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NO. 11.

UNITED STATES.

[Reports to the Supervising Surgeon-General, United States Marine-Hospital Service.]

Investigation into the cause of yellow fever.

[Continued from PUBLIC HEALTH REPORTS, Vol. XIII, No. 45, 1898.]

HAVANA, CUBA, *March 3, 1899.*

SIR: I have the honor to state that the laboratory work has progressed satisfactorily here during the month of February. Three cases of fever, of a suspicious nature, have been seen, all of them in the medical service of the army of occupation. In one case, that of private "Smith," of the Eighth Infantry, there was much diversity of opinion as to diagnosis, our own being in favor of yellow fever prior to and after death. For, in addition to the clinical facts presented, I was able to isolate from the living blood the bacillus icteroides of Sanarelli, thus allowing for the first time the presence of this organism to act as corroborative evidence of the disease. In no case brought to necropsy heretofore have we been able to first isolate this organism from the blood, and at subsequent examination to isolate it from the organs. In this case the organism was isolated in pure culture from the spleen. Of the two other cases, I saw one at Guanajay in private "Perkins," of the Two-hundred-and-second New York Volunteers. From an imperfect history and the status presented I differed from the diagnosis of yellow fever, and from blood taken and carefully cultivated I could only obtain a species of proteus. In the third case there was difference of eminent local opinion, but blood taken on the fourth day gave no evidence of the Sanarelli organism. A few comparative necropsies have been done, and it is intended to continue these during the greater prevalence of the yellow fever. The isolation of the toxins and experimentation with them has progressed favorably under Passed Assistant Surgeon H. D. Geddings. He has determined that the toxin of the bacillus icteroides is most potent, the degree of toxicity or value being but little less than

that of the pest organism. We are now testing the value of the anti-amaryllic serum in the case of animals inoculated with the organism isolated here, comparing them with others inoculated with bacillus icteroides. We can but regret the impossibility of obtaining cases in greater number, yet the outlook is promising.

Yours, respectfully,

EUGENE WASDIN,
Surgeon, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

HAVANA, CUBA, *March 3, 1899.*

SIR: I have the honor to request that you will allow us to state that, in regard to the production of gas through the fermentation of sugars in bouillon, the conclusion advanced by us in our preliminary report is at fault, in that we state that the bacillus of Sanarelli does not ferment glucose with the production of gas.

That conclusion was based upon observations actually made, the action of bacillus icteroides being noted in comparison with each organism isolated. Upon our return to this city the observation was found to have been at fault, since all examples of bacillus Sanarelli now give the production of gas with glucose. Most earnest effort was made to discover the source of this error of observation, in order to correct it, and to ascertain its influence upon the other statements of our preliminary report. It suffices now to say that the fault of observation was based upon a fault of technique in the manufacture of our sugar media. This arose from the habitual use of the "Kny-Scherer" steam sterilizer, the lowest temperature in which is much too high for use in sterilizing these media. Recent experiment has demonstrated that the exposure of these sugar bouillons to the temperature of the "Arnold" sterilizer but for a short time is sufficient to cause a molecular change in the sugar, and that the usual method of sterilizing on three successive days, if done in the "Kny" cylinder, even carefully, will result in serious change in the media. Glucose under these circumstances shows less gas production, with the appropriate organism, until finally this ceases. Lactose is first inverted, the organism producing now as much gas as in a glucose medium, but further heating changes it so that the production of gas ceases, although the organism still grows freely therein. These facts depend upon the change of a part of the sugar into caramel, for in bouillon to which a saturated solution of caramel has been added in sufficient quantity, about 35 per cent, and in which Fehlings' solution shows considerable free sugar, the bacillus icteroides grows abundantly, but does not ferment the unchanged sugar. Upon the establishment of our laboratory here, the lack of a good gas supply caused us to use the high-pressure sterilizer entirely, and it was more than easy to allow over-heating, and since this was done with this medium in thin Smith's tubes, the change in color of the medium was not appreciated. In justice to Professor Sanarelli and other observers, and to place our report on a correct basis, we think this correction should be made at once, and not await our final report.

I have revised the work involved in the preliminary statement, and find that it is not in question otherwise.

Most respectfully,

EUGENE WASDIN,
Surgeon, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

Smallpox in the United States.

ALABAMA.

Mobile.—Surgeon Murray reports March 10, 4 new cases of smallpox at Mobile.

DISTRICT OF COLUMBIA.

Washington.—Health Officer Woodward reports as follows: March 7, new cases, 2; discharges, 4, and 2 houses released from quarantine. March 9, new cases, 8; discharges, 1; suspects, 2. March 11, new cases, 1; discharges, 8; suspects, 1. One house released from quarantine. No new cases to March 15; 8 discharges.

GEORGIA.

Savannah.—Acting Health Officer Joseph G. Jarrell reports March 8 as follows:

I have the honor of making to you the following report of the recent outbreak of variola in this place. The first case was discovered February 22 in the person of H. Baker, Company I, Sixth Immune Regiment, United States Volunteers, which had just arrived here from Porto Rico (Arecibo).

From March 1 to March 8, 5 more cases have been discovered, all of which are traced to a single case, C. Fielding, who contracted the disease at Jackson Junction, Aiken County, S. C., where it appears to be epidemic.

Dr. Foster, United States Marine-Hospital Service, reports to me this morning a case of varioloid in the person of a soldier, B. F. Mathews, private Company G, Sixth Immune Regiment, United States Volunteers, who was exposed to infection while in the ward with H. Baker, the first case reported. All the cases have been removed to the pesthouse, and measures adopted to prevent any further spread of the disease.

Assistant Surgeon Foster reports March 15, 11 cases in the pesthouse. Origin of 2 is the first case, of the others, South Carolina.

ILLINOIS.

Chicago.—Surgeon Sawtelle reports March 10 as follows:

I have the honor to report that a case of smallpox was discovered in this city by the health authorities yesterday morning in the person of a colored man named Nathan Banks, a stranger in the city hailing from Lexington, Ky. The patient was at once placed in the isolation hospital. Banks arrived here the night before, and stopped in a police station over night. All persons exposed at the station and other places visited by the patient were vaccinated.

As a preventive measure, the commissioner of health has provided a thoroughly disinfected ambulance, which is stationed night and day near the city and county buildings for the care and removal of suspects, and the police officers are instructed to take all suspected cases as quickly as possible to this ambulance, where they are detained until the health department takes charge of the cases. Provision is also being made for the isolation of suspects at the police stations, and physicians are engaged every night in vaccinating at the various lodging houses, thus covering the most dangerous portion of the floating population.

Some little time ago I directed the medical officers on duty at the Chicago and South Chicago offices and dispensaries to vaccinate all seamen applying for treatment not protected by recent successful vaccination. Glycerinated vaccine lymph is used exclusively.

INDIANA.

Dr. J. N. Hunty, secretary of the State board of health, reports to March 1 as follows:

Clark County.—Smallpox reported.

Daviess County.—Smallpox reported.

Floyd County.—Smallpox reported.

Green County.—Smallpox reported.

Jefferson County.—Smallpox reported.

Marion County (Indianapolis).—January 28–March 1, 14 cases.

Precautions against smallpox at Evansville.

EVANSVILLE, March 3, 1899.

SIR: I have the honor to report that 56 river men were vaccinated last month. Twelve were white and the rest colored. The 9 hospital attendants were vaccinated. Navigation was closed during part of the month, but boats are running now. I have mailed 18 letters to masters and owners of vessels coming into this port, and have urged them to advise officers and crew to be vaccinated.

Respectfully, yours,

J. H. OAKLEY,

Passed Assistant Surgeon, U. S. M. H. S.

KENTUCKY.

Louisville.—Assistant Surgeon Russell reports March 10, 216 cases of smallpox sent to the pesthouse since the outbreak, 105 cases still under treatment, and 1 death.

LOUISIANA.

New Orleans.—Passed Assistant Surgeon Nydegger reports March 7, 10 new cases of smallpox, all colored. One case was traceable to the steamer *Spud*, which arrived February 13, the majority come from a section of the city frequented by roustabouts and the roaming element of the colored class. March 13 he reports 68 cases in the isolation hospital and 3 discharges. All cases among negroes; no deaths.

OHIO.

Cincinnati.—Acting Assistant Surgeon Stevenson reports, March 11, 1 new case of smallpox. The patient came from Pittsburg on the steamer *Virginia*, arriving March 8, at which time he, with the rest of the crew, was vaccinated. March 13 he reports another case, which arrived that morning by rail from Memphis, Tenn.

PENNSYLVANIA.

Dr. Benjamin Lee, secretary of the State board of health, reports, March 11, cases since February 11, as follows:

Allegheny County.—Homestead, 1 case; McKees Rocks, 3 cases; O'Hara Township, 1 case.

Altoona, Blair County.—One case.

Six Mile Run, Bedford County.—One case.

McConnellsburg, Fulton County.—One case.

Saltillo, Huntingdon County.—Five cases.

Berwind, Somerset County.—One case.

TENNESSEE.

Memphis.—Passed Assistant Surgeon Magruder reports March 7, 15 cases of smallpox since March 1. The health department is making strenuous efforts to have all citizens of Memphis, especially negroes, vaccinated, and 10 inspectors are now employed in making house-to-house inspections and vaccinating free of charge.

Dr. Albright, secretary and executive officer of the State board of health, reports March 11, as follows:

Grover, Madison County.—February 18–March 11, 12 cases, all colored.

Hardeman County.—March 1–11, 1 case, white.

Jackson, Madison County.—February 13–March 11, 40 cases, colored.

Memphis, Shelby County.—January 30–March 11, 36 cases, 34 colored.

Pinson, Madison County.—February 18–March 11, 1 case, colored.

Union City, Obion County.—March 3–11, 7 cases, colored.

No deaths in a total of 97 cases. The health authorities are taking all measures to prevent the spread of the disease, including isolation, vaccination, and disinfection.

TEXAS.

Bryan.—Dr. George R. Tabor, county and city health officer, reports, March 11, as follows: January 29–March 10, 24 cases, no deaths. All negroes except 2.

EAGLE PASS, TEX., *March 2, 1899.*

SIR: I have the honor to inform you that the 3 cases of smallpox in C. P. Diaz, which I reported to the Bureau by telegram, are now convalescent and that no new cases have originated there.

Three cases of smallpox are now existing in the little Mexican village of Monterey, Tex. I investigated these cases and learned that they came to Monterey, Tex., from a section house about 20 miles from Monterey. Mr. Drake ordered me to investigate the place of origin and I find that a Mexican who had just recovered from smallpox, he having had the disease in Laredo, Tex., stopped at the house of the Mexicans who are now ill and infected them with smallpox, his face still being full of the scabs resulting from the eruption. The county officials have taken the above-mentioned cases in hand and every precaution to prevent the spread of the disease has been taken. With the assistance of the county officials, I am vaccinating all the people in my district along the Rio Grande.

The Rio Grande is continually watched, I having stationed 1 Marine-Hospital Service guard at Upson, Tex., with instructions to watch all the fords and allow no suspicious characters to cross to this

side. The same vigilant and strict quarantine is maintained at Eagle Pass.

I have the honor to remain, respectfully, yours,
LEA HUME,
Acting Assistant Surgeon, U. S. M. H. S.

EL PASO, TEX., *March 1, 1899.*

SIR: Referring to the existence of smallpox here as formerly reported, I have now to say that the board of health of the city of El Paso has taken effective measures to stamp out the disease. Notwithstanding this, however, an occasional new case is discovered, and is promptly and properly dealt with, so that conditions, so far as El Paso is concerned, are assuming a satisfactory shape.

As to Juarez, Mexico, the city opposite El Paso, Tex., the board of health of that city (Juarez) exists, so to say, on paper only. Very little, if any, effective work is done. Houses having the disease are not quarantined. There is no hospital in the city. Yellow placards are posted warning the people not to enter or leave the premises, but no attention is paid to this. This very morning I saw a man in the market place, mingling freely with the public, who has 5 cases of smallpox in his family. The Mexican character does not take kindly to the restrictive work of sanitation.

While making a recent house-to-house visitation in Juarez I found a number of houses where there had been smallpox. There were still a number of children and grown persons who had not been vaccinated. I vaccinated all such on the spot.

At the suggestion of Passed Assistant Surgeon Cobb, on his late visit of inspection to this place, a quasi quarantine or system of certificates was established, which required of all persons coming from Mexico a certificate of vaccination. (Copy of certificate is herewith attached.) Since February 8, the date on which this system was established, I have issued 3,000 of these certificates. The State quarantine officer and the city health officer have each issued 1,000 of the same certificates. I am every day from 10 a. m. to 6 p. m. at the custom-house guardhouse, people coming from Mexico taking only this road, and examine every one without exception for successful vaccination, returning Mexicans not being vaccinated back to Juarez, and Americans back to El Paso, Tex., to be vaccinated, and inform them that they will be permitted to pass as soon as I find that such as need it are successfully vaccinated.

Refused certificates since February 8, 1899, to February 28, 1899, 561 grown persons and children, of which 154, mostly Mexicans, were living at El Paso, and 407 were Mexicans from Juarez and the interior of Mexico.

My observation, and that of the customs inspectors, who have had like opportunity of judging the effects and results of this system, is highly gratifying and satisfactory. There can be no doubt that it is having an excellent effect in ways almost too numerous to mention, and shall continue it until we effect the entire suppression of smallpox in this locality, and until every person from Juarez desiring to visit El Paso is successfully vaccinated.

The situation and the outlook are very much improved and encouraging. There can be no peddling of smallpox now, as no communication is allowed except by those who are willing to pay and have paid the proper regard to the sanitary law as regards vaccination. Hundreds of Mexicans, rather than to be vaccinated, have turned their back to El Paso and have returned to Juarez. Hereafter bull fights, chicken fights, and other exhibitions in Juarez, sustained very largely by American

patronage from this side of the river, can not succeed until and unless the requirements of vaccination have been complied with, and this will be a powerful factor in the case, as it will touch, and not lightly, the pocketbooks of the business community of Juarez, as well as the pleasure-loving and sporting people of El Paso.

Many, very many, young Mexican clerks in the different commercial houses at Juarez, who always passed to and fro from Juarez to El Paso on errands, came without ever having been vaccinated. All such are refused admittance until successfully vaccinated, and a vast majority of them return in time and prove that they have complied with what is required of them—successful vaccination.

