REPORT

OF THE

DEPARTMENT OF HEALTH

OF THE

ISTHMIAN CANAL COMMISSION

FOR THE

MONTH OF FEBRUARY, 1907

W. C. GORGAS
Colonel, Medical Corps, U. S. Army
Chief Sanitary Officer

Gift of the Panama Canal Museum

WASHINGTON
GOVERNMENT PRINTING OFFICE
1907

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OFFICE OF CHIEF SANITARY OFFICER,
Ancon, Canal Zone, March 11, 1907.

DEAR SIR: I herewith forward report of the sanitary department for the month of February.

The health of the Zone continues excellent, both of the laboring force and civil population. The three causes of highest mortality among the working force were pneumonia, 26 deaths; malarial fever, 15 deaths, and accidental traumatisms, 12 deaths. In our force of 5,554 white Americans we had only two deaths, one from black-water fever and the other from consumption. The case that died with consumption was one that came here from the United States well advanced in that disease and worked only a few days and came at once on the sick report. This would give us a rate for the American whites of 4.20 per thousand a year.

Among our 900 American women and children there were no deaths.

Our average sick rate continues to fall. In August we had an average of 42 per thousand constantly sick, in January this had fallen to 26 per thousand constantly sick, and in February it had dropped to 24 per thousand.

During the month we had three cases of smallpox treated in the hospitals; two cases taken off of incoming ships by the quarantine Department, and only one case originating on the Isthmus. All the people living in the vicinity of the point at which this case occurred were vaccinated, the house and clothing disinfected, and no further cases occurred. No other quarantinable diseases occurred.

We had our last case of yellow fever in May of 1906.

Very respectfully,

W. C. GORGAS,
Chief Sanitary Officer.

To the CHAIRMAN, ISTHMIAN CANAL COMMISSION,
Washington, D. C.

REPORT

OF

DEPARTMENT OF HEALTH, ISTHMIAN CANAL COMMISSION,

FEBRUARY, 1907.

GENERAL STATISTICS.

Deaths during the Month of February, 1907.

	Population.	Deaths.	Annual average per 1,000 for the month.
Employees of the Canal Commission and Panama R. R. Co..	36,304	93	30.74
White employees of the Canal Commission and Panama R. R. Co	8,504	10	14.11
Black employees of the Canal Commission and Panama R. R. Co	27,800	83	35.83
Panama	31,063	82	31.68
Colon	13,852	51	44.18
Canal Zone	47,579	145	36.57
Total population (Panama, Colon, and Canal Zone) .	92,494	278	36.07

NOTE.—The population, as given for the cities of Panama and Colon and for the Canal Zone includes employees and civil population.

Deaths by Color.

White:	
Male	25
Female	9
Black:	
Male	175
Female	60
Chinese:	
Male	3
Female	0
Not stated:	
Male	4
Female	2
Total	278

Deaths by Nationality.

Antigua	2	Mexico	1
Barbadoes	35	Nicaragua	1
Colombia	24	Panama	102
China	3	Peru	1
Ecuador	1	Scotland	3
England	1	St. Lucia	5
France	2	Spain	4
Fortune Island	1	St. Vincent	1
Honduras	1	Trinidad	3
India	1	United States	5
Italy	1	West Indies	7
Jamaica	60	Not stated	2
Martinique	10		
Montserrat	1	Total	278

Deaths by Ages.

Under 1 year	34	60 to 70 years	9
1 to 4 years	3	70 to 80 years	3
4 to 10 years	3	80 to 90 years	1
10 to 20 years	25	90 to 100 years	1
20 to 30 years	70	Over 100 years	1
30 to 40 years	45	Not stated	17
40 to 50 years	51		
50 to 60 years	15	Total	278

Deaths of Isthmian Canal Commission and Panama Railroad Employees, by Nationality.

Antigua	2	Panama	2
Barbados	32	Spain	4
Colombia	3	St. Lucia	2
Fortune Island	1	Scotland	1
Italy	1	St. Vincent	1
India	1	Trinidad	2
Jamaica	28	United States	3
Martinique	8		
Montserrat	1	Total	93
Nicaragua	1		

Causes of Deaths of Employees of Commission and Panama Railroad Company.

Accidental traumatisms	12	Nephritis	5
Beriberi	1	Œdema of the larynx	1
Biliary calculi	1	Pneumonia	26
Cancer of stomach	1	Peritonitis	3
Dysentery	4	Senile debility	1
Diabetes	1	Septicæmia	2
Fever, malarial	15	Tuberculosis	10
Fever, typhoid	5		
Heart disease	4	Total	93
Meningitis	1		

Deaths from Tropical Diseases.

Beriberi	5
Dysentery	9
Malaria	47
Total	61
Deaths from all other causes	217
Total deaths	278

List of Deaths of White Employees from the United States.

Name.	Occupat on.	Time on Isthmus.	Age.	Cause of death.
Horne, W. R.	Carpenter	9 months	29	Hæmoglobinuric fever.
Newman, Frank.	do	6 months	41	Tuberculosis.

Deaths of American women and children: None.

Causes of Death.

[Ancon Hospital, Colon Hospital, Line hospitals, Panama, Colon, and Canal Zone, embracing employees of the Canal Commission and Panama Railroad Company, and also the deaths among the civil population.]

Diseases.	Ancon hospital.	Colon hospital.	Line hospitals.	Panama.	Colon.	Zone.	Total.
I. *General diseases.*							
Typhoid fever (abdominal typhus)	3	1	1	.....	.....	.....	5
Malarial fever	4	6	1	8	7	12	38
Æstivo, autumnal	.....	1	1	.....	1	2	5
Malarial cachexia	.....	.....	.....	1	.....	.....	1
Hæmoglobinuric fever	1	2	.....	.....	.....	.....	3
Smallpox	.....	1	.....	.....	.....	.....	1
Dysentery	.....	.....	.....	.....	.....	5	5
Bacillary	.....	.....	1	.....	.....	.....	1
Amœbic	.....	2	1	.....	.....	.....	3
Beriberi	.....	.....	.....	4	.....	1	5
Purulent infection and septicæmia	2	1	2	.....	1	.....	6
Tuberculosis of lungs	2	1	8	18	1	3	33
Tuberculosis, general	1	1	.....	.....	.....	.....	2
Syphilis	.....	.....	1	.....	.....	.....	1
Cancer and other malignant tumors of stomach and liver	1	.....	.....	.....	.....	.....	1
Cancer and other malignant tumors of female genital organs	.....	.....	.....	.....	1	.....	1
Diabetes	.....	.....	1	1	.....	.....	2
Anæmia, chlorosis	.....	.....	.....	.....	1	.....	1
Other chronic poisoning	.....	.....	.....	.....	1	1	2
II. *Diseases of the nervous system and the organs of special sense.*							
Congestion and hemorrhage of brain	.....	.....	.....	.....	2	.....	2
Softening of the brain	1	.....	.....	.....	.....	.....	1
Other forms of mental alienation	.....	.....	1	.....	.....	.....	1
Convulsions (under 5 years)	.....	.....	.....	.....	.....	1	1
Tetanus	.....	.....	.....	1	1	.....	2
III. *Diseases of the circulatory system.*							
Pericarditis	.....	.....	.....	.....	.....	1	1
Acute endocarditis	.....	.....	.....	1	.....	.....	1
Septic endocarditis	.....	1	.....	.....	.....	.....	1
Organic diseases of the heart	1	1	.....	1	1	.....	4
Angina pectoris	.....	.....	.....	.....	.....	1	1
Diseases of the arteries (atheroma, aneurism, etc.)	1	.....	.....	1	.....	.....	2
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)	.....	.....	.....	.....	.....	1	1
IV. *Diseases of the respiratory system.*							
Diseases of the larynx	.....	1	.....	.....	.....	.....	1
Acute bronchitis	.....	.....	.....	.....	.....	1	1

Causes of Death—Continued.

Diseases.	Ancon hospital.	Colon hospital.	Line hospitals.	Panama.	Colon.	Zone.	Total.
IV.—*Diseases of the respiratory system*—Continued.							
Broncho-pneumonia	2	1	.....	2	.....	.....	5
Pneumonia	10	11	3	11	1	5	41
Congestion and apoplexy of the lungs	.....	.....	.....	1	.....	.....	1
Gangrene of the lungs	.....	1	.....	.....	.....	.....	1
V. *Diseases of the digestive system.*							
Diseases of the mouth and its adnexa	.....	.....	.....	.....	.....	1	1
Diarrhea and enteritis (under 2 years)	.....	.....	.....	.....	4	3	7
Diarrhea and enteritis (2 years and over)	.....	.....	.....	5	.....	1	6
Hernia and intestinal obstruction.	1	.....	1	.....	.....	.....	2
Cirrhosis of the liver	.....	.....	.....	1	.....	1	2
Biliary calculi	.....	.....	.....	2	.....	1	3
Other diseases of the liver	.....	.....	.....	1	.....	.....	1
Simple peritonitis	.....	.....	.....	1	1	.....	2
VI. *Diseases of the genito-urinary system and its adnexa.*							
Acute nephritis	.....	.....	.....	2	.....	.....	2
Bright's disease	4	2	1	6	2	1	16
Diseases of urethra, urinary abscess, etc	1	.....	.....	.....	.....	.....	1
VII. *The puerperal state.*							
Other accidents of labor	.....	.....	.....	.....	.....	1	1
Puerperal septicæmia	.....	.....	.....	.....	2	.....	2
XI. *Early infancy.*							
Congenital debility, icterus, and sclerema	.....	.....	.....	.....	4	3	7
Other diseases peculiar to early infancy	.....	.....	.....	4	.....	.....	4
XII. *Old age.*							
Senile debility	.....	.....	.....	1	.....	1	2
XIII. *External causes.*							
Suicide by firearms	.....	.....	.....	.....	.....	1	1
Fractures	.....	.....	.....	1	.....	2	3
Other accidental traumatisms	4	2	.....	2	.....	8	16
Burns and scalds	2	.....	.....	1	.....	.....	3
Accidental drowning	.....	.....	.....	.....	.....	3	3
XIV. *Ill-defined diseases.*							
Dropsy	.....	.....	.....	3	.....	.....	3
Sudden death	.....	.....	.....	1	.....	.....	1
Causes of death unspecified or ill defined	.....	1	.....	1	.....	3	5
Total	41	37	23	82	31	64	278
Stillbirths	.....	.....	.....	.....	3	3	6

