

Public Health Reports

Treasury Department, United States Marine-Hospital Service. Published in accordance with act of Congress approved February 15, 1893.

VOL. XV. WASHINGTON, D. C., JANUARY 19, 1900. No. 3.

UNITED STATES.

RESERVATION SET APART FOR A MARINE HOSPITAL AT HONOLULU.

EXECUTIVE MANSION,
Washington, D. C., January 5, 1900.

By virtue of the authority vested in me by joint resolution of the Senate and House of Representatives of the United States, accepting and confirming the cession of the Hawaiian Islands to the United States, it is hereby ordered and directed that out of the Government reservation lying to the eastward of the Puowaina or Punch Bowl Hill, in the island of Oahu, Hawaiian Islands, 7 acres, more or less, as hereinafter described and located, shall be set apart for the use of the United States Treasury Department, as a site for a United States marine-hospital, for the port of Honolulu.

This site shall consist of 7 acres situated north of Makiki cemetery and bounded on the north and east by the sinuosities of the Punch Bowl road; on the south by a line projected eastward from the powder magazine to intersect the Punch Bowl road, this line being the southern boundary of the Government reservation at that point; and on the west by an arbitrary north and south line, drawn so as to leave seven acres within this designated tract.

WILLIAM MCKINLEY.

PRECAUTIONS AGAINST PLAGUE.

On January 6 the following order was sent to all Pacific coast quarantine stations:

Disinfect holds of all vessels which have lain at Honolulu docks, whether having sickness aboard or not. Any further measures depending on history of vessel. Keep special lookout for ambulant cases. Expose glandular regions in inspection.

The Pacific coast quarantine stations have been strengthened by detail and authorization for employment of additional medical officers as follows: Three at Port Townsend, 1 at Astoria, 1 at Eureka, and 1 at San Diego. Additional employees have also been authorized.

Fifteen hundred doses of the "Haffkine prophylactic," prepared in the hygienic laboratory of the Service, have been sent to Honolulu and the same quantity to Manila, for use in preventing the disease.

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

Case of yellow fever in Key West.

KEY WEST, FLA., January 8, 1900.

SIR: I have the honor to state that Acting Assistant Surgeon Eve, United States Army, expressed his suspicions as to a case of fever he was treating, and in consequence I visited the case with him this morning, and telegraphed to your office: "One case of yellow fever in a civilian employee United States Army stationed here. The troops are to be dispatched from Fort Monroe.—LOFTY."

Lawrence, white, age 35, engineer of the army barracks, has lived in Key West for two years, had dengue in 1898, was quarantined with the remainder of the soldiers September 1 and released December 2; since then he has lived with his wife and her family on the corner of Southard and William streets. He was ill the morning of January 5, but attended to his duties in the garrison grounds, went to sick call on the morning of January 6, and was sent to his home, where Dr. Eve treated him. The principal signs of yellow fever are present, and the man will get well. There were cases of fever in the house in September or October.

The troops are expected to return here from Fort Monroe in a few days. I feel confident the barracks are free from infection.

The agent of the State board of health, Dr. Sweeting, will prohibit communication with the infected house.

Respectfully,

R. D. MURRAY,
Surgeon, U. S. M. H. S.

Quarantine restrictions against Miami removed.

[Telegram.]

KEY WEST, FLA., January 16, 1900.

Quarantine restrictions against Miami have been removed.

JOSEPH Y. PORTER,
State Health Officer.

Smallpox in Cairo, Ill.

CAIRO, ILL., January 8, 1900.

SIR: I have the honor to report, concerning the prevalence of smallpox in this city, that, for the week ended January 7, there were 5 new cases and 2 deaths, making a total of 21 cases and 2 deaths reported to date. In addition to the above number, there have occurred 11 cases and 1 death since the beginning of the present outbreak which have been reported to the Marine-Hospital Bureau, making in all 32

cases and 3 deaths. Of these cases, 26 have been treated at the pest-house and 6 have been treated at their homes.

In one of the families infected, "squatters" living on the outskirts of the city, the outbreak followed the visit of 2 men whom they harbored for three days about Thanksgiving. These men were sick, "had a breaking out on their faces," and, according to the mother of the family, were from St. Paul, Minn., had come over the river to Cairo from Kentucky, and said they were on their way to Tennessee. The mother of the family was first taken sick, had a mild attack, called in no physician until she was about well and her husband and 2 sons had contracted the disease. Then I visited them with the city physician. The husband has since died and the eldest son is in a critical condition. None of them had ever been vaccinated. The above-mentioned travelers may have carried infection to any number of the other cases reported and to be reported from this vicinity. But they were strangers here, no one knew their names, and they were walking or "beating their way" from place to place. Cairo was probably but one of many of their stopping places in their line of travel. No cases have appeared among the river men as yet, although they are as liable to exposure as others, under the existing conditions. All patients admitted to this hospital not successfully vaccinated within the last year are being vaccinated, and the attendants have been similarly treated.

Respectfully,

JOHN MILTON HOLT,
Assistant Surgeon, U. S. M. H. S., In Command.

Smallpox in Cleveland, Ohio.

CLEVELAND, OHIO, *January 10, 1900.*

SIR: I have the honor to state that it is officially reported that there are 25 cases of smallpox in the city of Cleveland. These cases are all being treated at their homes under strict quarantine. The health officer states that it is proposed to open the city hospital for contagious diseases within a few days if the number of cases should increase so as to justify it.

Respectfully,

W. J. PETTUS,
Surgeon, U. S. M. H. S., In Command.

Smallpox in Greensburg, N. C., and Jesup, Ga.

[Telegrams.]

GREENSBURG, N. C., *January 15, 1900.*

Numerous cases variola here in city and suburbs. Send 25 plans of organization to mayor to-day. Leave for Jesup, Ga., to-night, arriving Tuesday morning.

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

JESUP, GA., *January 16, 1900.*

One case here. Gave usual advice. * * * Unless otherwise directed will inspect Brunswick this afternoon and proceed to Atlanta to-night for conference with the governor. Address, Kimball House.

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

Disinfection of mails in Oklahoma on account of smallpox.

WASHINGTON, D. C., January 10, 1900.

SIR: In connection with my telephone message of this morning, I beg to state that yesterday a telegram was received by the honorable the Postmaster-General, reading as follows:

Order mail from Newkirk and Blackwell, Okla., disinfected at once. Smallpox generally epidemic.

BUXTON,
Superintendent of Health, Oklahoma.

The foregoing telegram was repeated to Mr. S. M. Gaines, superintendent Railway Mail Service, Fort Worth, Tex., with instructions to take any necessary action.

I am this morning in receipt of a wire from Superintendent Gaines reading as follows:

Postmaster, Newkirk, Okla., wires can not obtain chemicals for fumigation. Local health board has no funds. Shall expense for disinfection be insured as in similar cases?

In accordance with permission granted by you in answer to my telephonic request, I have notified Superintendent Gaines that your branch of the Service will assume payment for fumigation at Newkirk, Okla.

Mr. Gaines, as you will have noted, makes no mention of the situation at Blackwell. Our superintendents all have very thorough instructions as to the methods to be pursued, especially at smaller towns, where it is impossible to use the formaldehyd method. This involves simply the use of the sulphur boxes, and it is expected that the expense in this particular case will be merely nominal.

In this connection, I beg to state that this office has received information that smallpox is epidemic in a great many smaller towns, as well as in the country districts of Oklahoma, and it is probable that there will be further calls of this character. You are, however, doubtless fully advised as to the situation.

Respectfully,

JOHN W. HOLLYDAY,
Acting General Superintendent.

FORT WORTH, TEX., January 8, 1900.

SIR: In reply to your telegram of even date, advising that smallpox was generally epidemic at Newkirk and Blackwell, Okla., and instructing to take necessary action, I have the honor to advise that instructions issued by the Marine-Hospital Service have been forwarded to each postmaster, directing him to see that the mail is disinfected under the supervision of the local or Territorial boards of health. These instructions are forwarded to postmasters as rapidly as it is learned that smallpox is epidemic in any vicinity.

Respectfully,

S. M. GAINES,
Superintendent.

Hon. JAMES E. WHITE,

General Superintendent, Railway Mail Service, Washington, D. C.

Smallpox in Columbia and Mount Pleasant, Tenn.

MOBILE, ALA., January 6, 1900.

SIR: I have the honor to report that, in obedience to telegraphic orders, Surgeon-General's office, January 2, 1900, "to proceed to Columbia, Tenn., and decide disputed diagnosis of smallpox," I arrived in Columbia on the night of the 3d, and was met at depot by the city

health officer, who explained the situation. Early on the morning of the 4th, accompanied by representatives of the State, county, and city health departments and some half dozen leading physicians of the city, the inspection of cases was begun. It is not necessary to enter into the details of cases. The disease is confined almost entirely to the negro population. I saw in the city of Columbia 24 well-marked cases, mostly in adults. Eight of these were said to be convalescent, though, in my opinion, they were still capable of spreading the disease; 12 were moderately mild cases, a few in children being of the modified variety (varioid) from previous vaccination. Of the 4 remaining cases, 3 were confluent and 1 of the hemorrhagic form. I will state here that the hemorrhagic case died the same afternoon. I had the pleasure of pointing out to the 2 physicians who doubted the existence of smallpox the unmistakable signs of the disease.

At the request of the different health officers, I visited Mount Pleasant in Murray County. This is a city of 7,000 or 8,000 floating population, and being the center of the phosphate beds, it is almost exclusively a mining town. At this place I saw 8 more cases of smallpox, all in adults, with one exception, a child of about twelve years who had been vaccinated and had only a very mild case of varioid; 1 case was confluent, the man being very sick, the others were either discrete or the modified form. These cases were all isolated in the pesthouse.

As, notwithstanding the disease is mild, the situation is likely to become serious, I strongly advised immediate isolation of those infected, while those who had been exposed should be placed under restraint and observation; thorough vaccination should be practiced, compulsory, if necessary, but this is a question resting entirely with the local authorities. I saw altogether 32 cases of smallpox, most of which were in unprotected negro adults, and I was informed that there were fully as many more in the city of Columbia which I deemed it unnecessary to see.

In conclusion, I have to state that as the representative of the Service I was the recipient of many courtesies by the physicians of the city.

Respectfully,

W. P. McINTOSH,
Surgeon, U. S. M. H. S.

REPORTS FROM THE MEXICAN BORDER.

El Paso, Tex., January 6, 1900.—I have the honor to report the following summary of work for the week ended January 6, 1900: Inspection Mexican Central passenger train, 117; inspection Mexican Central freight crew, none; inspection Mexican Central immigrants, 17; inspection international bridge (including bullfight days, Juarez), 615; vaccination of children of immigrants and others, 12; disinfection of baggage and household goods, 15; disinfection of soiled linen of Mexican Central Pullman, 311 pieces.

Detained a Mexican and his wife arriving on Mexican Central Railroad. The woman appeared to be ailing, and on inquiring found she had fever—suffering languor, headache, vomiting, and severe backache. Vaccinated both immediately. Two days afterwards found woman with an eruption which proved to be varioid. Will keep them in detention the prescribed time, and have their baggage, etc., boiled and disinfected.

Respectfully,

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

Laredo, Tex., January 5, 1900.—I have the honor to submit the following report for week ended December 30, 1899: Passengers on Mexican National Railroad inspected and allowed entry for week reported, 414; immigrants inspected and allowed entry, 9; persons vaccinated on train, 7; refused entry, 1.

Respectfully,

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

Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, December 29, 1899, to January 19, 1900.

[For reports received from June 30, to December 29, 1899, see PUBLIC HEALTH REPORTS for December 29.]

Places.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Mobile	Jan. 2-Jan. 7...	4		
Colorado:				
Elbert County	Jan. 6.....			Smallpox reported.
Huerfano County	Dec. 29.....	2		
Saguache County	Dec. 28.....	1		
Total for State		3		
Georgia:				
Blackshear	Jan. 11.....	16		
Brunswick	Jan. 4-Jan. 11...	10		
Jesup	Jan. 11.....	2		
Liberty	Jan. 11.....	1		
Savannah	Jan. 11.....	1		
Waycross	Jan. 11.....	7		
Total for State		37		
Delaware:				
Wilmington	Jan. 7-Jan. 13...		1	
Illinois:				
Cairo	Dec. 24-Jan. 6...	32	3	
Chicago	Dec. 27-Jan. 8...	4		
Total for State		36	3	
Indian Territory:				
Choctaw Nation	Dec. 18.....	75		
Indiana:				
Evansville	Dec. 24-Jan. 13...	14		
Louisiana:				
New Orleans	Dec. 31-Jan. 6...	19	1	
Iberia .....	.....do	1		
Iberville .....	.....do	2		
Lafayette .....	.....do	130	1	
Point Cooper .....	.....do	1		
Shreveport	Dec. 24-Dec. 30...	6		
St. James .....	.....do	1		
Total for State		160	2	
Massachusetts:				
Boston	Dec. 30-Jan. 6...	2		
Chelsea	Dec. 25-Dec. 31...		1	
Lowell	Dec. 24-Dec. 30...		1	
Total for State		2	2	
Missouri:				
Paris	Sept. 3-Dec. 29...	37	4	
St. Louis	Dec. 19-Jan. 8...	5		
Total for State		42	4	
Nebraska:				
Omaha	Dec. 17-Jan. 6...	5		
New York:				
Amsterdam	Dec. 25-Dec. 30...	1		

Smallpox in the United States, etc.—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
North Carolina:				
Beaufort	Dec. 27	1		Numerous cases.
Charlotte	Dec. 1-Dec. 31...	2		
Chatham County	Nov. 1-Nov. 30...	10		
Greensboro	Jan. 15.....			
Guilford County .....	.....do	23	
Halifax County .....	.....do	50	
Mecklenburg County .....	.....do	1	
Northampton County .....	.....do	1	
Rowan County .....	.....do	16	
Vance County .....	.....do	1	
Total for State		105		
Ohio:				
Cincinnati	Dec. 23-Jan. 6...	4		Smallpox epidemic. No cases at present. Do. Do.
Cleveland	Dec. 24-Jan. 6...	28		
Hamilton	Dec. 31-Jan. 6...	1		
Youngstown .....	.....do	1	
Total for State		34		
Oklahoma Territory:				
El Reno	Dec. 27.....	7	0	Smallpox epidemic. No cases at present. Do. Do.
Enid .....	.....do	4	0
Kay County .....	.....do		
Logan County .....	.....do	10	0
Oklahoma City .....	.....do	14	0
Shawnee .....	.....do	12	0
Watonga .....	.....do	1	0
Yukon .....	.....do	6	0
Total for State		54	0	
Pennsylvania:				
Allegheny County	Dec. 17-Jan. 6...	4		Smallpox epidemic. No cases at present. Do. Do.
Beaver County	Jan. 1-Dec. 31...	1		
Philadelphia	Dec. 24-Dec. 30...	2		
Total for State		7		
South Carolina:				
Greenville	Dec. 24-Dec. 30...	2		
Tennessee:				
Columbia	Jan. 6.....	24		
Memphis	Nov. 4-Jan. 6...	77		
Mount Pleasant	Jan. 6.....	8		
Nashville	Dec. 24-Jan. 13...	8		
Total for State		117		
Texas:				
San Antonio	Dec. 1-Dec. 31...	2		
Utah:				
Salt Lake City	Dec. 24-Jan. 6...	10		
Virginia:				
Portsmouth	Dec. 24-Jan. 13...	24	8	

