipping Board.

The semiannual overhauling of the machinery of the U. S. mine planter *Graham*, including cleaning and painting the hull, was completed at the Cristobal shops. General repairs were made to the boilers, engines, and auxiliaries of the tugs *Engineer* and *Tavernilla*. The steamship *Caribbean* was dry-docked and the boilers, engines, pumps, and other auxiliaries overhauled for the annual inspection. Various repairs were made on the steamship *Balboa*; the donkey boiler was removed, the coal bunkers renewed, stern bushing rewooded, and power auxiliaries generally overhauled. The struts, shafts, engines, and hull of the U. S. subchaser 285 were repaired; and the damaged plates, angles, and other parts of the U. S. S. *R-24* renewed. Repairs were made on the refrigerating machinery, windlass, and pumps of the U. S. A. T. *Mt. Vernon*, and a new crank shaft for the ice machine of the steamship *Lake Elkwater* was made. All the boiler valves, fuel-burning system, condenser, winches, and pumps of the latter vessel were overhauled. The following vessels received miscellaneous repairs at Cristobal: U. S. S. *Eagle No. 31*, *R-24*, subchaser *No. 285*, *Sciota*, U. S. A. T. *Mt. Vernon*, barge *No. 53*, U. S. mine planter *Graham*, steamships, *Alismaar*, *Allianca*, *Advance*, *Acajulla*, *Achilles*, *Balboa*, *Battonville*, *Belfort*, *Bologna*, *Botsford*, *Calamares*, *Caribbean*, *Cartagen*, *Cartago*, *Cauca*, *Chinampa*, *Colon*, *Europa*, *General Goethals*, *General Gorgas*, *Guatemala*, *Haiti*, *Hawarden*, *Huallaga*, *Lake Elkwater*, *Lake Fithian*, *Lake Larga*, *Lake Lesa*, *Larne Crynsen*, *Mantaro*, *Marne*, *Montevideo*, *Newport*, *Nika*, *Panama*, *Pansday*, *Parismina*, *Pasadena*, *Policic*, *Robin Adair*, *San Juan*, *Sudbury*, *Ulua*, *Ulysses*, *Urubamba*, *Van Rensselaer*, *Watowean*, *West Carnifax*, and *Zacapa*; schooner *Laura C. Hall*, yacht *Louise*; tugs *Engineer*, *Sanidad*, and *Tavernilla*; launches *Activo*, *Eunice*, and *Pequini*, barges *Nos. 19*, *29*, and *Darien*, P. S. N. Co. barge *S*. Twelve vessels were dry-docked; U. S. S. *Eagle No. 31*, subchaser *No. 285*, barge *No. 53*, steamships *Balboa*, *Caribbean*, and *Cartagena*, tugs *Engineer*, *Sanidad*, *Tavernilla*, barges *No. 19*, and P. S. N. Co. barge *S*, launch *Pequini*.

The following vessels were repaired at Balboa shops and dry dock: U. S. S. *Eagle No. 57*, *Gen. Geo. W. Getty*, subchasers *Nos. 284 and V-12*, *Sciota*, *Tacoma*, and *Thornton No. 270*, cable steamer *Guardian*, yacht *Gloriana*, dredge *Culebra*, launch *Vacuum*, barges *A. L.*, and *No. 226*, scows *No. 139 and 140*; steamships *Anyo Maru*, *Anyox*, *Bearport*, *Caddo*, *Cajact*, *Cansumset*, *Cathwood*, *Cerro Gordo*, *City of Para*, *Coalinga*, *Crisfield*, *Dewey*, *Eastern Cross*, *Eastern Ocean*, *Eastern Victor*, *Edgecombe*, *Edna*, *Gen. W. C. Gorgas*, *J. A. Bostwick*, *Jamaica*, *Joan of Arc*, *John Adams*, *Kenkon Maru*, *Khakatane*, *Kifuku Maru*, *Lady Sybil*, *Lake Flynnus*, *Lake Gebhart*, *Northumberland*, *Olockson*, *Peru*, *Point Judith*, *Potosi*, *Rajah*, *San Joaquin*, *S. V. Haykness*, and *Wm. Henry Webb*, motorship *Ansaldo San Gorgio II*. Eight vessels were dry-docked; U. S. S. *Gen. Geo. W. Getty*, *Sciota*, subchaser *V-12*, *Thornton No. 270*; steamship *Peru*; barge *No. 226*, scows *Nos. 139 and 140*.

The foundry output of the Mechanical Division in patterns and castings for May, as compared with April, is shown below:

	May.			April.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron.....	46	1,055	141,362	32	1,137	76,801
Steel.....	3	568	44,235	12	1,151	48,683
Brass.....	18	1,370	11,759	10	1,903	14,388
Total.....	67	2,993	197,356	54	4,191	139,872

The ordinary repair and maintenance work of this division for the month included, among other items, the following:

Cars repaired.....	2,060
Locomotives and cranes repaired.....	1,045
Passenger coaches packed, cleaned, oiled, and inspected.....	3,705
Freight cars repacked.....	615
Locomotives hostled.....	1,624
Cranes hostled.....	178
Locomotives ridden.....	68
Locomotives inspected.....	83
Crews instructed in handling locomotives.....	21
Crews instructed in oil and fuel economy.....	29
Crews instructed in air brakes.....	13
Cranes, locomotive, inspected.....	26

BUILDING CONSTRUCTION.

The Building Division had brought the following different items of construction work to the completion indicated, on May 31:

	Per cent completed.
Colon stables:	
East half—	
Six stables.....	(*) 185
One latrine.....	95
Feed room and quarters.....	95
Deposit pits.....	195
West half—	
Six stables.....	60
Five wagon sheds.....	40
One feed room.....	15
One shop building.....	15
Silver townsite, Mt. Hope:	
Commissary.....	75
Two houses, married quarters.....	100
Two houses, married quarters.....	90
Two houses, married quarters.....	80
Two houses, married quarters.....	75
Two houses, married quarters.....	65
Two houses, married quarters.....	60
Two houses, married quarters.....	40
Two houses, married quarters.....	30
Four houses, married quarters.....	15
Two houses, married quarters.....	10
Two houses, married quarters.....	7
Bachelor quarters.....	(‡) 95
Cristobal incinerator.....	60
Combination shop and storehouse, Cristobal.....	20
Royal Mail Steam Packet Company's office, Cristobal.....	90
Moving 3 type-7 houses from Las Cascadas to New Cristobal.....	95
Oil tank (55,000 barrels capacity), Cristobal.....	100
Shed over roadway and cattle pen, abattoir.....	100
Playshed, New Cristobal.....	95
Alterations, Cristobal clubhouse.....	10
Ten-stall addition to garage, New Cristobal.....	20
Applying specification roofing, cold storage plant, Cristobal.....	15
Applying specification roofing, Pier 6, Cristobal.....	25
National Catholic War Council building, Balboa.....	75
Bake shop, workroom, and storage room building, Ancon Hospital.....	20
Oil tank (55,000 barrels capacity), Balboa.....	95
Alterations, Balboa clubhouse.....	95

(*) Completed, except plastering; no work done. (†) No work done. (‡) Not started.

	Per cent completed.
Alterations, Ancon restaurant.....	90
Demolition of old French pier.....	75
Moving 3 type-7 houses from Las Cascadas to Pedro Miguel.....	85
Moving 2 four-family quarters, Las Cascadas to Quarry Heights.....	5
Moving 2 four-family quarters, Las Cascadas to Quarry Heights.....	2
Moving garage, Las Cascadas to Pedro Miguel.....	80
Addition to nurses' quarters, Corozal.....	88

Building construction work performed for the Army and Navy is separately reported.

DREDGING DIVISION.

Cucaracha slide was periodically active throughout the month. Two dipper and 1 suction dredges working continuously removed 427,900 cubic yards of earth and rock from the slide area, leaving at the end of the month 143,800 cubic yards between stations 1805 and 1814. A channel varying from 150 to 175 feet in width with a minimum depth of 34 feet was maintained during the month with slight interference to Canal traffic. On May 31 the dredges had removed a total of 1,027,500 cubic yards of earth and rock since the slide of February 22, 1920. The drill boat *Teredo No. 2* was engaged throughout the month in drilling and blasting large boulders at Cucaracha slide; and graders *Nos. 1* and *3* also working continuously during the month sluiced approximately 48,900 cubic yards from the slide. East Culebra and Barge Repair slides showed no movement in May.

The total excavation by dredges during May was 575,564 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment
	Earth.	Rock.			
(a) 202,600	60,800	141,800	Maintenance.....	1804-00 to 1814-00 E. and W.....	<i>Cascaras.</i>
(a) 183,200	55,000	128,200	Maintenance.....	1804-00 to 1814-00 E. and W.....	<i>Gamboa.</i>
(a) 34,600	13,900	20,700	Maintenance.....	1812-00 to 1813-00 E. and W.....	<i>No. 85.</i>
(a) 7,500	3,000	4,500	Maintenance.....	1812-00 to 1814-00 E.....	<i>No. 84.</i>
(b) 70,000	70,000		Maintenance.....	2110-80 to 2131-50 E.....	<i>No. 84.</i>
(b) 4,000		4,000	Construction.....	2110-80 to 2131-50 E.....	<i>No. 84.</i>
(b) 51,000	51,000		Maintenance.....	2131-50 to 2137-50 E.....	<i>No. 83.</i>
(c) 22,664	Sand and gravel. 22,664		Aux. construction..	Chagres River gravel beds.....	<i>Marmot.</i>
575,564	276,364	299,200			

(a) Gaillard Cut.

(b) Pacific Entrance.

(c) Chagres River.

The excavated material was dumped as follows:

	Cubic yards.
Gatun Lake north of Gamboa.....	346,600
Canal north of Gold Hill.....	39,200
Canal south of Cucaracha Slide.....	42,100
Flats north of Arsenal fill.....	51,000
Arsenal fill at Corozal.....	74,000
Gamboa gravel plant.....	22,664
Total.....	575,564

The following excavation remained to be done on June 1:

Location.	Earth.	Rock.	Total.
	<i>Cu. yds.</i>	<i>Cu. yds.</i>	<i>Cu. yds.</i>
Gaillard Cut.....		25,000	25,000
Pacific entrance.....	50,500	82,900	133,400
Total Canal prism.....	50,500	107,900	158,400
Cristobal coaling station.....		2,100	2,100
Balboa inner harbor.....	109,850	13,400	123,250
Total, ocean to ocean.....	160,350	123,400	283,750

MUNICIPAL ENGINEERING DIVISION.

Northern District.

The Municipal Engineering Division had the following items of construction work under way on May 31 with completion as shown:

	Per cent completed.
Municipal work between 7th and 9th and "G" and "K" Streets, Colon:	
Roads.....	95
Grading.....	30
Water lines.....	*99

* No work done.

	Per cent completed.
Municipal work between 7th and 9th and "G" and "K" Streets, Colon—Continued:	
Alleyways.....	98
Sanitary sewers.....	99
Storm sewers.....	100
Sidewalks.....	80
Municipal work, New Cristobal townsite:	
Grading.....	*15
Roads.....	95
Water lines.....	70
Sanitary sewers.....	*75
Storm sewers.....	80
Two tennis courts, Gatun.....	100
Road to garage, New Cristobal.....	100
Installation of water and sewer system, new Panama Railroad station, Gatun.....	85
Construction of sidewalks on Lighthouse and Telephone Row, Gatun.....	10
Drilling wells at Chagres village.....	(†)
* No work done.	
(†) Three wells sunk without finding water.	

No work was done during the month on the municipal work for the new silver town-site, Mt. Hope, the ten 12-family silver quarters, Mt. Hope, or the road to the new incinerator, Mt. Hope. All work for the west half, Colon stables, has been completed with the exception of roads, these being 98 per cent completed.

Southern District.

	Per cent. completed.
Box sewer, Panama Railroad yards.....	75
Road from lumber shed to Diabolo Hill.....	99
Demolition of Calidonia bridge.....	90

No work was done on the storm sewer, Javillo fill; the sewer, Northern Avenue to beach; the municipal work for 3 type-18 houses at Balboa; the concreting of the Panama Tramway line, Calidonia crossing, or installing of sewer and water lines for the Central and South American Telegraph and Cable Company's buildings at Balboa. There were 16,613 square yards of macadam road refloated, oiled, and sanded in the Pedro Miguel district, and 3,590 linear feet of water pipe was taken up and relaid. Construction work for the Army and Navy is separately reported.

The total output of all pumping stations for May was 834,064,350 gallons; and that of the 3 filtration plants, 509,616,000 gallons. The consumption for Panama City was 87,781,000 gallons, and that for Colon, 64,823,500 gallons. Sales of water to 188 vessels at Cristobal and 115 at Balboa totaled 13,149,742 gallons.

There were 2,709 tons of garbage and 15 dead animals consumed at the Gavilan Island incinerator during May. It is anticipated that the new incinerator at Cristobal will be placed in operation about August 1.

WORKING FORCE.

(Effective May 19, 1920.)

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	37	42	79
Building Division.....	442	1,510	1,952
Electrical Division.....	256	321	577
Municipal Engineering Division.....	113	1,346	1,459
Lock operation.....	166	591	757
Dredging Division.....	180	1,108	1,288
Mechanical Division.....	1,054	1,788	2,842
Marine Division.....	171	496	667
Fortifications.....	53	238	291
Total.....	2,472	7,440	9,912
Supply Department:			
Quartermaster.....	226	1,933	2,159
Subsistence.....	37	398	435
Commissary.....	312	1,648	1,960
Cattle Industry.....	29	980	1,009
Hotel Washington.....	10	100	110
Total.....	614	5,059	5,673
Accounting.....	261	10	271
Health Department.....	248	847	1,095
Executive Department.....	583	246	829
Total.....	1,092	1,103	2,195
Panama Railroad:			
Superintendent.....	72	558	630
Transportation.....	147	179	326
Receiving and Forwarding Agent.....	103	1,475	1,578
Coaling Stations.....	113	1,317	1,430
Total.....	435	3,529	3,964
Grand total.....	4,613	17,131	21,744

OCCUPATION OF QUARTERS.

Occupants of Panama Canal and Panama Railroad quarters on May 31 were classified as follows:

	Men.	Women.	Children.	Total.
Americans.....	3,705	2,236	2,409	8,350
Europeans.....	156	27	42	225
West Indians.....	4,689	1,801	3,431	9,921
Total.....	8,550	4,064	5,882	18,496

PUBLIC HEALTH.

There were 34 cases of malaria in May, 13 of which were nonresident, with no deaths. Influenza cases totaled 40, as compared with 314 in April and 801 in March; 8 deaths occurred from influenza and 16 from pneumonia, as compared with 24 from influenza and 28 from pneumonia in April. Ten cases of chickenpox were reported for May; 44 for the preceding month. Three cases of typhoid fever were reported, the patients thought to have become infected at Las Sabanas. There were 6 cases of smallpox, 5 in the city of Panama and 1 nonresident. One case of leprosy and 1 case of scarlet fever were discovered, both in Panama.

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received during May was \$935,219.76; April receipts were \$754,085.60. Of the May receipts \$919,924.76 was chargeable to Operation and Maintenance; \$2,272.23 to Construction and Equipment; and \$13,022.77 to miscellaneous departments. The total cash sales on the Isthmus from storehouses and obsolete store amounted to \$367,600.96, of which \$365,371.51 was for stock material including fuel oil in the amount of \$321,825.34; \$1,249.51 for scrap; and \$979.94 for obsolete and second-hand material.

Sales of material from storehouses to steamships for May amounted to \$337,382.56, of which \$29,425.87 was for miscellaneous stock items and \$307,382.56 for fuel oil. Total sales of commissary supplies to all purchasers for the month amounted to \$1,114,634.44 made up as follows: To steamships other than United States Government vessels and those of the Panama Railroad Steamship Line, \$109,908.05; to The Panama Canal, \$133,441.32; to the United States Government, including the Army and Navy, \$176,523.94; to individuals and companies, mainly through charge accounts in the retail commissaries, \$25,715.78; to the Panama Railroad, including its steamships and the Hotel Washington, \$36,777.66; and to individuals purchasing coupons, \$632,267.69.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on May 31, exclusive of Fortifications, was \$12,372,395.10; the balance in Fortifications was \$5,728,754.53. Payments from appropriations made by the Disbursing Clerk, Washington, amounted to \$479,713.02, and by the Paymaster on the Isthmus to \$1,668,341.86. Purchase of commissary books from the Panama Railroad Company amounted to \$368,390.84.

Collections of tolls on the Isthmus totaled \$828,476.21. Deposits of \$63,249 were made with the Assistant Treasurer of the United States to be applied in payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,449,277.47; and collections by the Disbursing Clerk, Washington, \$139,877.48. Receipts from Canal Zone and miscellaneous funds were \$192,290.08; disbursements from the same source were \$238,052.25. May payrolls on the Isthmus totaled \$1,312,538.44, as compared with \$1,359,398.45 for April, a decrease for this month of \$46,860.01.

Respectfully,

CHESTER HARDING,
Governor.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, May, 1920.

	Baltimore, Md.	Charleston, S. C.	New Orleans, La.	New York, N. Y.	Norfolk, Va.	Philadelphia, Pa.	Savannah, Ga.	Wilmington, N. C.	Cristobal, C. Z.	Amsterdam, Netherlands.	Genoa, Italy.	Ipswich, England.
Antofagasta, Chile.....		10,100		3,700	8,850			3,500				
Astoria, Oreg.....				7,566								
Auckland, New Zealand.....				11,000					1,630			
Buenaventura, Colombia.....										9,856		
Caleta Buena, Chile.....		12,037										
Caleta Colosa, Chile.....		11,000		3,100					3,615			
Callao, Peru.....												
Coincibo, Chile.....	3,025											
Corinto, Nicaragua.....									709			
Coronel, Chile.....				2,900					1,919			
Euen, Peru.....												
Genoa Bay, Wash.....												
Guayaquil, Ecuador.....												
Hongkong, China.....				10,986					4,848			
Iquique, Chile.....				8,000								
Junin, Peru.....	3,014	9,000				3,861	17,800	17,730				
La Union, Salvador.....												
Meillonos, Chile.....			12,860	5,046								
Melbourne, Australia.....												
New Plymouth, New Zealand.....				7,516								
Noumea, New Caledonia.....												
Pisagua, Chile.....												
Portland, Oreg.....				13,444								
Punta Arenas, Argentine.....												
Saigon, China.....												
Salaverry, Peru.....			3,750	15,555								
San Francisco, Cal.....									3,206			
San Jose, Guatemala.....									2,000			
Seattle, Wash.....				7,818						9,100		
Singapore, Straits Settlements.....				9,430								
Sydney, Australia.....				16,469								
Tacoma, Wash.....				2,900								
Taku Bar, China.....												
Talara, Peru.....												
Talcahuano, Chile.....	3,710			3,472								
Taital, Chile.....	8,041				6,400							
Tocopilla, Chile.....		11,033										
Valparaiso, Chile.....				14,325			9,150	6,720			5,829	2,500
Wellington, New Zealand.....												
Yokohama, Japan.....				8,342								
Totals.....	6,039	53,170	28,361	143,549	23,850	9,861	26,950	59,771	21,054	18,056	5,829	2,500

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, May, 1920.—Continued.

From—	Liverpool, England.	London, England.	Southampton, Eng.	Wallu, Norway.	Alexandria, Egypt.	Havana, Cuba.	Matanzas, Cuba.	Nuevitas, Cuba.	Cuba.	San Juan, Puerto Rico.	Puerto Rico, Col.	Totals.
Antofagasta, Chile.....												33,559
Astoria, Oreg.....					7,409							7,566
Auckland, New Zealand.....		10,105										21,105
Buenaventura, Colombia.....												1,630
Caleta Buena, Chile.....					7,200							19,227
Caleta Colosa, Chile.....												23,056
Callao, Peru.....	1,338											4,933
Coquimbo, Chile.....												3,025
Corinto, Nicaragua.....												1,919
Coronel, Chile.....												2,900
Genoa Bay, Wash.....		10,195										10,195
Guayaquil, Ecuador.....												4,848
Hongkong, China.....												10,986
Iquique, Chile.....	7,072						3,000					67,063
Jumín, Peru.....		3,476										3,014
La Union, Salvador.....												3,470
Mejillones, Chile.....	7,000				7,600		5,410					35,508
Melbourne, Australia.....		4,976										5,040
New Plymouth, New Zealand.....												4,976
Noumea, New Caledonia.....												7,516
Pisagua, Chile.....												8,083
Portland, Oreg.....												16,602
Punta Arenas, Argentine.....												6,230
Saigon, China.....												7,139
Salaverry, Peru.....												3,750
San Francisco, Cal.....						2,421						26,087
San Jose, Guatemala.....										2,230		2,695
Seattle, Wash.....						7,811		1,660				26,389
Singapore, Straits Settlements.....												9,430
Sydney, Australia.....		11,855										11,355
Tacoma, Wash.....					7,582							24,051
Taku Bar, China.....												2,900
Talara, Peru.....				5,647								5,647
Talcahuano, Chile.....												19,462
Takal, Chile.....												35,541
Tocopilla, Chile.....												26,903
Valparaiso, Chile.....	5,619											30,079
Wellington, New Zealand.....		7,433	5,541									12,974
Yokohama, Japan.....												8,342
Totals.....	49,509	97,945	5,541	5,647	29,791	10,232	8,410	4,818	7,139	2,230	2,695	556,241

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, May, 1920.

From—	Balboa, C. Z.	Antofagasta, Chile.	Arica, Chile.	Buenavente, Col.	Callao, Peru.	Corral, Chile.	Guayaquil, Ecuador.	Iquique, Chile.	Melillones, Chile.	Mollendo, Peru.	Pisagua, Chile.	Talcahuano, Chile.	Talca, Chile.	Tumaco, Colombia.	Valparaiso, Chile.	Chilean ports.	Central American ports.	Salina Cruz, Mexico.
Amsterdam, Netherlands.																700		
Baltimore, Md.			2,732								4,063							
Beaumont, Tex.																		
Christiania, Norway.														1,112	1,887	1,110		
Cristobal, C. Z.			1,708				1,355											
Galveston, Tex.																		
Genoa, Italy.						4,210									100			
Glasgow, Scotland.															3,848			
Liverpool, England.																		
London, England.																		
Mobile, Ala.																		
New Orleans, La.																		
New York, N. Y.										2,302					2,400			
Newport News, Va.										2,695					5,030			
Norfolk, Va.										9,114								
Pensacola, Fla.										10,309								
Philadelphia, Pa.																		
Philadelphia, Pa.																		
Puerto Lobos, Mexico.											8,497				1,861			6,500
Sabine, Tex.																		
Tampico, Mexico.	19,928	9,230									16,300		10,440					
Texas City, Tex.																		
Tuxpan, Mexico.			2,600															
Totals.....	19,928	20,399	2,600	636	11,918	4,210	4,087	13,778	9,114	10,255	24,797	4,063	10,440	1,112	15,126	700	1,500	6,500

From—	San Pedro, Cal.	Los Angeles, Cal.	San Francisco, Cal.	Seattle, Wash.	Vancouver, B. C.	Brisbane, Australia.	Fremantle, Australia.	Melbourne, Australia.	Sydney, Australia.	Auckland, New Zealand.	Hongkong, China.	Shanghai, China.	Singapore, Straits Settlements.	Cebu, Korea.	Kobe, Japan.	Yokohama, Japan.	Vladivostok, Siberia.	Totals.
Amsterdam, Netherlands.																		700
Baltimore, Md.			6,263															13,058
Beaumont, Tex.											10,604							10,604
Christiania, Norway.			5,044															5,044
Cristobal, C. Z.			3,589															11,397
Galveston, Tex.																6,200		6,200
Genoa, Italy.																		100
Glasgow, Scotland.																		8,058
Liverpool, England.										9,730								9,730
London, England.										7,500								7,890
London, England.																		7,890
Mobile, Ala.																		3,373

(Continued on page 694, column 1.)

The Sunken "Marne" Being Restored at Balboa Shops.

The steamship *Marne*, which was sunk at Cristobal on January 24 and again on March 6 to extinguish fire in the hold, was towed through the Canal to Balboa on July 3, and is being restored at Balboa shops. A great deal of work is to be done on her, and the exact extent of it can not be determined at this time. The work now under way is directed first at removing the engines and auxiliary machinery, so that they can be overhauled in the shops and replaced, and the next step will be the removal of the amidships deck structure, salvaging some of the material for use in rebuilding. In the meantime, all damaged plates are being examined and marked. The preliminary survey will afford data for the ordering of any extra material needed for the work.

No changes are to be made in the arrangements of the ship. She is to be restored under her original plans to the condition in which she was before the fire.

One-Way Coastwise Service with Six Sailings.

The Pacific Mail Steamship Company has announced a temporary, one-way cargo service from Baltimore to Portland and Seattle, which is separate from its regular Baltimore-San Francisco coastwise line. This service will use 6 vessels of 8,800 deadweight tons which are being sent to the Pacific by the United States Shipping Board. After discharging at the Pacific ports they will be reassigned. The first of the ships, the *Westward Ho*, is reported loading at Baltimore, and the five others are scheduled to follow at monthly intervals.

Salvaging Operations on the "Koyo Maru."

The steamship *Favorite*, salvaging vessel in the service of The Panama Canal, is reported as having sailed for Cristobal at midnight of July 6 from Serrana Bank where she was engaged in the relief of the stranded *Koyo Maru*. The wrecking vessel *Nemesis* is now in charge of the work. Details as to the condition of the *Koyo Maru* have not been received.

Chinese Steamer's Propeller Repaired in Dry Dock.

The steamship *Hwah Jah*, arriving at the Canal from Saigon on June 22, discharged her cargo on Pier 18 at Balboa and went into the dry dock on June 28 for repairs to her propeller. Spare blades, carried on the ship, were placed on the propeller hub. The *Hwah Jah* belongs to the Chinese Government.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending July 3, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Jamaica.....	Pacific Steam Navigation Co.....	June 28.....	June 29.....	Tons. 20	Tons. (†)
Salvador.....	Pacific Steam Navigation Co.....	July 1.....	July 2.....	1	(†)
Cauca.....	Pacific Steam Navigation Co.....	July 2.....	July 2.....	4	(†)
San Jose.....	Pacific Mail Steamship Co.....	July 3.....	July 3.....	59	(†)
Fairhaven.....	Fairhaven Steamship Co.....	July 3.....	July 3.....	(*)	143
Huasco.....	South American Steamship Line.....	June 30.....	June 30.....	61	(†)
H. M. Flaeler.....	Standard Oil Co.....	June 30.....	June 30.....	11,364	(†)

(*) No cargo discharged.

(†) No cargo laded.

THE PANAMA CANAL RECORD

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight July 3, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
National Bridge	26	12 53	27	6 20	27	13 14	27	20 38	American	United States Shipping Board	324 0	46 0	21 0	Norfolk	Antofagasta.	Coal.	4,532	3,950	2,649
Cubaura	27	6 45	27	8 00	27	15 40	27	15 35	American	J. E. Chillberg	291 7	46 6	21 6	Galveson.	Portland, Oreg	Sulphur	3,360	2,426	1,740
Ucayal	23	16 08	28	6 10	28	13 28	28	17 10	Peruvian	Peruvian Line	374 7	46 6	18 0	Cristobal	Callao.	General	710	4,466	2,405
Manavi	22	17 56	28	6 13	28	14 33	28	16 25	British	Pacific Steam Navigation Co.	216 0	55 1	11 3	Cristobal	Guayaquil.	General	645	1,337	884
Talawa	27	12 43	28	6 21	28	14 47	28	16 40	British	Commonwealth Government.	319 1	49 0	23 3	Sabine	Maburque.	Sulphur	5,200	4,421	3,241
Acajutla	27	16 16	28	7 30	28	15 07	28	19 02	British	Pacific Steam Navigation Co.	215 0	33 0	14 1	Cristobal	Champacero.	General	748	1,273	706
Hermes	23	14 10	28	9 07	28	16 19	28	17 10	Dutch	Royal Netherland Steamship Co.	340 0	48 0	15 0	Hamburg	Talcahuano	General	1,600	4,182	2,059
Birmingham	28	6 30	28	9 45	28	17 16	28	21 00	American	U. S. Steel Products Co.	395 4	55 0	25 1	Mobile	Kobe.	Structural steel.	8,102	6,841	4,686
Tregantle	27	2 50	28	11 10	28	18 45	28	19 58	British	E. Hain & Son	400 0	52 0	23 0	Liverpool	Colonel.	General	6,684	6,035	4,610
Celtic Prince	28	14 05	29	6 19	29	14 42	29	15 40	British	Prince Line Ltd.	448 7	57 3	28 1	New York	Hankow	General	9,500	8,689	6,208
Hazel Branch	28	12 43	29	6 27	29	13 32	29	15 30	British	F. & W. Ritson	399 0	51 0	24 0	Liverpool	Colonel.	General	4,500	5,176	3,587
Shahristan	28	13 12	29	6 48	29	14 53	29	15 40	British	Strick & Co.	330 0	46 0	22 0	Norfolk	San Francisco	Coal	3,967 1/2	3,467	2,203
Cape May	29	7 24	29	11 45	29	18 47	30	9 13	American	United States Shipping Board	415 0	53 7	29 6	New York	Shanghai	General and steel	8,700	7,050	4,870
Kanama	29	22 15	30	7 12	30	15 01	1	6 15	British	Shaw, Saville & Allison Co.	420 0	54 0	25 0	London	Sylbury	General	5,700	7,106	5,073
H. M. Flagler	29	15 50	30	10 36	30	18 08	(b)		American	Standard Oil Co.	461 6	60 0	25 6	Tampico	Balboa	Crude oil.	9,500	8,606	6,525
Eastern	29	17 10	30	10 55	30	18 55	30	19 54	American	United States Shipping Board	415 1	55 7	28 0	New York	Manila	Gas and fuel oil	7,904	7,329	5,373
Mariner	29	12 35	30	11 20	30	19 19	1	13 13	American	United States Navy	376 0	91 3	18 0	Philadelphia.	San Pedro.	Ballast	6,800	2,940	2,940
Charles	30	20 50	1	6 02	1	15 02	1	15 50	British	Hall Line, Ltd.	420 0	94 0	24 1	New York	Yokohama.	General	7,500	7,094	5,385
City of Dunkirk	30	21 50	1	6 12	1	14 25	1	15 55	American	Dollar Steamship Line.	288 8	44 6	16 0	Philadelphia.	San Francisco	General	1,000	3,460	2,404
Stanley Dollar	23	19 21	1	9 10	1	14 30	1	19 45	British	Pacific Steam Navigation Co.	350 3	43 1	20 0	Cristobal	Valparaiso.	General	880	4,065	2,668
Chile	1	6 02	1	9 35	1	17 26	1	18 30	British	Pruder Anderson	365 0	47 0	24 0	Norfolk	Shanghai	General	5,400	4,680	3,441
Montrose	1	6 02	1	10 47	1	18 27	1	12 27	American	United States Navy	376 0	61 3	18 6	Philadelphia.	San Pedro.	Ballast	6,800	2,940	2,940
Yale	29	20 30	1	12 35	1	13 43	(a)		American	United States Shipping Board	399 5	55 0	13 6	New York	Balboa	Ballast	7,276	5,220	2,200
Marne	27	17 17	2	6 28	2	14 45	2	16 00	American	Fairhaven Steamship Co.	185 5	38 0	11 6	Cristobal	San Francisco	Ballast	1,164	742	742
Fairhaven	30	17 16	3	6 28	3	13 58	3	22 20	American	Pacific Mail Steamship Co.	283 0	37 0	17 6	Cristobal	San Francisco	General	1,433	2,352	1,602
San Jose	26	15 00	3	6 35	3	13 30	3	16 35	American	United States Shipping Board	399 4	54 7	21 0	Newport News	San Diego	General	6,793	6,158	4,413
Eastern Victor	2	13 37	3	6 44	3	15 30	3	16 35	American	United States Shipping Board	262 2	46 4	21 0	Norfolk.	Bremerton.	Coal	2,985	2,504	1,788
Challamba	2	17 15	3	6 45	3	14 26	4	19 43	American	J. E. Chillberg	411 6	53 4	26 0	Tampico	Chilean ports	Crude oil	6,360	4,337	4,337
Benjamin	2	15 47	3	6 57	3	16 03	(a)		American	Standard Oil Co.	399 7	54 7	25 6	Savannah	Yokohama.	Steel mach., etc.	9,600	6,167	4,444
Brewster	2	14 00	3	7 10	3	16 47	3	17 55	American	United States Shipping Board	220 0	34 0	13 0	Cristobal.	Tunaco.	General	710	1,187	622
Eastern Crown	29	15 40	3	8 10	3	16 54	3	20 15	British	Pacific Steam Navigation Co.	549 0	63 0	32 0	Liverpool	Brisbane.	General	10,000	12,033	8,696
Northumber-	3	7 34	3	10 28	3	18 15	4	8 12	British	Federal Steam Navigation Co.	253 0	43 0	22 2	Norfolk.	Liqueur.	Coal	3,802	2,751	1,718
land	27	15 05	3	10 45	3	19 39	3	20 40	American	United States Shipping Board	410 3	54 0	19 6	Juaro	Vancouver.	Sugar	5,000	6,023	4,593
Causatia	3	10 25	3	10 45	3	19 05	4	10 39	American	United States Shipping Board	410 3	54 0	19 6	Juaro	Vancouver.	Sugar	5,000	6,023	4,593

(a) Have not departed. (b) Returned north through Canal.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	25	19	00	27	7	14	27	15	45	27	19	28	Dutch.	Royal Netherland Steamship Co.	447	2	62	7	29	0	Talita.	Baltimore.	Nitrate of soda.	11,205	9,505	6,807
Alkmaar	25	19	00	27	7	14	27	15	45	27	19	28	German	German Government	164	3	31	1	14	0	Balboa	Cristobal	Ballast	3,533	123	
Arbeti (c)	29	13	46	27	0	33	27	15	45	27	17	00	German	German Government	209	4	47	0	20	6	Chamway	New York	General	3,175	3,255	
Garfield	27	16	30	28	6	48	28	14	15	28	17	50	American	W. R. Grace & Co.	449	5	55	3	26	0	Shanghai	New York	General	14,000	9,157	
Gaelic Prince	27	16	30	28	6	58	28	15	45	28	17	23	British	Prince Line, Ltd.	290	0	42	0	19	6	Antofagasta	Norfolk	Nitrates	3,300	2,385	
Overstad	27	23	30	28	7	50	28	15	42	28	20	18	Norwegian	J. O. Grefstad	290	0	42	0	19	6	San Francisco	Habana	General	2,300	1,908	
Simaba	28	5	30	28	8	18	28	16	39	29	4	08	Norwegian	J. O. Lindvåg	265	0	38	5	18	6	San Francisco	Habana	General	2,500	1,121	
Lake Fisher	28	6	00	28	8	50	28	16	41	28	23	27	American	United States Shipping Board	271	0	43	6	20	0	Valparaiso	New York	Copper bars	9,959	7,651	
Tuyama Maru	28	5	15	28	9	50	28	18	20	28	23	15	Japanese	Nippon Yusen Kaisha	445	0	58	0	21	0	Hongkong	New York	General	1,525	5,956	
Tokutomi Maru	28	9	20	28	11	35	28	10	47	29	7	55	Japanese	Kobun Kaisha	355	0	51	0	27	2	Kobe	New York	Sugar	3,850	7,093	
Wainate	28	16	00	28	6	33	28	11	58	29	17	45	British	New Zealand Shipping Co.	220	0	34	0	12	6	Lytleton	London	Wool and tallow	783	1,187	
Corone	28	30	23	0	6	26	28	15	46	3	9	10	British	Pacific Steam Navigation Co.	257	8	49	8	23	0	Scottdale	Cristobal	General	(b)	2,631	
Talrahite	28	17	29	28	7	39	28	16	05	29	22	30	American	International Petroleum Co.	280	0	43	8	14	0	Tecopilla	Nuevitas	General	(b)	2,631	
Cherry Branch	29	17	45	28	8	19	28	16	07	29	20	42	British	United States Shipping Board	251	0	13	6	21	0	Tuntrenas	London	Nitrates	6,474	3,391	
Cerro Gardo	29	7	15	28	9	43	29	17	50	30	19	45	British	F. & W. Ritson	450	0	51	9	16	0	Talita	Winnington	Nitrates	3,209	2,472	
Favorite	29	20	15	29	21	35	30	1	00	American	United States Shipping Board	185	0	43	0	30	0	15	6	Balboa	Cristobal	Nitrates	3,100	2,597		
Lake Larga	30	2	15	30	8	03	30	15	50	30	20	55	American	The Panama Canal	290	2	43	8	19	6	Antofagasta	Philadelphia	Nitrates	3,100	2,597	
Huasco	30	5	00	30	8	07	30	14	16	4	6	07	Chilean	United States Shipping Board	372	7	44	3	21	9	Valparaiso	Cristobal	General	1,207	4,508	
Fairhaven (d)	30	7	30	30	9	25	30	17	16	3	6	28	American	South American Steamship Co.	185	5	38	0	18	2	San Francisco	Cristobal	General	801	1,164	
Cuzco	30	9	00	30	14	30	19	05	30	23	57	Italian	Nafta Italiana Co.	375	0	50	2	27	3	Hongkong	Philadelphia	Rice and sugar	5,200	3,050		
Siam (e)	30	18	30	1	6	55	1	14	30	1	16	03	Danish	East Asiatic Steamship Line.	398	2	53	6	27	8	Hongkong	Copenhagen	General	8,800	7,068	
Eastern Glen	30	23	09	1	8	02	1	16	10	3	15	40	American	United States Shipping Board	399	9	54	4	24	0	Portland	Belfast	Flour	6,719	6,132	
Gotha	30	14	09	1	9	30	1	21	03	27	17	09	German	Norddeutscher Lloyd	420	5	54	5	21	5	Talita	Cristobal (g)	Nitrates and ore	4,500	105	
St. Teath (c)	30	14	09	1	9	55	1	17	10	4	15	25	British	British Government	135	0	29	0	11	6	Talita	Cristobal (g)	General	1,212	692	
Schvader	30	18	08	2	7	11	2	15	03	2	20	35	American	Pacific Steam Navigation Co.	461	6	60	0	18	0	San Jose	Cristobal	General	4,500	105	
H. M. Flagler	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Admiral	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Magician	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Cauca	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Apple Branch	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Sapphire (f)	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Angamos	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	
Europa	30	18	08	2	7	11	2	15	03	2	20	35	American	Standard Oil Co.	461	6	60	0	18	0	Balboa	Tampico	Ballast	8,635	7,907	

(c) Tug. (d) Schooner. (e) Motor schooner. (f) Yacht. (g) For orders. (h) 1,344,002 ft. B. M.

PORT OF CRISTOBAL.

ARRIVALS.			DEPARTURES.		
Date.	Vessel.	From—	Date.	Vessel.	To—
June 27	Gen. W. C. Gorgias	Panama Railroad Steamship Line.	June 27	Caribbean	Panama Railroad Cattle Industry
June 27	Tolosa	United Fruit Co.	June 27	Tolosa	Cartagena.
June 28	Parrismina	United Fruit Co.	June 29	Colon	New York via Habana.
June 28	Larrie	Royal Mail Steam Packet Co	June 29	Colon	New York via Haiti.
June 28	Achilles	Panama Railroad Steamship Line.	June 30	Barflet (h)	Columbian ports.
June 29	Calamaraz	United Fruit Co.	June 30	Parrismina	New York and San Juan.
June 30	Ancon	Panama Railroad Steamship Line.	June 30	Parrismina	New Orleans, Bocas, and Habana.

(f) Transport.

(Continued on page 694, column 2.)

July Weather Probabilities.

The following weather conditions may be expected in the Canal Zone during the month of July, 1920. These predictions are based on the weather records at Cristobal and Balboa Heights for the last 13 and 15 years, respectively.

Winds—A continuation of the rainy season conditions of June may be expected. Light variable winds will be general over the Isthmus, averaging about 9 miles an hour on the Atlantic Coast and about 7 miles an hour on the Pacific Coast. On the Atlantic side north winds slightly exceed those from any other direction, while northwest winds predominate on the Pacific side. Maximum velocities in excess of 30 to 35 miles an hour need not be expected.

Rain—Heavy showers may be expected over the Isthmus during July. The July average for 49 years at Colon is 15.97 inches.

The 23-year average for July at Balboa Heights is 7.69 inches. The average number of days with 0.01 inch of rain or more is 21 on the Pacific side and 25 on the Atlantic. The average number of days on which the rainfall equals or exceeds 1 inch is 2 on the Pacific Coast and 5 on the Atlantic Coast.

Fogs—No fogs are likely to occur at either Canal entrance, but night and early morning fogs may be expected quite frequently over the interior. Most of these will be light, however, and will be dissipated by 8.30 a. m.

Temperature—The average air temperature will be about 80° F. on both coasts. The mean daily range of temperature will be about 15 degrees on the Pacific side and about 8 degrees on the Atlantic side. The extremes of record on the Atlantic side are 89 and 70 degrees, respectively, and on the Pacific side 95 and 67 degrees.

Relative humidity—The relative humidity will average about 85 per cent on both coasts; the daily range, however, will be considerably greater on the Pacific side.

Storms—Local rain and thunder squalls may be expected quite frequently during the month. During these storms comparatively high wind velocities occur, but they are of too short duration to cause a rough sea. The West Indies hurricane season extends from June to November. The path of these storms lies too far to the north, however, to materially affect weather conditions on the Isthmus.

Tides—The tidal fluctuations on the Atlantic side are too small to affect navigation. Balboa tide predictions for July are given below; these are taken from "Tide Tables for 1920," published by the Department of Commerce, Washington, D. C.

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.			
W.	Mo.					W.	Mo.					W.	Mo.				
Th	1	3:51	9:58	3:56	10:21	M	12	6:02	12:16	6:42	.....	F	23	3:13	9:27	3:52	9:55
		14.2	2.7	14.8	1.5			3.4	14.7	2.5	.....			3.1	14.1	3.5	12.9
F	2	4:28	10:35	4:35	10:59	Tu	13	0:55	7:08	1:17	7:45	S	24	4:10	10:26	4:53	11:05
		14.5	2.5	14.9	1.3			14.0	2.8	15.5	1.5			4.0	13.3	4.1	12.2
S	3	5:07	11:12	5:13	11:31	W	14	1:56	8:11	2:19	8:44	S	25	5:08	11:35	5:55	.....
		14.7	2.3	14.8	1.3			15.0	1.9	16.3	0.4			4.7	12.9	4.3	.....
S	4	5:43	11:48	5:50	.....	Th	15	2:50	9:08	3:09	9:36	M	26	0:16	6:12	12:39	6:58
		14.9	2.3	14.7	.....			16.0	0.9	17.0	-0.6			12.1	4.9	13.0	4.2
M	5	0:07	6:21	12:25	6:26	F	16	3:43	9:59	4:02	10:24	Tu	27	1:19	7:16	1:34	7:55
		1.5	14.9	2.5	14:5			16.8	0.0	17.5	-1.2			12.4	4.8	13.3	3.7
Tu	6	0:43	6:55	1:04	7:03	S	17	4:36	10:49	4:55	11:10	W	28	2:09	8:12	2:20	8:43
		1.9	14.8	2.9	14.2			17.3	-0.4	17.6	-1.4			12.9	4.2	13.7	3.0
W	7	1:21	7:33	1:48	7:44	S	18	5:28	11:35	5:45	11:56	Th	29	2:51	8:58	3:02	9:25
		2.4	14.7	3.2	13.8			17.5	-0.5	17.5	-1.1			13.6	3.6	14.2	2.3
Th	8	2:06	8:14	2:38	8:27	M	19	6:17	12:21	6:34	.....	F	30	3:31	9:40	3:40	10:02
		2.9	14.5	3.4	13.4			17.4	-0.1	17.0	.....			14.2	2.9	14.6	1.0
F	9	2:57	8:59	3:34	9:23	Tu	20	0:41	7:04	1:10	7:22	S	31	4:07	10:17	4:17	10:38
		3.3	14.2	3.6	13.0			-0.3	16.9	0.7	16.1			14.7	2.2	15.0	1.2
S	10	3:54	9:59	4:35	10:31	W	21	1:30	7:51	2:01	8:10						
		3.6	14.0	3.5	12.9			0.7	16.1	1.7	15.1						
S	11	4:55	11:08	5:37	11:48	Th	22	2:20	8:36	2:56	8:57						
		3.6	14.2	3.2	13.2			1.9	15.2	2.6	13.9						

The tides are placed in the order of their occurrence; the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; ante meridian figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

Raising Yellow Fever Quarantine Against Atlantic Ports of Colombia.

The routine quarantine against Atlantic ports of Colombia for yellow fever has been lifted. With respect to this disease, the quarantine is now the same as against all other ports, and passengers are not subject to detention unless examination made by the quarantine officer discloses the suspicion of the disease.

It has been possible to lift this quarantine by virtue of the fact that no cases of yellow fever have originated in these ports for the past 12 years, and because the sanitary conditions there have been considerably improved, and since conditions on the Isthmus are such that if a case of yellow fever should get ashore, there would be little danger of the spread of the disease.

Notaries Public in the Canal Zone.

The following is a list of the notaries public commissioned in the Canal Zone as of June 25, 1920.

BALBOA.

Adams, R. H., Balboa shops, Aug. 18, 1922.
Attaway, E. F., Balboa clubhouse, Oct. 28, 1921.
Dwelle, R. L., Balboa clubhouse, Oct. 28, 1921.
Hyde, W. H., Port Captain's office, March 31, 1923.
Illwitzer, P. G., Balboa storehouse, Oct. 11, 1920.
Kalar, John D., Port Captain's office, April 15, 1923.
Maney, F. L., Mechanical Division, March 14, 1923.

BALBOA HEIGHTS.

Pender, W. I., Administration Building, room 237, July 30, 1922.
Hammer, H. H., Property and Requisition Bureau, March 31, 1923.
Margon, C. C., Administration Building, room 237, Aug. 8, 1920.
Sherrit, Nye B., post office, April 21, 1921.
Singleton, C. C., District Quartermaster's, April 26, 1922.
Taylor, Richard G., Survey office, Jan. 8, 1921.
Vanderslice, Geo. J., Administration Building, room 237, Nov. 6, 1921.
Wang, Frank H., Bureau of Posts, April 30, 1923.
Wempe, Henry J., Chief Quartermaster's, Nov. 31, 1921.
Woodruff, B. C., Accounting Department, Feb. 6, 1921.

ANCON.

Boyd, Oscar S., Municipal Engineering Division, July 30, 1922.
LeMire, George, post office, April 30, 1923.
Sheibley, F. H., District Court, Nov. 1, 1920.
Williams, H. E., public stenographer, Tivoli, Jan. 10, 1921.
Woolworth, P. T., Clubhouse, Oct. 28, 1921.

COROZAL.

Gill, Joseph H., Armament Office, Dec. 10, 1922.
Igen, W. F., station agent, Dec. 3, 1922.

PEDRO MIGUEL.

Oliver, Rev. E. M., Minister, April 30, 1923.

CULEBRA.

Thornton, H. O., station agent, Dec. 3, 1922.

EMPIRE.

Cooper, H. J., station agent, Dec. 3, 1922.

SUMMIT.

Wood, A. C., station agent, Dec. 3, 1922.

GAMBOA.

Grechan, P. A., station agent, Dec. 3, 1922.

MONTE LIRIO.

Collins, E. G., station agent, Dec. 3, 1922.

FRIJIOLES.

Coffey, D. A., station agent, Dec. 17, 1922.

GATUN.

Davis, Lee, Clubhouse, Oct. 28, 1921.
De Lange, William, Electrical Division, Dec. 12, 1922.
Hanrahan, T. J., station agent, Dec. 3, 1922.

CRISTOBAL.

Campbell, James S., Assistant District Court Clerk, Jan. 29, 1923.
Daniels, W. L., Building Division, March 25, 1921.
Dwyer, J. W., Commissary Division, Sept. 27, 1921.
Hansli, A. J., coaling plant, Oct. 16, 1921.
Hulsebosch, P. C., Cristobal shops, Aug. 28, 1921.
MacSparren, E. S., Receiving and Forwarding Agency, Oct. 16, 1921.
McCarthy, J. S., Cattle Industry, Feb. 10, 1922.
Mitchell, J. A., Customs office, March 31, 1922.
Nicholls, L. H., coaling plant, Mt. Hope, Feb. 20, 1923.
O'Meara, Chester V., Commissary Division, March 23, 1923.
Rattiner, W. H., Municipal Engineering Division, Feb. 18, 1921.
Flood, Arthur, Customs office, Nov. 15, 1922.
Stone, W. H., Mechanical Division, Sept. 4, 1922.
Tyson, Arthur E., Clubhouse, Oct. 28, 1921.
Weaver, H. D., Port Captain's office, May 11, 1922.
Yearick, G. L., Commissary Division, March 22, 1920.

There are no notaries at present at Naos Island, Fort Amador, La Boca, Miraflores, Paraiso, Las Cascadas, Darien, Mount Hope, Coco Solo, France Field, or the Submarine Base.

Official Circulars.

Act of Congress—Masonic Temple Building, Cristobal.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 23, 1920.

CIRCULAR NO. 600-70:

The Act of Congress quoted below is published for the information of all concerned.

CHESTER HARDING, Governor.

AN ACT To remove a certain tract or lots of land in Cristobal, Canal Zone, from the operation and effect of the Executive order of the President of December 5, 1912, pursuant to the Act of Congress of August 24, 1912 (Thirty-seventh Statutes, chapter 390, page 565).

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following tract of land situated within the Canal Zone, and more particularly described as lots numbered six hundred and forty-one, six hundred and forty-three, six hundred and forty-five, and six hundred and forty-seven, in the town of Cristobal, Canal Zone, the same being bounded on the north by Eleventh Street, on the east by Bolivar Street, on the south by lot numbered six hundred and forty-nine, and on the west by a vacant lot, the said lots or tract of land having an extension from north to south of one hundred and twenty feet and from east to west of one hundred feet, and measuring in superficial area twelve thousand square feet, be, and the same is hereby, withdrawn from the operation and effect of the Act of Congress approved August 24, 1912, known as the Panama Canal Act (Thirty-seventh Statutes, chapter 390, page 565), and the subsequent Executive order of the President, issued pursuant to the said Act of Congress under date of December 5, 1912.

SEC. 2. The Panama Railroad Company is hereby authorized to sell, transfer, and convey said lots or tracts of land with all improvements thereon to any other person or persons or association of persons and retain the consideration therefor for its own use.

Approved, June 5, 1920.

Act of Congress—Sundry Civil Appropriation, 1921.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 24, 1920.

CIRCULAR NO. 600-72:

The extracts from an Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING, Governor.

AN ACT Making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1921, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for the fiscal year ending June 30, 1921, namely:

- * * * * *
- WAR DEPARTMENT. * * * * *
- * * * * *
- QUARTERMASTER CORPS. * * * * *
- * * * * *

NATIONAL CEMETERIES: Disposition of remains of officers, soldiers, and civilian employees: For interment, cremation (only upon request from relatives of the deceased), or preparation and transportation to their homes or to such national cemeteries as may be designated by proper authority, in the discretion of the Secretary of War, of the remains of officers, cadets, United States Military Academy, including acting assistant surgeons and enlisted men

in active service, and accepted applicants for enlistment; interment, or preparation and transportation to their homes, of the remains of civil employees of the Army in the employ of the War Department who die abroad, in Alaska, in the Canal Zone, or on Army transports, * * *

* \$21,549,000: Provided, That the above provisions shall be applicable in the cases of officers and enlisted men on the retired list of the Army who have died or may hereafter die while on active duty by proper assignment and also to citizens of the United States who may have died while serving in the armies of the Allies associated with the American forces: Provided further, That, in addition to the foregoing sum, the unobligated balance of the appropriation "Disposition of Remains of Officers, Soldiers, and Civil Employees," for the fiscal year 1920 is made available during the fiscal year 1921 for the care and maintenance of graves of officers, soldiers, and civilian employees of the Army abroad, and for the preparation and shipment of their remains to their homes, or to national cemeteries: Provided further, That there may be expended from and after the approval of this Act and until June 30, 1921, from this appropriation and the appropriation for this purpose for the fiscal year 1920, a total amount not exceeding \$250,000 for personal services in the Cemetery Division, Office of the Quartermaster General, War Department, for compiling, recording, preparing, and transmitting data incident to the disposition of the remains referred to herein; this sum may be expended notwithstanding the third proviso of the paragraph entitled "Temporary employees, War Department," contained in the Legislative, Executive, and Judicial Appropriation Act for the fiscal year 1921.