There were 2 cases of smallpox in an isolated family living some 6 miles from Juarez. About six weeks after his children were absolutely well, the father of the family had some dealings with another man about 4 miles from his home. This family had two unprotected children, and in about fifteen days afterwards the children became sick with smallpox, the germs no doubt having been brought to the home by the man living 4 miles from the place. This I know to be a fact, because I attended both families.

We had smallpox before the soldiers fought the glorious battles in Cuba, Porto Rico, and the Philippines. Smallpox will not be eradicated from the United States until Mexico institutes a rigorous system of vaccination.

I ascribe the present situation of smallpox in the United States to two facts, namely: Some fifty years ago vaccination was almost universal amongst all people here—they were protected and smallpox became almost extinct—the younger generation believing that protection being *ipso facto*, there was no vaccination necessary, hence the outbreak of smallpox almost everywhere. Thousands of excursionists from all parts of the United States came into Mexico, through the inducement of very low railroad rates. These people not only visit the different numerous churches, etc., but generally go around in the huts of the lowest of the low, no doubt very often visit houses where cases of smallpox exist, and carry the germs in their clothing to Maine and Oregon, endangering the unprotected at such places.

I am, sir, very respectfully,

E. ALEXANDER,
Sanitary Inspector, U. S. M. H. S.

Galveston.—Temporary Acting Assistant Surgeon Kuller reports, March 14, 1 case in a negro who had not been out of the city for several months.

VIRGINIA.

Alexandria.—Sanitary Inspector Snowden reports as follows: March 9, new cases, 2, suspects, 1; March 10, new cases, 1; March 11, new cases, 2; March 12, new cases, 0; March 12–14, no cases; March 15, new cases, 4.

Norfolk.—Passed Assistant Surgeon Smith reports March 8, new cases, 2, discharges, 7; March 9, new cases, 6, discharges, 0; March 10, new cases, 10, discharges, 10.

The health officer estimates the total number of cases from September 19, 1898, to March 7, 1899, as follows: Cases received from Norfolk city, 476; cases received from country outside city, 20; deaths, 9; March 11, new cases, 2, discharges, 8; March 12, new cases, 6, discharges, 6; March 13, new cases, 6, discharges, 5; March 14, new cases, 4, discharges, 10.

NORFOLK, VA., March 6, 1899.

SIR: I have the honor to transmit herewith a notice of action taken by the Norfolk board of health, affecting a partial quarantine against the towns of Hampton, Newport News, and Suffolk on account of small-pox.

Respectfully, yours,

A. C. SMITH,
Passed Assistant Surgeon, U. S. M. H. S.

[Inclosure.]

OFFICE OF THE BOARD OF HEALTH,
Norfolk, Va., March 2, 1899.

All railroads and steamboat lines plying between Norfolk and Hampton, Newport News, and Suffolk, are hereby notified that no person shall be allowed to pass to or from Norfolk to Hampton, Newport News, or Suffolk unless such person furnishes satisfactory evidence of successful vaccination or be vaccinated.

By order of

BOARD OF HEALTH.

Portsmouth.—Quarantine Officer Hope reports for the week ended March 11, 25 new cases, all colored.

Smallpox in the United States as reported to the Supervising Surgeon-General United States Marine-Hospital Service, December 31, 1898, to March 17, 1899.

Places.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Antauga County.....	Feb. 24.....			Smallpox reported.
Calvert.....	Dec. 10-Jan. 20.....	10		
Catherina.....	Jan. 6.....			Do.
Clarke County.....	Dec. 25-Jan. 20.....		2	Several cases.
Clay County.....	Jan. 27.....			Smallpox reported.
Collerine.....	Jan. 6.....	1		
Dallas County.....	Jan. 27.....			Do.
Green County.....	.....do.....			Do.
Hale County.....	.....do.....			Do.
Lowndes County.....	.....do.....			Do.
Marengo County.....	.....do.....			Do.
Mobile.....	Jan. 2-Mar. 10.....	18		
Montgomery County.....	Feb. 24.....			Do.
Randolph County.....	Jan. 27.....			Do.
Southside.....	Jan. 6.....	96		
Washington County.....	Jan. 27.....			Do.
Wilcox County.....	.....do.....			Do.
Arkansas:				
Pulaski County.....	Jan. 27-Mar. 1.....	8	1	
California:				
Los Angeles.....	Sept.-Mar. 4.....	63	12	
Sacramento City.....	.....do.....	1		
San Diego.....	Feb. 19.....	1	1	
San Francisco.....	Jan. 31.....	2		
Colorado:				
Arapahoe County.....	Dec. 1-Feb. 8.....	23	2	
El Paso County.....	Jan. 31.....	2		
Fremont County.....	Dec. 1-Jan. 31.....	24		
Los Animas County.....	Jan. 31.....	12		
Pueblo County.....	Dec. 17-Jan. 31.....	60	4	
Connecticut:				
New Haven.....	Jan. 16.....	2		
District of Columbia:				
Washington.....	Jan. 21-Mar. 15.....	50		
Florida:				
Jacksonville.....	Feb. 12-Feb. 25.....	3		
Key West.....	Feb. 25-Mar. 12.....	4		
Pensacola.....	Jan. 14.....	1		
Georgia:				
Jones County.....	Jan. 1-Jan. 16.....	300		
Savannah.....	Feb. 22-Mar. 15.....	11		
Illinois:				
Bethel.....	Jan. 7.....	2		
Biggsville, Henderson Co.....	Mar. 7.....	1		
Cairo.....	Feb. 23-Mar. 7.....	26		
Chicago.....	Mar. 10.....	1		
Dana, La Salle County.....	Mar. 7.....	1		
Media.....	Jan. 7.....	1		
Monmouth, Warren County.....	Feb. 23.....	4		
Murphysboro, Jackson Co.....	Mar. 7.....	2		

Smallpox in the United States, etc.—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Indiana:				
Clark County.....	Mar. 1.....			Smallpox reported.
Dana.....	Feb. 8.....	1		
Daviess County.....	Mar. 1.....			Do.
Evansville.....	Feb. 7-Mar. 13.....	4		
Floyd County.....	Mar. 1.....			Do.
Green County.....	Mar. 1.....			Do.
Indianapolis.....	Jan. 25-Mar. 1.....	14		
Jefferson County.....	Mar. 1.....			Do.
Jackson City.....	Feb. 24.....	4		
New Albany.....	Mar. 5-Mar. 12.....	2		
Sullivan County.....	Feb. 11.....	1		
Toronto.....	Feb. 4.....	1		
Indian Territory.....	Mar. 4.....		45	
Iowa:				
Lee County.....	Jan 13.....	7	1	
Wayne County.....	.....do.....	1		
Kansas:				
Marion County.....	Jan. 17.....	11		
Peabody.....	Feb. 1-Feb. 16.....	56	7	
Kentucky:				
Louisville.....	Dec. 20-Mar. 10.....	216	1	
Louisiana:				
New Orleans.....	Jan. 30-Mar. 11.....	71		
Maine:				
Auburn.....	Feb. 20.....	4		
Lewiston.....	Feb. 22-Mar. 4.....	3		
Maryland:				
Baltimore.....	Feb. 22-Mar 4.....	3		
Cumberland.....	.....do.....	3		
Pocomoke.....	.....do.....	3		
Michigan:				
Detroit.....	Jan. 1-Feb. 4.....	14		
Minnesota:				
Minneapolis.....	Dec. 8.....	1		
Mississippi:				
Clay County.....	Jan. 27.....			Do.
Hinds County.....	Mar. 3.....			Do.
Jones County.....	Jan. 27.....			Do.
Lauderdale County.....	.....do.....			Do.
Noxubee County.....	.....do.....			Do.
Perry County.....	.....do.....	17		
Tisbomingo County.....	.....do.....			Do.
Missouri:				
Carroll County.....	Feb. 13.....	33	5	
St. Louis.....	Nov. 1-Jan. 21.....	15	2	
Nebraska:				
Nebraska City.....	July 1-Dec. 8.....	153		
	Dec. 9-Jan. 16.....	147	3	
Omaha.....	Jan. 1-Feb. 25.....	33		
Otoe and Nemaha Counties.....	Jan. 1-Jan. 16.....	21		
Peru.....	Jan. 2.....	5		
Plattsmouth.....	Dec. 10.....	1		
Tecumseh.....	Jan. 2.....	9		
New Jersey:				
Jersey City.....	Dec. 5-Jan. 22.....	6		
New York:				
New York.....	Jan. 7-Mar. 4.....	10	2	
Dunkirk.....	Jan. 8-Jan. 21.....	5		
North Carolina:				
Burlington, Franklin Co.....	March 1.....	3	1	
Chowan County.....	Feb. 16.....	2		
Columbus County.....	.....do.....	1		
Edgecombe County.....	Feb. 1.....	24		
Gates County.....	.....do.....	1		
Northampton County.....	Jan. 12.....	1		
Wilmington.....	Feb. 3.....	1		
Ohio:				
Brooklyn.....	Feb. 7-Feb. 27.....	1		
Cincinnati.....	Jan. 23-Mar. 13.....	147	2	
Cleveland.....	Dec. 25-Feb. 27.....	32		
Columbus.....	Feb. 7-Feb. 27.....	71		
Dialton.....	.....do.....	1		
Franklin.....	.....do.....	2		
Gallipolis.....	Feb. 23.....	2		
Sandusky.....	Feb. 7-Feb. 27.....	2		
Shenandoah.....	.....do.....	1		
South Charleston.....	.....do.....	1		
Sunbury.....	.....do.....	3		
Toledo.....	.....do.....	1		
Wellington.....	.....do.....	1		
Willoughby.....	.....do.....	1		

Smallpox in the United States, etc.—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Oklahoma:				
Chandler	Dec. 30.....	1		
Doggett .....	.....do.....	1		
Lincoln County.....	Nov. 30-Jan. 30...	32	10	
Parkland	Dec. 30.....	1		
Sac and Fox Agency.....	.....do.....	2		
Stroud .....	.....do.....		3	
Pennsylvania:				
Allegheny County.....	Feb. 11-Mar. 11.....	5		
Altoona.....	Jan. 1-Mar. 11.....	3		
Ball Hill.....	Dec. 31-Jan. 23.....	1		
Bedford County.....	Dec. 31-Mar. 11.....	6		
Brumbaugh.....	.....do.....	2		
Charlesville.....	Dec. 31.....	15		Smallpox reported.
Claysburg.....	Dec. 31-Jan. 23.....	1		
East Vincent Township.....	Dec. 31.....	1		
Everett.....	.....do.....	3		
Fulton County.....	Feb. 11-Mar. 11.....	1		
Homer City.....	Dec. 31.....	2		
Hopewell.....	.....do.....	3		
Huntingdon County.....	Feb. 11-Mar. 11.....	5		
Hustontown.....	Dec. 31.....	4		
New Granada.....	.....do.....	7		
Philadelphia.....	Dec. 31-Feb. 11.....	10		
Pittsburg.....	Dec. 31-Feb. 25.....	2		
Somerset County.....	Feb. 11-Mar. 11.....	1		
Steelton.....	Dec. 31-Feb. 25.....	11		
Waterfall.....	.....do.....	1		
Porto Rico:				
Ponce.....	Jan. 17-Feb. 27.....	400		
San Juan.....	Mar. 6.....	3		
Rhode Island:				
Providence.....	Feb. 21.....	1		
South Carolina:				
Horry County.....	Mar. 8.....	10		
Tennessee:				
Grover, Madison County.....	Feb. 18-Mar. 11.....	12		
Hardeman County.....	Mar. 1-Mar. 11.....	1		
Jackson.....	Feb. 18-Mar. 11.....	40		
Memphis.....	.....do.....	36		
Pinson, Madison County.....	.....do.....	1		
Union City, Obion County.....	Mar. 3-Mar. 11.....	7		
Texas:				
Alice, Nueces County.....	Feb. 20.....	20		
Brownsville.....	Jan. 7.....	1		
Bryan.....	Jan. 29-Mar. 11.....	24		
El Paso.....	Aug. 1-Dec. 31.....	45		Year 1898.
	Jan. 1-Jan. 18.....	21		
Fort Bliss.....	Mar. 12.....	1		
Galveston.....	Mar. 14.....	1		
Laredo.....	Jan. 1-Feb. 25.....	376	83	
San Rafael.....	Jan. 29.....	4		
Virginia:				
Alexandria.....	Jan. 4-Mar. 15.....	298	2	
Hampton.....	Feb. 15.....	6		
Lynchburg.....	Mar. 5-Mar. 11.....	1	1	
Newport News.....	Dec. 31.....	4		
Norfolk.....	Sept. 19-Mar. 14.....	532	9	
Petersburg.....	Mar. 6-Mar. 12.....	1		
Portsmouth.....	Dec. 31-Mar. 11.....	121		
Richmond.....	Jan. 25-Mar. 12.....	8		
Washington:				
Spokane.....	Feb. 27-Mar. 4.....	1		
Wisconsin:				
Calumet County.....	Feb. 16.....	1		
Harrison County.....	Feb. 20.....	1		
Outagamie County.....	Feb. 7-Feb. 23.....	11	1	
Wyoming:				
Rock Springs.....	Dec. 24.....	1		

*Cerebro-spinal meningitis and typhoid fever in Philadelphia.*PHILADELPHIA, PA., *March 11, 1899.*

* * * Epidemic cerebro-spinal meningitis has been reported as follows: Philadelphia, 45 cases, 15 deaths.

Typhoid fever has been reported in Philadelphia as follows: One thousand five hundred and seventy cases and 164 deaths. Since January 1, 1899, 3,649 cases and 380 deaths.

Yours, very truly,

BENJAMIN LEE, M. D.,
Secretary, Pennsylvania State Board of Health.

*Deaths from la grippe, scarlet fever, and diphtheria in Chicago.*CHICAGO, ILL., *March 6, 1899.*

SIR: I have the honor to make the following report relative to contagious diseases in this city during the week ended March 4, 1899, viz, 21 certificates of death were returned to the office of the commissioner of health, giving influenza or la grippe as the cause thereof, 9 to uncomplicated influenza, and 12 to influenza as the cause, complicated with other affections, chiefly pneumonia and consumption.

During the same period 16 certificates of death were returned, giving scarlet fever as the cause thereof, 107 cases being reported; also 15, giving diphtheria as the cause, 73 cases being reported.

Respectfully, yours,

HENRY W. SAWTELLE,
Surgeon, U. S. M. H. S.

Report of immigration at Boston for the week ended March 11, 1899.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of Boston, March 12, 1899.

