

REPORT OF THE . . .

Department of Health
of the Isthmian Canal
Commission for the...

. Month of November 1904

W. C. GORGAS,

Colonel Medical Corps U. S. Army, Chief Sanitary Officer

PANAMA

I. C. C. Press.--214

1905

Gift of the Panama Canal Museum



Ancon, Canal Zone.

December 10th, 1904.

TO THE GOVERNOR OF THE
CANAL ZONE.

Sir:—

I have the honor to submit herewith the
Report of the Department of Health of the
Isthmian Canal Commission for the month of
November 1904.

Very Respectfully,

W. C. GORGAS,

Colonel Medical Corps U. S. Army,
Chief Sanitary Officer.

SANITARY WORK IN PANAMA.

Vaults, cess pools and drains in different parts of the city have been oiled; also ponds and ditches whenever there was an interval of more than two days without rain.

The experiment of oiling streets for keeping down dust was tried. The long block in the Carrera Quebrada from Calle Escobar to Calle de las Carretas was selected for this work and while the weather remained dry result was satisfactory except that the oil used was too light and evaporated rapidly. Crude petroleum would prove satisfactory for this purpose and its use in this way would be desirable.

The cleaning of yards has been continued. The portion of the city gone over during the month was from block 13 to block 58, inclusive. 355 loads of refuse was removed.

296 barrels were covered and placed on stands.

YELLOW FEVER.

One case was discovered in the general ward at San Tomas Hospital on November 21st, and isolated in the mosquito proof ward of that institution. The patient, an Italian, was taken from a restaurant and grocery store in the Plaza Santa Ana. He had been in Panama about one month.

Fumigation of the house from which he was taken was begun at once as well as the fumigation of the surrounding houses and where practicable sulphur was used. 25 houses of a total capacity of 550,000 cubic feet were fumigated. The number of mosquitoes found was moderate.

The expendable material used in this fumigation was as follows:

Alcohol.....	2 gallons
Flour for paste.....	175 lbs.
Pyrethrum.....	197 lbs.
White paper.....	170 lbs.
Manila paper.....	18 lbs.
Sulphur.....	500 lbs.
Tacks.....	2 pkgs.

During November there were 106 deaths in the city of Panama, showing a decrease of 19 from the previous month. Of these 106 reported deaths, 8 were stillbirths and are deducted in estimating the death rate.

Of the 17 deaths occurring in Ancon Hospital, 9 were sent in from stations along the line and are likewise omitted from the rate for Panama. With these deductions, there were 89 deaths fairly attributed to the city of Panama.

Population.....	20,262
Annual rate per 1000.....	52.70

ANCON HOSPITAL.

The permanent repairs of the Hospital are progressing. The wards of the Strangers' Hospital, temporarily devoted to the habitation of the Nurses, have been placed in fit condition with the exception of the plumbing. Ward 10, formerly devoted to the housing of the consumptives, was disinfected and is now ready for the occupation of the engineers. The orphans have left their quarters next to the Chapel and this is undergoing renovation. The consumptives have been temporarily quartered in the building formerly occupied by the orphans.

The laundry has been under the charge of one of the nurses in place of the Sisters and the linen room was changed from the orphanage to the laundry and the work of mending the clothes and the washing of the hospital linen is progressing more satisfactorily.

Number of patients in Hospital last report.	198
Number admitted during November.....	202
Total to be accounted for.....	400
Died.....	17
Remaining.....	194
Discharged.....	189
Total.....	400

Discharged:

Medical.....	104
Surgical.....	80
Eye cases.....	5 189
Recovered.....	142
Improved.....	39
Not improved.....	8 189
White.....	69
Colored.....	120 189

Admissions:

Employees of the Canal Commission.....	112
Not employees of the Canal Commission.	90 202

Free outdoor clinic:

Total number of patients treated.....	392
Canal employees.....	220
Not employees of the Canal Commission.	172 392

