

Public Health Reports

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UNITED STATES.

Measures to suppress smallpox in the southeastern portion of Virginia.

The Bureau having received information that while the authorities of Norfolk, Portsmouth, and Newport News were using proper measures to suppress the outbreak of smallpox in those cities, necessary measures were not being taken in the contiguous districts. Passed Assistant Surgeon C. P. Wertenbaker was directed to visit these districts and to make full report upon the situation. Upon investigation he found the conditions sufficiently serious to warrant his visiting Richmond for conference with the State board of health and the governor, and by request of the latter, in conformity with the expressed desires of the State board of health, Dr. Wertenbaker was ordered to report to the governor for duty in connection with measures being taken by the State authorities for suppressing the disease.

Following is the letter of instructions to Dr. Wertenbaker :

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL,
MARINE-HOSPITAL SERVICE,
Washington, D. C., April 21, 1899.

SIR: By request of Honorable J. Hoge Tyler, Governor of Virginia, you are hereby detailed, by direction of the Secretary of the Treasury, for special duty in connection with the prevailing smallpox in Virginia, and will report to the governor for the purpose of rendering such assistance as may be requested by him or by the State board of health, on whose suggestion the request for your detail has been made.

You will keep the Bureau thoroughly informed of your transactions and make such recommendations to the governor or to the State board as may seem to you advisable.

You are informed that preliminary measures have been taken for regaining the control of Craney Island by the Service, and you will be notified as soon as the Service becomes in possession of that island and will be prepared to make such recommendations concerning its use by the State or local authorities as may seem to you advisable.

It is desired that the State and municipal authorities should eliminate smallpox from the State of Virginia as soon as possible.

You will render your pay and traveling expense accounts in the usual manner to the Bureau. Report transactions once a week or oftener, and at the close of your duty make full written report.

You will wire the Bureau when your services are no longer needed, when orders will be sent directing return to your station.

Respectfully, yours,
WALTER WYMAN,
Supervising Surgeon-General, U. S. M. H. S.

C. P. WERTENBAKER,
Passed Assistant Surgeon, U. S. M. H. S.

Report of Passed Assistant Surgeon C. P. Wertenbaker on the smallpox situation in southeast Virginia.

NORFOLK, VA., April 30, 1899.

SIR: I have the honor to make the following report of my transactions while on special duty in connection with smallpox in Virginia, for the week ended April 29, 1899. I reported for duty to Governor J. Hoge Tyler, at Richmond, Va., April 22, 1899. I was assigned to duty with the governor's staff, and directed to confer with the State board of health, and to visit such places in the State as I saw fit. After conference with the executive committee of the State board, it was determined that I should visit Warwick County first. The governor sent a request to each of the 3 supervisors of Warwick County to meet Dr. Paulus A. Irving, secretary of the State board of health, and myself, at the Warwick Hotel, at Newport News, at noon on April 26. At that hour 2 of the supervisors, S. A. Morse, a colored man, and C. H. Burnham, a white man, met us for a discussion of the smallpox situation. Dr. J. R. Bagby, president of the Newport News board of health, was also present. We made a statement of the conditions existing in Warwick County, showing that smallpox cases were unrestrained, and that no efforts were being made to stop its spread; that these cases were constantly coming into Newport News and adjacent cities, keeping up the infection in those places. We explained the necessity for stamping out the disease at once and restricting its further spread. Our astonishment can better be imagined than described when S. A. Morse, the colored member of the board of supervisors, who seemed to be the spokesman, informed us that the supervisors did not consider the disease smallpox; that in their opinion vaccination, instead of protecting against the disease, increased its virulence, but that under any circumstances the board did not propose to take any action whatsoever, that nothing was now being done, and nothing would be done by their board. No arguments could shake them from their position; therefore,

the secretary of the State board informed them that it would be necessary to quarantine the entire county, including Newport News, and I stated that I would recommend that the city and county be declared as infected, and be quarantined against. The supervisors expressed their incredulity and disbelief that we could do anything of the kind, and the conference was at an end. Realizing the detriment a quarantine would be to the growing city of Newport News and the various large interests centered there, we determined to consult with the city authorities to see if they could not take some action for the purpose of stopping the spread of the disease in the county. With the prospects of a close quarantine before them, the city authorities determined to overstep their legal authority and take charge of all the cases in the immediate vicinity of the city. The cases are to be removed to the pesthouse, and isolation of suspects and disinfection of houses, etc., to be done as in the city proper. With this agreement on the part of the city people we left, but I am to return to make inspection of the methods used and supervise the work. I hope to be able to make this visit early next week. The conditions in the county are at present unknown, as no inspection has been made. The colored supervisor, S. A. Morse, bears marks on his face of recently having had the disease. I am informed that he keeps a country store, and that he attended his store while broken out with eruption. If this is the case he has doubtless spread the disease among his customers, and it is hard to estimate the extent of the infection, as no precautions whatsoever have been taken, no isolation of cases, or disinfection of houses. It will be seen that the conditions are about as bad as it is possible for them to be. I arrived at Norfolk the same evening, and on Thursday, 27th instant, I visited and inspected Craney Island in accordance with your verbal instructions. I inclose herewith a separate report on Craney Island. On Friday I visited Berkley and saw one of the supervisors of Norfolk County, and arranged with him to have the supervisors meet Dr. Irving and myself in Portsmouth on Monday next, May 1, for a conference on the smallpox situation. The supervisor that I saw, Mr. Tilley, seemed to think that his board would be willing to take any action that we would recommend for the suppression of smallpox. I am informed that smallpox has appeared in Isle of Wight County and at Roanoke, Va. I will also visit these places if necessary. With the exceptions of Warwick County and Norfolk County, where the conditions are unqualifiedly bad, the conditions in the cities seem to be improving. I have been furnished the following report:

Norfolk, April 29, 1899:

Cases in pesthouse.....	53
Cases in city (guarded).....	1
Suspects isolated.....	51
New cases during last seven days.....	18
Total cases to date.....	891

Berkley, April 27, 1899:
 Cases in city..... 12
 New cases in city in past seven days..... 8
 All negro cases sent to county pesthouse.

Portsmouth, April 29, 1899:
 In pesthouse..... 45
 New cases during last seven days..... 15
 Total cases to date..... 272

Newport News, April 25, 1899:
 In pesthouse..... 69
 In city, guarded..... 3
 New cases in last seven days..... 13

Norfolk County. Health officer reports under date of April 24, 1899; first case reported March 12, 1898:
 Number of cases to date about..... 1,200
 Number of cases in county at present..... 299
 Deaths..... 39

Population, 50,000; 50 per cent vaccinated.

Elizabeth City County, including Hampton, April 19, 1899; first case reported January 10, 1899:
 Number of cases to date..... 110
 Deaths..... 0
 Total cases in city and county at present..... 3

Respectfully, yours,
 C. P. WERTENBAKER,
Passed Assistant Surgeon, U. S. M. H. S.

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

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

Cerebro-spinal meningitis—Abstract of replies received to circular requesting information.

[Continued from last PUBLIC HEALTH REPORTS.]

CALIFORNIA—Eureka.—No cases of cerebro-spinal meningitis or spotted fever have occurred at this port or in the northern portion of the State so far as known. Some sporadic cases have been reported in the middle and southern portions of the State. No investigations are known to have been made in regard to the etiology of the disease.

Table of cases and deaths of cerebro-spinal meningitis in California from October 1, 1898, to April 22, 1899.

Name of town.	Name of county when included.	Number of cases.	Number of deaths.	Origin.	Etiology.	Pathology.	Result of any investigation.
Biggs.....	Biggs County.....	1	1	.....	(a)	(b)	(c)
Dagget.....	Dagget County.....	0	0	.....	.....	.....	.....
Elsinore.....	Riverside County...	0	0	.....	.....	.....	.....
Eureka.....	Eureka County.....	0	0	.....	.....	.....	.....
Kelseyville.....	Lake County.....	0	0	.....	.....	.....	.....
San Jose.....	San Jose County.....	0	0	.....	.....	.....	.....
San Rafael.....	Marin County.....	0	0	.....	.....	.....	.....
Santa Barbara.....	Santa Barbara.....	0	0	.....	.....	.....	.....
Sacramento.....	Sacramento Co.....	8	.....	.....	.....	.....	.....
Woodland.....	Yolo County.....	3	3	(d)	.....	.....	.....

a None given. b None given. c No investigation. d Sporadic.

KENTUCKY—Elizabethtown.—Cerebro-spinal meningitis is reported as having again developed.

LOUISIANA—*Shreveport*.—One death from cerebro-spinal meningitis was reported during the week ended April 22, 1899.

OREGON—*Portland*.—No well authenticated case has been reported during the last eight months. No bacteriological examinations have been made.

TEXAS—*Galveston*.—Three deaths from cerebro-spinal meningitis were reported during the week ended April 22.

WASHINGTON—*Port Townsend*.—No cases have been reported since October 1, 1898.

Seattle.—No cases reported since October, 1898.

Spokane.—Three deaths from cerebro-spinal meningitis are reported, 1 occurring in December and 2 in March.

Smallpox in the United States.

ALABAMA.

Mobile.—Surgeon Murray reports, April 29, 1 case of smallpox, in a negro, four days from New Orleans.

DISTRICT OF COLUMBIA.

Washington.—Health Officer Woodward reports 1 new case on April 27; April 28, 1 new case.

ILLINOIS.

Chicago.—Surgeon Sawtelle reports 2 concealed cases discovered on April 22d.

MASSACHUSETTS.

Boston.—Surgeon Irwin reports 4 new cases from April 17 to April 26, making a total of 9.

NEW MEXICO.

Las Cruces.—Acting Assistant Surgeon Alexander reports many new cases of smallpox on April 27.

NEW YORK.

Buffalo.—Health Commissioner Wende reports on April 29, one case of smallpox admitted to the hospital on April 16.

OHIO.

From the Ohio Sanitary Bulletin for March and April.—Number of cases and places where smallpox has been reported in Ohio from January 1, 1899, to April 6, 1899.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Bainbridge Township, Geauga County..	1	.....	Parma Township, Cuyahoga County...	1	.....
Brooklyn.....	1	.....	Pleasantville.....	1	.....
Cannelsville.....	1	1	Plain City.....	1	.....
Chagrin Falls.....	3	.....	Ripley.....	4	.....
Cincinnati.....	308	7	Roseville.....	1	.....
Cleveland.....	153	2	Sandusky.....	29	.....
Cleves.....	7	.....	Sand Hill.....	8	.....
Columbus.....	155	2	Springfield.....	1	.....
Coshocton.....	2	.....	Springfield Township, Clark County...	10	.....
Dialton.....	1	.....	Selma.....	1	.....
Donnellsville.....	1	.....	Shenandoah.....	1	.....
Franklin.....	5	.....	St. Johns.....	2	.....
Fredricksburg.....	1	.....	South Charleston.....	2	.....
Gallipolis.....	3	.....	Sunbury.....	4	.....
Girls' Industrial Home.....	2	.....	Tippecanoe.....	1	.....
Granville.....	1	.....	Toledo.....	2	.....
Harrison Township, Perry County.....	2	.....	West Farmington.....	1	.....
Howard.....	2	.....	West Jefferson.....	1	.....
Lafayette Township, Coshocton County..	8	.....	Wellington.....	1	.....
Lockland.....	6	.....	Willoughby.....	1	.....
Lorain.....	1	.....	Xenia.....	3	.....
Middlefield.....	1	.....	Zanesville.....	1	.....
Newton Township, Muskingum County..	14	1			
New Carlisle.....	4	.....	Total.....	761	18
Painesville.....	1	.....		

Since smallpox made its appearance in Ohio in April, 1898, to April 6, 1899, there have been reported to the State board of health 1,429 cases and 18 deaths. There were 166 cases and 2 deaths in Columbus; 251 cases and 2 deaths in Cleveland, and 355 cases and 7 deaths in Cincinnati.

TEXAS.

Eagle Pass.—Acting Assistant Surgeon Hume reports, April 18, as follows: I have the honor to inform you that I have just returned from Del Rio, Tex., where I went in quest of smallpox, and also to note the sanitary condition of the place. There has been for the past month an epidemic of measles in Del Rio, but at the present time the general health of the people is good. No deaths are reported from measles.

The main object, however, of my visit to Del Rio was to seek smallpox. I found 1 case of variola, the patient being a tramp and coming from California. This tramp, it seems, had been in Del Rio for some four or five days, roaming around the town in a sickly condition and complaining very much. At this time no one seemed to suspect the nature of his sickness. About five days after the arrival of this tramp some Mexican was crossing one of the bridges over the irrigation ditch and upon this bridge found a man lying unconscious. Upon examination the Mexican found that the tramp was broken out with an eruption, hence he immediately sent for the county physician who pronounced the case smallpox. As soon as I learned of this I proceeded to the spot where the patient had been taken * * * and satisfied myself that the case was a very severe form of smallpox, it being variola vera.

I believe that the chances for development of more smallpox in Del Rio are very good, as a large number of persons came in contact with the aforesaid case before it was known that the case was smallpox.

During the past week 2 persons were taken off the trains from Mexico, having come from Vera Cruz and Tampico respectively. It has always been my endeavor to prevent the entrance of people from infected districts into this country. I can do this easily with foreigners, but with American citizens it is a different matter. The Americans state that if they are detained here they should have their expenses (living) defrayed and be properly taken care of. The State health officer, here has been expecting for a long time to get a house of detention for these people, but as yet nothing has been done by the State of Texas. I am doing all in my power to prevent the entrance of smallpox, and never hesitate in the matter of keeping it out of here. I make it a point to keep myself posted as to the condition of all the Mexican towns on the Rio Grande, and I personally inspect these towns.

Very respectfully,

LEO HUME,
Acting Assistant Surgeon, U. S. M. H. S.

Galveston.—Acting Assistant Surgeon Keiller reports 8 new cases during the week ended April 22, making a total of 25 cases. All colored, with no deaths.

VIRGINIA.

Newport News.—Acting Assistant Surgeon Charles reports as follows: April 25, no new cases; April 26, 2 new cases; April 27, no new cases; April 28, 1 new case; April 29, no new cases; April 30, no new cases; 12 deaths in city and county since January 1, 1899.

Norfolk.—Assistant Surgeon Cumming reports as follows: April 25, admitted 2 cases, discharged 7 cases; April 26, no new cases; April 27, 6 new cases; April 28, admitted 2 cases, discharged, 5; deaths, 1.

Portsmouth.—Assistant Surgeon Cumming reports as follows: April 25, admitted 3 cases, discharged 5 cases; April 26, 6 cases; April 27, no new cases; April 28, admitted, 7; discharged, 1.

Report of smallpox epidemic in Alexandria, Va.

ALEXANDRIA, VA., *April 30, 1899.*

SIR: I have the honor to send the following report of the smallpox epidemic in Alexandria: The first case was reported December 27, 1898, and was thought to have been contracted from a shipment of rags from Norfolk, Va. This was disproved later, and it is now thought there were 2 cases here the last week in November. The second case was reported December 29. On January 24 there were 21 cases, and on the 28th, 47 cases. The daily increase from January 28 until February 11, was from 5 to 19 cases, making a total February 11 of 213, the number growing until 352 cases had been reported—47 whites, 305 blacks, with 5 deaths—all black—9 confluent and none hemorrhagic. Number sent to the pesthouse, 21.

The history of the epidemic is interesting, first, because of the mild type of the disease, which was early mistaken for chicken pox, and secondly, because the health officer was handicapped by the municipal authorities, who misled the public by stating in the proceedings of their council there was no smallpox in the city, hoping by concealment to meet the approbation of the wholesale merchants, not knowing the inevitable outcome of such a course is the wide spreading of so contagious a disease. Even after the mayor had requested you to send an

expert here, and Dr. Rosenau had pronounced every one of the 19 cases he saw smallpox, there were articles published in the daily press denouncing physicians who advocated compulsory vaccination and closing the public schools and places of amusement as "calamity howlers." The authorities finally had a house-to-house inspection, *without* vaccination, which unearthed a few cases. The differences between the mayor and the health officer were now so great that the council appointed a committee of 5 to look into the matter, examine witnesses, and make a report. A report (unanimous) from the committee for compulsory vaccination was defeated by a unanimous vote in the council, the committee without exception voting against its own report. The mayor then had 4 policemen vaccinate the indigent who made no objection. The health officer, with the concurrence of the board of health, made a contract with 6 physicians to make a reinspection and vaccinate those willing at the city's expense. A new pesthouse was now built, in which 1 patient was put, thereby rendering it unfit for use as a house of detention, which had been urged. Patients, though indigent, were allowed to remain where found, instead of isolating them from the inmates of their homes, and the whole family fed at the corporation's expense. In one instance, where a case of varioloid had recovered, the mayor advised the head of the house to forcibly eject the fumigator if sent there by the health officer. This resulted in the house never being disinfected.