REPORTS FROM NATIONAL QUARANTINE

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure
1	UNITED STATES:				
2	Alexandria, Va.....	Jan. 13	.....	.....	.....
3	Beaufort, N. C.....	do.....	.....	.....	.....
4	Brunswick, Ga.....	do.....	Am. bk. Saranac.....	Jan. 7	Havana.....
5	Cape Charles, Va.....	do.....	.....	.....	.....
6	Cape Fear, N. C.....	do.....	.....	.....	.....
	Columbia River, Oreg.....	Jan. 6	.....	.....	.....
7	Delaware Breakwater	Jan. 13	.....	.....	.....
	Quarantine, Lewes, Del.	.....	.....	.....	.....
8	Eureka, Cal.....	Jan. 6	.....	.....	.....
9	Grays Harbor, Wash.....	do.....	.....	.....	.....
10	Gulf Quarantine, Ship	do.....	Br. bktn. C. W. Jones (a).....	Dec. 16	Santos.....
	Island, Miss.	.....	.....	.....	.....
		.....	Br. bk. Conductor (a).....	Dec. 18	do.....
11	Newbern, N. C.....	Jan. 13	.....	.....	.....
12	Pascagoula, Miss.....	do.....	.....	.....	.....
13	Port Townsend, Wash.....	Jan. 6	Am. sc. Glendale.....	Jan. 3	Honolulu.....
14	Reedy Island Quarantine,	Jan. 13	.....	.....	.....
	Del.	.....	.....	.....	.....
15	San Diego, Cal.....	Jan. 6	.....	.....	.....
16	San Francisco, Cal.....	do.....	Am. ss. Australia.....	Jan. 2	Honolulu.....
		.....	Am. bktn. N. S. Castle.....	Jan. 3	do.....
17	San Pedro, Cal.....	.....	.....	.....	.....
18	Savannah, Ga.....	do.....	.....	.....	.....
19	South Atlantic Quarantine,	do.....	Sp. bk. Concepcion (a).....	Dec. 18	Santos.....
	Blackbeard Island,	.....	.....	.....	.....
	Ga.	.....	.....	.....	.....
20	Tortugas Quarantine, Key	do.....	.....	.....	.....
	West, Fla.	.....	.....	.....	.....
21	Washington, N. C.....	Jan. 13	.....	.....	.....
22	CUBA:				
	Caibarien.....	Jan. 6	.....	.....	.....
23	Cardenas.....	do.....	.....	.....	.....
24	Cienfuegos.....	do.....	.....	.....	.....
25	Daiquiri.....	Dec. 30	.....	.....	.....
26	Gibara.....	Dec. 9	.....	.....	.....
27	Guantanamo.....	Dec. 30	.....	.....	.....
28	Havana.....	Jan. 6	.....	.....	.....
29	Isabela de Sagua.....	do.....	.....	.....	.....
30	Manzanillo.....	Dec. 30	.....	.....	.....
31	Matanzas.....	Jan. 6	.....	.....	.....
32	Nuevitas.....	do.....	.....	.....	.....
33	Santiago de Cuba.....	do.....	.....	.....	.....
	POERTO RICO:				
34	Ponce.....	do.....	.....	.....	.....
35	San Juan.....	do.....	.....	.....	.....
	Subports—				
36	Aguadilla.....	.....	.....	.....	.....
37	Arecibo.....	.....	.....	.....	.....
38	Arroyo.....	.....	.....	.....	.....
39	Humacao.....	.....	.....	.....	.....
40	Jobos.....	.....	.....	.....	.....
41	Mayaguez.....	.....	.....	.....	.....

a Previously reported.

AND INSPECTION STATIONS.

Number.	Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
1				No transactions.....	
2				No report	
3	St. Simons.....	Ballast discharged.....	Jan. 12		3
4					7
5					4
6				8 cases of yellow fever while at Panama on Ger. ship Aldebaran.	5
7					2
8				No report.....	
9				No transactions.....	
10	Ship Island	Disinfected and held.....	Jan. 6		1
	Mobile.....	do			
11				No transactions.....	
12					2
13	Tacoma	Crew bathed; dunnage and forecastle disinfected.	Jan. 5		5
14					15
15					2
16	San Francisco	Hold disinfected to kill rats.	Jan. 4		20
	do	do	Jan. 5		
17				No report.....	
18					3
19	Brunswick.....	Disinfected and held.	Jan. 3		4
20				No transactions.....	
21				do	
22					2
23					10
24					6
25					2
26				No report	
27				do	
28					29
29				No report	
30				do	9
31					2
32					9
33				No report.....	
34				do	
35				do	
36				do	
37				do	
38				do	
39				do	
40				do	
41				do	

REPORTS FROM STATE AND

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
1	Anclote, Fla.....	Jan. 13	.....	.....	.....
2	Baltimore, Md.....	do.....	.....	.....	.....
3	Bangor, Me.....	do.....	.....	.....	.....
4	Boston, Mass.....	do.....	.....	.....	.....
5	Carrabelle, Fla.....	do.....	.....	.....	.....
6	Cedar Keys, Fla.....	do.....	.....	.....	.....
7	Charleston, S. C.....	Jan. 6	.....	.....	.....
		Jan. 13	.....	.....	.....
8	Charlotte Harbor, Fla.....	do.....	.....	.....	.....
9	Elizabeth River, Va.....	do.....	.....	.....	.....
10	Galveston, Tex.....	Jan. 6	.....	.....	.....
		Jan. 13	.....	.....	.....
11	Gardiner, Oreg.....	Jan. 6	.....	.....	.....
12	Key West, Fla.....	Jan. 13	.....	.....	.....
13	Los Angeles, Cal.....	Jan. 6	.....	.....	.....
14	Mayport, Fla.....	Jan. 13	.....	.....	.....
15	Mobile Bay, Ala.....	do.....	.....	.....	.....
16	New Bedford, Mass.....	do.....	.....	.....	.....
17	New Orleans, La.....	do.....	.....	.....	.....
18	Newport News, Va.....	do.....	.....	.....	.....
19	Newport, R. I.....	do.....	.....	.....	.....
20	New York, N. Y.....	do.....	.....	.....	.....
21	Pass Cavallo, Tex.....	do.....	.....	.....	.....
22	Pensacola, Fla.....	do.....	.....	.....	.....
23	Port Royal, S. C.....	do.....	.....	.....	.....
24	Providence, R. I.....	do.....	.....	.....	.....
25	Quintana, Tex.....	do.....	.....	.....	.....
26	St. Helena Entrance, S. C.....	do.....	.....	.....	.....
27	Tampa Bay, Fla.....	do.....	.....	.....	.....

MUNICIPAL QUARANTINE STATIONS.

Number.	Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
1	No report.....	.....
2	do.....	.....
3	do.....	.....
4	do.....	.....
5	do.....	.....
6	do.....	.....
7	No transactions.....	.....
8	No report.....	3
9	2
10	8
11	No report.....	9
12	6
13	No report.....	.....
14	do.....	.....
15	do.....	.....
16	do.....	.....
17	do.....	.....
18	do.....	.....
19	do.....	.....
20	do.....	.....
21	do.....	.....
22	do.....	.....
23	do.....	.....
24	No transactions.....	.....
25	No report.....	.....
26	do.....	.....
27	do.....	.....

*Report of immigration at Boston for the week ended January 6, 1900.*OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
*Port of Boston, January 6, 1900.**Number of alien immigrants who arrived at this port during the week ended January 6, 1900; also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of immigrants.
1899.			
Dec. 31	Steamship Prince George.....	Yarmouth, Nova Scotia.....	90
Do.....	Steamship Boston	do.....	88
Do.....	Steamship Turcoman.....	Liverpool, England	3
1900.			
Jan. 1	Steamship Sagamore.....	do.....	9
Jan. 2	Steamship Degama.....	Avonmouth, England.....	14
Jan. 3	Steamship Admiral Dewey.....	Kingston, Jamaica	1
Jan. 4	Steamship Prince George.....	Yarmouth, Nova Scotia.....	56
Do.....	Steamship Boston.....	do.....	37
Do.....	Steamship Lancastrian	Liverpool, England.....	17
Do.....	Steamship Halifax	Halifax, Nova Scotia.....	25
Jan. 6	Steamship Hibernian	Glasgow, Scotland.....	19
	Total .....	.....	359

GEORGE B. BILLINGS,
*Commissioner.**Report of immigrants inspected at the port of Boston, Mass., during the month of December, 1899.*

Total number of immigrants inspected, 336; number passed, 335; number certified for deportation on account of dangerous contagious or loathsome diseases, or for other physical causes, 1.

Disposition of immigrants certified for deportation.—Number deported, none; number admitted, 336.

Respectfully,

FAIRFAX IRWIN,
*Surgeon, U. S. M. H. S.**Report of immigrants inspected at Port Townsend Quarantine Station during the month of December, 1899.*

Total number of immigrants inspected, 136; number passed, 136; number certified for deportation on account of dangerous contagious or loathsome diseases, or for other physical causes, none.

Respectfully,

M. HUGH FOSTER,
*Assistant Surgeon, U. S. M. H. S.**Report of immigrants inspected at the port of Cienfuegos, Cuba, during the month of December, 1899.*

Total number of immigrants inspected, 29; number passed, 29; number certified for deportation on account of dangerous contagious or loathsome diseases, or for other physical causes, none.

Disposition of immigrants certified for deportation.—Number deported, none; number admitted, 29.

Respectfully,

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

Report of immigrants inspected at the port of Santiago de Cuba during the month of December, 1899.

Total number of immigrants inspected, 119; number passed, 119; number certified for deportation on account of dangerous contagious, or loathsome diseases, or for other physical causes, none.

Disposition of immigrants certified for deportation.—Number deported, none; number admitted, 119.

HERMAN B. PARKER,
Assistant Surgeon, U. S. M. H. S.

Arrival of alien steerage passengers at Cienfuegos during the week ended December 30, 1899.

CIENFUEGOS, CUBA, January 2, 1900.

SIR: I herewith submit report of alien steerage passengers at this port during the week ended December 30, 1899: December 28, 1899, steamship *Albis*, from Cartagena, with 1 German immigrant.

Respectfully,
J. M. LINDSLEY,
Acting Assistant Surgeon, U. S. M. H. S.

Arrival of alien steerage passengers at Havana, Cuba, during the week ended January 6, 1900.

HAVANA, CUBA, January 6, 1900.

SIR: I herewith submit report of alien steerage passengers at this port during the week ended January 6, 1900:

Date.	Vessel.	Where from.	No. of immigrants.
Dec. 31	Steamship J. Jover Serra.....	Barcelona, Valencia, Malaga, Gibraltar, Cadiz, Tenerife, Las Palmas, Santa Cruz.	286
Do....	Steamship Ciudad de Cadiz.....	Barcelona, Malaga, Cadiz, Las Palmas, Santa Cruz, San Juan.	194
Do....	Steamship Maria Herrera.....	Puerto Rico.....	2
Jan. 2	Bark Triunfo.....	Santa Cruz de las Palmas.....	13
Jan. 3	Steamship Alfonso XIII.....	Santander and Corunna.....	480
Jan. 4	Steamship Conde Wifredo.....	Genoa, Barcelona, Majorca, Valencia, Malaga, Cadiz, Las Palmas and Puerto Rico.	40
Jan. 5	Steamship France.....	Santander and Corunna.....	160
	Total.....		1,175

Respectfully,
G. M. GUITÉRAS,
Passed Assistant Surgeon, U. S. M. H. S.

Arrival of alien steerage passengers at Santiago during the week ended December 30, 1899.

SANTIAGO DE CUBA, December 30, 1899.

SIR: I herewith submit report of alien steerage passengers at this port during the week ended December 30, 1899: December 26, Provisional Flag steamship *Maria Herrera*, from San Juan, Puerto Rico, with 5 immigrants.

Respectfully,
HERMAN W. PARKER,
Assistant Surgeon, U. S. M. H. S.

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

CALIFORNIA—*Los Angeles*.—Month of December, 1899. Estimated population, 103,000. Total number of deaths, 146, including diphtheria, 6; enteric fever, 6, and 32 from tuberculosis.

Sacramento.—Month of December, 1899. Estimated population, 30,000. Total number of deaths, 36, including 7 from phthisis pulmonalis.

COLORADO—*Denver*.—Month of December, 1899. Estimated population, 170,000. Total number of deaths, 181, including diphtheria, 1; enteric fever, 6; measles, 3; scarlet fever, 2; whooping cough, 1, and 47 from phthisis pulmonalis.

IOWA—*Davenport*.—Month of December, 1899. Estimated population, 40,000. Total number of deaths, 40, including enteric fever, 3; scarlet fever, 1; whooping cough, 1, and 4 from phthisis pulmonalis.

LOUISIANA—*New Orleans*.—Month of December, 1899. Estimated population, 300,000—white, 210,000; colored, 90,000. Total number of deaths, 628—white, 411; colored, 217, including diphtheria, 4; enteric fever, 29; measles, 12; scarlet fever, 1; smallpox, 1, and 74 from phthisis pulmonalis.

MASSACHUSETTS—*Fitchburg*.—Month of December, 1899. Estimated population, 29,438. Total number of deaths, 32, including diphtheria, 1; scarlet fever, 1, and 3 from phthisis pulmonalis.

Holyoke.—Month of December, 1899. Estimated population, 44,982. Total number of deaths, 66, including diphtheria, 4; enteric fever, 1, and 5 from phthisis pulmonalis.

MICHIGAN.—Reports to the State board of health, Lansing, for the week ended January 6, 1900, from 68 observers, indicate that pneumonia and inflammation of bowels increased and intermittent fever and diarrhea decreased in area of prevalence. Phthisis pulmonalis was reported present at 219, scarlet fever at 70, measles at 61, enteric fever at 42, diphtheria at 34, whooping cough at 29, cerebro-spinal meningitis at 6, and smallpox at 5 places.

Port Huron.—Month of December, 1899. Estimated population, 20,000. Total number of deaths, 12. No deaths from contagious disease.

MINNESOTA—*St. Paul*.—Month of December, 1899. Estimated population, 200,000. Total number of deaths, 131, including diphtheria, 3; enteric fever, 2; whooping cough, 1, and 15 from phthisis pulmonalis.

Winona.—Month of December, 1899. Estimated population, 24,000. Total number of deaths, 16, including diphtheria, 1, and 2 from phthisis pulmonalis.

MISSOURI—*St. Louis*.—Month of November, 1899. Estimated population, 623,000—white, 587,000; colored, 36,000. Total number of deaths, 694—white, 620; colored, 74, including diphtheria, 34; enteric fever, 32; scarlet fever, 7; whooping cough, 1, and 82 from phthisis pulmonalis.

NEW YORK.—Reports to the State board of health, Albany, for the month of November, 1899, from 156 cities, towns, and villages, having an aggregate estimated population of 7,110,000, show a total of 8,607 deaths, including diphtheria, 307; enteric fever, 169; measles, 75; scarlet fever, 54; whooping cough, 47; cerebro-spinal meningitis, 38, and 1,027 from phthisis pulmonalis.

The Monthly Bulletin says:

The reported mortality for the month from all causes is 8,607, 100 less than that of November last; the average daily rate was 287 and the death rate 14.7. The average yearly mortality in this month for the past five years has been 8,288, and that of the five years prior to that nearly the same, so that the present month shows an increase of about 300 above the average.

There are, however, fewer deaths from zymotic diseases than the five-year average by a total of 125, the saving being chiefly in diphtheria; 10 per cent of the deaths were from zymotic diseases. There were more deaths from scarlet fever and measles than the average.

Acute respiratory diseases caused nearly the average mortality, and the same as in the corresponding month of last year, nor is there material variation in other local diseases.

