

# PUBLIC HEALTH REPORTS.

## UNITED STATES.

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

*Experiments with sulphur dioxide (5 per cent) for exposures less than twelve hours.*

SAN FRANCISCO QUARANTINE STATION,  
*Angel Island, Cal., November 30, 1901.*

SIR: I have the honor to transmit herewith a report of Acting Asst. Surg. S. A. Ransom relative to a series of experiments that were undertaken at this station with a view of determining whether the period of time could be shortened in the disinfection of vessels by sulphur dioxide.

The experiments, as the report shows, were made with care and thoroughness, and point to the conclusion that the time of exposure necessary to sterilize by means of sulphur dioxide can be shortened for all vessels to twelve hours exposure with almost perfect safety. This gain of twelve hours for iron vessels and thirty-six hours for wooden vessels would greatly facilitate their passage through quarantine, and incidentally be considerable of a gain in a commercial sense.

It is worthy of note that in experiment No. 5 all of the insects and all of the organisms, except the bacillus subtilis, were killed and the rat survived, although the conditions were such as to make rather an imperfect exposure. As insects are now supposed to be one of the principal factors in the dissemination of contagious diseases, that they are so readily killed by exposure to sulphur dioxide for a few hours, should inspire new confidence in this gas as a reliable insecticide.

Respectfully,

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

[Inclosures.]

SAN FRANCISCO QUARANTINE STATION,  
*Angel Island, Cal., November 27, 1901.*

SIR: I have the honor to submit herewith for your consideration certain data concerning experiments conducted under your supervision with a view of ascertaining the efficacy of sulphur dioxide fumigation in exposures of less than twelve hours, under conditions obtaining in actual practice.

In all, 6 experiments were made. In Nos. 1, 2, 3, and 4, the gas was rapidly evolved by the use of one of the furnaces installed on the hulk *Omaha*; in the remaining two, Nos. 5 and 6, it was produced by the pot method.

In experiments 1 to 4, inclusive, the conditions under which the work was done were practically identical, with the exception that in No. 1 dry gas was used, while in the following three, live steam, at a very low pressure, was introduced at the same time. No rats or insects were employed in experiments Nos. 3 and 4.

The following methods were pursued in the first four experiments:

The forward hold of the *Omaha*, containing 9,792 cubic feet, was the place selected in which to carry on the work, and for this space 49 pounds of roll sulphur were burned in the furnace and the gas was introduced through a 6-inch hose by means of the fan, thus giving approximately 5 per cent per volume strength. The exposure in

Nos. 1, 2, and 4 was six hours from the time all the gas was in, or seven hours altogether. In No. 3 the exposure was one hour longer. In No. 1, 6 common gray rats, together with flies, roaches, fleas, and ants were subjected to the sulphur fumes. Three of the rats were in a cage suspended near the top of the compartment, while the remainder were placed at the bottom in a box specially constructed to simulate as closely as possible the conditions under which these animals live aboard ship. This box was divided into 3 spaces, each containing a little more than a cubic foot, and having tight-fitting covers. At one end was an opening 6 inches square, covered with wire gauze; at the other a 3-inch circular aperture was provided. The middle compartment communicated with the outside only through the end spaces, through 2 holes, each 1½ inches square. Each division was filled with straw.

The insects were contained in wire gauze cages suspended at different heights in the hold.

In each experiment the bacillus subtilus, bacillus pestis, bacillus typhosis, bacillus pyocyaneus, and staphylococcus pyogenes aureus were submitted to the action of the gas in the following manner:

Four pieces of sterile absorbent gauze about 1 cm. wide and 3 cm. long were placed in separate sterile Petri dishes, and inoculated by means of a sterile pipette with 2 drops of a pure bouillon culture of one of the organisms. One such dish with top removed was securely wrapped in 2 thicknesses of sterile blanket, one in 2 thicknesses of sterile sheet, the third was exposed without protection, while the remaining one was covered and placed aside as a control. A few drops of the same culture were incorporated with a quantity of sterile garden earth, spread about 1 cm. thick in a Petri dish and thus exposed. The preparations were distributed to different parts of the hold. Upon the expiration of the specified time the animals, insects, and organisms were immediately removed from the influence of the gas, and the latter, together with the controls, planted in tubes of sterile bouillon.

In experiments Nos. 5 and 6, as before stated, the gas was evolved by burning roll sulphur in the ordinary way in an iron pot surrounded with water. In No. 5, 1 of the isolation cabins containing 1,417 cubic feet of space was employed for making the exposure, and in No. 6, 1 of the steam-disinfecting chambers of 1,500 cubic feet capacity was utilized. The entire time of exposure in each case was seven hours and 5 per cent of gas was used. The cabin permitted the escape of the major part of the gas, there being but a faint odor of sulphur perceptible when it was opened, while, on the other hand, fully fifteen minutes elapsed before it was possible to approach the chamber after opening it.

In No. 5 all of the organisms previously enumerated were used and in the same manner. Flies, spiders, and moths were also exposed. In this and the following experiment, No. 6, but 1 rat each was used, it being placed in the middle compartment (the most difficult of access) of the box. In No. 6 only 3 organisms were employed, viz. the bacilli of plague, typhoid fever, and the hay bacillus.

The bacillus subtilus was selected for these experiments as a representative of the spore-bearing organisms, and the others, especially plague and typhoid fever, because they were types which may be frequently encountered in actual disinfection. The cultures used varied in age from twenty-four hours to ten days.