The quarantine was a farce, inmates of flagged houses coming and going at will, and I saw a smallpox patient putting away coal dumped at his front door at the expense of the city, and it was no uncommon sight to see them at their windows and doors. After the reinspection and vaccination (about 10,000 vaccinations, this estimate made on the number of vaccine tubes sold by druggists) there was a marked decrease. At this date there is 1 convalescent to be discharged in a few days.

By your order, January 26, an inspection by 7 physicians of all trains, steam and electric, and boats going to Washington was put on, and the good accomplished will be seen when my reports show 1 man removed from the electric train died at the pesthouse two days after, another man found traveling between Washington and Alexandria sent to the pesthouse. In all, some 30 suspects and persons known to have been in contact with the disease were prevented from traveling, and innumerable baskets and bundles of soiled laundry were prohibited from going to Washington.

Yours, respectfully,

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

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

Smallpox in the United States as reported to the Supervising Surgeon-General United States Marine-Hospital Service, December 31, 1898, to May 5, 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-Apr. 22.....	27		
Montgomery County.....	Feb. 24.....			Do.
Randolph County.....	Jan. 27.....			Do.
Southside.....	Jan. 6.....	96		
Tallapoosa County.....	Apr. 14.....			Smallpox prevalent.
Washington County.....	Jan. 27.....			Do.
Wilcox County.....	do.....			Do.
Total for the State.....		134	2	Officially reported.
Arkansas:				
Pulaski County.....	Jan. 27-Mar. 1.....	8	1	
California:				
Los Angeles.....	Sept. -Apr. 22.....	89	14	
Sacramento City.....	do.....	1		
San Diego.....	Feb. 19.....	1	1	
San Francisco.....	Jan. 31.....	2		
Total for the State.....		93	15	Do.
Colorado:				
Arapahoe County.....	Nov. 25-Mar. 31.....	38	5	
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	
Total for the State.....		136	9	Do.
Connecticut:				
New Haven.....	Jan. 16.....	2		
District of Columbia:				
Washington.....	Jan. 21-Apr. 26.....	82		
Florida:				
Columbia County.....	Mar. 1-Mar. 31.....	4		Smallpox prevalent; death rate 6-7 per cent.
Jackson County.....	do.....			
Marion County.....	do.....	102		Smallpox prevalent.
Polk County.....	do.....	4		
St. Johns County.....	Feb. 1-Mar. 31.....	64	0	
Suwanee County.....	Mar. 1-Mar. 31.....	4		
Jacksonville.....	Feb. 12-Apr. 1.....	13		
Key West.....	Feb. 25-Mar. 30.....	9		
Pensacola.....	Jan. 14-Mar. 31.....	2		
West Tampa, Hillsboro Co.....	Apr. 9-Apr. 15.....	2		
Total for the State.....		200	0	Officially reported.
Georgia:				
Jones County.....	Jan. 1-Jan. 16.....	300		
Savannah.....	Feb. 22-Apr. 17.....	14		
Total for the State.....		314		Do.
Illinois:				
Bethel.....	Jan. 7.....	2		
Bigsville, Henderson Co.....	Mar. 7.....	1		
Cairo.....	Feb. 23-Mar. 7.....	26		
Chicago.....	Mar. 10-Apr. 29.....	7		
Dana, La Salle County.....	Mar. 7.....	1		
Media.....	Jan. 7.....	1		
Monmouth, Warren County.....	Feb. 23.....	4		
Murphysboro, Jackson Co.....	Mar. 7.....	2		
Total for the State.....		41		Do.

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.....	Apr. 30.....	2			
Floyd County.....	Jan. 1-Mar. 30.....	5	0		Do.
Greene County.....do.....	6	0		Do.
Jefferson County.....	Mar. 1.....				Do.
Jackson County.....	Feb. 24.....	4			
Jennings County.....	Jan. 1-Mar. 30.....		0		
Marion County.....	.....do.....	16	0	
New Albany.....	Apr. 22.....	2			
Sullivan County.....	.....do.....	5	0	
Vanderburg County.....	Jan. 1-Mar. 30.....	20	1		
Vermilion County.....	.....do.....	3	0	
Total for the State.....		68	1	Officially reported.	
Indian Territory.....	Mar. 4.....		45		
Iowa:					
Jones County.....	Apr. 13.....	5	1		
Lee County.....	Jan. 13.....	7	1		
Wayne County.....	.....do.....	1		
Kansas:					
Atchison County.....	Mar. 16.....	21		Smallpox reported.	
Independence County.....	Mar. 16.....				
Sumner County.....	Mar. 20.....	2			
Marion County.....	Jan. 17.....	11			
Peabody.....	Feb. 1-Feb. 16.....	56	7		
Kentucky:					
Lebanon Junction.....	Apr. 19.....	8			
Louisville.....	Dec. 20-Apr. 27.....	405	7		
Louisiana:					
Alexandria.....	Mar. 29.....	9			
New Orleans.....	Jan. 30-Apr. 22.....	181	2		
Shreveport.....	Apr. 22.....	2			
Maine:					
Auburn.....	Jan. 1-Apr. 7.....	3			
Augusta.....	.....do.....	1		
Lewiston.....	.....do.....	4		
Waterville.....	.....do.....	49		
Winslow.....	.....do.....	108		
Total for the State.....		165		Officially reported.	
Maryland:					
Baltimore.....	Jan. 18-Apr. 8.....	13			
Cumberland.....	.....do.....	3		
Pocomoke.....	.....do.....	3		
Massachusetts:					
Boston.....	Feb. 28-Apr. 29.....	8			
Michigan:					
Albion.....	Feb. 15-Feb. 22.....			Smallpox reported.	
Benton Harbor.....do.....				Do.
Detroit.....	Jan. 1-Feb. 4.....	14			
Kalamazoo.....	Mar. 12-Apr. 8.....	8	1		
Minnesota:					
Brainerd.....	Apr. 16-Apr. 22.....	1			
Minneapolis.....	Dec. 8-Apr. 15.....	3	0		
St. Paul.....	Feb. 18-Apr. 15.....	17	0		
Mississippi:					
Clay County.....	Jan. 27.....			Do.	
Hinds County.....	Mar. 3.....			Do.	
Jackson County.....	Mar. 26-Apr. 14.....	6			
Jones County.....	Jan. 27.....			Do.	
Lauderdale County.....	.....do.....			Do.
Noxubee County.....	.....do.....			Do.
Perry County.....	Jan. 27-Mar. 12.....	17	3		
Tisbomingo County.....	Jan. 27.....			Do.	

Smallpox in the United States, etc.—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.	
Missouri:					
Carroll County.....	Nov. 1-Apr. 6....	59	15	Officially reported.	
Charlton County.....	do	1	0		
De Kalb County.....	do	3	0		
Macon County.....	do	1	0		
Mississippi County.....	do	1	0		
St. Louis.....	do	25	2		
Total for the State.....		90	17		
Montana:					
Missoula.....	Feb. 23-Mar. 9....	2		Do.	
Nebraska:					
Nebraska City.....	July 1-Dec. 8....	153			
	Dec. 9-Jan. 16....	147	3		
Omaha.....	Jan. 1-Apr. 15....	36			
Otoe and Nemaha Counties...	Jan. 1-Jan. 16....	21			
Peru.....	Jan. 2.....	5			
Plattsmouth.....	Dec. 10.....	1			
Tecumseh.....	Jan. 2.....	9			
Total for the State.....		372	3		
New Jersey:					
Jersey City.....	Dec. 5-Jan. 22....	6			
New York:					
Buffalo.....	Mar. 15-Apr. 26....	3			
Elmira.....	Mar. 18-Apr. 22....	2			
Kingston.....	Mar.....	1			
New York.....	Jan. 7-Apr. 24....	12	4		
Dunkirk.....	Jan. 8-Jan. 21....	5			
Tonawanda.....	Mar.....	2			
North Carolina:					
Alamance County.....	Feb. 1-Feb. 23....	3			
Beaufort Co. (Washington)...	Apr. 8.....	2			
Bertie County.....	Feb. 1-Mar. 23....	8			
Burlington, Franklin County..	Mar. 1.....	3	1		
Chowan County.....	Feb. 16.....	2			
Columbus County.....	Feb. 1-Feb. 23....	3			
Craven County.....	Apr. 6.....	1			
Currituck County.....	Feb. 1-Feb. 23....	2			
Edgecombe County.....	Feb. 1.....	24			
Gates County.....	do	1			
Halifax County.....	Feb. 1-Feb. 23....	8			
Johnston County.....	do	1			
Northampton County.....	Jan. 12-Feb. 23....	6			
McDowell County.....	Feb. 1-Feb. 25....	2			
Pasquotank County.....	do	15			
Perquimans County.....	do	1			
Wake County.....	do	1			
Wilmington.....	Feb. 3.....	1			
Wilson County.....	Feb. 1-Feb. 23....	1			
Total for the State.....		85	1		
Ohio:					
Bainbridge Twp., Geauga Co...	Jan. 1-Apr. 6....	1			
Brooklyn.....	Feb. 7-Feb. 27....	1			
Cannelsville.....	Jan. 1-Apr. 6....	1	1		
Chagrin Falls.....		3			
Cincinnati.....	Jan. 23-Apr. 21....	308	7		
Cleveland.....	Dec. 25-Apr. 6....	153	2		
Cleves.....	Jan. 1-Apr. 6....	7			
Columbus.....	Feb. 7-Apr. 6....	155	2		
Coshocton.....	Jan. 1-Apr. 6....	2			
Dialton.....	Feb. 7-Apr. 6....	1			
Donnelsville.....		1			
Franklin.....	Apr. 6.....	5			
Fredericksburg.....		1			
Gallipolis.....	Apr. 6.....	3			
Girls' Industrial Home.....	Jan. 1-Apr. 6....	2			
Granville.....		1			
Harrison Twp., Perry Co.....		2			
Howard.....		2			
Lafayette Twp., Coshocton Co..		8			
Lockland.....		6			
Lorain.....		1			
Middlefield.....		1			

Smallpox in the United States, etc.—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Ohio—Continued.				
Newton Twp., Muskingum Co.		14	1	
New Carlisle		4		
Painesville		1		
Parma Twp., Cuyahago Co.		1		
Plain City		1		
Pleasantville		1		
Ripley		4		
Roseville		1		
Sand Hill		8		
Sandusky	Feb. 7-Apr. 6	26		
Selma		1		
Shenandoah	Feb. 7-Apr. 6	1		
South Charleston	do	2		
Springfield		1		
Springfield Twp., Clark Co.		10		
St. Johns		2		
Sunbury	Apr. 6	4		
Tippecanoe		1		
Toledo	Feb. 7-Apr. 6	2		
Wellington	do	1		
West Farmington		1		
West Jefferson		1		
Willoughby	Feb. 7-Apr. 6	1		
Xenia	Jan. 1-Apr. 6	3		
Zanesville	Jan. 1-Apr. 6	1		
Total for the State		758	13	Officially reported.
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	
Total for the State		37	13	
Pennsylvania:				
Allegheny County	Feb. 11-Apr. 27	10		
Ball Hill	Dec. 31-Jan. 23	1		
Beaver County	Mar. 12-Mar. 30	1		
Bedford County	Dec. 31-Mar. 30	21		
Blair County	Jan. 1-Apr. 22	25		
Brumbaugh	Dec. 31-Mar. 30	2		
Cambria County	Mar. 30-Apr. 22	13		
Charlesville	Dec. 31	15		Smallpox reported.
Claysburg	Dec. 31-Jan. 23	1		
East Vincent Township	Dec. 31	1		
Everett	do	3		
Fayette County	Mar. 12-Apr. 12	23		
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-Apr. 28	7		
Pottstown	Feb. 5-Feb. 11	1		
Somerset County	Feb. 11-Apr. 12	50		
Steelton	Dec. 31-Feb. 5	11		
Waterfall	do	1		
Washington County	Mar. 30-Apr. 12	1		
Total for the State		219		Officially reported.
Porto Rico:				
Ponce	Jan. 17-Mar. 17	451		
San Juan	Mar. 6	3		
Rhode Island:				
Providence	Feb. 21-Apr. 21	3		
South Carolina:				
Aiken County	Apr. 16	3		
Beaufort County	Apr. 16	2		
Clarendon County	Apr. 16	1		
Edgefield County	Jan. 1-Apr. 16	100	10	
Horry County	Mar. 1-Mar. 31	18	0	
Swinton County	Apr. 16	2		
Total for the State		126	10	

Smallpox in the United States, etc.—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Tennessee:				
Dyersburg.....	Mar. 24.....	3		
Grover, Madison County.....	Feb. 18-Mar. 11.....	12		
Hardeman County.....	Mar. 1-Mar. 11.....	1		
Jackson.....	Feb. 18-Mar. 27.....	52		
Memphis.....	.....do.....	36		
Pinson, Madison County.....	.....do.....	1		
Union City, Obion County.....	Mar. 3-Mar. 11.....	7		
Total for the State.....		123		Officially reported.
Texas:				
Alice, Nueces County.....	Feb. 20.....	20		
Brownsville.....	Jan. 7-Apr. 8.....	8		
Bryan.....	Jan. 29-Mar. 11.....	24		
Dallas.....	Feb. 1-Mar. 23.....	52	15	
Del Rio, Kinney County.....	Apr. 15.....	1		
El Paso.....	Aug. 1-Dec. 31.....	45		Year 1898.
	Jan. 1-Jan. 18.....	21		
Fort Bliss.....	Mar. 12.....	1		
Galveston.....	Mar. 14-Apr. 15.....	17	2	
Laredo.....	Jan. 1-Apr. 15.....	676	126	
San Rafael.....	Jan. 29.....	4		
Zapata County.....	Mar. 13.....	2		
Total for the State.....		866	143	Officially reported.
Virginia:				
Alexandria.....	Jan. 4-Apr. 15.....	303	2	
Hampton.....	Feb. 15.....	6		
Lynchburg.....	Mar. 5-Mar. 11.....	1	1	
Newport News.....	Dec. 31-Apr. 30.....	645		
Norfolk.....	Sept. 19-Apr. 28.....	741	11	
Petersburg.....	Mar. 6-Mar. 12.....	1		
Portsmouth.....	Dec. 31-Apr. 28.....	273	4	
Richmond.....	Jan. 25-Mar. 12.....	8		
Total for the State.....		1,978	16	Do.
Washington:				
Spokane.....	Feb. 27-Apr. 22.....	5		
Wisconsin:				
Calumet County.....	Feb. 16.....	1		
Harrison County.....	Feb. 20.....	1		
Milwaukee.....	Apr. 24-Apr. 29.....	5	1	
Outagamie County.....	Feb. 7-Mar. 20.....	15	2	
Total for the State.....		22	2	Do.
Wyoming:				
Cheyenne.....	Mar. 5-Mar. 26.....	5		
Rock Springs.....	Dec. 24.....	1		

PORTO RICO.

*Sanitary report from San Juan.*SAN JUAN, PORTO RICO, *April 15, 1899.*

SIR: I have the honor to inclose herewith a copy of the report made by Capt. L. P. Davison, Fifth Infantry, detailed by Gen. Guy V. Henry, in charge of sanitation, and ex officio president of the military board of health.

This capable and energetic officer has effected a marvelous and praiseworthy change in the bad sanitary condition of the city of San Juan and surrounding district, in the short time in which he has been assigned to this work.

When detailed by your order for special quarantine and sanitary work, it occurred to me to specially observe different methods of munic-

ipal sanitation, the blank forms in use, etc., especially those employed in the District of Columbia. These have been of value, and I have rendered every aid possible in the sanitary crusade upon this island.

Respectfully, yours,

A. H. GLENNAN,
Surgeon, U. S. M. H. S.

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

[Inclosure.]

OFFICE OF THE BOARD OF HEALTH,
San Juan, Porto Rico, March 31, 1899.

SIR: I have the honor to submit the following report of the operations of the sanitary department for the quarter ended March 31, 1899:

Pursuant to paragraph 6, S. O. No. 52, dated Headquarters Department of Porto Rico, San Juan, Porto Rico, December 10, 1898, I reported to the Adjutant-General, and pursuant to paragraph 1, S. O. No. 58, dated Headquarters Department of Porto Rico, San Juan, Porto Rico, December 17, 1898, entered upon the duties therein assigned.

After a thorough personal investigation of the conditions, an organization and plan of campaign was formulated and promulgated in G. O. No. 37, dated Headquarters Department of Porto Rico, San Juan, Porto Rico, December 28, 1898. The board of health provided for in paragraph 1 was duly assembled and has proved to be an efficient organization.

So far it has not been practicable to formulate the code of sanitary regulations referred to in paragraph 3 of the above order for the guidance of other boards of health. Here we have been guided by the expert knowledge of Dr. Glennan, and have adopted as far as applicable the sanitary rules of Washington, D. C., and Florida. In the first place, the drafting of these rules requires an amount of judicial inquiry and of time which I have been unable to give, and in the second place it is realized that conditions vary so with each individual city and town that common sense bolstered up by such expert knowledge as may be obtainable is the only safe guide. It is hoped that time may be soon found to enter upon this necessary work.