Compared with other months, the present mortality is lower than that of any preceding month. This is customary, November being uniformly the month of fewest deaths in the year. In a period of ten years, during which the average daily mortality was 322, that of November for the entire period was 270; for the rest of the year the daily average was 325, showing a saving for this month of more than 1,600 as compared with the rest of the year. The diarrheal and other intestinal diseases of summer, with the attending larger mortality credited to nervous diseases have subsided, and the typhoid fever of early autumn has begun to decrease usually, while the respiratory diseases of winter and spring, with the accompanying diseases of the urinary system, have not materially impressed the death rate.

The infant mortality, which is the average for this month, has decreased by 1,000 from that of October, and constituted 25 per cent of the deaths. Diarrheal diseases caused about one third as many deaths as were reported in October; digestive and nervous diseases 300 fewer deaths, while from acute respiratory diseases there was an increased mortality of only 100 from last month.

Diphtheria caused 50 more deaths than in October and 60 more than in November of last year. The decrease which has been pretty constant since 1894 is giving place to a moderate increase. We have reports of its epidemic prevalence in various parts of the State—localities on Long Island, in Rensselaer and Saratoga counties, in Washington and Allegany counties.

Scarlet fever and measles are both increased from last month and also from November, 1898. The former continues generally distributed and caused deaths in all the sanitary districts, though its total mortality is only 54. Measles caused 75 deaths, all occurring in the Maritime and Lake Ontario and western districts, save three in the Hudson Valley District.

Reports of death from la grippe during the last week of the month have been received, but while its annual epidemic recurrence has no doubt taken place, it has not to a sufficient degree to materially affect

the mortality of the month as estimated by its impress upon the usual groups of diseases where it commonly finds record.

In rural parts of the State the infant mortality was 12 per cent (half that of the entire State); the zymotic mortality 7 per cent against 11 per cent for the rest of the State; typhoid fever caused 2.5 per cent of the deaths, against 1.8 for the rest of the State. Of 1500 deaths occurring in rural towns classed as "rest of district," there were 111 deaths from acute respiratory diseases, or about 7.5 per cent, which was less than one-half the percentage for the rest of the State; from consumption also the proportion was less, viz, 10.7 per cent against 13.6 per cent for the rest of the State.

Hornellsville.—Month of December, 1899. Estimated population, 14,000. Total number of deaths, 16. No contagious diseases reported.

OHIO—*Cleveland.*—Month of December, 1899. Estimated population, 395,000. Total number of deaths, 448, including diphtheria, 15; enteric fever, 6; scarlet fever, 3; whooping cough, 3, and 11 from phthisis pulmonalis.

TENNESSEE—*Knoxville.*—Month of December, 1899. Estimated population, 50,000—white, 38,000; colored, 12,000. Total number of deaths, 50—white, 32; colored, 18, including diphtheria, 1, and 6 from phthisis pulmonalis.

Nashville.—Month of December, 1899. Estimated population, 110,834—white, 69,389; colored, 41,445. Total number of deaths, 131—white, 63; colored, 68, including diphtheria, 3; enteric fever, 1, and 15 from phthisis pulmonalis.

TEXAS—*San Antonio.*—Month of December, 1899. Estimated population, 65,000. Total number of deaths, 89, including diphtheria, 1; enteric fever, 5; scarlet fever, 2, and 28 from phthisis pulmonalis.

WEST VIRGINIA—*Wheeling.*—Year ending December 31, 1899. Estimated population, 40,000. Total number of deaths, 520, including diphtheria, 4; enteric fever, 27; measles, 1; scarlet fever, 1; whooping cough, 4; cerebro-spinal meningitis, 3, and 71 from phthisis pulmonalis.

WISCONSIN—*Superior.*—Month of December, 1899. Estimated population, 35,000. Total number of deaths, 25. No deaths from contagious diseases reported.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—									
				Tuberculosis.	Yellow fever.	Smallpox.	Varicella.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Allegheny, Pa.	Jan. 13	105,287	52	7						6	1		
Allentown, Pa.	Jan. 6	25,228	14	1								2	1
Amesbury, Mass.	Jan. 13	9,798	1	1									
Ashtabula, Ohio.	Jan. 6	8,338	4	1									
Do.	Jan. 13	8,338	3										
Baltimore, Md.	do.	434,439	182	16						3	1	10	
Battle Creek, Mich.	Jan. 6	13,197											4
Do.	Jan. 13	13,197	2								14		
Baton Rouge, La.	Jan. 6	10,478	2										
Bennington, Vt.	do.	6,391	0										
Binghamton, N. Y.	Jan. 13	35,005	10	2									
Boston, Mass.	do.	448,477	240	22						5	5	7	1
Bristol, R. I.	Jan. 6	5,478	5										
Cairo, Ill.	do.	10,324	7			1							
Camden, N. J.	Jan. 13	58,313	28										
Carbondale, Pa.	Jan. 7	10,832	5									1	
Charleston, S. C.	Jan. 6	a 54,955	b 35	5									
Chelsea, Mass.	do.	27,909	15							1			1
Chillicothe, Ohio.	do.	11,288	3	1									
Chippewa Falls, Wis.	do.	8,670		1									
Clinton, Mass.	do.	10,424	4										
Do.	Jan. 13	10,424	3										
Concord, N. H.	Jan. 6	17,044	4										
Danville, Ill.	do.	11,491	4										
Do.	Jan. 13	11,491	6									1	
Dayton, Ohio.	do.	61,220	19	2						1			
Dover, N. H.	Jan. 6	12,790											
Dubois, Pa.	do.	6,149	0										
Duluth, Minn.	do.	33,115	14								1	1	
Dunkirk, N. Y.	do.	9,416	4	1									
Elkhart, Ind.	Jan. 7	11,360	3										
Elmira, N. Y.	Jan. 6	29,708	9										
Erie, Pa.	Jan. 13	40,634	6									1	
Evansville, Ind.	do.	50,756	21	1						2		1	
Everett, Mass.	Jan. 10	11,068	3	1									
Fitchburg, Mass.	Jan. 6	22,037	13	1									
Freeport, Ill.	Jan. 7	10,189	6										
Gloucester, Mass.	Jan. 13	24,657	13										
Green Bay, Wis.	Jan. 7	9,069	5										
Hamilton, Ohio.	Jan. 6	17,565	9	1									
Haverhill, Mass.	Jan. 13	27,412	9	1									
Holyoke, Mass.	do.	35,637	15									1	1
Honolulu, Hawaii	Dec. 30	35,000	c 36	3									
Houston, Tex.	Jan. 6	27,557	12	2									
Huntington, W. Va.	Jan. 8	10,108	3	2						1			
Indianapolis, Ind.	do.	105,436	53	3						2	1	3	
Jacksonville, Fla.	Jan. 6	17,201	9	1									
Janesville, Wis.	Jan. 13	10,836											
Jersey City, N. J.	Jan. 7	163,003	79	5							1	1	
Johnstown, Pa.	Jan. 13	21,805									1		1
Lansingburg, N. Y.	Nov. 4	10,550	8										
Do.	Nov. 11	10,550	5									3	
Do.	Nov. 18	10,550	13							1		1	
Do.	Nov. 25	10,550	14	1						3		1	
Do.	Dec. 2	10,550	4										
Do.	Dec. 9	10,550	6	1								1	
Do.	Dec. 16	10,550	9	3									
Do.	Dec. 23	10,550	4	2									
Do.	Dec. 30	10,550	4	1									
Do.	Jan. 6	10,550	4										
Lebanon, Pa.	do.	14,664	3	1									
Los Angeles, Cal.	do.	50,395	32	8								2	
Louisville, Ky.	Jan. 12	161,129	73	10						1		1	1
Lowell, Mass.	Jan. 13	77,696	33	3									
Lynchburg, Va.	do.	19,709	8	2									
McKeesport, Pa.	Jan. 6	20,741	12							1			
Mahanoy City, Pa.	Jan. 13	11,286	7										
Malden, Mass.	do.	23,031	6	1									
Manchester, N. H.	Jan. 6	44,126	24	5						1			
Massillon, Ohio.	do.	10,092	4										
Medford, Mass.	Jan. 13	11,079	4	1								1	
Melrose, Mass.	Jan. 6	8,519	4										
Milwaukee, Wis.	do.	204,468	70	4						2	2	8	2

a Estimated population, 65,165—white, 28,870; colored, 36,295. b White, 7; colored, 28.
c Plague.

MORTALITY TABLE, CITIES OF THE UNITED STATES—Continued.

Cities.	Week ended.	Population U. S. census of 1890.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Yellow fever.	Smallpox.	Varicoid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Minneapolis, Minn.....	Jan. 6	164,738	38	6						1		1		
Mobile, Ala.....	Jan. 13	31,076	26	4						1				
Nashua, N. H.....	do.....	19,311												
Nashville, Tenn.....	do.....	76,168		7								2		
New Bedford, Mass.....	do.....	40,733	15								1			
Newburyport, Mass.....	Jan. 6	13,947	3											
New London, Conn.....	Jan. 13	13,757		9						1				
New Orleans, La.....	Jan. 6	242,039	160	9		1				2			11	
Newton, Mass.....	Jan. 13	24,379	10	2								1		
New York, N. Y.....	do.....	α 3,550,053	1,348	145						15	6	41	25	13
North Adams, Mass.....	do.....	16,074	8											
Omaha, Nebr.....	Jan. 6	140,452	27									1		
Oneonta, N. Y.....	Jan. 13	6,272	1											
Palmer, Mass.....	do.....	6,520	3							1				
Pawtucket, R. I.....	Jan. 6	27,633	4										1	
Do.....	Jan. 13	27,633	11											
Philadelphia, Pa.....	do.....	1,046,964	504	55						1	6	23	1	3
Pittsburg, Pa.....	Jan. 6	238,617	149	5						17	1	5		4
Pittston, Pa.....	Jan. 13	10,302	3											
Plainfield, N. J.....	do.....	11,267	2											
Port Huron, Mich.....	Jan. 6	13,543	3											
Portland, Me.....	Dec. 30	36,425	26	1										1
Do.....	Jan. 6	36,425	12	3										
Portsmouth, Ohio.....	Jan. 8	12,394	5	1										
Do.....	Jan. 13	12,394	2	1										
Portsmouth, Va.....	do.....	13,268	12	3			2							
Providence, R. I.....	Jan. 11	132,146	32	11						3		1	8	1
Quincy, Mass.....	Jan. 13	31,494	8											
Reading, Pa.....	Jan. 8	58,661	19	1								3		
Rochester, N. Y.....	Jan. 12	133,896	39	2						1	1	2		
Salt Lake City, Utah.....	Jan. 6	44,843	10	1										
San Jose, Cal.....	do.....	18,060	8	2								1		
Scranton, Pa.....	do.....	75,215	45								6	4		1
Shreveport, La.....	do.....	11,979	6							1				
Do.....	Jan. 13	11,979	6	1			5						1	
Somerville, Mass.....	do.....	40,152	19											
Steelton, Pa.....	do.....	9,250	3											
Tacoma, Wash.....	Jan. 6	36,006	5	2										
Taunton, Mass.....	Jan. 13	25,448	14	2										
Waltham, Mass.....	Jan. 6	18,707	7											
Warren, Ohio.....	Jan. 13	5,973	2											
Washington, D. C.....	Jan. 6	230,392	117	9						7		2		
West Tampa, Fla.....	Dec. 31	4,000	1	1										
Do.....	Jan. 13	4,000	0											
Wheeling, W. Va.....	Jan. 6	35,013	10											
Williamsport, Pa.....	do.....	27,132	4									1		
Do.....	Jan. 13	27,132	6											
Wilmington, Del.....	do.....	61,431	21	1			1			1		1		
Woburn, Mass.....	Dec. 16	13,499	2											
Do.....	Dec. 23	13,499	6	1										
Do.....	Dec. 30	13,499	5	1										
Worcester, Mass.....	Jan. 5	81,655	44									1		
Youngstown, Ohio.....	Jan. 13	33,220	12											

α Estimated.

Table of temperature and rainfall, week ended January 8, 1900.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	a Excess.	a Deficiency.	Normal.	Excess.	Deficiency.
Atlantic Coast:						
Eastport, Me.....	22		2	.84		.09
Portland, Me.....	24		4	.77	.02	
Northfield, Vt.....	20		6	.77		.51
Boston, Mass.....	28		1	.87		.25
Vineyard Haven, Mass.....	33		5	.70		.87
Nantucket, Mass.....	33		1	.91		.42
Woods Hole, Mass.....	32		2	.84		.60
Block Island, R. I.....	32		1	.91		.20
New Haven, Conn.....	28		1	.96		.90
Albany, N. Y.....	25	0		.63		.53
New York, N. Y.....	31		1	.87		.84
Harrisburg, Pa.....	30	0		.80		.77
Philadelphia, Pa.....	32	0		.75		.72
New Brunswick, N. J.....	32		3	1.13		1.13
Atlantic City, N. J.....	32		3	.91		.91
Baltimore, Md.....	34	0		.77		.77
Washington, D. C.....	33		3	.77		.77
Lynchburg, Va.....	36		1	.84		.84
Cape Henry, Va.....	39		5	.94		.94
Norfolk, Va.....	40		4	.84		.84
Charlotte, N. C.....	40		3	1.12		1.12
Raleigh, N. C.....	41		3	.77		.77
Kittyhawk, N. C.....	42		5	1.12		1.12
Hatteras, N. C.....	45		9	1.33		1.33
Wilmington, N. C.....	46		6	.84		.84
Columbia, S. C.....	45		5	.84		.84
Charleston, S. C.....	49		4	.90		.90
Augusta, Ga.....	46		7	.91		.91
Savannah, Ga.....	50		5	.70		.70
Jacksonville, Fla.....	54		7	.70		.70
Jupiter, Fla.....	64		13	.77		.72
Key West, Fla.....	69			.46		
Gulf States:						
Atlanta, Ga.....	41		1	1.19		1.19
Tampa, Fla.....	59		5	.56		.56
Pensacola, Fla.....	52		5	.99		.99
Mobile, Ala.....	50		5	1.12		1.12
Montgomery, Ala.....	47		7	1.19		1.19
Vicksburg, Miss.....	47		3	1.20		1.03
New Orleans, La.....	53		3	1.12		1.10
Shreveport, La.....	45	0		1.05		.56
Fort Smith, Ark.....	36	1		.56		.25
Little Rock, Ark.....	42		1	1.01		.88
Palestine, Tex.....	46	2		.94	.11	
Galveston, Tex.....	53		1	.84	.87	
San Antonio, Tex.....	51	1		.40	.77	
Corpus Christi, Tex.....	60		4	.53	1.55	
Ohio Valley and Tennessee:						
Memphis, Tenn.....	39	2		1.21		1.19
Nashville, Tenn.....	36		2	1.02		1.02
Chattanooga, Tenn.....	41		8	1.36		1.36
Knoxville, Tenn.....	36		7	1.16		1.16
Louisville, Ky.....	33		1	.84		.84
Indianapolis, Ind.....	28	0		.68		.49
Cincinnati, Ohio.....	32	0		.77		.73
Columbus, Ohio.....	28	1		.70		.60
Parkersburg, W. Va.....	33		2	.70		.64
Pittsburg, Pa.....	30	2		.70		.67
Lake Region:						
Oswego, N. Y.....	25	1		.70	.01	
Rochester, N. Y.....	25	1		.70	.02	
Buffalo, N. Y.....	25	4		.70		.49
Erie, Pa.....	28	3		.71		.60
Cleveland, Ohio.....	26	3		.56		.51
Sandusky, Ohio.....	26	5		.49		.48
Toledo, Ohio.....	26	4		.49		.49
Detroit, Mich.....	25	4		.45		.45
Lansing, Mich.....	24	5		.42		.38
Port Huron, Mich.....	22	6		.48		.46
Alpena, Mich.....	19	7		.56		.46
Sault Ste. Marie, Mich.....	14	11		.42		.38
Marquette, Mich.....	17	9		.49		.41
Green Bay, Wis.....	15	12		.56		.56
Grand Haven, Mich.....	25	5		.63		.62
Milwaukee, Wis.....	19	11		.49		.49
Chicago, Ill.....	23			.49		.49
Duluth, Minn.....	11	12		.28		.28