DEPARTMENT OF THE INTERIOR.

SAINT ELIZABETHS HOSPITAL.

For support, clothing, and treatment in Saint Elizabeths Hospital of the insane from the Army, Navy, Marine Corps, Coast Guard, inmates of the National Home for Disabled Volunteer Soldiers, persons charged with or convicted of crimes against the United States who are insane, all persons who have become insane since their entry into the military and naval service of the United States, civilians in the quartermaster's service of the Army, persons transferred from the Canal Zone, who have been admitted to the hospital and who are indigent, * * * \$1,000,000; * * *

DEPARTMENT OF COMMERCE.

COAST AND GEODETIC SURVEY.

Field expenses: For surveys and necessary surveys of the Atlantic and Gulf coasts of the United States, including the coasts of outlying islands under the jurisdiction of the United States: Provided, That not more than \$45,000 of this amount shall be expended on the coasts of said outlying islands, and the Atlantic entrance to the Panama Canal, \$104,000; * * *

THE PANAMA CANAL.

For every expenditure requisite for and incident to the maintenance and operation, sanitation, and civil government of the Panama Canal and Canal Zone, including the following: Compensation of all officials and employees, including \$1,000 additional compensation to the Auditor for the War Department for extra services in auditing accounts for the Panama Canal; foreign and domestic newspapers and periodicals; law books not exceeding \$500, textbooks and books of reference; printing and binding, including printing of annual report; rent and personal services in the District of Columbia; purchase or exchange of typewriting, adding, and other machines; purchase or exchange, maintenance, repair, and operation of motor-propelled and horse-drawn passenger-carrying vehicles; claims for damages to

vessels passing through the locks of the Panama Canal, as authorized by the Panama Canal Act; claims for losses of or damages to property arising from the conduct of authorized business operations; claims for damages to property arising from the maintenance and operation, sanitation, and civil government of the Panama Canal; acquisition of land and land under water, as authorized in the Panama Canal Act; expenses incurred in assembling, assorting, storing, repairing, and selling material, machinery, and equipment heretofore or hereafter purchased or acquired for the construction of the Panama Canal which are unserviceable or no longer needed, to be reimbursed from the proceeds of such sales; expenses incident to conducting hearings and examining estimates for appropriations on the Isthmus; expenses incident to any emergency arising because of calamity by flood, fire, pestilence, or like character not foreseen or otherwise provided for herein; per diem allowance in lieu of subsistence when prescribed by the Governor of the Panama Canal, to persons engaged in field work or traveling on official business, pursuant to section 13 of the Sundry Civil Appropriation Act approved August 1, 1914; and for such other expenses not in the United States as the Governor of the Panama Canal may deem necessary best to promote the maintenance and operation, sanitation, and civil government of the Panama Canal, all to be expended under the direction of the Governor of the Panama Canal and accounted for as follows:

For maintenance and operation of the Panama Canal, salary of the governor, \$10,000; purchase, inspection, delivery, handling, and storing of material, supplies, and equipment for issue to all departments of the Panama Canal, the Panama Railroad, other branches of the United States Government, and for authorized sales, payment in lump sums of not exceeding the amounts authorized by the injury compensation Act approved September 7, 1916, to alien cripples who are now a charge upon the Panama Canal by reason of injuries sustained while employed in the construction of the Panama Canal, \$7,531,851, together with all moneys arising from the conduct of business operations authorized by the Panama Canal Act;

For sanitation, quarantine, hospitals, and medical aid and support of the insane and of lepers, and aid and support of indigent persons legally within the Canal Zone, including expenses of their deportation when practicable, and including additional compensation to any officer of the United States Public Health Service detailed with the Panama Canal as chief quarantine officer, \$850,000;

For civil government of the Panama Canal and Canal Zone, salaries of district judge \$7,500, district attorney \$5,000, marshal \$5,000, and for gratuities and necessary clothing for indigent discharged prisoners, \$900,000;

In all, \$9,281,851, to be available until expended.

Except in cases of emergency, or conditions arising subsequent to and unforeseen at the time of submitting the annual estimates to Congress, and except for those employed in connection with the construction of permanent quarters, offices, and other necessary buildings, dry docks, repair shops, yards, docks, wharves, warehouses, storehouses, and other necessary facilities and appurtenances for the purpose of providing coal and other materials, labor, repairs, and supplies, and except for the permanent operating organization under which the compensation of the various positions is limited by section 4 of the Panama Canal Act, there shall not be employed at any time during the fiscal year 1921 under any of the foregoing appropriations for the Panama Canal, any greater number of persons than are specified in the notes submitted, respectively, in connection with the estimates for each of said appropriations in the annual Book of Estimates for said year, nor shall there be paid to any such person during that fiscal year any greater rate of compensation than was authorized to be paid to persons occupying the same or like positions on July 1, 1919; and all employments made or compensation increased because of emergencies or conditions so

arising shall be specifically set forth, with the reasons therefor, by the governor in his report for the fiscal year 1921.

In addition to the foregoing sums there is appropriated, for the fiscal year 1921 for expenditures and reinvestment under the several heads of appropriation aforesaid without being covered into the Treasury of the United States, all moneys received by the Panama Canal from services rendered or materials and supplies furnished to the United States, the Panama Railroad Company, the Canal Zone government, or to their employees, respectively, or to the Panama Government, from hotel and hospital supplies and services; from rentals, wharfage, and like service; from labor, materials, and supplies and other services furnished to vessels other than those passing through the Canal and to others unable to obtain the same elsewhere; from the sale of scrap and other by-products of manufacturing and shop operations; from the sale of obsolete and unserviceable materials, supplies, and equipment purchased or acquired for the operation, maintenance, protection, sanitation, and government of the canal and Canal Zone; and any net profits accruing from such business to the Panama Canal shall annually be covered into the Treasury of the United States.

In addition there is appropriated for the operation, maintenance, and extension of water works, sewers, and pavements in the cities of Panama and Colon, during the fiscal year 1921, the necessary portions of such sums as shall be paid as water rentals or directly by the Government of Panama for such expenses.

SEC. 2. That all sums appropriated by this Act for salaries of officers and employees of the Government shall be in full for such salaries for the fiscal year 1921, and in conflict with laws to the extent they are in conflict with the provisions of this Act are repealed.

SEC. 4. Any journal, magazine, periodical, or similar publication which is now being issued by a department or establishment of the Government may, in the discretion of the head thereof, be continued, within the limitation of available appropriations or other Government funds, until June 30, 1921, when, if it shall not have been specifically authorized by Congress before than date, such journal, magazine, periodical, or similar publication shall be discontinued.

SEC. 7. Hereafter no department or other Government establishment shall dispose of any typewriting machines by sale, exchange, or as part payment for another typewriter, that has been used less than three years.

Approved, June 5, 1920.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 28, 1920.
CIRCULAR No. 661-86:

Effective this date, Lieutenant Harry Champeño, U. S. N., is appointed Supervisor of Harbor Craft (Marine Division) and Engineer Member, Board of Local Inspectors.

CHESTER HARDING, Governor.

Administrator's Sale.

The Commissary tailor shop at Ancon is authorized to sell, for the account of the estate of Joseph M. Glover, a deceased American employee of The Panama Canal, a two-piece suit of blue worsted which was being made for the deceased when he died. The coat is a 38, the trousers of 29½ length, 32½ waist. The sale price is \$35, but persons offering less than this figure may leave written and sealed bids on the suit with the tailor. Bids will be opened in the Administrator's office at 10 a. m., Monday, August 2, 1920, in case the suit has not previously been sold at the \$35 price. No advance deposit of money is required with bids. The Administrator reserves the right to reject any or all bids.

C. H. CAIHOUN,
Administrator of Estates.

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, May, 1920.—Continued from page 686.

From—	San Pedro, Cal.	Los Angeles, Cal.	San Francisco, Cal.	Seattle, Wash.	Vancouver, B. C.	Durham, Australia.	Fremantle, Australia.	Melbourne, Australia.	Sydney, Australia.	Auckland, New Zealand.	Hongkong, China.	Shanghai, China.	Singapore, Straits Settlements.	Cebu, Korea.	Kobe, Japan.	Yokohama, Japan.	Vladivostok, Siberia.	Totals.
New Orleans, La.		6,866								13,020			10,700	6,000	9,450	16,900	8,900	35,616
New York, N. Y.		2,865			5,615	3,052		5,000		10,000					6,708	31,587		100,839
Newport News, Va.																		16,164
Norfolk, Va.						6,200												48,785
Panama, Fla.																		3,365
Philadelphia, Pa.			3,572	5,266														17,199
Puerto Lobos, Mexico.																		8,497
Sabine, Tex.							5,650	5,500				10,100						21,250
Tampico, Mexico.			19,700												6,761			82,409
Texas City, Tex.									5,800									5,800
Tuxpan, Mexico.																		2,600
Totals.....	3,373	9,731	38,163	5,266	5,615	9,252	5,650	10,500	5,800	40,250	10,604	10,100	10,700	6,000	22,919	54,687	8,900	418,678

MOVEMENTS OF OCEAN VESSELS.—Continued from page 689.

*ARRIVALS.				*DEPARTURES.			
PORT OF CRISTOBAL—Continued.							
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 30.....	Abanquez.....	United Fruit Co.	New Orleans and wayports	June 30.....	Calamares.....	United Fruit Co.	Port Limon.
July 1.....	Caribbean.....	Panama Railroad	Cartagena	June 30.....	Abanquez.....	United Fruit Co.	New Orleans.
July 2.....	Logician.....	Liverpool Line.	Liverpool via wayports.	July 1.....	Balsa (d).....	American Balsa Co.	New York and Limon.
July 2.....	Panama.....	Panama Railroad	New York via Haiti.	July 2.....	Achilles (j).....	Panama Railroad Steamship Line.	Norfolk.
July 3.....	Vancouver.....	Gow Harrison & Co.	London via wayports.	July 3.....	Advance.....	Panama Railroad Steamship Line.	N. Y., Santiago, and Haiti.

*ARRIVALS.				*DEPARTURES.			
PORT OF BALBOA.							
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 27.....	City of Para (t).....	Pacific Mail Steamship Co.	High seas.	June 29.....	City of Para.....	Pacific Mail Steamship Co.	San Francisco.
July 1.....	Silverado.....	United States Shipping Board	Portland.				

(t) Return to Balboa for repairs.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.
PUBLISHED WEEKLY.

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Volume XIII. Balboa Heights, C. Z., July 14, 1920. No. 48.

Change in Prices of Coal.—Supplement to Tariff No. 4.

The Panama Canal has issued supplement No. 1 to Tariff No. 4, effective July 10, 1920, advancing the prices of coal to steamships \$1.50 per ton over rates previously in effect. The following are the prices established by supplement No. 1:

	Colon and Cristobal.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants or alongside of vessels in lighters or in cars on the wharves and trimmed in bunkers, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$15.00	\$17.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting transit	-----	15.00
3. To steamships taking less than carload lots from plants, or less than 25 tons from lighters	16.50	18.50
4. When request is made by commander of vessel, chief engineer, or agent, for trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, an additional charge of 90 cents per ton will be made for extra handling.		
5. For lump coal for galley use, delivered in sacks, additional charge per ton, \$10. Should the vessel furnish satisfactory sacks, the price will be only \$3 per ton additional. Not more than 5 tons will be supplied to a vessel.		
6. For coal for cargo which will be delivered only in exceptional cases after special authority is given by the Governor	17.50	19.50

Canal Traffic in June.

The Canal traffic for June, 1920, is shown as classified in the following tabulation:

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.	
						From—	To—
18	American....	81,701	51,445	61,079	90,308	W. coast S. America....	E. coast U. S.
1	Dutch.....	6,944	4,414	6,807	11,200	W. coast S. America....	E. coast U. S.
1	Japanese....	6,079	3,850	4,440	8,175	W. coast S. America....	E. coast U. S.
1	Chilean....	5,919	2,960	3,442	3,915	W. coast S. America....	E. coast U. S.
1	Danish....	4,828	3,030	4,220	6,369	W. coast S. America....	E. coast U. S.
1	Norwegian..	2,095	1,302	1,668	3,300	W. coast S. America....	E. coast U. S.
23	.....	107,566	67,001	81,656	123,267	W. coast S. America....	E. coast U. S.
9	British....	12,607	6,967	9,309	7,826	W. coast S. America....	Cristobal.
3	Peruvian....	12,682	7,014	8,473	8,927	W. coast S. America....	Cristobal.
3	Chilean....	10,252	6,141	8,787	3,749	W. coast S. America....	Cristobal.
2	American....	1,230	744	700	1,530	W. coast S. America....	Cristobal.
1	German....	536	121	123	Ballast...	W. coast S. America....	Cristobal.
18	.....	37,307	20,987	27,302	22,032	W. coast S. America....	Cristobal.
6	British....	44,300	25,018	30,887	26,187	W. coast S. America....	Europe.
4	German....	19,754	12,251	17,082	18,799	W. coast S. America....	Europe.
1	French....	5,765	3,681	4,146	6,681	W. coast S. America....	Europe.
11	.....	69,819	40,950	52,115	51,667	W. coast S. America....	Europe.
4	Japanese....	17,843	11,170	14,959	23,738	Far East.....	E. coast U. S.
3	British....	15,632	9,775	14,865	26,650	Far East.....	E. coast U. S.
1	American....	6,126	3,800	4,793	7,600	Far East.....	E. coast U. S.
1	Italian....	4,302	2,773	3,950	5,200	Far East.....	E. coast U. S.
9	.....	43,903	27,518	38,567	63,188	Far East.....	E. coast U. S.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Pacific to Atlantic.—Continued.	
						From—	To—
7	American...	33,988	21,828	25,754	30,574	U. S. coastwise.....	
5	British.....	38,456	26,642	31,569	32,033	Australia and N. Z'land.	Europe.
2	Norwegian...	14,009	8,860	10,174	Ballast...	W. coast S. America...	Mexico.
2	American...	12,478	8,672	9,882	Ballast...	W. coast S. America...	Mexico.
1	British.....	2,631	1,394	1,718	Ballast...	W. coast S. America...	Mexico.
5	.....	29,118	18,926	21,774	Ballast...	W. coast S. America...	Mexico.
3	American...	18,953	12,571	14,830	24,235	W. coast U. S.....	Europe.
1	British.....	5,162	3,191	3,936	6,702	W. coast U. S.....	Europe.
1	Swedish....	3,745	2,858	4,019	5,400	W. coast U. S.....	Europe.
5	.....	27,860	18,620	22,785	36,337	W. coast U. S.....	Europe.
4	American...	9,901	5,844	6,833	6,020	W. coast U. S.....	Cuba.
1	Norwegian..	1,648	811	1,121	2,300	W. coast U. S.....	Cuba.
5	.....	11,549	6,655	7,960	8,320	W. coast U. S.....	Cuba.
2	American...	12,376	7,644	10,512	11,172	British Columbia.....	United Kingdom.
1	American...	5,991	3,709	4,712	7,600	Philippines.....	E. coast U. S.
1	British.....	4,304	2,804	3,938	5,411	Philippines.....	E. coast U. S.
2	.....	10,295	6,513	8,650	13,011	Philippines.....	E. coast U. S.
2	American...	3,224	2,086	2,344	2,356	W. coast U. S.....	Cristobal.
1	American...	18,373	7,564	5,922	.....	Far East.....	Europe.
1	American...	6,041	4,506	4,954	8,100	W. coast U. S.....	Egypt.
1	Japanese...	4,987	2,616	3,570	6,500	Far East.....	Cuba.
1	British.....	1,170	653	706	1,087	W. coast Cen. America	Cristobal.
1	Colombian..	96	57	95	27	Panama.....	N. Colombian ports.
99	.....	456,128	280,766	346,325	409,671		
No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.	
						From—	To—
9	American...	55,823	35,608	44,533	69,644	E. coast U. S.....	Far East.
5	British.....	35,088	22,190	27,843	24,505	E. coast U. S.....	Far East.
5	Japanese....	26,069	16,565	19,215	32,088	E. coast U. S.....	Far East.
19	.....	116,980	74,363	91,591	136,237	E. coast U. S.....	Far East.
16	American...	67,094	40,181	49,544	58,977	E. coast U. S.....	W. coast S. America.
2	British.....	8,722	5,463	6,768	5,656	E. coast U. S.....	W. coast S. America.
18	.....	75,816	45,644	56,312	64,633	E. coast U. S.....	W. coast S. America.
9	British.....	10,423	5,880	7,284	5,056	Cristobal.....	W. coast S. America.
3	Peruvian...	12,666	6,614	8,209	2,183	Cristobal.....	W. coast S. America.
3	Chilean....	8,704	5,887	8,120	1,819	Cristobal.....	W. coast S. America.
2	American...	1,230	744	700	721	Cristobal.....	W. coast S. America.
1	German....	536	121	123	Ballast...	Cristobal.....	W. coast S. America.
18	.....	33,559	19,246	24,436	9,779	Cristobal.....	W. coast S. America.
6	British.....	33,554	21,341	25,211	24,464	Europe.....	W. coast S. America.
1	French.....	5,607	3,422	4,156	6,884	Europe.....	W. coast S. America.
1	Dutch.....	2,739	1,670	3,059	1,600	Europe.....	W. coast S. America.
8	.....	41,900	26,433	32,426	32,948	Europe.....	W. coast S. America.
8	American...	31,298	20,745	24,217	27,930	U. S. coastwise.....	
3	American...	21,437	15,340	16,461	17,543	Mexico.....	W. coast S. America.
3	British.....	17,948	11,257	13,001	23,800	Mexico.....	W. coast S. America.
1	Norwegian..	6,987	4,422	5,081	9,300	Mexico.....	W. coast S. America.
7	.....	46,372	31,019	34,543	50,643	Mexico.....	W. coast S. America.
6	British.....	28,946	18,383	23,676	34,673	E. coast U. S.....	Australia and N. Z'd.
1	American...	6,208	3,835	5,256	6,651	E. coast U. S.....	Australia and N. Z'd.
7	.....	35,154	22,218	28,932	41,324	E. coast U. S.....	Australia and N. Z'd.
4	British.....	34,776	21,965	27,893	19,027	Europe.....	Australia and N. Z'd.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	Atlantic to Pacific.—Continued.	
						From—	To—
2	British.....	13,215	8,427	10,035	8,450	Europe.....	W. coast U. S.
1	French.....	2,161	1,966	2,013	Ballast...	Europe.....	W. coast U. S.
1	American...	1,394	1,226	1,228	Ballast...	Europe.....	W. coast U. S.
4	.....	16,770	11,619	13,276	8,450	Europe.....	W. coast U. S.
2	American...	8,955	5,878	7,168	10,290	E. coast U. S.....	Philippines.
1	American...	7,318	4,771	5,877	10,009	Mexico.....	W. coast U. S.
1	British.....	4,338	2,808	3,520	5,780	Cuba.....	Australia and N. Z'd.
1	British.....	3,536	2,281	2,570	384	Europe.....	W. coast C. America.
2	British.....	2,298	1,304	1,398	1,699	Cristobal.....	W. coast C. America.
1	American...	3,404	2,163	2,459	2,526	Cuba.....	W. coast U. S.
1	American...	2,433	1,804	1,769	3,100	E. coast U. S.....	British Columbia.
102	.....	434,877	294,261	358,387	424,750		

Projected Services from Seattle Through the Canal.

The following is abstracted from a news letter issued by the publicity bureau of the Chamber of Commerce of Seattle in June:

Five hundred Rotarians from the Rotary Clubs of the Northwest saw the steamship *Rotarian*, 7,500 tons, launched at Tacoma, June 17. The ship has been assigned to the new Shipping Board Service from Seattle and other northern ports to River Platte, South America.

The new service between Seattle and Atlantic ports starting with the sailing of the steamship *Artigas* promises to be a successful one as full cargo has been secured for the Shipping Board carriers coming from the east coast to Seattle.

A steamship service linking Seattle and other coast ports with Norway, Sweden, and Denmark will become effective September 1, according to announcement of W. C. Dawson & Co., local agents for Williams, Diamond & Co. The fleet will carry to the Scandinavian countries such commodities as lumber, grain, and foodstuffs, and will bring back cargoes for Atlantic, Gulf, and Pacific coast ports. Regular monthly sailings out of Seattle and other Pacific Coast ports for Copenhagen, Christiania, Gothenberg, and Malmö will be maintained under the new schedule.

Return of the "Favorite" from Assisting the "Koyo Maru."

The salvaging ship *Favorite* returned to Cristobal on July 8 from her expedition in relief of the steamship *Koyo Maru*, stranded on Serrana Bank. Her master reported that the *Koyo Maru* was hung up about 74 to 75 feet, lying in a southeasterly direction. She had run on the northwest rock at full speed, approximately 8½ knots, although the engines were reversed shortly before striking. Her draft forward was 24 feet 6 inches prior to striking; when she came to rest there were 20 feet of water around the bow. Later she made a bed for herself in the coral rock, settling down to a draft of 24 feet. The plating around the No. 1 hold was punctured and this hold filled with water to the level of the sea. Both bow anchors were let go.

Up to the time that the *Nemesis* arrived, under orders from Lloyd's, to take charge of the wrecking operations, the *Favorite* worked with the purpose of removing cargo from the forward hold and piling it aft, after which the *Koyo Maru* was to be pulled off the bank and collision mats placed over her damaged plating, preparatory to bringing her to Cristobal. After the arrival of the *Nemesis* and her master's stating that no further help was required of the *Favorite*, the master of the *Koyo Maru* requested that the *Favorite* stand by for at least a few days for possible assistance. He expressed deep appreciation of the work which she had done and sent his thanks to the Canal authorities for their prompt assistance.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight July 10, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	To—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Huasco	30	14 48	4	6 07	4	12 42	5	21 18	Chilean	South American Steamship Line	379.7	44.3	23.9	Cristobal	Valparaiso	General	688	4,552	3,182
La Habra	3	20 05	4	6 18	4	15 48	4	17 52	Norwegian	W. Wilhelmsen	424.8	57.0	26.0	Puerto Lobos	Inrique	Crude oil	9,507	7,053	5,003
West Coyote	4	5 47	4	7 57	4	17 15	5	2 50	American	United States Shipping Board	410.5	54.3	22.0	Boston	Seattle	General	5,201	6,567	4,899
Earl (a)	4	6 05	4	8 20	4	15 25	4	15 25	American	United States Government	290.0	25.0	11.0	Norfolk	Balboa (i)	General	7,200	5,525	4,110
Canastota	3	16 20	4	9 45	4	22 08	4	22 08	American	Swan Hunter & Co.	405.0	52.0	22.3	New York	Auckland	General	3,750	5,371	3,969
Malvina	4	9 52	4	10 40	4	18 57	5	18 30	Swedish	Johnson Steamship Line	264.5	51.4	20.0	Gothenburg	Buenos Aires	General	7,200	5,525	4,110
Seward (b)	3	23 30	4	11 15	4	18 57	6	12 50	American	U. S. S. Co.	93.9	61.0	12.6	Boothbay	Guayaquil	Ballast	98	38	38
Leitrim	4	11 30	5	7 05	5	15 36	5	15 30	British	L. A. Morris & Co.	470.0	60.2	30.0	Liverpool	Auckland	General	8,800	10,050	6,834
Tortori Maru	5	15 01	6	6 30	5	15 48	6	15 05	Japanese	Nippon Yusen Kabushiki Kaisha	422.5	55.7	25.0	New York	Honkonga	Case oil, gas, gen	8,821	6,470	4,703
Moorish Prince	5	6 50	6	6 30	6	17 31	8	18 30	British	Prize Line Ltd.	424.8	56.4	27.3	New York	Yokohama	General	7,830	7,629	5,707
Rolph (c)	4	15 22	6	7 41	7	16 58	8	17 31	American	Rolph Navigation and Coal Co.	231.4	43.5	13.6	Liverpool	Balboa (i)	Ballast	8,761	7,486	5,747
Eldon	6	14 05	7	6 13	7	13 19	7	14 12	American	United States Shipping Board	360.3	51.7	23.6	New York	Valparaiso	General	1,997	5,957	4,325
Santa Elisa	3	21 55	7	6 25	7	14 42	7	15 40	French	W. R. Grace & Co.	403.0	46.0	18.0	Havre	Valparaiso	General	1,041	5,857	4,166
Saint Louis	6	18 18	7	6 30	7	15 55	7	17 20	Chilean	Cie. Gle. Transatlantique	138.4	24.0	9.6	New York	Valparaiso	General	1,611	6,050	3,442
Remaco	4	7 05	7	8 12	7	15 42	10	18 42	American	South American Steamship Line	420.0	49.0	29.0	Port Arthur	Balboa (i)	Ballast	1,952	1,023	1,023
Wild Duck (b)	2	19 10	7	11 28	7	17 49	7	20 40	British	Pacific Steam Navigation Co.	246.0	35.2	15.6	Cristobal	Guayaquil	General	3	3	3
Caena	3	15 00	7	10 15	7	10 15	8	02	American	Robert T. Payne	81.0	25.6	8.1	Cristobal	Gatun Lake	Ballast	19	130	69
Jim (d)	4	20 20	8	6 40	8	13 30	9	02	British	Pacific Metals Corporation	399.9	54.7	19.6	Cristobal	Buenaventura	General	3,360	6,108	4,365
Eastern Glade	8	10 05	8	10 34	8	17 25	8	22 38	American	United States Shipping Board	380.0	49.0	18.8	Baltimore	Gatun Lake	General	4,800	4,650	3,414
Lock City (d)	3	17 00	8	8 08	8	14 04	8	14 04	American	W. C. Hyster	370.0	50.0	21.6	Cristobal	Vancouver	General	5,471	5,153	3,988
Mount Etna	8	9 08	9	6 27	9	14 58	9	16 09	British	Soft Steamship Co.	184.0	18.0	14.6	Cristobal	San Pedro	Navy coal	7	7	7
Melville Dollar	8	18 22	9	6 35	9	16 30	10	10 19	British	Canadian Steamship Dollar Co.	184.0	18.0	14.6	New York	San Pedro	General	3	3	3
R-11 (f)	28	6 00	9	6 39	9	13 49	9	14 58	American	United States Navy	184.0	18.0	14.6	New London	San Pedro	General	811	3,429	2,206
R-12 (f)	28	5 30	9	6 52	9	13 52	9	14 58	American	United States Navy	184.0	18.0	14.6	New London	San Pedro	General	359	741	350
R-13 (f)	28	6 45	9	6 49	9	13 52	9	14 58	American	United States Navy	184.0	18.0	14.6	New London	San Pedro	General	2,390	2,586	1,747
R-14 (f)	28	6 30	9	6 45	9	13 52	9	14 58	American	United States Navy	184.0	18.0	14.6	New London	San Pedro	General	2,390	2,586	1,747
Nika	4	10 20	9	7 15	9	16 25	9	17 30	American	Hodge Shipping Co.	267.3	45.0	22.8	New Orleans	Valparaiso	Lumber, etc	2,390	2,586	1,747
O-11 (g) O-13/ and O-14 (7/8)			9	7 35	9	15 31			American	United States Navy				Coco Solo	Balboa				
O-12 (f) O-15 (f) and O-16 (f)	30		9	7 46	9	15 35			American	United States Navy	400.0	45.0	24.0	Coco Solo	Balboa	Coke and general	4,269	5,037	3,492
Sherman	9	10 40	9	10 30	9	17 45	10	16 08	American	United States Navy	325.0	40.0	23.8	New York	Arifangasta	Coal	4,025	10,712	2,267
Jugoslaven Prvi	9	9 02	9	10 34	9	18 28	9	19 40	Jugo-Slav	Mitrovich P.	511.6	62.0	25.1	Newport News	Valparaiso	General	811	3,429	2,206
Oreoma	8	19 42	9	11 25	9	19 13	9	21 38	British	Pacific Steam Navigation Co.	307.7	42.2	16.6	Liverpool	San Francisco	General	359	741	350
Cuba	6	5 50	10	6 05	10	13 49	10	18 42	American	Pacific Mail Steamship Co.	190.0	29.0	12.9	Cristobal	Buenaventura	General	2,390	2,586	1,747
Balboa	6	13 40	10	6 12	10	13 44	10	8 30	American	Colombian Maritime Co.	190.0	29.0	12.9	Cristobal	Buenaventura	General	2,390	2,586	1,747

(a) Coast Guard cutter. (b) Yacht. (c) Barkentine. (d) Launch. (e) Motor schooner. (f) Submarine. (g) Arrived April 30. (h) Arrived April 29. (i) For orders.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.																											
Rangeas.	Westward Ho.	Guanoaste (e).	Essequibo	8	12	17	10	6	29	10	14	20	10	22	40	Chilean	Chilean Government	466.0	50.1	28.0	Norfolk	Africa	Coal and general	6,449	6,101	3,773	
				9	20	10	8	20	10	16	12	10	19	17	10	19	American	Pacific Mail Steamship Co.	410.0	54.2	14.0	Baltimore	Seattle	General	1,325	800	5,072
				10	6	30	10	9	15	10	17	97	10	19	58	American	American Manganese Co.	165.5	36.5	15.0	Mobile	La Union	Railroad irons	8,500	644	453	
				9	14	4	10	11	35	10	15	35	10	22	55	British	Pacific Steam Navigation Co.	449.0	57.0	25.0	Liverpool	Valparaiso	General	2,374			
				3	19	00	4	7	31	4	15	00	4	19	05	American	Standard Oil Co.	415.0	55.2	18.5	Antofagasta	Tampico	Ballast	9,000	6,438	4,391	
				3	20	00	4	7	50	4	17	20	4	15	28	British	Nautilus Steam Navigation Co.	396.0	56.2	23.6	Puntarenas	Liverpool	General	7,280	6,379	5,072	
				4	00	4	9	04	4	16	20	4	19	13	British	British India Steam Nav. Co.	449.5	58.2	22.7	Tumaru	London	Frozen meat	3,800	8,209	5,313		
				4	6	10	4	9	20	4	18	30	4	22	58	British	Cunard Line	480.0	62.2	26.6	Sydney	London	General, etc.	10,000	10,821	8,047	
				4	6	00	4	11	55	4	20	02	6	11	15	American	United States Navy	520.0	65.0	21.3	San Francisco	Norfolk	Lows	4,500			
				3	17	30	4	12	27	4	20	20	6	12	55	American	Pacific Metals Corp.	81.0	25.6	10.0	Buenaventura	Cristobal	Coffee, etc.	75	130	69	
				28	21	00	5	6	36	5	14	32	6	18	30	Danish	Chicago & South End S. S. Co.	214.0	34.4	13.0	Seattle	Chicago	Ballast	1,265	787		
				4	14	30	5	6	36	5	16	30	6	12	21	British	East Asiatic Steamship Co.	413.0	52.5	28.6	Hongkong	Copenhagen	General	9,000	9,089	6,215	
				5	3	20	5	10	11	5	17	43	10	12	35	American	Pacific Steam Navigation Co.	450.3	57.8	23.0	Talara	San Juan	Nitrates	3,000	2,544	1,927	
				4	13	45	5	13	18	5	20	27	6	4	2	American	Alaska Steamship Co.	241.0	43.2	26.0	Callao	San Francisco	Lubricating oil	9,642	7,602	5,341	
				5	12	25	6	6	32	6	13	40	6	12	American	United States Shipping Board	435.0	56.0	22.0	San Francisco	Puulshoro	Flour	6,179	5,657	4,089		
				5	15	16	6	6	32	6	19	36	10	6	12	British	Colombian Maritime Co.	379.1	53.1	23.5	Portland	New York	General	615	5,741	330	
				6	3	00	7	6	59	7	17	12	8	9	15	American	Alexander Shipping Co.	390.0	49.7	22.0	Buenaventura	Cristobal	General	3,104	4,017	2,938	
				7	7	30	7	9	02	7	16	12	7	16	45	American	United States Government	473.0	67.0	22.0	Viadivostok	Havre	General	1,187	9,267	6,794	
				7	15	35	8	6	46	8	14	47	8	15	05	Japanese	United States Steel Products Co.	360.0	51.6	21.0	Portland	Immingham	Wheat, etc.	1,600	4,605	3,047	
				8	4	00	8	7	59	8	16	15	12	16	17	Chilean	W. R. Grace & Co.	400.0	53.0	25.6	Valparaiso	New York	Nitrates, sugar	7,950	5,726	4,086	
				4	13	1	8	12	16	8	19	40	8	19	50	American	Kokusai Kisen Kabushiki	336.8	41.2	21.6	Yokohama	Cristobal	Sugar	1,494	3,624	2,475	
				8	12	16	8	12	16	8	19	40	8	19	50	American	South American Steamship Line	410.5	54.0	25.6	Portland	Avonmouth	Wheat	6,886			
				8	4	1	9	6	41	9	14	37	10	12	10	Italian	United States Shipping Board	362.0	47.5	23.6	Valparaiso	Genoa	General	5,873	5,886	4,289	
				8	8	18	9	7	18	9	15	19	9	17	47	British	National Navigation Society	450.0	58.5	22.0	Valparaiso	London	Meat, etc.	4,098			
				9	8	02	9	8	02	9	15	20	9	17	47	American	Ocean Steam Navigation Co.	155.0	30.0	12.0	Balboa	Cristobal	Rice	7,099	6,589	4,770	
				9	9	00	9	10	10	9	20	20	9	22	15	American	United States Navy	439.8	54.2	24.3	Saigon	Cardena	Lubricating oil	11,000	8,683	6,040	
				9	8	00	9	10	44	9	20	10	10	12	American	United States Shipping Board	409.5	58.0	30.0	San Francisco	London	General	2,235	3,568	2,276		
				9	20	00	10	7	48	10	15	03	11	11	0	British	Standard Oil Co.	360.6	43.2	20.0	Guayaquil	New York	Cocoa, etc.	5,206	11,149	7,121	
				10	5	30	10	8	48	10	16	32	10	20	15	British	Pacific Steam Navigation Co.	485.0	62.3	24.6	Wellington	London	General				
																	New Zealand Shipping Co.										

PORT OF CRISTOBAL.

*ARRIVALS.											
Date.	Vessel.	From—	Date.	Vessel.	Line.	For—					
July 3	Capel Hall	Leslie Steamship Co.	July 4	Calamars	United Fruit Co.	New York via Habana.					
July 3	Columbia	New Orleans & S.A. Steamship Line	July 4	Caribbean	Panama Railroad Cattle Industry	Caribbean					
July 4	Calamars	New Orleans	July 4	Lojacion	Leyland Line	New Orleans					
July 4	Cartago	United Fruit Co.	July 4	Vancouver	Gow Harrison & Co.	Puerto Colombia.					
July 5	Pastores	United Fruit Co.	July 5	Capel Hall	Leslie Steamship Co.	Colombian ports.					
July 6	Atenas	United Fruit Co.	July 5	Columbia	New Orleans & S.A. Steamship Line	Port Union.					
July 7	Santa Maria	United Fruit Co.	July 7	Atenas	United Fruit Co.	New Orleans.					

*DEPARTURES.

*ARRIVALS.											
Date.	Vessel.	From—	Date.	Vessel.	Line.	For—					
July 3	Capel Hall	Leslie Steamship Co.	July 4	Calamars	United Fruit Co.	New York via Habana.					
July 3	Columbia	New Orleans & S.A. Steamship Line	July 4	Caribbean	Panama Railroad Cattle Industry	Caribbean					
July 4	Calamars	New Orleans	July 4	Lojacion	Leyland Line	New Orleans					
July 4	Cartago	United Fruit Co.	July 4	Vancouver	Gow Harrison & Co.	Puerto Colombia.					
July 5	Pastores	United Fruit Co.	July 5	Capel Hall	Leslie Steamship Co.	Colombian ports.					
July 6	Atenas	United Fruit Co.	July 5	Columbia	New Orleans & S.A. Steamship Line	Port Union.					
July 7	Santa Maria	United Fruit Co.	July 7	Atenas	United Fruit Co.	New Orleans.					

(Continued on page 709, column 2.)

(j) Motor ship. (k) Transport. (l) Tug. (m) Guantohala.

Return of the "Cristobal" to Passenger Service.

The steamship *Cristobal* of the Panama Railroad Steamship Line arrived at Cristobal on July 8 from New York on her first voyage in regular service after being rebuilt at Balboa shops. Following her reconstruction and tests on the Isthmus, she was sent to New York (May 2) for the completion of her furnishings, and on July 1 sailed on her first voyage in passenger service, carrying 103 passengers and 3,190 tons of cargo for Cristobal. She is scheduled to clear on her return voyage to New York on July 16.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending July 10, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Gen. Geo. W. Goethals	Panama Railroad Steamship Line.	June 27	June 29	410	11
Tolosa	United Fruit Co.	June 27	June 27	42	
Caribbean	Panama Railroad Cattle Industry	June 27	June 27		99
Ucayali	Peruvian Line	June 28	June 28		43
Acajutla	Pacific Steam Navigation Co.	June 28	June 28		60
Parismina	United Fruit Co.	June 28	June 30	848	49
Achilles	Panama Railroad Steamship Line.	June 28	July 2	†12,114	
H. M. Flagler	West India Oil Co.	June 29	June 30	†2,540	
Calamares	United Fruit Co.	June 29	June 30	94	12
Colon	Panama Railroad Steamship Line.	June 29	June 29		1,471
Ancon	Panama Railroad Steamship Line.	June 30	June 29	†6,615	
Fairhaven	Anglo-American Steamship Co.	June 30	July 3	60	
Huasco	South American Steamship Co.	June 30	June 30	18	
Abangarez	United Fruit Co.	June 30	June 30		‡
*Buford	United States Army	June 30	June 30		428
Chile	Pacific Steam Navigation Co.	July 1	July 1		11‡
Caribbean	Panama Railroad Cattle Industry	July 1	July 1	150	
Logician	Leyland Line	July 2	July 2	48	
Salvador	Pacific Steam Navigation Co.	July 2	July 2	23	
Cauca	Pacific Steam Navigation Co.	July 2	July 2	4	
Panama	Panama Railroad Steamship Line.	July 2	July 2	1,726	
San Jose	Pacific Mail Steamship Co.	July 2	July 3		70
Vancouver	Royal Mail Steam Packet Co.	July 3	July 3	9	
Nika	Hodge Steamship Co.	July 4	July 9	700	
Calamares	United Fruit Co.	July 4	July 4	20	4‡
Capel Hall	United Fruit Co.	July 4	July 5	56	
St. Louis	Fr. Cie. General Transatlantica.	July 4	July 7	38	84‡
Valparaiso	Johnson Steamship Line.	July 4	July 4	10	
Cartago	United Fruit Co.	July 5	July 6	804	1
Huasco	South American Steamship Co.	July 5	July 4		‡
Caribbean	Panama Railroad Cattle Industry	July 4	July 4		45
Logician	Leyland Line	July 4	July 4		12‡
Pastores	United Fruit Co.	July 6	July 7	32	4
Sudbury	Pacific Steam Navigation Co.	July 6	July 7	144	
Santa Marta	United Fruit Co.	July 7	July 8	20	26‡
Europa	La Veloce Steamship Co.	July 7	July 7		44‡
Cauca	Pacific Steam Navigation Co.	July 7	July 7		97
Atenas	United Fruit Co.	July 7	July 7	1‡	
Ancon	Panama Railroad Steamship Line.	July 7	July 8		86
Cristobal	Panama Railroad Steamship Line.	July 8	July 8	1,099	
Caribbean	Panama Railroad Cattle Industry	July 8	July 8	200	
Point Bonita	Pacific Mail Steamship Co.	July 9	July 11	412	
Faraday	All-America Cables Co.	July 9	July 9	2	
Panama	Panama Railroad Steamship Line.	July 9	July 9		6‡

*U. S. Army transport.

†Coal.

‡Oil.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending July 10, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Valparaiso	Johnson Line	July 5	July 5	72	
Laura C. Hall	Pacific Metals Corporation	July 4	July 4	10	
Dillwyn	Standard Oil Co.	July 4	July 5	1	
Sudbury	Capper Alexander	July 4	July 6	320	
Ansaldo San Giorgio II	Nacionale Navigacion Societe.	July 8	July 8	1	192
Balboa	Colombia Maritime Co.	July 10	July 10		72

In Memory of William Crawford Gorgas.

Following the death of Major General Gorgas in London on July 4, numerous memorial tributes were paid on the Isthmus, where he was Chief Sanitary Officer during the construction period of the Canal. On July 8 the Governor issued the following circular, naming in his honor the road through Ancon Hospital, one of his principal interests during his life on the Isthmus:

The circular of March 31, 1920, giving names to streets and roads in Ancon, Balboa Heights, and Balboa, is amended as follows:

The road leading from Ancon post office through the grounds of Ancon Hospital to the top of the hill at the women's bachelor quarters, and known as "Hospital Road," is designated "Gorgas Road" in honor of the late General William C. Gorgas, U. S. A., former member of the Isthmian Canal Commission, and in commemoration of the many distinguished services rendered by him.

W. C. Gorgas was born in Mobile, Ala., October 3, 1854, and entered the medical service of the United States Army on June 16, 1880. He was chief sanitary officer in Habana from 1898 to 1902, and on June 2, 1904, was employed by the Isthmian Canal Commission, arriving on the Isthmus on June 28 as chief sanitary officer, serving in this capacity until April 6, 1914, when he was relieved from duty on the Isthmus and appointed Surgeon General of the Army. He became a member of the Isthmian Canal Commission on March 4, 1907, remaining a member until the Commission was succeeded by The Panama Canal, April 1, 1914. His service as Surgeon General included the major period of the World War; in the autumn of 1918 he reached the age limit and retired from the Army. For the rest of his life he was employed by the Rockefeller Foundation, devoting his time principally to combating yellow fever in its few remaining endemic centers in South and Central America. In October of 1919 he stated that the work had advanced to such a point that the complete extirpation of the disease from the world was assured.

General Rules for Sales to Vessels by Private Concerns.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., July 1, 1920.

CIRCULAR No. 724.

1. The following rules are hereby established for the regulation and control of "runners" and "bumboatmen" in the harbors and other waters of the Panama Canal.

2. For the purpose of this circular a "runner" shall be considered a person representing a reputable business firm in solicitation of the sales of stores and chandlery to vessels; "bumboatmen" shall be considered persons actually operating boats for the direct sale of goods and wares to the crew or passengers of a vessel.

3. Both "runners" and "bumboatmen" must have regular peddlers' licenses, and in addition the special permits for the business in which they are engaged.

4. Permits for "runners" and "bumboatmen" shall be issued by the Division of Civil Affairs, upon approval of the Captain of the Port and Quarantine Officer of the port for which application is made, and they shall be valid until revoked.

5. Violation of any of the rules or regulations contained herein, or any other rules or regulations of The Panama Canal, may be considered sufficient cause for the revocation of the permit granted the holder to do business as "runner" or "bumboatman."

RUNNERS.

6. A permit for runner shall be issued in the name of the firm making application, and must be in the possession of the runner when transacting business in Canal ports.

7. The firm or business shall be responsible for the conduct of any agent who has possession of runner permit issued to said firm or business, and any violation of these regulations, or other regulations of The Panama Canal, on the part of such agent may result in the revocation of the permit.

8. Runner permits shall be issued only to reputable and responsible firms capable of caring adequately and efficiently for the needs of vessels as to stores, supplies, chandlery, etc.

9. Runners will be carried to arriving vessels in the same launch with Commissary runner upon payment of pro rata share of charge for service. Runners using private launches must start from docks in the Canal Zone. They must not operate from Panaman waters.

10. No runner shall board any vessel against the wishes of the master, or before the ship has been released by the Customs and Quarantine officials, and the quarantine flag lowered.

11. Deliveries of supplies sold by runners may be made by the supply boats under the control of and at the rates fixed by the Captain of the Port, and all supplies must be ready for delivery in time to prevent delay to ship or interference with operation of the Canal.

12. The Chief Customs Inspector must be notified in advance of deliveries of supplies to a vessel, and he may require a list of the supplies to be delivered. Supplies returned undelivered must be shown on the list delivered to the Customs.

BUMBOATMEN.

13. Bumboat licenses shall be issued only to persons of good character and reputation.

14. Bumboatmen must submit a list of stock to the Customs before they will be permitted to do business or enter harbor limits, and this stock may be checked upon return or at any other time by Customs officers.

15. Bumboatmen must have their licenses in their possession when engaged in their business and at no time shall they carry with them more than one assistant.

16. Bumboatmen shall not go aboard any vessel.

17. Bumboatmen shall not charge unreasonable or exorbitant prices, and any fruits or other foodstuffs sold must be in a clean and wholesome condition.

18. Bumboatmen shall not sell to ships' crews except for cash.

19. Bumboatmen shall not sell or have in their possession any drugs, intoxicants, or bottled goods of any description.

BUMBOATS.

20. Bumboats must be seaworthy and serviceable craft.

21. Bumboats shall not go alongside any vessel within the terminal ports without permission of the commanding or other officer in charge.

22. Bumboats shall not attempt to go alongside of nor approach within 200 feet of a vessel until such vessel has been properly anchored and released by the Customs and Quarantine officials, and the quarantine flag has been lowered.

23. Bumboats, if alongside a vessel while at anchor, shall immediately leave when that vessel gets under way, and shall at no time attempt to go alongside a vessel while under way.

24. Bumboats lying alongside the gangway of a vessel at anchor shall at all times give the right of way to all official launches and boats.

25. Bumboats will not be permitted to go alongside of vessels at the docks, including the coaling plant.

26. Bumboats will be permitted to go alongside of vessels only between 7 a. m. and 6 p. m.

27. Except in running to and from ships, bumboats will not be permitted to operate in the slips and waters surrounding the docks, and will not be permitted to leave the wharf except by express permission of the Port Captain's office.

28. Bumboats shall not operate from Panaman territory, but must enter and leave via the main entrance at the terminal building and have their wares inspected by the Customs officials, both going and coming.

29. Bumboats will not be permitted to carry passengers or members of the crews to and from ships.

30. Bumboats shall have their license number prominently displayed on both bows and across the stern of the boat. Numbers on bow must be not less than 8 inches and across the stern not less than 4 inches in height.

31. Bumboats shall at no time interfere with navigation of Canal waters by transiting ships, and The Panama Canal will not be liable for any damage to bumboats.

CHESTER HARDING,
Governor.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Commercial Radio Service Extended to Republic of Panama, Colombia, Ecuador, and Venezuela.

The District Communication Superintendent of the Fifteenth Naval District has issued the following circular notice under date of July 1, 1920:

The Naval Communication Service is now prepared to handle commercial as well as official radio traffic between the Canal Zone and the Republic of Panama, Colombia, Ecuador, and Venezuela. Messages may be filed at either Balboa radio station, Panama Railroad telegraph offices, or Panama National telegraph offices. Messages to Colombia, Ecuador, and Venezuela are sent by radio from Balboa radio station to Puerto Obaldia radio station, thence to Cartagena radio station, Colombia. Messages to all parts of Colombia, Ecuador, and Venezuela are then transmitted from Cartagena by telegraph.

Charges from Balboa radio station to Cartagena city: 22 cents per word for Spanish and 24 cents for English or code. For all other points in Colombia, Ecuador, and Venezuela: 28 cents per word for Spanish and 36 cents for English or code.

If messages are filed at any place other than Balboa radio station, telegraph rates are charged in addition to above.

The radio station at Cartagena was commissioned on June 6, 1920, and the schedules between the United States naval radio stations of the Fifteenth Naval District and the Cartagena station were made effective July 1. The Cartagena radio station is operated by a German company.

Evening Launch to Leave for Taboga at Half-past Four.

Effective Tuesday, July 20, the hour of departure of the daily launch from Dock 19, Balboa, to the Hotel Aspinwall on Taboga Island will be changed from 5 p. m. to 4.30 p. m. This is done for the convenience of those commuting to and from Taboga, who will be enabled to return earlier to their families at Taboga. In other respects the schedule is to remain the same.

Aquatic Sports at Taboga.

A regatta is to be conducted in front of the Hotel Aspinwall on Sunday, July 18, under the supervision of the director of swimming of the Bureau of Clubs and Playgrounds. This will consist of cayuco and sailing boat races, aquaplaning, swimming and diving contests, etc., and will be participated in by residents of Taboga as well as guests of the Aspinwall.

Fish Caught in Gatun Lake.

Persons who have been fishing in Gatun Lake are requested to advise the Chief Quartermaster regarding any fish they may have caught. This information is also desired from persons who may fish in the lake in the future.

Several years ago the lake was stocked with black bass, rock bass, sunfish, and bullheads obtained from the Bureau of Fisheries in Washington, and that department is anxious to know the result of this planting.

Sale of Budded Nursery Stock of Citrus Fruit Trees.

The citrus grove at Juan Mina has for disposal 1,000 to 1,500 budded nursery stock trees of the following fruits:

Oranges: Pineapple, len gin gong, Mediterranean sweets, valencias, washing navel.

Villafranca lemons.

Satsuma limes.

All stock is free from disease and properly labeled. The price is \$1.50 each, f. o. b. Gamboa.