The following working force was immediately employed: One superintendent for all outside work, 1 clerk for office work, accounts, and vital statistics, 3 subinspectors for making a house-to-house inspection and record of the sanitary condition of San Juan, and 1 interpreter and translator.

An office was rented, there being no public buildings available.

General sanitary condition of city.

The insanitary conditions in and surrounding the city during the last of December are almost indescribable. Over 1,500 cesspools were found full or nearly full and extremely filthy. The majority of these cesspools had not been cleaned for years, and contained excreta from persons suffering from every disease incident to a tropical climate. Few had any ventilation, and nearly all that pretended to be cemented were leaky and the majority were without cemented bottoms; many were mere excavations.

Cisterns were generally foul and built close to cesspools.

Refuse of all kinds was thrown in dark corners of the inner courts or into the streets.

Such house sewers as existed were never flushed, and consequently were foul and clogged, opening into the streets, vacant lots, or any but proper places. Street sewers were apparently never flushed, and were clogged and offensive, their outlets being generally broken or otherwise damaged so that the sewage escaped before reaching its intended destination.

An attempt was being made to clean two or three of the principal streets. This was done late in the morning, and of the garbage thus gathered much was scattered through other streets and along the road to Santurce, where the contractor (?) assorted and disposed of the material.

The ordinary dumping ground for such refuse as could not be kept in the houses or thrown into the streets, was anywhere out of sight. Perhaps the favorite method was to throw it over a military retaining wall. On every side of the city this stinking, fomenting accumulation of years was found. Even the contents of such cesspools as had ever been cleaned were dumped along the north coast where the sea never reached it. Dead animals, with the exception of horses and cattle, were not regularly buried, but simply tossed out of sight.

In the interiors of small houses and stores no apparent attempt was made at cleanliness. Lower floors of more pretentious buildings were occupied by a poverty-stricken and indescribably dirty mixed population, living in absolute violation of all civilized rules. Much of this nastiness was due to a lack of water and lack of a proper sewer system. If, however, the inhabitants had carefully studied the question of how to avoid healthful conditions, they could not have done worse.

The main trouble was that these people did not realize their dirty condition and had no sympathy with the efforts of the department commander to put the city in a sanitary state.

The only reasons why this island of San Juan has not become a veritable plague spot are that its surface drainage is exceedingly good and the rainfall heavy during a part of the year; the trade winds sweep over it constantly and in good force; the harbor has a constant flow through it from east to west. Even under these good natural conditions this city has periodically suffered from yellow fever and other low fevers; smallpox has always been more or less prevalent during the winter months, and there was a constant ebb and flow of minor contagious filth diseases.

The first and most important point determined upon was to endeavor to make the sanitary work educative. This has been held steadily in view and to this end all efforts have been directed. To clean the city was absolutely necessary; to force the citizens to clean up was of even greater importance, but the one grand goal constantly before us was to make these people realize that good sanitation meant the saving of life, that it meant an increase in the value of their property, that it meant a greater demand for the goods upon their shelves and the produce of their fields, that it meant an influx of intelligent capital, and work and good wages for the laborer; in other words, that it meant prosperity, that without good sanitation prosperity could not be permanent.

Organization of sanitary force.

The city was divided into 3 districts and 1 subinspector assigned to each. A thorough house-to-house inspection was instituted and a record made of the actual conditions. All public buildings, convents, charitable institutions, etc., were inspected by myself. Military buildings and those pertaining to the insular government, were left until such time as a call should be made for such inspection.

As soon as this question was looked squarely in the face it was evident that some material would be necessary. An estimate of funds was submitted and approved, and the following was ordered:

Three odorless excavators, at \$1,000 each.....	\$3,000
Ten garbage wagons, at \$300 each.....	3,000
One thousand garbage cans, at \$3 each.....	3,000
Incidentals.....	150
Disinfectants.....	86
Total.....	9,236

Methods of house sanitation.

From this preliminary work it was clear that the immediate necessity was to have cesspools cleaned. By resolution of the board of health forms "A" and "B" were adopted and beginning with the worst places nuisances were declared. At first only three or four notices per day were sent out. There were only that many outfits in the city available for the work, and it was necessary to hold ourselves in readiness to do this work ourselves in case no attention was paid to our notices. Hence we had to be careful not to lay out more work than could be done promptly by ourselves in case of necessity. Of the collections and fines imposed as per form "B" only two are at present outstanding, and it is believed the present alcalde will be able to collect these.

The details of how we were hampered in our earlier work by dilatory tactics and open opposition would possibly be interesting, but would simply be rewriting the history of these people. Suffice it to say that the worst cases have all been attended to, and that from 8 to 10 notices are now issued each day and are being acted on promptly. Cisterns and latrines are being cleaned and repaired, and the people are aiding us by making reports (in most cases honestly) of conditions that may have been overlooked, but that more frequently have not, in our opinion, been reached. The odorless excavators are a decided success, and are working up to their full capacity.

The idea is now to clean cesspools before they become so full as to become unquenchably foul, to have them ventilated, and to encourage a free use of native lime. A cesspool is a bad arrangement at best. If, when thoroughly cleaned, disinfected, and

ventilated, a barrel of lime be thrown in, and more lime added from time to time, its contents are kept in a semifluid state and its power for harm restricted to the minimum. In this condition it can be readily cleaned with the excavator, and this cleaning need only be done at long intervals. The average cesspools contain about 20 cubic meters, and it is considered safer to clean them only when nearly full rather than to keep constantly stirring up their contents. The contract price for cleaning these cesspools as authorized by the board of health is 5 pesos per cubic meter. With the excavators the actual cost of labor is charged with 10 per cent added for repairs and for ultimate replacement of equipment. Sufficient data has not as yet been obtained to give absolutely reliable results, but 2 pesos per cubic meter will not be far from the figure. With this general understanding citizens are anxious for us to do the work for them. This is a manifestation of confidence that we hardly hoped for three months ago. The present municipal administration sees the necessity for and the good results of this work, and is of its own accord proceeding with the necessary cleaning and repairing that bids fair to control the whole matter in time. This is one of the educative results that we have been working for.

Exterior sanitation.

Exterior sanitary policing was at the same time inaugurated. The quartermaster turned over to us 10 2-mule wagons with drivers. One hundred convicts were obtained from the penitentiary. With this force the places demanding immediate attention were cleaned. The work is still going on as rapidly as possible. It is almost impossible to estimate the number of loads of strictly unsanitary material that has been disposed of; it runs into the thousands.

The matter of general police and street cleaning was then taken up as a perhaps necessary concession to public appearances and also as a part of the educative work. It has had the desired effect. For this purpose the force was slightly rearranged. The second house-to-house inspection having been completed, it was found that 1 sub-inspector could attend to that work. One subinspector was, therefore, assigned in charge of street cleaning, and the other was given entire charge of working the various gangs of prisoners under their native guards. More quartermaster transportation became available, and a wagonmaster was detailed, who took complete charge of this transportation, giving special attention to the dumping of garbage.

Garbage disposal.

The disposal of all this garbage demanded early attention. Three general methods presented themselves—cremation, deep-sea dumping from scows, and direct sea dumping. Either of the first two methods took more money than was thought to be immediately available, and also time. Delay was the principal element to avoid. A careful investigation of shore lines, currents, wave action, etc., was made, and a temporary dumping dock was established by slightly modifying and adding to an unused (for military purposes) worthless piece of fortification. This method has more than fulfilled the highest expectations. Over 50 loads per day of garbage are here thrown directly into the sea and carried out by the current. Some little inoffensive matter finds temporary lodgment near the dumping dock, but this matter is so thoroughly beaten up and washed by the surf as to be free from any ill effects. Every few days an especially heavy sea sweeps everything cleanly away. Some improvements can be made by extending the dock, and it may be necessary to form a breakwater of loose stones to the eastward, to guard that part of the coast as well as to aid the natural trend of the current here. No great expense has been incurred in this system of garbage disposal, and none will be recommended until there is absolute assurance of complete success. As the one of the temporary expedients, immediately available, it is working well.

Subject to the usual delays the sanitary machinery ordered was delivered and found to be exactly what was needed. The odorless excavators and garbage carts were delivered without brakes and the proper representations have been made to the contractors. This was possibly due to faulty specifications, but I would have as soon specified that these wagons have tongues as that they should have brakes. The quartermaster's department has put brakes on a portion of these wagons and is working on the balance as fast as possible. The garbage cans are being distributed as fast as the people can be made to see their necessity and usefulness. The disinfectants have been and are being used as occasion demands.

Quarantine.

The quarantine lazaretto was turned over to this office by orders from the department commander, but later orders from the President put this matter entirely under control of the Marine-Hospital Service. The responsibility has therefore been turned

over to Surgeon A. H. Glennan, U. S. M. H. S., who is, however, a member of the board of health. Estimates are being made for placing this work on sound basis.

Leprosy.

The question of leprosy on the island has already been made the question of special report. Ten lepers are now in a temporary hospital well guarded, furnished with rations, and are being attended to by the health officer of the city and two attendants, a man and his wife. Other cases of leprosy are being reported and will be taken care of as soon as possible. It may be necessary to have another frame building to accommodate the number ultimately found, and in that case proper plans and estimates will be submitted. Absolute isolation is being insisted on and steps looking toward permanent colonization of these unfortunate sufferers is being taken. This is in accordance with the latest scientific methods.

San Francisco barracks.

San Francisco Barracks has also been the subject of previous reports. This large building, completed in 1766, violates in its construction almost every sanitary principle. On this account and on account of its having been the center of contagion in various yellow fever outbreaks its demolition has been strongly recommended by various competent judges. It is still thought that these recommendations were wisely made. Estimates having been called for as to cost of complete disinfection these were submitted but thought too small. Orders were given later to proceed with this disinfection. It has been attended to and is now practically finished. This work has not been rushed for two reasons. It was thought necessary to proceed with exceptional thoroughness and again it was not desired to give any one an opportunity to occupy this building during this coming summer. Every square foot of the interior surface has been thoroughly soaked with a strong disinfecting solution. All rotten woodwork was afterwards torn out and the ground underneath thoroughly disinfected and cleaned. All loose rubbish was first disinfected and then burned within the inclosure. This work will cost less than the 600 pesos originally estimated, and upon completion a separate special report will be made with recommendations as to repairs and precautions to be taken.

The quartermaster's department is furnishing suitable separate accommodations for the transportation and mounts assigned to this department, where also the machinery and property of the department can be properly cared for.

Prostitution.

With the idea of reducing the evils of licensed prostitution to a minimum, the board of health recommended that the "Picadero," a former military riding hall, be fitted up as a hospital for the treatment of diseased prostitutes and for the treatment of other special cases which can not for various reasons be taken into a general hospital. At this date there are over 60 cases awaiting such treatment. The quartermaster's department has placed this building in good condition by putting in new floors, partitions, stairway, and balcony, and the municipality is painting and otherwise fitting and furnishing this hospital over which the board of health is to have supervision. An earnest effort is being made to restrict open prostitution to certain well-defined limits. With careful medical inspection it is felt that these are about the only corrective measures that can at present be taken.

Smallpox.

On March 3 the first case of smallpox showed itself in this city. Before this time various preventative methods such as quarantine against the interior towns, inspection on the roads, ferries, etc., were discussed, but barring vaccination (which was proceeding under another department), it was decided to simply keep a close watch on these parts of the city where smallpox was most liable to develop, and, if it should appear, to treat it rigorously. Pursuant to these plans a detached bastion (Santa Elena) was selected as a location for an isolation hospital. Every suspicious case was immediately removed to tents in the vicinity; and as soon as the disease indicated unquestionably that it was smallpox the patient was taken into the regular hospital. Tentage furnished by the quartermaster's department was used. The houses from which patients came were immediately and thoroughly disinfected, their contaminated effects were either disinfected or burned, and all occupants were vaccinated. The sup-

ply of virus furnished by the Marine-Hospital Service was sufficient for this purpose, but not sufficient for general vaccination. The above was up to that time the only virus giving any results. Total number of cases admitted, 58; greatest number in hospital at any one time, 49; discharged after observation, 2; treated and discharged cured, 13; remaining under treatment, 43; deaths, none; number now convalescing, 14. General form of disease, uniformly mild. A special physician, nurses, and attendants have been employed and a limited number of rations furnished. Chicken-pox, varioloid, and smallpox were all isolated.

The majority of these cases were from among the extreme poor and the abandoned. The disease was undoubtedly introduced by visitors from the country. From the class of people attacked it is believed that cleanliness of person, living, and morals is at least equal with vaccination as a preventive of smallpox.

Another year of careful watching, strict and impartial treatment, and thorough vaccination should bring the disease within the bounds known in civilization.

Before being discharged each patient was given a disinfectant bath, their heads shampooed, etc., and their clothing burned. In cases where there was any question of ability to furnish suitable clothing a complete new outfit was furnished. The average price paid for a complete suit for men has been \$1.11. The Woman's Aid Society has furnished the clothing for the women and children. In this case, as in every other, this society, under its able management and by its zealous efforts, has done and is doing a vast and too often untold amount of good. I hope the full extent of their worthy efforts may be realized and that they may receive not only the credit they deserve, but such outside assistance as will insure a continuation of their work.

To prevent spread of tuberculosis.

The following resolution has been adopted and promulgated with reference to tubercular consumption:

Resolved. That in every case of consumption, all rooms that patients have occupied be thoroughly disinfected, scraped, and then painted or whitewashed under the supervision of an employee of the board of health, and that a copy of this resolution be furnished all practicing physicians of the city of San Juan, who will immediately upon the death of a consumptive, or the vacating of premises by them, notify the board of health.

All other physicians of the island have had their attention called to this matter.

A thorough campaign along these lines will greatly modify this disease which now claims the highest percentage of mortality.

There have been a few scattering cases of diphtheria, measles, lockjaw, glanders, etc., which have all been carefully and intelligently treated.

Public sentiment has already been greatly modified, and we hope somewhat educated in the matter of treatment of contagious diseases. A continuation of these methods should make this island as free from these diseases as any equivalent area on the face of the globe.

Quarantine regulations are being strictly and impartially administered, and order is being rapidly brought out of chaos and favoritism.

It is believed that practically every contingency is being foreseen and is also being provided for in so far as the limited time has allowed and as far as money has been made available.

The question of cleaning out several blocks of houses whose location, construction, and inhabitants almost defy sanitation is receiving due attention under orders from the department commander. A full report will be rendered as soon as the circumstances warrant. The questions of property ownership are very much involved and require painstaking search and careful investigation.

A start has been made in the direction of decent interment of the dead by locating the military cemetery well outside the city. The next step, that of closing the old intra-mural, overcrowded, and noisome cemetery, should be soon taken. The land is now available, satisfactory arrangements for transportation can be made, and Archbishop Chapelle, as the representative of the Catholic Church, gave his promise of hearty cooperation.

A remedy for the overcrowded condition of the poorer classes in this city is still being sought. There is room for only about 12,000 of the 16,000 inhabitants now crowded within the city proper. The more thought this matter is given the more convinced I am that sanitary tenements on the eastern end of the island of San Juan must be the ultimate solution. Under present conditions private capital seems to be shying at this investment. The attached letter (Exhibit C) shows what has already been suggested.

Mortality reports.

The weekly death reports are given below :

Week ended January 6, 1899.....	27
Week ended January 13, 1899.....	25
Week ended January 20, 1899.....	25
Week ended January 27, 1899.....	26
Week ended February 4, 1899.....	24
Week ended February 11, 1899.....	22
Week ended February 18, 1899.....	21
Week ended February 25, 1899.....	20
Week ended March 4, 1899.....	14
Week ended March 11, 1899.....	20
Week ended March 18, 1899.....	15
Week ended March 25, 1899.....	10
Total.....	265
Population affected	32, 000
Death rate, per 1,000.....	33

These figures probably cover too short a period to base any important deductions upon them. It is hoped that they are as straws showing the direction of the wind. Former data under Spanish rule have been found to be too unreliable for even quotation.

Being under other departments, the water supply and sewerage system are not discussed here, although these two questions lie at the foundation of good sanitation.

The question of food inspection and its improved supply is being taken up gradually and consistently.

The task set before this department was augean, and much of it is only begun. In this connection the short time we have been at work and the many obstacles to be surmounted should be considered.

In pursuing the department commander's well-established plans, Porto Ricans have been employed whenever they could be made to do anything like good service. Of 30 employees only 5 are not natives. These natives require careful handling and constant supervision. They have no initiative and little persistency or what they have of either is of the wrong sort.

The native municipal police might be and should be a great aid to sanitary work, but I am sorry to have to report that the force seems to be without head, supervision, or organization, and I can get but little support from them.

The \$16,490 estimated for has been expended as per monthly accounts current rendered on quartermaster forms. Attached will be found a recapitulation of expenditures and an estimate for the next quarter.