TABLE SHOWING DISCHARGES AND DEATHS IN THE HOSPITALS
MONTH OF

Diseases.	Ancon hospital.		Colon hospital.		Culebra hospital.		Miraflores hospital.	
	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.
I. *General diseases.*								
Typhoid fever (abdominal typhus)	4	3	4	0	.....	.....	.....	.....
Malarial fever	13	0	0	6	14	0	3	0
Aestivoa-autumnal	348	4	82	0	.....	.....	2	0
Tertian	150	0	141	0	56	0	1	0
Quartan	2	0	.....	.....	6	0	.....	.....
Mixed	23	0	10	0	.....	.....	.....	.....
Clinical	200	0	164	0	20	0	2	0
Malarial cachexia	10	0	.....	.....	1	2	.....	.....
Hæmoglobinuric fever	1	1	1	1	.....	.....	.....	.....
Smallpox	.....	.....	1	0	.....	.....	.....	.....
Measles	2	0	2	0	.....	.....	.....	.....
Dysentery	22	0	.....	.....	.....	.....	.....	.....
Bacillary	1	0	2	0	0	1	.....	.....
Amœbic	8	0	3	1	.....	.....	.....	.....
Clinical	.....	.....	6	0	.....	.....	1	0
Beriberi	1	0	.....	.....	.....	.....	.....	.....
Purulent infection and septicæmia	0	1	0	1	.....	.....	.....	.....
Tuberculosis of the lungs	5	1	4	0	.....	.....	1	4
Cold abscess and abscess by congestion	10	0	.....	.....	.....	.....	.....	.....
Tuberculosis of other organs	1	0	.....	.....	.....	.....	.....	.....
General tuberculosis	0	1	0	1	.....	.....	.....	.....
Syphilis	12	0	2	0	1	0	.....	.....
Gonorrhea (5 years and over)	5	0	3	0	.....	.....	.....	.....
Gonorrhea (under 5 years)	.....	.....	.....	.....	2	0	.....	.....
Cancer and other malignant tumors of stomach and liver	0	1	.....	.....	.....	.....	.....	.....
Cancer and other malignant tumors of the skin	1	0	.....	.....	.....	.....	.....	.....
Acute articular rheumatism	2	0	2	0	.....	.....	.....	.....
Chronic rheumatism and gout	1	0	1	0	.....	.....	.....	.....
Diabetes	.....	.....	.....	.....	.....	.....	0	1
Anæmia, chlorosis	4	0	.....	.....	.....	.....	.....	.....
Other general diseases	8	0	3	0	.....	.....	.....	.....
Acute and chronic rheumatism	.....	.....	.....	.....	.....	.....	1	0
Chronic poisoning	.....	.....	1	0	.....	.....	.....	.....
II. *Diseases of the nervous system and the organs of special sense.*								
Simple meningitis	1	1	.....	.....	.....	.....	.....	.....
Other forms of mental alienation	.....	.....	.....	.....	.....	.....	4	0
Epilepsy	1	0	1	0	.....	.....	.....	.....
Other diseases of the nervous system	1	0	4	0	3	0	.....	.....
Diseases of the eye and its adnexa	13	0	5	0	.....	.....	.....	.....
Diseases of the ear	10	0	3	0	.....	.....	.....	.....

OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION FOR THE FEBRUARY, 1907.

Gorgona hospital.		Empire hospital.		Bas Obispo hospital.		Las Cascadas hospital.		Paraiso hospital.		Total.	
Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.
.....	.....	.....	.....	1	1	.....	.....	.....	.....	9	4
61	0	55	0	.....	.....	107	0	.....	.....	253	6
.....	.....	.....	.....	22	0	.....	.....	.....	.....	454	4
.....	.....	.....	.....	40	0	.....	.....	.....	.....	388	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33	0
.....	.....	.....	.....	.....	.....	.....	.....	62	0	448	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	2
.....	.....	.....	.....	.....	.....	4	0	.....	.....	6	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1
.....	.....	.....	.....	.....	.....	.....	.....	0	1	11	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	5
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
.....	.....	.....	.....	.....	.....	.....	.....	1	0	5	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	0
.....	.....	.....	.....	1	0	.....	.....	.....	.....	2	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	0
.....	.....	1	0	.....	.....	1	0	.....	.....	4	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	0
.....	.....	.....	.....	.....	.....	.....	.....	1	0	19	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	0

TABLE SHOWING DISCHARGES AND DEATHS IN THE HOSPITALS
MONTH OF

Diseases.	Ancon hospital.		Colon hospital.		Culebra hospital.		Miraflores hospital.	
	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.
III. *Diseases of the circulatory system.*								
Organic diseases of the heart	0	1	2	1	.....	.....	.....	.....
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)	4	0	2	0	.....	.....	.....	.....
Diseases of the lymphatic system (lymphangitis, etc.)	.....	.....	7	0	.....	.....	.....	.....
Hemorrhages	1	0	.....	.....	.....	.....	.....	.....
Other diseases of the circulatory system	1	0	.....	.....	1	0	.....	.....
IV. *Diseases of the respiratory system.*								
Diseases of the nasal fossæ	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the larynx	2	0	0	1	.....	.....	.....	.....
Acute bronchitis	9	0	3	0	1	0	1	0
Chronic bronchitis	1	0	.....	.....	.....	.....	.....	.....
Broncho-pneumonia	2	3	.....	.....	.....	.....	.....	.....
Pneumonia	12	7	8	10	6	1	0	1
Pleurisy	2	0	3	0	1	0	.....	.....
Asthma	1	0	1	0	.....	.....	.....	.....
Pulmonary emphysema	3	0	.....	.....	.....	.....	.....	.....
Other diseases of the respiratory system (phthisis excepted)	.....	.....	.....	.....	.....	.....	.....	.....
V. *Diseases of the digestive system.*								
Diseases of the mouth and its adnexa	1	0	8	0	.....	.....	.....	.....
Diseases of the pharynx	1	0	.....	.....	.....	.....	.....	.....
Other diseases of the stomach (cancer excepted)	.....	.....	3	0	.....	.....	.....	.....
Diarrhea and enteritis (under 2 years)	.....	.....	.....	.....	1	0	.....	.....
Chronic diarrhea and enteritis (under 2 years)	.....	.....	.....	.....	.....	.....	.....	.....
Diarrhea and enteritis (2 years and over)	7	0	13	0	.....	.....	.....	.....
Uncinariasis	2	0	7	0	.....	.....	1	0
Hernia and intestinal obstructions	3	1	2	0	.....	.....	.....	.....
Other diseases of the intestines	.....	.....	.....	.....	0	1	.....	.....
Cirrhosis of the liver	.....	.....	.....	.....	.....	.....	1	0
Simple peritonitis	.....	.....	0	1	.....	.....	.....	.....
Other diseases of the digestive system (cancer and tuberculosis excepted)	2	0	.....	.....	.....	.....	.....	.....
Appendicitis and abscess of the iliac fossa	1	0	.....	.....	.....	.....	.....	.....

OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION FOR THE FEBRUARY, 1907—Continued.

Gorgona hospital.		Empire hospital.		Bas Obispo hospital.		Las Cascadas hospital.		Paraiso hospital.		Total.	
Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.
										2	2
										6	0
										7	0
										1	0
										2	0
1	0									1	0
		1	0							3	1
4	0									18	0
										1	0
										2	3
0	1									26	20
										6	0
						1	0			3	0
										3	0
						0	1			0	1
										9	0
										1	0
1	0			1	0	1	0			6	0
3	0									4	0
		1	0							1	0
										20	0
										10	0
										5	1
										0	1
										1	0
										0	1
1	0									3	0
										1	0

TABLE SHOWING DISCHARGES AND DEATHS IN THE HOSPITALS MONTH OF

Diseases.	Ancon hospital.		Colon hospital.		Culebra hospital.		Miraflores hospital.	
	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.
VI. *Diseases of the genito-urinary system and its adnexa.*								
Acute nephritis	2	0	.....	.....	.....	.....	.....	.....
Bright's disease	1	4	1	0	0	1	.....	.....
Other diseases of the kidneys and their adnexa	.....	.....	.....	.....	4	0	.....	.....
Diseases of the bladder	1	0	.....	.....	.....	.....	.....	.....
Diseases of the urethra, urinary abscess, etc	4	0	.....	.....	.....	.....	1	0
Nonvenereal diseases of the male genital organs	3	1	2	0	.....	.....	.....	.....
VIII. *Diseases of the skin and cellular tissue.*								
Furuncle	2	0	1	0	.....	.....	.....	.....
Acute abscess, phlegmon	.....	.....	4	0	2	0	.....	.....
Other diseases of the skin and its adnexa	6	0	7	0	11	0	.....	.....
IX. *Diseases of the organs of locomotion.*								
Nontuberculous diseases of the bones	1	0	1	0	.....	.....	.....	.....
Arthritis and other diseases of the joints (tuberculosis and rheumatism excepted)	2	0	.....	.....	.....	.....	.....	.....
Amputation	.....	.....	.....	.....	.....	.....	.....	.....
Other diseases of the organs of locomotion	.....	.....	.....	.....	1	0	.....	.....
XII. *Old age.*								
Senile debility	4	0	.....	.....	12	0	.....	.....
XIII. *External causes.*								
Fractures	3	0	9	0	.....	.....	.....	.....
Dislocation	.....	.....	.....	.....	3	0	.....	.....
Other accidental traumatisms	23	4	21	0	5	0	.....	.....
Burns and scalds	1	2	.....	.....	1	0	.....	.....
Sunstroke	.....	.....	2	0	.....	.....	.....	.....
Acute poisoning	.....	.....	1	0	2	0	.....	.....
External violence	.....	.....	.....	.....	1	0	.....	.....
Total	968	36	553	23	155	6	19	6

OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION FOR THE FEBRUARY, 1907—Continued.

Gorgona hospital.		Empire hospital.		Bas Obispo hospital.		Las Cascadas hospital.		Paraiso hospital.		Total.	
Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.	Discharged.	Died.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	5
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	0
1	0	.....	.....	.....	.....	.....	.....	.....	.....	2	0
2	0	.....	.....	.....	.....	1	0	.....	.....	8	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	0
.....	.....	2	0	.....	.....	2	0	.....	.....	10	0
.....	.....	.....	.....	.....	.....	2	0	.....	.....	26	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	0
.....	.....	.....	.....	.....	.....	7	0	.....	.....	9	0
.....	.....	.....	.....	.....	.....	.....	.....	1	0	1	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	0
.....	.....	.....	.....	1	0	.....	.....	.....	.....	13	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	0
6	0	4	0	2	0	.....	.....	1	0	62	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	0
80	1	64	0	68	1	126	1	66	1	2,099	75

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GENERAL SANITATION.

City of Panama.

All branches of the work of sanitation are progressing satisfactorily, and mosquito destruction is receiving the attention its importance demands. Only 107 places were discovered where larvæ existed, and it was not necessary to have anyone fined for persisting in breeding mosquitoes.