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge, effective July 1, 1920:

Commodity.	Unit.	Price.
Brass, bar.....	Lb.	\$0.48
Brass, sheet.....	Lb.	.75
Bronze, Tobin.....	Lb.	.43
Cement, at Panama:		
Departments of United States Government (including surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (including surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Departments of United States Government (includes surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (including surcharge and bags).....	Bag	1.58
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt	1.25
Copper, bar.....	Lb.	.46
Gasoline, in drums (motor grade).....	Gal.	.56
Lead, sheet.....	Lb.	.17
Lead, pig.....	Lb.	.125
Lumber, ceiling, siding, and flooring, 1" by 6".....	M ft. B. M.	118.75
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B. M.	143.75
Lumber, yellow pine or fir (except ceiling).....	M ft. B. M.	100.00
Metal, yellow.....	Lb.	.375
Nuts, iron, machine, hexagon.....	Lb.	.25
Nuts, iron, machine, square.....	Lb.	.225
Nails, common, wire.....	Lb.	.075
Nails, galvanized.....	Lb.	.125
Oakum, Navy, spun.....	Lb.	.20
Oakum, Navy, unspun.....	Lb.	.20
Oil, fuel, at Balboa and Cristobal—in bulk:		
United States Army and Navy, and vessels operated by same, barrel of 42 gallons.....	Bbl.	2.50
Commercial vessels and individuals and companies, barrel of 42 gallons.....	Bbl.	2.50
Oil, fuel, at Cristobal and Balboa—in drums and barrels:		
United States Army and Navy and vessels operated by same, barrel of 42 gallons.....	Bbl.	2.75
Commercial vessels and individuals and companies, barrel of 42 gallons.....	Bbl.	2.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.56
Oil, ammonia cylinder.....	Gal.	.50
Oil, burning.....	Gal.	1.56
Oil, cylinder, dark marine.....	Gal.	.875
Oil, cylinder, dark marine.....	Gal.	1.25
Oil, ice machine, steam.....	Gal.	1.00
Oil, engine, dynamo.....	Gal.	.79
Oil, engine—in tins.....	Gal.	.69
Oil, engine—in barrels.....	Gal.	.44
Oil, gas engine, extra heavy—in drums.....	Gal.	.54
Oil, gas engine, heavy—in barrels.....	Gal.	.69
Oil, gas engine, heavy—in cases.....	Gal.	.75
Oil, gas engine, medium—in drums.....	Gal.	.56
Oil, kerosene—in drums.....	Gal.	.375
Oil, kerosene—in tins (cases).....	Gal.	.44
Oil, linseed, boiled.....	Gal.	2.50
Oil, linseed, raw.....	Gal.	2.60
Oil, locomotive engine.....	Gal.	.35
Oil, lard.....	Gal.	2.07
Oil, marine engine.....	Gal.	1.06
Oil, marine engine.....	Gal.	.625
Oil, marine engine.....	Gal.	.44
Oil, marine engine.....	Gal.	.75
Oil, "Mineral Seal".....	Gal.	.375
Oil, nonliquid.....	Lb.	.10
Oil, stationary engine.....	Gal.	.375
Oil, sperm.....	Gal.	2.875
Oil, signal.....	Gal.	1.375
Oil, valve.....	Gal.	.50
Oil, car.....	Gal.	.225
Grease, black, gear.....	Lb.	.075
Grease, yellow, cup, No. 3.....	Lb.	1.25
Grease, yellow, cup, No. 5.....	Lb.	.14
Grease, rod, special.....	Lb.	.225
Grease, tunnel bearing.....	Lb.	.19
Tallow.....	Lb.	.225
Turpentine.....	Gal.	2.69
Turpentine substitute.....	Gal.	.46
Vaseline.....	Lb.	.11
Paint, lead, white, dry.....	Lb.	.125
Paint, lead, white, in oil.....	Lb.	.175
Paint, zinc, white, dry.....	Lb.	.225
Paint, zinc, white, in oil.....	Lb.	.19
Paint, zinc, white, 35 per cent in oil.....	Lb.	.19
Rivets.....	Lb.	.10
Rope, Manila, 1" diameter.....	C ft.	.69
Rope, Manila, 2" diameter.....	C ft.	1.50

Commodity.	Unit.	Price.
Rope, Manila, $\frac{3}{8}$ " diameter.....	C ft.	\$2.50
Rope, Manila, $\frac{3}{8}$ " diameter.....	C ft.	4.08
Rope, Manila, $\frac{3}{4}$ " diameter.....	C ft.	4.88
Rope, Manila, $\frac{7}{8}$ " diameter.....	C ft.	6.75
Rope, Manila, 1" diameter.....	C ft.	8.75
Rope, Manila, 1 $\frac{1}{8}$ " diameter.....	C ft.	12.50
Rope, Manila, 1 $\frac{1}{2}$ " diameter.....	C ft.	19.69
Rope, Manila, 1 $\frac{3}{4}$ " diameter.....	C ft.	26.84
Rope, Manila, 2" diameter.....	C ft.	31.25
Rope, Manila, 2 $\frac{1}{2}$ " diameter.....	C ft.	46.88
Rope, Manila, 3" diameter.....	C ft.	76.25
Rope, Manila, 3 $\frac{1}{2}$ " diameter.....	C ft.	91.25
Rope, Manila, 4" diameter.....	C ft.	111.44
Steel, bar.....	Lb.	.06
Steel, spring.....	Lb.	.21
Steel, cold round (rolled).....	Lb.	.20
Steel, sheet.....	Lb.	.06
Steel, structural (angles, beams, etc.).....	Lb.	.06
Tin, block.....	Lb.	.79
Tin, Banca.....	Lb.	.75
Tin, sheet.....	Lb.	.225
Washers, out.....	Lb.	.09
Waste, colored.....	Lb.	.21
Waste, white.....	Lb.	.20
Zinc, boiler plate, $\frac{1}{8}$ " by 6" by 12".....	Lb.	.17

Complaints Concerning Working Condit'ons.

BALBOA HEIGHTS, C. Z., July 13, 1920

Col. JAY J. MORROW,
Engineer of Maintenance, Balboa Heights, C. Z.

Mr. W. C. HUSHING,
 Balboa, C. Z.

Mr. HARVEY McCONAUGHEY,
 Balboa, C. Z.

SIRS:

1. A Board is hereby appointed to make investigations and appropriate recommendations to the Governor in the matter of such complaints of employees concerning working conditions as may be from time to time referred to it. The Board will be composed of the Engineer of Maintenance, two employees as representatives of organized labor, viz., Messrs. W. C. Hushing and Harvey McConaughey, and, in each case, the head of the department or division in whose jurisdiction the complaint originates.

2. The functions of the Board are wholly advisory, and its findings and recommendations will not be effective until approved by the Governor.

3. Complaints against administrative policies of the Canal and Panama Railroad will not, in general, be referred to the Board; but the Governor may require the Board to make recommendations to him on any matter involving the general welfare of employees.

4. The following procedure will be followed preliminary to the reference of complaints to the Board: An individual employee or a group of employees belonging to a labor organization affiliated with the American Federation of Labor will present the complaint to the proper local union or shop committee, who will endeavor to adjust the matter with the immediate superiors of the employee or employees concerned, including division or department heads. Unless adjusted, this complaint will then be submitted to the Panama Metal Trades Council or Central Labor Union, as the case may require, in complete form, and if the proper officers or committees of these bodies can not arrange satisfactory settlement, the case will be forwarded by them to the Governor, with request for reference to the Board. Cases which from their nature require immediate action may be submitted to the Governor by the President and Secretary of the Metal Trades Council or Central Labor Union, with the facts and reasons clearly stated. The complaint may then be referred to the Board by the Governor, if practicable.

5. The Board is authorized to formulate its method of procedure.

6. It will be noted that the Board is to act on the complaints of members of labor organizations affiliated with the American Federation of Labor only. The right of all employees, individually or collectively, whether members of a labor organization or not, to make complaint to the Governor, will be continued.

7. The Bureau of Statistics will keep a record of all meetings and proceedings of the Board.

8. Additional instructions will be issued from time to time as may be necessary.

Respectfully,

CHESTER HARDING, *Governor.*

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Assistant in citrus quarantine (male and female); \$1,200 to \$1,400 a year; August 4, 1920; form 1312; age, 21 years but not 40 years.

Auto mechanic (male and female); \$1,200 a year; No. 395; August 3, 1920; form 1800; age, 18 years and over.*

Constructor of educational material (male and female); \$2,200 a year; August 3, 1920; form 1312; age, not stated.*

Free-hand draftsman, Patent Office (male and female); \$1,000 a year; No. 388; July 27, 1920; form 1312; age, 18 years and over.*

Highway engineer, Bureau of Public Roads, Department of Agriculture (male and female); \$2,100 to \$2,700 a year; September 9, 1920; form 1312; age, under 30 years.*

Junior civil engineer (male and female); \$1,500 a year; August 3, 1920; form 1312; age, 20 years but not 25 years.*

Junior engineer, civil, electrical, mechanical, signal, structural, telegraph, and telephone; grade 2; (male and female); \$720 to \$1,440 a year; No. 184-amended; form 1312; age, 18 years but not 60 years.†

Junior engineer, civil, electrical, mechanical, signal, structural, telegraph, and telephone; grade 1; (male and female); \$1,500 to \$1,920 a year; No. 345-amended; form 1312; age, 18 years but not 60 years.†

Junior architect (male and female); \$1,320 to \$1,920 a year; No. 345-amended, form 1312; age, 18 years but not 60 years.†

Metallurgist (male and female); \$10.80 a day; No. 411; form 1312; August 3, 1920; age, 25 years but not 45 years.*

Rodman and chairman, Interstate Commerce Commission (male and female); \$720 to \$1,080 a year; No. 378-amended; form 1800.

Structural engineer, Construction Division, War Department (male and female); \$1,800 a year; No. 387; July 27, 1920; form 1312; age, 21 years and over.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Arthur Foley.....	2855	United States...	Cristobal.....	Mechanical Division...	June 29, 1920.
Pedro Gahano.....	41853	Mexico.....	Camp Manawa.....	Cattle Industry.....	June 28, 1920.
Jose Sanchez.....	30213	Spain.....	Panama.....	Panama Railroad.....	June 20, 1920.
John Jordan.....	21414	Barbadoes.....	Cristobal.....	Supply Department.....	June 25, 1920.
John von Redhead....	43605	Grenada.....	Frijoles.....	Cattle Industry.....	June 29, 1920.

Official Circulars.

Act of Congress—Fortifications Appropriations, 1921.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 16, 1920.

CIRCULAR No. 600-69:

The extracts from an Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations for fortifications and other works of defense, for the armament thereof, and for the procurement of heavy ordnance for trial and service, for the fiscal year ending June 30, 1921, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for fortifications and

other works of defense, for the armament thereof, and for the procurement of heavy ordnance for trial and service, for the fiscal year ending June 30, 1921, and for other purposes, namely:

* * * * *

PANAMA CANAL FORTIFICATIONS.

For fortifications and armament thereof for the Panama Canal:

For maintenance of clearings and trails, \$30,000;

For protection, preservation, and repair of fortifications, of the Panama Canal, including structures erected for torpedo defense, and for maintaining channels for access to torpedo wharves, \$25,000;

For maintenance and repair of searchlights and electric light and power equipment for fortifications, and for tools, electrical and other supplies, and appliances to be used in their operation, \$20,000;

For the construction of seacoast batteries on the Canal Zone, \$20,000;

For reserve engineer equipment for the fortifications of the Panama Canal, \$7,500;

For the purchase or reclamation of land required for the defenses of the Panama Canal, \$6,250;

For the construction of fire-control stations, the purchase and installation of accessories therefor, and for subaqueous, sound and flash ranging apparatus, including their development, \$474,000.

For operation and maintenance of fire-control installations at sea-coast defenses, \$15,000;

For the purchase, manufacture, and test of ammunition for sea-coast and land defense cannon, including the necessary experiments in connection therewith, and the machinery necessary for its manufacture, \$1,000,000;

For the alteration and maintenance and installation of the sea-coast artillery, including the purchase and manufacture of machinery, tools, and materials necessary for the work, and expenses of civilian mechanics, and extra-duty pay of enlisted men engaged thereon, \$104,546;

For alteration, maintenance, and repair of submarine mine matériel, \$4,138;

For continuing the construction of barracks, quarters, storehouses, and other buildings necessary for accommodating the Coast Artillery troops to be stationed in the vicinity of the Panama Canal, including water, sewer, and electrical systems, roads, walks, and so forth, \$40,000;

The Governor of the Panama Canal, so far as the expenditure of appropriations contained in this Act may be under his direction, shall purchase needed materials, supplies, and equipment from available surplus stocks of the War Department:

For the purchase, manufacture, maintenance, operation, and repair of airships and other aerial machines, buildings, for equipment, and other accessories necessary in the Air Service for use in connection with the sea-coast defenses of the Panama Canal, \$100;

For the establishment, construction, enlargement, or improvement of the aviation station at France Field, Canal Zone, for use in connection with the sea-coast defenses of the Panama Canal, including the acquisition of land or any interest in land by purchase, lease, condemnation, or otherwise, and the preparation necessary to make the same suitable for the purpose intended, and for the acquisition and improvement of emergency landing fields in the Canal Zone, \$239,000;

In all, specifically for fortifications and armament thereof for the Panama Canal, \$1,985,534;

SEC. 2. That all material purchased under the provisions of this Act shall be of American manufacture, except in cases when, in the judgment of the Secretary of War, it is to the manifest interest of the United States to make purchases abroad, which material shall be admitted free of duty.

SEC. 3. That except as expressly otherwise authorized herein no part of the sums appropriated by this Act shall be expended in the purchase from private manufacturers of any material at a price in excess of 25 per centum more than the cost of manufacturing such material by the Government or, where such material is not or has not been manufactured by the Government, at a price in excess of 25 per centum more than the estimated cost of manufacture by the Government.

SEC. 4. That expenditures for carrying out the provisions of this Act shall not be made in such manner as to prevent the operation of the Government arsenals at their most economical rate of production, except when a special exigency requires the operation of a portion of an arsenal's equipment at a different rate: *Provided*, That no part of the appropriations made in this Act shall be available for the salary or pay of any officer, manager, superintendent, foreman, or other person having charge of the work of any employee of the United States Government while making or causing to be made with a stop watch or other time-measuring device a time study of any job of any such employee between the starting and completion thereof, or of the movements of any such employee while engaged upon such work.

SEC. 5. That no part of the moneys appropriated in each or any section of this Act shall be used or expended for the purchase or acquirement of any article or articles that at the time of the proposed acquirement can be manufactured or produced in each or any of the Government arsenals of the United States for a sum less than it can be purchased or procured otherwise.

SEC. 6. That all orders or contracts for manufacture of material pertaining to approved projects, which are placed with arsenals or other ordnance establishments and which are chargeable to armament of fortifications appropriations, shall be considered as obligations in all respects in the same manner as provided for similar orders placed with commercial manufacturers.

SEC. 7. That whenever any Government bureau or department procures, by purchase or manufacture, stores or materials of any kind, or performs any service for another bureau or department, the funds of the bureau or department for which the stores or materials are to be procured or the service performed may be placed subject to the requisitions of the bureau or department making the procurement or performing the service for direct expenditure: *Provided*, That funds so placed with the procuring bureau shall remain available for a period of two years for the purposes for which the allocation was made unless sooner expended;

SEC. 8. That the following unexpended balances or portions of the unexpended balances, or combined unexpended balances, or portions of combined unexpended balances of appropriations for fortifications and other works of defense, as set forth in this section, shall be carried to the surplus fund and covered into the Treasury immediately upon the approval of this Act, namely:

*	*	*	*	*
Sea walls and embankments, Panama Canal,				
\$3,000.				
Submarine mine structures, \$15,200;				
Armament of fortifications, Panama Canal,				
\$2,306,481.73.				
Submarine mines, Panama Canal, \$231,082.21.				

* * * * *

Approved, May 21, 1920.

Act of Congress—Payment to Panama, Relief and Protection of American Seamen.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., June 24, 1920.

CIRCULAR No. 600-71:

The extracts from an Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations for the Diplomatic and Consular Service for the fiscal year ending June 30, 1921.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, severally appropriated, in full compensation for the Diplomatic and Consular Service for the fiscal year ending June 30, 1921, out of any money in the Treasury not otherwise appropriated, for the objects hereinafter expressed, namely:

*	*	*	*	*
PAYMENT TO THE GOVERNMENT OF PANAMA.				

To enable the Secretary of State to pay to the Government of Panama the ninth annual payment, due on February 26, 1921, from the Government of the United States to the Government of Panama under article 14 of the treaty of November 18, 1903, \$250,000.

*	*	*	*	*
RELIEF AND PROTECTION OF AMERICAN SEAMEN.				

Relief and protection of American seamen in foreign countries, and in the Panama Canal Zone, shipwrecked American seamen in the Territory of Alaska, in the Hawaiian Islands, Porto Rico, and the Philippine Islands, \$100,000.

*	*	*	*	*
Approved, June 4, 1920.				

Act of Congress—Army Appropriation, 1921.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 28, 1920.

CIRCULAR NO. 600-73:

The extracts from an Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations for the support of the Army for the fiscal year ending June 30, 1921, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, for the support of the Army for the year ending June 30, 1921:

* * * * *
MEDICAL DEPARTMENT.**MEDICAL AND HOSPITAL DEPARTMENT.**

For the manufacture and purchase of medical and hospital supplies, including disinfectants, for military posts, camps, hospitals, hospital ships and transports, for laundry work for enlisted men and Army nurses while patients in a hospital, and supplies required for mosquito destruction in and about military posts in the Canal Zone, \$3,500,000:

* * * * *
HOSPITAL CARE, CANAL ZONE GARRISONS.

For paying the Panama Canal such reasonable charges exclusive of subsistence, as may be approved by the Secretary of War for caring in its hospitals for officers, enlisted men, military prisoners, and civilian employees of the Army admitted thereto upon the request of proper military authority, \$60,000: *Provided*, That the subsistence of the said patients except commissioned officers, shall be paid to said hospitals out of the appropriation for subsistence of the Army at the rates provided therein for commutation of rations for enlisted patients in general hospitals.

* * * * *
Approved June 5, 1920.**Act of Congress—Third Deficiency Appropriation, 1920.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 30, 1920.

CIRCULAR NO. 600-74:

The extracts from an Act of Congress quoted below are published for the information of all concerned.

CHESTER HARDING,
Governor.

AN ACT Making appropriations to supply deficiencies in appropriations for the fiscal year ending June 30, 1920, and prior fiscal years, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, to supply deficiencies in appropriations for the fiscal year ending June 30, 1920, and prior fiscal years, and for other purposes, namely:

* * * * *
DEPARTMENT OF STATE.**FOREIGN INTERCOURSE.*** * * * *
RELIEF AND PROTECTION OF AMERICAN SEAMEN—Relief and protection of American seamen in foreign countries, and in the Panama Canal Zone, and shipwrecked American seamen in the Territory of Alaska, in the Hawaiian Islands, Porto Rico, and the Philippine Islands, \$35,000.**GOVERNMENT PRINTING OFFICE.**

* * * * *
Hereafter the head of each department and independent establishment of the Government shall on the first day of each regular session submit in writing a report to the Congress giving the aggregate number of the various publications it has issued during the preceding fiscal year giving same in detail, and shall also report the cost of paper used for such publications, cost of printing and the cost of preparation of each publication, and the number of each which has been distributed.

* * * * *
SEC. 5. That this Act hereafter may be referred to as the "Third Deficiency Act, fiscal year 1920." Approved June 5, 1920.**Travel Time.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., July 1, 1920.

CIRCULAR NO. 603-17:

Effective July 1, 1920, the following rules will govern in timekeeping when necessary to send employees away from their regular stations:

1. If the work to be performed required, the employee to be away from his regular station more than 24 hours he will be temporarily quartered at the place where the work is to be performed, and will be allowed 4 hours travel time at his regular rate of pay, this allowance to cover all time required for checking out of tools, transit time, transportation, and arrangements for baggage.

2. If the work to be performed does not require the employee to be away from his regular station 24 hours he will be paid in accordance with the following rules:

(a) *Mechanical Division*—Will be paid regular rate of pay only while traveling or waiting for transportation. Overtime will be allowed only for work performed on the job in excess of regular working hours.

(b) *Other Divisions*—Ten hours will be considered a reasonable time elapsing between the time train or boat is scheduled to leave residence station and return thereto, in order to accomplish 8 hours work with a lunch period. If a longer period than this elapses, the following rules for payment will be followed:

First 8 hours worked Straight time
Actual work over 8 hours Time and a half
Absence time in excess of hours worked plus 2 hours Straight time

During the time elapsing between scheduled train times at point of work men may work in excess of 8 hours, but, except in emergency, will not be required to so work.

CHESTER HARDING,
Governor, *The Panama Canal.*
President, *Panama Railroad Company.*

Acting Chief of Police and Fire Division.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 6, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

Police Inspector Arthur W. Kennedy will act as Chief of the Police and Fire Division during the absence on leave of Mr. Guy Johannes, effective July 8, 1920.

CHESTER HARDING, *Governor.***Appointment.**

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 28, 1920.

CIRCULAR NO. 661-87:

Effective this date, Mr. Frederick de V. Sill is appointed Chief Admeasurer, Balboa, and Member, Board of Admeasurement, vice Lieutenant Malcolm C. Davis, U. S. N., relieved from duty with The Panama Canal.

CHESTER HARDING, *Governor.*

Vacation Money.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 8, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

In case an employee on leave of absence desires his vacation money forwarded to him, it will be necessary that he furnish the Paymaster a release from property responsibility before leaving the Isthmus.

C. A. MCLVAINE,
Executive Secretary.

Change in Taboga Launch Schedule.

A number of guests of the Hotel Aspinwall requested that the launch for Taboga leave Balboa at 4.30 p. m. instead of at 5.00 p. m. Accordingly the launch will leave at 4.30 p. m., commencing on July 20. This will give guests an opportunity for a swim before dark on arrival at Taboga.

R. K. MORRIS,
Chief Quartermaster.

Sale of Bollers, Blower, Crane, Drills, Engine, and Tractor.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., July 20, 1920, and then opened, for the purchase of aforementioned obsolete equipment on hand at Cristobal storhouse. Form of proposal may be had upon application to the office of the Chief Quartermaster, or the storekeeper at Cristobal. The Panama Canal reserves the right to reject any or all bids.

Sale of Steel Rails.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., July 15, 1920, and then opened, for the purchase of about 24,124 pounds of 135-pound steel rails on hand at Balboa storhouse. Form of proposal may be had upon application to the Chief Quartermaster, or the General Storekeeper at Balboa. The Panama Canal reserves the right to reject any or all bids.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., July 12, 1920.

The following insufficiently addressed mail matter has been received in the office of the Director of Posts and may be obtained upon request of the addressees. Requests for forwarding may be made by telephone, calling No. 182 Balboa.

Angle, Clyde	Hurest, Mrs. C. U.
Arbuckle, Jeff	Johnston, Allen
Ashton, J. S.	Kiger, Peare R.
Bend, William	King, Dr. Paul R.
Bernardi, E. R., Box 143	Kishner, Gabriel
Bielitz, Ad., Box 447	Laney, C. J., Box 106
Blakeslie, Mrs. B. M.	Lester, Mrs. Frank
Bouchard, A. E., Box 95	Leuth, Louis L.
Burns, Joseph, Box 1332	McCloskey, Catherine
Burris, Lee	McFarland, Percival
Canton, R.	Mahedy, Paud
Corvalles, Amalia, Box 408	Mendoza, Joseph M.
Crawford, B. H.	Miller, Harry, Box 167
Cummings, Alfred	Miller, John C., Box 167
Demetri, Adris	Mohoa, Walter Roy
Eney, C. J.	Mowatt, Neville
Fenn, Zack	Potts, David
Gibbs, Robert	Prosser, J. H.
Giesenow, Martin	Rodman, John W.
Gillespie, J. B.	Stevens, John
Gray, Henry J.	Stevenson, Andrew W.
Gray, Martin A.	Straight, Ben F.
Gregory, Rev. Raymond	Taylor, Mrs. J. P.
	Turner, W. P.
	Van Hook, Noah L.
Halfast, Ida E.	Walker, J. B.
Hanzlick, James	Wheeler, D. W.
Hoffman, Mrs. Grover	Wiese, Reinhard C.
Holt, Rufus Leroy	Willett, Mrs. R. A.
Howard, Harvey	Box 595

MOVEMENTS OF OCEAN VESSELS.—Continued from page 699.

PORT OF CRISTOBAL—Continued.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 7	Lake Fariston.	United States Shipping Board	Cartagena.	July 7	Pastores.	United Fruit Co.	Port Limon.
July 8	Arabia (e)	Panama Plantation Syndicate	Colon.	July 8	Ancou.	United Fruit Co.	New Orleans and wayports
July 8	Caribbean.	Panama Railroad Cattle Industry	Cartagena.	July 8	Santa Marta.	Panama Railroad Steamship Line.	New York.
July 8	Gen. G. W. Goethals.	Panama Railroad Cattle Industry	Colombian ports.	July 8	Arabia (e)	United Fruit Co.	New York via wayports
July 8	Cristobal.	Panama Railroad Steamship Line.	New York.	July 8	San Pablo.	Panama Plantation Syndicate.	Colon.
July 9	San Pablo.	United Fruit Co.	Boston.	July 9	Panama.	United Fruit Co.	Boston and Port Limon.
						Panama Railroad Steamship Line.	New York via Haiti.
PORT OF BALBOA.							
*ARRIVALS.				*DEPARTURES.			
July 3	Mina Brea	International Petroleum Co	Psagua.	July 8	Lake Elkwater	United States Shipping Board	Honolulu.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

*Other than ships passing through the Canal.

COMMISSARY NOTES.

Sheet Music.

Another shipment of sheet music has been received and is meeting with ready sale in the retail commissaries. All stores now have a complete assortment of popular music of this description among which customers will find a large number of good titles.

Electrical Heaters.

Inasmuch as The Panama Canal storehouses will no longer carry in stock electric water heaters except for use by the Electrical Division, the Commissary Division will accept deposit orders from employees desiring to purchase such heaters and these appliances will then be ordered for them from the United States.

Chickens.

There are now being sold in the commissaries broilers from thoroughbred stock specially selected for table purposes. Since January 1, 1920, Summit farm, operated by the Cattle Industry, The Panama Canal, has raised only stock of this type according to recognized expert methods, the highest grade of chicken feed having been imported from the United States to ensure the best results. The pains taken seem amply justified for the benefit is now being received by customers who have the opportunity to buy plump, tender broilers locally raised which will run from 1½ to 2 pounds in weight.

To those who do not know the enjoyment of properly broiled poultry, it may be added that important points to be remembered are: To season the meat before putting on the gridiron; to have a clear bright fire; quickly to brown both sides to prevent loss of juices; to avoid dripping fat into the fire, as this results in jerky, smoky flames which are liable to spoil the flavor of the meat, and not to over-cook.

Recipes—Beef.

Two recipes for dishes prepared from the chuck not previously printed are given below for the use of interested commissary customers.

Beef goulash—Cut the beef into cubes or slices and sprinkle with vinegar and a little summer savory. Add a teaspoonful of salt, and half teaspoonful of paprika; cook six onions for each two pounds of meat slowly, in one-fourth of a cup of butter, oleomargarine, or other preferred fat. Add the cooked onions to the meat, cover tightly, and cook slowly for about 2 hours. The liquid may be increased just before serving by the addition of a little beef stock, or either sweet or sour cream.

Pot roast—Use a Dutch oven (an iron kettle with an iron or other cover) or a heavy frying pan well heated. Place the fat side of the meat down first; when well crisped, turn and brown the other side thoroughly; season with salt, pepper, parsley, and a little onion or garlic if preferred. An onion with two or three cloves stuck in it may be browned lightly with the meat. The meat should then be cooked in the same utensil, tightly covered or in the kettle from the fireless cooker. Let it simmer until quite tender, turning once during the cooking. Use no water as the tight cover will hold in all the moisture. Allow about an hour to a pound for cooking. Some cooks prefer to use a little water, but this is not necessary. Make a gravy of the brown fat, an equal amount of flour, and water or stock. Noodles or macaroni may be served in the gravy as a separate dish.

Books.
Books received:

"The Slayer of Souls," by Robert W. Chambers; "Snake Bite and other stories," by Robert Hichens; "Sheila Intervenes," by Stephen McKenna; "Happily Married," by Corra Harris; "Affinities," by Mary Roberts Rinehart; "Reason and Belief," by Sir Oliver Lodge; "Isn't That Just Like a Woman?" by Mary Roberts Rinehart; "Oh, Well! You Know How Men Are," by Irvin S. Cobb; "From Place to Place," by Irvin S. Cobb; "The Explorer," by W. Somerset Maugham; "The Plunderer," by Henry Oyen; "The Book of Boston," by Robert Shackleton; "The Light Heart," by Maurice Hewlett; "When I was a Boy in Persia," by Youel B. Mirza; "When I was a Boy in Scotland," by George MacPherson Hunter; "That Damn 'Y,'" by Katherine Mayo; "White Shadows of the South Seas," by Frederik O'Brien; "The Ancient Allan," by Rider Haggard; "The Rescue," by Joseph Conrad; "Travel Papers," by Rudyard Kipling; "England to America," by Margaret Preston Montague; "The Killer," by Stewart Edward White; "Tatterdemalion," by John Galsworthy; "Fiddler's Luck," by Robert Haven Schauflier; "The Third Window," by Anne Douglas Sedgwick; "Tales of My Native Town," by Gabriele D'Annunzio; "Daughter of Anderson Crow," by George Barr McCutcheon; "Pax," by Lorenzo Marroquin; "The Clanking of Chains," by Brinsley MacNamara; "Women Triumphant (La Maja Desnuda)," by Blasco Ibañez.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Volume XIII.

Balboa Heights, C. Z., July 21, 1920.

No. 49.

New Passenger Vessels to Pass Through Canal for Trans-Pacific Service.

The United States Shipping Board has allocated to the Pacific Mail Steamship Company 5 new passenger vessels now building in eastern shipyards. They are to be operated in the present trans-Pacific service of the company, from San Francisco to Honolulu, Yokohama, Kobe, Shanghai, Manila, and Hongkong, and return. The ships are to be completed before the end of the year and will pass through the Canal to go into Pacific service.

The vessels are of 12,600 deadweight tons. The company states that they will be operated on a 16-knot schedule, and that the vessels will reach Honolulu from San Francisco in 5 days; Yokohama, 16 days; Shanghai, 22 days; and Manila, 25 days.

Left-overs Expedite Turbine Repair Job.

The steamship *Westward Ho* arrived at Balboa shops on July 11 with disabled main turbine. Repairs are being effected by using material removed and left at the shops after a repair job on the turbine of the *Cansumset*. A new turbine set was shipped from the United States for the *Cansumset* and installed at Balboa. Some of the parts of the old set will answer for the repairs to the *Westward Ho*. Both are United States Shipping Board ships of nearly the same size and type, and with turbines of the same type from the same manufacturer.

Overhauling Submarines at Balboa Shops.

Six submarines of the "O" type, numbers O-11, O-12, O-13, O-14, O-15, and O-16, stationed at the Isthmus, went into the dry dock at Balboa on July 10 for general overhauling and repairs, cleaning, and painting. As soon as they are completed, 7 R-type submarines are to be dry-docked for similar work.

Repairs to Main Engine Crank Shaft on the "Silverado."

An interesting job in repairing a broken main crank shaft is being done at Balboa shops for the steamship *Silverado*.

The steamship *Silverado* was towed into the harbor of Balboa on the 1st of July with a broken crank shaft.

Some time previous to this date, while at sea about 150 miles from Acapulco, the afterweb of the main engine crank shaft was completely broken in two. The engineer force made temporary repairs which enabled them to proceed to Acapulco under their own steam.

From Acapulco the ship was towed to Balboa, where the Mechanical Division is proceeding to make permanent repairs, which will consist of manufacturing and installing a complete new end on the broken crank shaft. The after crank web was cut away, the after high pressure journal re-turned, a complete web and crank pin and after journal and coupling were forged. The forward intermediate pressure web was reinforced to suit the re-turned shaft and shrunk and keyed on same.

In addition to the above, numerous other minor repairs are being accomplished, including aligning and adjusting valve gear operating shaft and valves, new piston rings and rebabbiting and fitting and adjusting main bearing, crank pin and cross-head brasses.

This repair to the crank shaft is an unusual job and a very important one.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight July 17, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Tons	Net
Point Bonita	9	6.12	11	6.22	11	14.34	11	15.17	American	Pacific Mail Steamship Co.	281.0	44.0	17.4	Baltimore	San Francisco	General	2,381	1,943
Port Curtis	10	22.00	11	7.48	11	14.56	11	15.31	British	Commonwealth and Dom. Line	450.0	58.0	27.0	New York	Auckland	General	9,825	8,457
Imperial	8	16.15	12	6.19	12	13.40	12	14.37	Chilean	South American Steamship Line	338.8	41.0	21.6	Cristobal	Valparaiso	General	998	3,634
Donato	10	20.45	12	6.19	12	14.37	12	14.37	Spanish	Compania de Comercio	345.0	47.9	14.0	Bilbao	Arica	Ballast	4,321	3,166
West Togos	11	19.31	12	6.27	12	15.42	13	0.5	American	United States Shipping Board	409.8	54.2	15.6	Boston	Seattle	General	2,100	6,589
Balena	8	21.45	12	6.34	12	14.19	12	15.07	British	Pacific Steam Navigation Co.	400.1	52.0	25.3	New York	Valparaiso	General	2,512	5,816
Steel Trader	11	23.02	12	10.50	12	17.47	13	11.0	American	United States Steel Products Co.	424.2	56.2	23.1	New York	Vancouver	General	6,232	7,539
Salvador	2	13.42	13	6.05	13	14.57	13	20.2	British	Pacific Steam Navigation Co.	215.0	33.0	14.1	Cristobal	Champerico	General	970	1,213
Kroupinassana	12	12.37	13	6.15	13	13.49	14	16.5	Swedish	Johnson Steamship Line	377.0	51.3	18.6	Gothenburg	Callao	General	3,070	5,296
Margareta (a)	12	12.45	13	6.25	13	13.56	14	4.1	Norwegian	Fred Olsen	362.0	51.5	17.0	Christiana	San Francisco	Saltpeper	2,000	5,274
Borgland (a)	12	21.45	13	6.30	13	15.30	13	16.31	British	New Zealand Shipping Co	457.0	58.0	26.6	Newport News	Wellington	General	5,026	9,125
Rimutaka	12	8.00	13	6.35	13	16.00	19	9.2	French	Societe Nouvelle D'Armement	276.6	40.4	14.0	St. Nazaire	San Francisco	Ballast	2,623	6,848
Buffon (b)	12	19.43	13	6.40	13	16.47	13	17.3	American	United States Shipping Board	402.5	53.0	26.0	Baltimore	San Francisco	Ballast	7,368	6,566
Chipoching	13	9.14	13	5.55	13	14.18	14	15.22	American	W. H. Walston	360.4	52.0	27.3	Cristobal	Yokohama	General	20	5,510
Mary K. (c)	9	6.14	11	6.38	11	14.18	14	15.22	British	Liemens Bros. & Co	360.4	52.0	27.3	Cartagena	Petro Miquel	Cable supplies	2,862	2,505
Faraday (d)	5	23.14	10	15.35	14	19.10	16	16.0	American	United States Navy	251.0	43.7	21.0	Norfolk	Tacopilla	Coal	7,468	8,535
Eagle No. 4	13	21.56	15	6.23	15	14.21	15	20.47	American	United States Shipping Board	418.0	56.6	27.6	Liverpool	Auckland	General	2,072	8,620
Lake Lessa	14	14.00	15	6.46	15	15.15	15	16.05	British	Shaw, Saville & Albion	465.0	56.3	23.3	Liverpool	General	1,298	4,838	
Maitana	15	21.32	17	6.15	17	13.05	17	15.31	British	Pacific Steam Navigation Co	367.0	46.0	20.6	Cristobal	Callao	General	11,025	11,221
Oriana	12	16.38	17	6.15	17	13.37	17	21.40	Peruvian	Peruvian Line	477.0	63.0	23.0	London	Lytelton	General	12,264	11,511
Mantaro	16	6.16	17	6.19	17	15.01	17	16.09	British	Shaw, Saville & Albion Co	477.0	63.0	23.0	Norfolk	Balboa	Coal	6,910	6,910
Waimana	16	6.16	17	6.19	17	15.01	17	16.09	British	Panama Railroad Steamship Line	530.0	63.0	26.6	Norfolk	Balboa	Coal	6,910	6,910
Ulysses	17	11.40	17	11.58	17	19.12	17	19.12	American	Panama Railroad Steamship Line	530.0	63.0	26.6	Norfolk	Balboa	Coal	6,910	6,910

(a) Motor, seaborner. (b) Bark. (c) Launch. (d) Cable ship.

(e) Did not arrive at Balboa but returned north from Pedro Miguel locks.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Dewey	11	6.40	11	7.58	11	15.20	11	18.55	American	United States Shipping Board	410.3	54.2	21.0	San Francisco	Dublin	Wheat	6,374	6,663
Peru (f)	10	21.30	11	10.12	11	17.52	11	19.00	Danish	East Asiatic Steamship Co.	425.3	55.2	28.9	Shanghai	Copenhagen	Wheat and beans	9,345	7,407
Paiva	8	18.15	12	8.04	12	16.05	12	19.50	Peruvian	Peruvian Line	382.0	48.2	20.0	Ho	Liverpool	General	2,118	4,865
Lucerie	11	19.00	12	8.06	12	15.32	12	17.25	British	Andrew Weir & Co	412.5	55.5	25.0	Shanghai	New York	General	8,500	6,895
Rosana (f)	11	7.45	12	8.11	12	20.39	18	9.24	Costa Rican	Alberto Fari	112.0	25.0	9.83	Puntarenas	Cristobal	Mathogany, etc.	183	278
Mantaro	11	23.00	12	8.28	12	16.38	17	6.15	Peruvian	Peruvian Line	360.0	46.0	20.0	Callao	Cristobal	General	2,781	4,888
Gottingen	11	20.10	12	9.15	12	16.38	17	6.15	Peruvian	North German Lloyd	428.7	54.5	21.8	Caleta Colosa	Cristobal (b)	Nitrate and ore	6,008	6,671
Astral	12	11.50	13	6.32	13	13.45	13	15.55	American	Standard Oil Co.	439.0	57.0	18.6	San Francisco	Beaumont	Ballast	1,254	2,379
San Juan	13	6.15	14	6.32	14	15.10	14	16.40	American	Pacific Mail Steamship Co.	283.0	38.0	15.6	San Francisco	Cristobal	General	1,254	2,379
Askawa	9	16.30	11	6.41	14	14.40	14	14.40	American	United States Shipping Board	401.9	53.1	25.0	Hongkong	Matanzas	Rice and sugar	8,000	6,911

(g) Anchored in Gatun Lake.

(f) Motor ship.

Record Traffic During Fiscal Year Ending June 30, 1920.

During the fiscal year from July 1, 1919, to June 30, 1920, the volume of traffic passing through the Panama Canal exceeded that in any previous 12-month period. A total of 2,478 commercial ships made the transit, as compared with 2,025 in the fiscal year ending June 30, 1919, 2,130 in the fiscal year 1918, and 2,134 in the calendar year 1919.

The number of commercial ships passing through the Canal in the fiscal year 1920 was about two-fifths above the average traffic for the period of Canal operation. It was approximately one-sixth greater than the number of ships in the previous record year (1918) and one-fifth greater than the number in the fiscal year 1919.

Of the 2,478 commercial ships making the transit in the past fiscal year, 1,180 were bound from the Atlantic to the Pacific and 1,298 from the Pacific to the Atlantic.

The aggregate net tonnage of the commercial ships passing through the Canal in the fiscal year 1920 was 8,545,653 tons, according to the Panama Canal rules of measurement. Of this, 4,168,873 tons went from the Atlantic to the Pacific and 4,376,780 tons from the Pacific to the Atlantic. In the fiscal year 1919 the aggregate was 6,131,575 net tons.

The cargo carried through the Canal by the commercial ships in the fiscal year 1920 totaled 9,374,499 tons of 2,240 pounds. Of these, 4,092,516 tons were bound from the Atlantic to the Pacific, and 5,281,983 tons from the Pacific to the Atlantic. The aggregate cargo in the preceding fiscal year, carried by commercial ships, was 6,877,649 tons.

In addition to the traffic of commercial ships, 266 vessels passed through the Canal in the service of the United States Government, without the payment of tolls. These were practically all Army and Navy vessels. They carried a total of 365,898 tons of cargo.

In revenues and in earnings in excess of expenses of operation and maintenance, new records were, likewise, established during the fiscal year. The summation of charges has not been completed in detail, but the figures indicate aggregate revenues approximating \$8,800,000 during the year. Expenses of operation and maintenance, including a proportion of overhead, in which are the expenses of civil government, hospitals, quarantine and sanitation, the Executive Department, the Accounting Department, the Washington Office, the operation and repairs of storehouses and quarters, lighting of streets, operation of water and sewer systems, and roads, etc., total about \$6,650,000. This indicates an excess of about \$2,150,000.

No profit has been made in a commercial sense, since there is no consideration here of interest charges on the investment or of the depreciation of the plant.

The previous record for a year for revenues was made in the fiscal year 1918, in an amount of \$6,411,843.28. In that year the excess of revenues over expenses amounted to \$491,500.34, being greater than that in any fiscal year prior to the fiscal year 1920.

In the fiscal year 1919 revenues amounted to \$6,354,016.98, and the earnings above the cost of maintenance and operation were \$241,822.21.

To the beginning of the fiscal year 1920 the excess of expenses over revenues had made a deficit in the account amounting to \$4,618,990.75.

This deficit will be decreased to about \$2,500,000 by the earnings in the fiscal year ending June 30, 1920.

Tolls constituted about 96 per cent of the revenues. Other items are licenses and taxes, court fees and fines (about \$150,000), and profits on the business operations of the Canal adjuncts. The latter item amounts to about \$200,000 for the fiscal year 1920, and is on operations in which the expenditures were over \$14,000,000.

New Norwegian Line to West Coast of South America.

The American Consul at Bergen is author of the following note in *Commerce Reports* for June 18:

The North and South Atlantic Line of Bergen, which now operates a line of cargo and passenger steamers between Norway and New York, Rio de Janeiro, and Buenos Aires, returning via Hamburg, announces the opening of a line to the west coast of South America, via the Panama Canal, to Peru and Chile, returning via the Panama Canal and the Gulf ports. The new line will start with 2 modern steamers of 10,800 tons deadweight, the first of which will be completed in England early in July, and the second the latter part of August or the beginning of September. These vessels will take cargo from Scandinavia and the Continent for Peruvian and Chilean ports, and from there bring back cargo to the Gulf ports, Scandinavia, and the Continent. The line expects to secure considerable cargo from the Gulf ports for Scandinavia, compensating it for cargo brought from Peru and Chile to such ports.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending July 17, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Pastores.....	United Fruit Co.....	July 11.....	July 11.....	26	13
Caribbean.....	Panama Railroad Cattle Industry.....	.....	July 11.....	.....	53½
Ulua.....	United Fruit Co.....	July 12.....	July 13.....	35	26
Rosana.....	Anglo-American Steamship Co.....	July 12.....	.....	½	.....
Heredia.....	United Fruit Co.....	July 13.....	July 14.....	308	21
Gen. G. W. Goethals.....	Panama Railroad Steamship Line.....	.....	July 13.....	.....	8
Metapan.....	United Fruit Co.....	July 14.....	July 14.....	3	8
San Juan.....	Pacific Mail Steamship Co.....	July 14.....	.....	1	.....
Caribbean.....	Panama Railroad Cattle Industry.....	July 15.....	.....	210	.....
Cristobal.....	Panama Railroad Steamship Line.....	.....	July 16.....	.....	1,472
Glenpool.....	Standard Oil Co. of N. J.....	July 17.....	.....	17,142	.....
*Mercury.....	United States Army.....	July 17.....	.....	190	.....
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....	July 17.....	.....	461	.....
Mantaro.....	Peruvian Steamship Co.....	.....	July 17.....	.....	6½

* U. S. Army transport

† Oil.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending July 17, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Hwah Jah.....	Chinese Government.....	.....	July 14.....	3,674	3,674
*Cuba.....	Pacific Mail Steamship Co.....	July 10.....	July 11.....	8	48
Seiyo Maru.....	Toyo Kisen Kaisha.....	July 11.....	July 14.....	1,349	.....
Borgland.....	Fred Olsen.....	July 13.....	July 13.....	44	44
Kronprincessan Margareta.....	Johnson Line.....	July 13.....	July 13.....	163	.....
San Jose.....	Pacific Mail Steamship Co.....	July 13.....	July 14.....	254	5
Jamaica.....	Pacific Steam Navigation Co.....	July 16.....	July 16.....	18	.....
Ulysses.....	Panama Railroad Steamship Line.....	July 17.....	.....	12,264	.....

*Information unavailable for last report

Sale of Crude Fuel and Diesel Oil.

The price of crude fuel oil sold by private companies in the Canal Zone has been increased to \$3.50 per barrel and the price from the tanks of the Canal will be \$3.50 per barrel, effective August 1, 1920.

Price of Diesel oil was advanced to \$4.50 per barrel, effective July 16, 1920.

The Governor issued the following circular under date of July 16:

The price of fuel oil at Canal terminals will be increased from \$2.50 per barrel to \$3.50 per barrel, effective August 1, 1920. Bunkers will be limited to sufficient oil to reach the next bunkering station from the Isthmus. This will apply to all ships whether they have contracts with local oil companies or not.

The necessity limiting the amount which can be sold to any one ship has arisen from the fact that, on account of the oil having been cheaper at the Canal than in many other ports, ships were bunkering here for long voyages, thus aggravating a shortage in fuel oil which has been developing for some time. Deliveries have been insufficient to maintain the supply with a desirable reserve stock, and 240,000 barrels are overdue now under The Panama Canal's oil contract.

Civil Service Retirement.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., July 7, 1920.

HEADS OF DEPARTMENTS AND DIVISIONS:

There is published below, for your information and guidance, a synopsis of the general provisions of the Civil Service Retirement Act approved May 22, 1920, as applied to employees of The Panama Canal stationed on the Isthmus:

1. Retirement is provided only for employees in classified positions or in excepted positions to which they have been promoted or transferred from classified positions, including the following classes: Clerk, bookkeeper, stenographer, typewriter, surgeon, physician, trained nurse, and draftsman. Persons in any of these positions appointed without competitive examination and Panama Railroad employees are not included.

2. All employees to whom the act applies who have reached the age of 70 years must be separated from the service on August 20, 1920, unless recommended for continued employment. Employees reaching the age limit who have rendered service totaling 15 years or more, may be retired with annuities based on length of service and per centum of average basic salary for the previous 10 years of service, as follows:

Service.	Annuity.	Maximum.	Minimum.
(a) 30 years.....	60 per cent of salary.....	\$720	\$360
(b) 27 years.....	54 per cent of salary.....	648	324
(c) 24 years.....	48 per cent of salary.....	576	288
(d) 21 years.....	42 per cent of salary.....	504	252
(e) 18 years.....	36 per cent of salary.....	432	216
(f) 15 years.....	30 per cent of salary.....	360	180

The term "basic salary" excludes bonuses, allowances, overtime pay, etc.

3. For the purpose of computing the period of service, credit is given for the total period of employment with the United States from the date of original appointment, after deducting leaves of absence in excess of 6 months and periods of service upon which is based pensions, compensation under the War Risk Insurance Act, or Injury Compensation Act of September 7, 1916. No credit will be allowed for periods of employment after August 1, 1920, for which regular deductions have not been made or an equal amount with interest has not been deposited with the Treasurer of the United States.

4. An employee to whom the act applies may be retired after serving a total period of not less than 15 years, if, before reaching the age of retirement, he becomes totally disabled by reason of disease or injury not due to vicious habits, intemperance, or willful misconduct.

5. Employees who are eligible for retirement because of age, must file, with the Commissioner of Pensions, before July 21, 1920, or 30 days before reaching the retirement age, or at any time thereafter, an application for annuity, supported by certificate stating applicant's age, salary, service, etc. If, however, an employee is to be continued in the service beyond the retirement age, application for retirement may be made at any time within the period of his continuance in the service, but compulsory retirement in any case is discretionary with the head of the Government

establishment in which employed and in the interests of the service. Extensions are for periods of 2 years and must be made by the head of the Government establishment in which employed, subject to approval and certification by the Civil Service Commission 30 days prior to employee reaching the age limit. Extensions may be similarly made for each succeeding 2 years until 1930, when no employee beyond the age limit will be retained in the service for more than 4 years.

6. Beginning on August 1, 1920, a monthly deduction of 2½ per cent will be made of the basic salary of all employees coming within the provisions of the Act.

7. In case of disability, if annuity is discontinued before the annuitant has received a sum equal to the total amount of contributions with accrued interest, the difference will be paid to the employee or to his estate.

8. If separated from the service before reaching the retirement age, the total amount of deductions with accrued interest at 4 per cent compounded, will be returned to the employee, or to his estate, upon application.

9. If the annuitant dies before receiving annuities equal to the amount deducted from his salary, with interest at 4 per cent compounded, the excess of accumulated deductions will be paid to his estate.

10. Annuities will be paid monthly, and are not assignable, or subject to execution or other legal process.

CHESTER HARDING, *Governor.*

Weather Conditions in June, 1920.

The rainfall for the month was above normal at Cape Mala and Taboga and generally over the Pacific slope and the extreme upper Chagres and Pequini Rivers. Over Gatun Lake and vicinity it was generally below normal with the exception of a small area near the lake's center. The rainfall was below normal at both Canal entrances, though the deficiency at Colon was very slight. Totals ranged from 4.42 inches at Balboa to 20.17 inches at Porto Bello. The greatest amount of precipitation recorded on any one day was 4.17 inches at Pedro Miguel on the 20th.

The estimated rainfall over the Gatun Lake watershed was 11.06 inches, compared with a 10-year mean of 11.32 inches; over the Chagres River Basin above Alhajuela it was 15.09 inches, compared with a 19-year mean of 13.16 inches.

The air temperature, surface temperature of the sea, and evaporation were generally above normal, while the atmospheric pressure and relative humidity, were below the average. The daytime cloudiness was slightly below normal on the Pacific Coast and slightly above normal on the Atlantic side, while the wind movement was below normal everywhere except at Gamboa and Colon.

A number of fogs, both light and dense, were observed at interior stations, all of which lifted or were dissipated by 8.30 a. m.

No seismic tremors were recorded during the month.

GATUN LAKE HYDROLOGY.

Mean elevation of Gatun Lake was 82.21 feet; maximum, 82.94 feet on the 30th; minimum, 81.79 feet on the 1st. Evaporation from Gatun Lake surface was 4.169 inches; rainfall on Gatun Lake drainage basin was 11.06 inches; total yield of Gatun Lake watershed was 3.95 inches on the watershed. The total yield amounted to 36 per cent of the rainfall.

The following table gives a summary of weather conditions for the month:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.						
		Mean.	Maximum.	Date.	Minimum.	Date.		Total inches.	Station average.	Days with 0.1 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.		
Balboa																	
Heights....	29.826	80.6	92	June 19	72	June 6	84.5	4.83	7.44	16	3,515	N.W.	22	N.W.	June 23		
Colon.....	29.828	81.4	91	June 17	73	June 3	84.3	13.29	13.35	26	5,296	W.	22	W.	June 23		
Gamboa.....	80.2	80.2	91	June 20	71	June 6	....	7.48	9.62	20	3,190	N.E.	28	N.E.	June 9	
Gatun.....	80.8	80.8	90	June 9	73	June 4	....	7.38	12.29	18	3,382	N.W.	24	S.W.	June 16	

* And other dates.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Panacanal, Panama;" in the United States, "Panacanal, Washington."

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286).

Assistant director of educational work (male and female); \$2,800 to \$3,600 a year; (qualified as editor and writer); August 10, 1920.*

Druggist (male and female); \$60 to \$100 a month; August 4, 1920; form 1312; age, 21 years but not 50 years.

Metallurgical chemist (male and female); \$6.88 a day; August 10, 1920; form 1312; age, within reasonable age limits.*

Assistant metallurgical chemist (male and female); \$5.12 a day; form 1312; age, within reasonable age limits.*

Statistician, Public Health Service (male and female); \$3,000 a year; August 10, 1920; form 2118; age, 20 years and over.*

Curator (male and female); \$2,400 a year; August 3, 1920; form 2118; age, 20 years and over.*

Assistant curator (male and female); \$1,800 a year; August 3, 1920; form 2118; age, 20 years and over.*

Expert aide (telephone); (male and female); \$7.20 a day; August 17, 1920; form 1312; age, under 50 years.*

Chief inspector of traffic (telephone); \$6 a day; August 17, 1920; form 1312; age, under 50 years.*

Telephone plant supervisor (male and female); \$6 a day; August 17, 1920; form 1312; age, under 50 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Herman Edgar.....	22529	Martinique.....	Panama.....	Coaling Station.....	July 9, 1920.
William Marshall.....	30054	Barbados.....	Panama.....	Health Department....	July 2, 1920.
*Anthony McKinney....	33808	Portune Islands..	Panama.....	Dredging Division.....	July 7, 1920.
Emanuel Toribio.....	53152	Panama.....	Camp Manawa.....	Panama Railroad.....	July 11, 1920.
Joseph Yearwood.....	36345	Barbados.....	Panama.....	Mechanical Division...	July 4, 1920.

*Alias McKenning.

Official Circulars.

Payment of Bills.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., July 9, 1920.

CIRCULAR No. 659-3 (superseding circular No. 659-2):

The prompt payment of bills rendered against employees, by The Panama Canal and Panama Railroad Company, for supplies or services, not covered by security deposit or for which cash payment is not made, is essential for the proper and economical handling of such accounts. With a view of securing prompt payment of such bills, the following rules and regulations are prescribed:

1. All regular monthly bills rendered in advance, on the 1st of each month, such as garage, corral, and telephone bills, must be paid before the close of business on the 20th day of the month in which rendered, or on the preceding business day when the 20th falls on a Sunday or holiday.