It is hoped that in its budget for the next fiscal year the municipality will be able and willing to bear its share of this burden, but this work should not be allowed to drop on account of the ignorance and shortsightedness of the parties most immediately concerned. With this island many new responsibilities have been accepted, not the least of which is sanitary education.

Other Porto Rican towns.

I must again call attention to the fact, which it was attempted to make clear in a report on the conditions at Ponce, viz: "That city is the present danger point in this island."

In each of the several important towns of Porto Rico the work that is being done in San Juan should be duplicated. Better methods should be introduced if possible. Our great Republic can not afford to retard the introduction of Western civilization ten or fifteen years by too close a hand at the purse strings. Good sanitation is the sign visible of this civilization. It is only a question of time when it will come. Who will take the responsibility for the deaths, suffering, and misery if this reform is delayed even one year?

Under your orders or on business connected with the quartermaster department before being assigned to this special work, I have now visited every town of importance in the department, including all the outlying islands and feel that I can speak with a knowledge of the existing conditions.

I hope it will not be considered out of place if the inception, intelligent furtherence, and unswerving support of this work by every available means in his power is here attributed to the department commander. Without his firm convictions and broad grasp of the conditions little or nothing could have been accomplished.

The department is also to be congratulated in its Marine-Hospital Service representative, Surgeon A. H. Glennan. With complete detailed information as to climatic conditions and their remedies, his has been the knowledge that has rendered effective whatever organizing ability or energy I may have been able to bring as my share. Together we have labored earnestly to overcome the inertia and sometimes poorly disguised hostility of the people and their representatives. We can report substantial progress in this direction.

The present municipal government is, so far as its knowledge will allow, apparently in earnest working for good sanitation.

The 2 native doctors and the 2 councilmen on the board of health are capable men, interested and working hard for the public good.

The chief quartermaster, by his untiring efforts, is entitled to a large share of whatever credit is due for the work performed.

Heartly cooperation on the part of the chief surgeon has helped to solve many of the problems met.

I can not close this report without referring to the excellent discipline among the sanitary employees, and to the loyal support of the few Americans on the force. These men were through the Porto Rican campaign with me in positions of responsibility in the quartermaster's department, and are held to this disagreeable work by the spirit that originally prompted them to tender their services to the Government in its time of need, more than by their salaries. There is not one of them who could not command more pay than he is now receiving were he "back in the States."

Very respectfully, your obedient servant,

L. P. DAVISON,
*Captain Fifth Infantry in charge of Sanitation and ex officio
President San Juan Board of Health.*

Report of immigration at Boston for the week ended April 29, 1899.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of Boston, April 30, 1899.

*Number of alien immigrants who arrived at this port during the week ended April 29, 1899;
also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of immigrants.
Apr. 23	Steamship Pavonia.....	Liverpool, England.....	477
Do....	Steamship Boston.....	Yarmouth, Nova Scotia.....	156
Do....	Steamship Roman.....	Liverpool, England.....	27
Apr. 24	Steamship Admiral Dewey.....	Port Morant, Jamaica.....	1
Apr. 25	Steamship Prince George.....	Yarmouth, Nova Scotia.....	45
Do....	Steamship Schem.....	Liverpool, England.....	40
Do....	Steamship Irishman.....	do.....	17
Do....	Steamship Sedgemore.....	London, England.....	11
Apr. 26	Steamship Armenian.....	Liverpool, England.....	55
Do....	Steamship Admiral Schley.....	Port Morant, Jamaica.....	1
Apr. 27	Steamship Halifax.....	Halifax, Nova Scotia.....	122
Do....	Steamship Boston.....	Yarmouth, Nova Scotia.....	111
Apr. 28	Steamship Prince George.....	do.....	48
Do....	Steamship Sylvania.....	Liverpool, England.....	8
Do....	Steamship New England.....	do.....	1,152
Do....	Schooner G. Walter Scott.....	Parrsboro, Nova Scotia.....	1
Apr. 29	Steamship Anglian.....	London, England.....	7
	Total.....		2,274

GEORGE B. BILLINGS,
Commissioner.

Report of immigration at New York for the week ended April 22, 1899.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of New York, April 26, 1899.

*Number of alien immigrants who arrived at this port during the week ended April 22, 1899;
also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of immigrants.
Apr. 16	Steamship Pomeranian.....	Glasgow.....	73
Apr. 17	Steamship Sorrento.....	Hamburg.....	197
Do....	Steamship Hesperia.....	Naples.....	783
Do....	Steamship La Touraine.....	Havre.....	613
Apr. 19	Steamship Maasdam.....	Rotterdam.....	223
Do....	Steamship Kensington.....	Antwerp.....	261
Do....	Steamship Kaiser Friedrich.....	Bremen.....	482
Apr. 20	Steamship Aller.....	Genoa and Naples.....	712
Do....	Steamship Friedrich der Grosse.....	Bremen.....	724
Do....	Steamship Ethiopia.....	Glasgow.....	179
Apr. 22	Steamship Vega.....	Lisbon and The Azores.....	78
Do....	Steamship Hekla.....	Copenhagen, etc.....	183
Do....	Steamship Cymric.....	Liverpool and Queenstown.....	1,007
Do....	Steamship Pennsylvania.....	Hamburg.....	1,142
Do....	Steamship Itallieo.....	Rio de Janeiro.....	18
	Total.....		6,675

THOMAS FITCHIE,
Commissioner.

Report of immigration at New York for the week ended April 29, 1899.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of New York, May 1, 1899.

*Number of alien immigrants who arrived at this port during the week ended April 29, 1899;
also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of im- migrants.
Apr. 23	Steamship New York.....	Southampton	506
Do....	Steamship La Gascogne.....	Havre.....	891
Do....	Steamship Umbria.....	Liverpool and Queenstown	512
Apr. 24	Steamship Sempione.....	Genoa and Naples.....	970
Apr. 25	Steamship Spaarndam.....	Rotterdam.....	250
Do....	Steamship Albano.....	Hamburg	356
Apr. 26..	Steamship Noordland.....	Antwerp.....	335
Do....	Steamship Bremen.....	Bremen.....	778
Apr. 27..	Steamship State of Nebraska.....	Glasgow	94
Do....	Steamship Trave.....	Bremen.....	484
Do....	Steamship Majestic	Liverpool and Queenstown	905
Apr. 28	Steamship Dona Maria.....	Lisbon and The Azores.....	815
Do....	Steamship Lahn.....	Bremen.....	278
Apr. 29	Steamship Patria.....	Marseilles and Naples.....	1, 173
Do....	Steamship Fuerst Bismarck.....	Hamburg.....	545
Do....	Steamship Palatia.....	do.....	933
Do....	Steamship St. Louis.....	Southampton.....	300
Do....	Steamship Lucania.....	Liverpool and Queenstown.....	760
	Total.....		10, 435

THOMAS FITCHIE,
Commissioner.

*Report of immigration at Philadelphia for the week ended April 29, 1899.*OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
*Port of Philadelphia, May 1, 1899.**Number of alien immigrants who arrived at this port during the week ended April 29, 1899 ;
also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of immigrants.
Apr. 23	Steamship Waesland	Liverpool and Queenstown	292
Do....	Steamship Corean.....	Glasgow.....	1
Apr. 25	Steamship Aragonia.....	Antwerp.....	159
Do....	Steamship Maryland	London.....	2
Apr. 26	Steamship Caspian	Mauritius.....	1
Apr. 27	Steamship Osborne	London.....	1
	Total.....	.....	456

JNO. J. S. RODGERS,
*Commissioner.**Medical inspection of immigrants at Baltimore during April, 1899.*BALTIMORE, MD., *May 1, 1899.*

SIR: I have the honor to report there were 26 cabin passengers and 1,589 steerage passengers inspected at this port during the month of April, 1899. No rejections.

Respectfully,

GEO. PURVIANCE,
*Surgeon, U. S. M. H. S.*The SUPERVISING SURGEON-GENERAL,
U. S. Marine-Hospital Service.

REPORTS FROM NATIONAL QUARANTINE

Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
Alexandria, Va.....	Apr. 29	.....	.....	.....
Beaufort, N. C.....	do.....	.....	.....	.....
Brunswick, Ga.....	do.....	.....	.....	.....
Cape Charles, Va.....	Apr. 22	Ss. Wolf.....	Apr. 18	Vera Cruz.....
.....	.....	Br. sh. Kings County.....	Apr. 20	Rio.....
.....	Apr. 29	Ss. Wolf (a).....	Apr. 18	Vera Cruz.....
.....	.....	Br. sh. Kings County (a).....	Apr. 20	Rio.....
Cape Fear, N. C.....	Apr. 22	Nor. bk. Argus.....	Apr. 17	Bahia.....
.....	Apr. 29	Nor. bk. Argus (a).....	do.....	do.....
.....	.....	Swed. bk. Norden.....	Apr. 24	Rio.....
Cienfuegos, Cuba.....	Apr. 22	.....	.....	.....
Delaware Breakwater Quarantine, Lewes, Del.	do.....	Dutch ss. Aragonia.....	Apr. 22	Antwerp.....
Eureka, Cal.....	do.....	.....	.....	.....
Grays Harbor, Wash.....	do.....	.....	.....	.....
Gulf Quarantine, Ship Island, Miss.	do.....	Br. bk. Bellona (a).....	Apr. 3	Rio.....
.....	.....	Nor. sh. Australia (a).....	Apr. 8	do.....
.....	.....	Am. sc. Lewis A. Edwards. (a)	Apr. 11	Vera Cruz.....
.....	.....	Br. sc. Anita (a).....	do.....	Caibarien.....
.....	.....	Am. sc. Anne E. Stevens (a)	Apr. 12	Havana.....
.....	.....	Nor. bk. Orion (a).....	do.....	Pernambuco.....
.....	.....	Am. sc. Jas. H. Dudley.....	Apr. 13	Sagua la Grande.....
.....	.....	Am. sc. Otis (a).....	do.....	Matanzas.....
.....	.....	Nor. bk. Nova Scotia ((a)	Apr. 14	Montevideo.....
.....	.....	Rus. sc. Emma.....	Apr. 17	Antigua.....
.....	.....	Am. sc. Nokomis.....	Apr. 18	Port Limon.....
.....	.....	Am. sc. Ida L. Hull.....	Apr. 20	Havana.....
.....	.....	Br. sc. Melrose.....	do.....	Harbor Island.....
Honolulu, Hawaiian Islands.....	Apr. 8	.....	.....	.....
Matanzas, Cuba.....	Apr. 18	.....	.....	.....
Newbern, N. C.....	Apr. 29	.....	.....	.....
Ponce, Porto Rico.....	Apr. 15	Ss. Venezuela.....	Apr. 10	La Guayra.....
Port Townsend, Wash.....	Apr. 22	.....	.....	.....
Reedy Island Quarantine, Del.....	Apr. 29	Dutch ss. Aragonia (a).....	Apr. 24	Antwerp.....
San Diego, Cal.....	Apr. 22	.....	.....	.....
San Francisco, Cal.....	do.....	U. S. Cruiser Badger.....	Apr. 16	Callao.....
San Juan, Porto Rico.....	Apr. 15	Sp. ss. Pio IX.....	Apr. 14	Havana.....
.....	.....	Sp. ss. Mexico.....	Apr. 15	do.....
Santiago de Cuba.....	Apr. 15	Sc. Laguna.....	Apr. 12	New York.....
Savannah, Ga.....	Apr. 22	U. S. transport Florida (a)	Apr. 11	Matanzas.....
.....	.....	U. S. transport Kilpatrick	Apr. 11	do.....
.....	.....	U. S. transport Logan.....	Apr. 12	Havana.....
.....	.....	U. S. transport Havana.....	Apr. 17	do.....
.....	.....	U. S. transport Thomas.....	do.....	Cienfuegos.....

a Previously reported.

AND INSPECTION STATIONS.

Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
			No transactions..... No report..... do.....	
Norfolk.....	Disinfected.....			6
do.....	do.....			
do.....	Disinfected and held.....	Apr. 24		7
do.....	do.....	Apr. 25		
Wilmington.....	Held for disinfection.....			1
do.....	Disinfected.....	Apr. 28		
do.....	Held for disinfection.....		Crew of Am. sc. Chas. D. Hall vaccinated.	
				7
Philadelphia.....	Passengers and 38 of crew removed, and ship remanded to Reedy Island.....		1 case smallpox.....	4
Ship Island.....	Disinfected and held.....	Apr. 17		2
do.....	do.....			4
Pascagoula.....	do.....	Apr. 17		
do.....	do.....	do.....		
Ship Island.....	do.....	Apr. 18		
do.....	do.....			
Pascagoula.....	do.....	Apr. 20		
do.....	do.....	do.....		
Ship Island.....	Held for disinfection.....			
Pascagoula.....	Disinfected and held.....			
do.....	do.....			
Ship Island.....	do.....		1 case malarial fever.....	
Pascagoula.....	Held for release from Bureau.....	Apr. 22		
			No report..... do.....	
			No transactions.....	
St. Thomas.....	Held in partial quarantine.....	Apr. 11		7
				5
Philadelphia.....	Disinfected.....	Apr. 24	1 case of smallpox removed at Delaware Breakwater Quarantine.	25
San Francisco.....	Passed on medical officer's certificate.		353 Chinese and 83 Japanese steerage passengers bathed and effects disinfected.	11
Cadiz.....	Held in quarantine twenty-four hours and baggage of local passengers disinfected on account of sickness on board.			14
Cadiz.....	Held in quarantine twelve hours; baggage of local passengers disinfected on account of convalescent soldiers on board.			
Santiago.....	Boarded and passed.....	Apr. 12		17
Savannah.....	Soldiers detained five days after disinfection of baggage, etc.; vessel remanded to Sapelo for disinfection.	Apr. 19		6
do.....	Soldiers detained five days after disinfection of baggage, etc.; vessel remanded to Sapelo for disinfection.	do.....		
do.....	do.....	Apr. 20		
do.....	Soldiers detained five days after disinfection of baggage, etc.	Apr. 18	Vessel released without pratique for New York.	
do.....	Soldiers detained five days after disinfection of baggage, etc.; vessel remanded to Sapelo for disinfection.		Held under observation.....	

REPORTS FROM NATIONAL QUARANTINE

Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
Savannah, Ga.....	Apr. 22	U. S. transport Dixie.....	Apr. 21	Havana
South Atlantic Quarantine, Blackbeard Island, Ga.	.....do....	U. S. transport Kilpatrick. (a)	Apr. 13	Matanzas.
		U. S. transport Logan. (a)	Apr. 14	Havana
Tortugas Quarantine, Key West, Fla.	Apr. 22	U. S. transport Thomas...	Apr. 20	Cienfuegos
		Am. sc. Asa T. Stowell (a)	Apr. 12	Cardenas.....
		Am. sc. Nimrod.....	Apr. 17	Cienfuegos.....
		Am. sc. Rollin Sanford...	Apr. 18	Havana
Washington, N. C.....	Apr. 29	Am. sc. Lena R. Storer .....	.....do....	Matanzas
		Sp. ss. Vivina.....	Apr. 21	Cienfuegos
		Am. sc. Irene .....	.....do....	Havana.....

a Previously reported.

REPORTS FROM STATE AND

Name of station.	Week ended.	Name of vessel.	Date of arrival	Port of departure.
Anclote, Fla.....	Apr. 29			
Baltimore, Md.....	.....do....			
Bangor, Me.....	.....do....			
Boca Grande, Fla	Apr. 15			
Cedar Keys, Fla.....	Apr. 22			
Charleston, S. C.....	Apr. 29			
Elizabeth River, Va.....	.....do....			
Galveston, Tex.....	Apr. 22			
Gardiner, Oreg.....	.....do....			
Key West, Monroe County, Fla.	Apr. 29			
Los Angeles, Cal.....	Apr. 22			
Mayport, Fla.....	Apr. 29			
Mobile, Ala.....	Apr. 22	Ital. bk. Angela Casanova. (a)	Apr. 13	Montevideo.....
		Sc. Monhegan.....	Apr. 20	Caibarien
		Rus. sc. Mateus	Apr. 21	Demerara.....
New Bedford, Mass.....	Apr. 29			
New Orleans, La.....	.....do....			
Newport News, Va.....	.....do....			
Newport, R. I.....	.....do....			
New York, N. Y.....	.....do....			
Pass Cavallo, Tex	Apr. 22			
	Apr. 29			
Providence, R. I.....	.....do....			
Round Island, Miss.....	.....do....			
St. Helena Entrance, S. C.....	.....do....			
San Pedro, Cal.....	Apr. 22			
Tampa Bay, Fla.....	Apr. 15			
	Apr. 22			

a Previously reported.

AND INSPECTION STATIONS—Continued.

Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
Savannah.....	Soldiers detained five days after disinfection of baggage, etc.; vessel remanded to Sapelo for disinfection.			
.....do	Disinfected and held	Apr. 19		1
.....do	Disinfected and remanded to Savannah, Ga.	Apr. 17		
.....do .....	.....do	Apr. 21		
Mobile	Disinfected	Apr. 17	Without pratique at request of master.	
Jacksonville .....	.....do	Apr. 20	.....do	
Tampa.....	.....do .....	.....do .....	.....do	
Pascagoula.....	.....do	Apr. 21	.....do	
Punta Gorda	Disinfected and held for observation.			
Key West.....	.....do			1

MUNICIPAL QUARANTINE STATIONS.

Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
.....				2
.....				20
.....			No report.....	1
.....				1
.....				9
.....				1
.....				17
.....			No report.....	
.....			.....do	14
.....			No transactions.....	8
Mobile.....	Ballast discharged; vessel disinfected.	Apr. 21		17
.....do	Disinfected and held			
.....do .....	.....do			
.....			No report.....	
.....			.....do	7
.....			No report.....	
.....			.....do	1
.....				1
.....			No transactions.....	3
.....				1
.....			No report.....	7
.....				5

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

CALIFORNIA—San Francisco.—Month of February, 1899. Estimated population, 360,000. Total number of deaths, 656, including diphtheria, 10; enteric fever, 22; measles, 16; influenza, 22; scarlet fever, 5; whooping cough, 8; cerebro-spinal meningitis, 15, and 68 from phthisis pulmonalis.

Month of March. Total number of deaths, 650, including diphtheria, 12; cerebro-spinal meningitis, 8; enteric fever, 10; measles, 5; scarlet fever, 12; whooping cough, 5, and 90 from phthisis pulmonalis.

CONNECTICUT—New Haven.—Month of March, 1899. Estimated population, 110,000. Total number of deaths, 156, including diphtheria, 2; whooping cough, 1, and 18 from phthisis pulmonalis.

ILLINOIS—Chicago.—During the week ended April 22, 1899, 7 certificates of death were returned to the office of the commissioner of health giving influenza and its complications as the cause thereof, viz, 2 to uncomplicated influenza, 5 to influenza as the cause, complicated with some other affection, also 10 giving diphtheria as the cause, 53 cases being reported, and 24 giving scarlet fever as the cause, 120 cases being reported.

IOWA—Boone.—Month of March, 1899. Census population, 6,520. Total number of deaths, 15, including la grippe, 1, and 1 from phthisis pulmonalis.

Burlington.—Estimated population, 30,000. Total number of deaths, 36, including enteric fever, 2; measles, 1, and 5 from phthisis pulmonalis.

Carroll.—Estimated population, 3,000. Total number of deaths, 2.

Cherokee.—Estimated population, 4,000. Total number of deaths, 3, including 1 from la grippe.

Cedar Falls.—Estimated population, 6,000. Total number of deaths, 7, including 1 from la grippe.

Cedar Rapids.—Estimated population, 27,000. Total number of deaths, 23, including la grippe, 1, and 3 from phthisis pulmonalis.

Davenport.—Estimated population, 36,000. Total number of deaths, 45, including enteric fever, 1; la grippe, 1, and 4 from phthisis pulmonalis.

Des Moines.—Estimated population, 72,000. Total number of deaths, 59, including measles, 3; la grippe, 4, and 5 from phthisis pulmonalis.

Eldon.—Census population, 1,735. Total number of deaths, 2, including 1 from measles.

Fairfield.—Census population, 3,391. Total number of deaths, 3. No deaths from contagious diseases.

Keokuk.—Estimated population, 19,305. Total number of deaths, 19, including la grippe, 1, and 1 from phthisis pulmonalis.

Marengo.—Estimated population, 2,500. Total number of deaths, 3. No deaths from contagious diseases.

Nevada.—Estimated population, 2,500. Total number of deaths, 2. No deaths from contagious diseases.

Ottumwa.—Estimated population, 20,000. Total number of deaths, 17, including enteric fever, 21; measles, 1, and 5 from phthisis pulmonalis.

Sibley.—Estimated population, 1,500. Total number of deaths, 3, including 1 from phthisis pulmonalis.

Sioux City.—Month of February. Census population, 37,806. Total number of deaths, 34, including la grippe, 1; measles, 1, and 1 from phthisis pulmonalis.

The following outbreaks of infectious diseases were reported during the month of March:

Diphtheria.—Keota; Lincoln Township, Kossuth County; Milford Township, Crawford County; Vail; Toledo; Washington; Lincoln Township, Calhoun County; Nevada; Lenox; Derby; Davenport; Keokuk.

Scarlet fever.—Gowrie; Fulton Township, Webster County; Vernon Township, Humboldt County; Maurice; Iowa Township, Cedar County; West Liberty; Harcourt; Colfax Township, Boone County; Palo; Waukon; Spirit Lake; Washta; Ionia; Colo; Graettinger; Rockwell; Wapello; Pleasant Township, Lucas County; Davenport; Keokuk.

Smallpox.—Creston; Douglas Township, Audubon County; Kimballton.

All the foregoing are convalescent, and no new cases in the State. In the March bulletin we referred to an outbreak of smallpox occurring at Appleton, Wis., attributed to infected rags. A note from the secretary of the State board of health, Dr. U. O. B. Wingate, dated April 7, says:

There have been in all 17 cases, with 3 deaths. The disease does not appear to be spreading, and it is believed to be about at an end. The cases were primarily contracted from rags in paper mill, but it can not be learned that any of these rags were imported. They came from the cities of Chicago, Milwaukee, St. Louis, St. Paul, Minneapolis, and other points in this country. The State board of health has recommended that all rags be disinfected on being received, and that all employees be vaccinated as a condition of employment.

Measles.—Tabor; Menlo; Lovilia; Avoca; Colo; Casey; State Center; Greene; York Township, Iowa County; Vail; Nevada; Lenox; Burlington; Des Moines; Eldon; Sioux City.

Cerebro-spinal meningitis.—Dubuque, Davenport, Chariton, Earlham, Boone, Ottumwa, Keokuk.

Whooping cough.—Sioux City.

Typhoid fever.—Burlington, Ottumwa, Davenport.

MASSACHUSETTS—*North Attleboro.*—Month of March, 1899. Estimated population, 7,000. Total number of deaths, 5, including 1 from phthisis pulmonalis.

Worcester.—Month of March, 1899. Estimated population, 108,463. Total number of deaths, 167, including la grippe 3, and 25 from phthisis pulmonalis.

MICHIGAN.—Reports to the State board of health, Lansing, for the week ended April 22, 1899, from 63 observers, indicate that erysipelas, remittent fever, and measles increased and phthisis pulmonalis decreased in area of prevalence. Phthisis pulmonalis was reported present at 137, measles at 63, scarlet fever at 43, enteric fever at 16, diphtheria at 13, whooping cough at 13, and smallpox at 3 places—Albion, Benton Harbor, and Kalamazoo.

MINNESOTA—*Duluth*.—Month of February, 1899. Estimated population, 60,000. Total number of deaths, 38, including la grippe, 1, and 6 from phthisis pulmonalis.

Month of March. Total number of deaths, 51, including 2 from phthisis pulmonalis.

Minneapolis.—Month of March, 1899. Estimated population, 225,602. Total number of deaths, 200, including diphtheria, 3; enteric fever, 2; leprosy, 1; scarlet fever, 2; whooping cough, 2, and 22 from phthisis pulmonalis.

MISSOURI—*St. Louis*.—Month of February, 1899. Estimated population, 623,000; white, 587,000, colored, 36,000. Total number of deaths, 923; white, 809, colored, 114, including diphtheria, 18; enteric fever, 7; measles, 1; scarlet fever, 2; whooping cough, 7, and 106 from phthisis pulmonalis.

NEW YORK.—Reports to the State board of health, Albany, for the month of March, 1899, from 155 cities, towns, and villages, show a total of 11,065 deaths, including diphtheria, 220; enteric fever, 121; measles, 61; scarlet fever, 98; smallpox, 1; cerebro-spinal meningitis, 82; whooping cough, 73, and 1,284 from phthisis pulmonalis.

The Monthly Bulletin says:

There was an average daily mortality during March of 357, a reduction from 385 in February and 400 in January; and a death rate of 19 per 1,000 population against 19.75 in February and 21 in January. Compared with the corresponding month of last year there were 700 more deaths, the death rate then being 18.25. The zymotic mortality is less than in March, 1898, by over 100 deaths; acute respiratory diseases caused 100 more deaths, consumption 100, diseases of the circulatory system 150, and old age and unclassified 275 more than in March, 1898. Compared with last month there is increase in the zymotic mortality and decrease in deaths from acute respiratory diseases, cancer, and old age. These variations in mortality are those of la grippe, and the indications are that it caused about double the mortality of March, 1898, and that it has fallen from a mortality of 2,000 in February, to one of about 1,300. The infant mortality has increased from 23.5 per cent of all deaths to 25.5, and is the same as that of last March. The zymotic mortality has slightly increased, and caused 7.5 per cent of all deaths. Cerebro-spinal meningitis caused 82 deaths, of which 53 occurred in the maritime district, and has increased, as is customary in the spring months; the same is true of diarrheal diseases, which causes 125 deaths. Diphtheria is reduced to 220 deaths, or 2 per cent of the total mortality, being highest, 2.6 per cent, in the maritime district, and but 1.2 per cent in the rest of the State. Typhoid fever caused 121

deaths, about 1 per cent of all the deaths; its chief prevalence has been in the Hudson Valley district. Scarlet fever caused 79 deaths in the maritime district, and 20 in the rest of the State. Of local diseases, those of the respiratory system have caused the largest mortality, 20 per cent of all deaths, and relatively the same in all parts of the State, the rural towns having as large a proportion of deaths from this cause as the metropolis. In deaths from diseases of the nervous system there is no variation from the mortality of last month or of last March, 11.7 per cent of the total. There was increase in the deaths from diseases of the circulatory system, relatively greatest in the rural towns, 13 per cent of all the mortality, against 8 per cent in the maritime district. Consumption caused 1,284 deaths. Smallpox has disappeared from the State, except in Tonawanda, 2 cases; Elmira, 3 cases, and 1 at Kingston; all probably originating exterior to the State. The weather of the month was temperature below the normal, excessive precipitation, with few clear days, and high relative humidity, winds being high and variable.

Rochester.—Month of March, 1899. Estimated population, 175,000. Total number of deaths, 204, including diphtheria, 6; enteric fever, 2; scarlet fever, 3; la grippe, 2, and 25 from phthisis pulmonalis.

OHIO.—Reports to the State board of health, for the nine weeks ended April 1, 1899, from 79 localities having an aggregate population of 1,316,953, show 44 deaths from diphtheria, 65 from enteric fever, 28 from measles, 12 from scarlet fever, and 5 from whooping cough.

Columbus.—Month of March, 1899. Estimated population, 140,000. Total number of deaths, 115, including enteric fever, 1, and 19 from phthisis pulmonalis.

TEXAS—*Dallas.*—Month of January, 1899. Estimated population, 65,000. Total number of deaths, 103, including 12 from phthisis pulmonalis.

Three weeks ended February 21. Total number of deaths, 72, including smallpox, 3, and 7 from phthisis pulmonalis.

Month of March. Total number of deaths, 111, including smallpox, 12, and 8 from phthisis pulmonalis.

UTAH—*Salt Lake City.*—Month of March, 1899. Estimated population, 70,000. Total number of deaths, 65, including diphtheria, 1; la grippe, 2; measles, 1, and 5 from phthisis pulmonalis.

VIRGINIA—*Lynchburg.*—Month of April, 1899. Estimated population, 30,000. Total number of deaths, 35, including enteric fever, 2, and 8 from phthisis pulmonalis.

WISCONSIN—*Milwaukee.*—Month of March, 1899. Estimated population, 280,000. Total number of deaths, 319, including diphtheria, 12; enteric fever, 2; measles, 2; scarlet fever, 1, and 43 from phthisis pulmonalis.

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.	Varicoid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.		
Allegheny, Pa.	Apr. 29	105,287	41	4												2
Allentown, Pa.	Apr. 22	25,228	17													
Do.	Apr. 29	25,228	14													
Ashtabula, Ohio	do	8,338	10													
Baltimore, Md.	do	434,439	158	13									3			
Binghamton, N. Y.	do	35,005	9													
Boston, Mass.	do	448,477	243	27												
Bristol, R. I.	Apr. 22	5,478	1													
Cambridge, Mass.	do	70,028	16	1												
Do.	Apr. 29	70,028	3	3												
Charleston, S. C.	Apr. 15	a 54,955	b 33	2												
Do.	Apr. 22	a 54,955	c 33	4												
Chelsea, Mass.	do	27,909	14	1												
Chicago, Ill.	Apr. 29	1,099,850	551	52												
Chillicothe, Mass.	Apr. 22	14,050	4													
Chillicothe, Ohio	Apr. 29	11,288	5	2												
Cincinnati, Ohio	Apr. 21	296,908	156	21												
Cleveland, Ohio	Apr. 29	261,353	141	5									1	1		
Dayton, Ohio	Apr. 22	61,220	31	1												
Decatur, Ill.	do	16,841	6	3												
Do.	Apr. 29	16,841	5	3												
Detroit, Mich.	do	205,876	2	2												
Dunkirk, N. Y.	Apr. 22	9,416	2													
Dunmore, Pa.	do	8,315	4	1												
Elmira, N. Y.	do	29,708	16	2												
Erie, Pa.	Apr. 29	40,634	17	3												
Evansville, Ind.	do	50,756	10	2												
Everett, Mass.	Apr. 22	11,068	11													
Fall River, Mass.	Apr. 29	74,398	32	1												
Fitchburg, Mass.	Apr. 22	22,037	7													
Grand Rapids, Mich.	Apr. 29	60,278	22	2												
Greenville, S. C.	Apr. 22	8,607	2													
Do.	Apr. 29	8,607	2													
Hannibal, Mo.	Apr. 22	12,857	8													
Holyoke, Mass.	Apr. 29	35,637	13	2												
Jacksonville, Fla.	Apr. 22	17,201	14	3												
Johnstown, Pa.	Apr. 29	21,805	8	3												
Lancaster, Pa.	Apr. 22	32,011	22													
Lawrence, Mass.	do	44,654	17													
Los Angeles, Cal.	do	50,395	24	3												
Louisville, Ky.	Apr. 27	161,129	74	8												
Lowell, Mass.	Apr. 29	77,696	42	4												
Lynchburg, Va.	do	19,709	5	1												
McKeesport, Pa.	Apr. 22	20,741	10													
Do.	Apr. 29	20,741	10													
Mahanoy City, Pa.	do	11,286	5													
Malden, Mass.	do	23,031	11	1												
Manchester, N. H.	do	44,126	24													
Medford, Mass.	do	11,079	4													
Melrose, Mass.	Apr. 22	8,519	4													
Middletown, N. Y.	Apr. 15	11,977	4													
Do.	Apr. 23	11,977	7	1												
Milwaukee, Wis.	Apr. 29	204,468	84	11		1										
Mobile, Ala.	do	31,076	15	3												
Nashua, N. H.	Apr. 15	19,311	0													
Do.	Apr. 22	19,311	0													
Do.	Apr. 29	19,311	0													
Nashville, Tenn.	do	76,168	38	10												
New Albany, Ind.	Apr. 22	21,059	1													
New Bedford, Mass.	Apr. 29	40,733	22	4												
Newburyport, Mass.	Apr. 22	13,947	3													
New Orleans, La.	do	242,039	166	14												
New York City, N. Y.	Apr. 29	d 3,550,053	1,284	178												
Norristown, Pa.	Apr. 22	19,791	7													
Do.	Apr. 29	19,791	5													
North Adams, Mass.	do	16,074	0	1												
Omaha, Neb.	Apr. 22	140,452	40													
Oneonta, N. Y.	Apr. 29	6,272	4													
Pawtucket, R. I.	Apr. 15	27,633	18													
Do.	Apr. 22	27,633	11													
Petersburg, Va.	Apr. 23	22,640	11	1												
Do.	Apr. 30	22,680	6	1												

a Estimated population, 65,165—white, 28,870; colored, 36,295. b White, 13; colored, 20. c White, 3; colored 25. d Estimated.