The last 5 experiments were fatal to all of the planted organisms except the bacillus subtilus.

All controls grew promptly.

It will be noticed, upon reference to the accompanying table, that some contaminations occurred in the bacteriological work. In experiment No. 2 these could be accounted for by the falling of a hatch cover into the hold, stirring up a quantity of dust, after the preparations were in place.

Insects were destroyed whenever used, which statement applies also to rats, except in No. 5 where the animal survived, apparently none the worse for his experience.

I am very much indebted to Dr. Walker for the assistance which she has rendered me throughout this work.

Respectfully,

S. A. RANSOM,  
*Acting Assistant Surgeon, U. S. M. H. S.*

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

*Table showing result of experiments with sulphur dioxide (5 per cent) for six hours' exposure.*

Explanations: - indicates animals or organisms killed, + indicates their survival, C indicates contaminations.

Experiment—	Rats.			Insects.			Subtilus.			Plague.			Typhoid.			Pyocyanus.			Pyogenes aureus.					
	Open.	In earth.	In blanket.	Open.	In earth.	In blanket.	Open.	In earth.	In blanket.	In sheet.	Control.	Open.	In earth.	In blanket.	In sheet.	Control.	Open.	In earth.	In blanket.	In sheet.	Control.			
																						Open.	In earth.	In blanket.
No. 1.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 2.....	-	-	-	C	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
No. 3.....	-	-	-	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
No. 4.....	-	-	-	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
No. 5.....	-	-	-	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	C	C	-
No. 6.....	-	-	-	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-

*Smallpox at Shreveport, La.*

SHREVEPORT, LA., *December 16, 1901.*

SIR: I have the honor to inform you of the smallpox situation in this port and the surrounding country.

Everything is being done by the city officials possible to stamp it out. There are a number of infected points in the city, and the greatest difficulty in the way of handling it properly is in the concealment of cases by some of the colored people.

The parish authorities of Caddo and Bossieu have not done anything to date to suppress it, except to furnish vaccine virus. The reason of this neglect is due to the mild form of smallpox in the country the past eighteen months. It is now regarded by many as a trivial disease. I saw Dr. J. C. Egan, president of the Shreveport board of health (he is also a member of the Louisiana State board of health), about the matter to-day. He informs me he will mandamus the police juries of his district if they do not take action. He has authority to do so under State act 192 of 1898.

All cases to date are colored.

Any instructions you may give me in regard to the matter I will gladly execute.

Respectfully,

J. S. O'LEARY,  
*Acting Assistant Surgeon, U. S. M. H. S.*

*Amendment to the regulations against the spitting nuisance in Boston.*

BOSTON, MASS., *July 11, 1901.*

SIR: At a meeting of the board of health this day, the regulation dated October 13, 1896, respecting the deposit of sputum in street cars and other public places, amended March 23, 1899, is hereby again amended so as to read as follows:

The board of health hereby adjudges that the deposit of sputum in public places is a nuisance, source of filth, and cause of sickness, and hereby orders: That spitting upon the floor, platform, or steps of any railroad or railway station, or car, or from any electric car while said car is in the subway or elevated above the surface of the ground, or upon the floor, platform, or steps of any public building, hall, church, theater, market, or any sidewalk immediately connected with said public places, be, and hereby is, prohibited.

Respectfully,

C. E. DAVIS, Jr.,  
*Secretary.*

*Arrival at Reedy Island of vessels from Mexican and West Indian ports.*

REEDY ISLAND QUARANTINE,  
via Port Penn, Del.; December 15, 1901.

SIR: Through the medical officer in command of national quarantine service on Delaware Bay and River, I have the honor to report the arrival at this station of the following vessels: December 8, 1901, British steamship *Mexicano*, from Tampico, in ballast; no passengers; bill of health signed by Samuel Magill, consul, and by medical inspector, U. S. Marine-Hospital Service. December 9, 1901, American schooner *Slater*, from Havana, with bones; no passengers; bill of health signed by Surgeon Glennan. December 11, 1901, Norwegian steamship *Peter Jepsen*, from Tampico, in ballast; no passengers; bill of health signed by Samuel E. Magill, consul and medical inspector, U. S. Marine-Hospital Service.

Respectfully,

T. F. RICHARDSON,  
Assistant Surgeon, U. S. M. H. S.,  
In Command.

REPORTS FROM THE MEXICAN BORDER.

*Laredo, Tex., December 11, 1901—Inspection service.*—I have the honor to submit the following inspection report for the week ended December 7, 1901: Number of passenger trains from Mexico inspected, 14; persons on passenger trains inspected, 659; immigrants inspected, 20; immigrants vaccinated upon entry, 7; Pullman Company soiled linen disinfected, 4,432 pieces.

*Detention of passengers and disinfection of personal effects not necessary during winter.*

LAREDO, TEX., December 11, 1901.

SIR: I have the honor to report receipt of your telegram dated December 11, 1901, "Not necessary to detain passengers or disinfect personal effects during winter months; inspection should be for detection of illness only—letter follows." I had not detained any passengers after November 15 on account of coming from yellow fever infected ports, but have only disinfected some dirty appearing baggage. I operated according to instructions received for 1899-1900, supposing they would be applicable to this year also, especially as this has been an exceptionally favorable year as regards epidemics of yellow fever.