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

Table of temperature and rainfall, week ended January 8, 1900—Continued.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Upper Mississippi Valley:						
St. Paul, Minn.....	10	15	.....	.24	.....	.24
La Crosse, Wis.....	14	9	.....	.31	.....	.31
Dubuque, Iowa.....	17	12	.....	.42	.....	.42
Davenport, Iowa.....	19	11	.....	.42	.....	.41
Des Moines, Iowa.....	16	13	.....	.35	.....	.35
Keokuk, Iowa.....	22	12	.....	.42	.....	.42
Springfield, Ill.....	26	7	.....	.45	.....	.45
Cairo, Ill.....	34	2	.....	.81	.....	.79
St. Louis, Mo.....	30	7	.....	.45	.....	.22
Missouri Valley:						
Columbia, Mo.....	32	0	.....	.42	.....	.35
Springfield, Mo.....	35	1	.....	.52	.....	.10
Kansas City, Mo.....	24	11	.....	.28	.....	.28
Topeka, Kans.....	28	7	.....	.21	.....	.21
Wichita, Kans.....	31	7	.....	.21	.....	.17
Concordia, Kans.....	22	12	.....	.14	.....	.14
Lincoln, Nebr.....	20	10	.....	.14	.....	.14
Omaha, Nebr.....	18	11	.....	.20	.....	.20
Sioux City, Iowa.....	15	12	.....	.21	.....	.21
Yankton, S. Dak.....	13	15	.....	.10	.....	.08
Valentine, Nebr.....	14	14	.....	.13	.....	.09
Huron, S. Dak.....	07	13	.....	.14	.....	.14
Pierre, S. Dak.....	12	10	.....	.14	.....	.12
Moorhead, Minn.....	0	16	.....	.14	.....	.12
Bismarck, N. Dak.....	3	13	.....	.14	.....	.14
Williston, N. Dak.....	3	11	.....	.14	.....	.14
Rocky Mountain Region:						
Havre, Mont.....	10	9	.....	.20	.....	.20
Helena, Mont.....	18	9	.....	.28	.....	.28
Miles City, Mont.....	13	15	.....	.09	.....	.09
Rapid City, S. Dak.....	18	17	.....	.07	.....	.07
Spokane, Wash.....	24	14	.....	.61	.09	.....
Walla Walla, Wash.....	28	12	.....	.57	.03	.....
Baker City, Oreg.....	23	13	.....	.35	.....	.13
Winnemucca, Nev.....	27	9	.....	.28	.30	.....
Boise, Idaho.....	30	10	.....	.50	.....	.20
Salt Lake City, Utah.....	28	8	.....	.35	.....	.15
Lander, Wyo.....	17	11	.....	.17	.....	.17
Cheyenne, Wyo.....	25	8	.....	.07	.....	.07
North Platte, Nebr.....	18	10	.....	.14	.....	.14
Denver, Colo.....	27	10	.....	.14	.....	.14
Pueblo, Colo.....	30	7	.....	.14	.....	.14
Dodge City, Kans.....	25	11	.....	.12	.....	.12
Oklahoma, Okla.....	29	13	.....	.49	.....	.27
Amarillo, Tex.....	33	10	.....	.03	.....	.01
Abilene, Tex.....	44	3	.....	.27	.....	.23
Santa Fe, N. Mex.....	27	10	.....	.14	.....	.14
El Paso, Tex.....	44	6	.....	.14	.....	.10
Phoenix, Ariz.....	48	10	.....	.09	.01	.....
Pacific Coast:						
Seattle, Wash.....	40	5	.....	1.19	.19	.....
Tacoma, Wash.....	38	4	.....	1.47	.....	.37
Portland, Oreg.....	39	8	.....	1.68	.....	.45
Roseburg, Oreg.....	40	.....	.....	1.48	.....	.....
Eureka, Cal.....	47	.....	.....	2.00	.....	.....
Redbluff, Cal.....	44	8	.....	1.13	1.86	.....
Carson City, Nev.....	30	9	.....	.60	.....	.40
Sacramento, Cal.....	45	8	.....	.91	2.03	.....
San Francisco, Cal.....	50	5	.....	1.12	2.79	.....
Fresno, Cal.....	42	12	.....	.35	1.15	.....
San Luis Obispo, Cal.....	51	4	.....	1.05	1.08	.....
Los Angeles, Cal.....	53	5	.....	.72	.45	.....
San Diego, Cal.....	54	5	.....	.42	.24	.....
Yuma, Ariz.....	54	.....	.....	.10	.....	.....

a 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 Surgeon-General United States Marine-Hospital Service, December 29, 1899, to January 19, 1900.

[For reports received from June 30 to December 29, 1899, see PUBLIC HEALTH REPORTS for December 29.]

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	Nov. 22-Dec. 19...	.....	7	
Calcutta.....	Nov. 5-Dec. 9...	.....	119	

YELLOW FEVER.

Brazil:				
Rio de Janeiro.....	Nov. 4-Dec. 1...	.....	16	
Colombia:				
Panama.....	Dec. 20-Dec. 26...	1	.....
Cuba:				
Havana.....	Dec. 1-Dec. 31...	70	22	
Matanzas.....	Jan. 1-Jan. 6...	7	2	
Santiago.....	Dec. 29.....	.....	1	
Mexico:				
Vera Cruz.....	Dec. 10-Dec. 30...	.....	3	
	Dec. 22-Jan. 5...	.....	5	

PLAGUE.

Brazil:				
Rio de Janeiro.....	Jan. 11.....	.....	1	
Santos.....	Oct. 13-Dec. 9...	39	11	
China:				
Hongkong.....	Nov. 12-Dec. 9...	2	2	
Formosa:				
Tamsui.....	Nov. 15-Nov. 28...	21	14	
Hawaiian Islands:				
Honolulu.....	Dec. 11-Jan. 9...	.....	19	
India:				
Bombay Presidency and Sind:				
Ahmedabad District.....	Nov. 19-Dec. 9...	.....	13	
Ahmednagar District.....	do.....	.....	87	
Akalkot State.....	do.....	.....	5	
Aundh State.....	do.....	.....	15	
Baroda State.....	do.....	.....	4	
Belgaum District.....	do.....	.....	642	
Bhor State.....	do.....	.....	71	
Bijapur District.....	do.....	.....	273	
Bombay City.....	do.....	.....	424	
Broach District.....	do.....	.....	0	
Cutch State.....	do.....	.....	2	
Dharwar District.....	do.....	.....	798	
Hyderabad (Sind) District.....	do.....	.....	37	
Janjira State.....	do.....	.....	4	
Kaira District.....	do.....	.....	1	
Kanara District.....	do.....	.....	4	
Kurrachee City.....	do.....	.....	4	
Kurrachee District.....	do.....	.....	11	
Kathiawar State.....	do.....	.....	0	
Khandesh District.....	do.....	.....	0	
Kolaba District.....	do.....	.....	15	
Kolhapur State.....	do.....	.....	843	
Mahi Kantha State.....	do.....	.....	0	
Nasik District.....	do.....	.....	32	
Palanpur State.....	do.....	.....	.....
Panch Mahals District.....	do.....	.....	0	
Poona City.....	do.....	.....	8	
Poona District.....	do.....	.....	332	
Rainagiri District.....	do.....	.....	65	
Rewakantha State.....	do.....	.....	0	

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

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Bombay Presidency and Sind—Continued.				
Sachin State.....	Dec. 3-Dec. 9.....	.....	3	
Satara District.....	Nov. 19-Dec. 9.....	.....	313	
Savantvadi State.....	do.....	.....	1	
Savanur State.....	do.....	.....	12	
Shikarpur District.....	do.....	.....	0	
Sholapur District.....	do.....	.....	422	
Surat District.....	do.....	.....	63	
Thana District.....	do.....	.....	73	
Upper Sind Frontier.....	do.....	.....	.....
Outside Bombay Presidency and Sind:				
Madras Presidency—				
Anantapur District.....	do.....	.....	.....
Bellary District.....	do.....	.....	6	
Chingleput District.....	do.....	.....	.....
Kurnool District.....	do.....	.....	.....
Madras City District.....	do.....	.....	.....
North Arcot District.....	do.....	.....	2	
Salem District.....	do.....	.....	20	
Nellore District.....	do.....	.....	.....
Trichinopoly District.....	do.....	.....	.....
Coimbatore District.....	do.....	.....	22	
Mysore State—				
Bangalore City.....	do.....	.....	69	
Bangalore Civil and Military Station.....				
Bangalore District.....	do.....	.....	151	
Kolar District.....	do.....	.....	3	
Kolar Gold Fields.....	do.....	.....	17	
Mysore City.....	do.....	.....	49	
Mysore District.....	do.....	.....	80	
Tumkur District.....	do.....	.....	47	
Chitaldrug District.....	do.....	.....	28	
Hyderabad State—				
Gulburga District.....	do.....	.....	39	
Lingsugur District.....	do.....	.....	185	
Naldrug District.....	do.....	.....	66	
Bidar District.....	do.....	.....	3	
Arangabad District.....	do.....	.....	.....
Central Provinces—				
Wardha District.....	do.....	.....	10	
Nagpur City.....	do.....	.....	13	
Nagpur District.....	do.....	.....	10	
Nimar District.....	do.....	.....	.....
Punjab—				
Jullundur District.....	do.....	.....	10	
Hoshiarpur District.....	do.....	.....	.....
Rawal Pindi District.....	do.....	.....	.....
Bengal—				
Calcutta.....	do.....	.....	156	
Howrah District.....	do.....	.....	1	
Hooghly District.....	do.....	.....	.....
24-Parganas District.....	do.....	.....	.....
Nadia District.....	do.....	.....	.....
Khulana District.....	do.....	.....	.....
Dacca District.....	do.....	.....	.....
Darbhanga District.....	do.....	.....	.....
Saran District.....	do.....	.....	14	
Shahabad District.....	do.....	.....	.....
Tipperah District.....	do.....	.....	.....
Singbhoom District.....	do.....	.....	.....
Balasore District.....	do.....	.....	1	Imported and suspected. Do.
Rajputana.....	do.....	.....	1	
Japan:				
Osaka and Hiogo.....	Nov. 5-Dec. 26.....	.....	40	
Hiroshima.....	Nov. 5-Dec. 4.....	10	8	
Nagasaki.....	Dec. 9.....	1	1	
Kobe.....	Dec. 10-Dec. 23.....	.....	6	
Wakayama Ken.....	Nov. 5-Dec. 21.....	.....	1	
Shidzuoka Ken.....	do.....	.....	1	
Fukuoka Ken.....	do.....	.....	1	
Madagascar:				
Tamatave.....	Sept. 10-Dec. 3.....	51	41	
New Caledonia:				
Noumea.....	Jan. 1.....	9	5	
Philippine Islands:				
Manila.....	Jan. 16.....	5	.....

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

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Portugal:				
Lisbon	Jan. 16.....	1	.....
Masan	Dec. 25.....	9	7	
Villa Nova de Gaya	Nov. 15.....	1	.....

SMALLPOX.

Argentina:				
Buenos Ayres.....	Oct. 1-Oct. 31.....		3	
Belgium:				
Antwerp	Dec. 3-Dec. 23.....	14	9	
Bohemia:				
Prague.....	Dec. 3-Dec. 23.....	42	.....
Brazil:				
Rio de Janeiro	Nov. 4-Dec. 1.....		205	
Cuba:				
Casilda.....	Jan. 2.....	3	.....
Egypt:				
Cairo	Nov. 19-Dec. 9.....		2	
England:				
London.....	Dec. 10-Dec. 30.....	13	1	
France:				
Marseilles.....	Nov. 1-Nov. 30.....		17	
Germany:				
Koenigsberg	Dec. 17-Dec. 23.....	1	.....
Gibraltar.....	Dec. 4-Dec. 17.....	3	1	
Greece:				
Athens	Dec. 3-Dec. 23.....	15	3	
Hungary:				
Budapesth	Dec. 18-Dec. 24.....	1	.....
India:				
Bombay.....	Nov. 15-Dec. 12.....		46	
Calcutta.....	Nov. 26-Dec. 2.....		3	
Italy:				
Milan.....	Dec. 17-Dec. 23.....	2	.....
Japan:				
Yokohama.....	Nov. 19-Nov. 25.....	1	.....
Mexico:				
Chihuahua.....	Dec. 24-Dec. 30.....		13	
Vera Cruz.....	Dec. 22-Jan. 5.....		3	
Quebec:				
Kamouraska County.....	Aug. 18-Jan. 3.....	243	0	
Matane County.....	Dec. 16-Jan. 3.....	2	0	
Russia:				
Moscow.....	Nov. 26-Dec. 16.....	10	1	
Odessa.....	Dec. 3-Dec. 23.....	9	3	
St. Petersburg.....	Dec. 3-Dec. 23.....	50	12	
Warsaw.....	Nov. 26-Dec. 23.....		22	
Spain:				
Cadiz.....	Oct. 1-Oct. 31.....		5	
Corunna	Dec. 10-Dec. 30.....	5	1	
Madrid	Dec. 3-Dec. 16.....		10	
Straits Settlements:				
Singapore.....	Nov. 5-Nov. 18.....		4	
Turkey:				
Constantinople.....	Dec. 19-Dec. 25.....		1	
Smyrna.....	Dec. 4-Dec. 17.....		3	

BARBADOS.

*Quarantine information.*BARBADOS, *December 23, 1899.*

SIR: I have to report that the quarantine which was in force here against Bahia has been taken off, the bills of health received from there for some considerable time past having been quite clean.

Lisbon has to-day been declared infected with bubonic plague.

Respectfully,

JAS. SANDERSON,
Clerk, Quarantine Board.

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

BRAZIL.

Plague in Rio de Janeiro.

[Cablegram.]

RIO DE JANEIRO, BRAZIL, *January 11, 1900.*

There has been 1 death from plague. Diagnosis confirmed by bacteriological examination. Carson arrived Haffkined. (Treated with the Haffkin prophylactic.)

Respectfully,

W. HAVELBURG.

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

CUBA.

*Report from Cienfuegos.*CIENFUEGOS, CUBA, *January 8, 1900.*

SIR: I have the honor to report that during the week ended January 6, 1900, 24 deaths have occurred in this city, 5 of which were in the civil hospital. The five principal causes of death are: Enteritis, 7; tuberculosis, 3; dropsy, 2; pneumonia, 2; malaria, 2. No contagious diseases reported in this city. Death rate for the week is 30.31.

During the week 6 foreign vessels have entered this port, and 6 have received bills of health. No alien steerage passengers have been reported at this office as having landed at this port.

The United States Army transport *McPherson* arrived in this port January 6, collecting census reports for the island of Cuba and left for Gibara, Cuba, on January 7.

Santa Cruz del Sur.—Dr. Juan R. Xiques reports no deaths during the week, no contagious diseases. No foreign vessels in port during the week.

Respectfully,

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

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

*Report from Havana.*HAVANA, CUBA, *January 10, 1900.*

SIR: I have the honor to submit the following report for the week ended January 6:

The steamship *Mascotte* on her Havana trip on December 31, was docked in the floating dock, in order to carry on certain repairs and to

make an inspection of the bottom of the vessel. Previous to docking I thought it wise to make an inspection of the living quarters on the dry dock.