Of the cases on the medical side the following were the principal diseases:

Malarial Fever, Positive Aestivo Autumnal.....	49
Malarial Fever, Clinical.....	3
Malarial Fever, Single Tertian.....	5
Malarial Fever, Double Tertian.....	3
Malarial Cachexia, Aestivo Autumnal.....	2
Malarial Cachexia.....	2
Gastritis, Acute.....	4
Anchylostomiasis.....	2
Dysentery, Chronic.....	1
Dysentery, Acute.....	3
Bronchitis (Acute 1) (Sub acute 1).....	2
Rheumatism, Acute.....	3

Among the chronic cases there were:

Pulmonary Tuberculosis.....	1
Nephritis, Chronic.....	2
Rheumatism, Chronic.....	7

On the surgical side there were eighty cases, the main group being:

Venereal.....	22
Haemorrhoids.....	3
Wounds and Infections.....	13
Multiple Abscesses.....	2
Ulcers.....	21
Hernia Inguinal.....	4
Fractures.....	5
Skull.....	1
Ribs.....	2
Radius.....	1
Metacarpal.....	1

There were twenty-six major operations during the month, as follows:

Amputations.....	4
2 for Osteo Myelitis	
1 for Mangled foot	
1 for Madura foot	
Hernia.....	5
Inguinal	4
Umbilical	1

Haemorrhoids.....	3
Perineal Urethrotomy.....	2
Various, 1 each.....	11

There were seventeen deaths during the month, the causes of death being as follows:

Pernicious Malaria.....	3
Pneumonia, Lobar.....	3
Pericarditis, Chronic.....	1
Nephritis, Chronic.....	4
Paraplegia.....	1
Bacillary Dysentery.....	1
Uraemia.....	1
Aneurysm, Abdominal Aorta.....	1
Anchylostomiasis.....	1
Empyaema.....	1 17
White.....	4
Colored.....	13 17

Malarial Fever statistics for the month ending November 30th, 1904:

Malarial Fever, Aestivo Autumnal.....	49	deaths 4
Malarial Fever, Clinical.....	3	deaths 0
Malarial Fever, Single Tertian.....	5	deaths 0
Malarial Fever, Double Tertian.....	3	deaths 0
Malarial Cachexia, Aestivo Autumnal..	2	deaths 0
Malarial Cachexia.....	2	deaths 0

Total number cases....	64	deaths 4
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QUARANTINE WORK AT PANAMA.

The plumbing for the Detention House is being installed and by the first of the year, the building will be ready for the reception of passengers for observation.

The repairs to the hulk for the floating disinfecting plant have been finished and the vessel launched. The disinfecting machinery, which has been ordered, should arrive shortly and can be installed without much delay.

The regular quarantine work was as follows:

Number of vessels inspected and passed.....	11
Number of vessels detained in quarantine.....	0
Number of vessels disinfected.....	0
Total number of passengers inspected on arrival....	491
Total number of crew inspected.....	798
Total number local passengers inspected for vaccination.....	60
Total number of passengers vaccinated.....	10
Total number of non-immunes to yellow fever observed to complete period of incubation...	44
Total number of passengers embarking.....	595

WORK ALONG THE CANAL ZONE.

At Ancon the work has been mostly confined to the Hospital Ground. The Diaz Estate adjacent to the Hospital Grounds is being drained and it is intended to sub-drain the vicinity in December. About 33 men have been kept at work filling in the swampy ground near the pond below the mess hall and this work will soon be completed. The repairs and cement lining of the old stone water courses adjacent to the roads are progressing, and as soon as completed will largely reduce the cost of the maintenance of the work at Ancon.

At La Boca the Sanitary Brigade has been occupied with a general cleaning of the town in the vicinity of the houses and in the cutting of brush preparatory to drainage and subdrainage of the vicinity.

At Paraiso and vicinity, the brigade is occupied in ditching work.