Respectfully,

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

*Statistical reports of States and cities of the United States—Yearly and monthly.*

CONNECTICUT.—Reports to the State board of health for the month of November, 1901, from 162 towns having an aggregate census population of 903,001, show a total of 1,104 deaths, including diphtheria, 28; enteric fever, 23; measles, 3; scarlet fever, 7; whooping cough, 8, and 120 from phthisis pulmonalis.

ILLINOIS—*Chicago.*—Month of September, 1901. Estimated population, 1,758,025. Total number of deaths, 2,070, including diphtheria,

34 ; enteric fever, 74 ; measles, 3 ; scarlet fever, 8 ; whooping cough, 21, and 207 from tuberculosis.

INDIANA—*Evansville*.—Month of November, 1901. Estimated population, 65,000. Total number of deaths, 57, including enteric fever, 1, and 12 from tuberculosis.

*Michigan City*.—Two weeks ended December 16, 1901. Census population, 14,850. Total number of deaths, 10.

MICHIGAN.—Reports to the State board of health, Lansing, for the week ended December 14, 1901, from 85 observers, indicate that cerebrospinal meningitis, erysipelas, measles, pneumonia, and scarlet fever were more prevalent and inflammation of bowels, intermittent fever, remittent fever, and whooping cough were less prevalent than in the preceding week. Cerebro spinal meningitis was reported present at 5, whooping cough at 19, measles at 20, diphtheria at 43, enteric fever at 68, smallpox at 72, scarlet fever at 116, and phthisis pulmonalis at 194 places.

*Grand Rapids*.—Month of November, 1901. Estimated population, 90,000. Total number of deaths, 76, including diphtheria, 3 ; enteric fever, 2, and 5 from tuberculosis.

MINNESOTA—*St. Paul*.—Month of November, 1901. Estimated population, 165,000. Total number of deaths, 111, including diphtheria, 6 ; enteric fever, 2, and 23 from tuberculosis.

NEBRASKA—*South Omaha*.—Two weeks ended December 14, 1901. Census population, 2,601. Total number of deaths not reported. Two deaths from scarlet fever reported.

NEW HAMPSHIRE—*Manchester*.—Month of November, 1901. Estimated population, 60,000. Total number of deaths, 78, including enteric fever, 1, and 9 from tuberculosis.

NEW JERSEY—*Hudson County*.—Month of October, 1901. Population, 386,048. Total number of deaths, 721, including diphtheria, 26 ; enteric fever, 10 ; scarlet fever, 2 ; smallpox, 1 ; whooping cough, 1, and 80 from phthisis pulmonalis.

NEW YORK—*Buffalo*.—Month of November, 1901. Census population, 352,387. Total number of deaths, 424, including diphtheria, 19 ; enteric fever, 5 ; measles, 2 ; scarlet fever, 5 ; whooping cough, 1 ; smallpox, 1, and 42 from tuberculosis.

OHIO—*Toledo*.—Month of November, 1901. Estimated population, 150,000. Total number of deaths, 105, including diphtheria, 8 ; enteric fever, 5 ; measles, 1, and 6 from tuberculosis.

*Zanesville*.—Month of November, 1901. Estimated population, 28,000. Total number of deaths, 22, including diphtheria, 6, and 5 from tuberculosis.

WISCONSIN—*Milwaukee*.—Month of November, 1901. Estimated population, 295,000. Total number of deaths, 317, including diphtheria, 10 ; enteric fever, 5 ; scarlet fever, 2, and 43 from tuberculosis.

*Report of immigration at Boston during week ended December 14, 1901.*OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,  
*Port of Boston, December 15, 1901.**Number of alien immigrants who arrived at this port during the week ended December 14, 1901;  
also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of immigrants.
Dec. 8	Steamship Boston.....	Yarmouth, Nova Scotia.....	85
Dec. 10	Steamship Livonian.....	Glasgow, Scotland.....	1
Dec. 12	Steamship Boston.....	Yarmouth, Nova Scotia.....	52
Do.....	Steamship Philadelphian.....	Liverpool, England.....	1
Do.....	Steamship Bonavista.....	Halifax, Nova Scotia.....	20
Dec. 14	Steamship Ultonia.....	Liverpool, England.....	149
	Total.....		308

GEORGE B. BILLINGS,  
*Commissioner.**Report of immigration at New York during the week ended December 14, 1901.*OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,  
*Port of New York, December 17, 1901.**Number of alien immigrants who arrived at this port during the week ended December 14, 1901;  
also names of vessels and ports from which they came.*

Date.	Vessel.	Where from.	No. of immigrants.
Dec. 8	Steamship St. Paul.....	Southampton.....	136
Do.....	Steamship L'Aquitaine.....	Havre.....	648
Do.....	Steamship Island.....	Copenhagen, etc.....	117
Do.....	Steamship Columbia.....	Genoa and Naples.....	461
Dec. 10	Steamship Maasdam.....	Rotterdam.....	544
Do.....	Steamship Coleridge.....	Rio de Janeiro.....	30
Dec. 11	Steamship Southwark.....	Antwerp.....	588
Do.....	Steamship Kaiser Wilhelm der Grosse.	Bremen.....	733
Dec. 12	Steamship Anchoria.....	Glasgow.....	136
Do.....	Steamship Teutonic.....	Liverpool and Queenstown.....	109
Dec. 14	Steamship Cassel.....	Bremen.....	615
Do.....	Steamship Nord America.....	Genoa and Naples.....	1,257
	Total.....		5,369

THOMAS FITCHIE,  
*Commissioner.*

*Report of immigrants inspected at the port of Astoria, Oreg, (Columbia River Quarantine Station), during the month of November, 1901.*

Total number of immigrants inspected, 5 Chinese males; number passed, 5 Chinese males.