The sanitation of yards by the owners and occupants of premises is improving.

The general health of the community is excellent. No acute contagious diseases, except pneumonia, and varicella were reported during the month. Referring to the mortality report for Panama, it will be noted that only 82 deaths occurred, of which 18 were due to consumption and 9 to pneumonia.[a] Thirty-three deaths were among the charity patients in Santo Tomas Hospital, and 49 occurred in the city proper.[a]

The following is a summary of the work accomplished:

Street cleaning and garbage collection:

Maximum number of men at work	62
Minimum number of men at work	36
Daily average number of men at work	54
Maximum number of carts at work	21
Minimum number of carts at work	14
Daily average number of carts at work	20
Maximum number of loads of garbage	87
Minimum number of loads of garbage	40
Daily average number of loads of garbage	77
Maximum number of loads of sweepings	36
Minimum number of loads of sweepings	22
Daily average number of loads of sweepings	31
Total number of loads of garbage	2,168
Total number of loads of sweepings	881
Catch basins disinfected (23 times)	200
Time sprinklers used	28
Water used by sprinklers, gallons	482,150

Free water distribution:

Average number of water carts daily	5

During the month of February 168,000 gallons of water have been distributed, covering the districts in the neighborhood of the following streets: Trujillo, Maranon, Barraza, and Cocoa Grove.

Daily average of gallons of water distributed	6,000

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[a] See "Cause of death" report.

Inspection of yards:

Houses inspected, good condition	1,874
Houses inspected, bad condition	741
Houses with water connection	1,982
Houses with no water connection	506
Houses with sewer connection	1,970
Houses with no sewer connection	721
Traps in yards connected with sewers	1,969
Traps not connected with sewers	141
Wells on premises	166
Water-closets, good condition	1,987
Water-closets, bad condition	741
Yards with drainage good	1,891
Yards with drainage bad	320
Tanks on premises	26
Persons notified as to insanitary condition of yards	367
Persons fined for insanitary condition of yards by local authorities	1
Places where mosquito larvæ were found	107
Persons warned for having mosquito larvæ	91

Anopheles brigade:

Number of linear feet of ditches cleaned	22,900
Number of linear feet of ditches dug	200
Number of square feet of reeds and grass cut	362,700
Number of wells filled	54
Number of cubic yards of earth used	1,163⅔
Mosquito oil used for oiling wells and pools..barrels..	27
Daily average number of carts at work	7
Number of days carts worked	23

Disinfection brigade:

Number of houses disinfected	19
Number of houses fumigated	22
Number of rooms fumigated	163
Number of cubic feet fumigated	502,073
Materials used—	
Alcohol.....gallons..	8
Bichloride of mercury.....pound..	1
Flour.....barrels..	2
Formaldehyde.....gallons..	2
Matches.....packages..	2
Newspapers.....bundles..	4
Tacks.....packages..	6
Pyrethrum.....pounds..	118
Sulphur.....do....	1,304

Sick inspection:

Number of hotels and boarding houses inspected, twice daily	28
Number of persons reported ill	6

New buildings:
Number of plans submitted to the health officer and approved..... 15

SANITATION.

[Colon and Cristobal, including Mount Hope and Gatun.]

Medical inspection:

Cases reported by Colon medical inspectors	164
Cases inspected by health-office physicians	158
Cases sent to Colon Hospital	10
White employees reported to health officer	42
White employees inspected by health-office physician	42
White employees sent to hospital	0
Cases of smallpox reported	2
Number of deaths from smallpox	1

Quinine (prophylactic) dispensed to laborers:

Total number of tablets (3 grains) dispensed	25,028
Total number of doses dispensed	12,514
Total doses (ounces)—5 grains to ounce—dispensed (15 days' supply only)	5,850
Average number doses tablets dispensed daily	521
Average number doses solution dispensed daily	390

Sanitation of Colon:

Number of cans of garbage removed	24,668
Loads of yard garbage carted	188
Number of cans of night soil removed	45,807
Loads to and from storehouse	66
Miscellaneous loads carted	44
Number of new water-closets built	18
Number of night-soil cans installed	121
Number of nuisances reported	22
Number of nuisances abated	7
Square yards of land cleared and leveled	1,550
Post holes dug and posts erected	27
Cars of dirt unloaded	619
Feet of track cleared	30,000
Square yards of vegetation piled and burned	165,000
Car of Decauville track unloaded	1
Square yards land burned	10,000

Drainage of Colon:

Number of feet of drain cleaned	50,304

Stegomyia mosquito brigade, Colon:

Square yards of vegetation removed	165,000
Water receptacles overturned	2,391
Water receptacles collected	45,496
Square yards of lagoon cleaned	135,750
Barrels spigoted	92

Stegomyia mosquito brigade, Colon—Continued.	
Barrels oiled	941
Barrels covered	173
Total number of breeding places eradicated	9
Pools oiled	2,910
Water-closets oiled	288
Sags removed	62
Barrels destroyed	256
Fumigation of Colon:	
Number of houses fumigated	1
Number of cubic feet	52,000
Fumigation of Cristobal:	
Number of houses fumigated	2
Also two floors of Cristobal Hotel.	
Number of cubic feet	140,765
Sanitation of Cristobal:	
Number of cans of garbage removed	8,887
Loads of yard garbage carted	511
Number of cans of night soil removed	9,856
Loads to and from storehouse	7
Miscellaneous loads carted	5
Square yards of street cleaned	71,174
Warehouse, hours	226
Drainage of Cristobal:	
Number of feet of drain cleaned	49,785
Stegomyia mosquito brigade, Cristobal:	
Square yards of vegetation removed	1,713
Water receptacles overturned	388
Water receptacles collected	7,590
Crab holes worked	560
Crabs killed	441
Linear feet of drain oiled	568
Barrels oiled	25
Tanks oiled	30
Total number of breeding places eradicated	46
Pools oiled	1,161
Sanitation of Mount Hope:	
Number of cans of garbage removed	1,747
Number of cans of night soil removed	2,223
Square yards of underbrush removed	25,747
Square yards of vegetation removed	25,031
Miscellaneous loads carted	110
Number of nuisances reported	32
Number of nuisances abated	32
Stegomyia mosquito brigade, Mount Hope:	
Water receptacles overturned	1,750
Water receptacles collected	2,200
Barrels spigoted	5
Barrels oiled	53

Stegomyia mosquito brigade, Mount Hope—Continued.	
Barrels covered	60
Tanks oiled	225
Total number of breeding places eradicated	157
Cemetery work, Mount Hope:	
Square yards of vegetation removed	19,916
Square yards of underbrush removed	19,367
Number of interments	70
Number reinterred	15
Graves lined and dug	103
Stumps removed	164
Sanitation of Gatun:	
Number of cans of garbage removed	2,179
Number of cans of night soil removed	1,542
Number of nuisances reported	1
Number of nuisances abated	1
Stegomyia mosquito brigade, Gatun:	
Square yards of vegetation removed	46,745
Linear feet of drain cleaned	10,950
Barrels covered	50
Piling and burning brush, hours	950
Cemetery work, Gatun:	
Number of interments	6
Number of interments at Callebruja	1
Carpentry work, Colon:	
Feet of fence built at quarantine station	256
Water-closets built	1
Tent platforms built	7
Tanks resealed and repaired	33
Street carts repaired	2
Cleaning cesspools, hours	16.
Carpentry work, Cristobal:	
Barrows branded	51
Street carts repaired	4
Lamp stands made	18
Tanks resealed	3
Grave stakes made	25
Handles put in axes	1
Scrapers made	1
Night-soil bucket covers rebuilt	50
Garbage stands built, painted, and set up	12
Carpentry work, Gatun:	
Closets taken apart	5
Closets changed from bucket to pit and moved to dump	6
Number of notices served on property owners in Colon to abate nuisances	97
Number complied with	65
Number fined by alcalde for noncompliance	2

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SANITATION—CANAL ZONE.

MOSQUITO WORK, MALARIA, AND CONDITIONS PERTAINING THERETO.

Continuous attention has been given to the destroying of mosquito-breeding places near settlements, and the vicinity of all houses near settlements is inspected at regular intervals for water containers. Very few deposits of water exist at the present time near the houses, and as might be expected stegomyia are not numerous.

Drain tile has been laid at Ancon, Corozal, Culebra, and Empire. The subdrainage work at Pedro Miguel is completed. The clearing of vegetation and ditching about the settlements and the new camps that are being opened up is progressing rapidly.

The District Physicians are making reports each week showing what part of each district the malarial patients come from, so that the Department can record the exact increase or decrease of malarial fever in any particular locality, and can often trace the malaria to its direct source.

During the month the laborers' barracks in different parts of the Zone have been examined for adult mosquitoes, but very few stegomyia were found. The buildings occupied by colored employees are in general divided into two classes, consisting of barrack buildings for laborers equipped with standee bunks for bachelors, and other houses for colored employees having families. At some of the camps all of the barrack buildings occupied by colored laborers are screened. Of course as screening bachelors' barracks protects more persons than by screening a building used as married quarters, it is essential that bachelors' quarters be screened first, in order that the work accomplished may do a maximum of good at once and tend to keep the largest possible number of employees protected from malarial infection.

Unfortunately for the colored employees, as well as for others, the metallic screening on the buildings occupied by them is roughly treated and abused by them, and has to be protected and watched. This Department makes all necessary minor repairs and keeps the buildings as effectively screened as conditions allow at the present time. All new buildings being erected are now effectively screened before occupancy, and many of the old buildings are being repaired and screened.

The American housewife on the Isthmus is as careful to keep the screened doors closed and to keep mosquitoes and flies out of her house as the colored employees are careless. The latter try to prop the screen doors open and keep them open, break the screening, and create conditions favorable to the entry of mosquitoes into their houses. Especial attention is invited to the results in the two cases mentioned. The children of the wives of the American

employees are particularly free from malaria, and in fact do not contract malarial here as often as they would in many parts of the United States, owing to the fact that their mothers appreciate the value of the screened houses. If the colored employees were as careful our present malarial sick rate, which is low for a tropical climate, would decrease considerably.

Up to the present time three hundred and fourteen family houses and barrack buildings of colored employees have been screened. The malarial sick rate among the American employees continues relatively low as compared with the colored employees. In this connection it should be stated that the majority of the white employees, such as engineer corps, mechanics, carpenters, trackmen, trainmen, foremen, inspectors, etc., are working continuously, are exposed to the sun and rain daily, and often have to work many hours at a stretch.