2. Other bills, such as commissary and laundry bills, must be paid on or before the 20th day of the month following that in which the service was rendered or supplies furnished, and miscellaneous bills such as quartermaster's bills, motor car repair shop bills, etc., if rendered on or before the 10th of the month must be paid on or before the 20th of that month. Bills rendered after the 10th of the month must be paid before the 20th of the succeeding month.

3. All bills remaining unpaid at the close of business on the dates above specified will be collected by pay roll deduction.

4. Collecting agents handling such bills must, at the close of business on the 20th of each month, forward all unpaid bills, with a list in duplicate, to the Auditor for deduction on current pay rolls.

5. Collecting agents shall not accept cash payment from employees for bills of the kinds above mentioned, after the close of business on the 20th of each month.

6. To each bill collected by pay roll deduction a charge of 50 cents will be added to cover the cost of collection when the amount of such bill is less than \$20, and \$1 when the amount is \$20 or over.

7. Bills for medical and hospital treatment, Hotel Aspinwall bills, and bills for rental of silver quarters, will be handled by deduction on current rolls without charge, as heretofore.

8. Bills against other than employees must be paid on or before the dates fixed for employees. Failure to pay bills in accordance with the above regulations, will result in the cancellation of the credit privilege or the discontinuance of the service.

9. Nothing in this circular is to be construed to grant credit or "charge" accounts where such privilege has not been granted heretofore. All regulations regarding security deposits and cash payments remain in effect.

10. Penalties for nonpayment of garage, corral, and telephone bills as provided for in circulars 672-1 and 650-2 are hereby canceled.

11. The foregoing rules will apply to bills rendered on and after July 1, 1920.

CHESTER HARDING,

Governor, The Panama Canal
President, Panama Railroad Company

Supplement to Rules Governing the Assignment of Panama Canal Public Garages and Conditions of their Occupancy.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., July 16, 1920.

To all concerned—The following amendment is made to the circular issued August 2, 1919, covering rules for assignment of Panama Canal public garages:

Paragraph 19. District quartermasters are authorized to make temporary assignments to employees with cars on hand to stalls permanently assigned to employees whose cars have not yet arrived on the Isthmus. Such temporary assignments will be made in order of applications on file in the offices of the district quartermasters, who will maintain a list of permanent and a list of temporary assignments, transferring rental charges from permanent to temporary and back to permanent occupant upon effecting changes. Temporary occupants of stalls must vacate at once upon arrival of car belonging to permanent assignee, or upon his forfeiture of stall—if other applicants have priority.

R. K. MORRIS,
Chief Quartermaster.

Approved:
CHESTER HARDING,
Governor.

Rainfall from June 1 to June 30, Inclusive.

STATIONS.	Maximum in one day.		Date.	Total.
	Ins.	Ins.		
<i>Pacific section—</i>				
Balboa	1.72	16	4	4.42
Balboa Heights	1.30	20	4	4.83
Miraflores	3.41	20	9	9.87
Pedro Miguel	4.17	20	10	10.02
Rio Grande	2.75	20	11	11.78
<i>Central section—</i>				
*Culebra	2.02	21	12	12.03
*Camacho	2.25	16	11	11.83
Empire	2.29	16	11	11.01
Gamboa	2.28	16	7	7.48
*Juan Mina .....	.71	21	5	5.78
Alhajuela	1.86	26	11	11.16
*Vigia	3.39	26	10	10.23
Darien	3.22	16	12	12.70
*Trinidad	2.37	21	10	10.63
*Monte Lirio	1.56	3	7	7.86
<i>Atlantic section—</i>				
Gatun	1.29	3	7	7.38
*Brazos Brook	2.60	3	7	9.96
Colon	2.91	28	13	29.29
†Bocas del Toro	2.24	15	9	9.80
*Porto Bello	3.88	25	20	17.17

*Standard rain gauge—readings at 5 p. m. daily.

Automatic rain gauge at unstarred stations—values, midnight to midnight.

†Standard rain gauge—readings at 8 a. m. daily.

Sale of Equipment on Hand at the Old Power and Refrigerating Plant, Commissary Division, Cristobal.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., August 25, 1920, and then opened for the purchase of various ice manufacturing machinery, electric generators, pumps, etc., on hand at the old power and refrigerating plant, Commissary Division, Cristobal. Form of proposal may be had upon application to the office of the Chief Quartermaster, Balboa Heights, or the General Manager, Commissary Division, Cristobal. The Panama Canal reserves the right to reject any or all bids.

June Rainfall for Three Years.

Stations	INCHES.			Station average.	Years of record.	Rainy days, 1920
	1918	1919	1920			
<i>Pacific section—</i>						
Balboa	4.57	7.75	4.42	7.20	24	15
Balboa Heights	5.20	8.93	4.83	7.41	23	16
Miraflores	5.70	4.60	9.87	8.41	12	17
Pedro Miguel	6.55	3.99	10.02	9.07	13	19
Rio Grande	7.33	6.23	11.78	9.14	16	21
<i>Central section—</i>						
Culebra	8.07	5.73	12.08	8.84	29	20
Camacho	10.92	6.77	11.83	9.70	14	17
Empire	9.31	5.57	11.01	8.65	17	23
Gamboa	10.12	6.02	7.48	9.62	30	20
Juan Mina	13.56	5.50	5.78	10.03	10	22
Alhajuela	15.76	6.87	11.16	12.18	21	25
Vigia	15.58	7.07	10.23	12.69	12	27
Frijoles	8.06	5.85	10.20	9.75	9	...
Trinidad	5.39	12.30	10.63	10.35	13	24
Monte Lirio	9.43	8.16	7.86	11.96	13	27
<i>Atlantic section—</i>						
Gatun	8.29	12.54	7.38	12.29	16	18
Brazos Brook	10.11	11.70	7.96	13.94	14	21
Colon	8.56	12.08	13.29	13.35	50	26
Porto Bello .....	...	10.04	20.17	15.78	9	28
Bocas del Toro	6.81	11.65	9.80	8.01	12	16

Sale of Wagons and Wagonettes.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., until 10.30 a. m., August 10, 1920, and then opened for the purchase of 6 wagons and 3 wagonettes on hand at Balboa storehouse. Form of proposal may be had upon application to the office of the Chief Quartermaster or the General Storekeeper, Balboa. The Panama Canal reserves the right to reject any or all bids.

Additions to Commissary Stock.

Dry Goods Section.

Aprons, bungalow, ea.....	\$2.15
Aprons, bungalow, ea.....	2.75
Aprons, bungalow, ea.....	1.75
Aprons, bungalow, ea.....	3.35
Aprons, bungalow, ea.....	3.10
Aprons, bungalow, ea.....	2.60
Buttons, ivory, khaki color, line 24, doz.....	.13
Buttons, pearl, coat, line 24, doz.....	.11
Cambric, linen, bleached, 36", yd.....	1.45
Cambric, linen, bleached, 36", yd.....	1.60
Cambric, linen, bleached, 36", yd.....	1.75
Cloth, lingerie, chino, cotton, 44", yd.....	.34
Curtain, drapery, 36", yd.....	.62
Curtain, scrim, 36", yd.....	.44
Curtain, drapery and scrim, 36", yd.....	.71
Curtain, scrim, yd.....	.41
Curtain, scrim, yd.....	.44
Curtain, scrim, yd.....	.33
Drawers, knee, pr.....	.90
Dress goods:	
Voile, fancy, 35/6", yd.....	.61
Voile, fancy, 35/6", yd.....	.71
Floss, dental, waxed, Lister's, bot.....	.16
Hats, straw, men's, ea.....	2.50
Helmets, police, ea.....	1.80
Helmets, police, ea.....	2.50
Knickerbockers, boys', corduroy, pr.....	1.65
Lotion, After-Shave, P. C. (3 cents allowed for return of empty bottle) 12-oz. bot.....	.25
Overalls, boys', blue denim, pr.....	1.10
Shirts, negligee, coat style, soft cuffs, ea.....	2.05
Suiting:	
Linen, shrunk, 29", yd.....	.86
Loom linen, Dowlas, 39", yd.....	1.00
Promenade, women's, assorted colors, 34/5", yd.....	.66

Suits—Continued.		Pickles, mixed, Morton's, pt. bot.	\$0.40
Serge, blue, 56", yd.	\$3.60	Walnuts, pickled, C. & B., pt. bot.	54
Serge, black, 56", yd.	3.60	<i>Hardware Section.</i>	
Suits, men's union, cotton and wool.		Automobile and motorcycle accessories:	
Wright's, suit.	5.45	Rims, steel, 28", ea. ....	.95
Ties, men's 4-in-hand, silk crepe, ea. ....	.75	Baskets, waste, wicker, small, ea. ....	.69
Towels, linen, huck, 18" x 34", ea. ....	.45	Pots, tea, aluminum, ea.	3.65
<i>Grocery Section.</i>		Pots, tea, Doulton, C-4772, ea.	2.00
Chocolates, Fry's Caracas, 3-oz. cake. ....	.14	Stoves and accessories:	
Chow Chow, C. & B., pt. bot. ....	.54	Mantels for 3-burner Florence stoves, ea.	6.85
Chow Chow, Morton's, pt. bot. ....	.39	Stoves, Florence, 3-burner, ea.	20.65
Cigarettes, Melachrino No. 9, 10s. box. ....	.18	Trays, mahogany, round, nickel plated	
Cream of Tartar, 2-oz. ctn. ....	.10	handles, 14", ea.	5.10
Dressing, salad, Premier, 11-oz. bot. ....	.46	Trays, serving, brass handle, mahogany, ea.	6.65
Lime juice cordial, Rose's, liter bot. ....	.66	<i>Ice Cream Section.</i>	
Mushrooms (Cepes au Naturel), $\frac{1}{2}$ -kilo tin. ....	.39	Milk sherbet, lemon, gal. ....	.95

COMMISSARY NOTES.

After-Shave Lotion.

The Commissary Division recently began the manufacture of a product called "After-Shave Lotion," an antiseptic preparation which is finding ready sales in the line stores. It is sold in 12-ounce bottles with sprinkler tops at all commissaries for 25 cents, 3 cents refund being allowed for the return of bottle.

The strength of this lotion is about the same as any first-class bay rum and as this may be a little too strong for some users, it is suggested that in such cases, the end of a towel be dipped in water, some of the lotion added to it and in that way applied to the face.

Books.

Books received:

"Tales of a Cruel Country," by Gerard Cumberland; "A Lithuanian Village," by Leon Kobin; "The Moon and Sixpence," by W. Somerset Maugham; "The Young Visitors," by Daisy Ashford; "Blood and Sand," "Mare Nostrum," by Blasco Ibañez; "Sherry," by George Barr McCutcheon; "River's End," by James Oliver Curwood; "The Passionate Pilgrim," by Samuel Merwin; "Eye of Zeitoun," by Talbot Mundy; "This Side of Paradise," by F. Scott Fitzgerald; "The Chorus Girl," by Anton Chekov; "Black Sheep, Black Sheep," by Meredith Nicholson; "Noa, Noa," by Paul Gauguin; "The Arrow of Gold," by Joseph Conrad; "Ramsey Milholland," by Booth Tarkington; "Mc Aroni Ballads," by T. A. Daly; "Economic Consequences of the Peace," by John Maynard Keynes; "The Shadow," by Mary White Ovington; "Easy Lessons in Einstein," by Edward Slosson; "Liberty and the News," by Walter Lippman; "Bolshevism at Work," by William T. Good; "The Non-partisan League," by Herbert Gaston; "Modern American Poetry," by Louis Untermeyer; "The Re-Creation of Brian Kent," by Harold Bell Wright; "Tarzan the Untamed," by Edgar Rice Burroughs; "Roosevelt's Letters to his Children," edited by Joseph Bucklin Bishop; "Tutt and Mr. Tutt," by Arthur Train; "Mexico: To-day and To-morrow," by E. D. Trowbridge; "Misers' Money," by Eden Phillpott; "Miss Lulu Bett," by Zona Gale; "The Sailor Girl," by Frederick F. Moore; "Marching Sands," by Harold Lamb; Spanish dictionary: "Wanted, a Husband," by Samuel Hopkins Adams; "Cape Coddies," by Dennis and Marion Chatham; "The Education of Henry Adams," by Henry Adams; "Polyooly Dances," by Edgar Jepson; "Raspbery Jam," by Carolyn Wells; "The Portygee," by Joseph C. Lincoln; "The Golden Scorpion," by Sax Rohmer.

Beef.

For the further information of those who are interested in using the forequarter cuts sold at low prices in the retail commissaries, there are given below two recipes for dishes prepared from the chuck:

Pot roast with vegetables—Requires 3 or 4 pounds chuck roast, 1 cup sliced carrots, 1 cup sliced onions, 1 cup celery cut in bits, 1 cup sliced turnips, 3 tablespoons fat (preferably from salt pork). If the meat is not in a solid piece, skewer or tie it into shape, wipe it with damp cheesecloth, and roll in flour. Boil vegetables in salted water to barely cover, until soft. Rub through a coarse strainer. Heat fat in a frying pan or iron kettle with cover. Put in the meat and brown on all sides. If the frying pan is used, transfer the meat, after it is brown, to a kettle, unless the pan is deep enough to hold the beef. Pour the vegetables and their liquid over the meat, together with any preferred seasoning. Cover tightly and let simmer slowly for 4 or 5 hours, turning twice. Thicken the gravy a little, and pour over the meat.

Beefsteak pie—Requires chuck steak, cut in narrow strips, bit of garlic, $\frac{1}{2}$ bay leaf, 6 pepper corns, sprig of parsley, 1 onion stuffed with 2 cloves, 1 cup sliced carrots, 1 cup celery cut in strips, 4 halved potatoes. The garlic, bay leaf, pepper corns, parsley, and onions should be tied in a square of cloth. Place steak in a kettle with boiling water to cover, and let it simmer for half an hour. Add seasoning in bag together with salt to the meat, and thicken the stock. Place the kettle on an asbestos mat to keep sauce from sticking. Some dried mushrooms soaked and drained improve the flavor. Simmer while making the pastry. Then remove the bag of seasoning. Put all in a baking dish with a rolled crust over the top and sides. Brush with milk and bake 40 minutes, covering it with heavy paper as soon as it is brown.

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Volume XIII.

Balboa Heights, C. Z., July 28, 1920.

No. 50.

Rationing the Fuel Supply.

In connection with the fuel shortage at the terminals of the Canal, which has necessitated limiting the quantity of bunkers for each ship to that necessary for reaching the next bunkering station, the Marine Superintendent has issued the following circulars to marine interests:

BALBOA HEIGHTS, C. Z., July 15, 1920.

All steamship agents—Your attention is invited to the very serious situation with regard to fuel. The requirements of the Canal per month for coal for bunkering ships amount to about 50,000 tons. At the present time the average supply is not above 30,000 tons. One month ago The Panama Canal supply of coal was 46,000 tons. At the present time it is approximately 26,000 tons. It will be seen from these figures that unless very drastic action is taken there will be no coal for bunkers on the Isthmus except at spasmodic intervals in a very short time. The situation with regard to oil is equally serious.

In view of the above the following instructions are being issued to the Port Captains with regard to issuing of fuel.

All vessels leaving Cristobal for European ports will be fueled to Norfolk. This for the time being will include vessels bound for Mediterranean ports, unless other bunkering port short of Gibraltar can be found.

All vessels leaving Cristobal for Cuban or other West Indian ports will be bunkered only to the nearest bunkering port.

All vessels leaving Cristobal for Cape Town will be bunkered to Barbados or Trinidad.

All vessels leaving Balboa for the west coast of South America will be bunkered to Coronel.*

All vessels leaving Balboa for Honolulu, or Honolulu and the Far East, will be bunkered to San Diego.

All vessels leaving Balboa for New Zealand and Australia will be bunkered to New Zealand, the nearest bunkering port.

The Marine Superintendent is making every effort to obtain information as to ports in the West Indies where bunkers may be obtained. This information will be sent you on its arrival, but I would suggest that you endeavor to obtain information and make bunkering arrangements to assist in tiding over the present emergency.

All vessels sailing for Canal ports should be bunkered full on leaving home ports. The Port Captains are instructed to investigate the supply on hand on arrival of any vessel to determine whether she was fully bunkered on leaving the last bunkering port, and a tendency not to bunker full as requested at home ports will be considered and such action taken as will compel compliance with this request.

The Marine Superintendent regrets exceedingly the necessity for the foregoing stringent regulations, and hopes that the situation will soon clear up. In the meantime he requests the hearty cooperation of all concerned in order to keep traffic moving.

*Note change per circular of July 21.

BALBOA HEIGHTS, C. Z., July 19, 1920.

All steamship agents—Supplementing my circular letter of the 15th instant regarding the present serious fuel situation, the following recent dispatches are quoted for your information:

Pan Canal:

Thirty-five hundred tons coal available Friday sixteen other arrivals hoped for but unable to advise definitely.

"St. Thomas, July 15, 1920.

Governor."

"Kingston, Jamaica, July 15, 1920.

Pancanal:

One thousand tons only at seven pounds f o b untrimmed subject prior sale.

Am. Consul."

Pancanal:

Because strike refinery bunker oil not now available.

"Salina Cruz, Mexico, July 15, 1920.

Burlingham."

Pancanal:

Refinery strike ended future bunker oil supplies contingent upon number tank cars available to transport oil here and amount of demand from vessels. No stock on hand to-day.

"Salina Cruz, July 16, 1920.

Burlingham."

Pancanal:

Bunker coal on hand at present about six thousand tons.

San Juan, P. R., July 16, 1920.

Benedicto, Actg. Governor."

Balboa Heights, July 16, 1920.

Pancanal, Washington:

Price of fuel oil at Canal terminals will be increased to three dollars fifty cents per barrel effective August 1, 1920. Bunkers will be limited to sufficient oil to reach next bunkering station. This will apply to all ships whether they have contracts with local oil companies or not. Notify shipping and oil interests and others concerned immediately by publication and otherwise.

Harding."

"Balboa Heights, C. Z., July 16, 1920.

Pancanal Washington:

Please arrange with State Department to have Consuls at following ports inform Pancanal in direct by cable as to supplies of oil and coal for bunkering ships at their ports and to keep Pancanal informed by cable of changes in fuel situation when such occur Kingston Jamaica, Habana, St. Thomas, San Juan, Barbados, Trinidad, Azores, Callao, Iquique, Valparaiso information necessary to routing of ships during fuel shortage.

Harding."

"Balboa Heights, C. Z., July 16, 1920.

Pancanal, New York:

What are prospects of amount of coal deliveries coming month? Have only two weeks supply on hand outside of Navy coal.

Harding."

"Port of Spain, Trinidad, July 18, 1920.

Pancanal:

Four thousand tons. (coal)

American Consul, Baker."

"Washington, D. C., July 17, 1920.

Pancanal:

U. S. Shipping Board advises at present time no oil at St. Thomas and unable replenish supply until latter part July. Supply at Honolulu adequate for requirements of U. S. Shipping Board vessels. Practically no oil available in the open market on west coast South America.

Flint."

"Balboa Heights, C. Z., July 19, 1920.

U. S. Consul, Salina Cruz, Mexico:

Will route approximately fifteen ships per month via Salina Cruz if oil available there. What are the prospects for early supply?

Pancanal."

BALBOA HEIGHTS, C. Z., July 21, 1920.

Memorandum for Port Captains—The following changes are made in Marine Superintendent's circular letter of July 15, with regard to the issuing of fuel:

1. In view of the information recently received from the Shipping Board that there is now no supply of oil for bunkers on the west coast of South America, until further orders steamers of companies having established itineraries from the Canal Zone to these ports may be bunkered for the round trip in all cases where the records of the vessel show that every opportunity for bunkering outside Canal ports has been taken advantage of.

2. It is noted that there are certain established steamship lines carrying mail and passengers to ports on the west coast of South America whose schedules would be seriously interfered with if circular letter of July 15, were rigorously carried out. It is desired that such vessels be bunkered for the round trip in all cases where it can be shown that the vessel has taken every opportunity to bunker prior to arrival on the Canal.

3. It is also noted that vessels running to the nitrate ports on the west coast of South America would be required to make an additional run of some 2,000 miles to obtain coal at Coronel. In view of the slightly improved condition of the coal supply on the Isthmus by the past week, until further orders such vessels as above mentioned may be fueled for the round trip in all cases where it is shown that they have taken every opportunity to bunker prior to arrival on the Isthmus.

In all other cases where exceptional hardship would be entailed in not bunkering for the round trip, the matter will be referred to the Marine Superintendent for decision.

The fuel shortage at the Canal is part and consequence of the world shortage. In coal the specific difficulty has been a scarcity of coal at the seaboard of the United States. There has been a severe shortage in the United States especially on the Great Lakes and throughout the northwest, and difficulties of rail transportation have added their effect to that of insufficient production from the mines. In oil, practically all the supply has been coming from Mexico, where production has been greatly decreased by disorders, repressive legislation, and the physical finish of a number of strong wells in the Tampico field, which began to run salt water. The demand for oil has increased greatly in the last 18 months, both for shipping and in industrial plants.

The use of fuel oil by The Panama Canal organization on the Isthmus amounts to a total of about 30,000 barrels a month among the various departments and divisions. The contract for the fiscal year ending July 1, was for 1,000,000 barrels, which left a considerable margin for sale to steamship lines. Until the shortage began to be felt the sales from the tanks of The Panama Canal were not enough to use the marginal supply, and for about 9 months the total consumption through the tanks of The Panama Canal was about 400,000 barrels. When the stock of the private companies with tanks at the Canal began to run low an increased draft was placed on the tanks of The Panama Canal, and since April of this year 600,000 barrels have been ordered, taking all the rest available under the original contract. All of this has been delivered except 2 shipments which are due in August. Under the contract the Canal has the privilege of calling for an additional 500,000 barrels, under a renewal contract, and this also has been ordered.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending July 24, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Glenpool.....	West India Oil Co.....	July 18.....	July 20.....	*7,000	
Ulua.....	United Fruit Co.....	July 18.....	July 18.....	2	
Caribbean.....	Panama Railroad Cattle Industry.....		July 18.....		187
Rosana.....	Anglo-American Steamship Co.....		July 18.....		50
Parismina.....	United Fruit Co.....	July 19.....	July 21.....	821	36
Toloca.....	United Fruit Co.....	July 19.....	July 20.....	87	5
Van Rensselaer.....	Royal Dutch West India Mail Co.....	July 19.....	July 21.....	70	1
Bologna.....	La Veloce Steamship Line.....	July 20.....	July 23.....	13	
Gen. W. C. Gorgas.....	Panama Railroad Steamship Line.....		July 20.....		18
Carrillo.....	United Fruit Co.....	July 21.....	July 22.....	13	52
Santa Leonora.....	United States Army.....	July 21.....	.....	986	
Ucayali.....	Peruvian Line.....	July 21.....	.....	
Leon XIII.....	Spanish Steamship Line.....	July 21.....	.....	14	
Mercury.....	United States Army.....		July 21.....		603½
Aylesbury.....	Royal Mail Steam Packet Co.....		July 21.....		10
San Juan.....	Pacific Mail Steamship Co.....		July 21.....		40
Jamaica.....	Pacific Steam Navigation Co.....		July 21.....		6
Abangarea.....	United Fruit Co.....	July 22.....	July 22.....	2	10
Caribbean.....	Panama Railroad Cattle Industry.....	July 22.....	.....	210	
Allianca.....	Panama Railroad Steamship Line.....	July 22.....	.....	803	
Haiti.....	French Steamship Line.....	July 22.....	.....	33	
Point Judith.....	Pacific Mail Steamship Co.....	July 23.....	.....	344	
Manavi.....	Pacific Steam Navigation Co.....		July 22.....		4
Achilles.....	Panama Railroad Steamship Line.....	July 23.....	.....	12,078	
Haarlen.....	Dutch Steamship Line.....	July 23.....	.....	7	
Acajutla.....	Pacific Steam Navigation Co.....	July 24.....	.....	11	
Cauca.....	Pacific Steam Navigation Co.....	July 24.....	.....	11	

* Oil.

† Coal.

Cable Addresses of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight July 24, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage			
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net		
Ansaldo IV	16	21	18	6	28	18	13	32	18	19	18	377	0	19.6	Cartagena	Valparaiso	General	1,795	5,473	3,600	
Weymouth (c)	17	19	18	7	10	18	15	45	20	12	15	453	0	19.3	Demerara	Callao	General	50	256	185	
Rosana (b)	12	20	30	18	9	24	18	16	38	19	30	392	0	6.6	Cristobal	Punarenas	General	6,800	5,853	4,285	
Matoppo	18	13	23	19	6	15	19	15	22	19	30	119	0	24.3	Norfolk	Shanghai	Tobacco, etc.	2,870	4,871	3,435	
Borderline	18	13	23	19	6	15	19	14	20	19	15	374	0	48.9	New York	Adelaide	General	6,284	5,967	4,449	
Easterning	19	11	48	20	6	17	19	14	20	19	15	353	3	23.5	New York	Yokohama	Steel	2,312	2,383	1,517	
Lake Maurepas	19	4	00	20	6	30	20	14	01	20	15	283	0	20.0	Norfolk	Mejillones	Coal				
Sirota (c)	19	4	00	20	6	30	20	14	57	20	15	353	0	20.0	Norfolk	Mejillones	Coal				
San Juan	11	15	10	21	6	05	21	14	21	23	13	153	0	16.0	Cristobal	San Francisco	General	631	2,379	1,593	
Santa Luisa	20	55	21	6	05	21	13	19	21	14	13	360	0	34.1	New York	Valparaiso	General	2,921	5,694	3,975	
Jamaica	17	14	21	21	6	10	21	14	22	16	35	220	0	34.1	Cristobal	Buenaventura	General	7,921	1,187	6,222	
De Soto	21	8	38	21	9	02	21	10	30	22	15	418	7	53.2	Tampico	Baiba	Crude oil	7,507	7,149	4,527	
Manavi	15	16	40	23	6	33	22	13	52	22	17	216	0	35.1	Tampico	Guayaquil	General	647	1,357	884	
Caddo	22	22	25	23	6	33	23	14	54			414	5	55.0	Tampico	Pisagua	Petroleum	8,600	6,438	4,391	
Ardmore	22	23	20	23	6	30	23	16	19			449	5	60.0	Pt. Lobos	Pisagua	Fuel oil	10,148	8,636	6,321	
Bologna	19	19	20	23	7	02	23	15	00	23	16	384	0	47.0	Genoa	Valparaiso	General	391	5,192	3,993	
West Mahomet	23	1	15	23	7	27	24	17	05			409	6	54.2	New York	Kobe	General	7,500	6,656	4,937	
Brookline	23	19	45	24	6	32	24	17	22	24	18	410	5	54.2	Norfolk	Bremerton	Navy coal	8,003	6,576	4,852	
Walter Hard-																					
castle	23	18	25	24	6	40	24	15	55	24	19	304	0	44.2	Tampico	Corinto	Fuel oil	(d)	3,240	2,310	
Hague Maru	24	17	30	24	7	52	24	16	31	24	17	407	0	50	25.6	New Orleans	Yokohama	General	4,555	4,210	2,744
Guatemala	18	18	45	24	9	50	24	17	43			359	3	43	18	Cristobal	Valparaiso	General		5,789	4,082
Trelisick	23	19	30	24	10	45	24	18	27	24	19	399	3	52.3	Baltimore	Portland	Ballast				

(a) Cruiser. (b) Auxiliary schooner. (c) U. S. tug. (d) 30,000 barrels.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage		
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net	
Sloterwijk	17	15	00	18	6	32	18	15	50	18	19	400	3	26.9	Rotterdam	Rotterdam	Nitrates	8,000	6,525	4,760
Fort Wayne	17	18	00	18	7	53	18	16	15	18	16	409	6	24.0	Portland	Bordeaux	Wheat	7,265	6,736	4,921
Margaret	18	6	50	18	8	42	18	17	15	18	19	411	6	23.5	Vancouver	Grangemouth	Douglas fir ties	6,950	4,210	2,744
Coughlan	18	6	40	18	12	20	18	18	45	24	9	359	3	43.7	Valparaiso	Cristobal	General	6,646	6,049	5,066
Guatemala	19	8	18	19	9	14	19	16	55	19	16	409	6	24.6	Portland	London	Flour	7,443	6,645	5,645
West Clayton	19	20	00	20	6	37	20	13	53	20	20	419	4	27.2	Antofagasta	Tampico	Ballast	3,184	11,041	7,487
S. V. Harkness	19	20	00	20	6	49	20	15	55	21	8	501	0	58.1	Sydney	Rotterdam	Ballast	6,690	6,090	5,081
Man	20	15	30	20	6	49	20	15	55	21	8	501	0	58.1	Talal	Rotterdam	Ballast	6,690	6,090	5,081
Cordelia	20	16	45	21	6	50	21	13	55	21	19	425	3	54.6	Tampico	Tampico	Ballast	7,059	6,081	4,922
San Joaquin	20	16	45	21	6	53	21	15	05	21	23	420	3	57.1	Antofagasta	Tampico	Ballast	8,068	6,580	4,922
Nokatsy	20	3	37	21	7	00	21	17	05	21	17	402	6	53.0	Paagoume	New York	General			

(e) Frozen meat, wool, and horns. (f) Chrome ore and general.

Ship Name	Date	Time	Origin	Destination	Notes
Santa Ana	21	1.13	21	15.40	21
Ulysses (g)	17	19.12	21	11.56	21
Eastern	20	21.40	21	12.27	21
Ucayal	21	1.35	21	13.00	21
Choyo Maru	21	6.40	21	13.48	21
West Hartland	21	22.30	22	7.50	22
West Selene	22	0.22	22	8.13	22
Palena	22	2.30	22	8.56	22
Artigas	22	10.25	22	11.27	22
Laura C.	22	8.00	23	6.25	23
Hall (h)	22	16.30	23	6.41	23
De Soto	23	3.35	23	7.46	23
Chauvier	23	13.45	24	6.30	24
Asquiter	24	1.00	24	8.13	24
Bearpot	24	1.29	24	8.32	24
O-13 (f)	9	14.45	24	8.35	24
O-11 (f)	9	15.29	24	8.58	24
O-14 (f)	9	15.35	24	9.00	24
O-12 (f)	9	15.31	24	9.01	24
O-16 (f)	3	14.00	24	9.33	24
Mina Brea	24	7.20	24	9.54	24
Cauca	24	12.15	24	13.23	24
Bolton Castle	24	12.15	24	13.23	24

(g) Collier. (h) Motor schooner. (i) Submarine. (j) Nitrate, vanadium, sugar, hides, ore, and general. (k) Ties, oil, wool, and asphalt. (l) 5 boxes.

*ARRIVALS.				*DEPARTURES.			
Date	Vessel	Line	From	Date	Vessel	Line	For
July 18	Ulua	United Fruit Co.	Port Limon.	July 18	Ulua	United Fruit Co.	New York via Habana.
July 18	Glennpool	Standard Oil Co.	Tampico	July 18	Larrie	Royal Mail Steam Packet Co.	Azores.
July 19	Harish	United Fruit Co.	New York via Habana.	July 18	Caribbean	Panama Railroad Cattle Industry	Cartagena.
July 19	Parima	United States Shipping Board	Kingston.	July 20	Glennpool	Standard Oil Co.	Tampico.
July 19	Van Kenusslaer	United Fruit Co.	New Orleans.	July 20	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	Cartagena.
July 19	Santa Leonora (m)	Royal Dutch West India Mail Co.	Amsterdam.	July 21	Tolea	United Fruit Co.	Port Limon.
July 21	Carrillo	United States Army	New Orleans.	July 21	Mercury (m)	United States Army	New York via Porto Rico.
July 21	Leon XIII	Spanish Steamship Line	New York via Kingston.	July 21	Parima	United Fruit Co.	New Orleans and waypoints
July 22	Abangarez	United Fruit Co.	Barcelona via waypoints.	July 22	Van Kenusslaer	Royal Dutch West India Mail Co.	Amsterdam via waypoints
July 22	Caribbean	Panama Railroad Cattle Industry	New Orleans via waypoints	July 22	Darien (h)	Panama Railroad Steamship Line	Norfolk.
July 22	Alliance	Panama Railroad Steamship Line	Cartagena.	July 22	Carrillo	United Fruit Co.	New York via waypoints.
July 22	Haiti	French Steamship Line	Havre via waypoints.	July 22	Abangarez	United Fruit Co.	New Orleans.
July 23	Achilles	Panama Railroad Steamship Line	Norfolk.				

(m) Transport. (n) Barge. (o) Third class cruiser. (p) Other than ships passing through the Canal. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF BALBOA.

*ARRIVALS.				*DEPARTURES.			
Date	Vessel	Line	From	Date	Vessel	Line	For
July 24	Cleveland (o)	United States Navy	United States Navy	July 24	Cleveland (o)	United States Navy	San Juan del Sur.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending July 24, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ansaldo IV.....	Societa Nazionale di Navigazione..	July 18.....	July 19.....	6	.....
Guatemala.....	Pacific Steam Navigation Co.....	July 18.....	July 18.....	24	.....
Easterling.....	United States Shipping Board.....	July 20.....	July 26.....	.....	1,500
San Juan.....	Pacific Mail Steamship Co.....	July 21.....	July 22.....	.....	39
De Sota.....	Standard Oil Co.....	July 21.....	July 22.....	7,500	.....
Palena.....	Cia. Sud-Americana de Vapores.....	July 22.....	July 22.....	15	.....
Laura C. Hall.....	Pacific Metals Corporation.....	July 22.....	July 22.....	43	.....
Acajutla.....	Pacific Steam Navigation Co.....	July 23.....	July 24.....	93	.....
Cauca.....	Pacific Steam Navigation Co.....	July 24.....	July 24.....	2	.....

“Favorite” on Third Voyage to Serrana Bank.

The salvage steamship *Favorite* cleared from Cristobal in the evening of July 27 on her third trip to Serrana Bank to assist the stranded *Koyo Maru*. On the second voyage, from which she returned to Cristobal on July 23, the *Favorite* brought 260 tons of cargo and on the present trip her master expects, with the help of a barge which she took in tow, to lighten the *Koyo Maru* sufficiently to allow her to be pulled off the reef.

Work on Vessels Lying at Terminal Docks.

THE PANAMA CANAL, MARINE DIVISION,
BALBOA HEIGHTS, C. Z., July 20, 1920.

Local steamship agents—Instructions were recently issued that no outside contractor shall be permitted to do work on vessels lying at docks in either terminal of the Panama Canal.

The Governor has announced that the practice which it is intended to prevent is the organization of forces by outside concerns for the purpose of effecting repairs, in competition with the Mechanical Division, to ships at our docks; and that the instructions referred to do not apply to small repair jobs performed by a steamship company's own forces to its vessels lying in our terminals.

E. P. JESSOP,
Marine Superintendent.

Fees for Passports and Visas.

For each passport issued on and after the 1st day of July, 1920, State Department officials are required to collect total fees of \$10, instead of \$2, as formerly. The \$10 charge includes the fee of \$1 for executing an application for passport and \$9 for the issuance of the passport. The \$1 fee for executing application is charged in all cases, but emergency passports will be issued to persons of the following-exempted classes without the payment of the passport fee of \$9.

1. Officers or employees of the United States proceeding abroad in the discharge of their official duties, and members of their immediate families;
2. Seamen;
3. Widows, children, parents, brothers, and sisters of American soldiers, sailors, or marines buried abroad whose journey is undertaken for the purpose of visiting the graves of the soldiers, sailors, or marines. (In this case an affidavit as to this purpose must be attached to the application.)

Effective the same date, a fee of \$1 is charged for executing each application of an alien for visé of his passport and \$9 for such visé, excepting in cases of exempted persons of the following classes:

1. Any officer of a foreign Government or member of his immediate family;
2. Any officer of the armed forces or of any State, district, or municipality of a foreign government;
3. Any soldier coming within the provisions of public resolution of October 19, 1918.

The validity of a passport or visé is limited to 2 years, unless said passport be issued by an Embassy or a Legation, in which instance the validity is limited to 6 months and is not subject to renewal, unless the Secretary of State shall, by regulation, limit a passport or visé to a shorter period. The prior ruling was that a passport was limited to a validity of 6 months.

In this connection, no passport or other certificate is required of American citizens bound for United States territory, except in the case of enemy aliens who have declared residence in the United States.

New Lunch Counter Night Service at Ancon Restaurant.

A lunch counter is being operated in Ancon restaurant from 8 p. m. until midnight for the benefit of those who are prevented from eating during the regular meal hours. One gold employee in attendance, serves the orders, punches the tickets, and collects the coupons or money. This labor-saving lunch system has been adopted by many lunch-room concerns all over the United States. The regular cafeteria prices are charged.

August Weather Probabilities.

The following weather conditions may be expected to prevail at the Canal entrances during the month of August, 1920. Predictions are based on the records at Colon and Balboa Heights for the past 12 and 14 years, respectively:

Winds—The winds over the Atlantic Coast will be light and variable, with an average velocity of about 8 miles an hour. The maximum velocity during local rain or thunder squalls is not likely to exceed 35 miles an hour.

Northwest and north winds will prevail at the Pacific entrance and over the interior, with an average velocity of about 7 miles an hour. Maximum winds of 35 miles an hour may occur during the passage of rain or thunder squalls, but wind squalls of this character do not occur often, and the high winds seldom last longer than a few minutes.

Rain—Frequent heavy showers may be expected during the month on both coasts and over the interior. The average August rainfall at the Atlantic entrance is 14.83 inches, and the average at the Pacific entrance is 7.72 inches.

Fogs—Few if any fogs are likely to occur during the month at either Canal entrance, but night and early morning fogs will be numerous over the interior. However, all fogs that occur are likely to lift or be dissipated by 8.30 a. m.

Temperature—The average air temperature in the shade will be approximately 80° F. on both coasts. The average daily range in temperature will be about 15° F. on the Pacific side and 8° F. on the Atlantic side. Temperatures higher than 94° or lower than 70° are not likely to occur during the month.

Barometric pressure—Atmospheric pressure over the Isthmus is relatively constant and uniform, except for well-marked diurnal fluctuations. The average sea level pressure during August should be about 29.85 inches on both coasts. The highest pressure is not likely to be more than 29.95 inches, nor the minimum to be lower than 29.70.

Relative humidity—The relative humidity on the Isthmus is high throughout the rainy season. The average humidity for the month of August is about 85 per cent.

Storms—No severe general storms are likely to occur at either Canal entrance during the month of August. Local wind and rain squalls occur frequently, but they are of too short duration to cause a heavy sea.

The West Indian hurricane season extends from June to November. These storms pass across the Caribbean Sea and West Indian waters, but they never extend as far south as the Atlantic entrance of the Canal.

Generally cloudy weather will continue over both coasts, and smooth to moderate seas may be expected at the Pacific entrance.

Tides—Tidal fluctuations at the Atlantic entrance of the Canal are too small to affect navigation, as the average tidal range is approximately 1 foot and the maxi-

imum range only about 2 feet. Panama tide predictions are given below. These are taken from 1920 Tide Tables, published by the Department of Commerce, Washington, D. C.

Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.				Day of-		Time and Height of High and Low Water.			
W.	Mo.					W.	Mo.					W.	Mo.				
S	1	4:43	10:53	4:54	11:10	Th	12	1:42	7:59	2:06	8:30	M	23	4:23	10:37	5:10	11:20
		15.2	1.7	15.2	0.9			14.8	2.2	15.8	0.9			5.1	12.2	4.9	11.8
M	2	5:16	11:27	5:29	11:43	F	13	2:39	8:57	3:00	9:22	Tu	24	5:33	11:59	6:19	.....
		15.5	1.5	15.3	0.9			15.8	1.0	16.6	-0.1			5.5	12.0	4.9	.....
Tu	3	5:53	12:02	6:05	.....	S	14	3:31	9:48	3:51	10:09	W	25	0:45	6:43	1:06	7:23
		15.7	1.5	15.2	.....			16.7	0.0	17.2	-0.9			11.8	5.3	12.4	4.4
W	4	0:18	6:28	12:38	6:40	S	15	4:20	10:33	4:39	10:52	Th	26	1:42	7:46	1:59	8:16
		1.1	15.7	1.7	15.0			17.4	-0.6	17.5	-1.2			12.5	4.7	13.1	2.8
Th	5	0:55	7:03	1:17	7:18	M	16	5:07	11:17	5:27	11:35	F	27	2:27	8:36	2:41	8:59
		1.6	15.6	2.1	14:7			17.6	-0.8	17.5	-1.0			13.3	3.8	13.8	2.7
F	6	1:35	7:41	2:03	8:01	Tu	17	5:54	11:59	6:11	.....	S	28	3:04	9:17	3:18	9:37
		2.1	15.3	2.5	14.1			17.5	-0.5	17.0	.....			14.2	2.8	14.5	1.9
S	7	2:24	8:26	2:58	8:52	W	18	0:16	6:36	12:41	6:55	S	29	3:40	9:54	3:54	10:12
		2.7	14.8	3.0	13.6			-0.3	17.0	0.3	16.2			15.0	1.9	15.1	1.2
S	8	3:20	9:22	3:59	9:56	Th	19	0:57	7:16	1:25	7:36	M	30	4:15	10:29	4:29	10:40
		3.3	14.2	3.3	13.1			0.7	16.1	1.3	15.2			15.6	1.1	15.6	0.8
M	9	4:26	10:33	5:08	11:19	F	20	1:42	7:56	2:13	8:18	Tu	31	4:50	11:04	5:05	11:20
		3.7	13.9	3.3	13.1			2.0	15.1	2.5	14.0			16.1	0.6	15.8	0.4
Tu	10	5:39	11:55	6:21	.....	S	21	2:30	8:38	3:05	9:07						
		3.7	14.1	2.9	.....			3.2	14.0	3.8	12.8						
W	11	0:37	6:52	1:04	7:30	S	22	3:23	9:29	4:05	10:02						
		13.7	3.2	14.8	2.0			4.3	13.0	4.4	11.9						

The tides are placed in the order of their occurrence; the times of high and low tides are shown on the upper lines. The figures in boldfaced type are hours and elevations between noon and midnight; *ante meridian* figures are given in the ordinary lightfaced type. The time is Cosmopolitan Standard for the meridian 75° W.

The elevations of the water are shown on the second line for each day; a comparison of consecutive heights will indicate whether it is high or low water. Heights are reckoned from mean low water springs, which is 8.3 below mean sea level and is the datum of soundings on the Coast and Geodetic Survey charts for this region. The depth of water may accordingly be estimated by adding the tabular height of the tide to the soundings, unless a minus (-) sign is before the height, in which case it is to be subtracted. The annual inequality or variation in the mean sea level is included in the predictions.

District Dental Notice.

Dr. John C. Fowler, having been appointed a dentist, will be assistant to the district dentist in Ancon.

Census of the Canal Zone.

The report of the census of the civil population of the Canal Zone taken by the Police and Fire Division between June 10 and 30, 1920, follows.

The total shows a decrease of 109 as compared with the census of 1919. The increase or decrease by districts is as follows:

	1919	1920	Increase.	Decrease.
Balboa District.....	14,056	13,504	.....	552
Cristobal District.....	7,586	7,995	409	.....
Prisoners.....	117	151	34	.....
Totals.....	21,759	21,650	.....	109

The usual census of the population of the Gatun Lake area (outside the Canal Zone) was also taken. The total persons in this section, 3,217, shows an increase of 238 over the figures for 1919.

The population ascertained each year by the Police and Fire Division is used as the basis for vital statistics of the Canal Zone.

Police Census of the Canal Zone.

House to house canvass of the civil population of the Canal Zone taken between June 10 and 30, 1920, by the Police and Fire Division.

BALBOA DISTRICT.

Location.	Americans.		All others.		Americans.			All others.			Total.
	Men.	Em- ploy- ees.	Men.	Em- ploy- ees.	Wom- en.	Em- ploy- ees.	Child- ren.	Wom- en.	Em- ploy- ees.	Child- ren.	
ANCON.....	508	471	138	120	365	126	266	61	9	30	1,368
<i>Ancon Hospital:</i>											
Staff.....	52	52	109	109	81	81		33	33		275
Patients (civilians only).....	44	18	203	164	16	5	16	45		58	382
Tivoli Hotel.....	19	7	32	28	14	4	2	5	2	3	75
Rural (east side of Canal between boundary line and Cardenas River).....			2								2
BALBOA HEIGHTS.....	186	186			180	19	233	53			652
Quarry Heights.....	19	19	3		40		28	26			116
BALBOA.....	1,145	1,136	72	65	738	61	938	51		36	2,980
Petrolia.....	3	1	1		3		3	2		1	13
La Boca.....	62	62	712	712	57	2	83	397		781	2,092
Quarantine Station.....	9	2	27	15	10		2	1	1		49
Fort Amador.....	2	2	1		50		60	43			156
15th Naval District (Hdqs.).....	1	1			3		4	1			9
Radio Station.....			4		6		1	4			15
Floating equipment.....	2	2	3	3							5
Palo Seco:											
Staff.....	2	2	22	22	2						26
Patients.....			51					22			73
Venado plantation.....			1	1							1
Rural (west side of Canal between Pa- cific shore and Ar- raijan trail).....			4	2				1		3	8
Farfan pastures.....			1	1							1
COROZAL:											
Camp Corozal.....	10	10	5		28		24	28			95
Arsenal.....	5	5	4		5		2	2			18
<i>Corozal Asylum:</i>											
Staff.....	10	10	63	63	6	6		15	15		94
Patients.....	6		207					147			360
MIRAFLORES.....	7	7	1	1				3		1	12
PEDRO MIGUEL.....	272	267	14	14	205	10	218	28			737
Miraflores pastures.....	1	1	13	13				7		7	28
Red Tank.....	3	3	532	530	1			325		617	1,478
Rural (east side of Canal between the Cardenas River and Chagres River).....											
PARAISO.....	3	3	417	411	2		2	235		496	1,155
Floating equipment.....	5	5	24	24							29
SUMMIT.....	6	6	82	77	2		3	15		24	132
Las Cascadas planta- tion.....			9					2		1	12
La Pita.....			27								27
GAMBOA (south of Chag- res River).....	4	4	97	97	2		9	45		63	220
Gamboa Stockade.....								4			4
Officers.....	7	7	8	8							15
Juan Mina plantation.....	1	1	9	9				2		2	14
CULEBRA.....	4	4	6		3	1	1				14
Camp Gaillard.....	3	3	3		25		22	15		5	73
Golden Green.....			70	5				61		103	234
Rio Grande.....			20								20
EMPIRE.....	4	4	6		3		2	3		4	22
Camp Empire.....	3	3			6		5				14
Lirio Camp.....			55	42				58		115	228
Cerro Camp.....			12	8							12
Camacho.....	1	1	21	17				8		24	54
Rural (west side of Canal between the Arraijan trail and Gatun Lake).....											
LAS CASCADAS.....	1		24	16				22		58	105
Total employees.....		*2,305		2,577		315			60		5,257
Total persons.....	2,410		3,115		1,853		1,924	1,770		2,432	13,504

*Includes 63 American civilian employees of the United States Army and Navy.

CRISTOBAL DISTRICT.

Location.	Americans.		All others.		Americans.			All others.			Total.
	Men.	Em- ploy- ees.	Men.	Em- ploy- ees.	Wom- en.	Em- ploy- ees.	Child- ren.	Wom- en.	Em- ploy- ees.	Child- ren.	
GAMBOA (north of Chagres River)											
Floating equipment	9	9			7	1	7				23
Limon plantation	2	2									2
Rural (east side of Canal between Rio Chagres and Frijoles plantation)	1	1	16	16	1			2		2	22
DARIEN RADIO STATION				8		2			5		15
CALMITO PASTURES	1	1	9	9	1						11
FRIJOLES	1	1	19	19				10		12	42
Frijoles plantation			20	20							20
BOHIO PASTURES	1	1	112	112							113
MONTE LIRIO	3	3	40	40	1		2	20	1	22	88
Monte Lirio pastures			2	2				1		1	4
GATUN	206	202			174	10	257				677
Labor camps			184	184				37		3	573
New Gatun			433	431				123		266	1,130
Camp Gatun			94		33		20	246	1	451	208
Bracho-Mindi plantation	7	7						49		5	
Rural (east side Canal between N. shore of Gatun Lake and Caribbean Sea)			4	4				2		3	9
MINDI DAIRY	2	2	47	47	1		5	6		3	64
MOUNT HOPE	16	15	10	2	9		12	1			48
Mt Hope pastures (including hog farm and Majagua plantation)											
CRISTOBAL	5	5	201	201	2	1	4	14		15	241
Folks River Camp	811	806	27	22	220	42	214	7		2	1,281
Camp Bierd	50	50	416	411	8		8	357	11	664	1,503
Sweetwater plantation	10	10	1,529	1,529	4		11	29	1	67	1,650
Fortification Camp			2	2							2
Fort Randolph			5		19		25	14			63
Fort Sherman	13	13	12		37		27	22		14	125
Air Station, Coco Solo			1		3		3	2			9
Submarine Base					31		17	18			66
Total employees		*1,128		3,056		54			14		4,252
Total persons	1,138		3,196		553		612	966		1,530	7,995

PRISONERS.

Location.	Americans.		All others.		Americans.			All others.			Total.
	Men.	Em- ploy- ees.	Men.	Em- ploy- ees.	Wom- en.	Em- ploy- ees.	Child- ren.	Wom- en.	Em- ploy- ees.	Child- ren.	
Balboa	4	1	20	5							24
Ancon			3								3
Pedro Miguel			23	14							23
Gamboa			1								1
Gamboa Penitentiary	4		44								48
Gatun	1		8								9
Cristobal	15		28								43
Total employees		1		19							20
Total persons	24		127								151

RECAPITULATION.

Location.	Americans.		All others.		Americans.			All others.			Total.
	Men.	Em- ploy- ees.	Men.	Em- ploy- ees.	Wom- en.	Em- ploy- ees.	Child- ren.	Wom- en.	Em- ploy- ees.	Child- ren.	
Balboa District		2,305		2,577		315			60		5,237
Cristobal District	2,410		3,115		1,853		1,924	1,770		2,432	13,504
Prisoners	1,138	1,128	3,196	3,056	553	54	612	966	14	1,530	4,252
Total employees		1		19							20
Total persons	24		127								151
Total employees		*3,434		5,652		369			74		*9,529
Total persons	3,572		6,438		2,406		2,536	2,736		3,962	21,650

*Includes 63 American civilian employees of the United States Army and Navy.

POPULATION OF THE GATUN LAKE AREA (OUTSIDE THE CANAL ZONE) WHO ARE DEPENDENT ON GATUN LAKE FOR TRANSPORTATION.

Location.	Americans.		All others.		Americans.			All others.			Total
	Men.	Em- ploy- ees.	Men.	Em- ploy- ees.	Wom- en.	Em- ploy- ees.	Child- ren.	Wom- en.	Em- ploy- ees.	Child- ren.	
UPPER CHAGRES.....			181	6				148		233	562
Gatunella.....	1		28	3				23		29	81
Santa Rosa.....			40	5				26		36	101
CANO QUEBRADA.....			211	1				123		79	413
TRINIDAD RIVER.....	2		103					55		117	277
Esgoval.....	2	1	138		2		1	152		148	443
Siri.....	1		60					52		57	170
GATUN RIVER.....			54					30		18	102
New Limon.....	3	2	139	8	1		1	143		121	408
New Providence.....	2		226	21	2			142		191	563
Cabra Naque.....			27					13		16	56
QUEBRANCHA ARM.....	1		23		1			8		8	41
Total employees.....		3		44							47
Total persons.....	12		1,230		6		2	915		1,052	3,217

Tariff of Charges for Services Between Departments.