I found that these quarters were decidedly unclean, and while there was no sickness, the officer in command of the dock informed me that during the year he had a great deal of sickness, necessitating the changing of crews on several occasions. It is impossible to decide as to the nature of the disease that existed on the dock, as this was the first sanitary inspection that has ever been made. I have recommended to the captain of the port that these premises on the dock be thoroughly disinfected before receiving another vessel, and he has given directions so that this will be done, probably within the next few days.

The Spanish trans-Atlantic Line continues to bring a large number of emigrants from Spain and the inspection of these vessels requires a great deal of time and the services of three or four medical officers. As yet no trace or suspicion of bubonic plague has been found.

I have to report that the United States transport *Burnside* left this port on the 5th, without bills of health, for Cienfuegos. I immediately cabled the medical officer in command at Cienfuegos and also brought the matter to the attention of the commander of the port and the quartermaster's department for their action in the matter. This vessel has left on previous occasions with bills of health and has always conformed to the regulations. I can only explain her action in this matter as being the result of carelessness on the part of one of her officers.

The quartermaster's department has assured me that it will take such action as will prevent the repetition of any violation of quarantine regulations.

I beg to transmit herewith the usual mortality report for the week.

Respectfully,

G. M. GUITÉRAS,

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

The SURGEON-GENERAL,

U. S. Marine-Hospital Service.

[Inclosure.]

Mortality report for Havana for the week ended January 6, 1900.

Diseases.	Dec. 31.	Jan. 1.	Jan. 2.	Jan. 3.	Jan. 4.	Jan. 5.	Jan. 6.	Total.
Enteritis.....	1	1	21	1	21	1		46
Diphtheria.....	1							1
Yellow fever.....	3	1				1		5
Enteric fever.....	1	1						2
Tuberculosis.....		4	2	4	1	2	1	14
Malarial fever.....		1				1	2	4
Pneumonia.....			1	2	1		1	5
Pernicious fever.....						1	1	2
Total deaths, all causes.....	14	14	19	17	15	21	18	118

Smallpox on the steamship Santanderino at Havana.

[Cablegram.]

HAVANA, CUBA, January 16, 1900.

Steamship *Santanderino* arrived yesterday with 2 cases of smallpox—remanded to Mariel Quarantine.

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

NOTE.—This vessel was from Liverpool, December 16, and Vigo, December 29.

*Case of yellow fever at Mantanzas.*MATANZAS, CUBA, *January 5, 1900.*

SIR: I have the honor to report to you that on this day I have been officially informed by the chief surgeon of the United States military hospital that on December 20, 1899, Private Byron De Witt, Company H, Tenth United States Infantry, was admitted at the said hospital, and is now suffering with yellow fever.

Respectfully,

FELIX GARCIA,

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

The SURGEON-GENERAL,

*U. S. Marine Hospital Service.**Reports from Nuevitas.*NUEVITAS, CUBA, *January 2, 1900.*

SIR: I have the honor to submit the following report for the week ended December 30, 1899: There have arrived at this port 8 vessels, and 10 bills of health have been issued. The health of the port is good and I have no deaths to report for the above week.

Puerto Padre reports the arrival of 6 vessels and 11 bills of health issued, 3 deaths, and sanitary condition good. Report from Gibara not yet received. I have not received a reply from the physician I wrote to in Baracoa.

The *Half Moon* has not arrived and I have heard nothing from her, as I last wrote, since leaving Southport, N. C. I desire to call your attention to the fact that I am constantly receiving baggage from Havana, marked on Cuban passes, "to be disinfected at Nuevitas," and I would suggest that such baggage be sealed in Havana, as the trip from Havana here is usually made in two nights and one day. The staterooms on the steamers are usually crowded, and the baggage to be disinfected at this place is usually opened and kept open in the crowded cabins, thus, if infected, endangering nonimmunes and the vessels.

By the mail, I forward the report of property on hand January 1, 1900, the report including the house containing the disinfecting plant.

On account of cool weather and the bad condition of the tents on Cayo Poota, I am not sending Americans and newly-arrived foreigners to that place, but keep them under constant observation, until the completion of five days from Havana, requiring them to sleep in the house rented by Assistant Surgeon Richardson, which I have supplied with cots from the quartermaster's department here. I would respectfully suggest that portable houses of wood or corrugated iron, the latter preferred on account of the danger from fire, be provided for the detention camp on Cayo Poota.

Lumber for the houses can be purchased here, but the material for the iron houses would have to be purchased in the United States. A transport is in the harbor now, for the removal of the infantry from this province, leaving only cavalry, the garrison at this port remaining the same, numerically, reducing that at Puerto Principe about one half.

Respectfully,

OWEN W. STONE,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*NUEVITAS, CUBA, *January 8, 1900.*

SIR: I have the honor to submit the following report from this station for the week ended January 6, 1900: Eight vessels have arrived

and 5 bills of health have been issued. Three deaths are reported. The weather is cool and the health of Nuevitas good. No infectious or contagious disease reported.

Puerto Padre reports 5 vessels arrived and 11 bills of health issued. No deaths, and sanitary condition good. Gibara reports for the week ended December 30, 1899: Nine vessels arrived and 4 bills of health issued and 5 deaths. I am satisfied there must be some mistake in the report from Puerto Padre, as Dr. Maceo reported for the preceding week 6 arrivals and 11 bills of health issued. I have written to him, as it is not reasonable that there should be such a discrepancy between the arrivals and bills of health issued. I have no information as to the *Half Moon* other than that conveyed by the bills from the Department.

Respectfully,

OWEN W. STONE,

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

The SURGEON-GENERAL,

U. S. Marine-Hospital Service.

Reports from Santiago, Manzanillo, Guantanamo, and Daiquiri.

SANTIAGO DE CUBA, *December 27, 1899.*

SIR: I have the honor to make the following report of the sanitary condition of the fourth district of the island of Cuba for the week ended December 23, 1899.

Santiago.—During this period there were 20 deaths among the civil population, the following being the principal causes: Tuberculosis, 2; tetanus, 2; malaria, 5; diphtheria, 1; other causes, 10; total, 20. Population, 43,000; mortality, 24.18. No contagious diseases were reported.

Manzanillo.—No deaths or contagious diseases were reported for this period.

Guantanamo.—No report.

Daiquiri.—Nothing of interest reported.

Respectfully,

HERMAN B. PARKER,

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

The SURGEON-GENERAL,

U. S. Marine Hospital Service.

SANTIAGO DE CUBA, *January 2, 1900.*

SIR: I have the honor to make the following report of the sanitary condition of Santiago for the week ended December 30, 1899: There was a total of 27 deaths among the civil population, the following being the principal causes: Yellow fever, 2; malaria, 6; intestinal diseases, 4; pneumonia, 4; bronchitis, 2; other causes, 9; total, 27. Population, 43,000; mortality, 32.65.

There were 2 cases of yellow fever with 2 deaths; both cases were Americans of the lower type, both being addicted to the excessive use of alcohol; both came also from the lower part of the city near where the infection commenced last year.

Nothing else of interest has been reported.

Respectfully,

HERMAN B. PARKER,

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

The SURGEON-GENERAL,

U. S. Marine-Hospital Service.

ENGLAND.

*Report from Liverpool.*LIVERPOOL, ENGLAND, *January 6, 1900.*

SIR: I have the honor to make the following report concerning the sanitary condition of this port: No typhus or smallpox exists. Scarlet fever, typhoid fever, and diphtheria are present, but in nothing like epidemic form. There is a moderate epidemic of influenza prevailing at present. The death rate for December, 1899, was 35 per 1,000, calculated on a twelve-month basis. The increased mortality over the ordinary annual rate is ascribed to the presence of influenza.

I have devoted the past week, it being the first week of my stay in Liverpool, to a general investigation of the conditions regarding the shipment of persons and things for United States ports.

No inspection of vessels other than passenger steamers is made by the medical inspector of the board of trade. Passenger vessels are inspected shortly before the hour of sailing. The steerage and second-class passengers and the crew are mustered on deck and file past the medical inspector of the board of trade and the ship's doctor. The inspection was rapid but effective, in my opinion, as far as quarantinable disease is concerned, in the special instance witnessed by me. The steamers examined were in good sanitary condition.

The immigrant traffic at present is light, as the spring rush has not commenced as yet. No immigrants have appeared this week from the Spanish peninsula. Russian immigrants bringing certificates of disinfection from the control stations on the German border at the present time are passed at this port, the effects of those not thus certified are disinfected here. The process of steam disinfection as practiced here can be made efficient with a few minor changes in the methods of procedure. The other immigrants seen to date are from Norway, Sweden, Germany, Scotland, and England.

In regard to freight, the following facts have been ascertained. The greater part of the freight shipped at this port for the United States is of British origin. The only articles appearing on the manifests for the past week from infected localities were hides and wool from India. The hides are certified by the United States consular agent at the port of shipment as being arsenic cured, they come through dried, baled, and pressed. At present they are passed without detention.

Wool from India is subject to thirty days' detention at this port before it may be shipped to the United States. I am informed that all wool from India originates in Northern India, Thibet, and Afghanistan. It is loosely sacked and transported either by river or rail to Kurrachee, Bombay, or Calcutta. In these ports it is prepared for shipment. The wool is removed to the washing grounds, where it is washed in salt or brackish water and then sun dried by exposure in thin layers on the sand. It is then transferred to warehouses in the business portions of the city where it is assorted and baled, covered with burlap and shipped. The washing grounds and baling warehouses are invariably in the suburbs, on account of the larger space of ground required.

The shortest possible time in which wool could reach Liverpool from its point of origin is two months. Every bale of wool arriving in Liverpool is warehoused and sampled. I am informed by men in the wool business here for forty years that they have never known a case of contagious disease to appear among the men handling and sampling this wool. Disinfection here of this wool I am convinced is not

practicable, owing to the expense involved. Until instructed to the contrary, I shall pass from India without detention arsenic-cured hides. Wool from India will be subject to a thirty days' detention here until orders to the contrary are received. Little freight has as yet appeared from Mediterranean ports, furs and cured goatskins being the only articles shipped to date and originating in Smyrna.

Further data as to persons and things shipped to the United States from this port will be transmitted to the Bureau as acquired.

Respectfully,

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

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

Report from Southampton.

SOUTHAMPTON, ENGLAND, *January 5, 1900.*

SIR: I have the honor to transmit herewith the weekly sanitary report for the week ended December 30, 1899: In this connection I have the honor also to report that influenza is reported as prevailing over much of the south of England, though this port so far has escaped. Portsmouth, 30 miles east from this place, seems to have suffered most, the death rate changing from 26 to 40 in one week. I have been unable to learn the total number of cases.

Respectfully,

W. C. HOBDS,
Assistant Surgeon, U. S. M. H. S.

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

FRANCE.

Work at the Pasteur Institute.

PARIS, FRANCE, *December 24, 1899.*

SIR: I have to state for your information that besides my other duties at this institute I have conducted some experiments with the purpose of determining the influence of reduced temperatures upon the natural infectivity of the bacillus icteroides when administered to white mice, these animals being the most easily caged for such purposes, and being most highly reactive to this organism.

Prior to the advent of winter weather in this city, the exhibition of this organism on pure culture, either subcutaneously, intravenously, or intraperitoneally, always gave results denoting the virulence of the organism unimpaired. However, with the advent of cold weather in November, it was found that either the bacillus was becoming attenuated or that certain antisera with which I was working were more potent, the animals receiving such sera withstanding the germ, the controls still succumbing. When, on December 5, the temperature was decidedly reduced, I inoculated 6 guinea pigs subcutaneously with 1 c. c. each bouillon culture b. of icteroides, 4 of them having, during the preceding week, received from 12-15 c. c. each of serum anticoli (Lesage). From this date until the 11th the weather was quite cold, and the cage containing the animals was kept in the laboratory room at about 60° F. On the 11th all the animals were well, excepting small abscesses at point of inoculation in the vaccinés, and hard, sharply defined areas in the subcutaneous tissue of the controls. This condition being unusual, I placed the cage for one night in the incubator at 35° C., and

removed it the next morning, placing it in another room at 25° C., from which it was removed on the 13th. One control succumbed during night of the 12th, and was devoured by the others. Therefore, it is assumed that with the elevation of temperature this animal succumbed, the others remained well.

During this intensely cold weather I exposed 2 mice to bacillus icteroides in their groins, and placed the cage at 25°C. Also 4 others to the same organism, the bouillon tube being equally divided between the 2 cages, and placed this cage at laboratory room temperature, or about 18°C. One mouse in the elevated temperature died in eight days and nine hours from time of exposure, the other died in twelve days and ten hours; the first being the nearly normal period of the disease, the last unusually long. The animals in the colder atmosphere of the room remain at this date well, the exposure commencing on the 11th, while the 2 were not exposed in the elevated temperature until December 14. Other observations are under way.

Our epidemiologic knowledge of yellow fever has been to the effect that cold weather stops the disease invariably, and this well-established fact has been made use of by Novy (*a*) to strenuously oppose the claim of Sanarelli, which my researches have now made mine also, that the bacillus icteroides is the cause of this malady. The possible recrudescence of the disease in the the following summer has been noted so recently as 1897 and 1898, and can but be taken as proof of the attenuation of the specific cause of the disease, the microorganism not having been exposed to a temperature sufficiently low to destroy its power of reproducing the disease in man. The well-known variations in the daily reports of new cases during the final days of an epidemic, the number declining rapidly after and during cool weather, again to increase with the increase of the temperature, and finally ending with the advent of temperatures continuously below 40° F., indicate the attenuation of the organism to a degree just below that at which it can infect.

My experience thus far is that the organism is innocuous to the most susceptible of all animals, mice, at 15–18° C., but that at a temperature of 25–30° C. these animals succumb in about the same period of time as did those with which I experimented in the tropics.

* * * * * * *

The determination of the true clinical character of the pest, through the researches of the Oporto commission under the direction of M. Chalmette of the Institut Pasteur, has contributed largely to our knowledge not only of this dread disease, but also to our general knowledge of the nature of infection and resistance. The discovery that natural infections with pest take place by way of the respiratory tract, where the primary localization takes place, and that the septicaemia in such cases is *secondary*, is closely confirmatory of the conclusions drawn by your Havana commission earlier in the year.

From a case dead of the pest in Vienna, Austria, there has been isolated a pest bacillus which materially differs from others at hand here, in that it has lost its toxicity and septicity, for when placed under the skin of mice in the doses usually fatal to these animals it produces no reaction whatever, nor does it produce reaction when introduced into the peritoneal cavity. However, when this same bacillus is touched to the mucosa of the nose of the mouse it succumbs in due season, exhibiting a general septicaemia, the germ regaining its pristine viru-

a Medical News, New York, September 10 and 17, 1898.

lence of septicity after several continuous passages through mice. The quality of virulence in an organism may be of two kinds, either toxic or septic, the virulence of the former being independent of the presence of the latter, and vice versa. In pest, the virulence is mainly, if not purely, septic; at least the fulminant cases are not well marked, and death usually takes place in consequence of a general blood invasion.

Yet this power to produce sepsis in mice seems to have been completely lost, in the special culture from Vienna, when introduced artificially, thus seemingly determining the fact that besides the qualities of toxicity and septicity which it has lost, this germ possesses a third, the power to infect white mice when exposed to it naturally, or the quality of infectivity. These do not depend upon each other, although it has been generally observed that those pathogenes that are extremely toxic are nonseptic, such as the bacillus diphtheriæ, and that of tetanus; while those extremely septic are not so markedly toxic and although there is no well-marked type of this latter class, bacillus pestis produces almost invariably a sepsis, either of the blood, or the lymph in its channels.