The white European laborer works much harder and more continuously than the colored employees. Aside from the clerical force, the white employee is exposed to the same conditions as the colored employees. The European laborer gets a different ration from the colored laborer, and similar to what he would eat in his native country. The colored laborer receives much more nourishing food than he used to obtain when he prepared his own food. The mess kitchens and cooked food of both white and colored laborers have been inspected at the different stations during the month, and are quite satisfactory. The sleeping quarters of the colored laborer and those of the white laborer are similar in every respect.

FOOD OF LABORERS.

On February 1 the Isthmian Canal Commission began to feed all colored laborers (bachelors), who had previously been paid 20 cents silver, per hour, and had prepared their own food. The change was very necessary as the food they prepared for themselves was not sufficient in quantity, quality, or nourishment, and was generally hurriedly and not properly cooked. The following menus are about average meals as served during the month. In reading the menu of the colored laborer it should be remembered that the West Indian negro at home eats rice, beans, and yams almost every day and prefers it to other diet. Also that garbanzas served at the Gallego mess increase in weight and size when cooked.

Average menu of meals of colored laborers as furnished by the Isthmian Canal Commission (cost to laborer 30 cents gold, daily, or 10 cents a meal):

WEEK DAY.—*Breakfast:* Corn meal porridge, coffee, bread (sometimes beef stew or gravy). *Dinner:* Boiled beef, rice beans, boiled yams, apple sauce, bread and tea. *Supper:* Corned beef and cabbage, rice, peas, yams, prunes, bread and tea.

WEEK DAY.—*Breakfast:* Fried fish, oatmeal, bread, coffee. *Dinner:* Roast beef, browned potatoes, rice and peas, apple sauce, bread, tea. *Supper:* Stewed beef, boiled yam, rice and beans, pudding, bread, tea.

SUNDAY.—*Breakfast:* Hominy, coffee, bread. *Dinner:* Stewed beef, rice, lima beans, yams, macaroni and cheese, bread and tea. *Supper:* Boiled beef, rice and beans, yams, macaroni and cheese, cottage pudding, apple sauce, bread, tea.

N. B.—For breakfast, oatmeal, hominy, and porridge are used in turn. Sugar and cream are served with tea and coffee.

The following are samples of meals served to Gallegos (Spaniards) "white laborers" by the Isthmian Canal Commission at rate of 40 cents United States currency per day:

Breakfast: Ham, ¼ pound; bread, ½ pound; potatoes, ½ pound; coffee.

Dinner: Soup; fresh meat, ½ pound; garbanzas, ¼ pound; beans, ¼ pound; potatoes, ½ pound; macaroni, $\frac{1}{1\,2}$ pound; bread, ½ pound; tea.

Supper: Soup; stewed beef, ½ pound; garbanzas, ¼ pound; potatoes, ½ pound; rice and beans; dessert; bread, ½ pound; coffee.

Note.—The Gallego laborers are hard workers and very hearty eaters.

Weights shown are of food before cooking.

The above is an average daily bill of fare.

Sugar and cream are served with tea and coffee.

Dessert consists of stewed fruit, such as prunes, apple sauce, peaches, or other stewed dried fruit.

Meals are prepared by Gallego cooks.

YELLOW FEVER.

Although it is nearly a year and a half since the last case of yellow fever occurred on the Isthmus, yet every precaution is taken to-day to prevent its recurrence. It is often asked what are the possible chances of a reintroduction of yellow fever. Since yellow fever was eradicated from the Canal Zone, Panama, and Colon it has been present at ports to the north and south of us on Atlantic and Pacific sides. It should again be stated that the quarantine service holds all persons from infected ports in quarantine until assured that no transmission of yellow fever from them is possible. If from any other source, or by any chance, a person having a case of yellow fever enters the Zone his chances of being bitten during the first three days (or dangerous period) is very small. The houses of nonimmune population were the first to be screened and made effectively mosquito proof, and they are kept so to-day. Adult stegomyia are exceedingly scarce in the vicinity of the screened

residences of the nonimmunes. If a female adult stegomyia chanced to enter a screened house, it would have to bite a yellow fever patient within the first three days of the patient's illness. As all sick persons are removed at once to hospital wards which are kept mosquito proof, the chances of the female stegomyia getting at the patient before he is removed is very small. Then, even if the stegomyia did happen to get at the patient during the three-day period during which it can become infected, it can not transmit yellow fever until twelve days after biting the patient. Being in a screened house, and having gorged itself, it is too heavy for continued flight, and can not get out. Preparations for fumigation are always in readiness, and it is easy to see how the infected stegomyia would be killed before it could transmit yellow fever.

During the yellow fever epidemic of 1905, before the residences of nonimmunes were screened, the yellow-fever wards were effectively screened, and at no time during the entire period did any of the nonimmune physicians or nurses attending the patients become infected. The value and necessity of screening the houses of nonimmunes is evident, as far as yellow fever possibilities are concerned, and the low malarial sick rate of American children and women living in screened houses in the Zone speaks for itself. (See the following table:)

Table showing the total number of white women and children of gold employees at each station, the number that have had malarial fever, and the percentage of the total number that have had no malarial attacks:

Name of station.	Total number of women.	Total number of children.	Total number that have had malaria since arrival on the Isthmus.	Percentages of total number of women and children that have not had malaria since arrival on the Isthmus.
La Boca	20	.....	3	85
	.....	27	5	81
Ancon	33	.....	8	75
	.....	16	0	100
Ancon Hospital nurses	60	.....	21	65
Corozal	20	.....	7	65
	.....	11	1	90
Pedro Miguel	43	.....	7	83
	.....	19	7	63
Paraiso	53	.....	20	62
	.....	23	2	91
Culebra	120	.....	9	92
	.....	97	3	97
Empire	79	.....	18	77
	.....	67	9	86
Las Cascadas	16	.....	5	68
	.....	14	2	85
Bas Obispo	27	.....	5	81
	.....	18	1	94
Gorgona	66	.....	12	81
	.....	45	5	88
Tabernilla	8	.....	2	75
	.....	1	0	100
Bohio	7	.....	3	57
	.....	7	3	57
Total	552	345	158	.....

Percentage of women and children that have not yet had malarial fever equals 82 per cent of the total number.

WATER SUPPLY, SEWERS, SHOWER BATHS, RANGE CLOSETS, WASH-HOUSES, SCREENING OF HOUSES, REMOVAL OF GARBAGE, ETC.

Up to the present time water has been installed in 835 houses, and all Isthmian Canal Commission kitchens are supplied with running water. Also 586 houses have sewer connections. The automatic-flush double-range closets are being installed at all of the laborers' camps and at the new camps now being constructed. Washhouses containing stationary tubs and running water have been installed at several camps and are soon to be located at all of them. Most of the laborers' camps are already supplied with shower-bath houses containing twenty showers each.

At the present time over 1,000 of the buildings in the Canal Zone are screened. This department has made minor repairs on 211 of these buildings during February. Also empties about 292 garbage cans daily, cares for over 900 closets, and empties over 1,000 night-soil pails every night. This work is spread over a territory 33 miles long.

GENERAL SANITATION AND MISCELLANEOUS INFORMATION RELATING THERETO.

The health conditions at La Boca, Ancon, Corozal, and Miraflores have been exceptionally good during the past month. Arrangements are being made to drain into the Pacific Ocean the large area of swamp land between Ancon Hill and Sosa Hill. The entire Ancon flank of Sosa Hill and the edges of the swamp land adjacent have been cleared of brush. Very few cases of malaria have occurred at La Boca.

At Ancon the entire vicinity of the camp occupied by European laborers has been cleared and the ground ditched and subdrained. Sewer lines, range closets, and shower baths have been installed at both of the labor camps on Ancon Hill. The swampy land near Tivoli switch is being filled in, and filling will be completed before the rainy season arrives. The swampy area between Tivoli Hotel and Reservoir Hill has been subdrained.

At East Corozal all brush has been cleared from the hills on which the new laborers' camps are to be located.

At Corozal the lowland in the vicinity of the laborers' camps has been subdrained.

At Pedro Miguel most of the malarial cases have been coming from the laborers' camp at the "Junction," and an extensive clearing has been made to the north of the barracks there.

At Paraiso a larger clearing has been made to the north of Cartagena, and ditches to subdrain the vicinity of this camp will soon be completed.

At Cucaracha that part of the camp between the "high line" and the canal bed has produced most of the malaria that occurred,

and all the brush between the canal bed and the camp has been removed.

At Culebra the clearing of the jungle on the banks of the Rio Grande Reservoir Lake has been completed. Also a large tract of land where the new native town of Culebra is to be located has been cleared of brush. New sewer lines have been installed at Culebra, and the plumbing work and installation of fixtures has made rapid progress.

At Gorgona the clearing of the district between Matachin and Caballo Viejo is almost completed.

SCREENING, REPAIRS, ETC.

The carpenter force has finished the work of protecting screening, repairs, etc., at Tabernilla, and has started work on the Gorgona District.

The attached table is a summary of the routine work accomplished during the month by this Department:

ANCON.

Brush cut and removed	square yards	50,555
Swamp filled in	do	1,000
Swamp drained	do	1,400
Grass cut and burned	do	50,554
New ditches dug	linear feet	89
Tile drain laid	do	1,000
New ditches stoned	do	589
Old ditches cleaned	do	10,767
Closet pits filled in (1)	cubic yards	25
Closets erected		9
Closets cared for		42
Garbage cans emptied (daily)		55
Night-soil cans emptied (daily)		97

LA BOCA.

Brush cut and removed	square yards	285,533
Swamp filled in	do	10
Grass cut and burned	do	47,765
New ditches dug	linear feet	12
New ditches stoned and cemented	do	269
Old ditches stoned and cemented	do	144
Old ditches cleaned and graded	do	4,610
Closets erected		2
Closets cared for		15
Garbage cans emptied (daily)		164
Night-soil cans emptied (daily)		85
Houses disinfected		4
Houses fumigated (1)	cubic feet	23,400

Corozal.

Brush cut and removed	square yards	106,419
Grass cut and burned	do	121,000
New ditches dug	linear feet	5,150
Tile drain laid	do	3,931
Old ditches cleaned and graded	do	75,960
Closet pits dug (5)	cubic yards	40
Closet pits filled in (2)	do	9
Closets erected		5
Closets cared for		29
Garbage cans emptied (daily)		90
Night-soil cans emptied (daily)		30

Miraflores.

Brush cut and removed	square yards	2,519
Grass cut and burned	do	21,025
New ditches dug	linear feet	69
Old ditches cleaned and graded	do	3,114
Closet pits dug (1)	cubic yards	6
Closet pits filled in (2)	do	11
Closets erected		7
Closets cared for		13
Garbage cans emptied (daily)		58
Night-soil cans emptied (daily)		54

Pedro Miguel.