Number of alien immigrants who arrived at this port during the week ended March 11, 1899; also names of vessels and ports from which they came.

Date.	Vessel.	Where from.	No. of immigrants.
Mar. 5	Steamship Catalonia.....	Liverpool, England.....	66
Do ...	Steamship Boston.....	Yarmouth, Nova Scotia.....	83
Mar. 6	Steamship Michigan.....	Liverpool, England.....	18
Mar. 7	Steamship Admiral Farragut.....	Port Antonio, Jamaica.....	108
Do....	Steamship Prince George.....	Yarmouth, Nova Scotia.....	20
Do....	Steamship Cestrian.....	Liverpool, England.....	6
Mar. 8	Steamship Lycia.....	Avonmouth, England.....	7
Do....	Steamship Hibernian.....	Glasgow, Scotland.....	16
Do....	Steamship Kansas.....	Liverpool, England.....	43
Mar. 9	Steamship Halifax.....	Halifax, Nova Scotia.....	78
Do....	Steamship Boston.....	Yarmouth, Nova Scotia.....	3
Mar. 10	Steamship Galileo.....	Hull, England.....	35
Do ...	Steamship Prince George.....	Yarmouth, Nova Scotia.....	4
Do ...	Steamship Sedgemore.....	London, England.....	255
Do....	Steamship Canada.....	Liverpool, England.....	2
Mar. 11	Schooner Pleasantville.....	Port Medway, Nova Scotia.....	118
Do....	Steamship Ultonia.....	Liverpool, England.....	
	Total.....		862

GEORGE B. BILLINGS,
Commissioner.

*Report of medical inspection of immigrants at Boston during February, 1899.*BOSTON, MASS., *March 10, 1899.*

SIR: I have to make the following report of the inspection of immigrants at this port for the month of February, 1899, viz:

Total number inspected, 547; total rejected, 3, viz: opacity of cornea, 1; loss of right eye, 1; deformity of spine, 1.

Respectfully, yours,

FAIRFAX IRWIN,
Surgeon, U. S. M. H. S.

*Report of inspection of immigrants at New York for the month of February, 1899.*NEW YORK, N. Y., *March 7, 1899.*

Number of steerage passengers examined, 12,404; rejected as suffering from loathsome or dangerous contagious diseases and detained pending action of the commissioner of immigration, 22; admitted, 22; deported, 8; deserted, 2; remaining, 12.

Respectfully, submitted,

VICTOR G. HEISER,
Assistant Surgeon, U. S. M. H. S.

*Medical inspection of immigrants at Philadelphia during February, 1899.*PHILADELPHIA, PA., *March 15, 1899.*

SIR: I have the honor to report that 519 immigrants arrived at this port during the month of February, 1899. There were also 3 rejections, as follows: Trachoma, 2; favus, 1. There were also 24 patients of the immigrant department examined during the same time.

Respectfully, yours,

H. W. AUSTIN,
Surgeon, U. S. M. H. S.

REPORTS FROM NATIONAL QUARANTINE

Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
Alexandria, Va	Mar. 11			
Brunswick, Ga.	do.	Br. bk. Margaret Mitchell. (a)	Feb. 8	Rio.....
		Am. brig Sullivan (a).....	Mar. 8	Havana
Cape Charles, Va	do.			
Cape Fear, N. C.	do.			
Delaware Breakwater Quarantine, Del.	do.			
Eureka, Cal	Feb. 25			
	Mar. 4			
Grays Harbor, Wash	do.			
Gulf Quarantine, Ship Island, Miss.	do.			
Honolulu, Hawaiian Islands.....	Feb. 25			
Newbern, N. C.	Mar. 11			
Port Townsend, Wash	Mar. 4			
Reedy Island Quarantine, Del ...	Mar. 11			
San Diego, Cal.....	Mar. 4			
San Francisco, Cal.....	Feb. 25			
		U. S. s. Zealandia.....	Feb. 25	Manila
	Mar. 4	Br. ss. Gaelic.....		Hongkong
San Juan, Porto Rico.....	do.			
South Atlantic Quarantine, Blackbeard Island, Ga.	do.			
Tortugas Quarantine, Key West, Fla.	do.			
Washington, N. C.....	Mar. 11			

AND INSPECTION STATIONS.

Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
Brunswick	Ballast discharged.	Mar. 17	No transactions.	1
do	Ballast discharged; vessel held for observation.	Mar. 6	No report	
			No transactions.	7
			No transactions.	1
			No transactions.	4
				11
				10
				5
				22
				2
			45 Chinese and 9 Japanese passengers on U. S. s. City of Peking bathed; clothing and baggage disinfected by formalin.	17
San Francisco			2 deaths of soldiers on voyage.	
do			96 Chinese and 13 Japanese passengers bathed and baggage and clothing disinfected by steam or formalin.	18
				11
				4
			No transactions.	
			do	

REPORTS FROM STATE AND

Name of station.	Week ended.	Name of vessel.	Date of arrival	Port of departure.
Anclote, Fla.....	Mar. 11			
Baltimore, Md.....	do.....			
Bangor, Me.....	do.....			
Boston, Mass.....	do.....			
Carrabelle, Fla.....	do.....			
Charleston, S. C.....	do.....			
Charlotte Harbor, Fla.....	do.....			
Elizabeth River, Va.....	do.....	Tug Ajax.....	Mar. 6	Newport News ...
		Slp. Agra.....	Mar. 8	Norfolk
Galveston, Tex.....	do.....			
Gardiner, Oreg.....	do.....			
Key West, Monroe County, Fla.....	do.....			
Los Angeles, Cal.....	Mar. 4			
Mobile, Ala.....	Mar. 11			
New Bedford, Mass.....	do.....			
Newport News, Va.....	do.....			
Newport, R. I.....	do.....			
New York, N. Y.....	do.....			
Pass Cavallo, Tex.....	do.....			
Providence, R. I.....	do.....			
Round Island, Miss.....	do.....			
St. Helena Entrance, S. C.....	do.....			
Savannah, Ga.....	Mar. 4	Port. bk. Adelina.....	Feb. 28	Rio
Tampa Bay, Fla.....	Mar. 11			

MUNICIPAL QUARANTINE STATIONS.

Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
.....	No report .....	.....
.....	do.....	.....
.....	do.....	.....
.....	do.....	.....
.....	do.....	.....
.....	1
Norfolk	Disinfected and fumigated; smallpox case sent to Norfolk; crew had been vaccinated.	Mar. 7	No report..... 1 case smallpox.....	2
.....do	Disinfected and fumigated: bedding burned and crew vaccinated.	Mar. 9	.....	.....
.....	No report .....	.....
.....	do .....	.....
.....	No transactions.....	11
.....	No report .....	.....
.....	do .....	.....
.....	do	6
.....	No report.....	.....
.....	do .....	.....
.....	do .....	.....
.....	No transactions .....	.....
.....	6
Savannah	Ballast discharged; undergoing disinfection.	.....	No report.....	4
.....	No report.....	.....

Reports of States and yearly and monthly reports of cities of the United States.

CALIFORNIA—*Los Angeles*.—Month of February, 1899. Estimated population, 103,000. Total number of deaths, 170, including diphtheria, 3; enteric fever, 1; influenza, 2; smallpox, 9, and 34 from phthisis pulmonalis.

Sacramento.—Month of February, 1899. Estimated population, 30,000. Total number deaths, 46, including 4 from phthisis pulmonalis.

CONNECTICUT—*Hartford*.—Estimated population, 74,000. Total number of deaths, 98, including enteric fever, 3; measles, 2; la grippe, 6; whooping cough, 4, and 12 from phthisis pulmonalis.

ILLINOIS—*Springfield*.—Month of February, 1899. Estimated population, 35,000. Total number of deaths, 55, including diphtheria, 1; la grippe, 2; whooping cough, 2, and 8 from phthisis pulmonalis.

INDIANA—*Evansville*.—Month of February, 1899. Estimated population, 70,000. Total number of deaths, 132, including diphtheria, 2; enteric fever, 5; la grippe, 16, and 19 from phthisis pulmonalis.

IOWA—*Davenport*.—Month of February, 1899. Estimated population, 36,000. Total number of deaths, 36, including la grippe 3, and 4 from phthisis pulmonalis.

MASSACHUSETTS—*Newton*.—Month of February, 1899. Estimated population, 27,590. Total number of deaths, 43, including 3 from la grippe.

MICHIGAN—*Port Huron*.—Month of January, 1899. Estimated population, 20,000. Total number of deaths, 34, including diphtheria, 1; la grippe, 3, and 1 from phthisis pulmonalis.

MINNESOTA—*Duluth*.—Year ended December 31, 1898. Estimated population, 60,000. Total number of deaths, 567, including diphtheria, 1; enteric fever, 31; measles, 14; scarlet fever, 1; whooping cough, 4, and 65 from phthisis pulmonalis.

Month of January, 1899. Total number of deaths, 46, including enteric fever, 4; la grippe, 1, and 8 from phthisis pulmonalis.

MISSOURI—*St. Louis*.—Month of December, 1898. Estimated population, 623,000; white, 587,000; colored, 36,000. Total number of deaths, 1,121; white, 1,008; colored, 113, including diphtheria, 22; enteric fever, 10; scarlet fever, 2; whooping cough, 7; la grippe, 97; smallpox, 2, and 107 from phthisis pulmonalis.

NEW HAMPSHIRE—*Concord*.—Month of February, 1899. Estimated population, 18,000. Total number of deaths, 23, including enteric fever, 1; influenza, 3, and 2 from phthisis pulmonalis.

NEW JERSEY—*Hudson County*.—Month of January, 1899. Estimated population, 384,784. Total number of deaths, 592, including diphtheria, 18; enteric fever, 4; scarlet fever, 6; whooping cough, 4; la grippe, 21, and 69 from phthisis pulmonalis.

OHIO.—Reports to the State board of health from 66 localities having

an estimated aggregate population of 1,283,099, show 38 deaths from diphtheria, 23 from enteric fever, and 6 from scarlet fever.

Cleveland.—Month of February, 1899. Estimated population, 395,000. Total number of deaths, 485, including diphtheria, 10; enteric fever, 8; scarlet fever, 3; influenza, 20, and 18 from phthisis pulmonalis.

Toledo.—Month of February, 1899. Estimated population, 151,520. Total number of deaths, 183, including diphtheria, 13; enteric fever, 1; scarlet fever, 2; la grippe, 18; whooping cough, 4, and 9 from phthisis pulmonalis.

PENNSYLVANIA—*Beaver Falls.*—Month of January, 1899. Estimated population, 12,000. Total number of deaths 22, including enteric fever, 2; whooping cough, 1, and 2 from phthisis pulmonalis.

Month of February, 1899. Total number of deaths, 18, including whooping cough, 3, and 2 from phthisis pulmonalis.

Sunbury.—Year ended December 31, 1898. Census population, 5,930. Total number of deaths, 124, including enteric fever, 4; la grippe, 2, and 11 from phthisis pulmonalis.

RHODE ISLAND—*Newport.*—Month of February, 1899. Estimated population, 21,500. Total number of deaths, 32, including enteric fever, 1, and 4 from phthisis pulmonalis.

TENNESSEE—*Nashville.*—Month of February, 1899. Estimated population, 87,754; white, 54,595; colored, 33,159. Total number of deaths, 163, including diphtheria, 1; influenza, 12; enteric fever, 3, and 28 from phthisis pulmonalis.

VIRGINIA.—*Petersburg.*—Month ended February 26, 1899. Estimated population, 25,000; white, 12,000; colored, 13,000. Total number of deaths, 79, including diphtheria, 1; la grippe, 5, and 7 from phthisis pulmonalis.

WISCONSIN—*Superior.*—Month of February, 1899. Estimated population, 35,000. Total number of deaths, 15. No deaths from contagious disease.

MORTALITY TABLE, CITIES OF THE UNITED STATES—Continued.

Cities.	Week ended.	Population, U. S. census of 1890.	Total deaths from all causes.	Deaths from—											
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Varicoid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.	
Allegheny, Pa.....	Mar. 11.....	105,287	45	6							2		1	1	
Altoona, Pa.....	Mar. 4.....	30,337	14								1				
Ann Arbor, Mich.....	Feb. 25.....	9,431	4												
Do.....	Mar. 4.....	9,431	3												
Ashtabula, Ohio.....	Mar. 11.....	8,338	4	1											
Aurora, Ill.....	Mar. 4.....	19,688	5										1		
Baltimore, Md.....	Mar. 11.....	434,439	26								3		6		
Baton Rouge, La.....	Mar. 4.....	10,478	5	2											
Do.....	Mar. 11.....	10,478	1												
Bellaire, Ohio.....	do.....	9,934	3												
Bennington, Vt.....	Mar. 4.....	6,391	1												
Do.....	Mar. 11.....	6,391	5										1		
Binghamton, N. Y.....	do.....	35,005	20	2							1				
Boston, Mass.....	Mar. 11.....	448,447	235	32							1	1	6	2	2
Bridgeport, Conn.....	do.....	48,866	17	4									1		
Bristol, R. I.....	Mar. 4.....	5,478	2												
Brookline, Mass.....	Mar. 11.....	12,103	4	1											
Butler, Pa.....	Feb. 25.....	8,734	3								1	1			
Cambridge, Mass.....	Mar. 11.....	70,028	20	2										1	
Charleston, S. C.....	Mar. 4.....	a54,955	b27	5											
Chicago, Ill.....	Mar. 11.....	1,099,850	c517	47							4	9	14		1
Cincinnati, Ohio.....	Mar. 3.....	236,908	20		1									3	
Cleveland, Ohio.....	Feb. 25.....	261,353	120	6								1	3		
Do.....	Mar. 4.....	261,353	116	6							2		2		1
Dayton, Ohio.....	Feb. 25.....	61,220	30	3							1		1		
Do.....	Mar. 11.....	61,220	13	2									1		
Denver, Colo.....	Feb. 18.....	106,713	42	11											1
Do.....	Feb. 25.....	106,713	41	13		1					1		1		
Do.....	Mar. 4.....	106,713	39	3									1		
Detroit, Mich.....	Feb. 25.....	205,876	105	9									3		
Dubois, Pa.....	Mar. 4.....	6,149	1												
Do.....	Mar. 11.....	6,149	4												
Dunkirk, N. Y.....	Mar. 4.....	9,416	3												
Dunmore, Pa.....	Feb. 25.....	8,315	8												
Do.....	Mar. 4.....	8,315	6												
Elmira, N. Y.....	Feb. 25.....	29,708	14	1											1
Do.....	Mar. 4.....	29,708	15	3											
Evansville, Ind.....	Mar. 11.....	50,756	20	6									1		
Everett, Mass.....	Mar. 4.....	11,068	6												
Fall River, Mass.....	Mar. 11.....	74,398	41	7									1		
Fitchburg, Mass.....	Mar. 4.....	22,037	14	1											
Flint, Mich.....	do.....	9,803	3												
Grand Rapids, Mich.....	do.....	60,278	29	3											
Green Bay, Wis.....	Feb. 25.....	9,069	5												
Do.....	Mar. 4.....	9,069	7												
Hoboken, N. J.....	Mar. 11.....	43,618	23	3											
Holyoke, Mass.....	do.....	35,637	14												
Honolulu, Hawaii.....	Feb. 4.....	30,000	21												
Jacksonville, Fla.....	Feb. 25.....	17,201	13												
Jersey City, N. J.....	do.....	763,003	80	10											
Johnstown, Pa.....	Mar. 11.....	12,805	12									1	1		1
Lawrence, Mass.....	Mar. 4.....	44,654	32										1		
Los Angeles, Cal.....	do.....	50,395	30	6		2					1		1		
Louisville, Ky.....	Mar. 9.....	161,129	78	15			1				3				
Lowell, Mass.....	Mar. 11.....	77,696	30	5											
Lynchburg, Va.....	do.....	19,709	4		1										
McKeesport, Pa.....	Mar. 4.....	20,741	11	1							1				
Mahanoy City, Pa.....	do.....	11,286	5										2		
Malden, Mass.....	Mar. 11.....	23,031	9	1											
Massillon, Ohio.....	Mar. 4.....	10,092	2												
Medford, Mass.....	Mar. 11.....	11,079	3	1											
Melrose, Mass.....	Mar. 4.....	8,519	2												
Michigan City, Ind.....	Feb. 25.....	10,776	6												
Middletown, N. Y.....	Mar. 7.....	11,977	2												
Milwaukee, Wis.....	Mar. 4.....	204,468	83	10									1		
Minneapolis, Minn.....	do.....	164,738	35	2											
Mobile, Ala.....	Mar. 11.....	31,076	20	5											
Nashville, Tenn.....	do.....	76,168	41	8							1				
New Bedford, Mass.....	do.....	40,733	22	1											
Newburyport, Mass.....	Mar. 4.....	13,947	2												
New Orleans, La.....	do.....	242,039	147	19							3				