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.
Philadelphia, Pa.....	Apr. 29.....	1,046,964	501	70						37	15	14		2
Pittsfield, Mass.....	do.....	17,281	0											
Pittston, Pa.....	do.....	10,302	1											
Plainfield, N. J.....	do.....	11,267	3											
Portland, Me.....	do.....	36,425	13	2										
Portsmouth, Va.....	do.....	13,268	4											
Providence, R. I.....	do.....	132,146	54	7						1	1			
Reading, Pa.....	May 1.....	58,661	21	3										
Richmond, Ind.....	Apr. 29.....	16,608	3							1				
Salt Lake City, Utah.....	do.....	44,843	11											
San Diego, Cal.....	Apr. 22.....	16,159	4											
San Jose, Cal.....	do.....	18,060	4	2										
Scranton, Pa.....	do.....	75,215	34								2	1	1	
Do.....	Apr. 29.....	75,215	24											
Shreveport, La.....	Apr. 22.....	11,979	6	2										
Spokane, Wash.....	do.....	19,922	11	1						1				
Tacoma, Wash.....	do.....	36,006	10	3										
Taunton, Mass.....	do.....	25,448	12									1		
Waltham, Mass.....	Apr. 29.....	18,707	6											
Warren, Ohio.....	do.....	5,973	2											
Washington, D. C.....	Apr. 22.....	230,392	95	10								1	1	1
Wheeling, W. Va.....	do.....	35,013	12							1				
Wichita, Kans.....	Apr. 29.....	23,853	14											
Winona, Minn.....	Apr. 22.....	18,203	11											
Worcester, Mass.....	do.....	84,635	39	3										
Yonkers, N. Y.....	Apr. 28.....	32,033	11	1										
Youngstown, Ohio.....	do.....	33,220	9							1				

Table of temperature and rainfall, week ended May 5, 1899.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	αExcess.	αDefic'ncy.	Normal.	Excess.	Deficiency.
Atlantic Coast:						
Eastport, Me.....	42	4		.69		.49
Portland, Me.....	47	7		.74		.54
Northfield, Vt.....	45	11		.57		.47
Boston, Mass.....	50	10		.83		.88
Vineyard Haven, Mass.....	51	3		.68		.68
Nantucket, Mass.....	46	4		.82		.82
Woods Hole, Mass.....	47	3		.86		.86
Block Island, R. I.....	47	3		.83		.83
New Haven, Conn.....	50	6		.83		.83
Albany, N. Y.....	51	13		.64		.24
New York, N. Y.....	52	8		.77		.77
Harrisburg, Pa.....	56	8		.91		.91
Philadelphia, Pa.....	55	9		.70		.70
New Brunswick, N. J.....	54	6		.75		.65
Atlantic City, N. J.....	51	1		.70		.50
Baltimore, Md.....	58	8		.78		.48
Washington, D. C.....	57	8		.77		.72
Lynchburg, Va.....	60	6		.84		.64
Cape Henry, Va.....	59	1		.98		.98
Norfolk, Va.....	61	3		.91		.41
Charlotte, N. C.....	64	2		.85		.25
Raleigh, N. C.....	63	3		.73		.23
Kittyhawk, N. C.....	60	0		.97		.87
Hatteras, N. C.....	61	3		1.05		.75
Wilmington, N. C.....	65	1		.79		
Columbia, S. C.....	67	1		.70	.31	
Charleston, S. C.....	68	0		.84	.30	
Augusta, Ga.....	68	2		.70		.14
Savannah, Ga.....	70	0		.66		.50
Jacksonville, Fla.....	72	0		.71		.36
Jupiter, Fla.....	78		1	.79		.71
Key West, Fla.....	78		4	.35		.19
Gulf States:						
Atlanta, Ga.....	66	4		.77		.35
Tampa, Fla.....	73		1	.40		.67
Pensacola, Fla.....	71	3		.69		.40
Mobile, Ala.....	70	4		.88		.69
Montgomery, Ala.....	69	5		1.04		.88
Vicksburg, Miss.....	69	5		1.27		1.04
New Orleans, La.....	72	4		1.18		1.27
Shreveport, La.....	69	7		1.13		1.18
Fort Smith, Ark.....	65	9		1.20		1.13
Little Rock, Ark.....	66	8		1.20		1.10
Palestine, Tex.....	69	7		1.20		1.20
Galveston, Tex.....	73	0		.70		.70
San Antonio, Tex.....	72	6		.77		.77
Corpus Christi, Tex.....	73	3		.46		.46
Ohio Valley and Tennessee:						
Memphis, Tenn.....	66	10		1.25		1.25
Nashville, Tenn.....	64	8		1.10		.90
Chatanooga, Tenn.....	65	5		.98		.78
Knoxville, Tenn.....	62	6		1.05		.25
Louisville, Ky.....	61	11		.97		.37
Indianapolis, Ind.....	57	13		.91		.61
Cincinnati, Ohio.....	59	13		.77		.37
Columbus, Ohio.....	57	13		.84		.64
Parkersburg, W. Va.....	59	11		.84		.24
Pittsburg, Pa.....	56	14		.71	.19	
Lake Region:						
Oswego, N. Y.....	47	13		.55		.45
Rochester, N. Y.....	48	18		.64		.34
Buffalo, N. Y.....	46	18		.64		.64
Erie, Pa.....	48	16		.68		.68
Cleveland, Ohio.....	50	18		.60		.40
Sandusky, Ohio.....	52	16		.64		.44
Toledo, Ohio.....	52	18		.61		.11
Detroit, Mich.....	50	18		.62		.42
Lansing, Mich.....	53	17		.58	1.02	
Port Huron, Mich.....	46	18		.62		.42
Alpens, Mich.....	41	11		.67		.07
Sault Ste. Marie, Mich.....	43			.43		
Marquette, Mich.....	42	8		.50	1.10	
Green Bay, Wis.....	48	14		.61	2.79	

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

Table of temperature and rainfall, week ended May 5, 1899—Continued.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	α Excess.	α Defic ⁿ cy.	Normal.	Excess.	Deficiency.
Lake Region—Continued.						
Grand Haven, Mich.....	48	16		.64	1.16	
Milwaukee, Wis.....	47	13		.71		.21
Chicago, Ill.....	50	16		.77		.77
Duluth, Minn.....	42	4		.64	.96	
Upper Mississippi Valley:						
St. Paul, Minn.....	50	12		.69	.81	
La Crosse, Wis.....	52	10		.63	2.07	
Dubuque, Iowa.....	54	12		.71	2.69	
Davenport, Iowa.....	55	13		.76	.94	
Des Moines, Iowa.....	56	8		.83	.87	
Keokuk, Iowa.....	57	13		.85	1.35	
Hannibal, Mo.....	58	14		.71		
Springfield, Ill.....	58	14		.99		.99
Cairo, Ill.....	63	9		.88		.78
St. Louis, Mo.....	61	13		.96		.96
Missouri Valley:						
Columbia, Mo.....	59	11		1.20		1.00
Springfield, Mo.....	62	10		1.14		1.14
Kansas City, Mo.....	59	9		.82		.32
Topeka, Kans.....	61	5		.79		.29
Wichita, Kans.....	62	8		.64		.44
Concordia, Kans.....	59	9		.62		.52
Lincoln, Nebr.....	56	8		.69	.21	
Omaha, Nebr.....	56	8		.85	.45	
Sioux City, Iowa.....	58	6		.77		.27
Yankton, S. Dak.....	51	11		.84	.34	
Valentine, Nebr.....	51			.69		
Huron, S. Dak.....	50	8		.70	.00	
Pierre, S. Dak.....	52	6		.49	1.11	
Moorhead, Minn.....	46	8		.56	.84	
Bismarck, N. Dak.....	46	6		.62		.52
Williston, N. Dak.....	46	0		.42		.32
Rocky Mountain Region:						
Havre, Mont.....	47		3	.23		.08
Helena, Mont.....	46		4	.28		.28
Miles City, Mont.....	51		3	.35		.05
Rapid City, S. Dak.....	50	0		.64		.44
Spokane, Wash.....	51		5	.34	.06	
Wallawalla, Wash.....	56		8	.38	.42	
Baker City, Oreg.....	48		10	.30	.20	
Winnemucca, Nev.....	51		15	.28		.08
Idaho Falls, Idaho.....	48		6	.34		.14
Salt Lake City, Utah.....	53		7	.48		.28
Lander, Wyo.....	46		4	.64		.64
Cheyenne, Wyo.....	44	0		.42	.28	
North Platte, Nebr.....	52	4		.56	.24	
Denver, Colo.....	50	2		.62		.42
Pueblo, Colo.....	54	2		.42		.42
Dodge City, Kans.....	57	7		.48		.18
Oklahoma, Okla.....	64	6		.86		.86
Amarillo, Tex.....	59	5		.32		.22
Abilene, Tex.....	68	6		.77		.77
Santa Fe, N. Mex.....	51	1		.21		.21
El Paso, Tex.....	68		2	.07		.07
Phoenix, Ariz.....	70		8	.07		.07
Pacific Coast:						
Seattle, Wash.....	52		4	.69		.29
Tacoma, Wash.....	51		3	.76		.16
Fort Canby, Wash.....	49		3	1.16	.94	
Portland, Oreg.....	54		8	.62	.38	
Roseburg, Oreg.....	54		8	.55	.65	
Eureka, Cal.....	51		5	.77	.33	
Redbluff, Cal.....	63		11	.42	.38	
Carson City, Nev.....	51		13	.17	.13	
Sacramento, Cal.....	60		6	.43		
San Francisco, Cal.....	55		3	.31		.11
Fresno, Cal.....	63		11	.20		
San Luis Obispo, Cal.....	58		8	.28	1.32	
Los Angeles, Cal.....	60		4	.20		.10
San Diego, Cal.....	59		3	.14	.16	
Yuma, Ariz.....	73		9	.01		.01

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 May 5, 1899.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	Dec. 20-Mar. 21...		21	
Calcutta.....	Nov. 26-Mar. 18...		395	
Madras.....	Nov. 19-Feb. 24...		29	
Singapore.....	Dec. 1-Dec. 30...		1	

YELLOW FEVER.

Brazil:				
Bahia.....	Dec. 24-Apr. 8...	31	14	Yellow fever epidemic.
Idú.....	Mar. 21.....			
Rio de Janeiro.....	Nov. 11-Mar. 24...		342	
Colombia:				
Barranquilla.....	Dec. 2-Mar. 4...	8	8	
Cuba:				
Havana.....	Dec. 16-Apr. 13...		9	Removed from S. S. "North Anglia."
	Apr. 18.....	2		
Matanzas.....	Mar. 16-Mar. 30...	2		One in United States Army.
Mexico:				
Tampico.....	Apr. 20.....	1	0	
Vera Cruz.....	Dec. 8-Apr. 22...		46	

PLAGUE.

Arabia:				
Djiddah.....	Feb. 22-Mar. 31...		51	
China:				
Hongkong.....	Dec. 10-Jan. 21...	2	2	Outbreak of plague reported.
	Mar. 8-Mar. 21...	12	11	
	Apr. 11.....			
Formosa:				
Taichu.....	Jan. 12-Jan. 18...	1		Plague exists.
Tainan.....	Jan. 9-Jan. 18...	24	17	
Taipeh.....	Dec. 25.....	10	2	
Taiwan.....	Dec. 31.....			
Tamsui.....	Jan. 1-Jan. 10...	7	2	
India:				
Bombay.....	Nov. 22-Mar. 21...		2,503	Actual number probably 3,000.
Calcutta.....	Jan. 21-Mar. 18...		233	
Madras.....	Mar. 18-Mar. 24...		2	
Madagascar:				
Tamatave.....	Nov. 26-Feb. 8...	309	210	
Mauritius:				
Port Louis.....	Jan. 25.....	1	1	

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	
Ghent.....	Mar. 23-Apr. 8...		2	
Brazil:				
Bahia.....	Nov. 19-Apr. 8...	170	11	
Rio de Janeiro.....	Nov. 11-Mar. 24...	145	84	
Canada:				
Ontario:				
Coburg County.....	Jan. 30-Feb. 22...	1		
Dundas County.....	Jan. 30-Feb. 22...	1	1	
Dunham County.....	Jan. 30-Feb. 22...	1		
Essex County.....	Jan. 30-Feb. 22...	1		

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

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Ontario—Continued.				
Grenorth County.....	Jan. 30-Feb. 22...	5	1	
Kent County.....	Jan. 30-Feb. 22...	3	1	
Northumberland County.....	Jan. 30-Feb. 22...	1		
Prescott County.....	Jan. 30-Feb. 22...	15	3	
Stormont County.....	Jan. 30-Feb. 22...	11	1	
York County.....	Jan. 30-Feb. 22...	3	3	
Province of Quebec.....	Jan. 26-Apr. 21...	14	1	
China:				
Fuchou.....	Feb. 25.....			Smallpox prevalent.
Hongkong.....	Jan. 1-Mar. 11...	23	9	
Ceylon:				
Colombo.....	Dec. 24-Dec. 31...		1	
Colombia:				
Baranquilla.....	Mar. 25-Apr. 1...	2		
Cuba:				
Havana.....	Dec. 30.....	1		In United States Army.
Santiago.....	Apr. 14-Apr. 20.....		1	
	Feb. 23-Mar. 21.....	2		On steamship Thomas Brooks.
	Apr. 8-Apr. 15.....	4		
Egypt:				
Cairo.....	Jan. 16-Mar. 11.....		4	
England:				
Liverpool.....	Dec. 3-Mar. 18...	3	1	
London.....	Dec. 17-Apr. 15.....	12	1	
South Shields.....	Jan. 21-Jan. 28...	1		
Sunderland.....	Jan. 15-Jan. 21...	2		
France:				
Paris.....	Dec. 24-Feb. 11.....		3	
Gibraltar:				
	Jan. 30-Feb. 12...	2	1	
Greece:				
Athens.....	Mar. 11-Apr. 15...	116	63	
India:				
Bombay.....	Nov. 22-Mar. 21...		24	
Calcutta.....	Nov. 19-Mar. 18...		13	
Colombo.....	Dec. 24-Dec. 31...		1	
Madras.....	Nov. 26-Mar. 3...		6	
Singapore.....	Dec. 1-Jan. 31...		22	
Italy:				
Milan.....	Jan. 22-Jan. 23...	1		
Japan:				
Awamori 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...	3		
The Hokkaido.....	Nov. 18-Dec. 8...	8		
Tottori Ken.....	Nov. 18-Dec. 8...	3		
Korea:				
Seoul.....	Jan. 1-Mar. 11.....			Smallpox endemic.
Madagascar:				
Tamatave.....	Jan. 18-Jan. 25...	8		
Tananarivo.....	Nov. 26-Jan. 18...	123	6	
Mexico:				
C. P. Diaz.....	Jan. 10.....			Do.
Chihuahua.....	Feb. 11-Feb. 25...	10		
City of Mexico.....	Jan. 7-Apr. 22...		13	
Fuente.....	Dec. 31-Apr. 16...		28	
Guerrero.....	Apr. 11.....	2		
Juarez.....	Mar. 13.....	2		
Monterey.....	Feb. 18.....	15		
Monterey.....	Dec. 2-Jan. 5.....		3	
Nuevo Laredo.....	Jan. 29-Feb. 4...	9	1	
Vera Cruz.....	Jan. 5-Mar. 17...		5	
Nicaragua:				
Bluefields.....	Apr. 18.....	1		
Russia:				
Moscow.....	Dec. 24-Apr. 1...	132	44	
Odesa.....	Jan. 7-Apr. 8...	26	5	
St. Petersburg.....	Jan. 1-Apr. 8...	88	16	
Warsaw.....	Jan. 16-Apr. 1...		19	
Turkey:				
Bagdad.....	Oct. 22-Nov. 27...	96	20	
Constantinople.....	Jan. 2-Apr. 10...		146	
Rhodes.....	Apr. 17.....	1		
Smyrna.....	Dec. 25-Mar. 26...		10	
Uruguay:				
Montevideo.....	Mar. 1-Mar. 18...		1	

BRAZIL.

*Sanitary report from Rio de Janeiro.*RIO DE JANEIRO, *March 21, 1899.*

SIR: I have the honor to transmit to you the official report for the week ended March 10:

There were 466 deaths from all causes, an increase of 66 as compared with the foregoing week; 41 deaths from *accessio pernicioso*, an increase of 9; 58 deaths from yellow fever, an increase of 7; 7 deaths from small-pox, an increase of 3; 2 deaths from typhoid fever, a decrease of 2; 2 deaths from measles, an increase of 1; 1 death from whooping cough, none before; 2 deaths from beriberi, a decrease of 1, and 58 deaths from tuberculosis, an increase of 8.

Information.—An extraordinary spell of hot weather has prevailed for about two weeks, only once interrupted by a three hours' shower. In general even the evenings and nights are hot and afford no relief to the people.

Yellow fever is increasing slowly but steadily. Since the week ended January 27, the following reports have been made per week: Forty-seven cases and 28 deaths, 48 cases and 41 deaths, 65 cases and 50 deaths, 68 cases and 37 deaths, 65 cases and 41 deaths, 82 cases and 51 deaths, and 91 cases and 58 deaths; therefore, we may observe a slow increase of the disease.

Besides there have been reported in the respective weeks: Eleven, 21, 25, 33, 24, 32, 41 deaths from *accessio pernicioso*, a considerable number of these have undoubtedly been caused by yellow fever.

Light yellow fever cases, with proper means of treatment, have in general not been reported.

It may be asserted that at present yellow fever is widely disseminated, but on the whole the character is not very virulent.

There have also been many cases of angina, bronchitis, and rheumatic diseases; also many fever forms of malaria are observed. To these diseases the public and many physicians prefer to give the name of influenza.