At Culebra: The town has had a general cleaning up. The houses are supplied with garbage cans which are emptied on alternate days. The town has a much better appearance than formerly and is being kept in a fairly clean condition. The same statement applies to Rio Grande which was found in a very filthy condition when the work was started. Most of the water containers at these places are now mosquito proof and are supplied with taps and the

inhabitants notice quite a decrease in the number of mosquitoes present.

There is a very large amount of drainage work to be done at Culebra and Rio Grande but some difficulty is found in obtaining sufficient labor at these places.

A large amount of work is being done in the vicinity of Bas Matachin and Gorgona and the series of swamps in the vicinity of the machine shops are being rapidly replaced with small trenches in which the water keeps moving, and to which small fish have access.

The towns of Tabernilla, Frijoles and Bohio have had a general cleaning and laborers are now at work draining the low ground.

Number of garbage cans emptied daily:

At Culebra.....	47
At Bas Matachin.....	2
At Gorgona.....	42
At Rio Grande.....	42

Number of night soil pails emptied daily:

At Culebra.....	40
At Gorgona.....	31
At Bas Matachin.....	7

HOSPITAL WORK ALONG THE CANAL ZONE.

The construction of the operating room and bridge connecting it with dispensary and hospital at Culebra has been begun. Both Hospital and dispensary are in good condition and need only a few days work by carpenters in the way of putting shelving, painting, etc., to complete them.

Detailed plans for the dispensary at Las Cascadas have been submitted and their adoption recommended by the Chief Sanitary Officer.

The Hospital at Gorgona is undergoing extensive repairs and a number of changes have been approved by the Chief Sanitary Officer. It will, however, be at least a month before the hospital will be ready to receive patients.

Small surgical outfits, sufficient for minor emergency work have been secured for Gorgona and Bohio while fairly good emergency outfits have been sent to Culebra.

SYNOPSIS OF THE WORK FOR THE DISTRICT INCLUDING
EMPIRE, LAS CASCADAS, AND BAS OBISPO.

	New cases	Old cases
Empire.....	42	60
Bas Obispo.....	7	7
Las Cascadas.....	2	6
Culebra.....	10	10
Rio Grande.....	1	
Matachin.....	1	
Gamboa.....	2	3
Paraiso	2	1
Pedro Miguel.....	1	8
Miscellaneous.....	9	3
	77	98

Total number of cases treated.....175

Total number of deaths..... 3

Sent to Hospital:

From Empire.....5

From Paraiso.....1

Bas Obispo.....1

Total.....7

SYNOPSIS OF WORK ACCOMPLISHED AT CULEBRA.

Number of consultations.....434

Number of individual patients.....237

Number patients sent to Ancon Hospital.. 22

Treated in Culebra Hospital..... 25

Deaths..... 1

Diseases treated in Hospital:

Inflamed glands..... 1

Enteritis..... 2

Intermittent fever.....	18	
Ulcers.....	2	
Rheumatism.....	1	
Hematemesis.....	1	25

Nationality of above patients:

West Indians.....	5	
Europeans.....	5	
Jamaicans.....	11	
Panamanians.....	3	
Americans.....	1	25

SYNOPSIS OF THE WORK ACCOMPLISHED AT GORGONA
DURING NOVEMBER.

Rheumatism.....	16	Forwarded from 1st	
Colic.....	2	column.....	145
Constipation.....	10	Boils.....	1
Worms.....	6	Opacity of cornea.....	1
Dyspepsia.....	14	Dysentery.....	2
Malarial Fever.....	43	Diarrhoea.....	5
Sprain.....	1	Contusion.....	2
Neuralgia.....	6	Sciatica.....	1
Anemia.....	3	Migraine.....	1
Metrorrhagia.....	1	Orchitis.....	3
Wounds.....	17	Gonorrhoea.....	3
Cardiac anasarca.....	1	Chancroid.....	1
Biliousness.....	1	Bubo.....	1
Tape Worm.....	1	Urinary fistula.....	1
Ulcers.....	13	Strictures of urethra.....	1
Epilepsy.....	1	Congestion of liver.....	1
Parturition.....	1	Eczema.....	5
Ophthalmia.....	1	Influenza.....	3
Burns.....	2	Diffuse cellulitis of hand.....	1
Gastritis.....	1	Erysipelas.....	1
Abscess.....	1	Incontinence of urine.....	1
Bronchitis.....	3	Synovitis.....	1
		Sore throat.....	1
	145		182