a Estimated population, 65,165—white, 28,870; colored, 36,295. b White, 10; colored, 17. c Influenza, 20.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—										
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Variceloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
New York City, N. Y.	Mar. 11.	3,438,899	1,291	202						6	14	26	15	12
Norristown, Pa.	Mar. 4.	19,791	8											
Do.	Mar. 11.	19,791	8	1										
North Adams, Mass.	do.	16,074	4											
Omaha, Nebr.	Feb. 25.	140,452	23											
Do.	Mar. 4.	140,452	22											
Oneonta, N. Y.	do.	6,272	3											
Do.	Mar. 11.	6,272	1											
Ottumwa, Iowa.	Feb. 4.	14,001	2											
Do.	Feb. 11.	14,001	4											
Do.	Feb. 18.	14,001	3	2										
Do.	Feb. 25.	14,001	6											
Philadelphia, Pa.	Mar. 11.	1,046,964	520	66						39	1	10		2
Pittsburg, Pa.	Mar. 4.	238,617	125	11						5		1		3
Pittsfield, Mass.	Feb. 26.	17,281	6											
Pittsford, Pa.	Mar. 12.	10,302	4											
Plainfield, N. J.	Mar. 11.	11,267	9	2										
Port Huron, Mich.	Mar. 4.	13,543	5											
Portland, Me.	Feb. 25.	36,425	27	1										
Do.	Mar. 4.	36,425	9											
Providence, R. I.	Mar. 11.	132,146	79	17										
Richmond, Va.	do.	81,388	16									1		2
Salt Lake City, Utah.	Mar. 4.	44,843		2										
San Diego, Cal.	do.	16,159	5											
San Jose, Cal.	do.	18,060	9	1						1				
Santa Barbara, Cal.	do.	5,846	1											
Scranton, Pa.	Feb. 25.	75,215	46									3		
Do.	Mar. 4.	75,215	30									1		
Do.	Mar. 11.	75,215	24									3		
Shreveport, La.	do.	11,979	8											
Somerville, Mass.	Feb. 25.	40,152	16	3										
Do.	Mar. 11.	40,152	12	2										
Spokane, Wash.	Mar. 4.	19,922	14											
Springfield, Ill.	Mar. 7.	24,963	11	2										
Tacoma, Wash.	Mar. 4.	36,006	8											
Do.	Mar. 11.	36,006	10	1										
Waltham, Mass.	Feb. 25.	18,707	13											
Washington, D. C.	Mar. 4.	230,392	112	19						2	1		1	
Westfield, Mass.	do.	9,805	4											
Wheeling, W. Va.	do.	35,013	10	1						1				
Wichita, Kans.	Mar. 11.	23,853	8											
Wilmington, Del.	do.	61,431	25	3										
Worcester, Mass.	Mar. 3.	84,655	39	3										
Youngstown, Ohio.	Mar. 11.	33,220	13							1				

Table of temperature and rainfall, week ended March 17, 1899.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Atlantic Coast:						
Eastport, Me.....	25	8		.99	.74	
Portland, Me.....	23	5		.78	1.04	
Northfield, Vt.....	19	10		.50	.58	
Boston, Mass.....	31	7		.97	.12	
Vineyard Haven, Mass.....	34	3		.98	.84	
Nantucket, Mass.....	31	7		.77	.19	
Woods Hole, Mass.....	33	2		1.00	.70	
Block Island, R. I.....	32	5		.99	.37	
New Haven, Conn.....	31	3		.98		.16
Albany, N. Y.....	28	7		.63	.35	
New York, N. Y.....	34	5		.91		.22
Harrisburg, Pa.....	34	4		.76		.08
Philadelphia, Pa.....	36	7		.77	.03	
New Brunswick, N. J.....	31	10		.95		.05
Atlantic City, N. J.....	35	4		.85		.46
Baltimore, Md.....	38	5		.97	.29	
Washington, D. C.....	38	5		.92	.49	
Lynchburg, Va.....	42	5		.84	2.01	
Cape Henry, Va.....	44	4		1.07	1.41	
Norfolk, Va.....	44	7		1.01	1.84	
Charlotte, N. C.....	47	6		1.12		.40
Raleigh, N. C.....	45	10		1.20	1.32	
Kittyhawk, N. C.....	47	3		1.04		.04
Hatteras, N. C.....	47	7		1.28	1.64	
Wilmington, N. C.....	50	9		.90		.19
Columbia, S. C.....	52	6		1.12		.62
Charleston, S. C.....	53	8		.84	.04	
Augusta, Ga.....	52	7		1.16		.67
Savannah, Ga.....	55	6		.83		.72
Jacksonville, Fla.....	59	7		.80		.61
Jupiter, Fla.....	66	6		.57	1.99	
Key West, Fla.....	71	3		.29		.02
Gulf States:						
Atlanta, Ga.....	49	7		1.38		1.01
Tampa, Fla.....	66	0		.76		.41
Pensacola, Fla.....	57	2		1.21		1.16
Mobile, Ala.....	56			1.49		1.37
Montgomery, Ala.....	54	7		1.44		1.33
Vicksburg, Miss.....	55	10		1.35		1.32
New Orleans, La.....	60	7		1.19		1.17
Shreveport, La.....	55	6		1.04		.83
Fort Smith, Ark.....	45	6		.76		.76
Little Rock, Ark.....	49	6		1.21		.93
Palestine, Tex.....	55	5		.85		.85
Galveston, Tex.....	61			.70		
San Antonio, Tex.....	60	4		.43		.43
Corpus Christi, Tex.....	61	3		.45		.41
Ohio Valley and Tennessee:						
Memphis, Tenn.....	48	6		1.33		.81
Nashville, Tenn.....	45	6		1.27	.90	
Chattanooga, Tenn.....	47	5		1.40		.84
Knoxville, Tenn.....	44	7		1.27	1.32	
Louisville, Ky.....	41	1		.97	1.23	
Indianapolis, Ind.....	36		1	.85	.24	
Cincinnati, Ohio.....	39	3		.78	1.44	
Columbus, Ohio.....	35	4		.76	.61	
Parkersburg, W. Va.....	36	10		.70	.53	
Pittsburg, Pa.....	36	9		.64	.52	
Lake Region:						
Oswego, N. Y.....	27	6		.63	.30	
Rochester, N. Y.....	28	7		.69		.35
Buffalo, N. Y.....	27	8		.63		.25
Erie, Pa.....	31	2		.74		.22
Cleveland, Ohio.....	31	3		.64	.34	
Sandusky, Ohio.....	32	1		.63	.54	
Toledo, Ohio.....	32	0		.49	.24	
Detroit, Mich.....	30	2		.56	.73	
Lansing, Mich.....	28	0		.56	.24	
Port Huron, Mich.....	26	4		.63	.43	
Alpena, Mich.....	21			.49		
Sault Ste. Marie, Mich.....	17		3	.28		.03
Marquette, Mich.....	20		5	.42		.41
Green Bay, Wis.....	21		1	.49		.49
Grand Haven, Mich.....	28	0		.49	.05	

^a The figures in these columns represent the average daily departure.

Table of temperature and rainfall, week ended March 17, 1899—Continued.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	α Excess.	α Deficiency.	Normal.	Excess.	Deficiency.
Lake Region—Continued.						
Milwaukee, Wis.....	27		2	.54		.50
Chicago, Ill.....	81	4		.50	.06	
Duluth, Minn.....	21		6	.34		.30
Upper Mississippi Valley:						
St. Paul, Minn.....	23		12	.28		.03
La Crosse, Wis.....	26		8	.29		.20
Dubuque, Iowa.....	29		6	.48		.48
Davenport, Iowa.....	31		4	.42		.42
Des Moines, Iowa.....	30		6	.29		.29
Keokuk, Iowa.....	35		2	.49	.19	
Hannibal, Mo.....	36		2	.46		.00
Springfield, Ill.....	35		3	.68	.03	
Cairo, Ill.....	43	2		.88		.16
St. Louis, Mo.....	39		0	.77		.39
Missouri Valley:						
Columbia, Mo.....	38		3	.64		.29
Springfield, Mo.....	37		3	.85		.64
Kansas City, Mo.....	37			.49		.23
Topeka, Kans.....	36		3	.42	.09	
Wichita, Kans.....	38		0	.41		.33
Concordia, Kans.....	32		2	.34		.17
Lincoln, Nebr.....	31		5	.28		.23
Omaha, Nebr.....	31		8	.27		.25
Sioux City, Iowa.....	23		6	.27		.27
Yankton, S. Dak.....	24		5	.21		.17
Valentine, Nebr.....	25		1	.27	.36	
Huron, S. Dak.....	21		7	.15		.12
Pierre, S. Dak.....	22		6	.14	.15	
Moorhead, Minn.....	17		10	.21		.13
Bismarck, N. Dak.....	14		16	.21		.19
Williston, N. Dak.....	15		16	.07		.07
Rocky Mountain Region:						
Havre, Mont.....	19		22	.07	.29	
Helena, Mont.....	24			.14		.06
Miles City, Mont.....	24		13	.07	.54	
Rapid City, S. Dak.....	24		2	.21	.02	
Spokane, Wash.....	33			.40		
Wallawalla, Wash.....	37	7		.35		.15
Baker City, Oreg.....	28	6		.49	.19	
Winnemucca, Nev.....	37			.21		
Idaho Falls, Idaho.....	26	5		.52		.45
Salt Lake City, Utah.....	38		0	.41	.64	
Lander, Wyo.....	28		1	.27		.01
Cheyenne, Wyo.....	30		4	.14	.01	
North Platte, Nebr.....	30		1	.14		.10
Denver, Colo.....	36			.15		
Pueblo, Colo.....	37		0	.08	.22	
Dodge City, Kans.....	37	2		.21		.11
Oklahoma, Okla.....	46		1	.52		.52
Amarillo, Tex.....	41	4		.02		.02
Abilene, Tex.....	49	7		.29		.29
Santa Fe, N. Mex.....	37	4		.17		.17
El Paso, Tex.....	54	3		.13		.13
Phoenix, Ariz.....	58	21		.14		.14
Pacific Coast:						
Seattle, Wash.....	43		0	.93		.46
Tacoma, Wash.....	42			1.09	1.09	
Fort Canby, Wash.....	44		0	1.48		.06
Portland, Oreg.....	44		0	1.44		.30
Roseburg, Oreg.....	45		0	.97	2.46	
Eureka, Cal.....	48			1.47		
Redbluff, Cal.....	53	3		.84		.64
Carson City, Nev.....	39	3		.35		.35
Sacramento, Cal.....	53	1		.71		.63
San Francisco, Cal.....	53	1		.77		.54
Fresno, Cal.....	53	3		.29		.29
San Luis Obispo, Cal.....	55	4		.82		.82
Los Angeles, Cal.....	56	5		.77		.77
San Diego, Cal.....	55			.48		
Yuma, Ariz.....	62			.07		

α The figures in these columns represent the average daily departure.

FOREIGN.

[Reports received from United States consuls through the Department of State and from other sources.]

Cholera, yellow fever, plague, and smallpox as reported to the Supervising Surgeon-General United States Marine-Hospital Service, December 31, 1898, to March 17, 1899.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	Dec. 20-Jan. 31.....	.....	14	
Calcutta.....	Nov. 26-Feb. 4.....	.....	275	
Madras.....	Nov. 19-Feb. 10.....	.....	28	
Singapore.....	Dec. 1-Dec. 30.....	.....	1	

YELLOW FEVER.

Brazil:				
Bahia.....	Dec. 24-Feb. 11.....	6	2	
Rio de Janeiro.....	Nov. 11-Jan. 27.....	.....	68	
Colombia:				
Barranquilla.....	Dec. 2-Jan. 9.....	3	3	
Cuba:				
Habana.....	Dec. 16-Feb. 16.....	.....	7	
Mexico:				
Vera Cruz.....	Dec. 8-Feb. 9.....	.....	31	

PLAGUE.