The very unsatisfactory sanitary condition, described by me some weeks ago, in the vicinity of the botanical garden, has continued to produce fatal consequences, making many victims of yellow fever. The government has now taken the matter in hand and has made an agreement with the City Improvements Company for improving this situation.

In consequence of the financial and commercial depression in Brazil, there has been a remarkable decrease in the number of vessels arriving in this port. Those which have arrived with cargo and have been unable to obtain returning cargo have frequently sailed in ballast for ports in the United States. In consequence of the decreasing trade, the intercourse with the United States has diminished, as is shown by the decrease in the number of bills of health issued by this consulate-general.

In general, the sanitary state in the shipping is satisfactory. Gastritis, enteritis, and bronchitis are observed, where, however, there have been few cases of yellow fever, and not many of these have been fatal. On board of the large French passenger steamer *Brésil* there appeared several yellow fever cases. The patients were left at Bahia.

Reports in regard to the sanitary state of Santos and Sao Paulo are very favorable. According to these reports during the present season yellow fever has not appeared at either of these places.

To the interior of the State of Sao Paulo, at the small city of Itu, a yellow fever epidemic has been reported and the State health authorities have sent a commission there to observe the progress of the disease and to report thereon.

The extinction of the yellow fever epidemic at Victoria is officially reported.

Since last report, the following-named ships have been inspected and received bills of health of this office: March 18, steamship *Carolina*, French, for Galveston; steamship *Carolina*, French, for New Orleans. March 22, steamship *Buffon*, British, for New York.

Respectfully, yours,

W. HAVELBURG, M. D.

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

The SUPERVISING SURGEON-GENERAL,

U. S. Marine-Hospital Service.

RIO DE JANEIRO, *April 5, 1899.*

SIR: I have the honor to transmit to you the official reports for the last two weeks ended March 17 and 24, respectively:

During the week ended March 17, there were 453 deaths from all causes, an increase of 13, as compared with the foregoing week; 49 deaths from yellow fever, a decrease of 9; 6 deaths from smallpox, a decrease of 1; 3 deaths from typhoid fever, an increase of 1; 2 deaths from measles, a decrease of 1; no death from whooping cough, 1 before; 4 deaths from beriberi, an increase of 2; 50 deaths from tuberculosis, a decrease of 8, and 42 deaths from *accesso pernicioso*, an increase of 1.

During the week ended March 24 there were 412 deaths from all causes, a decrease of 41 as compared with the foregoing week; 39 deaths from *accesso pernicioso*, a decrease of 3; 39 deaths from yellow fever, a decrease of 10; 5 deaths from smallpox, a decrease of 1; 2 deaths from typhoid fever, a decrease of 1; 1 death from measles, the same as before; 1 death from influenza, none before; 5 deaths from beriberi, an increase of 1, and 36 deaths from tuberculosis, a decrease of 14.

Since last report the following-named ships have been inspected and received bills of health of this office: March 23, steamship *Manitoba*, British, for New York; bark *Julia Rollens*, American, for Baltimore; bark *Crown Prince*, Norwegian, for Sapelo. March 24, barkentine *Good News*, American, for Baltimore; bark *Amelie*, Russian, for Pen-sacola. March 30, steamship *Galileo*, Belgian, for New York.

Respectfully, yours,

W. HAVELBURG, M. D.,

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

The SUPERVISING SURGEON-GENERAL,

U. S. Marine-Hospital Service.

Reports yellow fever at Bahia.

DEPARTMENT OF STATE,

Washington, D. C., April 28, 1899.

SIR: I have the honor, by direction of the Secretary of State, to inform you that our consul at Bahia, Brazil, reported by telegraph on the 26th instant, the appearance of yellow fever at that place.

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

JNO. W. CRIDLER,

Third Assistant Secretary.

HON. SECRETARY OF THE TREASURY.

CUBA.

*Sanitary report from Santiago.*SANTIAGO DE CUBA, *April 15, 1899.*

SIR: I have the honor to report that, during the week ended April 15, there was a total of 24 deaths in the civil population of this city. The principal causes of death were ictericia grava, 1; tuberculosis, 4; malarial diseases, 4; dysentery, 3; enteritis, 2; pneumonia, 2.

More than the usual number of cases of calentura have been noticed in the city lately. The digging up of the streets, in order to lay the new water and sewer mains, is believed to be the cause of this.

Several cases of diphtheria have been treated by physicians in private practice during the past two weeks. There were no deaths from this cause. No more cases of smallpox have been reported.

A total of 24 vessels was inspected during the past week. Of these, 17 were inspected and admitted to free pratique, and 7 were inspected and given bills of health, prior to departure. None were quarantined.

Many passengers leaving here for the United States, by way of Havana, were vaccinated and given "health and acclimation certificates." Also many passengers leaving here direct for New York were vaccinated and certificates issued to this effect.

In accordance with Bureau approval the disinfecting barge has been renamed *Rough Rider*.

The preliminary repairs to the deck having been completed, the disinfecting machinery is now being placed on board.

Respectfully, yours,

M. J. ROSENAU,

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

The SUPERVISING SURGEON-GENERAL,

U. S. Marine-Hospital Service.

GUADELOUPE.

Quarantine against Porto Rico on account of smallpox.

CONSULATE OF THE UNITED STATES,

Guadeloupe, West Indies, March 27, 1899.

SIR: I have the honor to report that I have to-day been officially informed by the chief medical officer here that quarantine has been declared against Porto Rico on account of smallpox which is alleged to exist there.

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

LOUIS H. AYME,

United States Consul.

Hon. ASSISTANT SECRETARY OF STATE.

GUATEMALA.

Sanitary report from Livingston.

LIVINGSTON, GUATEMALA, *April 19, 1899.*

SIR: I have the honor to report the health conditions of this place and Puerto Banios and contiguous territory as being entirely satisfactory. Aside from the epidemic of whooping cough at this place, there is almost no sickness.

Your favor of recent date, making modification as to quarantine regulations at these ports, was received yesterday. Your directions will be strictly enforced.

Respectfully, yours,

N. K. VANCE,

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

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

HONDURAS.

Sanitary report from Belize.

BELIZE, BRITISH HONDURAS, *April 21, 1899.*

SIR: Circular letter of April 8 to hand; will be attended to regularly as directed.

The steamship *Stillwater* sails this p. m. for New Orleans. I have examined the master and crew; find them all in good health. All passengers from this port have complied with regulations governing vessels sailing for United States ports.

The sanitary conditions of Belize are fairly good. There are no contagious or infectious diseases in Belize or near surrounding colony. The prevailing diseases are at present malarial and intermittent fevers, pneumonia, and whooping cough.

Find inclosed weekly death report of the registrar-general.

Very respectfully,

C. W. KNIGHT, M. D.,

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

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

[Inclosure.]

List of deaths registered in the town of Belize, from the 14th instant to date.

GENERAL REGISTRY, *April 20, 1899.*

Certified by medical practitioner, diarrhea, 2; gastritis, 1; pneumonia, 2. Certified by district commissioner or police, natural causes, 1. Total, 6.

A. H. YOUNG,
Registrar-General.

Health of La Ceiba.

LA CEIBA, HONDURAS, *April 19, 1899.*

SIR: Answering your letter of 10th instant, I have the honor to state that this port and surrounding territory, from the information I have at hand, is having for the season an unusual condition of health. I can hear of no serious sickness whatever.

Respectfully, yours,

WM. T. HAMILTON,

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

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

Sanitary report from Puerto Cortez.

PUERTO CORTEZ, HONDURAS, *April 18, 1899.*

SIR: Your communication of 10th instant to hand to-day, and by steamship *Stillwater*, leaving this port tomorrow, 19th instant, I have

the honor to report. I have now been twenty-one days in port, and have taken pains to inquire as to the health conditions. There is absolutely no disease existing. I have been called upon to prescribe for several cases of chronic malarial and liver troubles with enlarged spleen, etc. Have seen 2 cases of acute quotidian malarial fever, which have readily yielded to the usual remedies. There has been 1 death in the port since my arrival, that a suicide. I have been requested by the authorities here to order for them a supply of vaccine, to be sent to the capital, more than one hundred miles in the interior, where a case or two of smallpox has been reported, my inquiry failed to elicit a report of any nearer this port. I have in course of preparation a more detailed report on the sanitary history, past and present, of this place and adjacent territory, which I hope to transmit at an early date. * * * I will transmit my weekly reports by the regular line of mail steamers, one of which leaves this port every Thursday.

Respectfully submitted,

L. A. WAILES,

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

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

JAPAN.

Sanitary report from Yokohama.

YOKOHAMA, JAPAN, *April 10, 1899.*

SIR: I have the honor to report that the sanitary condition of Japan is, on the whole, satisfactory.

Plague continues subepidemic in Formosa, and, at isolated points in Japan proper, a few cases of smallpox exist, but in the ports and their neighborhoods, which are in any direct communication with the United States, no infectious disease of a quarantinable nature is present.

In view of the occurrence of both variola and plague at Hongkong, I am making the examination of passengers and crews of vessels from that port especially rigid.

Respectfully, yours,

STUART ELDRIDGE,

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

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

MEXICO.

Report of yellow fever in Tampico.

TAMPICO, MEXICO, *April 20, 1899.*

SIR: From a very reliable source I learn that there was a case of yellow fever here ten days ago, a child 3 years old, died. There have been no other cases. The danger of infection through El Paso and Laredo via railroad, is as great as that by sea. From the agent of the Ward line of steamers I heard that their steamer to New Orleans would go only to Mobile during the summer. * * *

Yours, very truly,

SAM'L H. HODGSON,

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

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

*Sanitary report from Vera Cruz.*VERA CRUZ, MEXICO, *April 25, 1899.*

SIR: I arrived Saturday from Tampico, and immediately commenced to secure information here in regard to the prevalence of yellow fever.

From the city health reports and native physicians I learned that only a few cases now exist in the port, and those of the ordinary type, the mortality being about 41 per cent.

The epidemic (?) commenced last August, the eight previous months no cases having been reported. The records show deaths from yellow fever annually for the last thirty-three years. For many years it has been necessary to report all deaths and causes before a burial permit was issued. About three years ago a law was passed making it compulsory to report all contagious and infectious diseases. I understand that the poorer classes have the majority of cases, and treat them with domestic remedies, and never report any cases until all of their remedies have proved unsuccessful, consequently the percentage of deaths in hospitals and physicians practice is larger than it should be.

The shipping is free from the disease at present, and has been so for several years, why I do not know. The stevedores are natives, and it is this class that are especially prone to the fever, they go aboard the vessels direct from the infected districts, and keep up a constant intercourse with the ships as long as they are in the harbor.

The crews of American vessels are not allowed ashore either day or night. The baggage of all passengers leaving Vera Cruz by sea is fumigated before going aboard the vessels.

Vessels leaving for United States Gulf ports will not take passengers. Passengers and baggage can get from here into Texas in three and one-half days by rail, without fumigation.*

In the course of ten days I expect to forward you a map of the city with explanatory tables and statistics, also information in regard to possible dangerous routes to the United States.

Yours, very truly,

SAM'L H. HODGSON,

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

The SUPERVISING SURGEON-GENERAL,

U. S. Marine-Hospital Service.

NICARAGUA.

*Smallpox in Bluefields.*BLUEFIELDS, NICARAGUA, *April 18, 1899.*

SIR: Since my last report I have found 1 case of variola, mild but undoubted. It is in the person of a soldier from the interior. He is now isolated and his effects have been either disinfected or destroyed. I have directed the agents of the steamship lines to order by return steamer vaccine virus, and immediately on its receipt will vaccinate laborers, etc. Have also suggested to the officials the propriety of their ordering virus to vaccinate all soldiers, and, if the disease spreads, instituting a general vaccination in the town.

Very respectfully,

D. W. GOODMAN,

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

The SUPERVISING SURGEON GENERAL,

U. S. Marine-Hospital Service.

*Sanitary inspectors are stationed at Eagle Pass, Laredo, and El Paso, Tex., to inspect passenger traffic from Mexico.

TURKEY.

Epizootic bulletin.

[Translated in this Bureau from copy officially forwarded.]

Trebizonde—March 30, 1899.—The sheep pox which prevailed at Djevizli has completely disappeared.

Salonica—April 25.—The sheep pox which existed at Djoumay-Bala, and the epidemic of bovine anthrax which prevailed at Tikrech have disappeared. Since March 26 the foot and mouth disease has appeared among the cattle in the district of Persitcham and at Timour-Hissar.

Constantinople—April 20.—Glanders continues in the stables of the tramway company at Chichli.

TURKEY.

Sanitary report from Constantinople.

[Report No. 215.]

CONSTANTINOPLE, *April 17, 1899.*

The number of deaths from bubonic plague registered at Djiddah since its first outbreak on the 23d of last February is 91.

On the 7th of last March, 1 bubonic plague case was observed at Mecca. One month later, on the 7th instant, a second case of the same illness was observed at the same town. It was on a poor pilgrim, who had come from the northwest of Africa, from Algiers or Morocco. I suppose he passed through Djiddah. The sanitary physician does not give any detail. Two days later, said physician wires that a woman pilgrim, also from the northwest of Africa, presented a bubo in the groin, with high fever, characteristic tongue, headache, and prostration. He states in said telegram that said woman came from Djiddah.

At the sitting of the International Sanitary Commission, held the 6th instant, the British sanitary commissioner communicated that a passenger of the B. I. C. steamship *Golconda*, arrived at Plymouth on the 24th of last December, presenting the symptoms of bubonic plague. He embarked at Calcutta on the 19th of November, and during his voyage he landed at Colombo the 25th or the 26th of November, the 10th of December at Port Said, and on the 14th and 17th at Naples and Marseilles. He was ill and certainly he could spread bubonic plague to the above-mentioned places. At Plymouth all the necessary sanitary steps were taken to prevent the spread of the disease. I forward a French copy of said communication, as well as a communication of the Russian sanitary commissioner concerning the lazarettos in the Red Sea, of which communications I spoke in my last report.

The Ottoman sanitary commissioner to the International Sanitary Commission in Alexandria reports under date of March 8 that the English steamship *Peninsular* had left Bombay the 25th of February bound for Marseilles and London. On the 6th of March she arrived at Suez, presenting a good sanitary condition as reported by the Suez sanitary physician. On the 7th of March she arrived at Port Said, and the physicians of the board declared to the sanitary authorities of said city that an East India man, a fireman, was ill, presenting high fever and enlargement of the axillary glands. The sanitary authorities of

Port Said did not allow the landing of anybody and the *Peninsular* continued her voyage.

The sanitary physician of Bassorah states in his report, under date of January 22, that the number of passengers who undergo their quarantine in that lazaretto is not in proportion with the little room of said lazaretto, and he is forced to lodge them in the three badly built and, in winter time, uninhabitable serife (straw huts). The deck passengers take all the room, and the first-class passengers are obliged to undergo their quarantine in the same buildings with the deck passengers. He says that if the first-class passengers complain against him (the physician) he is not responsible for the condition of the lazaretto, but he can not accept their complaints concerning the cleanliness of said lazaretto, because he looks after it every day, and he says that said complaints are groundless. (See my report No. 209, dated January 16, 1899.)

From the other provinces the sanitary reports state that in the island of Rhodes there is chicken pox, and only 1 case of smallpox has been observed. It was imported from Macri, in Asia Minor. At Damascus the public health is as good as possible. From Haneguine it is stated that the sanitary physician has offered his services to vaccinate gratis the population of the city if the Government would provide him the lymph. He received 44 tubes of calf lymph, but all of them were so old that not one vaccination proved successful. From Bassorah it is stated that measles is raging fiercely and all ages are attacked. The number of deaths registered in Constantinople from the 27th of March to the 10th instant is 577, from which 5 are from diphtheria, 10 from measles, 14 from smallpox, 17 from typhoid fever, and 80 from acute inflammation of the lungs.

SPIRIDION C. ZAVITZIANO,
U. S. Sanitary Commissioner.

Communication read by the English delegate at the session of the Council of Health held April 6, 1899.

[Inclosure No. 1.—Translated in this Bureau from reports officially forwarded.]

CONSTANTINOPLE, *April 6, 1898.*

A passenger named Wilcox arrived at Plymouth December 24, 1898, on the British India Company's vessel *Golconda*, was found to be suffering from bubonic plague and removed to the floating hospital of the port.

All measures of disinfection with regard to the *Golconda* were taken by the port physician at Plymouth. Some of the passengers were disembarked at Plymouth and the rest at Gravesend, the final destination of the vessel. Mr. Wilcox had embarked at Calcutta on the *Golconda* November 19. In the course of the voyage he landed at Colombo, November 25 or 26; at Port Said, December 10; at Naples, December 14, and at Marseilles on the 17th of the same month. The vessel left Marseilles December 18, and on the 19th Mr. Wilcox found himself so ill that he called in the ship's doctor, who declared that he was attacked by bubonic plague and caused him to be immediately isolated.