Number patients sent to Ancon Hospital....5

SYNOPSIS OF THE WORK AT BOHIO (BUENA VISTA AND
AHORCA ALSO INCLUDED IN THIS TABLE.)

Malaria.....	100	Cardiac affections.....	7
Intestinal Parasites.....	12	Teeth extractions.....	5

Tropical ulcers.....8	Eye affections.....6
Syphilis.....11	Gastritis.....4
Rheumatism.....5	Otitis Media.....3
Bronchitis.....5	Nephritis.....3
Pediculi.....2	Incised or contused wounds..4
Pharyngitis.....3	Spinal diseases.....3
Red Bugs.....2	Hydrocele.....2
Local Infections.....1	Enteritis.....3
Dysentery.....3	Tonsillitis.....2
Phthisis.....1	Gonorrhoea.....2
Tinea Circinata.....2	Abscess.....2
Salpingitis.....2	Constipation.....2
Aneurism.....1	Thrush.....1
Insanity.....1	Tumors.....1
Pregnancy.....1	Suppurative Adenitis.....1
Cholelithiasis.....1	Endometritis.....1
Metrorrhagia.....1	Cirrhosis liver.....1
Dog bite.....1	Indigestion.....6
Billiousness.....8	Alcoholic Neuritis.....0
Total number of cases treated.....230	

SYNOPSIS OF THE WORK ACCOMPLISHED AT GATUN.

(LION HILL IS ALSO INCLUDED)

Malarial cases.....10	Intestinal parasites.....1
Tropical ulcers.....1	Bronchitis.....1
Nephritis.....1	Local infections.....1
Alcoholic Neuritis.....1	Synovitis.....1
Total number of cases treated.....17	

SYNOPSIS OF THE WORK ACCOMPLISHED AT FRIJOLE.

Malarial cases.....6	Tropical ulcers.....1
Intestinal parasites.....4	Bronchitis.....1
Teeth extractions.....1	Otitis Media.....1
Local infections.....1	Leprosy.....1(?)
Hernia.....1	
Total number of cases treated.....17	

SYNOPSIS OF THE WORK AT TABERNILLA.

Malaria.....14	Intestinal parasites.....6
Syphilis.....2	Rheumatism.....2

Bronchitis.....1	Teeth extraction.....1
Gastritis.....1	Pediculi.....1
Red bugs.....1	Hydrocele.....1
Phthisis.....1	Leprosy.....1
Chigeres.....1	
Total number of cases treated.....33	

SYNOPSIS OF THE WORK DONE AT SAN PABLO.

Malaria.....4	Tropical ulcers.....1
Rheumatism.....1	Pediculi.....1
Hernia.....1	1
Total number of cases treated.....8	

VACCINATIONS.

During the month, seventeen persons along the Canal Zone were vaccinated.

DEATHS REPORTED ON THE CANAL ZONE FOR THE MONTH OF NOVEMBER.