BAYLIS H. EARLE,  
*Assistant Surgeon, U. S. M. H. S.*

*Report of immigrants inspected at the port of Philadelphia, Pa., during the month of November, 1901.*

Total number of immigrants inspected, 825; number passed, 808; number certified for deportation on account of dangerous contagious or loathsome diseases, or for other physical causes, 17.

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

## Reports from national quarantine

Number	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
	<b>UNITED STATES:</b>				
1	Alexandria, Va.....	Dec. 14			
2	Apalachicola, Fla.....	do			
3	Beaufort, N. C.....	Dec. 21			
4	Biscayne Bay, Fla.....	Dec. 14			
5	Boca Grande, Fla.....	do			
6	Brunswick, Ga.....	do	Sp. brig Alfredo (a)	Dec. 7	Havana
7	Cape Charles, Va.....	do	U. S. S. Alliance	Dec. 13	St. Thomas
8	Cape Fear, N. C.....	do			
9	Cedar Key, Fla.....	Nov. 30			
10	Columbia River, Oreg.....	Dec. 14			
11	Cumberland Sound, Fla.....	do			
12	Delaware Breakwater Quarantine, Lewes, Del.	do			
13	Dutch Harbor, Alaska.....				
14	Eureka, Cal.....	Dec. 7			
15	Grays Harbor, Wash.....	Dec. 14			
16	Gulf Quarantine, Ship Island, Miss.	do			
17	Key West, Fla.....	do			
18	Los Angeles, Cal.....	do			
19	Newbern, N. C.....	do			
20	Nome, Alaska.....	do			
21	Pascagoula, Miss.....	Dec. 14			
22	Port Angeles, Wash.....	Dec. 7			
23	Port Townsend, Wash.....	Dec. 14			
24	Punta Grande, Fla.....	do			
25	Punta Rasa, Fla.....	do			
26	Reedy Island, Del.....	do			
27	St. Georges Sound, Fla.....	do			
28	St. Johns River, Fla.....	do			
29	San Diego, Cal.....	do			
30	San Francisco, Cal.....	do			
31	San Pedro, Cal.....	do			
32	Santa Rosa, Fla.....	do	It. bk. Rosa (a)	Dec. 3	Tralee
			Nor. bk. Mark Twain (a)	Dec. 5	Alloa
			Nor. bk. Natant (a)	do	Leith
			Swd. bk. Wakefield (a)	Dec. 7	Tralee
			Nor. bk. White Rose (a)	Dec. 8	Arendal
			Sp. ss. Maria	Dec. 12	Jeremie
			It. bk. Casabona	Dec. 13	Buenos Ayres
33	Savannah, Ga.....	do	Nor. bk. Transit	do	do
			Nor. bk. Hecla (a)	Dec. 1	Liverpool
34	South Atlantic Quarantine, Blackbeard Island, Ga.	do			
35	Tampa Bay, Fla.....	do			
36	Washington, N. C.....				
	<b>CUBA:</b>				
37	Baracoa.....	Nov. 23			
38	Batabano.....	Dec. 7			
39	Caibarien.....	do			
40	Cardenas.....	do			
41	Casilda.....	Dec. 14			
42	Cienfuegos.....	do			
43	Daiquiri.....	Dec. 7			
44	Gibara.....	Nov. 30			
45	Guantanamo.....	Dec. 7			
46	Havana.....	do	Sp. ss. Alfonso XIII	Dec. 3	Spain

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					
4				No transactions.....	
5				No report.....	
6	Brunswick.....	Ballast discharged.....	Dec. 11		4
7	Hampton Roads.....	Passed on certificate of medical officer.	Dec. 13	Physical examination on Br. ss. Rappahannock, from Liverpool, made.	7
8					2
9				No report.....	
10				do.....	
11					3
12					4
13				No report.....	
14				do.....	
15				do.....	
16				do.....	
17					6
18				No report.....	
19				do.....	
20				do.....	
21				Nor. bk. Munter, from Port Elizabeth, sent to Gulf Quarantine.	9
22					3
23				No report.....	
24					
25				No report.....	
26				do.....	20
27				No transactions.....	
28					3
29				Physical examination of Asiatic crew and passengers on Br. ss. Strathgyle, from Hongkong, Moji, Kobe, Yokohama, and Hakodate.	3
30				No report.....	
31				do.....	
32	Pensacola.....	Ballast discharged, vessel cleaned.	Dec. 10		
	do.....	do.....	Dec. 12		
	do.....	do.....	do.....		
	do.....	do.....	Dec. 16		
	do.....	Discharging ballast.			1
	do.....	Fumigated.....	Dec. 13	Liverpool a previous port.	
	do.....	Held to discharge ballast and fumigate.....			
	do.....	do.....			
33	Savannah.....	Fumigated to kill rats.....	Dec. 10	Ballast removed; rock ballast dipped.	9
34				No report.....	
35					3
36				No transactions.....	
37					2
38					4
39					7
40				8 vessels passed without inspection.	3
41				No report.....	
42				do.....	
43				do.....	
44					11
45				No report.....	
46	Vera Cruz.....	Sick bay and clothing of Havana steerage passengers disinfected.	Dec. 4	1 case smallpox.....	27