It is quite different with the bacillus icteroides, which at times develops an overwhelming toxicity to the exclusion of sepsis, producing those anatomic changes common to the acute intoxications, such as the fatty degenerations, in marked degree, while at others the septicity is most marked, and the anatomic changes are found to be those of the septic diseases, such as (pest and typhoid fever) the areas of necrosis in the organs and the usually enlarged spleen.

To this quality, septicity, in the bacillus icteroides are due those cases which at necropsy present more the appearance of enteric fever than the classic picture of yellow fever. Furthermore, should there exist any preceding disease productive of anæmia, such as chronic malaria, the anatomic appearances may readily yield to such influence, the organs showing no typical fatty changes, but, as said above, only those of *necrosis*; this fact having been observed in the cases of anæmic animals intoxicated with phosphorus, that anæmia contradetermines fatty degeneration.

My attention has also been attracted to a para-colon organism (Lesage) isolated in pure culture from the body of an infant dead from cholera infantum. Peculiarly the entire body, its tissues and fluids, was a culture medium of the one germ, none other being found even in the alimentary contents. This organism, when kept on tube media, is naturally infective to mice in about 50 per cent of cases, but when the intestinal contents of a mouse dead from it is mixed with the food of new mice it is invariably fatal. Moreover, the anatomic appearances are strikingly similar to those from *b. icteroides*, and its cultural and biologic characteristics are much the same.

The only difference I have observed casually is the presence of the colon film on the surface of bouillon. This germ, however, kills mice at the cold-room temperatures, thus not being influenced by cold, as is the case with *b. icteroides*. That the bacillus coli communis is materially changed under certain conditions, as when it is injected into and allowed to multiply in the spleen of the dog, or (as possibly) in the cases of cholera infantum, there is no doubt, and in the latter cases it becomes not only toxic but septic also, invading the entire body. The change in this organism from the innocuous denizen of alimentary canal, or lung, into a toxic and septic germ is finally followed by it assuming the quality of infectivity, which it may, and does, lose again when kept on artificial media. From these observations, there must arise the ques-

tion, "are the nearly allied (to colon) organisms, bacillus typhi, b. cholerae suis, American, and Hungarian, bacillus peripleuro-pneumoniæ of calves, b. icteroides, derived from an original colon; are these germs possibly retrogressive into the common colon?" As an honored confrère has suggested to me, "is the bac. icteroides a colon become habituated to high temperatures in southern or tropic countries?"

From a rather intimate association with the bacillus icteroides, I am inclined to doubt that its specificity is a quality derived from heat, else all hot countries would readily generate "de novo" cases of yellow fever which would thus become endemic in them. The endemic of yellow fever, "sans jeune," in French Algeria is difficult of explanation, save that it was an infection with a para-colon—not with bacillus icteroides. Bacillus icteroides is more readily classed with bacillus pestis in its having to perfection the eminent qualities of toxicity, septicity, and infectivity unchangeable, so far as we now know, except by reduced temperatures, the ultimate fate of the attenuated germ being beyond our knowledge.

Respectfully,

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

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

Report from Havre.

HAVRE, FRANCE, January 5, 1900.

SIR: I have the honor to report that, as already reported to the Bureau, I arrived at this port December 26, 1899, and called at the United States consulate in order to take up my duties in connection with that office. In the absence of Mr. Thackara, United States consul, I was received by Mr. J. P. Beecher, vice-consul, who gave me a most cordial reception and has done everything in his power to put me on a pleasant footing with those I shall have to meet in the execution of my duties.

As preliminary to entering upon my duties, I called with Mr. Beecher upon M. Nicolle, commissaire d'emigration, and upon the director of the French Line, M. Boyer, and his assistants, including Dr. Martin-Dupont who is medical director and has charge of all the medical and sanitary work of the line. All received me very graciously.

* * * * *

From the consular records I learn that at present all the passengers leaving this port sail by the French Line (Compagnie General Trans-Atlantique), which sails every Saturday, and carries each week from 200 to 800 steerage; at this season of the year rather nearer the former than the latter number. These passengers can be divided for our purposes into 2 groups, viz, those from beyond Marseilles and collected at that city, and those from this side of Marseilles; generally, from various points in France or Switzerland. The latter are ticketed from many points but always near their homes and from a general district known to be healthy; the former, over half are all ticketed from Marseilles, or some point in Italy.

Those from Marseilles, possibly a fourth or fifth of the total number, are almost all from the Orient, chiefly Syria, Turkey, and Armenia. From their uncertain origin these passengers are a danger in so far as plague is concerned, but owing to the time that necessarily elapses before embarking, on account of these people coming to Marseilles by

boat, and owing to the fact that they are subjected to French quarantine regulations—the precise nature of which I can not at present state—this danger is at present small. Owing to the prevalence of diseases of the eye among the people from Asia, this class is besides, I understand, examined at Marseilles by an oculist employed by the steamship company. I might further state that this line will take no passengers coming from Portugal, at present, on account of the existence of plague in that country.

All steerage passengers arrive at Havre on a special train on Saturday morning about 6 a. m., seldom more than three or four hours before the steamer sails. They are put in a large room, where first they are vaccinated, or their marks passed by a physician of the French Line, and then, as they pass out one by one, are examined for trachoma and favus by the surgeon of the ship about to sail, and for general health by the surgeon representing the commissaire d'emigration. They then pass on to the clerk's desk, where they are entered on the immigration lists, and all not from Marseilles pass on board. The latter are held until their baggage is inspected or disinfected. Bedding, I understand, is always steamed in the steam chamber (about 5 by 8 feet) on the wharf, but other baggage is passed, or has a solution of carbolic acid and bichloride of mercury sprayed upon it.

It will be seen that the only passengers that might come from an infected district are several days on the road and are subjected to many examinations. I therefore do not contemplate imposing for the present at least any new restrictions beyond inspection and having all bedding and all personal baggage of passengers from Marseilles disinfected by steam.

I have also notified the French company that bedding may have to be prohibited later on but as the amount brought is very small I believe at present disinfection is sufficient.

Other vessels leaving this port for the United States, Puerto Rico, and Cuba are tramp steamers and sailing vessels and will be reported on in another letter.

Respectfully,

S. B. GRUBBS,
Assistant Surgeon, U. S. M. H. S.

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

GERMANY.

Report from Hamburg.

HAMBURG, GERMANY, *January 3, 1900.*

SIR: In accordance with instructions contained in Bureau letter of the 2d ultimo, assigning me to duty at this consulate, I have the honor to report upon my work here for the week ended December 30, 1899.

On account of having arrived immediately before Christmas, and the week that followed having been a holiday season in this city, little has been accomplished during the week. The present season of the year, however, is not the busiest with respect to the inspection of emigrants and vessels. The work is also somewhat simplified by there being only a single line of vessels carrying passengers from this port, the Hamburg-American Line. During the winter season usually only one passenger vessel a week is sent to the United States by this line, the sailing day being Sunday.

The quarantine regulations with reference to the inspection of vessels and steerage passengers and the requirements concerning cargoes have been carried out by the consul, through a deputy consul and an employee of the office. The inspection of the vessel is made twenty four hours before sailing, in company with the official inspectors of the Hamburg State. Inspection of baggage is done on the two days preceding embarkation at the "Auswanderers-Halle" and at the "Passagier-Wartehalle," and on the morning of embarkation at the Passagier-Wartehalle. The manifest of cargo is examined and a certificate of disinfection from a chemist of the city of Hamburg or the sworn disinfecter of the consulate or another United States consulate in the district from which the articles are shipped is demanded on such articles as require disinfection under the regulations, the certificates being compared with the manifest on the morning of sailing. The emigrants, or steerage passengers, are inspected, in company with the physician to the bureau of emigration of the State of Hamburg as they embark.

Emigrants coming from Russia through this port are received at the Auswanderers-Halle, or State emigration station, and held in actual quarantine until they are placed on board the vessel on the day of sailing. As these emigrants are received at the Auswanderers-Halle they are bathed and their baggage and clothing are disinfected, and they are afterwards examined by the State physician and are inspected by him daily until embarked, the period of observation depending entirely upon how long before the sailing of the vessel the emigrants arrive.

Steerage passengers from Spain and Portugal do not pass through this port, and those from other parts of Europe, except Russia, are not subjected to the quarantine above described and are only inspected as they pass through the Passagier-Wartehalle to embark.

The present Auswanderers-Halle, provided by the State, is the same that was used in 1893, at the time of the cholera epidemic, and plans have been drawn for a new and very complete establishment to take the place of the old. It is intended to build this new establishment next fall. The old one appears to be well kept in spite of its somewhat dingy look, and the principles of quarantine observed are exactly correct. The steam-disinfecting chambers used there and in the Passagier-Wartehalle are identical and are inferior to those in use at our United States quarantine stations.

The Passagier-Wartehalle, where the steerage passengers are assembled to embark, is a State establishment and the Hamburg-American Line rents space in the building and furnishes the employees who do the disinfecting of baggage, the same being performed under the supervision of a clerk of this consulate.

On Sunday, December 24, I witnessed the embarkation of 300 steerage passengers bound for New York on the steamship *Belgravia*; on Thursday I visited the Auswanderers-Halle with Dr. W. L. Homann, the State physician in charge of that branch; and on Saturday I witnessed the inspection of the steamship *Pennsylvania*, which was to sail the following day for New York, and also saw the method of inspecting and disinfecting the baggage of steerage passengers.

I have confined my work thus far to studying the methods of work already in use. There are a great many details to become familiar with, and I shall report upon them from time to time in future letters.

Respectfully,

A. C. SMITH,

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

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

HAWAIIAN ISLANDS.

*Further concerning plague in Honolulu.*HONOLULU, H. I., *January 1, 1900.*

SIR: I have the honor to inform you that since my last report on the 26th ultimo, the following deaths have occurred from bubonic plague in Honolulu: One case on December 27, 2 on December 28, 3 on December 31, 1899, and 2 January 1, 1900. All of the cases reported have been fatal and present the same general characters as those previously reported.

The receiving hospital at Kaakako is now ready for the reception of patients, and radical measures are now being adopted for the cleansing of Chinatown which is in a deplorable sanitary condition. The district is now being depopulated in sections, the people are removed to barracks under guard, and the houses that cases of plague occurred in burned under direction of the city fire department. This work was begun yesterday and will be kept up until its value as a sanitary measure is proved or otherwise.

The type of the disease which is marked by lymphatic involvement is very fatal, all of the undoubted cases having died. The death rate for December is very large, 156 deaths having been reported up to the 29th ultimo. I have been informed by some of the resident physicians that there have occurred within the past month quite a number of cases of pneumonia with a high mortality, but as yet there are no positive indications that it is the pneumonia type of plague. Nearly all of the public schools have been closed. The board of health is doing everything it can to suppress the disease, and is ably supported by the citizens of Honolulu.

The United States transport *Grant*, with colored troops for Manila, passed here on the 28th instant, but had no communication with Honolulu.

All freight from the Orient is now disinfected by sulphur dioxide before distribution.

The Hongkong *Maru* leaves here for the coast to-day, but takes no passengers or freight from here. She landed here in quarantine 628 Japanese.

Respectfully,

D. A. CARMICHAEL.
Surgeon, U. S. M. H. S.

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

*Plague at Honolulu—(Continued).*WASHINGTON, D. C., *January 16, 1900.*

SIR: I have the honor by direction of the Secretary of State to inform you that the Department is to-day in receipt of two telegrams from the consul-general of the United States at Honolulu, Hawaiian Islands, in regard to the existence of plague at that place. They are dated at Honolulu, January 5 and 9, respectively.

The first reads as follows: "Since January 1, 5 cases, 4 deaths. Several suspicious. Disease evidently epidemic."

The second reads: "Since last telegram, 2 deaths."

Respectfully,

THOS. W. CRIDLER,
Third Assistant Secretary.

Hon. SECRETARY OF THE TREASURY.

IRELAND.

*Report from Queenstown.*QUEENSTOWN, IRELAND, *January 6, 1900.*

SIR: Complying with Bureau letter (J. W. B.) of the 13th ultimo, directing that a weekly report be forwarded to the Bureau, I have the honor to report as follows:

Four steamship lines make this a port of call between Liverpool and America: The Cunard and White Star lines to New York, American Line to Philadelphia, Cunard Line to Boston, Dominion Line to Boston.

A tender meets these westward-bound vessels outside the harbor entrance if the weather permits. If not, the steamers come just inside the harbor entrance. On the eastward run, should the weather not permit of the tender going outside, the steamers usually go on to Liverpool without stopping.

Very few vessels leave here direct for the United States. Only 6 original bills of health were issued last year, and they were given to vessels going out in ballast. Supplemental bills of health to the number of 226 were issued in 1899.

Few steamers are running now on account of England using so many as transports to South Africa.

The passengers for the steamers touching here arrive just a few hours before the tender starts. They are all from Ireland. They are inspected during daylight by the board of trade physician, and another officer of the same board inspects the vessel to see if she has proper quarters, food, etc., for the passengers.

My first vessel was the steamship *Belgenland* of the American Line, Liverpool to Philadelphia. I inspected 5 cabin and 5 steerage passengers with their baggage last night.

Respectfully,

J. H. OAKLEY,

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

The SURGEON-GENERAL,

U. S. Marine-Hospital Service.

ITALY.

*Reports from Naples.*NAPLES, ITALY, *December 27, 1899.*

SIR: I have the honor to report that for the week ended December 27, 1899, the following ships were inspected: December 22, the steamship *Sempione*, of the Italian General Navigation Company, bound with passengers and cargo for New York. There were inspected and passed 1 cabin and 398 steerage passengers and 140 pieces of large and 326 pieces of small baggage. Steamship *Ems*, of the North German Lloyd Steamship Company, bound with passengers and cargo for New York. There were inspected and passed 16 cabin and 118 steerage passengers and 64 pieces of large and 100 pieces of small baggage.

Respectfully,

VICTOR G. HEISER,

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

The SURGEON-GENERAL,

U. S. Marine-Hospital Service.

NAPLES, ITALY, *January 3, 1900.*

SIR: I have the honor to report that for the week ended January 3, 1900, the following ship was inspected: December 30, steamship

Hesperia, of the Anchor Line, bound with passengers and cargo for New York. There were inspected and passed 242 steerage passengers and 50 pieces of large and 196 pieces of small baggage. The steerage lists of this ship showed that no emigrants had embarked from the district of Salerno, where smallpox prevails.

Respectfully,

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

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

Smallpox at Angri.

NAPLES, ITALY, January 2, 1900.

SIR: In accordance with your instructions of the 30th ultimo, directing me to investigate the rumors about plague at Salerno, Italy, I have the honor to submit the following report:

I proceeded at once to Salerno, and at that place I was informed that the disease which had caused so much excitement was at a small village named Angri. It was reported at Salerno that the first person to die of it was a man who came from Alexandria, Egypt. The popular opinion being that the disease was plague, and that the authorities were withholding the diagnosis.

On my arrival at Angri, I learned that the disease in question was smallpox. Four persons had been attacked, all of whom died.

There is not much doubt that the disease was carried to Angri by a shoemaker who had fled from Marseilles, France, in order to avoid the epidemic which is raging there at present. The authorities at Angri claim to have taken all the necessary precautions. Emigrants coming from that district will be subjected to rigid inspection and their baggage disinfected before being permitted to embark for the United States.

Respectfully,

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

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

JAPAN.

Plague in Osaka and Kobe—Pneumonic type probably exists.