CAUSE	TOWN.	AGE.	SEX.	NATIONALITY.	LENGTH OF RESIDENCE
Pernicious Fever	La Boca	14 yrs.	Male	Panamaian	*
Pernicious Fever	La Boca	9 mos.	Female	Panamanian	*
Malarial Fever	La Boca	2 yrs.	Male	St. Lucian	1 yr. 7 mo.
Beriberi	La Boca	22 yrs.	Male	Colombian	*
Tuberculosis	La Boca	25 yrs.	Male	Panamanian	*
Pernicious Fever	La Boca	40 yrs.	Male	Panamanian	*
Dysentery	Miraflores	24 yrs.	Male	Panamanian	*
Dysentery	Empire	28 yrs.	Male	Colombian	19 Years
Dropsy	Empire	40 yrs.	Male	Jamaican	15 Years
Unknown	Empire				
Dropsy	Gorgona	46 yrs.	Male	Englishman	20 Years
Whooping cough	Gorgona	2 yrs.	Female	Panamanian	*
Dropsy	Gorgona	70 yrs.	Female	Panamanian	19 Years
Rheumatism and Ma- laria	Culebra	44 yrs.	Male	Jamaican	*
Lung trouble	Gatun	1 mo.	Female	Panamanian	*
Childbirth	Bohio		Female		*
Drowned	Bohio	17 yrs.	*	*	*
Dropsy	Buena Vista	6 yrs.	Male	Panamanian	*
Childbirth	Buena Vista	38 yrs.	Female	Panamanian	*
Pulmonary Congestion	Frijoles	50 yrs.	Male	Jamaican	18 Years
Angina	Tabernilla	33 yrs.	Female	Panamanian	All her life

* Not reported.

BLOOD EXAMINATIONS MADE OF NATIVES ALONG THE
LINE OF THE CANAL.

The table showing the results of these examinations printed in the report for the month of October included much of the November work.

On November 3rd, the blood of 28 school boys and 16 school girls at Bohio was examined and in 29 of the 44 cases the malarial organism was found.

These children were seen each morning after this date for ten days and given six grains of Quinine, which was taken in the presence of the Medical Officer. Another dose of six grains was given each one to be taken during the evening. At the end of ten days the blood of the same children was examined when only five were found positive.

This decrease from 29 positive out of 44 cases to only five positive from the same series is a most gratifying result, and emphasizes the great prophylactic value of quinine.

TABLE SHOWING RESULTS OF BLOOD EXAMINATIONS.

— 16 —

BEFORE QUININE			AFTER QUININE (10 days later)			REMARKS		
Total Number of cases.	Cases Positive	Cases Negative	Total Number of cases.	Cases Positive	Cases Negative			
28	18	10	28	—	28	School Girls. School Boys.	Residents of Bohio.	
16	11	5	16	5	11			
44	29	15	44	5	39			Totals.
207	138	69						Resident Population.
9	4	5				Resident Population at Gatun.		
25	13	12						
31	16	15						

SANITARY WORK AT COLON.

There have been removed during the month 313 loads of garbage. The force employed for this purpose consists of one Sub-foreman and five laborers, two of the latter driving carts, two loading and unloading, and the other cleaning drains and gutters. The carts are hired at the rate of \$3.00 U. S. Currency, per day each. Front Street and the cross streets between Bottle Alley and Front Street have been cleaned twice.

In Colon, there were 182 premises inspected during the month; some of these were reinspected. The Railroad reservation has been inspected twice, and the tanks oiled as required.

NUMBER OF PEOPLE UNDER SANITARY OBSERVATION DURING THE MONTH.

Under observation for 1 day.....	16
Under observation for 2 days.....	3
Under observation for 3 days.....	25
Under observation for 5 days.....	5
Total.....	49

One suspected case of yellow fever was made the subject of a special report on November 18th. The room occupied by this woman in the Swiss-American Hotel, previous to her removal to the isolation ward of the Panama Railroad Hospital, was disinfected by sulphur fumigation; sixteen culices but no stegomia being collected after the fumigation. The house was observed twice a day after the case was removed. One mild case of malaria developed after the removal of the suspect.

SANITARY WORK IN CRISTOBAL.

Two carts, owned by the Department, have been engaged as follows:

Number of loads of night soil removed....	189
Number of loads of garbage removed.....	266
Trips made to Colon Hospital.....	96

The trips to Colon Hospital were made in hauling material for construction and repair work going on at that place under the supervision of the Engineering Department. Extra trips to the Railroad Station for baggage, packages and mail were also made by these carts.