China:				
Hongkong.....	Dec. 10-Jan. 21.....	2	2	
Formosa:				
Tainan.....	Jan. 9.....	5	2	
Taipeh.....	Dec. 25.....	10	2	
Taiwan.....	Dec. 31.....	.....	.....	Plague exists.
India:				
Bombay.....	Nov. 22-Jan. 31.....	.....	a583	
Calcutta.....	Jan. 21-Feb. 4.....	.....	3	
Madras.....	Nov. 19-Nov. 25.....	.....	1	
Madagascar:				
Tamatave.....	Nov. 28-Dec. 16.....	88	38	

SMALLPOX.

Africa:				
Lorenzo Marquez.....	Dec. 1-Dec. 24.....	18	.....
Argentina:				
Buenos Ayres.....	Nov. 1-Nov. 30.....	.....	5	
Belgium:				
Antwerp.....	Dec. 3-Jan. 7.....	41	14	
Brazil:				
Bahia.....	Nov. 19-Feb. 11.....	151	10	
Rio de Janeiro.....	Nov. 11-Jan. 27.....	123	58	
Canada:				
Province of Quebec.....	Jan. 26-Mar. 10.....	14	1	
China:				
Hongkong.....	Jan. 1-Feb. 4.....	8	1	
Ceylon:				
Colombo.....	Dec. 24-Dec. 31.....	.....	1	
Cuba:				
Habana.....	Dec. 30.....	1	.....	In United States Army
Santiago.....	Feb. 23.....	1	.....	On steamship Thomas Brooks.
Egypt:				
Cairo.....	Jan. 16-Feb. 4.....	.....	4	
England:				
Liverpool.....	Dec. 3-Jan. 21.....	2	1	
London.....	Dec. 17-Jan. 14.....	1	1	
South Shields.....	Jan. 21-Jan. 23.....	1	.....
Sunderland.....	Jan. 15-Jan. 21.....	2	.....

a Actual number probably 1,100.

Cholera, yellow fever, plague, and smallpox, etc.—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
France :				
Paris.....	Dec. 24-Feb. 11...		3	
Gibraltar.....	Jan. 30-Feb. 12...	2	1	
India :				
Bombay.....	Nov. 22-Jan. 31.....		10	
Calcutta.....	Nov. 19-Dec. 17.....		3	
Colombo.....	Dec. 24-Dec. 31.....		1	
Madras.....	Nov. 26-Jan. 6.....		3	
Singapore.....	Dec. 1-Dec. 30.....		13	
Italy :				
Milan.....	Jan. 22-Jan. 28.....	1		
Japan :				
Awomori Ken.....	Nov. 18-Dec. 31.....	126	28	
Chiba Ken.....	Dec. 9-Dec. 31.....	1		
Hiogo Ken.....	Nov. 18-Dec. 8.....	1		
Iwate Ken.....	Dec. 9-Dec. 31.....	1		
Kanagawa Ken.....	Nov. 18-Dec. 8.....	1		
Nagano Ken.....	Dec. 9-Dec. 31.....	1		
Nagasaki Ken.....	Nov. 18-Dec. 8.....	1		
The Hokkaido.....	Nov. 18-Dec. 8.....	8		
Tottori Ken.....	Nov. 18-Dec. 8.....	3		
Korea :				
Seoul.....	Jan. 1-Jan. 7.....			Smallpox endemic.
Mexico :				
C. P. Diaz.....	Jan. 10.....			Do.
.....	Feb. 11-Feb. 25.....	10		
Chihuahua.....	Jan. 7-Mar. 4.....		9	
City of Mexico.....	Dec. 31-Mar. 5.....		16	
Juarez.....	Feb. 18.....	15		
Monterey.....	Dec. 2-Jan. 5.....		3	
Nuevo Laredo.....	Jan. 29-Feb. 4.....	9	1	
Vera Cruz.....	Jan. 5-Feb. 16.....		4	
Russia :				
Moscow.....	Dec. 24-Feb. 11.....	41	27	
Odessa.....	Jan. 7-Feb. 11.....	13	3	
St. Petersburg.....	Jan. 1-Feb. 18.....	17	3	
Warsaw.....	Jan. 16-Jan. 28.....		7	
Turkey :				
Bagdad.....	Oct. 22-Nov. 27.....	96	20	
Constantinople.....	Jan. 2-Feb. 15.....		82	
Smyrna.....	Dec. 25-Feb. 12.....		7	

AFRICA.

*Sanitary report from Tunis.*TUNIS, *February 14, 1899.*

SIR: Referring to my last dispatch of January 5, No. 70, I am happy to inform you that the general state of health in Tunis and in the other towns of the Regency is satisfactory. A few cases of sporadic influenza, without gravity, took place in January, but without any augmentation since.

I am, sir, your obedient servant,

ALFRED CHAPELIE,
U. S. Vice-Consul at Tunis.

HON. ASSISTANT SECRETARY OF STATE.

BARBADOS.

*Quarantine and sanitary report.*BARBADOS, *February 18, 1899.*

SIR: Since my circular on December 24 last, I have to report that St. Lucia has removed the quarantine against Caracas, La Guayra, Puerto Cabello, and Valencia in Venezuela, Santos in Brazil, and Cuba. Quarantine is in force at St. Lucia against Bahia, Para, and Rio Janeiro.

Quarantine is in force at Barbados against Bahia, Cuba, Para, Rio Janeiro and Venezuela, except Barancas, Ciudad Bolivar, Caracas and La Guayra, arrivals from which last named places and Porto Rico are subjected to medical inspection.

Para.—The British consul reports 6 deaths there from yellow fever in December, making 152 for the year; but he added that the number as given in a local paper was 224.

St. Thomas.—A quarantine of fifteen days has been declared there against Ponce, Porto Rico, for smallpox, a large number of cases having occurred there.

Cayenne.—The British consul, under date of 2d instant, reports that the health of the colony is good.

The reports forwarded by the chairman of St. Lucia quarantine board give the following particulars:

Bahia.—For the fourteen days prior to January 21, 1899, 2 cases, 1 death from yellow fever; 33 cases, 5 deaths from smallpox.

Para.—For the fourteen days prior to February 4, 1899, 6 deaths from yellow fever.

Rio de Janeiro.—For the fourteen days prior to January 16, 1899, 27 cases, 19 deaths from yellow fever; 17 cases, 9 deaths from smallpox. For the fourteen days prior to January 30, 1899, 30 cases, 12 deaths from smallpox; 60 cases, 43 deaths from yellow fever.

Pernambuco.—For the fourteen days prior to January 30, 1899, clean bill of health.

I have to thank you for the bound copy of HEALTH REPORTS to hand to-day.

I have the honor to be, sir, your obedient servant,

JAS. SANDERSON,
Clerk, Quarantine Board.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

BRAZIL.

*Sanitary report from Rio—Yellow fever at Rio and Victoria.*RIO DE JANEIRO, *February 9, 1899.*

SIR: I have the honor to transmit to you the official report for the week ended January 27. There were 367 deaths from all causes, an increase of 84 as compared with the foregoing week; 10 deaths from *accesso pernicioso*, an increase of 1; 28 deaths from yellow fever, an increase of 15; 8 deaths from smallpox, an increase of 3; 2 deaths from typhoid fever, a decrease of 1; no death from diphtheria, a decrease of 1; 1 death from measles, the same as before; 4 deaths from beriberi, an increase of 2, and 60 deaths from tuberculosis, a decrease of 8.

Information.—Yellow fever is visibly increasing. In the above-men-

tioned official report we observe that there are noted 28 deaths per week; in the following week there were 41 deaths, then followed days with 4, 8, 9, and 9 deaths from yellow fever.

The localities in which the cases and deaths of yellow fever occurred are in different parts of the city; but I desire to invite your attention to a special focus of yellow fever. This is in the vicinity of the celebrated botanical garden. In that locality there are several large factories (spinning and weaving), in which are employed from 600 to 1,000 operatives. Moreover, there is in that vicinity a kind of cottage colony, a system of connected houses, divided into streets and yards; and it was the intention of the company that erected those buildings to furnish to families and single people a comfortable residence for moderate rents. Besides, there are also in this district many old-fashioned houses; therefore, in that locality are agglomerated a large number of people who are not able to spend much for improvements for promoting their comfort. Only the better class of houses have sewerage arrangements; some of the houses nothing of those arrangements, and instead bury the refuse in holes opened in the soil, and even where sewerage arrangements exist there is a lack of connection with the general sewerage system of the city. This connection should have been made by the city improvements company. That company, however, which is English, has financial difficulties with the government, which have not yet been settled, and it prefers to pay the fine, for which the contract provided, rather than execute the work, which is very costly.

The proprietors of the houses in that locality have united and have established a sewerage system which conveys into a receptacle all the respective fecal matters. That receptacle is a large hole in the ground, the upper part of which is cemented. To prevent the overflow of fecal matter near the surface, there is an aspirator that carries off the surface water into a shallow river passing through the botanical garden and emptying into a lake (lagoa). In the rainy season, when the supply of water in the river is abundant, the conditions are tolerable. If there is a lack of water, and if the heat of the sun causes evaporation, the whole locality is pervaded with a terrible stench. For several months there has been discussion in regard to this extraordinary unhygienic situation, but nothing has been done. Now there has appeared a malignant yellow fever epidemic which has already made many victims, because in that locality there live and work a large number of foreigners.

In these modern times, in which so much is said in regard to the yellow fever germ, we must not fail to observe that the only practical way of preventing epidemics is to remove by general hygienic measures the special germs of the disease.

Very unfavorable news has arrived from Victoria, capital of the state of Espirito Santo. About one month ago yellow fever appeared there, which has probably been imported from Rio de Janeiro. The population of Victoria is estimated at 6,000. I learn that up to the present time the number of cases and deaths has been considerable, probably all foreigners. The foreign population is composed chiefly of Germans, Portuguese, English, and few Americans. Special quarantine measures have not been adopted. The wealthier people have already left the town; a general panic prevails. In consequence of the great heat there is a general lack of water.

It may be mentioned on this occasion, that yellow fever first appeared at Victoria, four years ago, when it was imported by a German steamer, sailing from Rio de Janeiro. The epidemic at that time made many victims.

I have asked for telegraphic information in regard to the progress of the present epidemic and the United States vice-consul, Mr. Zinzen, has telegraphed as follows :

Up to the present time it has been impossible for me to obtain official data ; however I learned that during January there occurred 20 deaths from yellow fever; I will advise you in regard to the present state, when I receive information from the department of hygiene.

February 4. From December 12 to date there have been 50 cases, of which 20 died, 22 were cured, and 8 are under treatment. It is now thought that the epidemic is declining.

Since last report the following-named ships have been inspected and received bills of health of this office : February 3, bark *Leonka*, British, for Pensacola. February 4, steamship *Galileo*, Belgian, for New York ; steamship *Strabo*, British, for New Orleans and Galveston ; bark *Bellona*, British, for Ship Island. February 7, steamship *Cyprian Prince*, British, for New York. February 8, bark *Werra*, German, for Pensacola. February 9, bark *Victoria*, Norwegian, for Apalachicola.

Respectfully, yours,

W. HAVELBURG, M. D.,
Sanitary Inspector, U. S. M. H. S.

CANADA.

Smallpox in the province of Quebec.

MONTREAL, March 10, 1899.

SIR: The present status of smallpox in the province is as follows :

Municipality.	County.	Population.	Date of outbreak.	New cases since last report. (a)	Total cases since outbreak.	Died.	Recovered.	Still sick.	Houses infected since outbreak.	Houses still infected.
Coteau du Lac	Soulanges.....	1,276	Dec. 10	0	5	0	5	0	1	0
Coteau Landing.....	do	507	Dec. 29	0	1	1	0	0	1	0
St. Telesphore.....	do	1,307	Jan. 12	b2	7	0	4	3	1	1
Waltham and Bryson....	Pontiac.....	361	Feb. 13	0	1	0	0	1	1	1

a Date of last report, February 23.

b Two very slight cases of varioloid among the already quarantined family.

Yours, respectfully,

ELZÉAR PELLETIER,

Secretary Board of Health of the Province of Quebec.

ONTARIO.

Smallpox from January 30 to February 22.

Camden, Kent County, 3 cases; Coburg, Northumberland and Durham County, 1 case; Cornwall, Stormont County, 1 case, 1 death; East Hawkesbury, Prescott County, 10 cases, 1 death; West Hawkesbury, Prescott County, 5 cases, 2 deaths; North Colchester, Essex County, 1 case; Osnabruck, Stormont County, 10 cases; Toronto, York County, 3 cases; Williamsburg, Dundas County, 1 case, 1 death; Woford, Grenville County, 5 cases, 1 death. The cases in Stormont County were due to navvies exposed at Soulanges Canal Works, coming to work in Osnabruck. The cases in Prescott County were due to canal workmen from Coteau, Quebec.

CHINA.

Sanitary report from Chungking.

CONSULATE OF THE UNITED STATES,
Chungking, January 16, 1899.

SIR: I have the honor to acknowledge the receipt of two circulars of the State Department on the following subjects: Weekly Sanitary Reports, dated October 31, 1898, and Consular Agents Accounts, dated November 11, 1898.

With regard to the first, I must say that it is impossible to send these reports from here weekly, for the reason that there is no official data. What can be done instead, is to furnish the Treasury Department with a monthly report, written by one of the local surgeons, giving, as near as possible, the general health and sanitary condition of this city and possibly immediate neighborhood. If the Department approves of this, I will make the necessary arrangements to have the office supplied with these reports at possibly a small fee or remuneration.

I inclose with this a report by Dr. J. H. McCartney taken from the medical reports of the customs, on the health of Chungking for the half year ended March 31, 1898.

I have the honor to be, sir, your obedient servant,

GEO. F. SMITHERS,
United States Consul.

HON. ASSISTANT SECRETARY OF STATE.

Dr. James H. McCartney's report on the health of Chungking, China, for the half year ended March 31, 1898.

[Inclosure.]

With the exception of 4 cases of remittent fever, no illness of a serious character has affected the foreign community during the six months under review. There were 3 births and 2 deaths. One death was that of a French Catholic priest from dilatation of the heart, and the second was a Japanese servant from remittent fever. Several of the foreign children were down with measles, as well as 1 adult. Two or 3 of the cases were complicated with capillary bronchitis, and their convalescence extended over a considerable period. Measles, mumps, and smallpox were epidemic among the Chinese. Very frequent sequelæ noticed among the poorly fed children after measles are cancrum oris and ulcerated cornea. I have often undertaken the treatment of cancrum oris, but no treatment in my hands has proved of any avail, the little sufferers invariably dying in from one to two days.