*Reports from national quarantine*

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
	<b>CUBA—Continued.</b>				
	Havana.....	Dec. 7	Prov. flag tug Teresa.....	Dec. 5	Mariel.....
47	Isabela de Sagua.....	do.	Prov. flag barge Vialevez.....	do.	do.
48	Manzanillo.....	do.			
49	Matanzas.....	Dec. 14			
50	Nuevitas.....	Dec. 7			
51	Puerto Padre.....	Nov. 30			
52	Santa Cruz.....	do.			
53	Santiago de Cuba.....	do.			
	<b>HAWAII:</b>				
54	Hilo.....	do.			
55	Honolulu.....	Dec. 7			
56	Kahului.....	do.			
57	Kihei, Maui.....	do.			
58	Koloa, Kauai.....	do.			
59	Lahaina.....	do.			
	<b>PHILIPPINES:</b>				
60	Cebu.....	Oct. 12 Oct. 19 Nov. 2			
61	Iloilo.....	do.			
62	Manila.....	do.	Br. ss. Sungkiang.....	Oct. 31	Hongkong via Amoy.
		Nov. 9	Br. ss. Esmeralda.....	Nov. 3	do.
	<b>PUERTO RICO:</b>				
63	Ponce.....	Dec. 7	Ger. ss. Castile.....	Dec. 7	Cape Haitien.....
64	San Juan.....	do.	U. S. S. Buffalo.....	Dec. 6	Fort de France.....
	<b>Subports—</b>				
65	Aguadilla.....	do.			
66	Arecibo.....	do.			
67	Arroyo.....	do.			
68	Fajardo.....	do.			
69	Humacao.....	do.			
70	Mayaguez.....	do.			

## and inspection stations—Continued.

Number.	Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
.....	Havana .....	Decks disinfected.....	Dec. 5	Steerage passengers and baggage taken to Mariel from Alfonso XIII on these vessels for detention.	.....
37	.....do.....	.....do.....	.....do.....	11 vessels passed without inspection.	2
48	.....	.....	.....	No report.....	.....
49	.....	.....	.....	do.....	.....
50	.....	.....	.....	5 vessels passed without inspection.	6
51	.....	.....	.....	.....	.....
52	.....	.....	.....	No report.....	3
53	.....	.....	.....	do.....	.....
54	.....	.....	.....	do.....	.....
55	.....	.....	.....	do.....	.....
56	.....	.....	.....	do.....	.....
57	.....	.....	.....	do.....	.....
58	.....	.....	.....	do.....	.....
59	.....	.....	.....	do.....	.....
60	.....	.....	.....	.....	20
.....	.....	.....	.....	.....	21
.....	.....	.....	.....	.....	20
61	.....	.....	.....	.....	3
62	Manila.....	Held four hours at Mari-veles for disinfection.	Oct. 31	404 Asiatics bathed and their effects disinfected with steam; fore-castle and steerage compartments disin-fected with bichloride.	47
.....	.....do.....	Held for disinfection of steerage passengers.	Nov. 3	235 Asiatics bathed and effects disinfected with steam; fore-castle and steerage compartments disinfected with bi-chloride.	56
63	Hamburg.....	Held in quarantine.....	Dec. 7	.....	5
64	San Juan.....	Boarded and passed on medical officer's certi-ficate.	Dce. 6	.....	6
65	.....	.....	.....	No transactions.....	.....
66	.....	.....	.....	.....	1
67	.....	.....	.....	No transactions.....	.....
68	.....	.....	.....	do.....	.....
69	.....	.....	.....	do.....	.....
70	.....	.....	.....	.....	2

*Reports from State and*

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
1	Baltimore, Md .....	Dec. 21	.....	.....	.....
2	Bangor, Me .....	do.	.....	.....	.....
3	Boston, Mass .....	do.	.....	.....	.....
4	Charleston, S. C. ....	Dec. 14	Br. brig J. Daly.....	Dec. 7	Ponce .....
5	Elizabeth River, Va.....	Dec. 21	.....	.....	.....
6	Galveston, Tex.....	Dec. 14	Br. ss. Londesborough....	Dec. 14	Rio de Janeiro....
7	Gardiner, Oreg.....	do.	.....	.....	.....
8	Marcus Hook, Pa.....	Dec. 21	.....	.....	.....
9	Mobile Bay, Ala .....	Dec. 14	.....	.....	.....
10	New Orleans, La. ....	do.	.....	.....	.....
11	Newport News, Va .....	Dec. 21	.....	.....	.....
12	Newport, R. I.....	do.	.....	.....	.....
13	New York, N. Y.....	do.	.....	.....	.....
14	Pass Cavallo, Tex.....	do.	.....	.....	.....
15	Port Royal, S. C.....	Dec. 14	.....	.....	.....
16	Providence, R. I.....	Dec. 21	.....	.....	.....
17	Quintana, Tex.....	do.	.....	.....	.....
18	Sabine Pass, Tex .....	do.	.....	.....	.....
19	St. Helena Entrance, S. C.....	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	Halifax.....	Detained for discharge and disinfection of hold.		Proceeded to sea December 15 without discharge.	4
5				No report.....	
6	Galveston.....	Fumigated and held.....		To be discharged December 19.	9
7				No report.....	
8				do.....	
9				do.....	
10				do.....	
11				do.....	
12				do.....	
13				do.....	
14				do.....	
15				do.....	
16				do.....	
17				do.....	
18				do.....	
19				do.....	

*Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, June 28, 1901, to December 27, 1901.*

[For reports received from December 28, 1900, to June 28, 1901, see PUBLIC HEALTH REPORTS for June 28, 1901.]

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Alabama:</b>				
Mobile County.....	July 8.....	6		
Total for State, same period, 1900.		1		
<b>Alaska:</b>				
Kluckwan .....	July 26.....			Reported.
Total for Territory, same period, 1900.		28	1	
<b>California:</b>				
Los Angeles.....	June 2-Dec. 3...	14		
Oakland.....	Sept. 1-Oct. 31...	4		
San Francisco.....	July 1-Dec. 15...	27	1	
San Pedro.....	Dec. 7.....	1		
Total for State .....		46	1	
Total for State, same period, 1900.		6		
<b>Colorado:</b>				
Arapahoe County.....	May 1-Nov. 30...	86		
Archuleta County .....	do .....	17		
Bent County .....	do .....	9		
Boulder County.....	do .....	30		
Chaffee County.....	do .....	5		
Clear Creek County.....	do .....	9		
Costilla County.....	do .....	6		
Custer County.....	do .....	2		
Delta County.....	do .....	36		
Douglas County.....	do .....	10		
El Paso County.....	do .....	33		
Fremont County.....	do .....	2		
Garfield County.....	do .....	6		
Gilpin County.....	do .....	66		
Gunnison County.....	do .....	10		
Hinsdale County.....	Nov. 1-Nov. 30...	17		
Jefferson County.....	May 1-Nov. 30...	14		
Kit Carson County.....	do .....	1		
Lake County.....	do .....	19		
La Plata County.....	do .....	7		
Larimer County.....	do .....	1		
Las Animas County.....	do .....	14		
Logan County.....	do .....	5		
Mesa County.....	do .....	2		
Mineral County.....	do .....	42		
Montrose County.....	do .....	22		
Morgan County.....	do .....	2		
Otero County.....	do .....	9		
Ouray County.....	do .....	9		
Park County.....	do .....	9		
Phillips County.....	do .....	2		
Pitkin County.....	do .....	9		
Prowers County.....	do .....	2		
Pueblo County.....	do .....	22		
Rio Grande County.....	do .....	6		
Routt County.....	do .....	9		
Saguache County.....	do .....	11		
San Juan County.....	do .....	15		
San Miguel County.....	do .....	4		
Summit County.....	do .....	14		
Teller County.....	do .....	65		
Washington County.....	do .....	5		
Weid County.....	do .....	10		
Yuma County.....	Nov. 1-Nov. 30...	4		
Total for State .....		678		
Total for State, same period, 1900.		372		
<b>District of Columbia:</b>				
Washington.....	June 16-Oct. 5...	12		
Total for District, same period, 1900.		33		

## Smallpox in the United States, etc —Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Georgia:</b>				
Elbert County .....	Dec. 12.....	12		
Gilmer County .....	Nov. 1-Nov. 26...	11		
Pickens County.....	July 1-Aug. 10...	37		
<b>Total for State .....</b>		<b>60</b>		
<b>Total for State, same period, 1900.</b>		<b>24</b>	<b>1</b>	
<b>Illinois:</b>				
Cairo .....	Nov. 1-Dec. 7..	4		
Chicago .....	June 23-Dec. 21...	19		
Fairport.....	Aug. 18-Sept. 14...	2		
Peoria .....	June 1-Nov. 30...	136		
Springfield.....	.....do .....	82		
<b>Total for State.....</b>		<b>243</b>		
<b>Total for State, same period, 1900.</b>		<b>125</b>	<b>6</b>	
<b>Indiana:</b>				
Adams County.....	June 1-Nov. 30...	77		
Allen County .....	.....do .....	12	1	
Cass County .....	.....do .....	3		
Clinton County .....	.....do .....	20	1	
Davies County.....	.....do .....	68	2	
Dearborn County .....	.....do .....	17		
De Kalb County .....	.....do .....	7		
Gibson County.....	Nov. 1-Nov. 30...	13		
Jay County .....	June 1-Nov. 30...	1		
Jefferson County .....	Nov. 1-Nov. 30...	27		
Kosciusko County .....	June 1-Nov. 30...	16		
Laporte County.....	.....do .....	10	2	
Marion County.....	.....do .....	13		
Marshall County.....	Nov. 1-Nov. 30...	6		
Montgomery County .....	June 1-Nov. 30...	1		
Ohio County .....	.....do .....	6		
Owen County.....	.....do .....	1		
Perry County.....	Nov. 1-Nov. 30...	15		
Pike County .....	.....do .....	1		
Porter County.....	June 1-Nov. 30...	3		
Posey County.....	.....do .....	4		
Randolph County.....	.....do .....	4		
Spencer County.....	.....do .....	78		
Switzerland County.....	.....do .....	21		
Tippecanoe County .....	.....do .....	32		
Vanderburgh County.....	Oct. 1-Dec. 14...	22		
Wabash County.....	Nov. 1-Nov. 30...	5		
Warwick County.....	Oct. 1-Nov. 30...	21		
Wayne County.....	.....do .....	12		
<b>Total for State .....</b>		<b>516</b>	<b>6</b>	
<b>Total for State, same period, 1900.</b>		<b>200</b>	<b>9</b>	
<b>Iowa:</b>				
Clinton .....	June 16-Dec. 14...	2		
Keokuk .....	Oct. 1-Oct. 31...	2	2	
Ottumwa.....	June 2-Nov. 30...	118		
<b>Total for State .....</b>		<b>122</b>	<b>2</b>	
<b>Total for State, same period, 1900.</b>		<b>14</b>		
<b>Kansas:</b>				
Allen County.....	June 1-Dec. 6...	24		
Anderson County.....	.....do .....	1		
Barber County.....	.....do .....	2		
Barton County.....	.....do .....	60	1	
Bourbon County (Fort Scott).....	.....do .....	77	1	
Chautauqua County .....	.....do .....	30		
Cherokee County .....	.....do .....	42	1	
Clark County .....	.....do .....	4		
Clay County.....	.....do .....	3		
Cloud County .....	.....do .....	1		
Coffey County.....	.....do .....	3		
Cowley County.....	Nov. 1-Dec. 6...	3		
Crawford County.....	.....do .....	136		
Doniphan County.....	.....do .....	59		
Douglas County.....	.....do .....	42		
Greenwood County.....	.....do .....	10	1	
Hamilton County.....	.....do .....	2		