The force at Cristobal was reduced on the 16th, as outlined in the Report for October. Its present strength is:

1 Foreman; 2 Sub-foremen; 15 Laborers.

The brush has been cleared in the three Districts, which extend to what is known as "Fox River," and the ground drained.

Two houses have been cleaned and disinfected during the month, for the reception of employees of the Isthmian Canal Commission.

DEATHS OCCURING IN CRISTOBAL AND COLON DURING
THE MONTH OF NOVEMBER.

"Inflammation of liver.....	1
"Unknown.....	2
"Fever.....	3
"Acute Enteritis.....	1
"Locomotor Ataxia.....	1*
"Pain in Chest.....	1
"Stomach attack.....	1
"Dentition.....	1
"Consumption.....	1
"Icterus gavis.....	1*
"Malarial fever.....	3*
"Dysentery.....	1
"Appendicitis.....	1
"Tetanus.....	1
"Spasm.....	1
"Syphilis.....	1
Total.....	21

* Died in Canal Hospital.

Nationality:

Jamaicans.....	7
Panamanians.....	7
Colombians.....	2
Martinique.....	2
Germans.....	1
Curagaons.....	1
Englishmen.....	1

21

Population of Cristobal & Colon.....8246

Death rate per 1000 per annum..... 30.56+

REPORT FOR COLON HOSPITAL DURING THE MONTH OF
NOVEMBER, 1904.

Patients in Hospital, Nov, 1st.....	30
Patients admitted during the month..	82
Total in Hospital during the month..	112
Patients discharged during Nov- ember.....	74
Died.....	7
Remaining November 30th.....	31
Total.....	112

Admitted:

Employees of the Canal Commission..	20
Charity cases.....	52
Pay cases.....	10
Total admitted.....	82
Cost of subsistence per day, per capita, \$.41 + U. S. Cy.	

Out-Door Department.

Total number of patients treated during November.....	451
Number individual cases, employees I. C. C.....	92
Number individual cases, charity....	244 336

The women's ward of 16 beds, and Main Build-
ing are undergoing repairs.

QUARANTINE WORK AT CRISTOBAL AND COLON.

Number of vessels boarded and inspected.....	43
Total number of crew inspected.....	3139
Total number of passengers inspected.....	1885
Total number of passengers landed at Colon from foreign ports :	
Cabin.....	583
Steerage.....	536.....1119
Number of passengers in transit.....	500
Number of passengers embarking at Colon for foreign ports :	
Cabin.....	234
Steerage.....	467..... 701
Number of persons arriving held under observation to complete period of incubation of yellow fever.....	21
Number of persons vaccinated.....	120
Number of passengers landing at Colon from Bocas del Toro and coast towns on small sailing craft.....	266
Number of passengers leaving Colon for Bocas del Toro and coast towns on small sailing craft.	622
Total number of passengers landing at Colon during the month.....	1385

IMMIGRATION REPORT FOR THE PORTS OF COLON AND
CRISTOBAL ON THE ATLANTIC AND ANCON AND
PANAMA ON THE PACIFIC FOR THE
MONTH OF NOVEMBER, 1904.

Passengers arriving:

Cabin.....	711
Steerage.....	899
From coast towns on small vessels.....	266 1876

Passengers departing:

Cabin.....	556
Steerage.....	740
For coast towns on small vessels.....	262
Total.....	1558

Excess of arrivals over departures for the
month.....318

WORK ACCOMPLISHED BY THE QUARANTINE SERVICE AT
THE PORTS OF CRISTOBAL AND COLON,
AND THE PORTS OF ANCON
AND PANAMA.