The Panama Canal and the Panama Railroad have published a departmental tariff, containing the schedule of rates for supplies and services furnished to departments and divisions of The Panama Canal, Panama Railroad Company, other departments of the United States Government, employees, and those entitled to employees' rates, which supersedes all circulars and supplements thereto, so far as they contain rates covered by this tariff.

The general instructions contained in published rate circulars, except as specifically amended in the tariff, are continued in full force and effect.

The first issue of the departmental tariff has been designated as Departmental Tariff "A," and is effective July 1. In addition to containing the rates for services performed for those within the organization, as distinct from the rates to individuals and companies published in Tariff No. 4, Tariff "A" gives a number of items which are not included in Tariff No. 4. The following is a list of the contents of Tariff "A:"

Class I.—Equipment use of—Automobiles; barges; cars, railroad; corral service; cranes; demurrage; diving equipment; locomotives; motor cars, railroad; pile drivers; tugs and launches.

Class II.—Transportation, railroad—Baggage; express shipments; freight; freight, rates for handling; passenger service; special trains.

Class III.—Material and supplies—Artificial limbs and appliances; cement; coal; fuel oil; photographs; property, loan of, other than for official use; sand and gravel; water.

Class IV.—Medical, surgical, hospital, and dental service—Medical, hospital, and surgical treatment; dentist's rates.

Class V.—License fees—Chauffeurs; motor boats; motor vehicles.

Class VI.—Hotels, restaurants, and messes—Hotel Aspinwall; Hotel Tivoli; Washington Hotel; silver messes; subsistence furnished military and naval forces.

Class VII.—Building rental—Boathouses; garages.

Class VIII.—Surcharges—Panama Canal; Panama Railroad.

Class IX.—Miscellaneous—Baggage, P. R. R. transfer; batteries, charging of; blueprints; compressed air; electric current; fire extinguishers, charging of; household goods, customs inspection of; transmitting money by cable; telephones; tires, retreading and vulcanizing; weighing cars.

Postal Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Launch to Leave Taboga 10 Minutes Earlier.

The time of departure of the daily launch from the Hotel Aspinwall at Taboga will be changed from 6.30 a. m. to 6.20 a. m., effective August 1, for the purpose of allowing commuters to reach Balboa 10 minutes earlier than heretofore.

Reduced Rate for Sunday Outings at Taboga.

The Hotel Aspinwall is offering Government employees a combination rate for Sunday outings spent at Taboga. A ticket costing \$2.50 for adults and \$1.50 for children between the ages of 6 and 12 years entitles the holder to transportation to Taboga Sunday morning, lunch and dinner at the Aspinwall, and return transportation to Balboa in the evening. These tickets are sold only at Dock 19, Balboa. They may be purchased with commissary coupons or currency. The combination rate is a reduction of 80 cents from the sum of the charges for the component services.

No Connection with Raffles of Liberty Bonds.

It has been brought to the attention of the Liberty Loan Committee that raffles of Liberty Bonds are being held in Panama City and that the impression prevails that the Liberty Loan Committee or the Collector's office is furnishing the bonds and interested in their sale by these raffles. Neither the Liberty Loan Committee nor the Collector's office has any interest whatever in any effort that is being made to dispose of Liberty Bonds by raffle or otherwise.

No bonds have been available for sale by the Liberty Loan Committee since the close of the Victory Loan campaign, in which the subscriptions exceeded the supply available.

Expansion of Panama Canal Library.

Branches of the Canal Library have been opened in the clubhouses for employees in Ancon and Balboa, with librarians in charge during the evening hours, from 4 until 9. Branches are to be opened in the clubs at Cristobal, Gatun, and Pedro Miguel as soon as arrangements can be completed.

The children's library in the school at Balboa is open from 1 to 4 p. m. on Mondays, Wednesdays, and Fridays during the vacation period.

The central library in the Administration Building at Balboa Heights is open from 8 to 4 p. m., daily except Sunday. The library has received accessions of new books, including reference works, current fiction, and literature approved by time, and those in charge will welcome suggestions as to additions which will make the stock of books more nearly meet the desires of the community.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Animal husbandman (male and female); \$1,800 to \$2,500 a year; No. 426; August 17, 1920; form 2118; age, 21 years but not 45 years.*

Assistant in nematology (male and female); \$1,000 to \$1,800 a year; No. 430; August 24, 1920; form 2118; age, 21 years and over.*

Mold maker (ceramics) (male and female); \$1,380 a year; No. 440; August 24, 1920; form 1312; age, 21 years and over.*

Senior instructors (male and female); \$1,800 to \$3,600 a year; No. 389-amended; form 1312; [age within reasonable age limits.†

- Instructors (male and female); \$1,500 to \$3,000 a year; No. 389-amended; form 1312; age, within reasonable age limits.†
- Senior inspector of car equipment (male and female); \$2,100 to \$3,600 a year; No. 425; form 1312; age, 25 years but not 60 years.*
- Statistical draftsman (male and female); \$1,500 a year; No. 415; August 3, 1920; form 1312; age, 18 years and over.*
- Statistical assistant (male and female); \$1,500 to \$2,100 a year; No. 190-amended; form 1312; age, within reasonable age limits.†
- Statistician (male and female); \$2,400 to \$3,600 a year; No. 190-amended; form 1312; age, within reasonable age limits.†
- Preparator, Division of Mechanical Technology (male and female); No. 416; \$75 a month; August 4, 1920; form 304; age, under 25 years.
- Medical Internc (male and female); \$1,200 a year; October 1, 1920; No. 191-amended; form 1312; age, 20 years and over.†
- Bacteriologist (male and female); \$130 to \$180 a month; October 1, 1920; No. 10-amended; form 1312; age, 18 years and over.*
- Junior bacteriologist (male and female); \$70 a month; October 1, 1920; No. 10-amended; form 1312; age, 18 years and over.*
- Electrolytic plate finisher (male and female); \$6.40 a day; No. 409; August 10, 1920; form 304; age, 20 years and over.*
- Electrolytic depositer (male and female); \$6 a day; No. 409; August 10, 1920; form 304; age, 20 years and over.*
- Veterinarian (male and female); \$1,500 a year; No. 405; August 4, September 22, and November 3, 1920; form 1312; age, 21 years but not 45 years.
- Lay inspector (male and female); \$1,080 a year; No. 504; August 4, September 22, and November 3, 1920; form 304; age, 18 years but not 45 years.
- Dictating-machine transcriber (male and female); \$1,100 to \$1,400 a year; No. 406; August 4, September 22, and November 3, 1920; form 304; age, 18 years and over.
- Shop apprentice (male and female); \$720 a year; No. 380-amended; October 1, 1920; form 1312; age, 16 years but not 18 years.*
- Traveling auditor (male and female); Grade 2, \$2,500 to \$3,000 a year; Grade 3, \$3,000 to \$4,500 a year; No. 177-amended; October 1, 1920; form 1312; age, 25 years but not 55 years.*
- Resident auditor (male and female); Grade 2, \$2,500 to \$3,000 a year; Grade 3, \$3,000 to \$4,500 a year; No. 177-amended; October 1, 1920; form 1312; age, 25 years but not 55 years.*
- Engineer examiner, civil, electrical, mechanical, signal, structural, telegraph, and telephone, Interstate Commerce Commission; (male and female); Class A, \$3,900 to \$4,800 a year; No. 418; October 1, 1920; form 1312; age, not less than 30 years nor over 60 years.*
- Engineer examiner, civil, electrical, mechanical, signal, structural, telegraph, and telephone—Interstate Commerce Commission (male and female); Class B, \$2,220 to \$3,600 a year; No. 418; October 1, 1920; form 1312; age, not less than 25 years nor over 45 years.*
- Calculating machine operator (male and female); \$1,200 a year; No. 120-amended, supplemental; October 6 and 20, 1920; form 304; age, 18 years and over.
- Assistant in assay laboratory (male and female); \$1,200 a year; No. 423; August 10, 1920; form 1312; age, 20 years and over.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Heary Briggs	37064	Demerara	Panama	Mechanical Division	July 9, 1920.
Italia Bianchini	47245	Panama	Colon	Supply Department	July 14, 1920.
Annie Chevalier	32083	Trinidad	Colon	Supply Department	July 17, 1920.
*Herman Edgar	22529	Guadeloupe	Panama	Coaling Station	July 9, 1920.
Richard Lewis	21665	Jamaica	Colon	Supply Department	July 10, 1920.
John Stephen Johnson	20334	Jamaica	Panama	Supply Department	June 27, 1920.
Samuel Francis	38615	Jamaica	Colon	Coaling Plants	June 25, 1920.

*Estate of Herman Edgar is readvertised this week because of error in nationality in previous notice.

Route Service Jitney—Cristobal-Mt. Hope.

The following is the schedule of the official jitney service between the Terminal building at Cristobal and Mount Hope. Cars stop at the office of the Commissary Division each way:

Leave Terminal Building.		Leave Mount Hope.	
A. M.	P. M.	A. M.	P. M.
8.00	12.30	8.15	12.45
8.30	1.00	8.45	1.15
9.00	1.30	9.15	1.45
9.30	2.00	9.45	2.15
10.00	2.30	10.15	2.45
10.30	3.00	10.45	3.15
	3.30		3.45

Official Circulars.

Making Photographs of and Publishing Information Concerning Canal Zone Defenses.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., July 26, 1920.

CIRCULAR No. 649-1:

The attention of this office has been called by the military authorities to the violation of the regulations prohibiting the taking or publication of photographs of works of defense on the Canal Zone, and in order that there may be no further cause for complaint and that all concerned may be duly informed on the subject, there is quoted below paragraph 348 of the Army Regulations, which was published in THE PANAMA CANAL RECORD of January 8, 1919:

"The taking of photographic or other views of permanent works of defense will not be permitted. Neither written nor pictorial descriptions of these works will be made for publication without the authority of the Secretary of War, nor will any information be given concerning them which is not contained in the printed reports and documents of the War Department."

Employees are directed to be guided by the provisions of the above-quoted regulations; nothing concerning the fortifications of the Canal shall be printed or otherwise published. Violation of this order will result in such administrative discipline or penalty as the offense may warrant.

CHESTER HARDING, Governor.

Notaries Public.

THE PANAMA CANAL, EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., July 15, 1920.

CIRCULAR No. 725:

By virtue of the authority vested in me by Section 7 of the Panama Canal Act of August 24, 1912, I hereby establish the following rules and regulations relative to Notaries Public in and for the Canal Zone:

1. The Notaries Public of the Canal Zone shall be appointed by the Governor of The Panama Canal. They shall hold their office for a term of three years from the date of their appointment, and shall have jurisdiction co-extensive with the limits of the Canal Zone.

2. When a Notary Public is appointed by the Governor of The Panama Canal a commission shall be issued to him, signed by the Governor and sealed with the Seal of the Canal Zone. This commission shall be substantially in the following form:

Canal Zone, Isthmus of Panama.

This is to certify that..... of..... Canal Zone, has this date been appointed by me a Notary Public with jurisdiction co-extensive with the limits of the Canal Zone, for the term of three years ending..... 192..

Witness my official signature at Balboa Heights, Canal Zone, this..... day of..... A. D., 192..

[SEAL.]

Governor.

3. Every Notary Public, before entering upon his duties as such, shall take and subscribe to the following oath or affirmation:

I,....., solemnly swear (or affirm) that I will faithfully and impartially discharge and perform all the duties of the office of Notary Public within and for the Canal Zone, Isthmus of Panama, according to the best of my ability and understanding, agreeably to the laws in force in the said Zone; that I recognize and accept the supreme authority of the United States in the said Zone, and will maintain true faith and allegiance thereto; and that I impose

upon myself this obligation voluntarily, without mental reservation or purpose of evasion. So, help me God.

Subscribed and sworn to before me this..... day of..... A. D., 192..

District Judge.

4. These rules and regulations shall not be construed to require the reappointment of Notaries Public already commissioned, and they shall continue in office to the end of their respective terms, as if these rules and regulations had not been established.

5. Each Notary Public hereafter appointed shall have an impression seal, which shall be affixed to all papers officially signed by him. The seal shall be secured by the Notary Public at his own expense. It shall have the words "CANAL ZONE" on the margin of the seal, and the words "NOTARY PUBLIC" across the center of the seal. The phrase "My commission expires..... 192.." may be written, typed, or affixed by means of a rubber stamp under the signature of the Notary Public. Existing Notaries Public may continue to use their present seals to the end of their respective terms, and no longer.

6. Every Notary Public shall keep a register of all official acts, except administering oaths or affirmations for which no fee is charged, and shall give a certified copy of his record, or any part thereof, to any person applying for same and paying the legal fee or fees therefor.

7. Every Notary Public shall have the power, within the territorial limits of the Canal Zone, to administer all oaths and affirmations provided for by law and in all matters incident to his notarial office, and in matters relating to executions, affidavits, depositions and other documents requiring an oath, and to receive the proof or acknowledgment of all writings relating to commerce and navigation, such as bills of sale, bottomries, mortgages, and hypothecations of ships, vessels, or boats, charter parties or affreightments, letters of attorney, deeds, mortgages, transfers, and assignments of lands or buildings, or interests therein, and such other writings as are commonly proved or acknowledged before Notaries Public, to take affidavits and depositions; to demand acceptance or payment of any foreign, inland, or domestic bill of exchange, promissory note, or other obligation in writing, and to protest the same for nonacceptance or nonpayment, as the case may be, and give notice to endorsers, makers, drawers, or acceptors of such demand, nonacceptance, or nonpayment; and to exercise and perform such other powers and duties as by the law of nations and according to commercial usage may be exercised and performed by Notaries Public, and to make declarations and attest the truth thereof under his seal of office concerning all matters done by him by virtue of his office.

8. When a Notary Public shall protest any draft, bill of exchange, or promissory note, he shall make a full and true record thereof in his register or book kept for that purpose, as well as of all his proceedings in relation thereto, and be shall note therein whether the demand for the sum of money mentioned therein was made, of whom, when, and where; whether he presented such draft, bill, or note; whether notices were given, to whom, and in what manner; where the same was made, and when, and to whom, and where directed, and of every other fact touching the same.

9. A Notary Public shall affix to all acknowledgments taken and certified by him according to law, the date on which his commission expires, provided such date of expiration is not engraved on the seal.

10. Notaries Public shall receive the following fees for their services:

(a) For protesting a bill or note for nonacceptance or nonpayment and giving notice thereof, one dollar (\$1); for recording same, fifty cents (\$.50); for each notice of protest, twenty-five cents (\$.25); for taking affidavit and affixing

not, twenty-five cents (\$0.25); for administering an oath or affirmation, ten cents (\$0.10); for taking written depositions and affidavits, fifteen cents (\$0.15); for each one hundred (100) words, and for an additional copy thereof, five cents (\$0.05) for each one hundred (100) words; for taking proof of acknowledgment of any writing concerning real or personal estate and certificate thereof, fifty cents (\$0.50), and where there is more than one party to the instrument, twenty-five cents (\$0.25) for each one hundred (100) words, and not less than twenty-five cents (\$0.25) for any copy; for each mile necessarily traveled by the Notary Public to and from his residence or office in performing services hereunder, ten cents (\$0.10).

(b) No fee shall be charged by any Notary Public for administering an oath or affirmation and attesting the same with his seal on any paper to be used in connection with any service application, income tax return, or other paper of like kind, which is required by any law or regulation to be sworn to before being filed with a department of the United States Government or the Panama Railroad Company, and which does not involve a money demand against the Government of the United States, The Panama Canal, or the Panama Railroad Company, in favor of the party making the oath or affirmation.

(c) The fees collected by Notaries Public under these rules and regulations shall be for their own account and benefit. *Provided, however,* that no fee shall be charged by a Notary Public for any service or services performed by him for The Panama Canal or any other department or agency of the Government of the United States.

CHESTER HARDING,
Governor.

Acting Superintendent of Dredging.

THE PANAMA CANAL,
DEPT. OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., July 24, 1920.

To all concerned—Effective the 26th instant, and during the absence of Mr. J. M. Pratt, Mr. J. G. Claybourn will act as Superintendent of Dredging in charge of the Dredging Division.

JAY J. MORROW,
Engineer of Maintenance.

Additions to Commissary Stock.

<i>Boot and Shoe Section.</i>	
Men's vici kid bluchers, pr.....	\$6.30
Men's box side leather bluchers, pr.....	6.30
Women's black patent pumps, Baby Louis heel, pr.....	7.80
Women's white duck Oxfords, white enamel	
Cuban heels, pr.....	2.25
Women's white duck Bals, Cuban heels...	2.60
<i>Grocery Section.</i>	
*Syrup, crystal, P. C., qt. bot.....	.47
*Syrup, pineapple, concentrated, P. C., qt. bot.....	.56
*Syrup, raspberry, concentrated, P. C., qt. bot.....	.60
*Syrup, strawberry, concentrated, P. C., qt. bot.....	.62
Tomatoes, 1s, tin.....	.10
<i>Hardware Section.</i>	
Fishing tackle: Hooks, plain treble, size 2, ea.....	.02
Locks, Yale, shackle, ea.....	.73
*Five cents allowed for return of empty bottle.	

COMMISSARY NOTES.

Fruit Syrup.

The success of the orange syrup and lemon syrup, whose manufacture was begun by the Commissary Division some months ago, has been such that other flavors are now being made to satisfy a popular demand. Crushed pineapple syrup, made from the native fruit of Panama, furnishes the base for a particularly delightful drink at small cost, a quart bottle retailing for 56 cents. Raspberry and strawberry syrups, made from the genuine fruit extracts, are sold at 60 cents and 62 cents, respectively. For the return of bottles 5 cents each is allowed. The convenience with which drinks from these syrups may be prepared has been a large factor in building up sales on the two flavors previously offered, for it is necessary only to add two or more tablespoonfuls to a glass of water in order to obtain a refreshing beverage.

Sunburn Lotion.

Responsive to requests for a sunburn lotion, the Commissary Division is now manufacturing carron oil which retails for 15 cents per bottle. This preparation forms an efficient application for the treatment of sunburn, allaying the irritation, being soothing and cooling. It will also afford relief in cases of recent burns or scalds.

Books.

Shipment of new titles of books in the Modern Library has been received and distributed to the line stores.

Books received:

"Golf for Beginners and Others," by Marshall Whitlach; "The Dark Mirror," by Louis Joseph Vance; "Something Else Again," by Franklin P. Adams; "The Man with Three Names," by Harold McGrath; "Half Portions," by Edna Ferber; "The Great Adventure of Panama," by Philippe Bunau-Varrilla; "Kathleen," "Travels in Philadelphia," by Christopher Morley; "Foolish Lovers," by St. John Ervine; "Many Junes," by Archibald Marshall; "The Cream of the Jest," by James Branch Cabell; "Crimson Tide," by Robert W. Chambers; "Landscape Painter," by Henry James; "Mary Marie," by Eleanor H. Porter; "Tarzan, the Untamed," by Edgar Rice Burroughs; "Lady Fingers," by Jackson Gregory; "As You Were, Bill," by Edward Streeter; "Women's Wild Oats," by C. Gasquoine Hartley; "Oh, You Tex," by Raine; "What's the World Coming To?" by Rupert Hughes; "Americans by Adoption," by Joseph Husband; "A Little Gateway to Science," by Edith M. Patch; "The Life of Roosevelt," by Wm. R. Thayer (popular priced edition).

PANAMA RAILROAD PASSENGER TRAIN TIME-TABLE No. 30, EFFECTIVE DECEMBER 26, 1919.

MAIN LINE STATIONS.	DAILY.				Daily except Sat'day	Sat'day only.	Sunday only.	DAILY.				Sat'day only.	Sunday only.
	3	6	7	101				4	5	6	8		
Leave													
Colon.....	7.10	11.00	5.00	11.15	11.30	9.35	P. M.	7.10	11.00	5.00	11.30	P. M.	12
Mount Hope.....	7.15	11.05	5.05	11.20	11.35	9.40	P. M.	7.15	11.05	5.05	11.35	P. M.	12
New Gatun.....	7.27	11.17	5.17	11.28	11.45	9.52	P. M.	7.27	11.17	5.17	11.45	P. M.	12
Gatun.....	7.42	11.32	5.32	11.40	12.04	10.07	A. M.	7.42	11.32	5.32	12.04	A. M.	12
Monte Lirio.....	7.53	11.43	5.43	12.10	12.15	10.18	A. M.	7.53	11.43	5.43	12.15	A. M.	12
Frijoles.....	8.00	11.50	5.50	12.18	12.22	10.25	P. M.	8.00	11.50	5.50	12.22	P. M.	12
Darien.....	8.14	12.02	6.02	12.30	12.33	10.37	P. M.	8.14	12.02	6.02	12.33	P. M.	12
Gambos.....	8.30	12.14	6.14	12.42	12.45	10.49	P. M.	8.30	12.14	6.14	12.45	P. M.	12
Summit.....	8.44	12.26	6.24	1.00	12.57	11.01	P. M.	8.44	12.26	6.24	1.00	P. M.	12
Pedro Miguel.....	8.50	12.32	6.30	1.06	1.05	11.09	P. M.	8.50	12.32	6.30	1.05	P. M.	12
Red Tank.....	8.54	12.36	6.34	1.10	1.10	11.14	P. M.	8.54	12.36	6.34	1.10	P. M.	12
Miraflores Locks.....	9.00	12.45	6.40	1.15	1.16	11.20	P. M.	9.00	12.45	6.40	1.15	P. M.	12
Corozal.....	9.05	12.50	6.45	1.20	1.20	11.25	P. M.	9.05	12.50	6.45	1.20	P. M.	12
Balboa Heights.....	A. M.			A. M.			P. M.	A. M.				P. M.	12
Panama.....													12
Arrive													

All trains stop where time is shown except f indicates stop on signal only.

SUNDAY ONLY.	DAILY.				SUNDAY ONLY.	DAILY.				SUNDAY ONLY.	DAILY.			
	43	41	39	31		30	32	34	36					
	A. M.	P. M.	P. M.	A. M.		A. M.	P. M.	P. M.	A. M.		A. M.	P. M.	P. M.	A. M.
	12.30	11.30	7.00	6.45		9.10	12.55	4.00	6.50		12.25	3.81	6.21	10.56
	12.35	11.35	7.05	6.55		9.15	1.00	3.55	6.55		12.25	3.81	6.21	10.56
	12.45	11.47	7.18	7.03		9.00	8.53	3.41	6.31		11.03	12.07	11.03	12.07
	12.60	11.50	7.21	7.11		8.56	8.48	3.38	6.28		11.03	12.04	11.03	12.04
		11.53	7.24	7.14		8.46	8.46	3.36	6.25		11.00	12.01	11.00	12.01
	12.56	11.57	7.28	7.19		8.49	8.41	3.31	6.21		10.56	11.66	10.56	11.66
	A. M.					8.36	8.26	3.26	6.16		10.51	11.61	10.51	11.61
	1.05	12.09	7.40	7.30		8.30	8.20	3.20	6.10		10.45	11.46	10.45	11.46
	1.10	12.15	7.45	7.35		8.25	8.15	3.15	6.05		10.40	11.40	10.40	11.40
	A. M.					A. M.			A. M.		P. M.	P. M.	P. M.	P. M.
	43	41	39	31		30	32	34	36		38	40	42	

LAS CASCADAS BRANCH STATIONS.

30	32	34	36	38	40	42
A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	A. M.
8.45	8.36	12.15	12.23	12.23	12.23	11.51
8.30	8.20	12.10	12.18	12.18	12.18	11.46
8.25	8.15	12.05	12.13	12.13	12.13	11.41
A. M.	A. M.	P. M.				
30	32	34	36	38	40	42

30	32	34	36	38	40	42
A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	A. M.
8.49	8.41	12.25	12.31	12.31	12.31	11.66
8.36	8.26	12.16	12.24	12.24	12.24	11.61
8.30	8.20	12.10	12.18	12.18	12.18	11.46
8.25	8.15	12.05	12.13	12.13	12.13	11.41
A. M.	A. M.	P. M.				
30	32	34	36	38	40	42

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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at Cristobal, C. Z., under the Act of March 3, 1879.



Volume XIII. Balboa Heights, C. Z., August 4, 1920. No. 51.

Opening of the Panama Canal.

By the President of the United States of America: A Proclamation—

WHEREAS, Section 4 of the Act of Congress entitled "An Act To provide for the opening, maintenance, protection and operation of the Panama Canal, and the sanitation and government of the Canal Zone," approved August 24, 1912, (37 Stat. L. 561) and known as the Panama Canal Act, provides that upon the completion of the Panama Canal the President shall cause it to be officially and formally opened for use and operation; and

WHEREAS, the Canal is completed, and is open for commerce;

NOW, THEREFORE, I, WOODROW WILSON, President of the United States of America, acting under the authority of the Panama Canal Act, do hereby declare and proclaim the official and formal opening of the Panama Canal for use and operation in conformity with the laws of the United States.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE in the District of Columbia, this 12th day of July, in the year of our Lord One Thousand Nine Hundred and Twenty, and of the Independence of the United States of America, the One Hundred and Forty-fifth.

WOODROW WILSON

[SEAL.]

By the President:

NORMAN H. DAVIS,
Acting Secretary of State.

[No. 1570.]

CANAL WORK IN JUNE.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of June, 1920:

BALBOA HEIGHTS, C. Z., July 26, 1920.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of June, 1920:

CANAL TRAFFIC.

The number of ocean-going commercial ships passing through the Canal during the month was 201, exclusive of 6 United States battleships, 3 United States Navy supply ships, 1 United States Army tug, and 1 merchant ship with coal for the United States Navy. A detailed classification of the month's traffic is included with this report.

The Panama Canal net tonnage of the 201 commercial vessels aggregated 704,712 tons; 147,713 tons less than for the preceding month. Their registered gross tonnage was 921,005, and registered net tonnage, 575,027. The total cargo carried was 834,421 tons of 2,240 pounds, 140,498 tons less than for May. Of the total for this month, 1,837 tons were carried as deck cargo. The total number of vessels and craft of all kinds through the Canal was 218, as compared with 237 last month. The total

tolls earned for the month were \$711,226.90; the average toll-paying vessels per day were 6.87; and the average tolls per vessel, \$3,434.89. Tolls collected amounted to \$704,210.53.

The average tonnage, Panama Canal measurement, was 3,506; United States net equivalent, 2,904; registered gross, 4,582; and registered net, 2,861. The average cargo carried by the laden ships was 4,369 tons.

The United States coastwise trade for the month included 15 vessels with a total Panama Canal net tonnage of 49,971, and cargo of 58,504 tons. There were 8 vessels from the Atlantic to the Pacific Coast with a total tonnage of 24,217 and cargo of 27,930 tons; and from the Pacific to the Atlantic Coast 7 vessels with a total tonnage of 25,754 and cargo of 30,574 tons.

PRINCIPAL COMMODITIES.

Bulk shipments of whole cargoes of the different principal commodities included in the June traffic were:

FROM ATLANTIC TO PACIFIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Coal.....	1	12,090		Norfolk.....	Balboa.
Coal.....	1	6,325		Norfolk.....	Bremerton.
Coal.....	1	4,532		Norfolk.....	Antofagasta.
Coal.....	1	3,968		Norfolk.....	San Francisco.
Coal.....	1	3,670		Norfolk.....	Iquique.
Coal.....	1	3,255		Norfolk.....	Caldera.
Coal.....	1	3,400		New York.....	Iquique.
Coal.....	1	2,740		New York.....	Taltal.
Coal.....	1	546		New York.....	Valparaiso.
Coal.....	1	9,998		Hampton Roads.....	Honolulu.
Coal.....	1	7,853		Newport News.....	Antofagasta.
Coal.....	1	6,884	65,261	La Pallice.....	Arica.
Fuel oil.....	2	17,543		Tampico.....	Pisagua.
Fuel oil.....	1	9,800		Tampico.....	Antofagasta.
Fuel oil.....	1	9,300		Tampico.....	Tocopilla.
Fuel oil.....	1	9,000		Tampico.....	Taltal.
Fuel oil.....	1	5,000		Tampico.....	Arica.
Fuel oil.....	1	10,000	60,643	Puerto Lobos.....	San Francisco.
Case oil.....	1	8,691		Port Arthur.....	Shanghai.
Case oil.....	1	8,514	17,205	New York.....	Kobe.
Sulphur.....	2	6,409		Galveston.....	Portland.
Sulphur.....	1	3,100		Galveston.....	Vancouver.
Sulphur.....	1	5,200	14,700	Sabine.....	Melbourne.
Sugar.....	1	6,464		London.....	Sydney.
Sugar.....	1	5,700	12,164	Matanzas.....	Melbourne.
Phosphate.....	1		5,853	Tampa.....	Osaka.
Sugar mill machinery.....	1		2,377	New York.....	Philippines.

FROM PACIFIC TO ATLANTIC.

Commodity.	No. of cargoes.	Tons.	Total tons.	From—	To—
Nitrate.....	2	16,039		Antofagasta.....	Charleston, S. C.
Nitrate.....	1	8,000		Antofagasta.....	United Kingdom.
Nitrate.....	1	3,300		Antofagasta.....	Norfolk.
Nitrate.....	1	11,200		Taltal.....	Baltimore.
Nitrate.....	1	5,299		Taltal.....	United Kingdom.
Nitrate.....	1	3,812		Taltal.....	Philadelphia.
Nitrate.....	1	3,209		Taltal.....	Wilmington, N. C.
Nitrate.....	1	9,000		Tocopilla.....	Charleston, S. C.
Nitrate.....	1	8,175		Tocopilla.....	Baltimore.
Nitrate.....	1	7,082		Tocopilla.....	Philadelphia.
Nitrate.....	1	8,300		Mejillones.....	Wilmington, N. C.
Nitrate.....	1	3,300		Mejillones.....	Boston.
Nitrate.....	1	7,100		Caleta Buena.....	New York.
Nitrate.....	1	3,168		Caleta Buena.....	Wilmington, N. C.
Nitrate.....	1	5,500		Iquique.....	United Kingdom.
Nitrate.....	1	3,400		Iquique.....	Baltimore.
Nitrate.....	1	4,069	109,953	Valparaiso.....	New York.
Flour.....	2	11,218		Seattle.....	New York.
Flour.....	1	8,917		Tacoma.....	Philadelphia.
Flour.....	1	8,100		San Francisco.....	Alexandria, Egypt.
Flour.....	1	7,199	35,434	Portland.....	Glasgow.
Food products:					
Cold storage.....	2	14,083		Wellington.....	London.
Cold storage.....	1	8,400	22,483	Sydney.....	London.
Lumber.....	1	1,925		Tacoma.....	Nuevitas, Cuba.
Lumber.....	1	1,848	3,773	Seattle.....	Nuevitas, Cuba.
Diesel and gas oil.....	1		11,071	San Francisco.....	Gothenburg, Sweden.
Fuel oil.....	1		6,702	San Francisco.....	Malta.
Rice.....	1		6,500	Saigon, China.....	Havana.
Sugar.....	1		5,825	Kobe, Japan.....	New York.
Copper.....	1		2,500	Valparaiso.....	New York.

LATIN-AMERICAN TRAFFIC.

Commercial vessels through the Canal en route to the west coast of Central and South America were classified as follows:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
British.....	23	76,481	47,526	56,232	<i>Tons.</i> 61,059
United States.....	21	89,761	56,265	66,705	77,241
Peruvian.....	3	12,666	6,614	8,209	2,183
Chilean.....	3	8,704	5,887	8,120	1,819
Norwegian.....	1	6,987	4,422	5,081	9,300
French.....	1	5,607	3,422	4,156	6,884
Dutch.....	1	2,739	1,670	3,059	1,600
German.....	1	536	121	123	.....
Total.....	54	203,481	125,927	151,685	160,080

Four of the above vessels were in ballast, 1 from United States ports, 2 from Cristobal, and 1 from Mexico. Three vessels with a total Panama Canal net tonnage of 3,968, carrying 2,083 tons of cargo, were bound for Central American ports; the remainder for South American west coast ports. The registry of these vessels, the kind and quantity of their cargo, and its destination are shown as follows:

No. vessels	Registry.	Tons cargo.	Commodity.	Total commodity	Destined to—
4	British.....	19,135	General.....	.....	Coronel.
4	British.....	2,489	General.....	.....	Gajayquil.
3	British.....	6,688	General.....	.....	Valparaiso.
3	British.....	1,553	General.....	.....	Buenaventura.
1	British.....	4,589	General.....	.....	Talcahuano.
1	British.....	722	General.....	.....	Tumaco.
2	British.....	1,690	General.....	.....	Champerico.
1	British.....	381	General.....	37,259	San Jose.
1	British.....	9,800	Fuel oil.....	.....	Antofagasta.
1	British.....	9,099	Fuel oil.....	.....	Taltal.
1	British.....	5,009	Fuel oil.....	23,800	Arica.
1	British.....	.....	Ballast.....	.....	Buenaventura.
4	United States.....	11,980	General.....	.....	Valparaiso.
1	United States.....	5,151	General.....	.....	Talcahuano.
1	United States.....	1,963	General.....	.....	Taltal.
1	United States.....	1,794	General.....	.....	Salaverry.
1	United States.....	504	General.....	.....	Buenaventura.
1	United States.....	217	General.....	21,612	Tumaco.
2	United States.....	7,070	Coal.....	.....	Iquique.
2	United States.....	12,385	Coal.....	.....	Antofagasta.
1	United States.....	12,000	Coal.....	.....	Balboa.
1	United States.....	3,255	Coal.....	.....	Caldera.
1	United States.....	2,710	Coal.....	.....	Taltal.
1	United States.....	546	Coal.....	38,056	Valparaiso.
2	United States.....	.....	Fuel oil.....	17,543	Pisagua.
1	United States.....	.....	Ballast.....	.....	Balboa.
1	United States.....	.....	Ballast.....	.....	Tocopilla.
3	Peruvian.....	.....	General.....	2,183	Callao.
3	Chilean.....	.....	General.....	1,819	Valparaiso.
1	Norwegian.....	.....	Fuel oil.....	9,300	Tocopilla.
1	French.....	.....	Coal.....	6,884	Arica.
1	Dutch.....	.....	General.....	1,600	Talcahuano.
1	German.....	.....	Ballast.....	.....	Balboa.
54	.....	.....	.....	169,086	.....

The Latin-American traffic from the west coast of Central and South America for June is classified in the following tabulation:

Nationality.	No. of ships.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Cargo.
United States.....	22	95,409	60,861	71,661	<i>Tons.</i> 91,838
British.....	17	60,708	34,032	42,620	35,100
German.....	5	20,290	12,372	17,205	18,799
Chilean.....	4	16,171	9,101	12,229	7,664
Norwegian.....	3	16,104	10,162	11,842	3,300
Peruvian.....	3	12,652	7,011	8,473	8,927
Dutch.....	1	6,944	4,414	6,807	11,200
Japanese.....	1	6,079	3,850	4,440	8,175
French.....	1	5,765	3,681	4,146	6,681
Danish.....	1	4,828	3,030	4,220	6,369
Colombian.....	1	96	57	95	27
Total.....	59	245,076	148,574	183,738	198,080

Ten of the above vessels were in ballast: 1 collier, 4 tugs, and 5 oil tankers; 57 per cent of the total cargo consisted of nitrate. All but 3 of the vessels, 2 from Central American ports and 1 from Panama, were from the South American west coast. This traffic is further classified in the following statement:

No. vessels	Registry.	Tons cargo.	Commodity.	Total commodity	Destined to—
3	United States	25,039	Nitrate		Charleston, S. C.
3	United States	14,677	Nitrate		Wilmington, N. C.
3	United States	13,994	Nitrate		Philadelphia.
2	United States	11,169	Nitrate		New York.
1	United States	3,400	Nitrate		Baltimore.
1	United States	3,300	Nitrate	71,579	Boston.
3	United States	16,229	General		New York.
2	United States	1,530	General	17,759	Cristobal.
1	United States		Copper	2,500	New York.
2	United States		Ballast		Tampico.
1	United States		Ballast		Norfolk.
10	British	8,913	General		Cristobal.
4	British	26,187	General	35,100	United Kingdom.
2	British		Ballast		United Kingdom.
1	British		Ballast		Tampico.
3	German		Nitrate	18,799	United Kingdom.
1	German		Ballast		United Kingdom.
1	German		Ballast		Cristobal.
3	Chilean	3,749	General		Cristobal.
1	Chilean	3,915	General	7,664	New York.
1	Norwegian		Nitrate	3,300	Norfolk.
2	Norwegian		Ballast		Tampico.
3	Peruvian		General	8,927	Cristobal.
1	Dutch		Nitrate	11,200	Baltimore.
1	Japanese		Nitrate	8,175	Baltimore.
1	French		General	6,681	Bordeaux.
1	Danish		Copper and wool	6,369	New York.
1	Colombian		General	27	Cartagena.
59				198,080	

Forty-six of the vessels passing through the Canal this month were under control of the United States Shipping Board, combining a total Panama Canal net tonnage of 172,589 and carrying 263,511 tons of cargo. Twenty-six were northbound with a total tonnage of 89,309 and cargo of 141,210 tons; 20 were southbound with a tonnage of 83,280 and cargo of 122,301 tons.

PRINCIPAL TRADE ROUTES.

Statements attached to this report show the ports of origin and destination for all cargo through the Canal this month (see pages 752, 753, 754, and 759); the tabulation following gives the distribution according to the principal trade routes.

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Atlantic to Pacific.</i>					
United States to west coast of South America	18	56,312	64,633	1	2,764
United States to Far East	19	91,591	136,237		
Cristobal to west coast of South America	18	24,436	9,779	2	192
Europe to west coast of South America	8	32,426	32,945		
United States coastwise	8	24,217	27,930	1	2,940
Mexico to west coast of South America	7	34,543	50,643	1	6,525
United States to Australia and New Zealand	7	28,932	41,324		
Europe to Australia and New Zealand	4	27,893	19,027		
Europe to west coast of United States	4	13,276	8,459	2	3,241
United States to Philippines	2	7,168	10,290		
Cristobal to west coast of Central America	2	1,398	1,699		
Mexico to west coast of United States	1	5,877	10,000		
Cuba to Australia and New Zealand	1	3,520	5,760		
Europe to west coast of Central America	1	2,570	354		
Cuba to west coast of United States	1	2,459	2,526		
East coast of United States to British Columbia	1	1,769	3,100		
Total	102	358,387	424,750	7	15,662
<i>Pacific to Atlantic.</i>					
West coast of South America to United States	23	81,656	123,267	1	6,910
West coast of South America to Cristobal	18	27,392	22,032	1	123
West coast of South America to Europe	11	52,115	51,667	3	350
Far East to east coast of United States	9	38,567	63,188		
United States coastwise	7	23,754	30,574	1	5,034

	Total vessels.			Vessels in ballast.	
	Ves-sels.	Panama Canal net tonnage.	Cargo.	Ves-sels.	Panama Canal net tonnage.
<i>Pacific to Atlantic—Continued.</i>					
Australia and New Zealand to Europe.....	5	31,569	32,033		
West coast of South America to Mexico.....	5	21,774		5	21,774
West coast of United States to Cuba.....	5	7,960	8,320	1	2,017
West coast of United States to Europe.....	4	18,768	30,937		
British Columbia to United Kingdom.....	2	10,512	11,172		
Philippines to east coast of United States.....	2	8,650	13,011		
West coast of United States to Cristobal.....	2	2,344	2,356		
Far East to Europe.....	1	5,922		1	5,922
West coast of United States to Egypt.....	1	4,954	8,100		
Far East to Cuba.....	1	3,570	6,500		
West coast of United States to Europe.....	1	4,019	5,400		
West coast of Central America to Cristobal.....	1	706	1,087		
Panama to North Colombian ports.....	1	95	27		
Total.....	99	346,325	409,671	13	42,130

*This vessel carried passengers only.

The total number of vessels above includes 1 Japanese cruiser, northbound, with a displacement tonnage of 7,800.

SERVICES TO CANAL SHIPPING.

Miscellaneous repairs were made at Balboa and Cristobal shops and dry docks on 110 vessels and craft during June; 50 at Balboa and 60 at Cristobal; 19 were dry-docked, 12 at Balboa and 7 at Cristobal. Bunker coal in the amount of 40,794 tons was supplied to 105 commercial vessels; 37,206 tons to 89 vessels at Cristobal, and 3,588 tons to 16 vessels at Balboa. Forty-two commercial vessels were furnished a total of 82,549 barrels of fuel oil; 26 with 51,108 barrels at Cristobal, and 16 with 31,441 barrels at Balboa. There were 263 vessels supplied with water in the amount of 13,646,747 gallons; 148 at Cristobal with 10,036,997 gallons, and 115 at Balboa with 3,609,750 gallons. Sales of commissary supplies to commercial ships other than those of the Panama Railroad Steamship Line totaled \$79,867.22, including \$3,524.83 for laundry service; these sales having been made to 145 vessels at Cristobal in the amount of \$52,846.46, and to 83 vessels at Balboa in the amount of \$27,020.76. Charges for tug service for vessels using the Canal and the terminal ports totaled \$19,969.05, of which \$11,615.70 was earned at Cristobal and \$8,353.33 at Balboa.

STATEMENT OF OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Canal are shown in the following tabulations:

Item.	Cristobal.	Balboa.	Total.
Commercial ships making transit of Canal.....	102	99	201
Net tonnage of commercial ships, Panama Canal measurement.....	353,387	346,325	704,713
United States equivalent net tonnage of commercial ships.....	300,045	283,640	583,685
Registered gross tonnage of commercial ships.....	464,877	456,128	921,005
Registered net tonnage of commercial ships.....	294,261	280,766	575,027
Cargo through Canal in commercial ships, tons of 2,240 pounds.....	424,750	409,671	834,421
Deck load cargo, included in above.....	425	1,412	1,837
Nationality of commercial ships through the Canal:			
British.....	41	27	68
Chilean.....	3	4	7
Colombian.....		1	1
Danish.....		1	1
Dutch.....	1	1	2
French.....	2	1	3
German.....	1	5	6
Italian.....		1	1
Japanese.....	5	6	11
Norwegian.....	1	4	5
Peruvian.....	3	3	6
Swedish.....		1	1
United States.....	45	44	89
Total.....	102	99	201
Panama Canal net tonnage of commercial ships through the Canal:			
British.....	149,199	96,928	246,127
Chilean.....	8,120	12,229	20,349
Colombian.....		95	95

Item.	Cristobal.	Balboa.	Total.
Panama Canal net tonnage of commercial ships through the Canal—Contd.			
Danish.....		4,220	4,220
Dutch.....	3,059	6,807	9,866
French.....	6,160	4,146	10,315
German.....	123	17,205	17,328
Italian.....		3,950	3,950
Japanese.....	19,215	22,969	42,184
Norwegian.....	5,081	12,963	18,044
Peruvian.....	8,209	8,473	16,682
Swedish.....		4,019	4,019
United States.....	159,212	152,321	311,533
Total.....	358,387	346,325	704,712
United States equivalent net tonnage of commercial ships through the Canal:			
British.....	125,962	76,528	202,490
Chilean.....	4,822	7,890	12,712
Colombian.....		84	84
Danish.....		4,165	4,165
Dutch.....	1,653	4,384	6,037
French.....	5,604	3,600	9,204
German.....	113	12,185	12,298
Italian.....		2,908	2,908
Japanese.....	17,174	20,785	37,959
Norwegian.....	4,458	11,061	15,499
Peruvian.....	5,723	6,232	11,955
Swedish.....		2,244	2,244
United States.....	134,556	131,574	266,130
Total.....	300,045	283,640	583,685
Registered gross tonnage of commercial ships through the Canal:			
British.....	192,844	124,262	317,106
Chilean.....	8,704	16,171	24,875
Colombian.....		96	96
Danish.....		4,828	4,828
Dutch.....	2,739	6,944	9,683
French.....	7,768	5,765	13,533
German.....	536	20,290	20,826
Italian.....		4,302	4,302
Japanese.....	26,069	28,909	54,978
Norwegian.....	6,987	17,752	24,739
Peruvian.....	12,666	12,682	25,348
Swedish.....		3,745	3,745
United States.....	206,564	210,382	416,946
Total.....	464,877	456,128	921,005
Registered net tonnage of commercial ships through the Canal:			
British.....	121,299	76,444	197,743
Chilean.....	5,887	9,101	14,988
Colombian.....		57	57
Danish.....		3,030	3,030
Dutch.....	1,670	4,414	6,084
French.....	5,388	3,681	9,069
German.....	121	12,272	12,493
Italian.....		2,773	2,773
Japanese.....	16,565	17,636	34,201
Norwegian.....	4,422	10,973	15,395
Peruvian.....	6,614	7,014	13,628
Swedish.....		2,858	2,858
United States.....	132,295	130,413	262,708
Total.....	294,261	280,766	575,027
Cargo carried by ships of various nationalities:			
British.....	163,494	105,896	269,390
Chilean.....	1,819	7,664	9,483
Colombian.....		27	27
Danish.....		6,369	6,369
Dutch.....	1,600	11,200	12,800
French.....	6,884	6,681	13,565
German.....		18,799	18,799
Italian.....		5,200	5,200
Japanese.....	32,088	38,413	70,501
Norwegian.....	9,300	5,600	14,900
Peruvian.....	2,183	8,927	11,110
Swedish.....		5,400	5,400
United States.....	207,382	189,495	396,877
Total.....	424,750	409,671	834,421
Tolls levied against commercial ships by nationality:			
British.....	\$156,899.73	\$94,679.11	\$251,578.84
Chilean.....	6,027.50	9,862.50	15,890.00
Colombian.....		105.00	105.00
Danish.....		5,064.00	5,064.00

Item.	Cristobal.	Balb	Total.
Tolls levied against commercial ships by nationality—Continued.			
Dutch.....	2,066.25	5,480.00	7,546.25
French.....	6,003.00	4,500.00	10,503.00
German.....	88.56	15,125.87	15,214.43
Italian.....		3,635.00	3,635.00
Japanese.....	21,289.70	29,499.55	50,789.25
Norwegian.....	5,547.50	10,030.28	15,577.78
Peruvian.....	7,153.75	7,790.00	14,943.75
Swedish.....		2,805.00	2,805.00
United States.....	165,112.38	152,394.51	317,506.89
Total.....	\$370,188.37	\$340,970.82	\$711,159.19
Vessels passing through the Canal free of tolls:			
U. S. Navy battleships.....	6		6
U. S. Navy supply ships.....	3		3
U. S. Army tug.....	1		1
Merchant ship with coal for U. S. Navy.....	1		1
Total.....	11		11
Yachts, ocean-going, through the Canal.....			
Net tonnage of above, Panama Canal measurement.....	2		2
Total ocean-going vessels transiting Canal.....	109		109
Launches through the Canal.....	115	99	214
Net tonnage of above, Panama Canal measurement.....	4		4
Total vessels and craft transiting the Canal.....	27		27
Commercial ships through Canal without cargo but not in ballast.....	119	99	218
Net tonnage of above, National measurement.....	26,602		26,602
Commercial ships through Canal in ballast.....		1	1
Net tonnage of above, Panama Canal measurement.....		7,800	7,800
Motor ships through the Canal.....	5	12	17
Net tonnage of above, Panama Canal measurement.....	8,587	35,735	44,322
Sailing ships through the Canal.....	2	3	5
Net tonnage of above, Panama Canal measurement.....	138	4,147	4,285
Total tolls levied.....	3,241		3,241
Tolls levied on laden ships through the Canal.....	\$363,568.18	\$311,125.40	\$674,693.58
Tolls levied on ships in ballast.....	6,620.19	25,945.42	32,565.61
Tolls levied on displacement tonnage.....		3,900.00	3,900.00
Tolls levied on yachts and launches.....	108.99		108.99
Total tolls levied.....	\$370,297.36	\$340,970.82	\$711,268.18
Total ships entering port, including Canal transit.....			
Total ships clearing port, including Canal transit.....	251	210	470
Total ships handled.....	250	220	470
Net registered tonnage of vessels entering port.....	501	439	940
Net registered tonnage of vessels clearing port.....	822,392	687,062	1,509,454
Total for vessels entering and clearing.....	830,338	693,147	1,523,485
Registered gross tonnage of vessels entering port.....	1,652,730	1,380,209	3,032,939
Registered gross tonnage of vessels clearing port.....	1,251,062	1,028,911	2,279,973
Total for vessels entering and clearing.....	1,273,495	1,038,238	2,311,733
Vessels entering port but not passing through the Canal.....	44	8	52
Net tonnage of above.....	130,584	18,163	148,747
Gross tonnage of above.....	223,036	26,290	249,326
Vessels clearing port but not passing through the Canal.....	50	7	57
Net tonnage of above.....	142,977	17,415	160,392
Gross tonnage of above.....	244,092	25,773	269,865
Vessels passing through Canal and handling passengers or cargo at port, entering.....	33	49	82
Net tonnage of above.....	86,070	83,875	169,945
Gross tonnage of above.....	140,811	141,651	282,462
Transit cargo arriving..... tons.	862,924	874,740	1,737,664
Transit cargo cleared..... tons.	862,027	871,275	1,733,302
Total transit cargo..... tons.	1,724,951	1,746,015	3,470,966
Local cargo arriving..... tons.	35,144	42,879	78,023
Local cargo shipped..... tons.	7,243	2,846	10,094
Total local cargo..... tons.	42,392	45,725	88,117
Cargo received for transshipment..... tons.	39,983	41	40,024
Cargo transhipped..... tons.	38,388	195	38,583
Total cargo arriving..... tons.	938,051	917,660	1,855,711
Total cargo cleared..... tons.	907,663	874,316	1,781,979
Cargo received by Receiving and Forwarding Agency of P. R. R..... tons.	61,051	6,739	67,790
Cargo dispatched by Receiving and Forwarding Agency of P. R. R..... tons.	38,553	713	39,266
Cargo rebanded by Receiving and Forwarding Agency of P. R. R..... tons.	1,948	3,833	5,781
Total cargo handled by Receiving and Forwarding Agency of P. R. R..... tons.	101,552	11,285	112,837

Item.	Cristobal.	Balboa.	Total.
Cargo stevedored, included in above..... tons..	42,850	433	43,283
Commercial vessels, other than P. R. R. supplied with bunker coal.....	82	16	98
Coal supplied above vessels..... tons..	35,475	3,588	39,063
Panama Railroad vessels supplied with bunker coal.....	7		7
Coal supplied above vessels..... tons..	1,731		1,731
U. S. Army vessels supplied with coal.....	6	1	7
Coal supplied above vessels..... tons..	431	55	486
Total vessels supplied with coal from Panama Railroad deposits.....	95	17	112
Total coal furnished above vessels..... tons..	37,637	3,643	41,280
Coal supplied Panama Railroad departments..... tons..	704	40	744
Coal supplied Army, excepting vessels..... tons..	143		143
Coal supplied The Panama Canal..... tons..	1,726	1,265	2,991
Coal supplied individuals and companies..... tons..	401		401
Total coal furnished from Panama Railroad deposits..... tons..	40,611	*6,530	*47,141
Coal received during June..... tons..	23,800	12,091	35,891
Coal on hand July 1, 1920..... tons..	45,903	5,561	51,464
Coal on hand June 1, 1920..... tons..	62,714		62,714
<i>Coal—U. S. Navy Account.</i>			
Coal furnished U. S. Navy, including vessels..... tons..	6,398	6,167	12,565
Coal received during June..... tons..		1,582	1,582
Coal on hand, July 1, 1920..... tons..	67,495	24,498	91,993
Coal on hand, June 1, 1920..... tons..	73,593	29,083	102,976
Commercial vessels, other than P. R. R., supplied with fuel oil from Panama Canal tanks.....	26	16	42
Fuel oil sold to above vessels..... barrels..	51,108	31,441	82,549
Fuel oil issued to U. S. Navy..... barrels..	102		102
Fuel oil issued to U. S. Army..... barrels..	463		463
Fuel oil issued to Canal departments..... barrels..	5,810	21,937	27,747
Fuel oil sold to individuals and companies..... barrels..	348	5,372	5,720
Total fuel oil furnished from Panama Canal tanks..... barrels..	57,831	58,750	116,581
Fuel oil on hand July 1, 1920..... barrels..	22,939	9,358	32,297
Fuel oil on hand June 1, 1920..... barrels..	80,771	68,108	148,879
Other oil pumped for individuals and companies..... barrels..	83,507	109,826	193,333
Diesel oil on hand July 1, 1920..... barrels..		1,154	1,154
Vessels supplied with water.....	148	115	263
Water sold to vessels..... gallons..	10,036,997	3,609,750	13,646,747
Vessels on which miscellaneous repairs were made.....	53	38	91
Vessels dry-docked.....	7	12	19
Commercial vessels furnished commissary supplies.....	145	83	228
Panama Railroad vessels furnished commissary supplies.....	10		10
Other U. S. Government vessels furnished commissary supplies.....	19	17	36
Total vessels furnished commissary supplies.....	174	100	274
Commissary sales to commercial vessels:			
Ice.....	\$2,441.20	\$800.50	\$3,241.70
Wholesale groceries.....	10,802.59	3,440.00	14,242.59
Wholesale cold storage.....	35,238.85	20,100.04	55,338.90
Laundry.....	3,522.23	2.60	3,524.83
Miscellaneous.....	1,503.67	1,955.53	3,459.20
Total.....	53,568.55	26,298.67	79,867.22
Commissary sales to Panama Railroad vessels:			
Ice.....	\$422.00		\$422.00
Wholesale groceries.....	2,211.15		2,211.15
Wholesale cold storage.....	6,515.97		6,515.97
Laundry.....	1,677.28		1,677.28
Miscellaneous.....	656.18		656.18
Total.....	\$11,482.58		\$11,482.58
Commissary sales to other Government vessels:			
Ice.....	\$790.97	\$232.49	\$1,023.46
Wholesale groceries.....	12,529.16	4,346.37	16,875.53
Wholesale cold storage.....	30,945.57	5,193.93	36,139.50
Laundry.....	1,215.41	278.70	1,494.11
Miscellaneous.....	2,627.47	644.71	3,272.18
Total.....	\$48,108.58	\$10,696.20	\$58,804.78
Total commissary sales to all vessels.....	\$113,159.71	\$36,994.87	\$150,154.58
Passengers arriving, including transit passengers:			
First cabin.....	2,771	1,785	4,556
Other than first cabin.....	3,480	2,464	5,944
Total.....	6,251	4,249	10,500

*Includes 1,582 tons returned to Navy account.