YOKOHAMA, JAPAN, December 20, 1899.

SIR: Since my report of December 12, which brought the record of plague in Japan down to the 9th instant, the following cases have occurred in which the diagnosis is clear: One, a resident of Osaka, died on the 15th, and, on the same day a case was detected at the Osaka railway station in a party of sixty emigrants on their way to Hawaii via Yokohama. All these intending passengers were immediately taken to a disinfecting depot for treatment, and, as under the terms of a circular issued by me on the 22d, they must, after arrival at Yokohama, remain under observation for fifteen days, and submit to thorough disinfection, I think that when they leave here they will be fairly safe. On the 16th a fatal case was reported at Kobe in a district outside of the original epidemic center. On the 17th a case at Osaka proved mortal in a few hours, and, a second fatal case occurred there on the same day. On the 17th and 18th 2 cases died of plague in Kobe.

In addition to the above-noted cases in which the diagnosis was undoubted, suspicious cases have been reported from Okayama, the ken immediately adjoining that of Hiogo on the south; also on board

a local trading steamer in one of the ports of Miye Ken, a little north of Osaka; and one in Shidzuoka Ken about half way between Yokohama and Kobe.

No second case has been returned from Nagasaki where one was said to have been met with on the 9th, as already reported to you.

The most capable experts who have been investigating the epidemic in and about Kobe seem convinced that the infection has been present much longer than was at first supposed. In the low district of Kobe, where the disease was earliest detected, there had occurred, nominally from acute pneumonitis, 270 deaths during the months of September and October, and, during the same period and in the same locality, 230 deaths were ascribed to acute meningitis. Beriberi also, which, in its acute form, is marked by heart failure and dyspnoea, figures under the same circumstances as responsible for 266 deaths. Professors Kitasato and Ogata are inclined to suspect that most of these cases were of the pneumonic or other very acute form of plague, which, by the ignorant physicians in attendance on people of the class affected, might easily be mistaken for either of the diseases named.

It is certainly strange that this unusual mortality, especially that ascribed to acute pneumonitis, until within a few years practically unknown in Japan, and even now rare, should not have attracted the attention of the Kobe authorities.

The type of the cases which have been diagnosed as plague by competent men, appears to be most malignant. The patients, in many instances, die before there is time for lymphatic lesions to become evident, and the fatal event often occurs within a few hours of the first attack. I have not, as yet, been able to learn of the recovery of a single well marked case.

While I think that there is, probably, little reason to fear any wide development of the epidemic during the winter months, the persistency with which single cases are occurring farther and farther from the original focus of disease, affords ground for grave uneasiness as to what the spring may bring us.

Respectfully,

STUART ELDRIDGE, M. D.,
*Acting Assistant Surgeon, U. S. M. H. S.,
Sanitary Inspector, Yokohama.*

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

PHILIPPINE ISLANDS.

Plague in Manila.

[Cablegram.]

MANILA, PHILIPPINE ISLANDS, *January 16, 1900.*

Arrived Friday. Five cases of plague now present in Manila.

PERRY, *Passed Assistant Surgeon.*

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

SPAIN.

Reports from Barcelona.

BARCELONA, SPAIN, *December 30, 1899.*

SIR: I have the honor to transmit abstract of bills of health issued at this port, and to make the report of the transactions at this place for the week ended December 30, 1899.

On the 26th the steamship *Catalina* was inspected, 21 cabin and 41 steerage passengers were inspected and passed and 49 pieces of baggage were inspected and labeled.

On the 28th the steamship *Martin Saenz*, for the West Indies and Mexico, was inspected, 5 cabin and 3 steerage passengers were inspected and passed and 6 pieces of baggage inspected and labeled. On the 30th the steamship *Portuguese Prince* was inspected and given a supplemental bill of health. She was from Genoa via Marseilles and Barcelona to Cuba and the United States. In view of the statement on the supplemental bill given by the consul at Marseilles that the death rate was double the usual, and that pulmonary diseases were the attributed cause, I subjected the crew to a very close inspection, but found all healthy. The health of Barcelona continues about as usual. I have not been able as yet to get regular reports from the sanitary officials. There are 3 ships to sail from this port for United States Possessions in the next five days.

Respectfully,

JOHN F. ANDERSON,
Assistant Surgeon, U. S. M. H. S.

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

BARCELONA, SPAIN, *December 30, 1899.*

SIR: I inclose daily clippings from a local paper giving the number of cases and deaths from the plague at Lisbon and Oporto. I will send them each week hereafter; at present am not able to translate them but hope to do so later, and then will only send the translation.

The following was copied from the bill of health issued by the United States consul at Marseilles, France, to the English steamship *Portuguese Prince* for New Orleans via Barcelona and Havana, and I thought it might be of interest to the Bureau. Official mortality report says: Death rate in Marseilles at present is over double the usual figures, chest affections being largely responsible therefor. Have not been able to obtain regular reports from the sanitary officers here, but hope to soon.

Respectfully,

JOHN F. ANDERSON,
Assistant Surgeon, U. S. M. H. S.

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

Reports from Barcelona, Bilbao, Corunna, and Vigo.

BARCELONA, SPAIN, *December 29, 1899.*

SIR: I have the honor, in obedience to Bureau telegram of December 19, to make the following report of my inspection as regards emigration from the ports of Santander, Bilbao, Corunna, and Vigo: In regard to Santander I respectfully refer to my letter of December 16, in which I reported fully as to that port. I inspected the Spanish trans-Atlantic line steamship *Alfonso XIII*, December 20, from Santander via Corunna to Cuba and Mexico. I inspected and passed 243 steerage and 72 cabin passengers; 1 steerage passenger was rejected as just recovering from smallpox. By my direction the ship's surgeon vaccinated all third-class passengers.

On the 22d I inspected the steamship *France* of the French trans-Atlantic Company, from St. Nazaire to Cuba via Santander and Corunna. I inspected and passed 9 cabin and 50 third-class passengers.

Both these ships are well fitted for carrying passengers; ample air space, ventilators, water-closets, hospital, and bunks. The third class

passengers were almost entirely male, chiefly boys, from 12 to 20 years of age; a great many had been to Cuba before; the majority will return to Spain. They came chiefly from Asturias, northern Old Castile, and northern Leon; those from near Bilboa take train to Santander; those from Gihon are brought over by coasting steamers. The number leaving Santander this month was about 400, much less than half the number of the previous month. For January, the steamship agents said they did not expect even half as many as in December; so there will be very little emigration until next fall, when it will begin again and last for three or four months. I am still of the opinion that an acting assistant surgeon can manage the work satisfactorily.

On the 21st I visited Bilboa; called on the United States consul, and he informed me that there was no emigration from Bilboa direct to the West Indies, as all intending emigrants took ship at Santander.

BILBOA.

There are about 5 ships a month from Bilboa to the United States, chiefly tank steamships in ballast, and some few with iron ore. The harbor is not deep enough for the large passenger steamers to come in. Work is being done to increase the depth, and when that is completed the Spanish trans-Atlantic Company expect to have their steamer call there for passengers to the West Indies. I do not think the work justifies the presence of a medical officer at that port.

CORUNNA.

On the 23d I arrived at Corunna and there observed the inspection of emigrants for Cuba on the steamship *France*; she carried 130 passengers from Corunna. The United States consul at Corunna, Mr. Julio Harmony, has inaugurated a very good system of examining emigrants and their baggage. He questions each one as to his previous residence and health, then opens his baggage and throws out all food, and then labels it. Of course, not being a physician, he can not examine them from a medical standpoint, but as the emigrants from Spain are chiefly young persons, in good health, going out for work, that is not of great importance, so long as he is sure that none come from Oporto or its vicinity. Corunna is a city of about 50,000 inhabitants, situated on a small bay about one mile from the ocean. It has quite an important trade with England, Germany, South America, and the West Indies. The principal exports are wine, fish (dried and tinned), fruits, preserves, vegetables, some manufactured goods, onions, and garlic.

It has not direct rail communication with Oporto; no line of coasting vessels with same point. The water supply is obtained from mountain springs and is distributed through iron pipes by fountains located in the public squares. Typhoid fever is endemic and sometimes the deaths are numerous from it; smallpox always present; vaccination not compulsory and is much opposed by the lower classes. I saw one case of smallpox on the street desquamating.

The total number of persons leaving Corunna for the West Indies during the month of December was about 600, as against over 1,200 during November; as at the other places visited this number will be much decreased from now until September. During September, October, and November the number of persons leaving Corunna for the West Indies is very large. I was informed that up to December 24 over 9,000 passports had been issued by the captain of the port to persons wishing to leave Spain; of this number, more than half were thought to have gone to Cuba and Puerto Rico.

I believe that an acting assistant surgeon should be sent over from the States for duty at Corunna. He could also do the work at Vigo. He would be much assisted by the United States consul at Corunna. From Corunna he could have an eye on Vigo, which is about twelve hours by rail from Corunna and eighteen hours by boat, and as most of the steamships that stop at Vigo, first touch at Corunna he could easily arrange the work.

VIGO.

On the 24th I arrived at Vigo, and called on Mr. Mulder, the former United States consular agent, and from him derived much valuable information. Vigo is a city of about 16,000 inhabitants, situated on Vigo Bay, seven miles from the ocean. It has quite a large trade with England, Germany, Holland, South America, and the West Indies.

* * * * *
The water supply is good in quality, but deficient in quantity. It is from springs in the near-by mountains, and is distributed by fountains. Typhoid fever is very prevalent; also smallpox. Few are vaccinated, as it costs about 2 pesetas, and the results are sometimes very sore arms. The principal exports are wine, fish, dried and tinned, fruit preserves, potatoes, onions and garlic, some flour, and some few manufactured goods.

From Vigo since November 1, there have embarked for the West Indies 365 persons; this is the official number, but that is always less than the actual. * * * Almost all persons embarking here for the West Indies come from the immediate vicinity of Vigo, none at present from Portugal. There are from two to five ships a month from Vigo to the West Indies; all are freight steamers, but carry some passengers. I was told that from now until September the number of persons embarking at Vigo would be very small. Vigo has direct railroad communication with Oporto, but all persons are required by the Spanish government to cross the frontier at Tuy; there is a quarantine station there; all persons from Oporto and its vicinity are stopped; their clothing and baggage disinfected by steam, and they are required to bathe in some disinfecting solution, especial attention being paid to the hair, which, if long, is cut before bathing; they are not required to undergo a period of detention. There is no emigration from Portugal through Spain to the West Indies; what Portuguese emigration there is goes to South America, and Lisbon is the point of embarkation. I think there is not much, if any, communication with Portugal and no emigration from there through Vigo.

While all persons from Portugal are supposed to pass through Tuy when crossing the frontier, still the frontier could be crossed at other points and the persons then enter Vigo.

I do not think at present there is any danger to the West Indies from Vigo, but it should be most carefully looked after, as I believe on account of its proximity to Oporto it would be one of the first places in Spain for the plague to be introduced from Oporto. I believe the officer at Corunna could easily manage the work at both places. The large emigration from Santander, Corunna, and Vigo is due in part to the fact that Galicia, from which province most of the emigrants come, is the most densely populated province in Spain.

I left Vigo on the 25th and after a most disagreeable journey arrived here on the 27th; have inspected 2 ships since my arrival, another to inspect to-morrow, several next week.

I respectfully submit the following recommendations :

1. That an acting assistant surgeon be appointed for duty at Santander ; another for duty at Corunna and Vigo. I think it best that a man be sent over from the States for this work, best for both places, though if impracticable to send both from the States the English doctor mentioned in my letter of the 17th might be appointed for Santander. While the emigration from now until September will probably be small, still, in my opinion, these places should be filled so that the men could get things systematized before the heavy season begins. I consider it absolutely essential that these men should have a knowledge of Spanish.

2. That the State Department reestablish the consular agencies at Santander and Vigo.

3. That the quarantine and emigration officials in Cuba and Puerto Rico be instructed to pay especial attention to bills of health, passenger manifests, inspection cards, and baggage labels of emigrants from Spain, and if lacking in any particular rigorously enforce the fines and penalties, also.

4. That all third-class passengers from Spain be required to be vaccinated before embarkation. On account of the prevalence of smallpox in Spain I regard this as very necessary. I do this in Barcelona.

5. That I be given authority to visit the northern and western coasts of Spain at irregular times and observe the methods above noted when under operation.

I have endeavored to make this report as plain as possible and to cover all necessary points.

Respectfully,

JOHN F. ANDERSON,
Assistant Surgeon, U. S. M. H. S.

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

Report from Cadiz.

CADIZ, SPAIN, *December 26, 1899.*

SIR: I have the honor to transmit herewith the weekly abstract of the bills of health for the week ended December 23 ; also to submit the following report relative to Cadiz and vicinity, prepared in compliance with Bureau order of November 6, 1899 :

I took charge of the work pertaining to the Service here on the 21st instant, the day following my arrival. During the remainder of the week there were no vessels sailing coming within my jurisdiction.

The steamship *Cataluna*, of the Spanish trans-Atlantic Line, is advertised to sail for Puerto Rico and Cuba on the 30th instant, and it is presumed it will carry out a considerable number of cabin and steerage passengers, although the statistics of the consul's office show a decided falling off in the travel from this port in that direction in the past six weeks.

The Spanish trans-Atlantic Line is the chief carrier of emigrants going from Cadiz, and probably also for the other parts of Spain as well. The other regular lines, Pinillas, Jover, and Pratt & Co., carry but a limited number from here.

As Barcelona is the original port of departure, the steamers of the lines call at Majorca, Valencia, Terra Vigo, and Malaga, en route, and take on emigrants at each of these places if there be any, before reaching Cadiz, which is the last port touched at, except the Canaries, before arriving at Puerto Rico.

As yet I have been unable to obtain any accurate information with

reference to the bulk of the travel from these by-ports. The consul keeps no records of it, nor can the steamship people here furnish it. It is judged, however, to exceed the travel from Cadiz. This being the case, it seems desirable that an inspection should be made of these various ports with the view of instituting a medical inspection and treatment of baggage, if deemed necessary, before the passengers are allowed to go on board. As Cadiz is but a port of call, the steamers remain no longer than is required to take on cargo and passengers. To handle those passengers, so arriving here, in a satisfactory manner is going to be difficult. The steamers do not come up to the docks for want of sufficient depth of water, but anchor a half mile offshore some $2\frac{1}{2}$ miles north of the city. The facilities for reaching them on most occasions will be by rowboat.

As previously reported, vessels sailing for the West Indies from the northern ports of Spain do not call at Cadiz on the way out. Santander is the original port of departure on the coast, thence via Corunna and Vigo Bay, and direct from the latter port to Puerto Rico and Cuba. There is a fairly quick coastwise service between Cadiz and Vigo Bay and points southward, and the steerage travel this way from those points, especially north of the northern frontier of Portugal, is light, for the reason of the additional expenses entailed.

The people of northern Spain differ from those of the south in spirit of activity and enterprise, which accounts to some extent for the recent exodus from there to the West Indies.

From September 6 to the present date, the total number of vessels sailing from Cadiz and requiring United States consular bills of health was 18, 16 of which were furnished supplemental bills, and all but 2 were bound for Puerto Rico and Cuba. During the same period, 374 cabin and 504 steerage passengers embarked at Cadiz for Puerto Rican and Cuban ports. I am credibly informed that a considerable number of these were Cubans, released prisoners of war, returning to their homes in the islands.

Southern Spain has no quarantine stations. Vessels bound for ports east of Cadiz go to the island of Minorca in the Balearic Group to do quarantine, while those for Cadiz or ports north proceed to Vigo for treatment. A third station is located at or near Santander. As a consequence, vessels from yellow fever and other infected ports do not enter ports of Southern Spain from May 1 to November 1 without having first gone through one of these stations.