My out-patient department, which numbered last year over 38,000, furnished many interesting cases of skin diseases. Among the rarest of these, herpes zoster was encountered several times. In every instance good results followed the daily painting on of tincture of iodine. Previous to this I had never seen this treatment strongly recommended, but will feel inclined to follow it in the future.

I have more than once stated that I did not believe that typhoid pure and simple occurred in this port, and I am still of this opinion, although the following case came nearer to it than anything I have seen among several hundred cases of fever treated in the wards of the general hospital. I diagnosed the case typho malaria, or, according to Davidson, tropical typhoid. The patient, a young doctor out from England about nine months, and after hard study of the language, was generally run down in health. He noticed several days before he took his bed that he had some fever, complained of feeling tired, loss of appetite, and general malaise.

When I first called I found him with a temperature of 103° and over, bowels constipated, etc. I ordered 2 grains of calomel to be given every hour until 10 grains had been taken, with 15-grain doses of quinine every two or three hours until complete cinchonism was obtained, and antifebrin if the fever reached 103°. The calomel had the desired effect, and the bowels moved freely. From this time on for over ten days he

was troubled with diarrhea, the bowels moving 6 and 8 times in the day and quite as often in the night. The stools were characteristic of typhoid. He had no spots nor tenderness, but gurgling in the right inguinal region. The quinine given made him sick at the stomach, and after the first four or five days it was discontinued, and only antifebrin given, in 2-grain doses, if the fever rose to 103°. His temperature was kept down with cold sponging. Nephenthe with bismuth solution was given for the diarrhea. His fever became normal on the twenty-first day, and his recovery was uneventful. Outside of his stools he presented no other symptoms of typhoid.

In every case of remittent fever treated among foreigners quinine seemed to make them sick at the stomach when given in large doses. Five-grain doses given every hour did away with the tendency to nausea, and had the same effect as larger doses.

Case 1.—Attempted suicide by cutting the radial artery. Pulseless; restored by subcutaneous injections of normal saline solution. The patient had been accused of stealing clothing, and out of revenge attempted to take his own life. He chose as his instrument a sharp vegetable knife, and did his job neatly. His friends succeeding in checking the bleeding by binding the arm with some vegetable fiber, but not until the man was pretty well bled out and had become unconscious.

In this condition he was brought to the hospital. At first permission to carry him through the gate was refused as he seemed to be in a dying condition, but on second thought he was allowed to pass into the hospital compound that I might see what could be done for him. His extremities were cold, no pulse was perceptible at the wrist, and he was as bloodless looking as possible. I determined to try normal saline solution, not by transfusion, but by subcutaneous injection. I accordingly prepared a solution, 1 drachm to the pint of lukewarm water (distilled), and injected 16 ounces with an aspirating needle, into the subcutaneous tissue on the back between the shoulders. This was followed by hypodermics of strychnia, digitalis, and enemas of beef tea.

In about one hour after the injection was made the pulse was perceptible at the wrist, the extremities became warmer, and another 16 ounces was injected. Two hours after this his pulse was full and strong, and he had no appearance of having lost any blood at all.

I have related this case on account of the prompt and complete reaction which followed the injection of the saline solution.

Case 2.—Remittent fever, died. The patient had been ailing for a week or more before I saw her. When seen she complained of bones aching, headache, loss of appetite, tongue coated, and constipation. I ordered calomel, 10 grains, 2 grains to be taken every hour. Her bowels acted freely. The large doses of quinine given made her sick at the stomach, and as she continued to have high fever (104°), she was removed to the hospital. Here as seen by the chart (No. 2), she was delirious. Would get out of bed and run out of doors; would insist on setting up to urinate. In the morning the pulse would be about 108 or 109, and in the evening 120. She manifested no bad symptoms, with the exception of her rambling talk. Small doses (2 grains) of antifebrin made her perspire profusely. She continued thus until the morning of the tenth day, when she died. She was reported all right at 5 a. m., when the nurse washed her face and hands. The only reason I can give for her sudden death is that she must have set up when her face was being washed, and died from heart failure.

Case 3.—Ununited fracture of patella treated by wiring; perfect result. The patient was a chair coolie, and had fractured his patella some months ago by falling while carrying a chair. When he presented himself at the dispensary his leg was utterly useless, as far as having any control over it in walking. He could no longer carry a chair and came as a last resort to see if I could do anything for him. He readily consented to an operation; but as he was a heavy alcohol drinker, and had organic heart disease, I refused to give him an anæsthetic, and performed the operation under the local anæsthetic, cocaine. A bandage was thrown around the leg above the knee, and, the circulation being then interfered with, I freely injected a 4 per cent solution of cocaine without any bad symptoms. He had very little pain during the operation, which occupied about fifteen minutes. A transverse incision was made over the fracture, the broken ends of the bones were scraped and drawn together by three silver wire sutures. The leg was put up in a posterior splint and not opened for ten days, healing by first intention; no fever; recovery, with perfect use of leg.

Case 4.—Compound fracture of humerus; simple fracture of both femurs. The patient was a young lad employed in Mr. A. J. Little's wool-packing establishment in driving a horse in connection with the wool press. Through carelessness, his clothes got fastened in the shafting which connected the horsepower with the press, and was less than a foot above ground. Before he knew it, he was being whirled round and round the shaft, and before the horse could be stopped the lad had sustained a compound fracture of the left humerus and a simple fracture of both femurs. The humerus was put up with a posterior splint and extension was applied to each leg. At present he bids fair to recover, with little or no shortening of the legs.

CUBA.

*Sanitary report from Havana.*HAVANA, CUBA, *March 10, 1899.*

SIR: I have the honor to submit the following report for the week ended Thursday, March 9:

There were no deaths from yellow fever or smallpox during the week, but it will be noticed that there are 3 deaths from gastric fever and 1 from borras fever recorded in the mortality table attached to this report. While I do not know that these 4 deaths were caused by the diseases assigned to them, they may or may not have been yellow fever.

The harbor work continues heavy. Up to date we have inspected 312 vessels; will have an increase after beginning of close quarantine season. We are now issuing bills of health to ports in Porto Rico, and will soon issue them to vessels going to ports in Cuba.

Passenger traffic is now at its highest; we are now handling about 200 people a day in the office.

The United States transport *Michigan*, with the Second Maine Artillery and 220 soldiers from different commands, left here yesterday morning for Savannah, Ga. Acting Assistant Surgeon McConnell consulted with me in reference to all matters pertaining to said vessel while in port, and in reference to certificates issued to soldiers going over with the ship. In the case of the Maine Artillery, the medical officer in charge gave a certificate covering the entire command, the others were examined for vaccination and good health in this office, and certificates were issued to that effect.

The dock which has been in course of construction by the United States Army on the opposite side of the bay and just east of Casa Blanca has been almost finished, and in a few weeks all vessels landing supplies for the Army here, as well as those that will take discharged soldiers from Havana to the United States, will go to this wharf without passing through the city.

The weather has been fairly cool. The total mortality shows a slight increase over that of the previous week, and there is nothing to regard with suspicion save the deaths recorded from gastric and borras fevers.

Very respectfully,

W. F. BRUNNER,

Sanitary Inspector, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,

*U. S. Marine-Hospital Service.**Mortality of the city of Havana for the week ended Thursday, March 9, 1899.*

Cause of death.	Total.
Enteric fever.....	6
Pernicious fever.....	2
Malarial fever.....	10
Gastric fever.....	3
Borras fever.....	1
Dysentery.....	3
Enteritis.....	38
Tuberculosis.....	30
Deaths from all causes.....	197
Annual ratio per 1,000.....	51.22

Sanitary report from Santiago.

SANTIAGO DE CUBA, *February 4, 1899.*

Sir: I have the honor to inform you that 39 deaths have been recorded for the week ended Saturday, February 4, being 15 less than last week. Of these none were from contagious or infectious diseases. No cases of yellow fever or smallpox have been reported either in the city or vicinity; in fact, none have been known to exist for the last three or four months. The accompanying mortality table will give you an exact idea of our present sanitary condition, which improves daily.

Malarial fevers prevail very extensively, especially the bilious remittent form. Dysentery has almost disappeared, but diarrhea among children is quite frequent. Colds, bronchitis, and some cases of pneumonia are met with daily.

Respectfully, yours,

H. S. CAMINERO,

Sanitary Inspector, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,

U. S. Marine-Hospital Service.

Mortality table of Santiago de Cuba for the week ended Saturday, February 4, 1899.

[Inclosure.]

Diseases.	Whites.				Colored.				Total.
	Males.		Females.		Males.		Females.		
	Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.	
Tuberculosis.....	4		1						5
Typhomalaria.....									
Tetanus.....									
Apoplexy.....	2								2
Scrofula.....									
Meningitis.....							1		1
Yellow fever.....									
Rheumatism.....	1				1				2
Typhoid.....									
Dysentery.....	1								1
Malarial fevers.....	1		1	3			1		6
Diphtheria.....									
Enterocolitis.....	2		1					1	4
Diarrhea.....	1								1
Pneumonia.....					1				1
Heart disease.....			1				1		2
Albuminuria.....				1					1
Liver disease.....	2								2
Kidney disease.....									
Dropsy.....					1				1
Anæmia.....	1	1		1					3
Scarlatina.....									
Measles.....									
Pertussis.....									
Ataxia.....	1								1
Wounds.....									
Angina pectoris.....					1				1
Bilious fever.....		1	1	1		1			4
Accident.....	1								1
Total.....	17	2	5	6	4	1	2	2	39

Estimated population, 35,000; number of deaths, 39.

SANTIAGO DE CUBA, *February 11, 1899.*

SIR: I have the honor to inform you that 36 deaths have been reported for the week ended Saturday, February 11. Of this number none were from contagious or infectious diseases. They were due to the following causes: Tuberculosis, 3; meningitis, 2; dysentery, 3; malarial fevers, 8; entero-colitis, 7; diarrhea, 2; heart disease, 3; dropsy, 1; anæmia, 2; bilious remittent fevers, 5. The public health continues to improve and the people begin to appreciate the benefits derived from the hygienic measures and sanitary regulations adopted for their protection from disease and death.

Respectfully,

H. S. CAMINERO,

Sanitary Inspector, U. S. M. H. S.

The SUPERVISING SURGEON GENERAL,

U. S. Marine-Hospital Service.

Mortality table of Santiago de Cuba for the week ended Saturday, February 11, 1899.

[Inclosure.]

Diseases.	Whites.				Colored.				Total.
	Males.		Females.		Males.		Females.		
	Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.	
Tuberculosis.....			1		1		1		3
Typhomalaria.....									
Tetanus.....									
Pleurisy.....									
Scrofula.....									
Meningitis.....		1						1	2
Yellow fever.....									
Smallpox.....									
Typhoid.....									
Dysentery.....	1				2				3
Malarial fevers.....	1		2	2	1	1		1	8
Diphtheria.....									
Entero-colitis.....		1		3		2		1	7
Diarrhea.....	2								2
Pneumonia.....									
Heart disease.....	2				1				3
Albuminuria.....									
Liver disease.....									
Kidney disease.....									
Dropsy.....							1		1
Anæmia.....		1					1		2
Scarlatina.....									
Measles.....									
Pertussis.....									
Cancer.....									
Wounds.....									
Old age.....									
Bilious fever.....	2		1		1		1		5
Accident.....									
Total.....	8	3	4	5	6	3	4	3	36

Estimated population, 35,000; mortality, 36.

SANTIAGO DE CUBA, *February 18, 1899.*

SIR: I have the honor to inform you that our sanitary condition at present is most excellent. Only 23 deaths have been reported for the week ended February 18. It is some years since our mortality has been so low, and the greatest credit is due to the present American administration for the strenuous efforts employed in the sanitation of Santiago. No cases of either contagious or infectious disease prevail, and dysentery has almost disappeared, the cases now met with having a malarial origin and readily yielding under a quinine treatment. Malarial fevers prevail to a great extent, but their character is less deadly and a great percentage recover.

Respectfully,

H. S. CAMINERO,
Sanitary Inspector, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

Mortality table of Santiago de Cuba for the week ended Saturday, February 18, 1899.

[Inclosure.]

Diseases.	Whites.				Colored.				Total.
	Males.		Females.		Males.		Females.		
	Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.	
Tuberculosis			1		1				2
Typhomalaria.....									
Tetanus.....						1			1
Pleurisy.....	1								1
Scrofula.....									
Meningitis.....			1		1				2
Yellow fever.....									
Smallpox.....									
Typhoid.....									
Dysentery.....					1				1
Malarial fevers.....		1						1	2
Diphtheria.....									
Enterocolitis.....				2					2
Diarrhea.....							1		1
Pneumonia.....	1				1				2
Heart disease.....	2								2
Albuminuria.....							1		1
Liver disease.....									
Kidney abscess.....					1				1
Dropsy.....							2		2
Anæmia.....									
Scarlatina.....									
Measles.....									
Pertussis.....									
Cancer.....									
Wounds.....									
Old age.....	1								1
Bilious fever.....	2								2
Accident.....									
Total.....	7	1	1	3	4	2	4	1	23

Estimated population, 35,000; number of deaths, 23.

Report on the city and harbor of Santiago de Cuba and arrangements for a quarantine.

MARINE-HOSPITAL SERVICE,
OFFICE OF MEDICAL OFFICER IN COMMAND,
Santiago de Cuba, March 1, 1899.

Santiago (St. Jago) is one of the oldest cities in America, founded by Valesquez in 1514.

It was claimed that the city had a population of 60,000 before the Cuban war for independence, but now has probably less than half that number.

It is the capital of the province of Santiago. The lack of railroad communication with the central and western portions of Cuba adds to its importance as the metropolis of this end of the island. The city is built upon a hillside, rising from the head of the bay.

The mountains, surrounding the city and bay, make a picturesque landlocked harbor, but unfortunately shield the city from the full enjoyment of the southeast trade winds.

Great credit is due to General Wood for the manner in which he has cleaned up the city and for the energetic measures he has put into operation in order to improve its sanitary condition.

THE BAY.

The bay is a narrow inlet, a little over 4 miles long and less than a mile wide at any point. The entrance to the bay is a narrow gorge, the channel being only 180 feet wide.