Item.	Cristobal.	Balboa.	Total.
Passengers departing, including transit passengers:			
First cabin.....	3,656	1,729	5,385
Other than first cabin.....	8,063	2,524	10,587
Total.....	11,719	4,253	15,972
Total movement of passengers.....	17,970	8,502	26,472
Passengers disembarking:			
First cabin.....	1,902	207	2,109
Other than first cabin.....	620	64	684
Total.....	2,522	271	2,793
Passengers embarking:			
First cabin.....	2,451	151	2,602
Other than first cabin.....	1,235	124	1,359
Total.....	3,686	275	3,961
Service to American seamen:			
Seamen shipped.....	217	147	364
Seamen paid off.....	148	77	225
Seamen deserted.....	19	2	21
Seamen deceased.....			
Seamen lodged and subsisted.....	46	20	66
Seamen repatriated.....	22	10	32
Wages of American seamen:			
Total amount earned.....	\$17,782.38	\$7,591.11	\$25,373.49
Deductions approved by Deputy Shipping Commissioners.....	4,372.55	1,748.21	6,120.76
Balance due seamen.....	\$13,409.83	\$5,842.90	\$19,252.73
Paid to seamen.....	7,391.37	4,225.17	11,616.54
Received on deposit for seamen.....	6,018.46	*1,917.73	7,936.19
Service to American vessels:			
Crew shipped.....	1		1
Crew paid off.....	1		1
Shipping article written.....			1
Marine notes of protest noted.....	14	9	23
Bills of health issued.....	130	124	254
Clearances issued.....	132	117	249

*Includes \$300 immigration deposits.

LOCK OPERATION.

Lockages of commercial vessels for June were as follows:

	Number of lockages.			Number of vessels.		
	North.	South.	Total.	North.	South.	Total.
Gatun.....	91	94	185	99	107	206
Pedro Miguel.....	91	100	191	97	104	201
Miraflores.....	96	104	200	98	105	203

All lockages, including Army and Navy vessels, those of the Panama Railroad and The Panama Canal, are shown in the following statement of lockages for June:

Lockages.	Gatun.	Pedro Miguel.	Miraflores.
Commercial.....	185	191	200
Noncommercial, Army and Navy.....	12	11	11
Noncommercial, Canal equipment.....	2	25	19
Total.....	199	227	230
<i>Vessels.</i>			
Commercial.....	206	201	203
Noncommercial, Army and Navy.....	17	17	20
Noncommercial, Canal equipment.....	14	49	51
Total.....	237	267	274

The total consumption of water for lockages during June was 1,412,650,000 cubic feet. The consumption by locks was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockage.....	777,280,000	635,370,000	698,390,000
Leakage.....	20,000,000	17,800,000	15,000,000
Maintenance.....		19,080,000	890,000
Total.....	797,280,000	672,250,000	714,280,000

METEOROLOGY.

The recorded rainfall for June ranged from 4.42 inches at Balboa to 20.17 inches at Porto Bello; it was slightly below normal at both Canal entrances and over Gatun Lake and vicinity, and somewhat above normal over the Pacific slope and the extreme upper Chagres. The greatest daily precipitation recorded was 4.17 inches at Pedro Miguel on the 20th. The estimated rainfall over the Gatun Lake watershed was 11.06 inches, compared with a 10-year mean of 11.32 inches; and 15.09 inches over the Chagres River basin above Alhajuela, compared with a 19-year mean of 13.16 inches. The Chagres River discharge at Alhajuela was 19 per cent below the 19-year mean, or 2,090 c. f. s. against a mean of 2,574 c. f. s., and furnished 45 per cent of the Gatun Lake total yield.

The Gatun Lake watershed total yield was 4,670 c. f. s., 25 per cent below the 10-year mean of 6,245 c. f. s. The maximum June total yield since the existence of Gatun Lake was 7,895 c. f. s. in 1918, and the minimum total yield was 4,477 c. f. s. in 1912. The net yield for June, 1920, was 4,081 c. f. s. The maximum June net yield of record was 7,176 c. f. s. in 1918, and the minimum June net yield was 4,346 c. f. s. in 1912. The lake varied from a maximum elevation of 82.94 feet on the 30th, to a minimum elevation of 81.79 on the 1st. There was an increase in storage of five billion cubic feet.

Miraflores Lake varied from a maximum elevation of 54.51 feet on the 20th, to a minimum elevation of 53.60 on the 15th and 16th. Elevation maintenance of the lake necessitated drawing 19,100,000 cubic feet from Gatun Lake during the month.

ELECTRICAL DIVISION.

Gatun hydroelectric station—The gross output of this station for the month was 5,477,400 KWH on a computed water consumption of 3,989,830,000 cubic feet.

Miraflores steam plant—The gross output of this plant was 208,120 KWH on an oil consumption of 2,927 barrels. The load carried by this plant during the period of low lake level was transferred to the Gatun hydroelectric station on June 3.

Total power output—The total gross output of both stations was 5,685,520 KWH. The total power distributed to consumers was 4,753,138 KWH. The total loss of power in plant auxiliaries, transmission, and transformation was 932,382 KWH or 16.40 per cent of the gross output.

There were no interruptions to transmission line service during the month. The regular operation and maintenance of all substations was carried on without any extraordinary occurrences. The construction work at the substations could not be advanced in June, and remains in the same status as reported last month. Miscellaneous repairs and installations of electrical equipment were made on 61 vessels during the month; 21 at Cristobal, and 40 at Balboa.

Construction work for the Army is separately reported.

SHOPS, FOUNDRY, AND DRY DOCK WORK.

Six vessels received extensive repairs at the Cristobal plant during June. A new circulating engine and pump were installed in the steamship *General Gorgas*, necessitating the construction of a new foundation and new copper fittings and piping from pump to condenser and from sea to pump, with new steam and exhaust engine fittings. The U. S. S. *Eagle No. 14* was dry-docked and a cracked propeller blade welded. The U. S. S. *Eagle No. 32* had an extensive overhaul of turbines and gears. Various attempts were made to electrically weld cracks in the boiler of the steamship *Larne*; the boiler was found to be in very bad condition and incapable of being successfully repaired in this manner. The hull of the schooner *Balsa* was caulked and about half of its keel shoe reinstalled. The ballast pump of the steamship *Chile* was overhauled, the low pressure piston rod installed and general repairs to her engines and auxiliaries made. In addition, the following vessels received miscellaneous repairs: U. S. S. *Culgoa*, *Sciota*, *Buford*, *Mt. Vernon*, and tug *Penguin*; steamships *Acajulla*, *Advance*, *Allianca*, *Ancon*, *Aylesbury*, *Aysen*, *Balboa*, *Caribbean*, *Carliago*, *Chile*, *City of Para*, *Cerro Gordo*, *Colon*, *Conshatta*, *Eastern Maid*, *Gen. Ernst*, *Gen. Goethals*, *Gen. Hodges*, *Greenald*, *Heredia*, *Inca*, *Jamaica*, *Lake Francis*, *Mantaro*, *Panama*, *Parismina*, *Peru*, *Puerto Rico*, *St. Andre*, *Steelmaker*, *Stuyvesant*, *San Jose*, *Ucayali*, *Urubamba*, *West Cheswald*, *West Hargrave*, *West Campgaw*; yacht *Hope-still*; tugs *Favorite*, *Tavernilla*, *Porto Bello*, and *St. Leyne*; supply boat *No. 1*; launch *Conroy*; barge *No. 29*; and sloop *Envoy*. Seven vessels were dry-docked, including the U. S. S. *Eagle No. 14* and *L-53*; steamships *Cauca* and *Salvador*; yacht *Louise*; schooner *Balsa*; and derrick barge *No. 161*.

Work at the Balboa plant included but 7 vessels on which extensive repairs were necessary. A new main propelling turbine was installed on the steamship *Cansumset*. Prior to the receipt of the new turbine from the States, and due to a change

in orders for the work, the more difficult part of the work of repairing the old turbine had been completed at the Balboa shops. This changed decision in the matter of repairs resulted in the vessel being tied up considerably longer than was necessary. The steamship *Lale Elkwater* was dry-docked, a broken propeller removed and replaced by one shipped from the States. This new propeller was found to be badly out of balance, and the necessary amount of metal was removed to correct this condition. A new propeller was cast at the Balboa foundry as a spare for the vessel. The Chinese steamship *Hwah Jah* was dry-docked on account of a damaged propeller. It was discovered that all 4 blades were broken close to the hull. A set of partly damaged blades on board the ship were repaired by welding and installed; a spare tail shaft was also installed in place of the one in the stern tube at the time of the accident. Extensive overhauls were made of the machinery of the steamships *S. V. Harkness* and *Benjamin Brewster*. The steering engine and ice machinery of the U. S. S. *Connecticut* were repaired, this work being carried on by both night and day shifts to avoid holding the fleet of 6 battleships to which the *Connecticut* was attached. The officers of this ship reported this part of her machinery after the repairs were completed as performing satisfactorily for the first time during the cruise. The conversion of the *Culebra* from a cattle ship to a suction dredge was nearly completed at the end of the month.

In addition, the following vessels received miscellaneous repairs at the Balboa plant: U. S. S. *Sciota*, *Tacoma*, *Penguin*, and subchaser *No. 284*; steamships *Ashland County*, *Baja California*, *Balboa*, *Benoni*, *Caddo*, *Cethana*, *City of Para*, *Culburra*, *Eastern Pilot*, *Edna*, *Iroquois*, *Katherine*, *Kikuku Maru*, *Lake Fibre*, *Lake Fitch*, *Lake Foxboro*, *Lake Glasco*, *Nile*, *Olockson*, *Proteus*, *San Joaquin*, *Steelmaker*, *Ulysses*, *West Cheswald*, *West Kattan*; motorship *Orotina*; yacht *Gloriana*; launches *Grace* and *Vacuum*; and barge *Acapulco*. Including those already mentioned, the following were dry-docked: Steamship *Peru*; tugs *Cocoli* and *Empire*; dredges *Culebra* and *Gamboia*; barges *Nos. 91, 136, 140, and 226*; caisson *No. 1*; and scow *No. 140*.

The output of the Mechanical Division in patterns, castings, and other foundry production for June, as compared with the preceding month, is shown as follows:

	June.			May.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron.....	30	1,208	64,581	46	1,055	141,362
Steel.....	5	266	55,382	3	568	44,235
Brass.....	9	846	9,364	18	1,370	11,759

The ordinary repair and maintenance work of the Mechanical Division included among other items for June the following:

Cars repaired.....	2,120
Locomotives and cranes repaired.....	891
Passenger coaches packed, cleaned, oiled, and inspected.....	2,447
Freight cars repacked.....	564
Locomotives hostled.....	1,419
Cranes hostled.....	226
Locomotives ridden.....	76
Locomotives inspected.....	91
Crews instructed in handling locomotives.....	15
Crews instructed in oil and fuel economy.....	23
Crews instructed in air brakes.....	9
Cranes, locomotive, inspected.....	19

BUILDING CONSTRUCTION.

The statement following represents the degree of completion, June 30, of the more important construction work performed by the Building Division:

Colon stables:	Per cent completed.
East half—	
Six stables.....	(*)
One latrine.....	785
Feed room and quarters.....	100
Shop building.....	100
Deposit pits.....	195
West half—	
Six stables.....	75
Five wagon sheds.....	90
One feed room.....	15
Shop building.....	15
Silver townsite, Mt. Hope:	
Commissary.....	80
Two houses, married quarters.....	95
Six houses, married quarters.....	90
Two houses, married quarters.....	85

*Completed except plastering. No work done during the month.
†No work done during the month.

	Per cent completed.
Silver townsite, Mt. Hope—Continued:	
Two houses, married quarters.....	70
Two houses, married quarters.....	50
Four houses, married quarters.....	40
Two houses, married quarters.....	30
Four houses, married quarters.....	20
Two houses, married quarters.....	15
Two houses, married quarters.....	5
Four houses, married quarters.....	4
Three houses, married quarters.....	(*)
Bachelor quarters.....	(†)
Cristobal incinerator.....	96.1
Combination shop and storehouse, Cristobal.....	60
Royal Mail Steam Packet Company's office, Cristobal.....	25
Moving 3 type-7 houses from Las Cascadas to New Cristobal.....	100
Oil tank (55,000 barrels capacity), Cristobal.....	98
Alterations, Cristobal clubhouse.....	100
Ten-stall addition to garage, New Cristobal.....	100
Applying specification roofing, cold storage plant, Cristobal.....	50
Applying specification roofing, Pier 6, Cristobal.....	50
Moving 2 type-7 houses from Las Cascadas to Gatun.....	80
Lighthouse, end of breakwater, Cristobal.....	25
National Catholic War Council Building, Balboa.....	40
Bake shop, workroom, and storage room building, Ancon Hospital.....	175
Oil tank (55,000 barrels capacity), Balboa.....	60
Alterations, Balboa clubhouse.....	98
Alterations, Ancon restaurant.....	95
Demolition of old French pier.....	175
Moving 3 type-7 houses from Las Cascadas to Pedro Miguel.....	99
Moving 4 four-family quarters, Las Cascadas to Quarry Heights.....	25
Moving garage from Las Cascadas to Pedro Miguel.....	100
Addition to nurses' quarters, Corozal.....	100

* Commenced.

† Not started.

‡ No work done during the month.

Building construction performed for the Army and Navy is separately reported.

DREDGING DIVISION.

Cucaracha Slide showed a general movement during June. Two dipper dredges working continuously and 1 suction dredge working for 4 days in front of the slide removed 365,900 cubic yards of earth and rock, leaving at the end of the month 51,700 cubic yards within the Canal slopes between stations 1805 and 1814. Dredging during the latter part of the month was extended east of the east prism line into a proposed basin at the foot of the slide. A channel of 180 feet minimum width with a depth of 34 feet was maintained during the month with but slight interference to Canal traffic. The work of drilling and blasting large boulders at Cucaracha Slide was continued during the latter part of the month. Grader No. 1 was operated for 5 days, and No. 2 continuously in sluicing at the slide, removing 45,000 cubic yards (estimated quantity) of earth and rock.

The total excavation by dredges during June was 509,706 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Stations.	Equipment
	Earth.	Rock.			
				<i>Cucaracha Slide.</i>	
(a) 191,500	57,400	134,100	Maintenance.....	1805-00 to 1814-00 E. and W.....	<i>Cascadas.</i>
(a) 168,900	50,700	118,200	Maintenance.....	1805-00 to 1814-00 E. and W.....	<i>Paraiso.</i>
(a) 5,500	2,200	3,300	Maintenance.....	1812-00 to 1814-00 E.....	<i>*No. 86.</i>
				<i>Gaillard Cut (by relay).</i>	
(a) 23,200	10,200	13,000	Maintenance.....	1843-50 to 1833-50 E. and W.....	<i>*No. 88.</i>
				<i>Pacific Entrance.</i>	
(b) 40,000	40,000	.....	Maintenance.....	2100-00 to 2110-80 E.....	<i>No. 84.</i>
(b) 3,000	3,000	.....	Construction.....	2100-00 to 2110-80 E.....	<i>No. 84.</i>
(b) 35,000	35,000	.....	Maintenance.....	2200-00 to 2214-50 W.....	<i>No. 84.</i>
(c) 12,000	12,000	.....	Maintenance.....	Balboa inner harbor.....	<i>No. 84.</i>
	Sand and gravel				
(d) 23,106	23,106	.....	Aux. construction..	Chagres River gravel beds.....	<i>Marmot.</i>
	Mud				
(d) 7,000	7,000	.....	.....	Uncovering gravel beds.....	<i>Marmot.</i>
	Earth and coal				
500	1500	.....	.....	Sunken coal barge <i>No. 228</i>	<i>No. 83.</i>
509,706	241,106	268,600			

(a) Gaillard Cut.

(b) Pacific entrance.

(c) Balboa inner harbor.

(d) Chagres River.

*This dredge rehandled 16,900 yards of earth and 18,100 yards of rock to relay at 1845-00 for which no credit is given in the above statement.

†Excavation necessary in salvaging the barge.

The excavated material was dumped as follows:

	Cubic yards.
Gatun Lake north of Gamboa.....	357,500
Canal north of Gold Hill.....	1,300
Canal south of Cucaracha Slide.....	7,100
Rio Grande valley.....	23,200
Arsenal fill at Corozal.....	43,000
San Juan dump.....	47,000
Gamboa gravel plant.....	23,106
Chagres River.....	7,000
In canal (excavating barge).....	500
Total.....	509,706

The following excavation remained to be done on July 1.

Location.	Earth.	Rock.	Total.
	<i>Cu. yds.</i>	<i>Cu. yds.</i>	<i>Cu. yds.</i>
Gaillard Cut.....		25,000	25,000
Pacific entrance.....	47,500	82,900	130,400
Total canal prism.....	47,500	107,900	155,400
Cristobal coaling station.....		2,100	2,100
Balboa inner harbor.....	109,850	13,400	123,250
Total, ocean to ocean.....	157,350	123,400	280,750

MUNICIPAL ENGINEERING DIVISION.

This division had the following items of construction work in progress during June, with the completion on July 1 as shown:

Northern District.

	Per cent completed.
Municipal work between 7th and 9th and "G" and "K" Streets, Colon:	
Roads.....	*95
Grading.....	35
Water lines.....	*99
Sanitary sewers.....	*99
Alleyways.....	100
Sidewalks.....	90
Municipal work, New Cristobal townsite:	
Grading.....	20
Roads.....	97
Water lines.....	71
Sidewalks.....	60
Sanitary sewers.....	*75
Storm sewers.....	100
Road to new incinerator, Mt. Hope.....	*35
Roads for west half, Colon stables.....	*98
Installation of water and sewer system, new Panama Railroad station, Gatun.....	99
Construction of sidewalks on Lighthouse and Telephone Row, Gatun.....	30

*No work done during the month.

Nothing was done during the month on the municipal work for the ten 12-family silver quarters nor the new silver townsite at Mt. Hope. Water connections were completed for the west half of the Colon stables. Three wells were drilled at Chagres village, the deepest to 650 feet. A fourth well drilled to a depth of 325 feet produced a flow of about 15 gallons per minute rising to about 24 feet below the surface of the ground.

Southern District.

	Per cent completed.
Box sewer, Panama Railroad yards.....	90
Sewer, Northern Avenue to beach.....	99.1
Demolition of Calidonia bridge.....	91
Sewer and water lines for Central and South American Telegraph Company, Balboa.....	95

No work was done on the three type-18 houses at Balboa; the new road to Diablo hill; the storm sewer at Javillo fill; or the concreting of the Panama Tramway tracks at Calidonia crossing.

The total output of all pumping stations for June was 755,867,900 gallons; and that of the 3 filtration plants, 454,889,000 gallons. The Mt. Hope plant was operated for but 29 days in June. The consumption in Panama City was 83,293,000 gallons; and that for Colon, 51,421,500 gallons. Sales of water to 148 vessels at Cristobal and 115 at Balboa totaled 13,646,747 gallons. There were 2,514 tons of garbage and 22 dead animals consumed at the Gavilan Island incinerator during June.

Work performed for the Army is separately reported.

WORKING FORCE.
(Effective June 23, 1920.)

Department or Division.	Gold.	Silver.	Total.
Operation and Maintenance:			
Office.....	39	43	82
Building Division.....	519	1,554	2,073
Electrical Division.....	243	238	530
Municipal Engineering Division.....	113	1,169	1,282
Lock Operation.....	169	592	761
Dredging Division.....	191	1,120	1,311
Mechanical Division.....	988	1,720	2,708
Marine Division.....	181	489	670
Fortifications.....	55	277	332
Total.....	2,503	7,252	9,755
Supply Department:			
Quartermaster.....	216	1,894	2,110
Subsistence.....	36	391	427
Commissary.....	313	1,605	1,918
Cattle Industry.....	28	803	831
Hotel Washington.....	10	103	113
Total.....	603	4,796	5,399
Accounting.....	250	10	260
Health Department.....	245	837	1,082
Executive Department.....	567	248	815
Total.....	1,062	1,095	2,157
Panama Railroad:			
Superintendent.....	74	578	652
Transportation.....	148	182	330
Receiving and Forwarding Agent.....	93	1,947	2,045
Coaling stations.....	120	1,173	1,293
Total.....	440	3,880	4,320
Grand total.....	4,608	17,023	21,631

OCCUPATION OF QUARTERS.

Occupants of Panama Canal and Panama Railroad quarters on June 30, 1920, were classified as follows:

	Men.	Women.	Children.	Total.
Americans.....	3,841	2,216	2,553	8,610
Europeans.....	247	97	206	550
West Indians.....	4,574	1,870	3,647	10,091
Total.....	8,662	4,183	6,406	19,251

PUBLIC HEALTH.

There were 204 cases of malaria in June, 31 of which were nonresidents, with 2 deaths. Influenza cases reported totaled 138, 82 of these being from a cattle pasture camp at Majagual. One death occurred from influenza and 6 from pneumonia, as compared with 8 from influenza and 16 from pneumonia in May. There were 18 cases of chickenpox in June, 10 for the preceding month, and 44 during April. Five cases of smallpox were discovered, 4 in the City of Panama and 1 nonresident. Two cases of scarlet fever and 1 case of leprosy were reported.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The total value of material ordered on United States requisitions during June was \$778,253.38; May receipts were \$935,219.76. Of the June receipts \$731,624.03 was chargeable to Operation and Maintenance, \$18,183.87 to Construction and Equipment, and \$28,445.48 to miscellaneous departments. The total cash sales on the Isthmus from storehouses and obsolete store amounted to \$271,826.23, of which \$265,139.10 was for stock material, including \$227,064.28 for fuel oil; \$586.19 for scrap material; and \$6,100.94 for obsolete and second-hand material.

Sales of material from storehouses to steamships for June amounted to \$231,317.76, of which \$19,022.01 was for miscellaneous stock items and \$212,295.75 for fuel oil. Total sales of commissary supplies to all purchasers for the month amounted to \$1,125,915.11, made up as follows: To steamships other than United States Government vessels and those of the Panama Railroad Steamship Line, \$80,338.78; to

The Panama Canal, \$134,321.71; to the United States Government, including the Army and Navy, \$226,441.56; to individuals and companies, mainly through charge accounts in the retail commissaries, \$30,127.25; to the Panama Railroad, including its steamships and the Hotel Washington, \$39,969.74; and to individuals purchasing coupons, \$614,716.07.

FINANCIAL RECEIPTS AND EXPENDITURES.

The cash balance in Canal appropriations on June 30, exclusive of fortifications, was \$12,665,316.67; the balance in Fortifications was \$4,517,354.98. Payments from appropriations made by the Disbursing Clerk, Washington, amounted to \$902,-554.92, and by the Paymaster on the Isthmus to \$1,585,712 19. Purchases of commissary books from the Panama Railroad Company amounted to \$373,512.32.

Collections of tolls on the Isthmus totaled \$704,210.53. Deposits of \$108,900 were made with Assistant Treasurer of the United States to be applied in payment of tolls and other charges against vessels using the Canal. The total Panama Canal collections on the Isthmus were \$2,443,893.07, and collections by the Disbursing Clerk, Washington, \$8,822.26. Receipts from Canal Zone and miscellaneous funds were \$166,958.04; disbursements from the same source were \$224,481.02. June pay-rolls on the Isthmus aggregated \$1,382,883.11, as compared with \$1,311,979.79 for May, an increase for this month of \$70,903.32.

Respectfully,

CHESTER HARDING,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending July 31, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Tolosa.....	United Fruit Co.....	July 25.....	July 25.....	34	(†)
Caribbean.....	Panama Railroad Cattle Industry.....	July 25.....	July 25.....		4
Leon XIII.....	Spanish Steamship Line.....	.....	July 25.....		219
*Santa Leonora.....	United States Army.....	.....	July 26.....		1,745
Haiti.....	French Steamship Line.....	.....	July 26.....		243
Balboa.....	Colombian Maritime Co.....	July 25.....	July 29.....	656	316
Colon.....	Panama Railroad Steamship Line.....	July 25.....	July 30.....	3,500	3,103
Calamarea.....	United Fruit Co.....	July 26.....	July 27.....	555	104
Ucayali.....	Peruvian Steamship Co.....	.....	July 27.....		697
Cartago.....	United Fruit Co.....	July 26.....	July 28.....	843	133
Acajutla.....	Pacific Steam Navigation Co.....	.....	July 28.....		1,022
Cauca.....	Pacific Steam Navigation Co.....	.....	July 29.....		926
Gen. H. F. Hodges.....	Panama Railroad Steamship Line.....	July 26.....	.....	754	
Aysen.....	Chilean Steamship Co.....	July 28.....	.....	643	
*Buford.....	United States Army.....	July 28.....	July 31.....	180	221
Caribbean.....	Panama Railroad Cattle Industry.....	July 29.....	.....	350	
Allianca.....	Panama Railroad Steamship Line.....	.....	July 29.....		2,204
Newport.....	Pacific Mail Steamship Line.....	July 29.....	.....	742	
Point Adams.....	Pacific Mail Steamship Line.....	July 30.....	.....	183	
Panama.....	Panama Railroad Steamship Line.....	July 31.....	.....	3,420	

* U. S. Army transport.

† No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending July 31, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Acajutla.....	Pacific Steam Navigation Co.....	July 24.....	July 24.....	93	(†)
Cauca.....	Pacific Steam Navigation Co.....	July 24.....	July 24.....	2	(†)
Point Judith.....	Pacific Mail Steamship Co.....	July 25.....	July 25.....	21	(†)
Dungannon.....	United States Shipping Board.....	July 25.....	July 26.....	2,272	(†)
Newport.....	Pacific Mail Steamship Co.....	July 28.....	July 29.....	1,014	33
Point Adams.....	Pacific Mail Steamship Co.....	July 29.....	July 30.....	175	10
Hayden.....	United States Shipping Board.....	July 29.....	July 29.....	(*)	12
Balboa.....	Colombian Maritime Co.....	July 29.....	July 29.....	(*)	214
Laura C. Hall.....	Pacific Metals Corporation.....	July 29.....	July 29.....	(*)	32
Lompoc.....	C. T. Bowring.....	July 31.....	July 31.....	600	(†)

* No cargo discharged.

† No cargo laded.

Distribution Among Ports of Cargo Passing through the Canal from Pacific to Atlantic, June, 1920.

From—	Critobal, C. Z.	Cartagena, Colombia.	Habana, Cuba.	Nuevitas, Cuba.	Baltimore, Md.	Boston, Mass.	Charleston, S. C.	New York, N. Y.	Norfolk, Va.	Philadelphia, Pa.	Washington, N. C.	Alexandria, Egypt.
Acajutla, Salvador.....	1,087								3,300	3,100		
Anofagasta, Chile.....	4,119						16,039	7,100			3,168	
Buenaventura, Colombia.....	8,927							3,175				
Callao, Peru.....	3,467				3,400	3,300					8,300	
Chancay, Peru.....												
Coronel, Chile.....												
Guayaquil, Ecuador.....												
Iquique, Chile.....												
Magillones, Chile.....		27						15,160				
Panama, Republic of Panama.....												
Punta Arenas, Chile.....												
Talcahuano, Chile.....					11,200							
Tocopilla, Chile.....					8,175		9,000			3,812	3,209	
Valparaiso, Chile.....	5,519							14,738		7,082		
Portland, Oreg.....	2,356				6,237							8,100
San Francisco, Cal.....			4,547									
Seattle, Wash.....			1,843									
Tacoma, Wash.....			1,925									
Vancouver, British Columbia.....								11,218		4,152		
Manila, Philippine Islands.....										8,917		
Lyttleton, New Zealand.....								5,411		7,600		
Sydney, Australia.....												
Thio, New Caledonia.....												
Wellington, New Zealand.....												
Hongkong, China.....												
Kobe, Japan.....												
Saigon, China.....			6,500									
Shanghai, China.....								24,413				
Singapore, Straits Settlements.....								5,825				
								21,600				
								6,150				
Total.....	25,475	27	11,047	3,773	29,062	3,300	25,039	114,799	3,300	39,863	14,677	8,100

From—	Bordeaux, France.	Christiana, Norway.	Glasgow, Scotland.	Gothenburg, Sweden.	Havre, France.	Malta.	Newport, England.	Liverpool, England.	London, England.	United Kingdom.	Totals
Acajutla, Salvador.....											1,087
Anofagasta, Chile.....											30,439
Buenaventura, Colombia.....										8,000	4,119

Distribution Among Ports of Cargo Passing Through the Canal from Pacific to Atlantic, June, 1920.—Continued.

From—	Bordeaux, France.	Christiana, Norway.	Glasgow, Scotland.	Gothenburg, Sweden.	Havre, France.	Malta.	Newport, England.	Liverpool, England.	London, England.	United Kingdom.	Totals.
Caieta Buena, Chile.....											10,288
Callao, Peru.....											8,627
Chaney, Fern.....											3,175
Coronel, Chile.....								4,699			4,699
Guayaquil, Ecuador.....										5,500	3,467
Iquique, Chile.....											8,000
Mejillones, Chile.....											11,600
Panama, Republic of Panama.....									6,474		27
Punta Arenas, Chile.....	6,681							7,259			21,643
Tacaborno, Chile.....										5,209	13,940
Talcahuano, Chile.....											23,520
Tocopilla, Chile.....											24,257
Valparaiso, Chile.....			7,100					7,755			28,012
Portland, Oreg.....											7,199
San Francisco, Cal.....	5,400			11,071		6,702		5,965			50,428
Seattle, Wash.....											17,218
Tacoma, Wash.....											10,842
Vancouver, British Columbia.....											11,172
Manila, Philippine Islands.....							8,133		3,039		13,011
Lyttelton, New Zealand.....											8,850
Sydney, Australia.....									3,850		8,400
Thio, New Caledonia.....					5,700						6,700
Wellington, New Zealand.....									14,033		14,033
Hongkong, China.....											13,083
Kobe, Japan.....											29,613
Singon, China.....											5,825
Shanghai, China.....											6,500
Singapore, Straits Settlements.....											21,000
Total.....	6,681	5,400	7,199	11,071	5,700	6,702	8,133	25,678	35,846	18,799	402,671

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, June, 1920.

From—	Antofagasta, Chile.	Arica, Chile.	Balboa, C. Z.	Banamaven, Col.	Caldera, Chile.	Callao, Peru.	Coronel, Chile.	Guayaquil, Ecuador.	Iquique, Chile.	Pisagua, Chile.	Salaverry, Peru.	Talcahuano, Chile.	Talca, Chile.	Tocopilla, Chile.	Tumaco, Colombia.	Valparaiso, Chile.	Champerico, Guatemala.	San Jose, Guatemala.
Antwerp, Belgium.....																		
Baltimore, Md.....																		
Cruceroal, C. Z.....			2,007			2,153		1,932								3,603		
Total.....																2,648		1,609

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, June, 1920.—Continued.

From—	Antofagasta, Chile.	Arica, Chile.	Balboa, C. Z.	Buenaventura, Col.	Caldera, Chile.	Callao, Peru.	Coronel, Chile.	Guayaquil, Ecuador.	Iquique, Chile.	Pisagua, Chile.	Salaverry, Peru.	Talcahuano, Chile.	Talca, Chile.	Tocopilla, Chile.	Tumaco, Colombia.	Valparaiso, Chile.	Champerico, Guatemala.	San Jose, Guatemala.
Cuba.....																		
Galveston, Tex.....												1,600						
Glasgow, Scotland.....																		
Hamburg, Germany.....																		
La Pallice, France.....		6,884					14,016									5,859		
Liverpool, England.....																		
London, England.....																		
Mobile, Ala.....																		
Newport News, Va.....	7,855																	
New York, N. Y.....					3,255		5,119	537	3,400		1,704	5,154	4,703			8,923		
Norfolk, Va.....			12,990						3,670									
Philadelphia, Pa.....																		
Port Arthur, Tex.....																		
Puerto Lobos, Mexico.....																		
Sabine, Tex.....																		
Savannah, Ga.....																		
Tampa, Fla.....	9,800	5,000								17,543			9,000					
Tampico, Mexico.....																		
Total.....	22,185	11,884	12,000	2,037	3,255	2,183	19,135	2,480	7,070	17,543	1,704	11,343	13,703	9,300	939	21,033	1,699	384
From—	Los Angeles, Cal.	San Francisco, Cal.	Bremerton, Wash.	Portland, Oreg.	Seattle, Wash.	Vancouver, B. C.	Pilipine Islands.	Kobe, Japan.	Osaka, Japan.	Shanghai, China.	Yokohama, Japan.	Auckland, N. Zealand.	Wellington, N. Zealand.	Brisbane, Australia.	Fremantle, Australia.	Melbourne, Australia.	Sydney, Australia.	Totals.
Antwerp, Belgium.....	4,800							6,300										4,800
Baltimore, Md.....		3,159																13,102
Boston, Mass.....																		11,478
Cristobal, C. Z.....		2,526														5,780		8,306
Cuba.....																		9,500
Galveston, Tex.....				6,400		3,100												3,650
Glasgow, Scotland.....		3,650																1,600
Hamburg, Germany.....																		6,884
La Pallice, France.....																		26,678
Liverpool, England.....																		6,884
London, England.....																		17,197
London, England.....																		12,164
Mobile, Ala.....								8,102										8,102
Newport News, Va.....					5,200		10,290	21,816								6,700		14,553
New York, N. Y.....	6,806		6,325							23,221	41,399			13,180	5,214	4,030	7,000	177,786
Norfolk, Va.....																		29,872
Philadelphia, Pa.....											6,900							6,900

(Continued on page 759, column 2.)

The Fuel Situation.

THE PANAMA CANAL, MARINE DIVISION,
BALBOA HEIGHTS, C. Z., July 27, 1920.

To all Steamship Agents—Since the issuance of my circular of July 19, the following information regarding the fuel situation has been received:

July 19—United States Shipping Board advises West India Oil Company has delivered cargo fuel oil at St. Thomas for company's own account, and Shipping Board expects one of its own tankers with oil for its own account to arrive there about 23d instant.

July 20—Panama Railroad, New York, advises expect to be able to send us 40,000 tons coal a month from now on, but not much more than that because preference will be given probably until December to northwest.

July 21—Panama Canal, Washington, states Shipping Board advises no fuel oil available for American vessels at Iquique, Callao or Tocopilla; that Shipping Board has two vessels without oil in distress at Iquique; earnestly requested that we supply Shipping Board vessels bound to west coast South America with sufficient oil to reach their destination and to return to Canal; that, otherwise, it will be impossible to continue vessels on that route.

July 22—Salina Cruz. Average of 500 barrels fuel oil received daily. Shortage of tank cars prevent larger receipts. Absolute necessities of vessels being cared for, but no prospects of being able to supply additional fifteen vessels monthly. Stock on hand 2,000 barrels.

July 23—Habana. American Consul advises two companies furnish fuel oil for bunkering. Habana Sinclair oil all contracted for will promise no bunkering. West India oil all contracted for but so far have furnished eleven gravity oil to American ships sufficient to reach American ports. No immediate prospect improvement by arrivals. Bunker coal on hand to-day about 10,000 tons, arriving by end of month 18,000 tons additional. Not possible furnish full bunkering for present. Will cable fortnightly unless advised to contrary.

July 24—Governor advised Panama Railroad, New York, requirement 46,000 tons coal next thirty days; that, in order to avoid diverting shipping from Canal and to build up reserve before winter, deliveries during next thirty days should be at least 60,000 tons.

American Consul, Valparaiso, advised oil not available for six months; coal unobtainable account strike at mines, small quantities available at Lota and Coronel upon ten days' notice.

American Consul, Lima, advised 1,700 tons coal available at Callao; within 30 days 1,000 tons additional will be received; British Admiralty has 1,500 tons for their ships; Pacific Steam Navigation has 1,000 tons on hand and 1,000 tons en route. No oil bunkers at Callao; plenty at Talara, but must be previously contracted for in New York.

July 25—St. Thomas. Practically all coal obligated. Three thousand tons ready to load to-day Newport News; arrival indefinite. Twenty-six hundred tons fuel oil available.

E. P. JESSOP,
Marine Superintendent.

The "Koyo Maru" Floated.

A radio report from the master of the salvage vessel *Favorite* advised that the steamship *Koyo Maru*, which ran aground on the north cay of Serrana Bank, about 300 miles north of Cristobal, on June 29, was pulled off the reef at 4.50 p. m., August 1. She has since been floating with a draft of 27 feet 6 inches forward and 22 feet 6 inches aft. The hole in her bottom is in the No. 1 hold, but the bulkhead between that and the No. 2 hold appears secure; the wrecking crew was reported as shoring it for additional safety, while the divers were making an examination of the ship's bottom. The cargo from the No. 1 hold which had been piled on the afterdeck was stowed in the No. 4 hold.

The *Koyo Maru* left Serrana Bank for Cristobal at 2 p. m., August 3, escorted by the *Nemesis* and the *Favorite*. They are due to arrive in the morning of August 6.

Ships at Balboa Repair Shops.

The following vessels were at the Balboa shops for repairs during the week ending Monday, August 2:

Steamship *Adria*, 45 days' work on machinery and boilers; *Silverado*, machinery repairs; *Westward Ho*, machinery repairs; *Marne*, rebuilding; U. S. S. *Eagle No. 14*, main turbine and boiler work; *La Habra* and *Caddo*, periodical short running repairs; *Guatemala* and U. S. S. *Sciota*, minor repairs, day or so only.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight July 31, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Panama Canal tonnage		
	Day	Hour	Day	Hour	Day	Hour	Day	Hour									Gross	Net	
Point Judith	23	18 07	25	6 02	25	13 07	25	17 00	American	Pacific Mail Steamship Co.	289.0	44.0	17.6	Baltimore	San Francisco	General	3,000	2,895	
Haarlem	23	11 37	26	7 22	26	13 53	26	21 25	Dutch	Royal Netherland Steamship Co.	361.5	49.5	16.6	Amsterdam	Guayaquil	General	2,350	4,759	
Paenay	22	16 12	26	1 42	26	18 29	26	23 08	Chilean	South American Steamship Line	350.0	42.1	24.0	Cristobal	Valparaiso	General	563	3,606	
Ucayali	21	21 25	27	6 25	27	13 36	27	18 15	Peruvian	Peruvian Line	374.0	46.3	17.1	Cristobal	Callao	General	890	4,466	
Eurydamas	26	17 10	27	6 25	27	13 36	27	14 28	British	Alfred Holt & Co.	410.0	49.0	25.3	Liverpool	Seattle	Sugar, general	6,000	5,718	
Steel Mariner	26	9 25	27	6 33	27	14 40	28	10 49	American	United States Steel Products Co	424.2	56.2	25.5	New York	Talcahuano	General	7,100	7,539	
Fargo	27	23 30	28	6 37	28	14 19	28	20 49	American	United States Shipping Board	251.0	43.0	24.0	Norfolk	Liquique	Fuel liquettes	3,194	2,837	
Eastern Belle	23	7 00	28	8 08	28	15 09	28	21 17	American	United States Shipping Board	305.0	43.0	19.6	Boston	San Francisco	General	1,600	3,265	
Intan	27	15 00	28	10 55	28	18 25	28	19 35	American	United States Shipping Board	400.7	54.2	25.0	New York	Sveerhol Java	General	6,600	6,529	
Acajutla	24	14 22	28	11 30	28	19 10	28	23 00	British	Pacific Steam Navigation Co.	215.7	33.5	14.6	Cristobal	Champerico	General	1,092	1,273	
Lake Fithian	28	15 05	29	6 05	29	14 51	29	16 45	American	United States Shipping Board	253.6	43.8	24.3	New Orleans	Talcahuano	General	2,933	2,915	
Balboa	25	15 05	29	6 10	29	13 40	30	7 56	American	Colombian Maritime Co.	190.0	29.1	12.8	Cristobal	Buenaventura	General	317	741	
Laura C. Hall (a)	23	14 45	29	6 21	29	14 33	30	14 55	British	Pacific Metals Corporation	81.0	25.0	9.6	Cristobal	Buenaventura	Ballast	123	09	
Garfield	23	15 00	29	6 21	29	14 02	29	14 55	American	W. R. Grace & Co.	209.0	45.0	21.6	New York	Salaverry	General	2,936	3,235	
Caura	24	17 38	29	8 07	29	15 28	29	21 40	British	Pacific Steam Navigation Co.	246.0	35.2	13.6	Cristobal	Guayaquil	General	926	1,582	
Eagle No. 14 (b)	6-20	12 33	29	7 46	29	14 51			American	United States Navy	205.0	23.0	9.6	San Juan, P.R.	Honolulu	Crude oil	(e)	6,996	
Maritopa	29	11 22	29	11 30	29	19 00	29	20 20	Norwegian	W. Wilhelmsen	425.5	57.0	26.6	Tampico	Tocopilla	Ballast	64	55	
Comco (c)	26	18 45	30	6 37	30	15 28	30	16 03	American	Colombian Maritime Co.	268.0	56.0	13.1	Cristobal	Buenaventura	Ballast	2,288	2,014	
Gen. de Sonis (d)	30	1 55	30	6 37	30	15 02	30	16 03	French	Societe Gen. de Armement	290.5	42.0	19.6	Nantes	San Francisco	Coal	3,090	2,385	
Quernstad	30	11 00	30	11 05	30	18 25	30	23 30	Norwegian	Bendix J. Grefstad	399.0	54.0	22.6	Norfolk	Iquique	General	10,000	7,103	
City of Corinth	30	13 20	31	6 22	31	14 08	31	29 50	British	Ellerman Hall Line	305.0	46.3	23.0	New York	Brisbane	General	4,092	3,643	
Gov. John Lind	30	12 20	31	6 22	31	14 08	31	21 10	American	United States Shipping Board	253.4	43.7	23.1	Norfolk News	Iquique	Coal	3,278	2,828	
Contolene	30	12 20	31	6 23	31	15 07	31	16 17	American	United States Shipping Board	385.0	51.0	22.6	Baltimore	Arica	General	5,100	(f)	
Safuku Maru	30	23 40	31	7 20	31	16 17	31	17 39	Japanese	Kobunsi Kisen Kaisha	474.0	55.0	28.0	Palo Blanco	Kobe	Crude oil	(f)	7,488	
Loupou	31	6 44	31	7 25	31	16 17	31	17 39	British	C. T. Bywater & Co.	253.4	43.7	26.8	Norfolk	Valparaiso	Coal	3,250	2,765	
Conara	31	8 45	31	10 35	31	18 40	31	21 34	American	United States Shipping Board	274.0	36.0	22.6	Norfolk	Arica	Coal	2,621	2,350	
Lentaro	31	8 11	31	16 40	31	1 32			Chilean	Borquez & Co.									1,67

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

(a) Power schooner. (b) Subtender. (c) Barge. (d) Bark. (e) 62,000 barrels. (f) 72,000 barrels.

Surev	24	18 15	25	7 10	25	14 00	25	15 40	British	Federal Steam Navigation Co.	460.4	62.8	25.0	Sydney	New York	Frozen, general	5,800	10,000
Balboa	24	18 55	25	7 48	25	15 05	29	6 10	American	Colombian Maritime Co.	190.0	29.1	12.3	Buenaventura	Cristobal	General	650.52	741
Carona	24	21 10	25	7 49	25	15 53	31	19 30	American	United States Shipping Board	257.8	49.8	23.0	Seattle	Nuevitas	Lumber, etc.	0	2,904
Evelyn	25	7 10	25	7 58	25	17 15	25	21 40	American	A. H. Bull	413.6	46.1	20.0	Guayaquil	New York	General	3,600	3,524
Haxum	24	22 00	23	9 20	23	18 37	27	15 45	American	United States Shipping Board	402.5	53.0	27.0	Tacoma	Glasgow	General	7,400	6,626
Late Flynn	25	8 30	25	11 13	25	18 15	26	22 17	American	United States Shipping Board	351.0	43.6	21.1	Seattle	Nuevitas	Lumber, etc.	2,200	2,807
Alaska Maru	25	10 45	25	12 18	25	19 35	26	7 05	Japanese	Osaka Shosen Kaisha	420.0	56.0	25.5	Singapore	New York	General	8,094	7,460
Dungannon	25	9 00	25	6 57	26	14 00	27	6 35	American	United States Shipping Board	435.0	56.0	19.0	San Francisco	Mata Redonda	Ballast	7,642	6,327

(g) 1,377,000 feet B. M.

Gatun Lake Reaches Scheduled Level.

The first spilling of water from Gatun Lake since the beginning of the 1920 dry season was begun at Gatun spillway on July 26 at 6.42 a. m. It was the first spillway gate in operation necessary since December 15, 1919. This period of 7 months and 11 days is the longest nonspilling interim of record since the opening of the Canal. Three short runs of not more than 9 minutes each were made in the 7-month period for purposes of exhibition to visitors. The elevation of Gatun Lake when the spillway was opened on July 26 was 85.52 feet, the surface having been raised from the level of 81.77, which followed on the long dry season. The level is to be maintained for the present at approximately 85.50 feet above sea level.

It is indicative of the wet season water-producing ability of the Gatun Lake watershed that 17 billion cubic feet of water storage, above current demands of about 5.6 billion cubic feet per month, have been added to Gatun Lake since June 1, 1920. The total inflow since June 1 was about 27 billion cubic feet, equivalent to a basin of water 626,000 acres in area and 1 foot deep, deductions being allowed for water lost by evaporation.

Deceased Employees.

The estates of the following deceased employees of The Panama Canal or the Panama Railroad Company are now in process of settlement, and any claims against these estates, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due them, should be presented at the office of the Administrator of Estates at once in order that the estates may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. These names will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Paul Spencer Mends, alias Fredrick Mends	35858	Grenada.....	La Boca.....	Building Division	July 21, 1920.
William Pitt, alias J. Luscanda.....	172242	St. Vincent.....	Panama.....	Building Division.....	July 18, 1920.

Official Circulars.

Operation of Moving Picture Shows.

THE PANAMA CANAL,
EXECUTIVE OFFICE.

BALBOA HEIGHTS, C. Z., July 24 1920.

CIRCULAR NO. 726:

The following rules and regulations, superseding those contained in the circular approved July 8, 1920, will govern the operation of moving picture shows in the Canal Zone, exclusive of military posts for which separate regulations are established:

MOVING PICTURE HALLS.

1. Written permission must be obtained from the Governor before any building or enclosure may be used for moving picture exhibitions.
2. There shall be two main aisles and two direct exits in each assembly hall; the main aisles to be not less than 4 feet wide. Seats shall be spaced not less than 2 feet, 10 inches, from back to back. All doors shall open outwardly, and no door shall be less than 3 feet wide. No door shall be locked or fastened, and no passageway leading from doors to exits shall be obstructed or blocked in any way to hinder passage. Exits by means of stairways shall be equal in width to 18 inches for each 100 persons, and for fractional parts of 100 a proportionate part of 18 inches shall be added. Stairways must be provided with suitable handrails, and no stairway shall be less than 2 feet, 6 inches wide. Red electric lights shall burn over each exit during the exhibition of pictures, and under them shall be a sign "EXIT" in letters not less than 5 inches in height.

3. The walls, floor, and ceiling of every picture booth must be covered with metal or asbestos, and the door to the booth shall be metal-clad and swing outwardly or be of the sliding type. There shall be a metal flue or smoke pipe 18 inches in diameter extending from the ceiling to 3 feet above the roof of the machine house, terminating in the open air. The openings in the booth through which pictures are shown shall be covered with an iron shutter which shall work in such a way that a high temperature will cause the shutter to be released and automatically close the openings. Films not in use shall be kept in metal boxes with tight-fitting covers.

4. Picture machines must be equipped and installed with the approval of the Electrical Engineer, and such approval must cover the entire machine, including all attachments, current-controlling devices, and other parts employed.

5. Whenever possible, a fireman shall be on duty near the booth. The duties of the fireman shall be first to extinguish the fire and then do all he can to maintain order and help people out of the building.

6. Smoking shall not be permitted in moving picture booths and at places where films are stored.

7. A fire extinguisher shall be placed on the outside and inside of each booth.

8. An adult male person shall be in charge of each exhibition.

9. A licensed operator must be in charge of each operating room. This operator must be in the operating room at all times when projection machines are in operation. Operators' assistants may be unlicensed, but they will not be permitted

to operate machines except in the presence of a licensed operator who shall be held responsible for their performance.

MOVING PICTURE OPERATORS.

10. No person shall operate any motion picture machine (other than of approved miniature type) within the Canal Zone, exclusive of Army posts, except in the presence and under the direction of a duly licensed operator.

11. A license to operate motion picture machines may be obtained from the Governor on recommendation of the electrical inspector. Prior to the issuance of license applicants must pass a satisfactory examination before the Inspector to determine their qualifications as operator.

12. Applicants for license must be males 18 years of age or more, must be able to read and write the English language, and applications must be endorsed by two reputable citizens of the Canal Zone or Panama, vouching for applicants' sobriety and trustworthiness.

13. The electrical inspector will examine applicants relative to knowledge of electric wiring and apparatus so far as relates to motion picture machines, and will require a practical demonstration of ability to operate machines. Applicants must arrange for picture booth and machine for this purpose.

14. License may be revoked for cause, such as intoxication, carelessness, etc., by the Governor.

15. Applicants who fail to pass an examination will not be permitted to appear again for examination for a period of 3 months.

16. The above rules and regulations shall be in effect from and after this date.

CHESTER HARDING,
Governor.

Staying Out of Panama and Colon during Elections.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 30, 1920.

To all concerned—In accordance with the usual custom, employees of The Panama Canal and Panama Railroad Company not required by duty or other necessity to be in the cities of Panama and Colon during the progress of the national elections Sunday, August 1, and of the municipal elections on Sunday, August 8, are requested to remain away therefrom.