Brush cut and removed	square yards	8,219
Swamp drained	do	1,333
Ponds drained	do	1,150
Grass cut and burned	do	115,836
New ditches dug	linear feet	996
New ditches stoned	do	258
Old ditches cleaned and graded	do	18,578
Closets erected		3
Closets cared for		77
Garbage cans emptied (daily)		147
Night-soil cans emptied (daily)		96
Houses disinfected		1
Houses fumigated (2)	cubic feet	18,326

Paraiso.

Brush cut and removed	square yards	18,478
Swamp drained	do	400
Grass cut and burned	do	127,302
New ditches dug	linear feet	2,314
New ditches stoned	do	442
Old ditches cleaned and graded	do	12,982

Closet pits dug (2)	cubic yards	25
Closet pits filled in (2)	do	2
Closets cared for		93
Garbage cans emptied (daily)		159
Night-soil pails emptied (daily)		69

CUCARACHA.

Brush cut and removed	square yards	34,825
Swamp filled in	do	284
Swamp drained	do	96
Grass cut and burned	do	2,982
New ditches dug	linear feet	3,309
Old ditches cleaned and graded	do	16,343
Closet pits dug (2)	cubic yards	9
Closet pits filled in (2)	do	4
Closets cared for		18
Garbage cans emptied (daily)		44
Night-soil cans emptied (daily)		2

CULEBRA.

Brush cut and removed	square yards	904,856
Grass cut and burned	do	6,244
New ditches dug	linear feet	857
Tile drain laid	do	1,047
Old ditches stoned	do	390
Old ditches cleaned and graded	do	1,661
Closet pits dug (5)	cubic yards	27
Closet pits filled in (4)	do	3
Closets erected		1
Closets cared for		87
Garbage cans emptied (daily)		563
Night-soil cans emptied (daily)		151
Houses fumigated (4)	cubic feet	117,060

EMPIRE.

Brush cut and removed	square yards	46,400
Swamp filled in	do	2,700
Swamp drained	do	25,100
Ponds drained	do	12,760
Grass cut and burned	do	236,100
New ditches dug	linear feet	7,530
Tile drain laid	do	1,916
Old ditches stoned	do	200
Old ditches cleaned and graded	do	27,303
Closet pits dug (29)	cubic yards	288
Closet pits filled in (8)	do	62

Closets erected		28
Closets cared for		124
Garbage cans emptied (daily)		697
Night-soil cans emptied (daily)		195
Houses fumigated (1)	cubic feet	26,860

LAS CASCADAS.

Brush cut and removed	square yards	32,500
Swamp filled in	do	75
Swamp drained	do	5,000
Grass cut and burned	do	240,000
New ditches stoned and cemented	linear feet	700
Old ditches cleaned and graded	do	3,210
Closet pits dug (5)	cubic yards	48
Closet pits filled in (3)	do	8
Closets erected		6
Closets cared for		79
Garbage cans emptied (daily)		357
Night-soil cans emptied (daily)		79
New ditches dug	linear feet	660

BAS OBISPO.

Brush cut and removed	square yards	9,182
Grass cut and burned	do	70,000
New ditches dug	linear feet	245
New ditches stoned	do	186
New ditches cleaned and graded	do	103
Closet pits dug (20)	cubic yards	84
Closet pits filled in (3)	do	9
Closets erected		2
Closets cared for		60
Garbage cans emptied (daily)		172
Night-soil cans emptied (daily)		4
Houses disinfected		4
Houses fumigated (4)	cubic feet	46,440

MATACHIN.

Brush cut and removed	square yards	3,257
Grass cut and burned	do	1,203
Old ditches cleaned and graded	linear feet	400
Closet pits filled in (3)	cubic yards	6
Closets cared for		37

Gorgona (including Mamei).

Brush cut and removed	square yards	504,581
Swamp filled in	do	12
Grass cut and burned	do	1,366,431
New ditches dug	linear feet	258
Old ditches cleaned and graded	do	48
Closet pits filled in (1)	cubic yards	5
Closets erected		1
Closets cared for		161
Garbage cans emptied (daily)		222
Night-soil cans emptied (daily)		126
Houses disinfected		3
Houses fumigated (18)	cubic feet	389,760

San Pablo.

Grass cut and burned	square yards	75,259
Old ditches cleaned and graded	linear feet	2,988
Closets cared for		12
Garbage cans emptied (daily)		24

Tabernilla.

Brush cut and removed	square yards	138,339
Swamp filled in	do	372
Grass cut and burned	do	619,491
New ditches dug	linear feet	890
Tile drain laid	do	78
Old ditches cleaned and graded	do	4,008
Closet pits dug (10)	cubic yards	26
Closet pits filled in (1)	do	3
Closets erected		8
Closets cared for		47
Garbage cans emptied (daily)		79
Night-soil cans emptied (daily)		42
Houses fumigated (1)	cubic feet	7,000

Bohio.

Grass cut and burned	square yards	8,160
Old ditches cleaned and graded	linear feet	960
Closets cared for		40
Garbage cans emptied (daily)		43
Night-soil cans emptied (daily)		15

RECAPITULATION.

Brush cut and removed	square yards	2,145,663
Swamp filled in	do	4,453
Swamp drained	do	33,425
Ponds drained	do	13,910
Grass cut and burned	do	3,109,352
New ditches dug	linear feet	22,379
Tile drain laid	do	7,972
New ditches stoned	do	2,444
Old ditches stoned	do	734
Old ditches cleaned and graded	do	183,035
Closet pits dug (79)	cubic yards	555
Closet pits filled in (32)	do	147
Closets erected		72
Closets cared for		934
Garbage cans emptied (daily)		2,919
Night-soil cans emptied (daily)		1,045
Houses disinfected		12
Houses fumigated (31)	cubic feet	628,826

SANITATION—BOCAS DEL TORO.

The town has been thoroughly oiled, and all deposits of fresh water that can not for any reason be filled are inspected and oiled regularly. The barrels and tanks are inspected within the ten-day period, and all water receptacles that are unfit for service are condemned and destroyed.

It is gratifying to note that the people are furnishing their houses with tanks, and for every tank installed it is possible to dispense with from three to five barrels and, further, these new zinc tanks can be made absolutely mosquito proof at a minimum expense.

The method of fixing these tanks is to make a circular opening about 5 inches in diameter in the removable cover and solder the netting to the rim of the opening. The wire netting is cut large enough to allow of its being depressed downward into the tank and thus forming a pocket. The leader from the eaves trough fits into the opening in the cover, but is so supported outside that it does not come in contact with the wire netting. Netting so arranged serves the double purpose of keeping out mosquitoes and other extraneous matter.

A tabulated statement of the work accomplished follows:

General cleaning

Number of barrels of garbage removed	7,800
Number of square yards of street cleaned	59,000
Total number of days worked during the month	23
Maximum number of men at work	12
Minimum number of men at work	12
Daily average number of men at work	12

Mosquito brigade:

Square yards of brush cut and burned		19,000
Number of barrels covered (old and new)		50
Number of barrels spigoted		80
Number of barrels destroyed		15
Number of tanks repaired		14
Number of hours oiling		90
Number of hours reinspection of barrels		92
Number of persons fined		11

Material used:

Wooden faucets		80
Copper wire	meters	43
Sulphur	pounds	38
Chloride of lime	do	10
Pyrethrum	do	28
Mosquito oil	barrels	15
Carbolic acid	do	1

QUARANTINE SERVICE.

Attention is invited to the fact that yellow fever is at present very prevalent in Guayaquil. Bills of health show 10 deaths a week from this disease, and taking into consideration that the mortality is about 25 per cent, and that a number of mild cases are probably not recognized, it is believed that 50 cases a week is a conservative estimate. This, in a relatively small nonimmune population, shows that the city is badly infected. The disease has also appeared in Duran, across the river, opposite to Guayaquil, and at a number of plantations along the line of the railroad between Duran and Bucay. This latter must also be regarded as infected territory.

The number of cases of plague has increased in Callao and Lima, and Pacasmayo has suffered from a sharp epidemic during December and January. In this latter place the number of cases is now decreasing, but infection still exists and it is believed will remain.

Plague is also epidemic in Catacoas, an inland town from Paita, and a number of cases is occurring in the Chicama Valley, of which Salavery is the port, and also at Trujillo. Chosica, on the line of the Central Railroad of Peru, about 25 miles from Lima, has also become infected, and reports 6 cases during the past two weeks.

The prevalence of this infection is regarded as more pronounced in the Peruvian ports and towns than in the preceding year, and Guayaquil shows a greater number of cases of yellow fever than at any time since the epidemic following the great fire of 1903. In fact, the danger to this port from these diseases has at no time been greater than at present, and every precaution is being taken to prevent the introduction of infection.

During the month the French steamship *France* arrived at Colon with a case of smallpox on board among the contract laborers. This case had been isolated and the large personnel of the ship vaccinated. Those with families and some few who refused to be vaccinated were placed in quarantine at Colon Detention Barracks. The others, after vaccination and the disinfection of their effects, were released and sent to observation camps along the line so that they could commence work immediately. No cases of smallpox developed among those so distributed. The crew of the ship was kept under surveillance on board the vessel and a secondary case developed in the person of the baker, who was removed and isolated at the quarantine station. The ship was redisinfected and allowed to proceed.

A tabulated statement of the work accomplished by this Department follows:

Quarantine Transactions at the Ports of Ancon and Panama.

Number of vessels inspected and passed		13
Number of vessels detained in quarantine		0
Number of vessels fumigated on arrival		0
Number of crew inspected		935
Number of passengers arriving from foreign ports inspected:		
Cabin	228	
Steerage	230	
		458
Total number of persons inspected		1,393
Number of persons vaccinated at ports of arrival because of compulsory vaccination law		148
Number of persons vaccinated at ports of departure or en route because of compulsory vaccination law		186
Total number of persons vaccinated because of compulsory vaccination law		334
Number of persons held under observation at detention house to complete period of incubation of yellow fever or plague		79
Number of passengers held under observation on board to complete period of incubation of yellow fever or plague		0
Number of crew held under observation on board to complete period of incubation of yellow fever or plague		0
Total number of persons held under observation to complete period of incubation of yellow fever or plague		79
Number of passengers for foreign ports embarked at Ancon-Panama:		
Cabin	199	
Steerage	107	
		306

Number of persons arriving at Ancon-Panama on launches and small sailing craft	1,000
Number of persons embarking at Ancon-Panama on launches and small sailing craft	1,185
Total number of persons landed at Ancon-Panama	1,458
Total number of persons embarked at Ancon-Panama	1,491
Apparent decrease for the month	33
Number of bills of health issued	0
Number of bills of health viséed	11
Number of circulars relative to malarial fever distributed	300
Number of immigrants recommended for rejection	3
Number of certificates issued to outgoing passengers	36
Number of persons refused certificates because of trachoma	4

Quarantine Transactions at the Ports of Cristobal and Colon.