Number of vessels inspected and passed..... 54
Total number of crew inspected.....3937
Total number of passengers inspected.....2376
Total number of non-immunes observed to complete
period of incubation of yellow fever..... 65
Total number of local passengers vaccinated..... 130
Total number of passengers disembarking.....1876
Total number of passengers embarking.....1558
Excess of arrivals..... 318

PERSONNEL STATEMENT FOR THE SANITARY DEPART-
MENT FOR THE MONTH OF NOVEMBER, 1904.

Office Chief Sanitary Officer.

Chief Sanitary Officer.....	1	
Executive Officer.....	1	
Clerks.....	4	
Stenographers.....	2	
Messengers.	1	9

Office of the Director of Hospitals.

Director of Hospitals.....	1	
Executive Officer.....	1	
District Physician.....	1	
Physicians.....	2	
Clerks.....	2	
Messenger.....	1	8

Zone Hospitals.

Culebra:

District Physician.....	1	
Nurse.....	1	
Orderlies.....	2	

Ward attendants.....	2	
Cooks.....	1	7

Gorgona:

Physician.....	1	
Nurse.....	1	
Orderly.....	1	3

Behio:

District Physician.....	1	
Orderly.....	1	
Ward attendant....	1	3

Panama Health Office.

Health Officer.....	1	
Assistant Health Officer.....	1	
Inspectors.....	3	
Clerks.....	2	
Foremen.....	6	
Carpenters.....	4	
Helpers.....	4	
Teamsters.....	5	
Laborers, 2nd class.....	39	
Laborers, 1st class.....	6	71

Colon Health Office.

Clerk.....	1	
Sanitary Inspector.....	1	
Timekeeper.....	1	
Foreman.....	1	
Sub-Foremen.....	3	
Laborers, 1st class.....	3	
Laborers, 2nd class.....	24	34

Colon Hospital.

Superintendent.....	1	Orderlies.....	5
Surgeon and Pathologist..	1	Ward Maids.....	2
Clerk & Stenographer....	1	Cook.....	1
Steward and Storekeeper..	1	Scullions.....	2
Druggist.....	1	Chambermaids.....	3

Matron.....1	Laundresses..... 5
Nurses.....4	Miscellaneous..... 5
Ward attendants..... 2	Laborers.....10

45

Ancon Hospital.

Superintendent.....	1
Pathological chemist.....	1
Physicians.....	4
Internes.....	2
Chief nurse.....	1
Asst. Chief nurse.....	1
Sisters.....	14
Chaplain.....	1
Attendants.....	18
Orderlies.....	47
Cooks.....	5
Scullions.....	6
Office employees.....	8
Druggists.....	3
Laundrymen.....	13
Miscellaneous.....	19
Waiters.....	9
Ward Maids.....	7
Machetemen.....	43
Nurses.....	28

231

Canal Zone.

Chief Sanitary Inspector.....	1
Asst. Chief Sanitary Inspector.....	1
Sanitary Inspectors.....	6
Sanitary Foremen.....	8
Sanitary Sub-Foremen.....	12
Clerks.....	1
29	
Carpenters.....	1
Laborers, 1st class.....	42
Laborers, 2nd class.....	142
Water Boys.....	3

188

Total..... 217

Quarantine Service.

Chief Quarantine Officer.....	1	
Quarantine Officers.	2	
Stenographer.....	1	
Disinfector.....	1	
Quartermaster & ships keeper.....	2	
Watchmen.....	2	
Engineman.....	1	
Sailor.....	1	
Boatmen.....	4	15

TOTAL PERSONNEL FOR THE SANITARY DEPT.

Chief Sanitary Office.....	9	
Office Director of Hospitals.....	8	
Culebra Hospitals.....	7	
Gorgona ..“.....	3	
Bohio.....“.....	3	
Panama Health Office.....	71	
Colon Health Office.....	34	
Ancon Hospital.....	231	
Colon Hospital.....	45	
Canal Zone Sanitation.....	217	
Quarantine Service.....	15	643

UNIVERSITY OF FLORIDA



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