CHESTER HARDING,
Governor.

Acting Superintendent of Mechanical Division.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., July 30, 1920.

To all concerned—Effective July 31, 1920, and during the absence of Commander Edwin G. Kintner, U. S. N., on leave, Mr. Herbert H. Evans will act as Superintendent of the Mechanical Division.

CHESTER HARDING,
Governor.

Acting Resident Engineer, Building Division.

THE PANAMA CANAL,
DEPT. OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., July 27, 1920.

To all concerned—Effective July 29, 1920, and until further orders, Mr. J. B. Fields, Superintendent, Building Division, will act as Resident Engineer in charge of the Building Division.

JAY J. MORROW,
Engineer of Maintenance.

Distribution Among Ports of Cargo Passing Through the Canal from Atlantic to Pacific, June, 1920.—Continued from page 754.

From—	Los Angeles, Cal.	San Francisco, Cal.	Bremerton, Wash.	Portland, Oreg.	Seattle, Wash.	Vancouver, B. C.	Philippine Islands.	Kobe, Japan.	Osaka, Japan.	Shanghai, China.	Yokohama, Japan.	Auckland, N. Zealand.	Wellington, N. Zealand.	Brisbane, Australia.	Fremantle, Australia.	Melbourne, Australia.	Sydney, Australia.	Totals.
Port Arthur, Tex.										8,681								8,681
Puerto Lobos, Mexico.																		10,000
Sabine, Tex.		10,000																10,000
Savannah, Ga.											3,950							3,950
Tampa, Fla.																		3,950
Tampico, Mexico.																		5,858
Total	6,806	24,175	6,325	6,400	5,200	3,100	10,290	36,218	5,858	41,912	52,249	60	6,803	13,180	5,214	21,710	19,164	424,750

Transportation on the "Cristobal."

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 2, 1920.

To all concerned—Owing to the large number of separations from the service due to reductions of force, resignations, etc., of employees to be assigned to the steamship *Cristobal* scheduled to sail on or about August 16, and the fact that there are at present in this office more applications for transportation from employees and their families than the accommodations available on this steamer, all applications received from the latter class will be honored in accordance with date of receipt by this office. On account of this congestion no assurance can be given that transportation can be furnished to employees whose applications were received by this office after July 12, and unless otherwise requested these applications will be considered for assignment to steamers scheduled to sail immediately after the sailing of the steamship *Cristobal* on or about August 16, the following being a tentative schedule:

Colon, August 27.

Gen. Geo. W. Goethals, August 28.

Any further information may be obtained by calling telephone 184, Balboa.

C. A. McILVAINE,
Executive Secretary.

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 27, 1920.

CIRCULAR No. 249:

Effective July 25, 1920, Mr. John G. Claybourn is designated an accountable official of The Panama Canal, *vice* Mr. Joel M. Pratt, and as such

will account for all nonexpendable property in use in the Dredging Division.

ELWYN GREENE,
Acting Auditor, The Panama Canal

Approved:

CHESTER HARDING, *Governor.*

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 28, 1920

CIRCULAR No. 250:

Effective July 28, 1920, Mr. J. B. Fields, Superintendent, Building Division, is designated an accountable official of The Panama Canal, *vice* Mr. T. C. Morris, and as such will account for all nonexpendable property in use in the Building Division.

ELWYN GREENE,
Acting Auditor, The Panama Canal

Approved:

CHESTER HARDING, *Governor.*

Accountable Official.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 29, 1920.

CIRCULAR No. 251:

Effective July 31, 1920, Mr. H. H. Evans is designated an accountable official of The Panama Canal, *vice* Com. E. G. Kintner, and as such will account for all nonexpendable property in use in the Mechanical Division.

ELWYN GREENE,
Acting Auditor, The Panama Canal

Approved:

CHESTER HARDING, *Governor.*

COMMISSARY NOTE.**Market Conditions Affect Cold Storage Supplies.**

Great difficulties have been experienced the past few months in maintaining an adequate supply of perishable fruits and vegetables in the line commissaries and for the steamship trade. Requisitions for certain items, such as carrots, beets, parsnips, lettuce, and turnips have been placed repeatedly for sufficient quantities but time and again cancellations have occurred. The status of the markets has not been such as to permit the filling of orders in many cases and existing conditions were aggravated by the misinterpretation of a radiogram, as a result of which all cold storage articles, meats, eggs, dairy products, and vegetables ordered to come forward on the last trip of the steamship *Cristobal*, were canceled. The mistake was detected in time to permit the shipment of only a small quantity of the supplies desired.

The first serious shortage was experienced in April, when the commissary purchasing agent reported that all green vegetables were arriving in New York in poor condition due to delay incidental to strike of railway employees, the light supply causing heavy demand and increased prices. This condition continued until almost the end of May when the transportation situation was considerably relieved.

As an instance of the manner in which stocks were being received, the New York office wrote under date of June 15 that the lettuce offered was poor; that tomatoes were too ripe and that sweet potatoes, beets, turnips, carrots, parsnips, and apples were not in shipping condition. Strawberries and huckleberries were adversely affected by wet weather and although cantaloupes were not in bad condition the price was high. Peppers also could not be shipped on account of poor keeping qualities.

The prices quoted on cherries during the season were so high that only one shipment was purchased and the slow sales experienced proved that customers did not care particularly for them at the price which had to be asked. For this reason, strawberries, on which very high quotations also were received, were not purchased.

The commissary purchasing agent further advised on July 1 that the recent heavy rains had made it impossible to obtain good lettuce, berries, and other local products.

It is believed that from this time on the situation will steadily improve, especially since the re-establishment of the Costa Rican purchasing agency which will permit the shipment of fruits and vegetables from a near-by market.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Volume XIII. Balboa Heights, C. Z., August 11, 1920. No. 52.

Handling of Rafts in Canal Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., July 29, 1920.

1. Paragraph No. 151 of the Navigation Regulations covering night service provides that:

"Rafts propelled by hand power, or by the current of the river or tide, or which shall be anchored in or near the channel or fairway, or proceeding in tow of a steam vessel, shall carry one white light on each outside corner of the raft, making four lights in all.

2. By day the International Code "T" shall be flown from the bow of the towing vessel.

CHESTER HARDING,
Governor.

Sailing with Passengers from Honolulu to New York.

Following her latest voyage through the Canal from Cuba to San Francisco, the passenger steamship *Cuba* of the Pacific Mail Steamship Company, is to be diverted to a special voyage from San Francisco to Honolulu, and from Honolulu to New York direct, by way of the Canal. She is due to sail from Honolulu about August 24. Upon completion of this voyage she will enter the service between Baltimore and San Francisco.

Steamship Touring with Japanese Commercial Museum.

Unofficial advice has been received of the projected tour of a Japanese liner to the principal ports of the world with exhibits of Japanese inventions, porcelains, lacquer ware, raw and finished silk, and other products. She is due to sail from Japan this month, and is expected to reach the Canal about the end of this year.

"Koyo Maru" Discharging Cargo to go into Dry Dock.

The steamship *Koyo Maru*, which was pulled off the reef at Serrana Bank on August 1, reached Cristobal on August 5, traveling under her own steam. She passed through the Canal on the same day and began the discharge of her cargo at Pier 18, Balboa, preparatory to going into the 1,000-foot dry dock for the reconstruction of her damaged forepeak and bottom of the No. 1 hold.

Canal Traffic in July.

The Canal traffic for July, 1920, is shown as classified in the following tabulation:

PACIFIC TO ATLANTIC.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	From—	To—
7	British	8,624	4,954	6,434	4,989	W. coast S. America . . .	Cristobal.
3	Peruvian . . .	10,651	5,574	7,520	5,846	W. coast S. America . . .	Cristobal.
2	Chilean	6,367	3,888	5,645	1,677	W. coast S. America . . .	Cristobal.
2	American . . .	1,230	744	700	1,384	W. coast S. America . . .	Cristobal.
14	.....	26,872	15,160	20,299	13,896	W. coast S. America . . .	Cristobal.

PACIFIC TO ATLANTIC—Continued.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	From—	To—
13	American...	78,160	52,309	62,105	93,081	West coast U. S.....	Europe.
5	British.....	24,390	14,398	18,215	16,527	W. coast S. America...	Europe.
2	Italian.....	13,793	8,113	9,204	7,988	W. coast S. America...	Europe.
2	German.....	12,094	7,687	10,289	10,508	W. coast S. America...	Europe.
1	Dutch.....	6,424	4,231	4,760	8,000	W. coast S. America...	Europe.
1	Peruvian.....	4,763	3,089	3,544	2,128	W. coast S. America...	Europe.
1	Chilean.....	3,367	2,356	2,286	.....	W. coast S. America...	Europe.
12	.....	64,831	39,874	48,298	45,151	W. coast S. America...	Europe.
6	American...	40,160	26,653	30,520	Ballast...	W. coast S. America...	Mexico.
3	British.....	17,948	11,257	13,001	Ballast...	W. coast S. America...	Mexico.
2	Norwegian..	13,948	8,840	10,189	Ballast...	W. coast S. America...	Mexico.
11	.....	72,056	46,750	53,710	Ballast...	W. coast S. America...	Mexico.
9	British.....	85,905	54,325	65,849	58,191	Australia and N. Z'land	Europe.
5	Japanese....	31,411	20,000	24,066	38,808	Far East.....	E. coast U. S.
2	American....	11,732	7,146	11,437	16,300	Far East.....	E. coast U. S.
2	British.....	11,667	7,381	8,844	17,108	Far East.....	E. coast U. S.
9	.....	54,810	34,527	44,347	72,216	Far East.....	E. coast U. S.
9	American...	48,358	29,826	38,241	36,438	U. S. coastwise.	
7	American...	35,154	20,891	25,684	23,026	W. coast S. America...	E. coast U. S.
2	British.....	12,070	7,465	8,966	4,735	W. coast S. America...	E. coast U. S.
9	.....	47,224	28,356	34,650	27,761	W. coast S. America...	E. coast U. S.
3	Danish.....	20,569	13,915	16,224	27,293	Far East.....	Europe.
1	American...	8,713	5,489	6,724	1,418	Far East.....	Europe.
4	.....	29,282	19,404	22,948	28,711	Far East.....	Europe.
2	American...	12,336	8,456	9,768	15,100	Far East.....	Cuba.
1	Chinese....	6,026	3,871	4,432	6,500	Far East.....	Cuba.
1	Japanese....	5,860	4,261	4,400	7,612	Far East.....	Cuba.
4	.....	24,222	16,588	18,600	29,212	Far East.....	Cuba.
3	American...	20,620	12,767	16,097	Ballast...	W. coast U. S.....	Mexico.
3	American...	18,595	13,129	15,470	22,124	W. coast U. S.....	Egypt.
2	American...	5,509	3,330	3,712	4,525	W. coast U. S.....	Cuba.
1	Cuban.....	1,050	577	702	1,209	W. coast U. S.....	Cuba.
3	.....	6,559	3,907	4,414	5,725	W. coast U. S.....	Cuba.
2	British.....	2,298	1,304	1,398	1,760	W. coast Cen. America.	Cristobal.
1	Costa Rican	265	194	207	233	W. coast Cen. America.	Cristobal.
3	.....	2,563	1,498	1,605	1,993	W. coast Cen. America.	Cristobal.
1	British.....	9,783	6,228	7,285	5,800	Australia and N. Z'land.	United States.
1	American...	6,036	4,515	4,922	8,068	Australia and N. Z'land.	United States.
2	.....	15,819	10,743	12,207	13,868	Australia and N. Z'land.	United States.
2	American...	11,759	8,176	9,745	15,376	Philippines.....	E. coast U. S.
2	British.....	10,891	6,858	8,831	15,548	British Columbia.....	Europe.
2	British.....	7,154	4,613	5,528	4,203	W. coast Cen. America.	Europe.
2	American...	4,796	2,962	3,756	2,003	W. coast U. S.....	Cristobal.
1	American...	7,129	4,267	6,321	Ballast...	British Columbia.....	Mexico.
1	American...	2,286	1,393	1,927	3,000	W. coast S. America...	Porto Rico.
118	.....	639,891	407,432	494,948	488,497		

ATLANTIC TO PACIFIC.

No. ships.	Registry.	Registered gross tonnage.	Registered net tonnage.	Panama Canal net tonnage.	Tons cargo.	From—	To—
16	American...	63,812	37,997	47,409	59,040	E. coast U. S.	W. coast S. America.
3	Chilean....	14,014	8,069	8,792	10,687	E. coast U. S.	W. coast S. America.
1	British....	5,210	3,216	4,113	2,512	E. coast U. S.	W. coast S. America.
1	Jugoslav...	3,185	2,034	2,254	4,025	E. coast U. S.	W. coast S. America.
1	Norwegian..	2,095	1,302	1,668	3,090	E. coast U. S.	W. coast S. America.
22	.....	88,316	52,618	64,236	79,354	E. coast U. S.	W. coast S. America.
9	British....	12,987	7,258	9,724	6,998	Cristobal.....	W. coast S. America.
3	Chilean....	9,080	5,505	8,234	2,241	Cristobal.....	W. coast S. America.
3	American...	1,285	799	755	690	Cristobal.....	W. coast S. America.
2	Peruvian...	7,922	3,941	5,364	2,188	Cristobal.....	W. coast S. America.
17	.....	31,274	17,503	24,077	12,117	Cristobal.....	W. coast S. America.
6	American...	35,680	24,664	29,144	46,259	E. coast U. S.	Far East.
4	British....	21,536	13,829	18,818	27,530	E. coast U. S.	Far East.
3	Japanese...	17,609	11,574	13,616	18,280	E. coast U. S.	Far East.
13	.....	74,825	50,067	61,578	92,069	E. coast U. S.	Far East.
3	British....	28,177	16,783	19,376	8,553	Europe.....	W. coast S. America.
2	Swedish...	7,576	5,711	7,936	6,820	Europe.....	W. coast S. America.
1	French....	5,818	3,712	4,166	1,043	Europe.....	W. coast S. America.
1	Italian....	4,680	2,850	3,593	391	Europe.....	W. coast S. America.
1	Spanish...	4,600	3,625	3,166	Ballast...	Europe.....	W. coast S. America.
1	Dutch....	3,689	2,291	3,660	2,330	Europe.....	W. coast S. America.
1	American...	1,386	1,224	1,224	Ballast...	Europe.....	W. coast S. America.
10	.....	55,926	36,199	43,121	19,142	Europe.....	W. coast S. America.
10	American...	41,692	26,854	32,599	20,797	U. S. coastwise.	
4	American...	25,306	15,147	19,576	37,591	Mexico.....	W. coast S. America.
2	Norwegian..	13,983	8,856	10,211	18,754	Mexico.....	W. coast S. America.
6	.....	39,289	24,003	29,787	56,345	Mexico.....	W. coast S. America.
4	British....	24,342	15,705	19,751	25,152	E. coast U. S.	Australia and N. Z'd.
1	American...	8,287	5,155	6,113	9,825	E. coast U. S.	Australia and N. Z'd.
5	.....	32,629	20,860	25,864	34,977	E. coast U. S.	Australia and N. Z'd.
4	British....	40,099	25,762	29,826	37,539	Europe.....	Australia and N. Z'd.
2	French....	4,799	3,915	4,231	Ballast...	Europe.....	W. coast U. S.
1	British....	5,197	3,367	4,189	6,000	Europe.....	W. coast U. S.
1	Norwegian..	4,894	3,054	3,886	2,000	Europe.....	W. coast U. S.
4	.....	14,890	10,336	12,306	8,000	Europe.....	W. coast U. S.
3	American...	5,377	3,395	3,937	2,064	Cristobal.....	W. coast U. S.
2	British....	2,298	1,304	1,398	1,992	Cristobal.....	W. coast Cen. Am.
1	Costa Rican	185	172	185	50	Cristobal.....	W. coast Cen. Am.
3	.....	2,483	1,476	1,583	2,042	Cristobal.....	W. coast Cen. Am.
1	Italian....	5,355	3,160	3,600	1,795	N. Colombian ports...	W. coast S. America.
1	British....	5,052	2,938	3,388	20	N. Colombian ports...	W. coast S. America.
2	.....	10,497	6,098	6,988	1,815	N. Colombian ports...	W. coast S. America.
1	American...	5,751	3,581	4,893	5,000	Cuba.....	British Columbia.
1	British....	4,277	2,760	3,414	4,800	Cuba.....	British Columbia.
2	.....	10,028	6,341	8,307	9,800	Cuba.....	British Columbia.
1	British....	7,270	4,513	5,342	10,746	Mexico.....	W. coast U. S.
1	American...	5,657	3,450	5,448	6,232	E. coast U. S.	British Columbia.
1	British....	5,265	3,223	4,032	Ballast...	E. coast U. S.	W. coast U. S.
1	American...	3,009	2,365	2,316	4,478	Mexico.....	W. coast Cen. Am.
1	American...	632	456	453	800	E. coast U. S.	W. coast Cen. Am.
1	*British...					British West Indies...	W. coast S. America.
107	.....	469,188	295,519	361,850	398,317		

*British light cruiser of 5,482 tons displacement.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight August 7, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea		Nationality	Line	Length	Beam	Salt water draft	From—	To—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour										Gross	Net
Penguin (a)	27	17 00	1	6 00	1	14 16	1	16 00	American	United States Navy	187.0	36.0	14.0	Norfolk	San Francisco	General	4,607	9,089	6,215
Eider (a)	28	16 52	1	6 00	1	14 54	1	16 34	American	United States Navy	187.6	36.0	12.0	Norfolk	San Francisco	General	7,675	6,321	4,546
Tingard (b)	27	16 52	1	6 00	1	14 54	1	16 34	American	United States Coast Guard	110.0	57.0	6.0	Norfolk	San Diego	Steel and iron	11,000	8,207	5,900
Euro	30	23 15	1	6 06	1	13 08	1	14 55	British	Pacific Steam Navigation Co.	450.0	57.0	25.1	Norfolk	Valparaiso	General	3,957	5,524	3,940
Scottish Monarch	31	15 22	1	6 08	1	14 46	1	16 55	British	Monarch Steamship Co.	420.0	54.0	24.7	Newport News	Valparaiso	General	7,009	6,056	4,561
Sumatra Maru	31	14 36	1	6 20	1	15 32	1	16 32	Japanese	Osaka Slosen Kaisha	335.0	51.0	29.6	New Orleans	Valparaiso	General	3,400	4,808	3,708
Kaikyo Maru	31	17 55	1	6 25	1	16 36	1	18 32	Japanese	Katsuda Steamship Co.	445.0	54.0	29.6	Baltimore	Yokohama	General	6,026	5,009	4,416
Harold Dollar	1	6 22	1	7 24	1	14 47	2	14 17	British	Dollar Steamship Line	376.0	52.0	20.6	Norfolk	Kobe	Steel and iron	11,000	8,207	5,900
Pearl Shell	1	7 23	1	7 45	1	17 20	1	21 18	American	Pearl Shell Steamship Co.	411.6	53.4	18.6	Norfolk	Manila	General	3,957	5,524	3,940
Aysen	25	19 44	1	8 08	1	17 29	2	19 00	Chilean	South American Steamship Line	379.6	44.3	21.4	Newport News	San Francisco	Ballast	709	4,035	3,088
Royal Arrow	1	7 32	1	8 40	1	19 02	1	22 45	American	Standard Oil Co.	460.0	63.0	23.0	Cristobal	Valparaiso	General	11,430	9,382	7,128
Hatfield Luickenboch	1	9 49	1	10 18	1	18 13	1	19 12	American	Luickenboch Steamship Line	331.5	47.0	21.0	New York	San Francisco	General	3,400	4,808	3,708
Loretta	1	9 57	1	11 10	1	20 35	4	16 33	American	United States Shipping Board	490.7	53.2	26.0	Baltimore	Hongkong	Steel and general	6,026	5,009	4,706
Craingerrek	1	9 50	1	10 27	1	19 47	7	18 32	American	United States Shipping Board	233.5	43.8	21.0	Newport News	San Francisco	Coal	2,704	2,384	1,500
Dillwyn	1	10 23	1	12 23	1	21 00	2	21 00	American	United States Shipping Board	473.0	56.0	25.0	Tampico	San Francisco	Naphtha	9,500	7,602	5,341
Bradford	1	13 31	1	13 40	1	21 30	2	21 17	American	Standard Oil Co.	428.0	56.0	25.0	Tampico	Panama	Crude oil	8,000	7,318	5,158
Ayrshire	1	15 00	1	6 10	1	24 23	2	15 24	British	Scottish Shire Line	460.0	58.0	23.3	Newport News	Auckland	General	10,000	9,384	6,958
Babinda (b)	1	17 55	2	6 25	2	15 10	2	16 20	British	Federal Steam Navigation Co.	466.0	58.0	25.5	Montreal	Sydney	General	5,500	8,975	6,457
St. Malvin (c)	27	13 00	2	9 58	2	16 20	2	19 00	British	J. E. Chillberg	268.7	48.0	22.0	Rio de Janeiro	San Francisco	Bones	2,433	3,165	2,469
Casapitcan (c)	27	8 35	2	10 45	2	17 58	4	19 14	Chilean	British Government	135.0	29.0	13.0	London	Arica	Ballast	452	115	
Corcovado (c)	27	8 35	2	10 45	2	17 58	4	19 14	Chilean	W. R. Grace & Co.	95.0	16.0	5.0	New York	Valparaiso	Ballast	98	22	
Eastern Planet	2	11 56	3	6 20	3	14 30	3	16 50	American	United States Shipping Board	384.8	51.2	27.0	New York	Yokohama	General	7,644	6,235	4,480
Orville	2	20 48	3	6 35	3	15 03	5	9 50	British	Andrew Weir & Co.	410.7	55.5	15.0	New York	Toceolla	Ballast	7,159	5,309	
City of Reno	3	8 28	3	9 10	3	16 57	4	8 00	American	United States Shipping Board	425.8	57.0	24.8	Middlesbrough	Seattle	Crossite	8,600	7,484	5,217
Ruapohu	2	21 50	3	10 37	3	17 46	3	18 50	British	New Zealand Shipping Co.	457.3	58.2	25.6	London	Auckland	General	7,297	9,000	6,770
Tureme (d)	1	9 36	4	6 20	4	15 07	5	1 08	French	Soc. Gen. de Maritime	275.4	40.4		Nantes	San Francisco	Ballast	2,282	2,012	
Santa Teresa	3	15 52	4	6 32	4	13 28	4	14 33	American	W. R. Grace & Co.	360.2	51.6	23.3	New York	Valparaiso	General	1,886	5,726	4,086
Tahitian Maiden (b)	30	18 28	4	6 40	4	15 30	4	16 45	British	Henry Limited	110.0	26.0	13.0	New York	Papeete	General	180	223	151
Talbot	3	21 42	4	6 51	4	15 56	4	16 58	Norwegian	N. S. Bjorness & Son	410.7	50.3	23.0	Norfolk	Mejillones	Coal	6,957	8,279	6,352
Palma Branch	4	8 19	4	9 00	4	17 09	4	22 56	British	F. & W. Ritson	360.0	45.0	22.6	Glasgow	Colonel	General	5,300	4,161	3,133
R-23 end 25 (c)	4	8 19	4	7 08	4	15 16	4	15 16	American	United States Navy	134.0	29.1	15.0	Coco Solo	Caracas	General	443		
St. Alban (c)	3	4 45	5	6 15	5	14 30	5	16 15	British	British Government	134.0	29.1	15.0	Southampton	Arica	Ballast	443		

(a) Mine sweeper. (b) Motor ship. (c) Tug. (d) Bark. (e) Submarines.

Glenpool.....	4	10.24	4	11.00	4	17.56	6	14.02	American.....	Standard Oil Co.	401.2	53.1	26.0	Tampico.....	Balboa.....	Crude oil.....	7,000	6,019	4,272
Cordoba.....	4	16.02	5	6.18	5	14.40	5	14.20	British.....	C. T. Bowring & Co.	420.3	54.6	36.0	Tampico.....	Talca.....	Crude oil.....	9,000	6,690	4,971
Corabael.....	4	15.43	5	6.87	5	15.45	5	18.58	American.....	United States Shipping Board	230.5	43.7	20.8	Norfolk.....	Antofagasta.....	Coal.....	2,894	2,249	1,464
Lake Fitch.....	1	1.47	5	6.32	5	14.48	5	16.20	American.....	United States Shipping Board	253.4	43.8	25.2	New Orleans.....	Arica.....	Coal.....	3,624	2,939	2,017
Koyo Maru.....	5	8.59	5	10.00	5	10.02	6	7.00	Japanese.....	Toyo Kisen Kaisha	400.0	43.0	23.0	New Orleans.....	Yokohama.....	Cotton, steel, etc.....	6,347	6,253	4,938
Lake Gravitv.....	5	12.55	5	10.58	5	19.48	6	10.29	American.....	United States Shipping Board	251.0	43.0	24.0	Newport News.....	Mojilones.....	Coal.....	3,045	2,773	1,770
Ancon.....	3	16.28	6	6.17	6	14.10	6	15.29	American.....	Panama Railroad Steamship Line	498.6	58.0	18.6	Norfolk.....	Mojilones.....	Ballast.....	10,157	7,089	
Cesmas.....	18	15.60	6	6.85	6	14.35	6	16.40	British.....	Pacific Mail of Shipping Co.	330.6	38.5	20.0	Bristol.....	Newcastle.....	General.....	3,500	3,518	2,194
Newport.....	29	13.29	6	6.37	6	13.08	6	17.15	American.....	British Mail Steamship Co.	326.0	38.2	18.6	Cristobal.....	San Francisco.....	General.....	1,681	3,173	2,163
Manuel.....	6	2.88	6	7.35	6	15.35	7	15.00	American.....	United States Shipping Board	419.0	57.2	26.5	Point Lobos.....	San Pedro.....	Crude oil.....	8,800	6,525	4,740
St. V. Harkness.....	6	7.00	6	9.20	6	17.30	7	14.45	American.....	Standard Oil Co.	402.0	57.2	23.0	Point Lobos.....	Pisagua.....	Crude oil.....	6,578	7,443	5,545
Nobel (G).....	6	7.03	6	11.00	6	18.29	6	19.57	Norwegian.....	Portuguese Steamship Co.	140.4	28.0	12.6	Cristobal.....	Arica.....	Dynamite, etc.....	492	395	306
Margarita (G).....	5	16.00	6	11.00	6	12.50			Panamanian.....	Casimiro Remallon				Cristobal.....	General.....		3	3	3

(G) Launch and cayuco.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Kennebec.....	31	18.05	1	8.07	1	17.30	1	20.35	American.....	Seaboard and Gulf Steamship Co.	243.5	43.2	24.0	Port Talca.....	San Juan, P. R.....	Nitrates.....	3,241	2,526	1,662
Ardoyne.....	31	23.30	1	8.37	1	17.12	1	21.28	British.....	United Hepburn.....	384.0	50.7	22.8	Antofagasta.....	Colon (H).....	Nitrates.....	6,600	4,655	3,503
Quilwalk.....	2	6.30	2	7.57	2	15.05	3	1.00	American.....	United States Shipping Board	407.6	53.0	25.8	Portland.....	Liverpool.....	Wheat.....	7,756	6,582	4,882
Sylvan Arrow.....	2	9.04	2	9.35	2	16.22	2	19.05	American.....	Standard Oil Co.	425.8	52.7	20.8	San Francisco.....	Beaumont.....	Ballast.....		9,931	7,095
Metron.....	2	9.00	3	9.30	3	14.00	3	16.07	American.....	United States Shipping Board	401.3	52.2	23.1	San Francisco.....	Mata Leolonda.....	Ballast.....		7,484	5,212
Kenuta.....	3	3.40	3	7.37	3	15.38	3	19.55	British.....	Pacific Steam Navigation Co.	401.3	52.2	23.1	Port Stanley.....	Liverpool.....	General.....	5,954	6,440	4,890
Lake Treba.....	3	7.05	3	8.08	3	16.30	3	22.21	American.....	United States Shipping Board	305.2	43.9	21.6	Quebec.....	New York.....	Nitrates.....	3,409	2,866	1,811
Eastern Pilot.....	2	20.10	3	8.15	3	17.35	3	11.28	American.....	United States Shipping Board	305.2	43.9	21.6	Tacoma.....	New York.....	Flour.....	3,497	3,288	2,188
Scotia Maiden (G).....	3	7.10	3	9.11	3	18.18	4	15.05	British.....	Scotia Maiden Co.	149.0	33.4	15.0	Papeete, Tahiti.....	New York.....	Coconut oil.....	(m)	533	422
Urubamba.....	3	6.00	3	9.26	3	17.45	3	6.21	Peruvian.....	Peruvian Line	381.2	43.9	21.6	Calao.....	Cristobal.....	General.....	2,820	4,803	2,951
Walter Hardcastle.....	3	6.15	3	10.43	3	18.40			American.....	Sinclair Navigation Co.	304.0	44.2	18.6	Corinto.....	Caiba.....	Crude oil.....	(n)	3,240	2,316
Diablo.....	31	18.05	3	11.30	3	19.25	3	19.25	American.....	United States Shipping Board	402.5	53.0	26.6	Tacoma.....	London.....	Crude oil.....	7,517	6,362	4,893
Heinan Maru.....	3	12.45	3	11.33	3	21.10	4	21.02	Japanese.....	Ocean Steamship Co.	345.0	49.8	22.6	Kobe.....	New Orleans.....	Sugar.....	5,200	4,470	3,185
Santa Elisa.....	3	22.05	4	8.20	4	15.25	4	17.45	American.....	W. R. Grace & Co.	310.0	51.5	23.0	Valparaiso.....	United Kingdom.....	Flour.....	3,183	5,937	4,325
West Wind.....	4	7.50	4	9.39	4	18.00	4	18.14	American.....	United States Shipping Board	410.0	54.2	22.6	Portland.....	United Kingdom.....	Flour.....	6,739	5,666	4,442
Conlee.....	4	14.00	5	6.41	5	15.26	5	17.48	American.....	White Star Line.....	253.4	43.7	23.5	Antofagasta.....	New Orleans.....	Nitrates.....	3,500	2,754	1,768
Zealandia.....	4	17.30	5	7.49	5	14.58	5	17.48	British.....	Robert Dollar Co.	477.5	63.1	28.0	Wellington.....	London.....	General.....	6,000	1,754	8,452
Bessie Dollar.....	4	15.15	5	8.07	5	16.00	5	19.00	British.....	Pacific Steam Navigation Co.	369.7	50.0	25.0	Tuamaco.....	New York.....	General.....	6,154	5,245	3,991
Ianuca.....	5	6.20	5	9.20	5	18.00	0	8.58	British.....	Pacific Steam Navigation Co.	220.0	34.0	12.8	Valparaiso.....	Cristobal.....	General.....	633.3	4,095	2,655
Peru.....	5	6.20	5	10.44	5	17.53	0	12.10	British.....	Pacific Steam Navigation Co.	350.0	43.1	15.9	Valparaiso.....	Cristobal.....	General.....	842	644	463
Guanaacate (G).....	4	15.30	5	12.15	5	20.40	6	12.10	British.....	Guanaacate Ship Corporation	174.1	36.0	15.8	Puerto Viejo.....	Baltimore.....	General.....	638	1,213	692
Salvador.....	5	11.35	6	9.36	6	13.00	6	14.40	British.....	Pacific Steam Navigation Co.	215.0	33.0	14.1	Champatico.....	Cristobal.....	General.....	638	1,213	692
Broad Arrow.....	5	17.30	6	7.56	6	14.40	6	14.40	American.....	Standard Transportation Co.	467.6	62.7	30.0	San Francisco.....	Beaumont.....	Ballast.....		9,649	6,803
Ernst.....	6	8.45	6	9.40	6	17.20	7	6.35	American.....	Panama Railroad Steamship Line	356.4	45.3	25.6	Toopilla.....	Jacksonville.....	Sack nitrates.....	4,216	4,503	2,764
Efnucham.....	6	9.10	6	10.54	6	18.35			American.....	United States Shipping Board	402.6	54.5	26.0	Tacoma.....	Alexandria.....	Flour.....	7,100	6,932	5,141
Glenpool.....	4	17.56	7	6.34	7	13.55	7	18.27	American.....	Standard Oil Co.	419.2	53.1		Balboa.....	Tampico.....	Ballast.....			
Walera.....	6	17.00	7	6.44	7	15.15	7	15.15	British.....	Shaw, Saville & Albion Co.	425.7	54.1	28.0	Wellington.....	London.....	Frozen, general.....	5,000	7,468	5,433

(g) Auxiliary schooner. (h) For orders. (i) Nitrates, sugar, iodine, and ore. (k) Manganese ore and copper. (l) Coffee, sugar, hides, etc. (m) 8,000 barrels.

MOVEMENTS OF OCEAN VESSELS—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—Continued.

Ship	Arrived at port		Entered Canal		Completed transit		Cleared for sea	Nationality	Line	Length	Beam	Salt water draft	From—	For—	Cargo	Tons	Panama Canal tonnage	
	Day	Hour	Day	Hour	Day	Hour											Day	Hour	Gross	Net
Lake Ellicott...	7	0.11	7	8.18	7	16.20	7	21.20	United States Shipping Board...	253.0	43.0	23.0	Antofagasta...	New Orleans.	Nitrates	3,700	2,920	1,973
G. A. Flagg	7	6.45	7	8.22	7	17.15	8	5.50	Boland & Cornelius S. S. Co.	332.0	42.0	20.0	Iquique.	Boston.	Nitrates	4,000	3,436	2,115
Rosana (o)	7	3.00	7	9.23	7	16.56			Alberto Falt	112.0	25.0	8.8	Puntarenas.	Cristobal	Logs	150	256	185
Laura C. Hall o	7	2.00	7	10.06	7	15.47			Pacific Metals Corporation	81.0	25.6	10.0	Buenaventura.	Cristobal	Coffee, platinum.	67	130	69

(o) Motor schooner.

PORT OF CRISTOBAL.

Date.	Vessel.	*ARRIVALS.		*DEPARTURES.			
		Line.	From—	Date.	Vessel.	Line.	For—
Aug. 2	Colomares	United Fruit Co.	Port Limon.	Aug. 1	Caribbean	Panama Railroad Cattle Industry.	Cartagena.
Aug. 2	Novian	Leyland Line	Liverpool via wayports.	Aug. 2	Colomares	United Fruit Co.	New York via Habana.
Aug. 2	Pastores	United Fruit Co.	New York via Habana.	Aug. 2	Wilhelm Jensen	Pan-Amer. Pet. and Transp. Co.	Tampico.
Aug. 2	Princeton	Standard Oil Co.	Tampico.	Aug. 3	San Pablo	United Fruit Co.	Port Limon.
Aug. 2	San Pablo	United Fruit Co.	New Orleans.	Aug. 3	Pastores	United Fruit Co.	Port Limon.
Aug. 3	Heredia	United Fruit Co.	Boston.	Aug. 3	Princeton	Standard Oil Co.	Tampico.
Aug. 4	Santa Marta	United Fruit Co.	New York via Kingston.	Aug. 4	Gen. H. F. Hodges	Panama Railroad Steamship Line.	New York via Haiti.
Aug. 4	Metapan	United Fruit Co.	New Orleans and waypts.	Aug. 4	Metapan	United Fruit Co.	New Orleans.
Aug. 4	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	Colombian ports.	Aug. 5	Heredia	United Fruit Co.	New Orleans and Kingstn.
Aug. 5	Nemesis (o)	Lindsay Swan Hunter, Ltd.	Kingston.	Aug. 5	Santa Marta	United Fruit Co.	New Orleans and Kingstn.
Aug. 5	Caribbean	Panama Railroad Cattle Industry.	Cartagena.	Aug. 5	Novian	Leyland Line	New Orleans.
				Aug. 6	Panama	Panama Railroad Steamship Line.	New York via Haiti.
				Aug. 7	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	New York.
				Aug. 7	Balsa (p)	American Balsa Co.	Port Limon.

PORT OF BALBOA.

None.	*ARRIVALS.		*DEPARTURES.			
	Date.	Vessel.	Date.	Vessel.		
			Aug. 1	Silverado	United States Shipping Board	Antofagasta.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

*Other than ships passing through the Canal.

The Fuel Situation.

THE PANAMA CANAL, MARINE DIVISION,
BALBOA HEIGHTS, C. Z., August 9, 1920.

To all steamship agents—Since the issuance of my circular of July 27, the following information regarding the fuel situation has been received:

July 28—Shipping Board advises informally sufficient oil at Honolulu and Manila for Shipping Board vessels only; cargo of fuel oil for Shipping Board expected to arrive St. Thomas 26th;* no oil available west coast South America for Shipping Board vessels.

July 30—Governor of San Juan advises bunker coal at present on hand about five thousand tons; average stock not less than four thousand tons; no oil available for bunkering ships.

Shipping Board advises tanker with fuel oil for St. Thomas not due until about August 9.*

July 31—Approximate average bunker coal available St. Michaels five thousand tons; Fayal same quantity; no fuel oil Azores.

August 2—American Consul at Port of Spain advises fuel oil supply to-day 500 tons 30 dollars a ton American currency; coal 3,200 tons 6 pounds 8 shillings a ton; necessary supply should be engaged by cable, as supplies fluctuate daily.

July 21—Letter received August 3 from Collector at San Diego, Cal., advises 200 tons of coal on hand for bunkering ships; supply usually maintained is about 400 tons.

Special attention is invited to the following cablegram dated the 7th instant from the American Consul at Barbados:

"Bunker coal available fifteen thousand tons; no fuel oil."

E. P. JESSOP,
Marine Superintendent.

*This sailing was delayed until August 6; due to reach St. Thomas about 14th inst.

From Tahiti with Whole Cargo of Coconut Oil.

The *Scotia Maiden*, an auxiliary schooner of 512 gross tons, arrived at Balboa on August 3 from Papeete, Tahiti, with a cargo consisting of 1,723 barrels of coconut oil, which she is carrying to New York.

Whole Cargo of Creosote.

The tank steamship *City of Reno* arrived at the Canal on August 3 from Middlesbrough, bound for Seattle via Portland, with a whole cargo of 8,600 tons of creosote.

Cargo of Bones.

A whole cargo of bones, 2,433 tons, was carried through the Canal by the motor ship *Babinda*, bound from Rio de Janeiro direct for San Francisco. The *Babinda* sailed from Balboa on August 2.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending August 7, 1920.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Aysen	Chilean Steamship Co.		August 1		626
Caribbean	Panama Railroad Cattle Industry.		August 1		4
Point Adams	Pacific Mail Steamship Line.		August 1		72
Calamares	United Fruit Co.	August 2	August 2	20	(*)
Pastores	United Fruit Co.	August 2	August 3	728	84
Princeton	West India Oil Co.	August 2	August 4	7,000	(*)
Heredia	United Fruit Co.	August 2	August 4	1,410	132
Gen. H. F. Hodges	Panama Railroad Steamship Line.		August 4		1,044
Noviao	Leyland Line.	August 2	August 6	1,785	715
San Pablo	United Fruit Co.	August 3	August 3	54	(*)
Urubamba	Peruvian Line.	August 3		2,809	
Ancon	Panama Railroad Steamship Line.	August 3	August 6	9,899½	(*)
Metapan	United Fruit Co.	August 4	August 4	1	(*)
Santa Marta	United Fruit Co.	August 4	August 5	15	250
Panama	Panama Railroad Steamship Line.		August 6		3,105
Gen. W. C. Gorgas	Panama Railroad Steamship Line.	August 4	August 7	203	2,989
Caribbean	Panama Railroad Cattle Industry.	August 5		310	
Jamaica	Pacific Steam Navigation Co.	August 5		787	
Peru	Pacific Steam Navigation Co.	August 5		552½	
Salvador	Pacific Steam Navigation Co.	August 6		640	
Point Lobos	Pacific Mail Steamship Line.	August 7		183	
Saint Jean	French Line.	August 7		474	
Rosana	Alberto Pait	August 7		155	
Laura C. Hall	Pacific Metals Corporation.	August 7		67	

*No cargo laded.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa for Week Ending August 7, 1920.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Glenpool.....	Standard Oil Co.....	August 4.....	August 6.....	7,000	
Jamaica.....	Pacific Steam Navigation Co.....	August 4.....	August 5.....	13	
Peru.....	Pacific Steam Navigation Co.....	August 5.....	August 5.....	32	
Salvador.....	Pacific Steam Navigation Co.....	August 5.....	August 6.....	92	
Newport.....	Pacific Mail Steamship Co.....	August 6.....	August 6.....		6
Coalinga.....	Union Oil Co.....	August 7.....		13	

Cruiser "Kasuga" Returning from Ceremonial Visit.

The Japanese cruiser *Kasuga*, which passed through the Canal on June-24, bound for Portland, Me., via New York, is due at Cristobal shortly, returning to the Pacific. The *Kasuga*, a veteran of the Japanese-Russian war, participated in the centennial exercises held by the State of Maine.

Luckenbach Line's Coastwise Service.

In its reestablished United States coastwise service through the Canal, the Luckenbach Steamship Company is employing 5 ships. These are the *Frederick Luckenbach*, which made the first sailing from New York; the *Watomwan*, which is reported to have left San Francisco on July 30, for New York, via Los Angeles and San Diego, and the *Pleiades*, *Hattie Luckenbach*, and *Florence Luckenbach*. The *Pleiades* made her first passage through the Canal on August 16, 1914, the day following the informal opening of the Canal by the transit of the Panama Railroad steamer *Ancon*, and was the first ship in regular commercial traffic to pass through the Canal from Pacific to Atlantic.

The Luckenbach Company is reported to have acquired pier facilities in Philadelphia and to be arranging to make that city a port of call in its coastwise service.

General Quarantine Instructions.

THE PANAMA CANAL, BALBOA HEIGHTS, C. Z., July 1, 1920.

CIRCULAR No. 626-6 (superseding Circulars 626, 626-1, 626-2, 626-4, and 626-5):

By virtue of the authority contained in Executive Order of March 31, 1920, the following instructions relating to quarantine are hereby prescribed:

1. The purpose of maritime quarantine is to prevent the introduction by sea of cholera, yellow fever, plague, smallpox, typhus fever, leprosy, and other diseases that may become a danger to the Canal Zone or the Republic of Panama. To accomplish this object with the least possible delay to shipping and the traveling public it is desirable that masters and agents of vessels should understand the nature of the diseases to be guarded against in order to cooperate with the quarantine officers. Therefore, these instructions are issued for the general guidance of those in control of shipping as well as for quarantine officers of The Panama Canal. The careful observance of the advisory regulations applicable to vessels in foreign ports, and at sea, should generally prevent infection of vessels and tend to relieve the stringency of quarantine measures.

MEASURES TO BE TAKEN IN FOREIGN PORTS.

2. Immediately on arrival in any port the captain should inform himself regarding sanitary conditions and prevailing diseases, and should take precautions to prevent the infection of his ship and her personnel, remembering that the necessary protective measures against infection vary with each disease, as will be specified hereafter.

CHOLERA.

3. *Cholera is an acute intestinal inflammation caused by the cholera vibrio. This organism is discharged from the bowels of those sick and occasionally from those who have been infected but show no symptoms (carriers) and passes to the mouth of another person by means of water, food, soiled fingers, flies, etc. The bacillus is easily killed by cooking food or boiling water. Cleanliness and heat prevent cholera.*

4. At ports where cholera prevails, special care should be taken to prevent the water and food supply from being infected. The drinking water, unless of absolutely known purity, should be boiled and the food thoroughly cooked and protected against contamination by flies, etc.

5. The latrines of vessels must be kept thoroughly clean.

6. Vessels should not take water ballast from a source contaminated or suspected of contamination by cholera.

7. No food products should be taken on board unless it is definitely ascertained that they have not been exposed to infection. Food products that may be eaten raw should be refused or should be immediately cooked. The baggage of passengers should be inspected to prevent food coming on board. Officers, crew, and transit passengers should, if practicable, remain on board ship. If necessary to go ashore while there, they should take no food or drink unless it has been recently cooked or sterilized.

8. Passengers coming from cholera-infected districts should not be allowed on board ship until they have been detained 5 days in suitable houses or barracks located where there is no danger of infection, or an examination of their stools for cholera carriers should be made. All food carried by such passengers should be immediately cooked or be destroyed.

9. Passengers from districts not infected with cholera, embarking at a port that is so infected, should be treated as if from cholera-infected districts, unless they passed through the infected port without danger of infection, especially as to food and drink.

10. Should cholera appear in the barracks or houses in which passengers are undergoing detention, no passengers from said houses or barracks who have presumably been exposed to this new infection should embark until after the expiration of a period of 5 days subsequent to the last exposure to the infection and the application of all necessary sanitary measures, including examination of stools.

YELLOW FEVER.

11. *Yellow fever is an acute febrile disease transmitted by one species of mosquitoes, viz., the Aedes calopus. In general it is necessary that this mosquito bite a yellow fever patient during the first 3 days of the illness, incubate the organism in its body for 12 days, and then bite a nonimmune person, who ordinarily will show symptoms within 6 days. The yellow fever mosquito breeds in fresh water in or near houses or on ships; it can fly but a short distance and bites by preference in late afternoon or evening. If once on board a vessel, these mosquitoes may remain several weeks.*

12. At ports where yellow fever mosquitoes prevail, precautions should be taken to prevent the introduction of these mosquitoes on board the vessel. Water tanks, water buckets, and other collections of fresh water about the vessel should be guarded in such a manner that they shall not become breeding places for mosquitoes. The ship's company and passengers in transit should not leave the vessel, which should lie at an anchorage where it will be impossible for the yellow fever mosquito to gain access to it from the shore, viz., 1,000 feet or more, and lighters or other craft coming alongside should be mosquito-free. If the vessel lies at an anchorage which renders it liable to the access of mosquitoes, fumigation, immediately before sailing, should be carried out to destroy them. If this fumigation is efficiently done, in the opinion of the quarantine officer, the detention of persons on account of this disease will be considered as dating from that time.

13. Passengers and crew who, in the opinion of the inspecting officer, have been definitely exposed to yellow fever should not be allowed to embark until 6 days have elapsed since such exposure.

14. Passengers from infected interior points embarking at noninfected ports may be treated as if coming from infected ports but the time such passengers have remained in such a noninfected port may be counted against their detention period.

15. Passengers from interior places free from infection embarking at an infected port should remain in such port as short a time as possible.

PLAGUE.

16. *Bubonic plague is primarily a rat disease transmitted from one rat to another by means of fleas. Human beings may contract the disease when infected rat-fleas bite them, but do not ordinarily give the disease to others. The danger to commerce is from*

rats, as they infest ships and spread the disease. A port without human cases is not necessarily free from rat plague as these cases do not appear until the rat infection has become intense.

17. Pneumonic plague, for the application of preventive measures, may be considered as a separate disease transmitted solely through personal contact in the same fashion as pneumonia or other respiratory affections. Neither the flea nor other insects are concerned in its transmission.

18. At ports where human cases of bubonic plague have occurred it must be assumed that the disease has persisted among rats unless its absence over a long period of time has been demonstrated. At such ports vessels should take every precaution to prevent rats, fleas, or other vermin from getting aboard, and should not lie at the dock unless this is of rat-proof construction and is kept free from rats by proper supervision and care. Loading should be done by lighters and these should be kept free from rats by periodic fumigation, especially if of the enclosed type. If it is necessary to dock at such a port or in fact at any port where the absence of rodent plague is not assured by the constant trapping and examination of rats, the following precautions to prevent rats getting aboard should be taken: The vessel should be breasted off at least 4 feet, rat guards should be put on all mooring lines. Gangways, save-alls, and other means of communication with shore should be hoisted when not being used. At night the gangways should be hoisted or be brilliantly illuminated and guarded by a watchman.

19. Rat guards must be 3 feet in diameter, must fit the hauser snugly and should not overhang the wharf. Where rat guards are not available, lines may be wrapped with freshly tarred canvas or jute bagging. This should be placed near the vessel and should cover the line for a distance of 3 feet.

20. Periodic fumigation of all vessels, especially those calling at infected ports, every 3 to 6 months is strongly recommended, in order to reduce the rat destruction of cargo, the spread of plague, and delays on account of quarantine. Where there are evidences of rats on board, or 3 months have elapsed since last fumigation, the captain should request a complete fumigation the first time his vessel is entirely discharged at a port of the Panama Canal or wherever a thorough fumigation can be done. (See paragraphs 78, 81, 83.)

21. The nature of cargo taken on board from plague-infected territory should be considered. If it consists of grain or other rat food, previous fumigation of the vessel should be done as otherwise the rats on board will do considerable damage and will multiply rapidly during the voyage. If the freight consists of crates or packages that may harbor rats, it should be fumigated or be refused if from a place not known to be free from rat infection. All freight from badly infected districts should be refused. (See paragraph 60.)

SMALLPOX.

22. Smallpox is an acute contagious disease transmitted by contact, that is, by the direct transfer of the infecting organism (exact nature unknown) from a sick person to one who is well. The disease has the peculiarity of presenting more severe symptoms (fever, headache, backache, vomiting) before the eruption than after it appears. Anyone may take the disease unless he is immune either because he has already had the disease or because he has been successfully vaccinated. Masters should see that all members of their crew are vaccinated.

23. Steerage passengers and crew coming from districts where smallpox prevails and all persons intending to remain in the Canal Zone or Republic of Panama must be successfully vaccinated, unless they show satisfactory evidence of having acquired immunity to smallpox. (See paragraph 75.)

TYPHUS FEVER.

24. Typhus fever is an acute infectious disease of sudden onset. The patient becomes rapidly very sick and usually has severe delirium or other nervous symptoms and a skin eruption. The disease is transmitted by the body louse (*pediculus corporis*). These insects live and deposit eggs in recently worn clothing, especially in the seams and under-clothing. They are best killed by boiling or baking the clothes.

25. Soiled linen, personal effects in use, belongings of crew and passengers who embark at places where typhus fever prevails and which may harbor vermin must be rendered free from same. Persons who are not clean and may be lousy should be bathed and their clothing boiled or baked.

LEPROSY.

26. Leprosy is a chronic contagious disease probably transmitted by contact.

27. No one who is suffering from leprosy should be allowed to embark unless especially authorized to do so and he is proceeding to his own country. In this case

such person should be given a separate mess outfit and sleep apart from other persons. Members of a leper's family accompanying him should be similarly separated from other passengers.

BILLS OF HEALTH.

28. Before departure from any port except those of the Republic of Panama, a United States bill of health, or port sanitary statement if from a United States port, should be obtained and any sanitary precautions taken should be entered upon that document.

MEASURES TO BE TAKEN AT SEA.

29. The master of a vessel should observe the following measures:

(a) All portions of the ship should be kept clean and as dry as possible. This applies especially to living quarters, washrooms, and water-closets. For this purpose soap or cleaning preparations and water are sufficient; disinfectants and deodorants are not required.

(b) Living quarters should not be crowded and free ventilation should be enforced. This should be in accordance with the provisions of the Act of Congress approved August 2, 1882, entitled "An Act to regulate the carriage of passengers at sea."

(c) Rats, bedbugs, lice, fleas, mosquitoes, flies, and all insects should be promptly destroyed.

(d) Utensils used for food should be cleaned in boiling water after each meal. Common towels and drinking cups should not be allowed.

(e) To enforce the above, a daily inspection should be made by the captain personally, accompanied by the ship's physician.

30. A separate compartment should be reserved for the sick and anyone having a chill, fever, or other symptoms of acute illness should be isolated. The compartment from which the patient has been removed should be scrubbed with soap and water and be well aired. Bedding and personal effects should be moved with the patient or should be disinfected. (See paragraphs 76, 77.) If this is not possible, they should be exposed to the weather for at least 24 hours. No article or utensil should be removed from the sick room until it has been immersed for at least 1 hour in a solution of carbolic acid, 1 part of acid to 20 of water, or a similar solution, or has been boiled. Anyone attending the sick should wash his hands thoroughly with soap and water before leaving the room. The patient's temperature should be taken at least twice a day and this and other symptoms should be noted in writing. It is suggested that each vessel carry at least 2 clinical thermometers and 10 pounds of carbolic acid.