From the history of this case, as related by the patient himself, it appears that Wilcox suffered from slight symptoms of plague, characterized by painful buboes accompanied by a febrile condition from November 26, after his departure from Colombo, up to December 19, when he had recourse to the ship's doctor. He was consequently suffering with plague when he landed at Port Said, Naples, and Marseilles.

E. D. DICKSON,
Delegate of England.

[Inclosure No. 2.]

Early in the month of February, Colonel Artamonoff, of the Russian staff, returning from Abyssinia, visited some stations of the Red Sea in order to report on the measures taken at these stations against plague.

Colonel Artamonoff has some experience in the matter of sanitation, having had com-

mand of the regiment detailed to supervise the execution of prophylactic measures in the Caspian provinces during the prevalence there of the last cholera epidemic.

Colonel Artamonoff asserts that plague was carried to Tamatave by sambouks arriving from Bombay. Thanks to the energetic measures taken plague has disappeared at Tamatave. The prohibition of departures from Tamatave during the epidemic probably saved Europe from plague contamination.

At Aden, Colonel Artamonoff states, quarantine exists only in name. Vessels arrive daily from India with sick persons, remain in port one or two days, and receive free pratique, and depart for Europe. Bodies of persons who have died of plague on the voyage are thrown into the sea. If all vessels, with or without pilgrims, stopped at Camaran it is probable that plague would not be propagated. Camaran, with its magnificent quarantine structures and its complete disinfection plant, is unique as a Red Sea station, and constitutes the best and only real defence against the introduction of plague and cholera.

At Djiddah, in spite of the revolt of the people against sanitary measures, the agents of the health office, aided by the authorities, have done much to arrest the disease. Plague might, however, very well be imported into the Hedjaz by clandestine arrivals from infected countries, contraband trade being general on the Red Sea coast, especially in the vicinity of Djiddah.

As regards the lazaretto in Egypt, the measures taken at that station against plague are not reassuring and are very carelessly executed. The general service makes deplorably slow progress. In consequence, Europe can rely for protection only on Camaran. It is necessary that an international flotilla be stationed permanently either at Suez or Port Said to detain and hold in observation for several days every vessel arriving from infected countries. Only by this means is it possible to avoid the occurrence of cases similar to that of the *Peninsular*, on board of which 2 cases of plague broke out. One of the persons attacked died during the voyage, and the body was thrown into the sea before the arrival of the steamer at Suez.

FOREIGN STATISTICAL REPORTS.

AUSTRALIA—*New South Wales*—*Sydney*.—Month of February, 1899. Estimated population, 426,950. Total number of deaths, 415, including diphtheria, 1; enteric fever, 12; measles, 1; scarlet fever, 1; whooping cough, 30, and 37 from phthisis pulmonalis.

AUSTRIA—*Brunn*.—Month of February, 1899. Estimated population, 82,600. Total number of deaths, 263, including diphtheria, 1; enteric fever, 2; measles, 7; scarlet fever, 2, and 63 from phthisis pulmonalis.

BAHAMAS—*Dunmore Town*.—Two weeks ended April 24, 1899. Estimated population, 1,472. Total number of deaths, 1. No contagious diseases.

Governors Harbor.—Week ended April 22. Estimated population, 1,500. Total number of deaths, 2. No contagious diseases.

Green Turtle Cay.—Two weeks ended April 20. Estimated population, 3,900. No deaths and no contagious diseases.

Inagua.—Three months ended March 31. Estimated population, 1,200. No deaths and no contagious diseases.

Nassau.—Two weeks ended April 26. Estimated population, 12,000. Number of deaths not reported. No contagious diseases reported.

BERMUDA.—Two weeks ended April 14, 1899. Estimated population, 15,013. No deaths and no contagious diseases.

BRAZIL—*Ceará*.—Month of March, 1899. Estimated population, 50,000. Total number of deaths, 340. No contagious diseases reported.

COLOMBIA—*Colon*.—Two weeks ended April 23, 1899. Estimated population, 8,000. Total number of deaths, 7. No contagious diseases.

FRANCE—*Rouen*.—Month of March, 1899. Estimated population, 112,657. Total number of deaths, 365, including diphtheria, 2; enteric fever, 2; measles, 15; scarlet fever, 2; whooping cough, 5, and 54 from phthisis pulmonalis.

St. Etienne.—Two weeks ended March 31, 1899. Estimated population, 135,784. Total number of deaths, 147, including 17 from phthisis pulmonalis.

GREAT BRITAIN—*England and Wales*.—The deaths registered in 33 great towns in England and Wales during the week ended April 8, 1899, correspond to an annual rate of 21.7 a thousand of the aggregate population, which is estimated at 11,404,408. The highest rate was recorded in Wolverhampton, viz, 39.9, and the lowest in Cardiff, viz, 11.8.

London.—One thousand eight hundred and sixteen deaths were registered during the week, including measles, 29; scarlet fever, 8; diphtheria, 34; whooping cough, 58; enteric fever, 6, and diarrhea and dysentery, 11. The deaths from all causes correspond to an annual rate of 20.8 a thousand. In Greater London 2,427 deaths were registered, corresponding to an annual rate of 19.4 a thousand of the population. In the "outer ring" the deaths included 10 from diphtheria, 13 from measles, 2 from scarlet fever, and 15 from whooping cough.

Ireland.—The average annual death rate represented by the deaths registered during the week ended April 8, 1899, in the 23 principal town districts of Ireland was 27.3 a thousand of the population, which is estimated at 1,053,188. The lowest rate was recorded in Carrickfergus, viz, 5.8, and the highest in Ballymena, viz, 39.5 a thousand. In Dublin and suburbs 220 deaths were registered, including diphtheria, 3; enteric fever, 4; influenza, 15; measles 2, and whooping cough, 5.

Scotland.—The deaths registered in 8 principal towns during the week ended April 8, 1899, correspond to an annual rate of 21.8 a thousand of the population, which is estimated at 1,587,414. The lowest mortality was recorded in Edinburgh, viz, 17.7, and the highest in Aberdeen, viz, 27.3 a thousand. The aggregate number of deaths registered from all causes was 665, including diphtheria, 9; measles, 22; scarlet fever, 3, and whooping cough, 23.

GREAT BRITAIN—*England and Wales*.—The deaths registered in 33 great towns in England and Wales during the week ended April 15, 1899, correspond to an annual rate of 19.5 a thousand of the aggregate population, which is estimated at 11,404,408. The highest rate was recorded in Manchester, viz, 28.3, and the lowest in Cardiff, viz, 11.2.

London.—One thousand six hundred and twenty-four deaths were registered during the week, including measles, 34; scarlet fever, 6; diphtheria, 20; whooping cough, 54; enteric fever, 14, and diarrhea and dysentery 4. The deaths from all causes correspond to an annual rate of 18.6 a thousand. In Greater London, 2,101 deaths were regis-

tered, corresponding to an annual rate of 16.8 a thousand of the population. In the "outer ring" the deaths included 12 from diphtheria, 11 from measles, 2 from scarlet fever, and 17 from whooping cough.

Ireland.—The average annual death rate represented by the deaths registered during the week ended April 15, 1899, in the 23 principal town districts of Ireland was 25.4 a thousand of the population, which is estimated at 1,053,188. The lowest rate was recorded in Drogheda, viz, 7.6, and the highest in Kilkenny, viz, 56.6 a thousand. In Dublin and suburbs 224 deaths were registered, including diphtheria, 2; enteric fever, 4; influenza, 15, and whooping cough, 4.

Scotland.—The deaths registered in 8 principal towns during the week ended April 15, 1899, correspond to an annual rate of 19.3 a thousand of the population, which is estimated at 1,587,414. The lowest mortality was recorded in Paisley, viz, 16.2, and the highest in Perth, viz, 27.1 a thousand. The aggregate number of deaths registered from all causes was 589, including diphtheria, 2; measles, 13; scarlet fever, 7, and whooping cough, 16.

Dundee.—Month of March, 1899. Estimated population, 160,000. Total number of deaths, 264, including diphtheria, 2; measles, 1; scarlet fever, 2; whooping cough, 13, and 22 from phthisis pulmonalis.

ITALY—Florence.—Month of February, 1899. Estimated population, 199,080. Total number of deaths, 352, including diphtheria, 4; enteric fever, 4, and 40 from phthisis pulmonalis.

JAVA—Batavia.—Two weeks ended March 25, 1899. Estimated population, 150,000. Number of deaths not reported. No contagious diseases reported.

NORFOLK ISLAND.—Month of February, 1899. Estimated population, 846. Total number of deaths, 5, including 1 from tuberculosis.

PARAGUAY—Asuncion.—From February 13 to March 13, 1899. Estimated population, 45,000. Total number of deaths, 56. No contagious diseases.

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.....	Apr. 15.....	6,000	6										
Do.....	Apr. 22.....	6,000	3										
Amherstburg.....	do.....	2,300	1					1					
Amsterdam.....	Apr. 14.....	515,669	162					1	1				5
Athens.....	Apr. 8.....	200,000				11							
Do.....	Apr. 15.....	200,000				5							
Bahia.....	Apr. 8.....	200,000			1								
Belfast.....	Apr. 15.....	350,000						3			1	3	8
Belize.....	Apr. 20.....	13,000	5										
Belleville.....	Apr. 24.....	10,399	5										
Bergen.....	Apr. 12.....	65,000	21										
Berlin.....	Apr. 1.....	1,747,903	691					2	13	9	11		
Birmingham.....	Apr. 15.....	510,343	229					2		2	7		4
Bluefields.....	do.....	3,018	1										
Bradford.....	do.....	231,260	77						5	1			2
Bremen.....	Apr. 8.....	144,500	53										
Breslau.....	do.....	300,000	188						1	1			
Bristol.....	Apr. 15.....	320,911	106						1	1	2		5
Brussels.....	Apr. 8.....	551,641	180					2		2	5		1
Budapest.....	Apr. 9.....	650,000					5		3		7		
Callao.....	Mar. 26.....	25,000	15										
Chemnitz.....	Apr. 8.....	172,840	134							1			
Chihuahua.....	Apr. 15.....	24,000	20			1					1		
Do.....	Apr. 22.....	24,000	26			2				1	1		
Cardiff.....	Apr. 15.....	185,826	40					1					6
Cartagena.....	do.....	25,000	6										
Catania.....	Apr. 13.....	124,000	63				1	4	2				
Christiania.....	Apr. 8.....	207,000	94						1				2
Do.....	Apr. 15.....	207,000	64										
Constantinople.....	Apr. 10.....	750,000	292			8		11		3	7		
Copenhagen.....	Apr. 8.....	351,000	133				1	4	1	3	1		
Crefeld.....	Apr. 15.....	110,000	39							3			
Dublin.....	do.....	350,000	224					4		2			4
Dundee.....	do.....	166,072	68				1	1					2
Edinburgh.....	Apr. 8.....	298,927	102						1		5		7
Do.....	Apr. 15.....	298,927	103						2		2		8
Ensenada.....	Apr. 22.....	2,700	1										
Flushing.....	Apr. 15.....	18,371	8										
Frankfort-on-the-Main.....	Apr. 8.....	253,000	37						2	1			
Funchal.....	Apr. 9.....	36,982	19						3				
Do.....	Apr. 16.....	36,982	19								2		
Geneva.....	Mar. 25.....	95,348	30							5			
Ghent.....	Apr. 15.....	162,652	76					1					
Gibraltar.....	Apr. 9.....	25,900	8										
Do.....	Apr. 16.....	25,900	6										
Girgenti.....	Apr. 1.....	24,428	9										
Do.....	Apr. 8.....	24,428	13										
Glasgow.....	Apr. 15.....	724,349	259				1		3	2	8		3
Gothenburg.....	Apr. 8.....	122,205	37						1				
Guatemala City.....	Apr. 10.....	65,000	59					1					
Guayaquil.....	Mar. 25.....	50,000	79										
Do.....	Apr. 1.....	50,000	71										
Halifax.....	Apr. 22.....	45,000	17										
Hamilton, Bermuda.....	Apr. 25.....	16,000	3										
Kingston, Canada.....	Apr. 28.....	18,800	8										
Leeds.....	Apr. 15.....	423,889	135						4	2	5		4
Leipsic.....	Apr. 8.....	430,625	179						2	1	1		
Leith.....	do.....	77,385	32								2		
Do.....	Apr. 15.....	77,385	28										4
Licata.....	Apr. 8.....	20,000	15				1	3					
Do.....	Apr. 15.....	20,000	16					2					
Liege.....	Apr. 8.....	169,518	89								1		2
Liverpool.....	do.....	668,645	318					5		4	1		3
Do.....	Apr. 15.....	668,645	307					4	1	3	2		3
Livingston, Guatemala.....	do.....	1,500	3										2
London, Canada.....	Apr. 12.....	42,000	25										
London, England.....	Apr. 15.....	6,528,434	2,101					15	8	32	45		17
Lyons.....	Apr. 8.....	466,028	236							2	1		1
Madras.....	Mar. 17.....	452,518	316			1					3		
Do.....	Mar. 24.....	452,518	285										

a Plague.

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.
Manchester.....	Apr. 15.....	546,010	207					1	2	1	31	8
Mannheim.....	Apr. 8.....	124,142	39							1		
Maracaibo.....	Apr. 15.....	50,000	22									
Marseilles.....	Apr. 16.....	447,344	303									
Matamoros.....	Apr. 21.....	16,304	9									
Mazatlan.....	Apr. 15.....	16,700	25									
Melbourne.....	Mar. 11.....	450,000						2	1	1		
Do.....	Mar. 18.....	450,000						9		2		
Messina.....	Apr. 8.....	107,000	39									
Do.....	Apr. 15.....	107,000	45									
Mexico.....	Apr. 16.....	344,377	377									
Monterey.....	Apr. 20.....	25,000	69			4	9		3	1		7
Montevideo.....	Apr. 18.....	215,061	49					1				
Moscow.....	Apr. 1.....	1,000,000	489			3	1	1	6	5	13	1
Nagasaki.....	Mar. 23.....	182,000	8					1		8		
New Castle on Tyne.....	Apr. 15.....	223,000								1		
Nice.....	Apr. 16.....	114,000	53							1	2	
Nuremberg.....	Mar. 25.....	230,000	122									4
Odessa.....	Apr. 8.....	400,600	150			1		1	1	3	1	2
Palermo.....	Apr. 1.....	300,000	126									
Do.....	Apr. 8.....	300,000	123						2	2		
Plymouth.....	Apr. 15.....	99,848	37									4
Prague.....	Apr. 8.....	190,260	167							2	3	1
Progreso.....	do.....	4,800	6									
Do.....	Apr. 15.....	4,800	7									1
Puerto Cabello.....	Mar. 31.....	17,000	5									
Do.....	Apr. 8.....	17,000	7									
Puerto Cortes.....	Apr. 19.....	2,000	9									
Quebec.....	Apr. 22.....	73,000							2			
Rheims.....	Apr. 15.....	107,709	47									
Rio de Janeiro.....	Mar. 10.....	768,000	a 466	58	7			2			2	1
Do.....	Mar. 17.....	768,000	b 453	49	6			3			1	
Do.....	Mar. 24.....	768,000	c 412	39	5			2			1	
Rotterdam.....	Apr. 15.....	311,301	124							4		
St. Georges, Bermuda.....	Apr. 22.....	2,150	2									
St. Petersburg.....	Apr. 8.....	1,267,023	643			5	1	24	7	19	17	7
St. Stephen, New Brunswick.....	Apr. 22.....	3,000	1									
St. Thomas, West Indies.....	Apr. 7.....	12,019	0									
Sheffield.....	Apr. 15.....	362,400	118					3	1	7		
Solingen.....	Apr. 8.....	16,000	11							2		
Southampton.....	do.....	103,168	47							2		1
South Shields.....	Apr. 15.....	102,312	46					1	1			
Stettin.....	Apr. 8.....	150,000	63							1		
Stockholm.....	do.....	283,550	129						2	2	7	2
Stuttgart.....	Apr. 13.....	162,934	51									
Sunderland.....	Apr. 15.....	145,613	62					2	2	1		3
Trapani.....	Apr. 1.....	45,095	18									
Do.....	Apr. 8.....	45,095	17									
Trieste.....	Apr. 1.....	165,000	89					1	3			
Do.....	Apr. 8.....	165,000	102						3	4		
Utiilla, Honduras.....	Apr. 15.....	550	0									
Venice.....	Apr. 1.....	169,883	122					1		1	9	2
Do.....	Apr. 8.....	169,883	104					1		4	9	1
Vera Cruz.....	Apr. 20.....	30,000	40		4							
Vienna.....	Apr. 8.....	1,606,629	799					3	6	12	19	4
Zurich.....	Apr. 8.....	161,484	49									1

a Beriberi, 2.

b Beriberi, 4.

c Beriberi, 5.

By authority of the Secretary of the Treasury :

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