Number of vessels inspected and passed		51
Number of vessels detained in quarantine		0
Number of vessels disinfected on arrival		1
Number of vessels fumigated prior to sailing		8
Number of pieces of baggage disinfected		249
Total number of crew inspected		3,224
Total number of passengers inspected		5,645
Number of persons vaccinated on arrival		2,410
Number of persons detained to complete period of incubation for yellow fever		109
Number of persons detained to complete period of incubation for smallpox		20
Number of passengers landing at Colon from foreign ports:		
Cabin	1,076	
Steerage	3,619	
		4,695
Number of passengers in transit		874
Number of passengers embarking at Colon for foreign parts:		
Cabin	434	
Steerage	958	
		1,392
Number of persons arriving at Colon from coast towns, inspected		76
Number arriving at Colon from coast towns, not inspected		51
Number of persons leaving Colon for coast towns		77
Number of passengers arriving at Colon during February:		
For Isthmus (immigration report)	4,618	
For Pacific ports	204	
		4,822

Consolidated Report of Quarantine Transactions at the Ports of Ancon and Panama and Colon and Cristobal for Month of February, 1907.

Number of vessels inspected and passed		64
Number of vessels detained in quarantine		0
Number of vessels fumigated on arrival		1
Number of vessels fumigated prior to sailing		8
Number of crew inspected		4,159
Number of passengers inspected		6,103
Total number of persons inspected		10,262
Number of persons vaccinated at ports of arrival because of compulsory vaccination law		2,558
Number of persons vaccinated at ports of departure or en route because of compulsory vaccination law		1,557
Total number of persons vaccinated because of compulsory vaccination law		4,115
Number of persons held in quarantine at the detention stations to complete period of incubation of yellow fever and plague		188
Number of persons held in quarantine at the detention stations to complete period of incubation of smallpox		20
Number of persons held to complete period of incubation of smallpox at observation camps		423
Number of passengers landed from foreign ports:		
Cabin	1,304	
Steerage	3,849	
		5,253
Number of passengers embarked for foreign ports:		
Cabin	633	
Steerage	1,165	
		1,798
Number of persons arriving on small launches and sailing craft		1,127
Number of persons leaving on small launches and sailing craft		1,262
Total apparent increase for month from foreign ports:		
Cabin	671	
Steerage	2,784	
		3,455
Total apparent emigration (decrease) for month to coast towns		135
Total apparent increase for the month		3,320
Number of immigrants recommended for rejection		3
Number of certificates issued to outgoing passengers		36
Number of persons refused certificates because of trachoma		4
Number of bills of health issued		0
Number of bills of health viseed		11
Number of circulars relative to malarial fever distributed		3,500

Immigration Report—Port of Colon.

Cabin:	
European ports	19
United States	566
Jamaica and West Indies	263
Venezuelan ports	8
Colombian ports	43
Cuban ports	2
Port Limon, Costa Rica	40
Bocas del Toro	15
Total	956
Steerage:	
European ports	49
United States	32
Jamaica	1,028
West Indies	194
Venezuelan ports	21
Colombian ports	74
Cuban ports	7
Port Limon, Costa Rica	101
Bocas del Toro	61
From coast towns	51
Total	1,618
Isthmian Canal Commission contract laborers:	
From Spain	614
From Italy	136
From Barbados	1,294
Total	2,044
Grand total	4,618
Men	3,953
Women	423
Children	242
Total	4,618

Quarantine Transactions—Bocas del Toro.

Number of vessels inspected and passed	25
Number of vessels fumigated upon arrival	2
Number of vessels fumigated before sailing	3
Number of crew inspected	287
Number of passengers inspected	360

Number of persons vaccinated	10
Number of persons held to complete period of incubation for yellow fever	24
Total number of vessels entering during the month	25
Total number of vessels sailing during the month	26

CONSOLIDATED HOSPITAL REPORT.

Class.	Remaining Jan. 31.	Admitted.	Died.	Discharged.	Transferred.	Remaining Feb. 28.
Ancon Hospital.						
Employees	396	1,022	36	887	[a] 86	409
Nonemployees	58	54	5	57	3	47
Total	454	1,076	41	944	89	456
Colon Hospital.						
Employees	177	607	23	553	0	208
Nonemployees	72	83	14	82	0	59
Total	249	690	37	635	0	267
Culebra Hospital.						
Employees	28	168	6	155	0	35
Nonemployees	0	2	0	1	0	1
Total	28	170	6	156	0	36
Miraflores Hospital.						
Employees	19	22	6	19	0	16
Nonemployees	115	23	7	14	0	117
Total	134	45	13	33	0	133
Bas Obispo Hospital.						
Employees	12	88	1	68	[b] 11	20
Nonemployees	0	2	0	1	1	0
Total	12	90	1	69	12	20

[a] 84 patients sent to Taboga Sanitarium.
[b] 1 patient sent to Taboga Sanitarium.

CONSOLIDATED HOSPITAL REPORT—Continued.

Class.	Remaining Jan. 31.	Admitted.	Died.	Discharged.	Transferred.	Remaining Feb. 28.
Gorgona Hospital.						
Employees	11	91	1	80	8	13
Nonemployees	0	2	0	2	0	0
Total	11	93	1	82	8	13
Empire Hospital.						
Employees	7	118	0	64	54	7
Nonemployees	2	0	0	2	0	0
Total	9	118	0	66	54	7
Las Cascadas Hospital.						
Employees	24	123	1	126	5	15
Nonemployees	1	1	0	2	0	0
Total	25	124	1	128	5	15
Paraiso Hospital.						
Employees	7	69	1	66	1	8
Taboga Sanitarium.						
Employees	36	121	0	126	0	31
Nonemployees	4	45	0	144	0	5
Total	40	166	0	170	0	36
Grand total	969	2,641	101	2,349	169	991

Total number of employees remaining in hospitals, 762.

Average Number of Employees Constantly Sick During Month in Hospitals and Sick Camps.

Ancon hospital	385.00
Colon hospital	204.00
Culebra hospital	35.10
Taboga sanitarium	32.32
Las Cascadas hospital	21.72
Miraflores hospital	15.80
Bas Obispo hospital	16.79
Gorgona hospital	11.46
Paraiso hospital	9.71
Empire hospital	9.21
Total number of employees constantly sick in hospitals during month	741.11
Average number sick daily, in hospitals, per thousand	20.41
Gatun sick camp	35.00
Bas Obispo sick camp	21.18
Gorgona sick camp	16.70
Paraiso sick camp	16.30
Tabernilla sick camp	11.80
Corozal sick camp	11.90
Cristobal sick camp	8.10
La Boca sick camp	7.00
Pedro Miguel sick camp	6.15
Las Cascadas sick camp	6.03
Empire sick camp	6.00
Culebra sick camp	5.90
Panama sick camp	4.71
Total number of employees constantly sick in sick camps	156.77
Average number sick daily in sick camps, per thousand	4.32
Total number of employees constantly sick in hospitals and sick camps	897.88
Total average number sick daily in hospitals and sick camps, per thousand	24.73

REPORT OF ANCON HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Isthmian Canal Commission employees ..	337	991	35	847	[a] 82	364
Panama Railroad employees	59	31	1	40	[a] 4	45
Ex-employees.....	8	3	0	5	1	5
Pay patients.....	33	30	2	35	0	26
Charity cases.....	17	21	3	17	2	16
Total.....	454	1,076	41	944	89	456

[a] 84 to Taboga.

Average number of days treatment per patient.....	5
Average number of employees constantly sick.....	385
Cost of subsistence per patient per day.....	$0.29

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	1,328	128	1	507	692
Panama Railroad employees..	90	19	0	10	61
Ex-employees.....	11	1	0	1	9
Pay patients	63	17	0	13	33
Charity cases	38	2	0	9	27
Total	1,530	167	1	540	822

Operations.

Hernia, inguinal	3	Fracture, skull	1
Hernia, inguinal, strangulated	1	Empyema	1
Laparotomy, exploratory	2	Trachelorrhaphy	1
Peritonitis, typhoid	1	Inguinal adenectomy	21
Perineal urethrotomy	4	Submaxillary adenectomy (cancer)	1
Hemorrhoids	4	Various major	18
Skin graft	4	Minor operations	46
Hydrocele	3	Iridectomy	2
Variocele	3	Cataracts	3
Appendectomy	1	Evisceration	1
Amputation of thigh	1	Internal strabismus	1
Amputation of arm	1	Minor eye operations	40
Fracture, leg	1		

Ward Laboratory Report.

Blood examinations	917	Stool examinations—Cont'd.	
Estivo-autumnal parasites	297	Bilharzia	6
Tertian, single	134	Tenia	1
Tertian, double	17	Amœba coli	47
Tertian and estivo-autumnal	1	Amœba dysenteria	17
Blood counts	208	Ciliated monads	58
Leucocytes	59	Pus and blood	33
Red blood cells	2	Balantidium coli	1
Hæmoglobin estimation	345	Urine examinations	1,307
Stool examinations	978	Sugar	3
Ascaris lumbricoides	123	Albumen	368
Uncinaria ova	168	Albumen and casts	68
Tricocephalus dispar	195	Sputum examinations	41
Strongyloids	44	Pneumococci	8
		Tubercular bacilli	6
		Examinations of pus, blood, and tissues	9

Dispensary Report.

Class.	White.	Colored.	Total.
Isthmian Canal Commission employees	57	218	275
Panama Railroad employees	10	19	29
Nonemployees	2	7	9
Total	69	244	313

REPORT OF COLON HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Remaining.
Isthmian Canal Commission employees	130	444	20	404	150
Panama Railroad employees	47	163	3	149	58
Ex-employees	7	9	3	7	6
Pay (private)	9	23	2	17	13
Pay patients (municipal)	17	27	3	23	18
Zone charity	39	24	6	35	22
Total	249	690	37	635	267

Average number of days' treatment per patient	6.07
Average number of employees constantly sick	204
Cost of subsistence per patient per day (including mess)	$0.43

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	574	61	3	153	357
Panama Railroad employees	210	27	0	27	156
Pay patients (private)	32	5	0	15	12
Ex-employees	16	0	0	8	8
Pay patients (municipal)	44	0	0	5	39
Charity cases	63	5	0	5	53
Total	939	98	3	213	625

Operations.