31. In case a quarantinable disease is suspected, special measures should be taken against the infecting insect or medium as indicated previously in these instructions.

32. Vessels nearing port and having sickness on board should wireless that information to the Captain of the Port, stating as nearly as possible the nature of the illness. This precaution may add to the comfort of the patient and save time for the ship.

PROCEDURE AT CANAL PORTS.

INSPECTION.

33. Regular hours for quarantine inspection are from sunrise to sunset. Night quarantine inspections will be made as follows:

(a) Vessels from ports not subject to a yellow fever quarantine, passing break-water at Cristobal harbor before 10 p. m., will be boarded and inspected by the quarantine officer, if quarantine inspection on the night of arrival is desired.

(b) Vessels from ports not subject to a yellow fever quarantine, arriving at Balboa, on a line between San Jose Rock and No. 2 Buoy, before 10 p. m., will be boarded and inspected by the quarantine officer provided masters of said vessels desiring pratique on arrival have notified the Port Captain, Balboa, previous to 4 p. m., on day of arrival.

(c) A charge of \$40 for passenger vessels, and \$20 for others, will be made against all vessels availing themselves of quarantine inspection after sunset. When vessels, bound for Balboa, notify the Port Captain of their desire for night boarding, this charge will be made whether or not the ship arrives in time for such boarding.

(d) Final disposition of vessels inspected after sunset may be deferred at the discretion of the quarantine officer.

(e) Vessels from ports subject to a yellow fever quarantine will be inspected only by daylight.

34. On arrival, vessels will first be boarded by a pilot and as soon thereafter as possible by the quarantine officer. To expedite inspection the following should be ready: Copy of manifests, all certificates of a sanitary nature, bills of health from all

ports, full and accurate crew and passenger lists which together must show the names of every person on board. Vessels may be inspected at anchor or underway as may seem best for each case but no vessel may proceed beyond Cristobal Harbor or Balboa Basin before being granted pratique.

35. In making the inspection of a vessel the bills of health, clinical records of all cases treated during the voyage, manifests, crew and passenger lists and, when necessary, the ship's log, will be examined. The crew and passengers will be examined, one by one, and checked with the lists. The clinical thermometer and any other recognized method which the quarantine officer may deem necessary may be used. An inspection of the ship for general sanitary conditions will be made and, under certain circumstances, also of the cargo.

36. The captain shall furnish such information regarding the sanitary history of the ship, its crew and passengers, as the quarantine officer may require and when these statements are written into a declaration, it shall be signed by the captain, under oath if necessary. Bills of health, certificates of fumigation and documents of a similar nature will not be taken up by any official of The Panama Canal but the quarantine officer may make comments or endorsements upon them over his signature.

37. The vessel, her personnel, passengers, and pilot shall be considered in quarantine and subject to the orders of the quarantine officer until either conditional or free pratique is given and conditions or instructions written into such conditional pratique shall be binding upon all parties. No vessel in quarantine shall go to a dock without permission of the quarantine officer.

38. Vessels together with their passengers, crew, and cargo will, for quarantine purposes, be considered as belonging to one of the following classes:

(a) *Free from infection*—These are vessels that on account of the sanitary condition of the ports of departure or the nature of precautions taken are presumably free from infection. They will be granted free pratique.

(b) *Suspected*—These are vessels that on account of the sanitary condition of the ports of departure or on account of failure to enforce the special precautions at such ports may be suspected of carrying quarantinable infection, or whose crew or passengers may be suspected of being in the incubation period of a quarantinable disease. These vessels will be placed in quarantine or will be granted conditional pratique.

(c) *Infected*—These are vessels that are actually or presumably infected either on account of quarantinable diseases or infection on board or on account of close contact with such infection. These vessels will be placed in quarantine until the infection is removed or conditional pratique is granted.

DETENTION OF VESSELS AND PASSENGERS.

39. Quarantine officers must take all reasonable precautions to prevent the introduction of quarantinable diseases and may hold vessels in quarantine when necessary for this purpose. Passengers that may be in the incubation period of a quarantinable disease shall preferably be detained at a quarantine station when detention is necessary.

40. Conditional pratique will be given when in the opinion of the quarantine officer a vessel may transit the Canal or otherwise transact business with reasonable safety to the Canal from quarantinable disease, if certain precautions are taken. It shall be the duty of the quarantine officers to make supplementary inspections and investigations to see that instructions issued by them are carried out.

41. When detention of persons is considered necessary, it will date from the last possible infection and will vary according to the incubation period of the various diseases which, for purposes of these instructions, are as follows: Cholera, 5 days; yellow fever, 6 days; bubonic plague, 7 days; smallpox, 14 days; typhus fever, 12 days; leprosy, indefinite.

42. If any detained person has a chill, fever, or other symptoms, he should be immediately isolated in a screened apartment. As soon as possible he should be given a complete medical examination, including necessary examination of excreta and blood. Appropriate action to avoid spread of disease shall be taken at once. As soon as a positive diagnosis of quarantinable disease is made, an extension of the quarantine period for contacts shall be enforced if necessary.

43. The Chief Quarantine Officer is authorized to request the assistance of the Chief of the Medical Clinic, Ancon Hospital, and the Chief of the Board of Health Laboratory to aid in the diagnosis of persons sick in quarantine and to request the removal to Ancon, Colon, or other hospitals, of such patients; if they are suffering from a quarantinable disease they will be held until a sufficient time has elapsed to insure their freedom from infection. This is to be determined by bacteriological examination when necessary.

44. Persons arriving at quarantine suffering from any communicable disease not specified as quarantinable, or developing such diseases while held in quarantine, as well as those exposed to these patients and liable to contract such disease, shall be detained or otherwise disposed of as the Chief Health Officer may direct.

45. When the necessity for detention of passengers has been determined, no one will be discharged until the prescribed detention period has expired, except that in his discretion the quarantine officer may make the following exceptions:

(a) Passengers in good health wishing to board a vessel leaving a Canal port may be allowed to do so.

(b) Passengers needing hospital treatment may be transferred to a hospital, together with attendants or members of the patient's family, provided the hospital authorities satisfy the quarantine officer that such persons will be detained and observed as if at the quarantine station.

(c) Passengers, who will go directly to localities considered as noninfectable for the particular disease for which detention is required and who will remain in these localities until the quarantine period expires.

46. Subsistence or hospital care of crews of vessels or passengers in quarantine shall be at the vessel's expense. These services will be provided at published rate.

47. Bodies of persons who have died of infectious or quarantinable diseases may be passed through quarantine provided they are placed in hermetically sealed coffins, the outside of which have been carefully disinfected and are accompanied by death certificate, and satisfactory evidence that the above-mentioned requirements have been carried out. In the case of the bodies of such persons as may have died of infectious or quarantinable diseases on the voyage or upon arrival at quarantine, the body should be wrapped without preliminary washing in a sheet saturated with a solution of bichloride of mercury (1:500) and should be sealed as above described, buried or cremated.

48. In addition to the general requirements specified above, additional measures are necessary for vessels from infected ports. The treatment of such vessels and passengers will vary according to the nature of the disease in question, and according to conditions existing in the Canal Zone and the Republic of Panama.

SPECIAL REGULATIONS FOR VESSELS FROM CHOLERA-INFECTED PORTS.

49. These will be considered as *free from infection* if all precautions as specified in paragraphs 4 to 10 have been observed and no suspicious sickness has appeared since sailing. They will be considered as *suspected*, if all precautions have not been carried out; and as *infected* if cases of cholera have occurred on board. For purposes of diagnosis all cases of suspicious illness and especially of diarrhea should be examined bacteriologically.

50. Suspected vessels will be treated to insure the sterilization of all food, water, or other agency that may carry cholera, unless this has been previously carried out; and all persons except those who can show that they have not been exposed to infection, will be examined for the detection of cholera carriers, unless such examination has been previously done to the satisfaction of the quarantine officer. Infected vessels will, in addition, be treated to insure the disinfection of living quarters, especially those occupied by the sick. Patients will be removed to an isolation hospital, and the passengers and crew detained, segregated into as small groups as possible and after 24 hours examined for the detection of cholera carriers. If no carriers are found, passengers and crew not directly exposed may be released at once but carriers must be isolated until found negative on 3 consecutive days. Contacts will be held an additional 5 days but may be released after one or more negative examinations of stools. For quarantine purposes any vibrios found in the stools of suspects shall be considered to be the cholera organism until definitely demonstrated to be benign.

SPECIAL REGULATIONS FOR VESSELS FROM YELLOW FEVER INFECTED PORTS.

51. These will be considered as *free from infection* if all the provisions of paragraphs 12 to 15 have been complied with and if after trapping no yellow fever mosquitoes have been found on board. They will be considered *suspected* if yellow fever mosquitoes are found or if the precautions mentioned have not been carried out; and *infected* if yellow fever has occurred on board.

52. Suspected vessels will be fumigated upon arrival for the destruction of mosquitoes unless this has been done to the satisfaction of the quarantine officer and all additional precautions have been taken. Infected vessels will be fumigated after removal of the sick except that this may be omitted if it is evident that the infection was contracted on shore and trapping fails to show the presence of yellow fever mosquitoes.

53. All persons except immunes will be detained to complete 6 days from date of last possible infection, but quarantine officers are authorized to consider in this connection the immediate destination of passengers (see paragraph 45).

54. When it is necessary to detain members of the crew they will preferably be held on board the vessel which may be permitted to transit the Canal and otherwise transact business if the master or agents have satisfied the quarantine officer that all hands will be held on board until the expiration of the quarantine period. Such persons will be inspected by the quarantine officer not less than once daily.

55. Cases of yellow fever occurring on board ships will be isolated and properly screened, either on board or on shore. Quarantine officers are authorized to hold a vessel in quarantine until such a case may be removed without prejudicing the patient's chances of recovery.

REGULATIONS FOR VESSELS FROM PLAGUE-INFECTED PORTS.

56. These will be considered *free from infection* if recent and adequate fumigation for the destruction of rats has been done and all precautions in foreign ports called for in paragraphs 18 to 21 have been carried out. They will be considered as *suspected* if any of these precautions have been omitted, and as *infected* if rat plague exists on board or there are human cases of bubonic plague that may have contracted the disease on board.

57. Suspected vessels will be required to take such measures to prevent rats leaving the ship as may be indicated. Articles of freight that may harbor rats will be fumigated before being discharged. However, the quarantine officer is authorized in his discretion to fumigate such freight after discharge, or to require one or more fumigations of the vessel during the process of unloading.

58. Infected vessels will be similarly treated after removal of the sick. It is always preferable to discharge such vessels in the open bay and during such discharge to fumigate frequently for the destruction of rats and fleas.

59. Infected vessels will not be allowed to leave ports of the Panama Canal until they have been completely discharged and sufficiently fumigated throughout to assure the elimination of rat and flea infection.

60. Vessels that have accepted freight from badly infected districts may be refused permission to break cargo at ports of the Panama Canal (see paragraph 21).

61. All persons sick of plague shall be detained in quarantine until well, but no detention of healthy contacts with bubonic plague is necessary.

62. The possibility of the pneumonic form of plague occurring among passengers from infected territory must be considered and the sputum of severe acute respiratory cases should be examined for *Bacillus pestis*. Similarly cases that have died during the voyage of acute respiratory diseases should be considered as possible cases of pneumonic plague. Cases of pneumonic plague should be strictly isolated, the living quarters should be disinfected and contacts should be detained in quarantine 7 days.

63. All vessels calling at plague-infected ports and making the Panama Canal their terminal port shall be fumigated throughout when completely discharged at this port not less than every 6 months. It is strongly recommended that all vessels, regardless of previous ports of call, be fumigated not less than once every 6 months for the purpose of destroying rats. Any vessel not so fumigated for the destruction of rats within the preceding 6 months will be considered "suspected" for purposes of plague control.

64. All vessels when lying in ports of the Panama Canal or when transiting the Canal should take precautions regarding rat guards, breasting off, *et cetera*, as prescribed in paragraphs 18 and 19.

SPECIAL REGULATIONS FOR VESSELS FROM SMALLPOX-INFECTED PORTS.

65. These will be considered *free from infection* if all persons on board are protected from smallpox by having had the disease or by successful vaccination; as *suspected* if any persons are not so protected; and as *infected* if smallpox exists on board.

66. On suspected vessels nonimmune persons will be vaccinated and detained until a reaction appears. Infected vessels will be detained until the patient is removed and his quarters and personal effects have been mechanically cleaned or sterilized. All contacts not presenting certificates of vaccination based upon definite reactions, issued by the quarantine service of the Panama Canal or other acceptable authority, and dated not more than 5 years previously (see paragraph 75) shall be vaccinated and held under observation until a reaction is noted. If vaccination is refused contacts will be held in quarantine 14 days from last possible exposure to the disease.

SPECIAL REGULATIONS FOR VESSELS FROM TYPHUS-INFECTED PORTS.

67. These will be considered *free from infection* if passengers and crew are clean and not infested with body lice and the vessel is otherwise in good sanitary condition; *suspected* if passengers and crew are so infested or the vessel is in poor sanitary condition; and *infected* if cases of typhus fever exist on board.

68. Suspected vessels may be detained until put in good sanitary condition including the fumigation of such living quarters as may harbor body lice. Passengers and crew may be detained for the purpose of freeing them and their effects from lice or other vermin. The same treatment will be given infected vessels after removal and isolation of the sick, and in addition persons found infested with body lice who have been in direct contact with cases of typhus fever may be detained for 12 days after delousing.

69. Quarantine officers are authorized to take cognizance of the fact that body lice are not common in a continuously hot climate. Care should be taken, however, not to allow vessels or persons to enter and leave a Canal port that may carry the infection to places where body lice propagate more readily.

SPECIAL PRECAUTIONS ON ACCOUNT OF LEPROSY.

70. Vessels arriving at quarantine with leprosy on board shall not be granted free pratique until the leper and his baggage have been removed from the vessel to the quarantine station, but vessels repatriating lepers under proper precautions may transit the Canal or transact business under a conditional pratique.

71. No alien leper shall be landed, but must be isolated on board and proceed with the ship, the circumstances being noted on the bill of health, or he may be detained at the quarantine station or the leper asylum at the ship's expense until he can be returned to his native country. When isolated on board ship, disinfection should be observed as described in paragraph 30.

SPECIAL REGULATIONS RELATING TO U. S. NAVAL VESSELS.

72. Vessels of the United States Navy are subject to quarantine inspection upon arrival at a port of the Canal Zone or the ports of Colon and Panama in the Republic of Panama.

73. The certificates of the medical officers of the United States Navy as to the sanitary history and condition of the vessel and its personnel may be accepted for naval vessels by the quarantine officer boarding the vessel in lieu of an actual inspection.

74. Vessels of the United States Navy having entered the harbors of infected ports, but having held no communication which is liable to convey infection, may be exempted from the disinfection and detention imposed on merchant vessels from such ports.

VACCINATION.

75. In order to encourage vaccination and to facilitate the movements of those properly vaccinated the Chief Quarantine Officer is authorized to issue certificates of immunity to smallpox, good for 5 years, based upon the following principles:

(a) Immunity to smallpox can be acquired only by a previous attack of the disease or by successful vaccination.

(b) Every person who is properly vaccinated with properly prepared and preserved virus will show a local reaction which may be arbitrarily classified as (1) immune reaction, (2) vaccinoid or (3) successful vaccination.

(c) These reactions both indicate the individual's degree of immunity to smallpox at the time of vaccination and if this is deficient increases it.

(d) An immune reaction indicates that the individual is fully protected; vaccinoid that he was partially protected and successful vaccination that he was unprotected.

(e) These reactions appear approximately 2 days, 4 days, and 7 days after vaccination and may be distinguished both by the time of their appearance and the character of the reaction.

DISINFECTION.

76. Clothing, bed linen, bedding, and similar articles that have been in intimate contact with the sick or that may be infested with body lice, fleas, or other vermin should be treated as follows:

(a) *Burning*—To be used only for articles of little value or when other methods are not available.

(b) *Boiling*—Very efficient and wide range of applicability. The articles must be wholly immersed for not less than 10 minutes in water actually boiling (100° C.).

(c) *Steam*—(1) (*Flowing steam, not under pressure*), when applied under suitable conditions is an efficient disinfecting agent. The exposure must continue 30 minutes

after the temperature has reached 100° C. (2) *Steam under pressure without vacuum*—Steam under pressure will sterilize, provided that the process is continued 20 minutes after the pressure reaches 15 pounds per square inch. The air must be expelled from the apparatus at the beginning of the process. If impracticable to obtain the designated pressure, a longer exposure will accomplish the same result. (3) *Steam under pressure with vacuum*—Steam in a special apparatus with vacuum is the best method of applying steam under pressure, the object of the vacuum apparatus being to expel the air and to promote the penetration of the steam. A preliminary vacuum of at least 15 inches of mercury is obtained, after which live steam is introduced until 10 pounds pressure is obtained and held for 10 minutes.

(d) *Immersion in antiseptic solution*—Articles should be completely immersed in a solution of carbolic acid, 1 part of acid to 20 of water, for at least 1 hour. Other solutions of the same antiseptic strength may be used.

77. Steam disinfection, when available, is best for mattresses, etc. When this is not available such articles should be burned if badly infected or soiled. If clean and otherwise in good condition, it may be sufficient to expose them to the weather for 24 hours. Blankets, linen, clothing, dishes, etc., may be used with safety if boiled. Walls, floors, bunks, and compartments where communicable diseases have been quartered should be scrubbed with soap and water after removal of articles to be disinfected.

FUMIGATION.

78. Fumigation is done for the destruction of animal life, especially rats, mosquitoes, lice, fleas, and bedbugs, and for this purpose sulphur dioxide (SO₂) or hydrocyanic acid gas (HCN) should be used.

79. Sulphur dioxide is generated by burning roll sulphur or flowers of sulphur in shallow iron pots (Dutch ovens) or pans made of heavy galvanized iron. These pans should not be more than 4 inches deep and their diameter should be at least 4 times their depth. It should be ascertained in advance that the amount of sulphur used in each pot will burn out completely within 2 hours.

80. Ignition is best accomplished by means of alcohol, of which about 1 ounce per pot is necessary. To guard against fire each pot should stand in a larger pan containing a little water and they should be distributed about the vessel at a distance from any inflammable material and where they will not move if the vessel should roll.

81. Hydrocyanic acid gas is best generated by mixing sodium cyanide, 1 part with commercial sulphuric acid, 1½ parts and water 2 parts. The mixture must be made in a container capable of resisting both acids and heat, preferably of wood or earthenware. The right amount of water is first measured into the container and the acid added slowly. Heat is generated by this mixture and into this hot liquid the sodium cyanide is dropped. Containers should have a capacity of at least three times the acid solution used to prevent boiling over when the cyanide is added. The operator must leave immediately unless wearing a gas mask of the Army pattern or other dependable protection.

82. *Fumigation for mosquitoes*—Mosquitoes are easily killed if the fumigating gas reaches them, but may protect themselves by entering closets or into the folds of clothing or curtains. They may enter any part of the ship open at the time of exposure, especially the living quarters and these should be fumigated simultaneously.

Preparation—Open all drawers and closets and, if containing clothing, hang the articles loosely about the room. All external openings should be tightly closed and cracks pasted with paper when necessary. Determine size of compartments in cubic feet by actual measurement or by use of the ship's blue prints.

Sulphur—Use 1 pound of sulphur per 1,000 cubic feet. Time of exposure, 1 hour.

Hydrocyanic acid gas—Use ½ ounce of sodium cyanide per 1,000 cubic feet. Time of exposure, 1 hour.

83. *Fumigation for rats*—Rats are much more difficult to kill than mosquitoes and are able to hide and escape suffocation if collection of cargo or trash are available or if they can find small enclosed spaces such as the limbers, pipe casings, double walls, and similar places not freely open to the fumigating gas. Fumigation for rats must be done simultaneously and must include all parts of the ship that may harbor rats. While the fumigation is in progress a minute inspection must be made of all places not being treated, including the decks, lifeboats, and dunnage of any kind.

Preparation—Completely discharge the vessel, sweep all decks and holds, remove all rubbish, pile loose lumber in a slanting position, raise one limber board in each side in each hold, open each pipe casing at top and bottom and similarly find and open all inclosed spaces, especially double walls in the living quarters and storerooms. If it is necessary to leave any cargo or stores in places to be fumigated, separate the packages to allow circulation of the fumigant.

Ships at Canal Repair Shops.

The following vessels were at the Canal shops for repairs during the week ending Monday, August 9:

Balboa shops—U. S. submarines *R-23* and *R-26*, periodical overhaul in dry dock; steamship *Coalinga*, periodic repairs, about 8 days, cleaning and painting bottom; U. S. S. *Eagle No. 14*, boiler and main turbine repairs; *Adria*, work on machinery and boilers; *Marne*, rebuilding; *Orteric*, repairs to hull, damaged in locks. The steamships *La Habra*, *Westward Ho*, *Diablo*, *Crañcreek*, and *Loretta* left the shops during the week.

Cristobal shops—Steamships *General Hodges*, *Panama*, *Ancon*, *General Gorgas*, *General Ernst*, and *General Goethals*, miscellaneous repairs to engine, deck, and steward departments; tug *St. Teath*, renewed boiler stays; *Eastern Pilot*, rebore h. p. cylinder; tug *St. Mabyu*, repairs to dynamo generator; *Newport*, repair dynamo engine winches and boilers; *Urubamba*, electric weld boilers; *Walter Hardcastle*, electric weld boiler, jack up furnace; *Lake Fitch*, *Ruapehu*, *Tres Hermanos*, *Effingham*, *Peru*, and *Salvador*, minor repairs.

Prices of Miscellaneous Supplies.

The following are prices to individuals and companies, including the 25 per cent surcharge, effective August 1, 1920:

Commodities.	Unit.	Price.
Brass, bar.....	Lb.	\$0.48
Brass, sheet.....	Lb.	.75
Bronze, Tobin.....	Lb.	.43
Cement, at Panama:		
Departments of United States Government (including surcharge and bags).....	Bag	1.1925
Credit for empty bags returned.....	Bag	.085
Individuals and companies (including surcharge and bags).....	Bag	1.765
Credit for empty bags returned.....	Bag	.25
Cement, at Colon:		
Departments of United States Government (including surcharge and bags).....	Bag	1.0475
Credit for empty bags returned.....	Bag	.085
Individuals and companies (including surcharge and bags).....	Bag	1.58
Credit for empty bags returned.....	Bag	.25
Charcoal.....	Cwt.	1.25
Copper, bar.....	Lb.	.40
Gasoline, in drums (motor grade).....	Gal.	.56
Lead, sheet.....	Lb.	.17
Lead, pig.....	Lb.	.125
Lumber, ceiling, siding, and flooring, 1" by 6".....	M ft. B. M.	118.75
Lumber, flooring, 1" by 3" and 1" by 4".....	M ft. B. M.	143.75
Lumber, yellow pine or fir, except ceiling.....	M ft. B. M.	100.00
Metal, yellow.....	Lb.	.375
Nuts, iron, machine, hexagon.....	Lb.	.25
Nuts, iron, machine, square.....	Lb.	.225
Nails, common wire.....	Lb.	.075
Nails, galvanized.....	Lb.	.125
Oakum, navy, spun.....	Lb.	.20
Oakum, navy, unspun.....	Lb.	.20
Oil, fuel, at Cristobal and Balboa—in bulk:		
United States Army and Navy, and vessels operated by same—barrel of 42 gallons.....	Bbl.	3.50
Commercial vessels and individuals and companies—barrel of 42 gallons.....	Bbl.	3.50
Oil, fuel, at Cristobal and Balboa—in drums and barrels:		
United States Army and Navy, and vessels operated by same—barrel of 42 gallons.....	Bbl.	3.75
Commercial vessels and individuals and companies—barrel of 42 gallons.....	Bbl.	3.75
Oils, greases, and lubricants:		
Oil, air compressor cylinder.....	Gal.	.575
Oil, ammonia cylinder.....	Gal.	.47
Oil, burning.....	Gal.	1.56
Oil, cylinder, dark, marine.....	Gal.	.875
Oil, cylinder, dark, marine.....	Gal.	1.25
Oil, ice machine, steam.....	Gal.	1.00
Oil, engine dynamo.....	Gal.	.79
Oil, engine, in tins.....	Gal.	.69
Oil, engine, in barrels.....	Gal.	.44
Oil, gas engine, extra heavy—in drums.....	Gal.	.54
Oil, gas engine, in barrels, heavy.....	Gal.	.69
Oil, gas engine, in cases, heavy.....	Gal.	.75
Oil, gas engine, drums, medium.....	Gal.	.56
Oil, kerosene, in drums.....	Gal.	.375
Oil, kerosene, in tins (cases).....	Gal.	.44
Oil, linseed, boiled.....	Gal.	2.50
Oil, linseed, raw.....	Gal.	2.60
Oil, locomotive engine.....	Gal.	.59
Oil, lard.....	Gal.	2.07
Oil, marine engine.....	Gal.	1.06

Commodities.	Unit.	Price.
Oils, greases, and lubricants—Continued:		
Oil, marine engine.....	Gal.	\$0.625
Oil, marine engine.....	Gal.	.44
Oil, marine engine.....	Gal.	.75
Oil, marine engine.....	Gal.	1.02
Oil, mineral seal.....	Gal.	.375
Oil, nonliquid.....	Lb.	.09
Oil, stationary engine.....	Gal.	.49
Oil, sperm.....	Gal.	2.875
Oil, signal.....	Gal.	1.375
Oil, valve.....	Gal.	.975
Oil, car.....	Gal.	.34
Grease, black, gear.....	Lb.	115
Grease, yellow, cup, No. 3.....	Lb.	.14
Grease, yellow, cup, No. 5.....	Lb.	.17
Grease, rod, special.....	Lb.	.225
Grease, tunnel bearing.....	Lb.	.215
Tallow.....	Lb.	.225
Turpentine.....	Gal.	2.56
Turpentine substitute.....	Gal.	.46
Vaseline.....	Lb.	.11
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.175
Paint, zinc, white, dry.....	Lb.	.225
Paint, zinc, white, in oil.....	Lb.	.19
Paint, zinc, 35 per cent in oil.....	Lb.	.19
Rivets.....	Lb.	.10
Rope, Manila, $\frac{1}{4}$ " diameter.....	C. ft.	.69
Rope, Manila, $\frac{3}{8}$ " diameter.....	C. ft.	1.50
Rope, Manila, $\frac{1}{2}$ " diameter.....	C. ft.	2.50
Rope, Manila, $\frac{3}{4}$ " diameter.....	C. ft.	4.06
Rope, Manila, $\frac{7}{8}$ " diameter.....	C. ft.	4.88
Rope, Manila, 1" diameter.....	C. ft.	7.00
Rope, Manila, 1 $\frac{1}{8}$ " diameter.....	C. ft.	8.75
Rope, Manila, 1 $\frac{1}{4}$ " diameter.....	C. ft.	12.50
Rope, Manila, 1 $\frac{3}{8}$ " diameter.....	C. ft.	19.69
Rope, Manila, 1 $\frac{1}{2}$ " diameter.....	C. ft.	26.81
Rope, Manila, 2" diameter.....	C. ft.	31.44
Rope, Manila, 2 $\frac{1}{8}$ " diameter.....	C. ft.	46.88
Rope, Manila, 3" diameter.....	C. ft.	76.25
Rope, Manila, 3 $\frac{1}{8}$ " diameter.....	C. ft.	91.25
Rope, Manila, 4" diameter.....	C. ft.	111.44
Soap, laundry.....	Lb.	.175
Soda, ash.....	Lb.	.05
Steel, bar.....	Lb.	.06
Steel, spring.....	Lb.	.21
Steel, cold, round (rolled).....	Lb.	.20
Steel, sheet.....	Lb.	.06
Steel, structural (angles, beams, etc.).....	Lb.	.06
Tin, block.....	Lb.	.79
Tin, banca.....	Lb.	.75
Tin, sheet.....	Lb.	.225
Washers, cut.....	Lb.	.125
Waste, colored.....	Lb.	.26
Waste, white.....	Lb.	.26
Zinc, boiler plate, $\frac{3}{8}$ " by 6" by 12".....	Lb.	.17

Weather Notes for July, 1920.

The rainfall for the month was above normal everywhere except at Cape Mala, Balboa, Balboa Heights, Rio Grande, and Porto Bello, being unusually heavy over the upper Chagres River. Totals in the Canal Zone and vicinity ranged from 6.18 inches at Balboa Heights to 24.63 inches at the Chilibrillo station. Bocas del Toro recorded 33.13 inches. The greatest amount of rainfall recorded on any one day was 5.64 inches, at Vigia on the 16th.

The estimated rainfall over the Gatun Lake watershed was 15.70 inches, compared with a 10-year mean of 11.37 inches; over the Chagres River basin above Alhajuella it was 19.19 inches, compared with a 19-year mean of 14.86 inches.

The atmospheric pressure and daytime cloudiness were slightly above the normal, while the air temperature was above normal on both coasts, but slightly below normal over the interior. The relative humidity and surface temperature of the sea were approximately normal on the Pacific Coast and slightly below normal on the Atlantic. The wind movement was slightly above normal at Sosa Hill, Pedro Miguel, Gamboa, and Colon, and slightly below normal at Balboa Heights and Gatun. The evaporation was approximately normal everywhere except over the lake surface at Gatun, where it was considerably below the average.

The number of light and dense fogs observed at interior stations was less than usually occur during the month of July. All fogs lifted or were dissipated by 8.30 a. m.

Seismic tremors were recorded on the 1st, 16th, and 19th.

Gatun lake hydrology—Mean elevation of Gatun Lake was 84.16 feet; maximum 85.67 feet, on the 31st; minimum 82.79 feet on the 3d; evaporation from Gatun lake surface was 3.335 inches; rainfall at Gatun lake drainage basin, 15.70 inches; total yield of Gatun Lake watershed, 7.21 inches on the watershed. The total yield amounted to 46 per cent of the rainfall.

Climatological conditions in the three sections are summarized in the following table:

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.				Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total inches.	Station average.	Days with .01 inch or more.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Direction.	Date.
Balboa Heights.....	29.845	80.7	93	July 12	71	July 7	86.3	6.18	7.63	19	4,398	N.W.	26	N.	July 31
Colon.....	29.856	81.1	88	July 11	73	July 5	86.0	17.58	16.00	23	7,030	W.	31	N.E.	July 17
Gamboa.....	79.4	81	2	July 13	71	July 6	....	14.71	10.24	24	3,400	N.E.	26	S.W.	July 24
Gatun.....	79.8	80	0	July 12	73	July 6	....	15.26	11.91	24	4,195	N.	23	N.	July 23

* And other dates.

Passenger Rates on Panama Railroad Liners to Colombian Ports.

The following passenger rates for first-class accommodations have been established by the Panama Railroad Steamship Line for its service from Cristobal to Cartagena and Puerto Colombia and return:

From Cristobal to Cartagena, \$21; between Cartagena and Puerto Colombia, \$17; between Cristobal and Puerto Colombia, \$40. Passengers from Cartagena for Cristobal, via Puerto Colombia, pay \$17 for transportation from Cartagena to Puerto Colombia and \$40 from Puerto Colombia to Cristobal, plus \$5 a day for their maintenance on board the steamer while delayed at Puerto Colombia. In the event of a sailing from Cartagena to Cristobal direct, the \$21 rate applies.

The *Gen. Geo. W. Goethals* is due to sail from Cristobal for Cartagena and Puerto Colombia on August 12, and the *Colon* about August 22.

Automobiles Licensed in Panama and the Canal Zone.

The total number of automobiles licensed to operate in the Canal Zone at present is 1,671. Of these, 604 are owned in the Republic of Panama and 1,067 in the Canal Zone. Percentages of ownership are 64 in the Canal Zone and 36 in Panama. Of the 1,067 owned in the Canal Zone, 598 belong to the Government, including the Army and the Navy, and 469 to individuals. The latter figure includes 416 personal and 53 commercial cars. Of the automobiles owned in Panama, 132 are personal cars, 453 commercial, and 19 official.

A statement issued by the Bureau of Foreign and Domestic Commerce of the Department of Commerce, covering importations of automobiles into Central America during the 7 fiscal years ending with that of 1919 shows 1,194 imported into Panama, including the Canal Zone, and 1,193 into all other Central American countries in the same time, distributed as follows: Costa Rica, 366; Guatemala, 186; Honduras, 166; British Honduras, 25; Nicaragua, 133; and Salvador, 317.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mails for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pan Canal, Panama;" in the United States, "Pan Canal, Washington."

Additional Rooms for Patrons of the Aspinwall.

The lower floor of the annex of the Hotel Aspinwall at Taboga is being remodeled for the accommodation of more patrons. The employees have been moved to other quarters, and the floor will be partitioned into 8 rooms for families. No change will be made for the present on the second floor, which has been used by guests for a number of years. A covered boardwalk is to be constructed to connect the annex and the main building.

The Aspinwall is filled to about 75 per cent of its capacity throughout the week, and the week-end patronage has been taking all available rooms.

Civil Service Examinations.

The following examinations are announced by the United States Civil Service Commission. Bulletins giving details of the examinations for positions for which there are likely to be a number of qualified persons on the Isthmus are posted at Canal post offices and clubhouses. In cases where such announcements are not posted, persons interested may obtain data on application to the Board of Civil Service Examiners, Balboa Heights (telephone 286):

Electric draftsman, Office of Chief of Engineers, War Department (male and female); Grade 1, \$1,200 to \$1,500 a year; grade 2, \$1,500 to \$1,800 a year; grade 3, \$1,800 to \$2,400 a year; No. 183-amended; October 1, 1920; form 1312; age, 18 years and over.*

Assistant biologist (qualified in bird migration); (male and female); \$1,800 a year; No. 447; August 31, 1920; form 2118; age, 21 years but not 40 years.*

Assistant director of statistics (male and female); \$5,000 to \$6,000 a year; No. 443; August 31, 1920; form 1312; age, 25 years but not 50 years.*

Assistant in the Office of Information (male and female); \$1,800 to \$2,760 a year; No. 441; August 31, 1920; form 2118; age, under 45 years.*

Assistant in poultry and egg handling (male and female); \$1,620 to \$2,400 a year; No. 135; August 24, 1920; form 2118; age, under 45 years.*

Associate in clinical psychiatry and psychotherapy (male and female); \$2,500 a year; No. 438; August 24, 1920; form 2118; age, 25 years but not 35 years.*

Automobile mechanic's helper (male and female); 41 cents an hour; No. 413-amended; August 3, 1920; form 1800; age, 18 years and over.*

Examiner of claims, Ordnance Department at Large, No. 374-supplemental, scheduled to be held July 20, 1920, has been canceled and will not be held.

Senior structural engineer, grade 1, \$3,000 to \$4,000 a year; Interstate Commerce Commission; No. 504-amended, supplemental; has been canceled.

Engineer (male and female); \$2,400 a year; No. 2129-amended; December 1, 1920; form 1312, age, 25 years.*

Assistant engineer (male and female); \$1,800 to \$2,340 a year; December 1, 1920; form 1312; age, 25 years.*

Junior engineer (male and female); \$1,440 to \$1,740 a year; No. 2129-amended; December 1, 1920; form 1312; age, 20 years but not 35 years.*

Assistant teacher (male and female); \$1,400 to \$1,800 a year; No. 436; October 1, 1920; form 1312; age, within reasonable age limits.*

Girls' athletic director (Indian Service); (male and female); \$900 to \$1,000 a year; No. 437; August 24, 1920; form 1312; age, 21 years but not 45 years.*

Pharmacologist (male and female); \$3,000 a year; No. 446; August 31, 1920; form 2118; age, 25 years but not 45 years.*

Superintendent of field seed distribution (male and female); \$2,160 a year; No. 434; August 24, 1920; form 2118; age, under 45 years.*

Teacher (Ordnance Department at Large); (male and female); \$60 to \$140 a month; No. 429; August 25, 1920; form 1312; age, within reasonable age limits.

Training officer (male and female); \$2,400 to \$3,000 a year; No. 433-amended; form 2118; age, 24 years but not 50 years.†

Training assistant (male and female); \$1,500 to \$2,400 a year; No. 433-amended; form 2118; age, 24 years but not 50 years.†

Placement officer (male and female); \$2,400 to \$3,000 a year; No. 433-amended; form 2118; age, 24 years but not 50 years.†

Placement assistant (male and female); \$1,500 to \$2,400 a year; No. 433-amended; form 2118; age, 24 years but not 50 years.†

District medical officer (male and female); \$1,800 to \$3,000 a year; No. 433-amended; form 2118; age, 25 years but not 65 years.†

Assistant medical officer (male and female); \$1,800 to \$2,750 a year; No. 433-amended; form 2118; age, 25 years but not 65 years.†

X-ray technician (male and female); \$840 to \$1,200 a year; No. 431; form 1800; August 31, 1920; age, 20 years but not 40 years.*

Director of traffic (male and female); \$2,200 to \$2,600 a year; No. 453; form 1312; September 7, 1920; age, 25 years and over.*

Railway mail clerk; No. 307-supplemental; to be held August 11, 1920; entrance salary has been increased from \$1,300 to \$1,600 a year.

Wharf examiner (food and drugs) (male and female); \$1,600 a year; No. 461; form 1312; September 22, 1920; age, 20 years but not 45 years.

Instrumentman (male and female); \$5.20 to \$8.40 a day; No. 465; form 1312; September 7, 1920; age, 22 years and over.*

Plumber's assistant (male and female); \$780 a year; No. 468; form 1800; September 14, 1920; age, 18 years and over.*

Radio operator (male and female); \$960 to \$1,200 a year with \$1 per diem for subsistence; No. 457; form 1312; September 7, 1920; age, 21 years but not 40 years.*

Linotype machinist (male and female); 80 cents an hour; No. 451; forms 304 and 1745; September 8, 1920; age, 20 years and over.

Building estimator (male and female); \$1,800 to \$2,000 a year; No. 454; form 1312; September 7, 1920; age, 25 years but not 50 years.*

*Nonassembled. Date given for nonassembled examinations is the last day for filing applications and they must be in the hands of the Commission at Washington prior to the hour of closing business on that day.

†Nonassembled. Applications will be received at any time until further notice.

Deceased Employee.

The estate of the following deceased employee of The Panama Canal is now in process of settlement, and any claims against this estate, or any information which might lead to the location of heirs, or to the recovery of property, bank deposits, postal savings or postal money order deposits, or any other moneys due him, should be presented at the office of the Administrator of Estates at once in order that the estate may be settled as soon as possible. All claims should be itemized, sworn to before a notary public, or other public officer having a seal, and submitted in duplicate. This name will be published but once:

Name.	Check No.	Native of—	Isthmian residence.	Employed by—	Date of death.
Ralph D. Ramp.....	4715	United States...	Mount Hope....	Supply Department....	July 29, 1920.

Official Circulars.

Steamboat Inspection Service.—Boiler Washouts on Floating Equipment of The Panama Canal and Panama Railroad Company.

THE PANAMA CANAL,
EXECUTIVE OFFICE,

BALBOA HEIGHTS, C. Z., July 31, 1920.

CIRCULAR No. 644-6:

1. All boilers of Scotch Marine type in condensing plants of The Panama Canal and Panama Railroad Company, inspected by the Board of Local Inspectors in accordance with Circular No. 644, shall be thoroughly washed out not less frequently than once in every 30 days.

2. All water tube marine boilers in condensing plants of The Panama Canal and Panama Railroad Company, inspected by the Board of Local Inspectors, shall be thoroughly washed out not less frequently than once in every 14 days.

3. In special instances, the Board of Local Inspectors may, at its discretion, and upon request of the head of department or division, extend these periods of time.

4. Reports of boiler washouts shall be made on form 1588-1, Boiler Inspection Service, Washout Card for Marine Equipment, the original to be forwarded to the Board of Local Inspectors and copy to the head of division concerned, upon the completion of washout and again raising steam in the boiler.

CHESTER HARDING, *Governor.*

Absence from Quarters of Employees Staying at Hotel Aspinwall.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,

BALBOA HEIGHTS, C. Z., July 29, 1920.

To all district quartermasters—Families of employees who are staying at the Hotel Aspinwall, Taboga, while the employee is on active duty, will not have absent time from regular quarters charged against the 120-day allowance for the service year. This will also apply to commuters, but if employee is on regularly authorized leave of absence in excess of 10 days and lives at Taboga, the time absent will be charged against his annual allowance.

R. K. MORRIS,
Chief Quartermaster.

Approved:

CHESTER HARDING, *Governor.*

Acting Local Agent, Panama.

PANAMA RAILROAD COMPANY,
OFFICE OF THE SUPERINTENDENT,
BALBOA HEIGHTS, C. Z., August 7, 1920.

To all concerned—Effective August 6, and during the absence on leave of Mr. A. B. Goodenow, Mr. E. Arosemena is appointed Acting Local Agent, Panama.

R. BEVERLEY,
Assistant to Superintendent.

Approved:

S. W. HEALD,
Superintendent.

Acting Chief Clerk, Mechanical Division.

THE PANAMA CANAL,
MECHANICAL DIVISION,
BALBOA, C. Z., July 19, 1920.

OFFICE BULLETIN No. 2:

Since July 12, Mr. F. L. Maney has been performing the duties of Chief Clerk and he will continue as Acting Chief Clerk during the 4 months' absence on leave of Mr. R. H. Adams.

G. S. TOWER,
Mechanical Engineer.

Approved:

E. G. KINTNER,
Superintendent.

Sale of Equipment on Hand at the Old Power and Refrigerating Plant, Commissary Division, Cristobal.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., up to 10.30 a. m., August 25, 1920, and then opened for the purchase of various ice manufacturing machinery, electric generators, pumps, etc., on hand at the old power and refrigerating plant, Commissary Division, Cristobal. Form of proposal may be had upon application to the office of the Chief Quartermaster, Balboa Heights, or the General Manager, Commissary Division, Cristobal. The Panama Canal reserves the right to reject any or all bids.

Cable Notice.

Western Union advises that the rate to Tahiti Island via British Pacific is now 10 cents per word more than via British Pacific as quoted in the tariff book.

Misdirected Letters.

BALBOA HEIGHTS, C. Z., August 10, 1920.

The following insufficiently addressed mail matter has been received in the office of the Director of Posts and may be obtained upon request of the addressees. Requests for forwarding may be made by telephone, calling No. 182, Balboa:

- | | |
|-----------------------------|------------------------------|
| Alexander, Mrs. Addie | Johnson, D., Box 46 |
| Barnes, Fred M., Box 1078 | Kemthorne, Florence |
| Burrowes, S., Box 928 | Kirchheiner, Mrs. H. E. |
| Carlson, C. C. | Lindo, Otto J., Box 57 |
| Carter, Omar L. | Mooney, Harley H. |
| Clarke, Laurence | Ogden, Albert |
| Corradi, O. | Patterson, J. A., Box 281 |
| Cristol, J. K., Box 1056 | Peabody, Daisy H. |
| Cruz, Max de la | Penn, Hursher |
| Cunliffe, Charles | Post, J., Box 1506 |
| Dickinson, Mrs. E., Box 234 | Prescott, Richard D., Box 32 |
| Douglas, Miss Beatrice | Rogres, Mrs. Lina |
| Drummond, H. H. | Rowe, J. W., Box 181 |
| Poster, Mrs. C., Box 339 | Rush, Loretta, Box 93 |
| Frey, R. L. | Rutner, Stanley A. |
| Galliani, Miss Irma | Sheldon, Miss A. F. |
| Gonzalez, Graciela | Simpson, Robert, Box 332 |
| Gray, Capt. Franklin | Small, Athelston |
| Handloff, S. H., Box 841 | Tobin, Miss Jane, Box 363 |
| Henan, James | Weekes, Chas. Evans. |
| Howard, Ray | Woodard, L. P., Box 325 |
| Jerome, P. F. | |

1920, and then opened, for the purchase of 547 empty wooden barrels on hand at Balboa storehouse. Form of proposal may be had upon application to the office of the Chief Quartermaster or the General Storekeeper, Balboa. The Panama Canal reserves the right to reject any or all bids.

July Rainfall for Three Years.

Stations.	INCHES.			Station average.	Years of record.	Rainy days, 1920.
	1918	1919	1920			
<i>Pacific section—</i>						
Balboa	4.32	4.94	6.31	7.86	24	21
Balboa Heights	5.13	4.75	6.18	7.63	24	19
Miraflores	5.21	8.03	11.64	8.43	12	23
Pedro Miguel	5.54	7.30	11.15	8.93	13	24
Rio Grande	7.18	7.42	9.72	9.81	16	24
<i>Central section—</i>						
Culebra	8.49	7.52	10.79	9.42	29	27
Camacho	7.79	8.89	11.13	9.76	14	22
Empire	9.24	7.72	11.18	9.04	16	25
Gamboa	6.51	6.70	14.71	10.24	40	24
Juan Mina	5.25	11.14	20.85	10.78	10	24
Alhajuela	8.79	13.46	20.83	12.87	22	24
Vigia	11.86	13.92	20.39	13.02	12	27
Frijoles	6.37	10.50	19.77	11.01	9	
Trinidad	4.75	5.67	10.08	9.03	13	22
Monte Lirio	7.83	9.37	13.61	11.77	13	26
<i>Atlantic section—</i>						
Gatun	8.15	7.86	15.26	11.91	16	24
Brazos Brook	10.82	9.28	18.46	15.25	15	24
Colon	10.36	13.60	17.58	16.00	50	23
Porto Bello		24.23	16.02	18.53	9	31
Boacas del Toro	28.51	13.91	33.13	15.66	12	28

Rainfall from July 1 to July 31, Inclusive.

STATIONS.	Maximum in 1 day.	Date.	Total.
<i>Pacific section—</i>			
Balboa	1.28	7	6.31
Balboa Heights	1.38	7	6.18
Miraflores	1.82	10	11.64
Pedro Miguel	1.50	25	11.15
Rio Grande	1.54	20	9.72
<i>Central section—</i>			
*Culebra	1.63	20	10.79
*Camacho	1.75	25	11.13
Empire	1.50	25	11.18
Gamboa	2.40	25	14.71
*Juan Mina	4.16	16	20.85
Alhajuela	4.81	16	20.83
*Vigia	5.64	16	20.39
Darien	2.50	16	16.51
*Trinidad	1.68	17	10.08
*Monte Lirio	2.81	17	13.61
<i>Atlantic section—</i>			
Gatun	2.83	19	15.26
*Brazos Brook	2.83	19	18.46
Colon	3.25	19	17.58
†Bocas del Toro	4.32	16	33.13
Porto Bello	2.78	4	16.02

*Standard rain gauge—readings at 5 p. m. daily.
 Automatic rain gauge at unstarred stations—values, midnight to midnight.
 †Standard rain gauge—readings at 8 a. m. daily.

Sale of Empty Wooden Barrels.

Sealed bids will be received in the office of the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., until 10.30 a. m., August 20,

Additions to Commissary Stock.

Dry Goods Section.

Blankets, single, cotton, 60" x 67" ea.....	\$2.90
Cloth, plain union, tea, 25", yd.....	.54
Cream, shaving, Barbasol, tube.....	.27
Dress goods: Cloth, casement, yd.....	.36
Hose, children's, mercerized, pr.....	.38
Pajamas, men's, madras, with braid and loops, suit.....	4.05
Shirts, negligee, attached collar, single cuff, white mercerized cheviot, ea.....	3.65
Shirts, negligee, with French cuffs, ea.....	3.05
Stationery: Paper, mourning, 24 envelopes and sheets, box.....	.90
Stiletton, bone, for embroidery work, ea.....	.03
<i>Suiting:</i>	
Serge, indigo, all wool, 54", yd.....	5.65
Serge, striped, yd.....	4.85
Serge, cream, yd.....	4.85
Cotton, dyed, tussore, 27", yd.....	.50
Ties, 4-in-hand, fancy silk, open end, ea.....	.85
Ties, 4-in-hand, fancy silk, open end, ea.....	.51
Toweling, bleached linen, huck, 24", yd.....	.81
Toweling, bleached linen, huck, 24", yd.....	1.30

Hardware Section.

Pans, roasting, self-baster, oblong, ea.....	1.70
Pans, refrigerator, galvanized iron, 16", ea.....	.79
Razors, Auto Strop, No. 54, set.....	4.05
Spoons, paper (Sanispoons), doz.....	.07

COMMISSARY NOTE.

Peaches.

Recent advice from the commissary purchasing agent is to the effect that the peach growers of Georgia are about to end one of the most disastrous seasons ever experienced in the history of the industry. Heavy rains during the early season are blamed for poor conditions of fruit and shipments to date are below expectations.

COMMISSARY NOTES.

Preserved Pineapples.

The manufacture of preserved pineapple has recently been undertaken by the Commissary Division. This article is being sold in all line commissaries at 25 cents per glass, with 2 cents refund for return of container.

Canned Berries.

After a thorough canvass of both the eastern markets and those on the Pacific Coast, the commissary purchasing agent has advised that no canned strawberries or raspberries are at present available. When the new pack is ready for distribution some time in the fall, it is possible that commissaries' requisitions can be filled.

Puffed Cereals.

Puffed rice and puffed wheat as well as corn puffs are items which can not at present be supplied on commissary requisitions. The contractors state as the reasons for this that traffic conditions and the shortage of empty cars are entirely responsible for their failure to make regular deliveries. They believe it will be at least 3 or 4 weeks before shipments can be resumed. The conditions cited, it should be realized, apply not only to the items mentioned but to many other articles on requisition in the States.

Framed Pictures.

The commissaries offered for sale on August 5 a new line of framed pictures. These include miniature reproductions of portraits, landscapes, pastorals, animal studies, marine views, etc. The special process used in manufacturing the frames makes it possible to sell them at very low cost. There are pictures suitable for the decoration of every room in one's quarters. Those with Mother Goose Jingles are intended, of course, for the nursery and there are others just as indelibly stamped as typical of the bachelor's den. Besides the pictures, there are frames which will be sold separately. These range in price from 8 cents to \$1.10.

Books.

Books received:

"Dark Water," by W. E. Dubois; "Potash and Perlmutter," by Montague Glass; "More E. K. Means," by the author of "E. K. Means"; "Shadow Mountain," by Dane Coolidge; "The Inside Story of the Peace Conference," by E. J. Dillon; "Wild Animals I Have Known," by Ernest Thompson Seton; "Glamour," by W. B. Maxwell; "Ye Towne Gossip," by Kenneth C. Beaton; "A Book of American Humor in Prose," by American writers; "An Eye for an Eye," by Clarence S. Darrow; "Étiquette for Americans," by Anonymous; "Sonnets and Other Poems," by Geo. Santayana; "Mary Marie," by Eleanor H. Porter; "Fiddler's Luck," by R. H. Schauffler; "No. 26 Jayne St.," by Mary Austin.

Readers interested in the works of Blasco Ibañez will be glad to know that the commissaries now have "Sonnicca" and "The Dead Command," by this author.

Another shipment of children's books was recently received and is now on sale in the commissaries.

Forequarter Cuts.

In preparing the less expensive cuts of meat the following easily remembered rule for drawing out the juice for soup and in order to make the meat more palatable, should be observed: Cut the meat into small pieces in order to expose as much surface as possible; let it stand in slightly salted water for a while until the liquid becomes pink, which means that most of the juice has been drawn out of the muscle tubes near the surface; heat slowly to the simmering point so that the connective tissue will gradually swell and squeeze out more juice from the fibers in the interior; then simmer until the connective tissue softens and dissolves allowing the muscle fibers to fall apart. The tissue turns to the gelatine that makes the soup stock jelly as it cools. The soup meat that is left has real food value and should not be thrown away. Add seasonings and a little fat, and you will find it can be made palatable in a number of ways.

UNIVERSITY OF FLORIDA



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