Cadiz is practically on an island, as the promontory on which it is located is connected with the mainland by a narrow strip or isthmus only. It is surrounded by a high, broad wall, and is confined to a relatively small area. The streets are exceedingly narrow, while the houses are correspondingly high. The principal streets and ways are kept scrupulously clean, but the side streets are badly neglected in a sanitary way. The natural drainage is good, as the city is built on undulating ground, and is on an average about 15 feet above tide water.

The plumbing arrangements in the small number of houses so furnished are poor and the vast majority have none at all.

The population of Cadiz at the last census, taken in 1898, was 63,277. It is probably somewhat less now.

The mortality ratio is high. Later statistics are not obtainable at present, but those for October, 1899, are as follows :

Infectious and contagious diseases—

Smallpox.....	5
Dysentery	1
Typhoid fever.....	2
Diphtheria.....	2
Syphilis.....	1
Carbuncles	1
Other infectious and contagious diseases.....	8
Diseases of the respiratory system.....	50
Diseases of the circulatory system.....	17
Diseases of the digestive apparatus.....	22
Diseases of the nervous system.....	90
Diseases of the urinary apparatus.....	4
Cancer.....	3
Total	202

Smallpox is always present in the city in a greater or lesser number of cases. It is also reported to be prevalent in Cordova some 100 miles north from here.

With regard to the suspected case of plague occurring here in November, the person, a man, gave the following previous history : He had resided in Santander for one year and came from there to Cadiz by steamer, and was employed on a steamer lying in the harbor for a month, occasionally going ashore. He applied in person at one of the hospitals for treatment for a swelling in the region of the groin, and being suspected was taken charge of by the health authorities and isolated in a building without the walls of the city. After six days, from the objective symptoms presented and the results of the bacteriological examination, it was decided not to be plague ; but as a matter of precaution he was detained isolated, for a further period of fourteen days, and was released only recently. Aside from the symptoms and the negative findings bacteriologically, if the history as furnished be true, I am inclined to think and feel it is safe to state, the case, whatever it was, was not one of plague.

In the local papers of recent date, practically the only source of information here, it was stated that the sanitary cordon had been removed from around Oporto, and later, I learned that communication between Oporto and Spanish ports may be shortly resumed, as no cases of plague had been reported from there for the past several days. Under date of the 25th instant the papers reported 9 new cases of plague in Oporto and 9 cases with 7 deaths in Masan, a small town on the coast north of and not far distant from Oporto. Hence, my cablegram of the 25th instant, "Plague present in Masan." Vigo is but 87 miles by water from Oporto and less from Masan.

This new outbreak will most probably have the effect of causing the cordon to be reestablished around Oporto, as also the postponement of the contemplated communications with Spanish ports. It would seem highly desirable that the situation at Masan should be investigated on account of its close proximity to Vigo as a port of departure for Cuba and Puerto Rico, and also to observe what measures are being enforced to suppress the disease and prevent its spread to other places.

Respectfully,

J. A. NYDEGGER,

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

The SURGEON-GENERAL,

U. S. Marine-Hospital Service.

TURKEY.

Report from Constantinople.

[Report No. 235.]

CONSTANTINOPLE, *December 20, 1899.*

SIR: The sanitary condition of the city of Constantinople is rather good. The number of deaths registered from the 20th of last November to the 18th instant is 955, of which 2 were from measles, 12 from diphtheria, and 33 from typhoid fever.

The official sanitary news from the Turkish provinces, except Bassorah, is good. From the latter province it is stated that cholera broke out at Amara; that said place as well as the city of Slay are surrounded by a sanitary cordon, therefore the lazaretto of Kaut-el-Amara is considered useless, and consequently abolished.

I have the honor to inclose herein the following communications of the sanitary board: The sanitary decisions concerning the parcels and fruits coming from Egypt, the quarantine against Bassorah, the quarantine against Egypt, the acceptance without any quarantine of ships coming from Ceylon, and the communications concerning the establishment of a serum institute for the preparation of serum by the inoculation of which the outbreak of plague is prevented.

Respectfully,

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

[Inclosures.]

Circular telegrams to the health officers, December 2, 1899—Translated in this Bureau.

[No. 1.]

By decision of the superior council of health the five days' quarantine imposed on arrivals from Egypt is reduced, for departures subsequent to December 2, 1899, to forty-eight hours of observation, with disembarkation and disinfection at the lazaretto of the clothing and effects of passengers and crew, as well as of susceptible merchandise.

Dr. COZZONIS,
Inspector-General.

[No. 2.]

By decision of the superior council of health, vessels arriving with clean bill of health from the island of Ceylon and without pilgrims on board shall be given free pratique in ports of the Ottoman Empire.

Dr. COZZONIS,
Inspector-General.

[No. 3.]

CIRCULAR TELEGRAMS OF DECEMBER 12, 1899.

By decision of the superior council of health, fruits and vegetables arriving from Egypt are accepted.

By decision of the superior council of health, postal packages arriving from Egypt are accepted. The disinfection of mail from the same source is abolished.

By decision of the superior council of health, the ten days' quarantine against arrivals from Bassorah is suspended.

Dr. COZZONIS,
Inspector-General.

[No. 4.]

COMMUNICATION OF THE ENGLISH DELEGATE.

PÉRA, December 12, 1899.

DEAR M. STIEPOVICH: Not being well I do not venture, in such weather, to go to the meeting of the council to-day. I therefore beg you to make my excuses and to communicate to the council the inclosed bulletins in regard to mortality in India.

If the question of the establishment of a bacteriological laboratory at the expense of

the sanitary treasury, should be renewed before the council, I beg you to repeat my protest. As delegate of the English Government I can not act contrary to the stipulations agreed on between the Sublime Porte and the Government of Her Britannic Majesty. If the other members of the council persist in this proposition without the consent of the Government of Her Britannic Majesty the presence of its delegate in the council can no longer be justified.

Accept my assurance of regard.

E. D. DICKSON.

FOREIGN STATISTICAL REPORTS.

AFRICA—Cape Town.—Month of November, 1899. Estimated population, 60,000. Total number of deaths, 201, including diphtheria, 4; enteric fever, 4; measles, 1, and 5 from whooping cough.

ARGENTINA—Buenos Ayres.—Month of October, 1899. Estimated population, 784,859. Total number of deaths, 1,195, including diphtheria, 13; enteric fever, 5; measles, 9; scarlet fever, 30; whooping cough, 9, and 132 from phthisis pulmonalis.

BRITISH COLUMBIA—Victoria.—Year ended December 31, 1899. Estimated population, 26,000. Total number of deaths, 210, including enteric fever 1, and 2 from beriberi.

CANADA—Province of Ontario.—Reports to the provincial board of health for the month of November, 1899, from 640 localities having an aggregate estimated population of 2,125,864, show a total of 1,501 deaths, including diphtheria, 40; enteric fever, 40; measles, 6; scarlet fever, 12; whooping cough, 8, and 146 from phthisis pulmonalis.

DENMARK.—Month of November, 1899. Estimated population, 2,311,000. Total number of deaths, 19,650, including diphtheria, 969; enteric fever, 232; measles, 609; scarlet fever, 1,541; whooping cough, 861, and 310 from phthisis pulmonalis.

Copenhagen.—Month of November, 1899. Estimated population, 355,000. Total number of deaths, 3,680, including diphtheria, 216; enteric fever, 59; measles, 52; scarlet fever, 316; whooping cough, 98, and 78 from phthisis pulmonalis.

GERMANY—Weimar.—Month of November, 1899. Estimated population, 27,438. Total number of deaths, 44, including 1 from diphtheria.

GREAT BRITAIN—England and Wales.—The deaths registered in 33 great towns in England and Wales during the week ended December 23, 1899, correspond to an annual rate of 27.5 a thousand of the aggregate population, which is estimated at 11,404,408. The highest rate was recorded in Portsmouth, viz, 42.4, and the lowest in Huddersfield, viz, 17.6.

London.—Two thousand six hundred and seven deaths were registered during the week, including measles, 58; scarlet fever, 11; diphtheria, 54; whooping cough, 31; enteric fever, 36, and diarrhea and dysentery, 12. The deaths from all causes correspond to an annual rate of 29.9 a thousand. In Greater London 3,401 deaths were registered, corresponding to an annual rate of 27.2 a thousand of the population. In the "outer ring" the deaths included 21 from diphtheria, 11 from measles, 5 from scarlet fever, and 3 from whooping cough.

Reports for the two weeks ended December 16, 1899, from 15 cities and towns having an aggregate estimated population of 670,000, show a total of 259 deaths, including diphtheria, 6; enteric fever, 5; measles, 5; scarlet fever, 2, and 54 from phthisis pulmonalis.

MORTALITY TABLE, FOREIGN CITIES.

[illegible]

Cities.	Week ended.	Estimated population.	Total deaths from all causes	Deaths from—								
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.
Bergen	Dec. 20	68,000	20							1		1
Do	Dec. 27	68,000	26									
Birmingham	Dec. 23	514,956	279						5		3	8
Do	Dec. 30	514,956	240						3		1	4
Bluefields	do	3,018	7									
Bombay	Dec. 5	821,764	1,049	130	135	1		18				15
Do	Dec. 12	821,764	1,200	164	170	1		7				30
Bradford	Dec. 16	231,260	93						1		5	5
Do	Dec. 23	231,260	95						1		4	3
Do	Dec. 30	231,260	100							2	1	6
Bremen	Dec. 23	145,000	40									
Bristol	do	320,911	157								3	1
Do	Dec. 30	320,911	140									
Brussels	Dec. 23	551,611	269							5		6
Budapest	Nov. 26	640,000						1			8	1
Do	Dec. 3	640,000						1			9	5
Do	Dec. 10	640,000									9	4
Do	Dec. 17	640,000									8	9
Do	Dec. 24	640,000						1			5	3
Cairo	Nov. 25	570,062	366					1				
Do	Dec. 2	570,062	364					1	2			7
Do	Dec. 9	570,062	353						1			5
Callao	Dec. 3	25,000	20									
Cartagena	Dec. 23	25,000	7									
Catania	Dec. 28	124,000	45	1						2		1
Chihuahua	Dec. 30	24,000	39					13				1
Do	Jan. 6	24,000	15					4				
Christiania	Dec. 23	225,000	66									
Coburg	Dec. 9	20,065	5									
Do	Dec. 16	20,065	8									
Do	Dec. 23	20,065	3									
Cognac	do	20,400	10									
Do	Dec. 30	20,400	9									
Cologne	Dec. 23	362,022	165	13								3
Colon	Jan. 3	8,000	7									
Colombo	Nov. 25	130,000	96							1		
Do	Dec. 2	130,000	91						2			
Constantinople	Dec. 25	875,000	261					1		7		
Copenhagen	Dec. 23	351,000	146	16							1	
Corunna	Dec. 30	40,000	20									
Crefeld	Dec. 23	108,183	53									3
Do	Dec. 30	108,183	132								1	1
Dresden	Dec. 9	400,400	137									
Do	Dec. 16	400,400	187									
Dublin	do	348,594	256									
Do	Dec. 23	348,594	285						8		1	5
Do	Dec. 30	348,594	280						3		1	3
Dundee	Dec. 16	166,072	70						2		1	1
Do	Dec. 23											

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated popu- lation.	Total deaths from all causes.	Deaths from—										
				Tuberculo- sis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Leipsic.....	Dec. 16	430,635	142	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....
Leith.....	Dec. 23	77,385	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 30	77,385	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Licata.....	Dec. 23	20,000	12	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Liege.....	do.....	170,429	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liverpool.....	do.....	668,645	413	.....	.....	.....	.....	.....	.....	4	4	1	12	22
Do.....	Dec. 30	668,645	452	.....	.....	.....	.....	.....	.....	4	6	4	7	15
London.....	Dec. 23	6,528,434	3,401	.....	.....	.....	.....	.....	.....	26	16	75	69	75
Do.....	Dec. 30	6,528,434	4,020	.....	.....	.....	.....	.....	.....	22	17	80	75	38
Lyons.....	Dec. 16	466,028	221	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 23	466,028	242	.....	.....	.....	.....	2	.....	3	3	2	.....	.....
Palermo.....	do.....	300,000	134	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Panama.....	Jan. 2	16,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paris.....	Dec. 23	2,511,629	1,156	.....	.....	.....	.....	.....	.....	11	4	5	4	1
Plymouth.....	Dec. 30	100,000	95	9	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Prague.....	Dec. 23	190,260	114	.....	.....	.....	.....	.....	.....	1	.....	2	1	.....
Puerto Cortes.....	Jan. 3	2,000	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quebec.....	Jan. 6	73,000	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Queenstown.....	do.....	15,000	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rio de Janeiro.....	Nov. 27	768,000	309	52	.....	.....	3	53	.....	3	.....	.....	.....	.....
Do.....	Dec. 1	768,000	271	.....	.....	.....	7	41	.....	6	.....	.....	.....	.....
Rome.....	Dec. 2	507,244	48	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....
Rotterdam.....	Dec. 30	319,491	200	.....	.....	.....	.....	.....	.....	4	4	1	.....	.....
St. Georges.....	do.....	2,150	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Jan. 6	2,150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. John, New Brun- swick.....	do.....	45,000	11	1	.....	.....	.....	.....	.....	.....	.....	1	.....	1
St. Petersburg.....	Dec. 16	1,267,023	670	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 23	1,267,023	663	.....	.....	.....	.....	.....	.....	27	20	36	22	11
St. Stephen, New Brun- swick.....	Jan. 6	3,000	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sheffield.....	Dec. 16	363,505	148	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 23	363,505	159	.....	.....	.....	.....	.....	.....	3	2	14	8	.....
Singapore.....	Nov. 25	97,111	149	20	.....	.....	.....	.....	.....	2	1	15	9	2
Do.....	Dec. 2	97,111	163	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Smyrna.....	Dec. 17	300,000	59	14	.....	.....	.....	2	.....	1	.....	1	.....	.....
Solingen.....	Dec. 16	16,000	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Do.....	Dec. 23	16,000	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Southampton.....	do.....	103,186	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Do.....	Dec. 30	103,186	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stettin.....	Dec. 23	153,000	75	.....	.....	.....	.....	.....	.....	1	.....	2	.....	.....
Stuttgart.....	Dec. 21	162,934	69	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Do.....	Dec. 23	162,934	83	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tamsui.....	Oct. 21	2,797,543	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Oct. 31	2,797,543	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Nov. 7	2,797,543	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Nov. 14	2,797,543	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trapani.....	Dec. 23	45,095	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trieste.....	Dec. 16	166,499	115	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 23	166,499	133	.....	.....	.....	.....	.....	.....	.....	3	5	5	.....
Tuxpam.....	Jan. 1	10,000	12	.....	.....	.....	.....	.....	.....	.....	4	5	.....	.....
Victoria.....	Dec. 9	20,000	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 16	20,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 23	20,000	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 31	20,000	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Valencia.....	Dec. 30	207,000	108	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vienna.....	Dec. 23	1,639,811	643	.....	.....	.....	.....	.....	.....	1	2	13	17	3
Warsaw.....	Dec. 16	601,408	.....	.....	.....	.....	.....	7	.....	5	9	5	14	1
Do.....	Dec. 23	601,408	.....	.....	.....	.....	.....	5	2	.....	6	6	4	2
Yokohama.....	Nov. 25	189,455	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 2	189,455	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....
Do.....	Dec. 9	189,455	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Dec. 16	189,455	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Zurich.....	do.....	163,837	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	2

By authority of the Secretary of the Treasury :

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