Major operations		51
Abdominal sections	7	
Appendectomy	2	
Hysterectomy	1	
Appendostomy for dysentery	1	
Exploratory, cancer of uterus	1	
Exploratory, fecal impaction	1	
Volvulus	1	
Herniotomy	6	
Inguinal	5	
Ventral	1	
Malignant growths	5	
Sarcoma, cervical	2	
Sarcoma, scrotum, cord and testicle	1	
Sarcoma, inguinal	1	
Sarcoma, penis	1	
Perineal urethrotomy	4	
Hydrocele, radical	3	
Hemorrhoids, Whitehead's operation	2	
Amputations (thigh, railroad accident)	1	
Varicocele	2	
Compound fractures, wired	2	
Enucleation, inguinal glands	13	
Various, 1 each	6	
Operations, eye, ear, nose, and throat		6

Laboratory Report.

Blood examinations:	
Estivo-autumnal malaria	117
Tertian	161
Double tertian	18
Triple tertian	3
Spirillum Obermeier	1
Widal reactions (3 positive)	14
Red blood counts	1
White blood counts	21
Differential counts	10
Hemoglobin estimations	12
Negative examinations	343
Total	701

Stool examinations:

Ova of ascaris lumbricoides	15
Ova of ankylostomum duodenale	37
Ova of tricocephalus dispar	37
Rhabdonema strongyloides	10
Cercomonas intestinalis	14
Amœba coli	8
Negative examinations	105
Total	189

Urinalyses:

Microscopical examinations	7
Albumen	130
Negative, albumen	618
Hemoglobin	1
Total	756

Sputum examinations:

Positive for bacillus tuberculosis	8
Negative for bacillus tuberculosis	39
Total	47

Pathological Report.

Post-mortem examinations		34
Microscopical examinations of tissue:		
Post-mortem	37	
Operations	17	
Malignant tumors	6	
Examination of kneejoint (injection guinea pig)	1	
Inoculation of rats with spirillar blood	2	
		63
Total		97

Colon Dispensary.

Class.	White.	Colored.	Total.
Isthmian Canal Commission employees	66	85	151
Nonemployees	2	16	18
Total	68	101	169

REPORT OF CULEBRA HOSPITAL.

Class.	Remaining last month.	Admitted.	Discharged.	Died.	Transferred.	Remaining.
Employees	28	168	155	6	0	35
Pay cases	0	0	0	0	0	0
Charity cases	0	2	1	0	0	1
Total	28	170	156	6	0	36

NATIONALITY.

Class.	Number treated.		Americans.		Other nations.	
	White.	Colored.	White.	Colored.	White.	Colored.
Employees	70	126	19	0	49	128
Charity cases	2	0	0	0	2	0
Total	72	126	19	0	51	128

Major operations:

Amputation, leg	1
Hernia, inguinal operated, radical cure	2

Minor operations and treatments:

Abscesses opened	27
Amputation, fingers	3
Bubo, inguinal enucleated	4
Burns, back, treated	2
Burns, face, treated	1
Chancroids, cauterized	6
Contused wounds, treated	14
Cellulitis of hand, treated	2
Cellulitis of leg, treated	3
Circumcisions, performed	5
Furuncles, opened	28
Fractures, internal, malleolus, treated	1
Fractures, external, malleolus, treated	1
Fractures, skull, trephined, and treated	1
Fractures of toes, treated	4

Minor operations and treatments—Continued.

Incised wounds, treated	19
Infected feet, treated	3
Infected hands, treated	4
Lacerated wounds, treated	16
Strictures of urethra, dilated	4
Ulcers, dressed	4

Dispensary Report.

Class.	White.	Colored.	Total.
Isthmian Canal Commission employees	919	602	1,521
Nonemployees	55	37	92
Total	974	639	1,613

Sick Camp Report, Culebra Hospital.

Remaining last report	13
Admitted and excused	153
Died	0
Discharged	161
Transferred	0
Remaining	5
Average number in camp and quarters	5.9

REPORT OF MIRAFLORES HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Isthmian Canal Commission employees	13	16	6	11	0	12
Panama Railroad employees	1	4	0	4	0	1
Exemployees	18	0	2	2	0	14
Charity cases	24	9	4	3	0	26
Total	56	29	12	20	0	53

Average number of days treatment per patient	16.7
Average number of employees constantly sick	15.8
Cost of subsistence per patient per day	$0.22

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	29	0	0	1	28
Panama Railroad employees.	5	0	0	0	5
Exemployees	18	0	0	0	18
Charity cases	33	0	0	0	33
Total	85	0	0	1	84

Ward Laboratory Report.

Blood examinations	36
Estivo-autumnal parasites	15
Tertian	3
Haemoglobin examinations	6
Stool examinations	5
Ascaris lumbricoides	2
Uncinaria ova	0
Tricocephalus dispar	1
Amoeba	1
Urine examinations	15
Sugar	1
Albumen	4
Casts	1
Sputum examinations	8
Tubercle bacilli	5

Pathological Laboratory Report.

Post-mortem examinations	13

Report of Miraflores Insane Asylum.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Remaining.
Isthmian Canal Commission employees	5	2	0	4	3
Ex-employees	10	0	0	1	9
Charity cases	58	13	1	8	62
Total	73	15	1	13	74

Average number of days treatment per patient	23.50
Average number of employees constantly sick	4.7
Cost of subsistence per patient per day	$0.22

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	7	1	0	0	6
Ex-employees	10	0	0	0	10
Charity cases	71	0	0	5	66
Total	88	1	0	5	82

Report of Miraflores Leper Asylum.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Ex-employees	1	0	0	0	0	1
Charity cases	4	1	0	0	0	5
Total	5	1	0	0	0	6

Average number of days treatment per patient	$24\frac{1}{6}$
Average number of employees constantly sick	0
Cost of subsistence per patient per day	$0.51

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Ex-employees	1	0	0	0	1
Charity cases	5	0	0	0	5
Total	6	0	0	0	6

CONSOLIDATED REPORT OF MIRAFLORES HOSPITAL, LEPER ASYLUM, AND INSANE ASYLUM.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Remaining.
Isthmian Canal Commission employees	18	18	6	15	15
Panama Railroad employees	1	4	0	4	1
Ex-employees	29	0	2	3	24
Charity cases	86	23	5	11	93
Total	134	45	13	33	133

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	36	1	0	1	34
Panama Railroad employees	5	0	0	0	5
Ex-employees	29	0	0	0	29
Charity cases	109	0	0	5	104
Total	179	1	0	6	172

Dispensary Report.

Class.	White.	Colored.	Total.
Isthmian Canal Commission employees...	14	117	131
Panama Railroad employees.....	1	0	0
Nonemployees.....	0	13	13
Total.....	15	130	145

REPORT OF BAS OBISPO HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Employees.....	12	88	1	68	11	20
Ex-employees.....	0	0	0	0	0	0
Pay patients.....	0	2	0	1	[a] 1	0
Total.....	12	90	1	69	12	20

[a] 1 patient sent to Taboga Sanitarium.

Average number of days treatment per patient.....	10
Average number of employees constantly sick.....	16.79
Cost of subsistence per patient per day.....	$0.34

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees.....	100	0	0	61	39
Pay patients.....	2	2	0	0	0
Total.....	102	2	0	61	39

Sick Camp Report.

Remaining last report	27
Admitted and excused	208
Died	0
Discharged	178
Transferred	39
Remaining	18
Average daily number constantly sick in camp and quarters	21.18

REPORT OF GORGONA HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Isthmian Canal Commission employees	11	91	1	80	8	13
Charity cases	0	2	0	2	0	0
Total	11	93	1	82	8	13

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	102	0	0	5	97
Charity cases	2	0	0	0	2
Total	104	0	0	5	99

Average number of days of treatment for each patient	4.33
Average number of employees constantly sick	11.46
Cost of subsistence per patient, daily	$0.26

Operations.

Amputation of leg	1
Amputation of fingers	3

Laboratory Report.

Blood examinations:

Estivo-autumnal	6
Tertian	4
Negative	7
Urine examinations	11
Albumen	1

Dispensary Report.

Class.	White.	Colored.	Total.
Isthmian Canal Commission employees	676	848	1,524
Nonemployees	14	21	35
Total	690	869	1,559

Sick Camp Report.

Remaining last report	4
Admitted and excused	252
Died	0
Discharged	202
Transferred	40
Remaining	14
Average daily number constantly sick in camp and quarters	16.70

REPORT OF LAS CASCADAS HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Employees	24	123	1	126	5	15
Ex-employees	0	0	0	0	0	0
Charity cases	1	1	0	2	0	0
Pay patients	0	0	0	0	0	0
Total	25	124	1	128	5	15

Average number of days' treatment per patient	6.03
Average number of employees constantly sick	21.72
Cost of subsistence per patient per day	$0.24

Nationality.

Class.	Americans.		Other nations.	
	White.	Colored.	White.	Colored.
Employees	0	0	104	43
Ex-employees	0	0	0	0
Charity patients	0	0	0	2
Pay patients	0	0	0	0
Total	0	0	104	45

Ward Laboratory Report.

	Positive.	Negative.
Blood examinations for malarial parasites:		
Estivo-autumnal	30	25
Tertian	16	0
Total	46	25
Urine examinations (175):		
Albumen	0	0
Hemoglobin	4	71
Sputum examination (tuburcular)	1	0
Stool examination	0	1

Sick Camp Report.

Remaining last report	6
Admitted and excused	113
Died	0
Discharged	104
Transferred	3
Remaining	12
Average daily number constantly sick in camp and quarters	6.03

REPORT OF PARAISO HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Isthmian Canal Commission employees ...	7	69	1	66	1	8

Average number of days' treatment per patient	3.5
Average number of employees constantly sick	9.71
Cost of subsistence per patient per day	$0.33

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	76	1	0	29	46

Surgical Operations.

Amputations right arm, upper third	1
Abcesses opened	12
Compound fracture of great toe, left foot	1
Chronic leg ulcers	10
Incised wound of scalp	3
Incised wounds, general	15
Insect stings	2
Lacerated wounds of scalp	4
Lacerated wounds, general	10
Punctured wounds	8
Strains	7
Sprains	3
Furuncles lanced	12
Hernia of iris	1

Laroratory Report.

Urine examinations	10
Albumen	2
Negative	8
Blood examinations (miscroscopic)	25
Mal. plasmodia E. A	10
Tertian	2
Negative	13
Stool examinations	8
Amœba dysenteriæ	1
Pus and blood	3
Negative	4
Examinations, vaginal discharge	1

Findings: Sections of mucus membrane and débris.

Paraiso Dispensary Report.

Class.	White.	Colored.	Total.
Isthmian Canal Commission employees	418	703	1,121
Panama Railroad employees	0	0	0
Nonemployees	54	49	103
Total	472	752	1,224

Sick Camp Report.