The rise and fall of the tide average 2 feet. The current is not sufficient to scour the bay. It has no streams of importance flowing into it. In consequence, the headwaters of the bay, where the city is located, are stagnant, and there is a considerable deposit of filth, the accumulation of many years, off the city front.

ISLANDS.

There are 2 islands in the bay—one, Ratones Cay, is neither suitable nor available for quarantine purposes. It is a small flat island, of about 1 acre in extent, and contains 2 buildings, used as magazines.

Smiths Cay, situated directly within the mouth of the harbor, in the route of incoming vessels, would make an ideal place for a quarantine. It is both isolated and accessible. It comprises about 5 acres, rises about 100 feet above the water, with a deep channel close to its shore. There is a large secluded anchorage for infected vessels near by.

The island is occupied on its shores by a considerable village of fishermen and pilots. The remainder of the island is preempted by private persons who have built pretentious summer houses on its higher portions, and live there during the hotter season. The fact that it is inhabited and owned by private persons and would require an expensive wharf precludes its use as a quarantine station. Several sites on shore are available for a quarantine station, but none of them could be used without an expensive wharf.

WHARFS.

There are several wharves. One, built by the Juragua Iron Company for loading ore, is about half a mile from town and is a splendid structure of stone and steel. The others are landing places for boats drawing not over 13 feet. Larger vessels anchor in the stream and load and unload by means of lighters.

THE CITY.

The site on which the city is built consists mainly of a coralline limestone which is very porous.

The streets are narrow and rather steep in places. The paving has been greatly improved under the present administration.

There is no sewerage system. There are a few drains, which end anywhere. Most of the houses have cesspools, which, in construction and location, violate all laws of sanitation. The saturation of the soil with the sewage of many years is one of the problems in cleaning up the city.

One of the pressing needs of the city is an increased water supply. Work on this line is being pushed. The entire city is supplied through an 11-inch main. The supply comes from the San Juan River, which has been dammed a few miles from town.

The rainy season, lasting from about May to October, is followed by a dry winter, during which it becomes necessary to store water. The "bloody bend" of the San Juan River was a swollen stream when our army crossed it last summer; it is now very low.

HOSPITALS.

The yellow fever hospital, used for cases of this disease that arise in the city and vicinity, is located on Duan Point (see inclosed map), across the bay, about a mile from the city. The hospital consists of a plain wooden building, raised about a foot from the ground on underpinning, and has a tiled roof. It is 150 feet by 20 feet, and can accommodate about 50 patients.

The lazaretto is well located, and the point of land on which it is situated is isolated, there being neither habitation nor traffic between it and the mountains, some 5 miles distant. The lazaretto is in charge of Acting Assistant Surgeon Geo. A. McHenry, United States Volunteers, with a hospital steward, nurse, and boatman.

The general military hospital, in charge of Major and Surgeon L. C. Carr, is situated on high ground, and was formerly used by the Spaniards for the same purpose. It can accommodate about 300 patients.

The civil hospital, under the care of the civil authorities, is the general city hospital, and contains about 300 beds.

Both the civil and military hospitals are pretentious buildings, well located on the crests of hills, and are undergoing important improvements.

There is a small officers' hospital under the care of Assistant Surgeon J. R. Church, United States Army. Capacity, 20 beds.

SANITARY HISTORY OF THE CITY.

The sanitary history of the city has not been good, especially last summer, when the hardships of the siege rendered the conditions very bad. The hospitals were overcrowded, isolation of infectious diseases was not possible. Yellow fever existed, and cases were not removed from the hospital or houses in which they occurred. Sporadic cases, believed to be yellow fever, arise from time to time, but on account of the lack of definite knowledge on the subject, there is often doubt as to the diagnosis. Yellow fever has prevailed in this city annually since 1851, and probably very much longer. It must be considered one of the endemic foci of the disease.

SMALLPOX.

Smallpox has prevailed here from time to time, an outbreak occurring lately at Holguin (about 90 miles to the north) is now under control. Vaccination has never been enforced among the native population and many are scarred from the disease. Pernicious malarial fever and dysentery exist at this season.

THE SANITARY DEPARTMENT.

The sanitary department, under the charge of Maj. Geo. M. Barbour, is doing heroic work in cleaning up the city, correcting abuses, disinfecting, collecting vital statistics, removing garbage, and performing the work usually assigned to the health officer and board of health of a city.

TRAFFIC.

Between 75 and 100 vessels a month will require the attention of the quarantine officer.

On account of the great uncertainty as to the time of sailing, and like uncertainty as to the time of arrival, this amount of shipping will take all of one man's time.

The principal traffic from this port is by a steamer line to New York (weekly), Kingston, Jamaica (bimonthly), New Orleans and Mobile, etc. (occasionally), and Havana (weekly), by way of Batabanua and the south coast of Cuba. There is a biweekly service with Guantanamo. Sailing vessels arrive occasionally and bring lumber, coal, or general cargo, and take away sugar or leave in ballast.

The steamers of the Juragua Iron Company carry coal, lumber, etc., to ports in the lesser Antilles, then come here in ballast and take iron ore to Baltimore or Philadelphia.

There is practically no railroad communication with the interior of the province.

EXPORTS.

Exports are sugar, tobacco, cocoa, iron ore manganese, mahogany, etc., which require little attention as far as their liability to carry infection is concerned.

WEATHER.

The average temperature at this season of the year is about 77.5° F. There has been practically no precipitation for three months; the humidity is between 77 and 80.

ARRANGEMENTS FOR A QUARANTINE.

The present yellow-fever hospital, situated on Duan Point, will be continued under the care of the Army and will receive cases that may arise in the city or cases that may arrive on vessels. This arrangement is practical and meets with the approval of General Wood and Major and Surgeon V. Havard. It has the advantage of saving the cost of two separate lazarettos.

The disinfecting machinery will be placed on board a schooner or barge as soon as one can be obtained. This floating plant will be used to disinfect either incoming or outgoing vessels, baggage, etc. The bay is never very rough, and a floating plant is well suited to the conditions.

Should detention of suspects become necessary, it will have to be done on board the vessel, or at the temporary camp, under canvas.

The situation of the hospital, the anchorage for infected and non-infected vessels, etc., are shown upon the inclosed map.

An office has been obtained in a convenient locality. The Signal Corps of the Army gave us telephonic connection. The Medical Supply Depot furnished us the necessary office furniture on memorandum receipt.

The following port regulations have been promulgated:

[Circular No. 5.]

HEADQUARTERS DEPARTMENT OF SANTIAGO,
Santiago, Cuba, March 2, 1899.

SIR: The following quarantine regulations prepared by the officer in command of the Marine-Hospital Service at Santiago de Cuba are published for the information and guidance of all concerned:

MARINE-HOSPITAL SERVICE,
OFFICE OF MEDICAL OFFICER IN COMMAND,
Santiago de Cuba, February 21, 1899.

QUARANTINE REGULATIONS.

1. Arriving vessels must fly the yellow flag (letter Q) at the fore, if belonging to one of the three classes, as per inclosed instructions to pilots.
2. Arriving vessels flying the yellow flag will be boarded and inspected at once by the quarantine officer.
3. The yellow flag must not be lowered until the vessel is granted discharge from quarantine.
4. Nobody or nothing is permitted to leave the vessel until she is granted discharge from quarantine.
5. No one but the pilot, custom-house officer, captain of the port, the quarantine officer and his employees are permitted on board before the vessel is granted discharge from quarantine.
6. All vessels leaving port for ports in the United States or Porto Rico will be inspected by the quarantine officer at the time of departure. All persons on board will be mustered and inspected, and the sanitary conditions of the vessel examined, before the "bill of health" is issued.

M. J. ROSENAU,

Passed Assistant Surgeon, U. S. H. M. S., In Command.

By command of Major-General Wood.

JOHN H. BEACOM,
Lieut. Col. A. A. G., U. S. V., Adjutant General.

MARINE-HOSPITAL SERVICE,
OFFICE MEDICAL OFFICER IN COMMAND,
Santiago de Cuba February 21, 1899.

INSTRUCTIONS FOR PILOTS.

Pilots on boarding will instruct the following classes of vessels to fly a yellow flag (letter Q) at the fore, until free pratique be given by the quarantine officer :

CLASS I.

All vessels from foreign ports other than ports of the United States and Porto Rico. Vessels from foreign ports touching at ports of the United States, Porto Rico or other Cuban ports will be considered as from the original port of departure.

CLASS II.

All vessels with sickness aboard.

CLASS III.

Vessels from or touching at infected ports, to be named from time to time by the quarantine officer, in the United States, Cuba, or Porto Rico.

At present all Cuban ports and Ponce, Porto Rico, are considered infected and vessels arriving here from them will fly the yellow flag and be inspected before entering.

M. J. ROSENAU,
Passed Assistant Surgeon, U. S. M. H. S., In Command.

Respectfully submitted,
M. J. ROSENAU,
Passed Assistant Surgeon, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

JAPAN.

Sanitary report.

YOKOHAMA, JAPAN, *February 18, 1899.*

SIR: I have the honor to inform you that, as the Japanese Government has discontinued the issue of the statistics of infectious disease heretofore regularly published, I am unable to forward any detailed report.

I am, however, able to assure you that no disease of a quarantinable character exists in any of the ports in communication with the United States or Hawaii by steamer, nor in the vicinity of the same; and that, with the exception of an unknown number of cases of plague in Formosa, the sanitary condition of the Empire is good.

I am, sir, very respectfully, your obedient servant,
STUART ELDRIDGE, M. D.,
Sanitary Inspector, U. S. M. H. S.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

Report of infectious diseases in Formosa.

TAMSUI, FORMOSA, January 24, 1899.

SIR: I have the honor to forward you for the Surgeon-General of the United States Marine-Hospital Service information regarding infectious diseases in the Island of Formosa. These reports can not be very complete, excepting so far as they refer to known cases of infectious diseases, as the Japanese Government keeps no statistics of the sanitary condition of the island in general. I can, therefore, only furnish the Department with reports regarding plague, dysentery, etc., when such exists.

The sanitary returns for the period of ten days ended January 10 show 7 cases of plague, 2 fatal, and 1 case of smallpox in Tainan prefecture and 1 case of dysentery in Taipeh prefecture.

For the period of seven days ended January 18, 1 case of plague in Taichu prefecture and 19 new cases of plague in Tainan prefecture, with 1 case cured and 15 fatal and 12 persons still under treatment.

I have the honor to be, sir, your obedient servant,

JAMES W. DAVIDSON,
United States Consul.

Hon. SECRETARY OF THE TREASURY.

MADAGASCAR.

Sanitary report of Tamatave and Tananarivo plague.

TAMATAVE, January 18, 1899.

SIR: Referring to my cablegram to the Department of November 28, and subsequent dispatches Nos. 28 and 29 of December 3 and 25, respectively, relative to the bubonic plague at this port, I have the honor to transmit to you, herein inclosed, a statement of cases, deaths, and nationalities from November 26 to date, compiled from official sources. I also have the honor to say: While there is a diminution of cases of the plague, fatalities daily continue, the death rate being on an average about 5 per diem. These cases are almost wholly among the native population, Indians, Chinese, and Creoles from Reunion and Mauritius.

I am, your obedient servant,

M. W. GIBBS,
United States Consul.

Hon. ASSISTANT SECRETARY OF STATE.

Sanitary report for the port of Tamatave from November 26 to January 18, 1899, and résumé of the smallpox at Tananarivo.

[Inclosure.]

	a Bubonic plague.	Fever.	Berberi.	b Smallpox
Number of deaths (Europeans).....	3	.....	.....	.....
Number of cases (Europeans).....	3	.....	.....	.....
Number of deaths (Creoles, Hindoos, and Chinese).....	37	.....	.....	.....
Number of deaths (natives).....	160	.....	.....	.....
Number of deaths (total).....	200	.....	.....	.....
Number of cases (total).....	300	.....	.....	.....
Number of cases.....	.....	15	.....	.....
Number of deaths.....	.....	17	.....	.....
Number of cases.....	.....	.....	1	.....
Number of deaths.....	.....	.....	1	.....
Prevalent at Tananarivo—	.....	.....	.....	.....
Number of cases.....	.....	.....	.....	123
Number of deaths.....	.....	.....	.....	6

a The death rate from the plague has been about 64 per cent.
b The smallpox at Tananarivo is under control.

TURKEY.

Sanitary report from Constantinople—Plague in Djiddah.

[Report No. 210.]

CONSTANTINOPLE, February 25, 1899.

SIR: Yesterday evening the following telegram arrived from Djiddah :

Examined yesterday corpse beggar originating from Assyr residing in quarter Yemen in little house not yet contaminated we ascertained with Dr. Ferid voluminous crural glandular swelling. Said beggar, according to persons in neighborhood, was suffering from fever and cough. Microbes, after culture, showed results characteristic enough. I will wire diagnosis after having seen result of inoculations. Necessary steps already taken. Death rate slightly increased. XANTHOPOULIDIS.

There are several points which we have to consider in said telegraphic news, especially if beggar arrived lately from Assyr, where plague exists endemically, or if he was formerly an inhabitant of Djiddah, where he has been contaminated by other persons suffering from light and unobserved plague symptoms. If plague cases did recently exist I may state, according to official sanitary reports, that said cases were not the consequence of the development of germs of last year's epidemic. All the houses in which plague cases have been observed have been disinfected. The fresh cases have certainly been imported by sanitary smuggling, which is rife in the Red Sea. Another interesting point is to know if the prevailing cause of deaths is pneumonia.

I will not fail to report on these questions when official sanitary reports shall have been forwarded from the Hedjaz.

Pratique of ships at Djiddah.—At the last sitting of the International Sanitary Commission the English sanitary representative communicated a memorandum, forwarded by the consuls at Djiddah, requesting the sanitary board to have at the disposal of the sanitary officials at said place a steam launch, in order not to oblige the officers of the ships arriving there to go on shore and take pratique. The sanitary officials would go on board the arriving ships and give pratique there. In this way the operation of taking pratique would last only a few minutes. Steamships can not move before Djiddah, but must anchor at a very great distance from the shore, on account of the reefs and shallows. There is no doubt that the desired steam launch will be put at the disposal of the sanitary service.

Epidemics in Constantinople.—The epidemics which prevail at present in Constantinople are influenza, smallpox, measles, and typhoid fever. I must state that there was a decrease, a few days since, in the number of the cases and deaths.

Death rate.—In the fortnight ended February 15, only 2 deaths from diphtheria were registered, 5 from measles, 14 from typhoid fever, 32 from smallpox, and 89 from acute inflammation of the lungs. The total number of deaths during said fortnight was 638.