Remaining last report	12
Admitted and excused	443
Died	0
Discharged	430
Transferred	0
Remaining	25
Average daily number constantly sick in camp and quarters	16.3

REPORT OF EMPIRE HOSPITAL.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Transferred.	Remaining.
Employees	7	118	0	64	54	7
Ex-employees	0	0	0	0	0	0
Pay patients	1	0	0	1	0	0
Charity patients	1	0	0	1	0	0
Total	9	118	0	66	54	7

Average number of days treatment per patient	2.05
Average number of employees constantly sick	9.21

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Employees	125	6	0	41	78
Ex-employees	0	0	0	0	0
Pay patients	1	1	0	0	0
Charity	1	0	0	0	1
Total	127	7	0	41	79

Dispensary Report.

Class.	White.	Colored.	Total.
Employees	1,458	754	2,212
Nonemployees	11	15	26
Total	1,469	769	2,238

Sick Camp Report.

Remaining last report	5
Admitted and excused	108
Died	1
Discharged	88
Transferred	7
Remaining	17
Average daily number constantly sick in camp and quarters	6.00

REPORT OF TABOGA SANITARIUM.

Class.	Remaining last month.	Admitted.	Died.	Discharged.	Remaining.
Employees	36	121	0	126	31
Nonemployees	0	13	0	13	0
Pay patients	2	30	0	27	5
Charity cases	2	2	0	4	0
Total	40	166	0	170	36

Average number of days treatment per patient	4.10
Average number of employees constantly sick	32.32
Cost of subsistence per day	$0.59

Nationality.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Employees	157	110	0	0	47
Nonemployees	13	13	0	0	0
Pay patients	32	23	0	0	9
Charity patients	4	0	0	0	4
Total	206	146	0	0	60

REPORT OF SANTO TOMAS HOSPITAL.

Class.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Isthmian Canal Commission employees	1	1	2	0	0
Panama Railroad employees	1	0	1	0	0
Pay cases	29	105	113	2	19
Charity cases	137	219	177	32	147
Total	168	325	293	34	166

Average number of nonemployees constantly sick per day, 171.5.

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees	2	1	0	1	0
Panama Railroad employees	1	0	0	1	0
Pay cases	134	0	0	72	62
Charity cases	356	11	0	117	228
Total	493	12	0	191	290

PRINCIPAL DISEASES TREATED.

Intermittent fever and malarial cachexia	106	Acute bronchitis	13
Dysentery	8	Pneumonia	16
Other epidemic diseases	7	Diseases of the stomach	6
Tuberculosis of the lungs	11	Diarrhea and enteritis	16
Syphilis	9	Hernias and intestinal obstructions	6
Gonorrhea	8	Other diseases of the intestines	7
Acute articular rheumatism	24	Diseases of the uterus	5
Acute and chronic alcoholism	5	Diseases of the skin and its adnexa	15
Diseases of the nervous system	6	Accidental traumatisms	7
Diseases of the eye and its adnexa	5	Burns and scalds	4

Operations.

Tubercular peritonitis	1	Gluteal abscess	1
Extra-uterine fibroid (excision)	1	Varicose veins (both legs)	1
Hydrosalpynx (sac resection)	1	Inguinal adenitis	1
Pelvic abscess (vaginal drain)	1	Double salpingo-oophorectomy for ovarian abscess and cystic ovary	1
Psoas abscess	1	Inguinal hernias	3
Tubercular inguinal adenitis	1	Cellulitis of the hand	1
Partial resection of elbow for defective union	1	Anthrax	1
Circumcision	3	Curettage for dysmenorrhea	1
Ascites (permanent drainage)	1	Ischio-rectal abscess	1
Pleurisy with effusion	1	Abscess Scarpa's triangle	1
Pelvic hematoma (drainage through vagina)	1	Divulsion for rectal neoplasm	1
Antero-post celporrhaphy	1	Senile cataracts	2
		Total	29
		Minor operations	32

Dispensary Report.

Class.	White.	Colored.	Total.
Natives	13	70	83
Foreigners	9	41	50
Total	22	111	133

Principal Diseases Treated.

Malaria	18	Diarrhea and enteritis	18
Pulmonary diseases	17	Skin diseases	10
Beri-beri	5	Miscellaneous	43
Rheumatism	14		
Bronchitis	8	Total	133

REPORT OF GATUN DISPENSARY.

Class.	White.	Colored.	Total.
Employees	632	989	1,621
Nonemployees	15	1	16
Total	647	990	1,637

Sick Camp Report.

Remaining last report	16
Admitted	439
Died	0
Discharged	372
Transferred	70
Remaining	13
Average daily number constantly sick in camp and quarters	35

REPORT OF TABERNILLA DISPENSARY.

Class.	White.	Colored.	Total.
Employees	111	1,022	1,133
Nonemployees	7	44	51
Total	118	1,066	1,184

Sick Camp Report.

Remaining last report	8
Admitted and excused	225
Died	0
Discharged	187
Transferred	31
Remaining	15
Average daily number constantly sick in camp and quarters	11.8

REPORT OF COROZAL DISPENSARY.

Class.	White.	Colored.	Total.
Employees	724	723	1,447
Nonemployees	49	35	84
Total	773	758	1,531

Sick Camp Report.

Remaining last report	8
Admitted and excused	335
Died	0
Discharged	306
Transferred	26
Remaining	11
Average daily number constantly sick in camp and quarters	11.9

REPORT OF CRISTOBAL DISPENSARY.

Class.	White.	Colored.	Total.
Employees	705	1,152	1,857
Nonemployees	57	103	160
Total	762	1,255	2,017

Sick Camp Report.

Remaining last report	13
Admitted and excused	65
Died	0
Discharged	61
Transferred	12
Remaining	5
Average daily number constantly sick in camp and quarters	8.1

REPORT OF LA BOCA DISPENSARY.

Class.	White.	Colored.	Total.
Employees	138	596	734
Nonemployees	22	47	69
Total	160	643	803

Sick Camp Report.

Remaining last report	0
Admitted and excused	196
Died	0
Discharged	185
Transferred	3
Remaining	8
Average daily number constantly sick in camp and quarters	7

REPORT OF PEDRO MIGUEL DISPENSARY.

Class.	White.	Colored.	Total.
Employees	134	369	503
Nonemployees	39	3	42
Total	173	372	545

Sick Camp Report.

Remaining last report	12
Admitted and excused	210
Died	1
Discharged	186
Transferred	23
Remaining	10
Average daily number constantly sick in camp and quarters	6.15

REPORT OF PANAMA DISPENSARY.

Class.	White.	Colored.	Total.
Employees	360	250	610
Nonemployees	5	0	5
Total	365	250	615

Sick Camp Report.

Remaining last report	0
Admitted and excused	132
Discharged	114
Transferred	18
Remaining	0
Average daily number constantly sick in camp and quarters	4.71

REPORT OF THE BOARD OF HEALTH LABORATORY.

The work consisted of the weekly bacteriological examination of the water supplies of Colon, Gorgona, Bas Obispo, Empire, Rio Grande, and special examinations of the water supplies of Las Cascadas and the Chagres River at Bohio; chemical examinations of milk; stomach contents for arsenic; and of medicines for poisons. Examinations of mineral oil; examination of lepers; examination of blood, exudates, and urine; examination of blood for the agglutination reaction; examination of tissue from the operating room and from autopsies.

Certain determinations and investigations in progress may be mentioned: Analysis of wire screening and of evaporated cream; assay of quinine sulphate; determination of ammonia error in urea; a study of the infectiousness of pleural fluids; staining methods for leprosy bacilli in tissues; investigation of terminal infections and of certain irregular fevers coming to autopsy.

The following is a summary of the work performed during the month:

Bacteriological examinations of the municipal water supplies	20
Toxicological examinations	5
Analyses of milk	4
Examinations of lepers	2
Examination of mineral oil	1

Agglutination reactions (typhoid fever, positive 8)	72
Examinations of urine	9
Examinations of blood	2
Examinations of exudates	4
Examinations of tissues (frozen sections 3)	13

There were 39 autopsies held during month, and cause of death was determined as follows:

Lobar pneumonia	10	Accidental traumatisms	3
Broncho-pneumonia	2	Burns (blasting accidents)	2
Broncho-pneumonia, tuberculous	1	Nephritis, chronic	3
Pyæmia, pneumococcus	2	Nephritis, chronic interstitial	1
Typhoid fever	3	Extravasation of urine	1
Malarial fever, æstivo-autumnal	3	Carcinoma of stomach	1
Hæmoglobinuric fever	1	Aneurism of the aorta	1
Tuberculosis, chronic ulcerative	1	Aortic insufficiency	1
Tuberculosis, general miliary	1	Leptomeningitis, chronic	1
		Hernia, strangulated	1
		Total	39

REPORT OF VACCINATIONS.

Panama:	
Carrera Balboa	8
Chiriqui	12
Plazuela Arango	23
Santo Domingo	7
Gorgona Town	260
Caballo Viejo	74
Bas Matachin	145
Empire:	
Cirio	33
Cuneta	95
Total	[a] 657

[a] The above vaccinations are in addition to those made by the quarantine officers at Colon and Panama.

STATEMENT OF ISSUES OF QUININE IN ITS VARIOUS FORMS DURING THE MONTH OF FEBRUARY, 1907.

	Kilos.
Quinine, bisulphate	0.250
Quinine, sulphate	10.000
2-grain pills	5.000
3-grain pills	1.275
5-grain pills	1.250
Total	17.775

17.775 kilos equal 38.883 pounds avoirdupois.

Total issues, December, 1906, 48.800 kilos, or 106.75 pounds avoirdupois.

Total issues, January, 1907, 148.250 kilos, or 342.297 pounds avoirdupois.

2.1875 pounds avoirdupois equal 1 kilo.

PERSONNEL REPORT.

[Giving total number of employees in each division.]

Office of Chief Sanitary Officer	42
Director of Hospitals	15
Ancon Hospital	386
Colon Hospital	244
Culebra Hospital	27
Gorgona Hospital	13
Miraflores Hospital	39
Empire Hospital	15
Santo Tomas Hospital	6
Tabernilla Hospital	4
Las Cascadas Hospital	13
Bas Obispo Hospital	14
Paraiso Hospital	9
Taboga Sanitarium	22
Corozal Dispensary	3
Panama Dispensary	2
La Boca Dispensary	5
Pedro Miguel	3
Cristobal Dispensary	5
Gatun Dispensary	7
Health Officer of Panama	154
Health Officer of Colon and Cristobal	250
Zone Sanitation	1,382
Quarantine Service	30
Property Division	22
Total	2,712

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