Influenza.—As I have already stated, in the great majority of influenza cases the system affected is the respiratory. Very often the inflammation of said apparatus is evident from the beginning of the disease, but it is not rare, too, to see it only at the conclusion of the course of the disease, which is rather long. Albuminuria is nearly always observed. The very first symptom is a slight inflammation of the throat and cough. The tonsils are more or less enlarged, more or less red, not rarely ulcerated. The diagram of the temperature is very irregular. It shows sudden falls as well as sudden elevations of the

temperature, for example, from 40 to 37. No enlargement of spleen. There are conditions which do not correspond with any description. No diarrhea; on the contrary, there is constipation. The feet are very cold, the cough very obstinate, at first coming from the throat, but later from the lungs.

It is from inflammation of the lungs that influenza patients die. During the above-mentioned fortnight no death from scarlet fever has been registered. Smallpox continues to be very intense, as I have already stated.

I have already reported that many cases are observed of children 18 months old who, though vaccinated with success, are attacked by smallpox.

SPIRIDION C. ZAVITZIANO,
United States Sanitary Commissioner.

The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

FOREIGN STATISTICAL REPORTS.

BRITISH COLUMBIA—*Vancouver*.—Month of February, 1899. Estimated population not given. Total number of deaths reported, 14. No deaths from contagious disease.

CANADA—*Hamilton*.—Month of February, 1899. Estimated population, 51,000. Total number of deaths not reported. Three deaths from scarlet fever, and 7 from phthisis pulmonalis.

COLOMBIA—*Panama*.—Three weeks ended February 25, 1899. Estimated population, 16,000. Total number of deaths not given. No contagious diseases reported.

DENMARK.—Month of January, 1899. Estimated population, 2,311,000. Total number of deaths, 23,270, including diphtheria, 875; enteric fever, 128; measles, 1,806; scarlet fever, 1,051; whooping cough, 1,667, and 428 from phthisis pulmonalis.

FRANCE—*Marseilles*.—During the seven days ended February 26, 186 deaths were reported in the city of Marseilles in a total population of 447,344. The death rate is somewhat lower than it has been, owing to more seasonable weather. During the same period 2 bills of health were issued to vessels bound for ports in the United States. It is reported that the pest is raging at Djiddah. An entire absence of medical authority is noted, and the fear is expressed that the plague may extend itself to the Suez Canal. At Alexandria, a quarantine has been established against all goods and persons coming from the neighborhood of Djiddah.

Rouen.—Month of January, 1899. Estimated population, 112,657. Total number of deaths, 266, including diphtheria, 1; enteric fever, 3; measles, 5; whooping cough, 2, and 46 from phthisis pulmonalis.

GREAT BRITAIN—*England and Wales*.—The deaths registered in 33 great towns in England and Wales during the week ended February 25, 1899, correspond to an annual rate of 20.6 a thousand of the aggregate population, which is estimated at 11,404,408. The highest rate was recorded in Blackburn viz, 32.0, and the lowest in Burnley, viz, 13.8.

London.—One thousand eight hundred and seventy-five deaths were registered during the week, including measles, 32; scarlet fever, 7; diphtheria, 29; whooping cough, 35; enteric fever, 13, and diarrhea and dysentery, 10. The deaths from all causes correspond to an annual rate of 21.5 a thousand. In greater London 2,407 deaths were registered, corresponding to an annual rate of 19.2 a thousand of the population. In the "outer ring" the deaths included 16 from diphtheria, 8 from measles, 3 from scarlet fever, and 10 from whooping cough.

Ireland.—The average annual death rate represented by the deaths registered during the week ended February 25, 1899, in the 23 principal town districts of Ireland was 26.8 a thousand of the population, which is estimated at 1,012,148. The lowest rate was recorded in Carrickfergus, viz, 0.0, and the highest in Sligo, viz, 50.8 a thousand. In Dublin and suburbs 203 deaths were registered, including scarlet fever, 3; enteric fever, 4; influenza, 6, and whooping cough, 2.

Scotland.—The deaths registered in 8 principal towns during the week ended February 25, 1899, correspond to an annual rate of 24.1 a thousand of the population, which is estimated at 1,587,414. The lowest mortality was recorded in Dundee, viz, 16.0, and the highest in Greenock, viz, 29.0 a thousand. The aggregate number of deaths registered from all causes was 737, including diphtheria, 5; measles, 19; scarlet fever, 5, and whooping cough, 23.

GUIANA—Demerara.—Month of January, 1899. Estimated population, 86,250. Total number of deaths, 214, including 1 from diphtheria.

Parimaribo.—Month of January, 1899. Estimated population, 30,567. Total number of deaths, 87. No contagious diseases reported.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated popula- tion.	Total deaths from all causes.	Deaths from—									
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.	
Acapulco.....	Feb. 25.....	6,000	1										
Alexandretta.....	Feb. 18.....	6,000	3										
Amapala.....	Dec. 31.....	1,500	0										
Do.....	Jan. 7.....	1,500	0										
Do.....	Jan. 14.....	1,500	1					1					
Do.....	Jan. 21.....	1,500	1					1					
Do.....	Jan. 28.....	1,500	0										
Do.....	Feb. 4.....	1,500	0										
Do.....	Feb. 11.....	1,500	0										
Do.....	Feb. 18.....	1,500	0										
Amherstburg.....	Mar. 4.....	2,300	1										
Amsterdam.....	Feb. 20.....	514,006	144							1			1
Asuncion.....	Jan. 22.....	45,000	81				1						
Athens.....	Feb. 25.....	145,000								1			
Bahia.....	Feb. 11.....	200,000											
Barmen.....	Feb. 18.....	137,000	38						2			1	
Belize.....	Mar. 2.....	13,000	9										
Belleville.....	Mar. 6.....	10,300	2										
Berlin.....	Feb. 11.....	1,727,903	604							8	12	7	
Birmingham.....	Feb. 25.....	510,343	183					2	1	3	1		4
Bluefields.....	Feb. 18.....	3,018	2										
Do.....	Feb. 25.....	3,018	1										
Bradford.....	Feb. 18.....	231,260	81					1					1
Bremen.....	do.....	144,500	53										
Breslau.....	do.....	300,000	263						1	2			3
Bristol.....	do.....	320,911	110						2				2
Budapest.....	Feb. 19.....	640,000					5			3	5	6	
Calcutta.....	Jan. 23.....	681,560	a 521	16							1	3	
Do.....	Feb. 4.....	681,560	b 483	12		2							
Callao.....	Feb. 12.....	25,000	25										
Cardiff.....	Feb. 18.....	185,826	53							2			3
Do.....	Feb. 25.....	185,826	58							1			2
Cartagena.....	Feb. 18.....	25,000											
Ustania.....	Feb. 23.....	124,000	75				2						
Chandiere Junction.....	Mar. 4.....	500	0										
Christiana.....	Feb. 18.....	207,000	104							2			
Do.....	Feb. 25.....	207,000	90					1	1				
Coburg.....	Feb. 18.....	19,486	14										
Cognac.....	do.....	20,400	13										
Do.....	Feb. 25.....	20,400	5					1					
Cologne.....	Feb. 18.....	364,368	155							2			1
Colon.....	Feb. 22.....	8,000	3										
Constantinople.....	Feb. 20.....	750,000	304			10		10		5	2		
Copenhagen.....	Feb. 18.....	351,000	197					2	5	1	4		6
Crefeld.....	Feb. 25.....	110,000	36										
Curacao.....	Feb. 18.....	29,098	10										
Do.....	Feb. 25.....	29,098	7										
Dublin.....	Feb. 18.....	349,594	183					1		2			
Dundee.....	Feb. 25.....	166,072	51							1			1
Edinburgh.....	Feb. 18.....	298,927	150						1		2		10
Ensenada.....	Mar. 4.....	3,000	0										
Flushing.....	Feb. 25.....	10,371	4										
Frankfort-on-the-Main.....	Feb. 18.....	253,000	75								1		1
Funchal.....	Feb. 19.....	36,982	11										
Do.....	Feb. 25.....	36,982	22										
Geneva.....	Feb. 11.....	87,926	75							2			
Ghent.....	Feb. 25.....	133,755	22					1					1
Gibraltar.....	Feb. 19.....	25,900	13										
Girgenti.....	Feb. 18.....	24,428	14										
Glasgow.....	Feb. 17.....	733,903	452					6	7	1	5	11	
Gothenburg.....	Feb. 18.....	122,205	46							1			
Guadeloupe.....	Feb. 5.....	17,100	15										
Guayaquil.....	Feb. 4.....	50,000	72										
Do.....	Feb. 11.....	50,000	61										
Guatemala.....	Feb. 20.....	65,000	50										
Halifax.....	Feb. 16.....	45,000	16										
Hamburg.....	Feb. 18.....	675,351	227										9
Hamilton, Bermuda.....	Feb. 28.....	16,000	0										
Havre.....	Feb. 11.....	119,470	80						1				
Do.....	Feb. 18.....	119,470	71							3	1		
Iquique.....	Jan. 7.....	2,500	30										
Do.....	Jan. 14.....	2,500	33						1				
Do.....	Jan. 21.....	2,500	81										

aPlague, 1.

bPlague, 1.

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated popula- tion.	Total deaths from all causes.	Deaths from—														
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.						
Iquique.....	Jan. 28....	2,500	29															
Do.....	Feb. 4.....	2,500	30															
Kingston, Canada.....	Mar. 3.....	18,800	4															
La Paz.....	Feb. 18....	5,600	1															
Leeds.....	Feb. 25....	423,889	148															
Leith.....	Feb. 18....	77,385	84						1		2		9		1			
Licata.....	do.....	20,000	15															4
Liege.....	do.....	169,102	87						3									
Liverpool.....	Feb. 4.....	688,645	318									3		5		2		2
Do.....	Feb. 18....	688,645	347						1		1	4	4	2		2		9
London, Canada.....	Feb. 25....	40,000	7															
London, England.....	Feb. 18....	6,528,434	2,270								18	6	58	38		54		
Lyons.....	Feb. 11....	466,028	199								1	1	1					1
Do.....	Feb. 18....	466,028	192								1	1	2	1				
Madras.....	Feb. 3.....	452,518	386	4		1								2				
Do.....	Feb. 10....	452,518	325											8				
Magdeburg.....	Feb. 4.....	225,145	69								4	4						1
Manchester.....	Feb. 13....	546,010	241								2			14				6
Mannheim.....	Feb. 18....	111,613	41						1									
Maracaibo.....	Feb. 11....	50,000	76															
Do.....	Feb. 18....	50,000	18															
Matamoros.....	Mar. 3.....	16,304	4															
Mayene.....	Feb. 25....	80,000	33															
Mazatlan.....	do.....	16,700	14															
Melbourne.....	Jan. 14....	450,000	.....								3	1						
Do.....	Jan. 21....	450,000	.....								7							
Messina.....	Feb. 25....	107,000	51								7							
Mexico.....	Feb. 26....	344,377	514			1	4											
Milan.....	Feb. 25....	481,297	.....														
Monterey.....	do.....	25,000	57															
Moscow.....	Feb. 12....	1,000,000	496				5	3	1	7	13	16						3
New Castle on Tyne.....	Feb. 18....	223,000	94								1							2
Nice.....	Feb. 19....	108,227	40															
Do.....	Feb. 26....	108,227	50															
Nuremberg.....	Feb. 4.....	230,000	84								1							
Odessa.....	Feb. 18....	400,000	154			1					1	2		3				8
Palermo.....	do.....	300,000	136											1				
Paris.....	do.....	2,511,955	958								13	4	4	13				8
Plymouth.....	Feb. 25....	99,848	44															
Prague.....	Feb. 18....	196,257	168				1	4	1	2	3							
Puerto Cortes.....	Mar. 1.....	2,000	1															
Quebec.....	Mar. 4.....	73,000	.....									1	1					
Rheims.....	Feb. 18....	107,709	48															
Do.....	Feb. 25....	107,709	84															
Rio de Janeiro.....	Feb. 27....	750,000	a 367	28	8			2					1					
Rotterdam.....	Feb. 25....	310,349	121					1	1	1								
St. Petersburg.....	Feb. 11....	1,267,023	671			1	2	39	5	16	9	8						
Do.....	Feb. 18....	1,267,023	672					24	16	30	10	10						
St. Stephen, New Brunswick.....	Mar. 4.....	3,000	1															
Sheffield.....	Feb. 18....	361,815	142						2	3	9							
Do.....	Feb. 25....	361,815	136						5	1	9	2	2					
Sherbrooke.....	Feb. 18....	10,760	.....														
Do.....	Feb. 25....	10,760	.....											1				
Smyrna.....	Feb. 12....	300,000	48			1		1										
Solingen.....	Feb. 18....	433,958	17						1									
Southampton.....	Feb. 25....	103,168	40										2					1
Stettin.....	Feb. 18....	150,000	63										2					
Stockholm.....	do.....	283,550	190										11	3				2
Stuttgart.....	Feb. 23....	162,934	53															
Sunderland.....	Feb. 18....	145,613	144										1	2				9
Tampico.....	Feb. 23....	12,000	26															
Trapani.....	Feb. 18....	45,085	20															
Trieste.....	do.....	165,000	62						1	1	1							
Uttila.....	do.....	800	0															
Do.....	Feb. 25....	800	0															
Venice.....	Feb. 18....	169,883	106										4	9				4
Vera Cruz.....	Mar. 2.....	30,000	28															
Victoria, British Columbia.....	Feb. 11....	20,000	10															
Do.....	Feb. 18....	20,000	7															
Do.....	Feb. 25....	20,000	7															

a Beriberi, 4.

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Vienna	Jan. 28....	1,606,629	689	.....	.....	.....	.....	1	8	8	11	6
Do.....	Feb. 4....	1,606,629	657	.....	.....	.....	.....	2	6	16	8	6
Do.....	Feb. 11....	1,606,629	747	.....	.....	.....	.....	1	2	21	10	2
Windsor, Nova Scotia.....	Mar. 4....	3,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winnepeg.....	do.....	49,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Zurich.....	Feb. 11....	163,042	46	.....	.....	.....	.....	1	.....	2	.....	2
Do.....	Feb. 18....	163,042	52	.....	.....	.....	.....	.....	.....	1	.....	3

By authority of the Secretary of the Treasury :

WALTER WYMAN,
Supervising Surgeon-General U. S. Marine-Hospital Service.