*Smallpox in the United States, etc.—Continued.*

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Kansas—Continued.</b>				
Jefferson County.....	Nov. 1-Dec. 6...	27		
Labette County.....	do.....	25		
Lane County.....	do.....	6		
Leavenworth County.....	do.....	27		
Marshall County.....	do.....	34		
Meade County.....	do.....	6		
Montgomery County.....	do.....	2		
Nemaha County.....	do.....	1		
Ness County.....	June 1-Dec. 6...	17		
Ottawa County.....	do.....	5		
Phillips County.....	Nov. 1-Dec. 6...	3		
Pottawattomie County.....	do.....	2		
Reno County.....	do.....	1		
Riley County.....	do.....	1		
Shawnee County.....	do.....	25		
Stafford County.....	do.....	19		
Stevens County.....	do.....	8		
Sumner County.....	do.....	32		
Sedgwick County (Wichita)...	do.....	26	1	
Washington County.....	do.....	59	1	
Woodson County.....	do.....	14		
Total for State.....		839	6	
Total for State, same period, 1900.		161	1	
<b>Kentucky:</b>				
Lexington.....	June 23-Nov. 3...	15		
Total for State, same period, 1900.		45		
<b>Louisiana:</b>				
Caddo.....	Nov. 24-Nov. 30...	10		
New Orleans.....	June 16-Dec. 7...	70	6	
Shreveport.....	July 14-Dec. 14...	24	1	
Total for State.....		104	7	
Total for State, same period, 1900.		197	53	
<b>Maine:</b>				
Portland.....	Sept. 10-Sept. 14...	2		
<b>Maryland:</b>				
Baltimore.....	Nov. 24-Dec. 14...	2		
Total for State, same period, 1900.		22		
<b>Massachusetts:</b>				
Boston.....	July 7-Dec. 21...	441	59	
Brockton.....	Dec. 1-Dec. 14...	2		
Cambridge.....	Oct. 20-Dec. 14...	11	3	
Chelsea.....	Nov. 17-Dec. 7...	3		
Everett.....	do.....	1		
Fall River.....	June 23-July 13...	14	1	
Fitchburg.....	June 2-June 8...	1		
Gloucester.....	July 17-Dec. 21...	4		
Holyoke.....	July 7-July 13...	1		
Lowell.....	Nov. 24-Dec. 21...	7		
Malden.....	Nov. 24-Dec. 14...	3	1	
Medford.....	Sept. 1-Dec. 14...	3		
New Bedford.....	July 1-Dec. 7...	5	1	
Newton.....	Sept. 29-Nov. 30...	4	1	
Quincy.....	June 16-June 22...	1		
Somerville.....	Nov. 17-Dec. 20...	4		
Waltham.....	June 23-June 29...	1		
Worcester.....	June 15-July 5...	5	3	
Total for State.....		521	69	
Total for State, same period, 1900.		23		
<b>Michigan:</b>				
Alger County.....	Nov. 9.....			Present.
Houghton County.....	July 1-Nov. 9...			Do.
Isabella County.....	do.....			Do.
Kent County (Grand Rapids)...	July 1-Nov. 30...	3		
Mackinac County.....	do.....			Do.
Mason County.....	do.....			Do.
Oscoda County.....	do.....			Do.
Saginaw County.....	do.....			Do.



## Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Michigan—Continued.</b>				
Sanilac County.....	Nov. 9.....	.....	.....	Present.
Van Buren County.....	.....do.....	.....	.....	Do.
Washtenaw County.....	.....do.....	.....	.....	Do.
Wayne County (Detroit).....	July 1-Nov. 9...	3.....	.....	Do.
Wexford County.....	Nov. 9.....	.....	.....	Do.
Total for State.....	.....	6.....	.....	
Total for State, same period, 1900.....	.....	257.....	1.....	
<b>Minnesota:</b>				
Aitkin County.....	June 17-Dec. 2...	53.....	1.....	
Anoka County.....	.....do.....	19.....	.....	
Becker County.....	.....do.....	28.....	.....	
Beltrami County.....	.....do.....	80.....	.....	
Benton County.....	.....do.....	34.....	.....	
Big Stone County.....	.....do.....	18.....	.....	
Blue Earth County.....	.....do.....	4.....	.....	
Brown County.....	.....do.....	16.....	.....	
Carlton County.....	.....do.....	45.....	1.....	
Carver County.....	.....do.....	59.....	.....	
Cass County.....	.....do.....	31.....	2.....	
Chippewa County.....	.....do.....	10.....	.....	
Clay County.....	.....do.....	95.....	1.....	
Cook County.....	.....do.....	26.....	.....	
Cottonwood County.....	.....do.....	3.....	.....	
Crow Wing County.....	.....do.....	75.....	.....	
Dakota County.....	.....do.....	3.....	.....	
Dodge County.....	.....do.....	2.....	.....	
Douglas County.....	.....do.....	29.....	.....	
Faribault County.....	.....do.....	1.....	.....	
Fillmore County.....	.....do.....	40.....	.....	
Freeborn County.....	.....do.....	4.....	.....	
Goodhue County.....	.....do.....	2.....	.....	
Hennepin County (Minneapolis).	.....do.....	56.....	.....	
Houston County.....	.....do.....	51.....	.....	
Hubbard County.....	.....do.....	8.....	.....	
Isanti County.....	.....do.....	1.....	.....	
Itasca County.....	.....do.....	23.....	.....	
Jackson County.....	.....do.....	9.....	.....	
Kanabec County.....	.....do.....	2.....	.....	
Kandiyohi County.....	.....do.....	1.....	.....	
Kittson County.....	.....do.....	13.....	.....	
Lake County.....	Nov. 18-Dec. 2...	2.....	.....	
Le Sueur County.....	June 17-Dec. 2...	8.....	.....	
Lyon County.....	.....do.....	25.....	.....	
McLeod County.....	.....do.....	9.....	1.....	
Marshall County.....	Sept. 9-Dec. 2...	27.....	.....	
Martin County.....	June 17-Dec. 2...	9.....	.....	
Meeker County.....	.....do.....	3.....	.....	
Millelacs County.....	.....do.....	3.....	.....	
Morrison County.....	.....do.....	14.....	.....	
Mower County.....	Sept. 9-Dec. 2...	61.....	.....	
Murray County.....	June 17-Dec. 2...	10.....	.....	
Nicollet County.....	.....do.....	4.....	.....	
Nobles County.....	Aug. 26-Dec. 2...	3.....	.....	
Norman County.....	June 17-Dec. 2...	154.....	.....	
Olmsted County (Rochester)...	.....do.....	44.....	.....	
Ottertail County.....	.....do.....	122.....	.....	
Pine County.....	.....do.....	64.....	1.....	
Pipestone County.....	.....do.....	8.....	.....	
Polk County.....	.....do.....	132.....	.....	
Pope County.....	.....do.....	107.....	1.....	
Ramsey County (St. Paul).....	.....do.....	37.....	.....	
Red Lake County.....	.....do.....	109.....	.....	
Red Wood County.....	.....do.....	23.....	2.....	
Renville County.....	.....do.....	62.....	1.....	
Rice County.....	.....do.....	64.....	1.....	
Rock County.....	.....do.....	2.....	.....	
Roseau County.....	.....do.....	1.....	.....	
St. Louis County (Duluth).....	.....do.....	153.....	.....	
Scott County.....	Nov. 18-Dec. 2...	1.....	.....	
Sherburne County.....	June 17-Dec. 2...	22.....	.....	
Sibley County.....	.....do.....	46.....	.....	
Stearns County.....	.....do.....	149.....	.....	
Steele County.....	.....do.....	15.....	.....	
Stevens County.....	.....do.....	6.....	.....	
Swift County.....	Aug. 1-Dec. 2...	1.....	.....	
Todd County.....	June 17-Dec. 2...	51.....	.....	
Traverse County.....	.....do.....	12.....	.....	

## Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Minnesota—Continued.</b>				
Wabasha County .....	June 17-Dec. 2...	8	1	
Wadena County .....	do .....	10		
Waseca County .....	do .....	11		
Washington County.....	do .....	43		
Winona County (Winona).....	do .....	33	1	
Total for State.....		2,494	14	
Total for State, same period, 1900.		875	5	
<b>Missouri:</b>				
St. Joseph.....	Aug. 1-Oct. 31...	91	1	
St. Louis.....	June 17-Dec. 15...	377	2	
Total for State .....		468	3	
Total for State, same period, 1900.		11		
<b>Nebraska:</b>				
Omaha .....	June 16-Dec. 14...	89		
South Omaha .....	June 25-Dec. 14...	83		
Total for State .....		172		
Total for State, same period, 1900.		16		
<b>New Hampshire:</b>				
Concord.....	Oct. 6-Oct. 12...	1	1	
Manchester.....	June 16-July 13...	3		
Nashua.....	July 21-Aug. 3...	3		
Total for State .....		7	1	
Total for State, same period, 1900.		73		
<b>New Jersey:</b>				
Camden County .....	Oct. 6-Dec. 21...	53	1	
Essex County, including Newark.	July 1-Dec. 14...	233	40	
<b>Hudson County—</b>				
Bayonne.....	June 17-Dec. 15...	19		
East Newark.....	do .....	3		
Guttenberg.....	do .....	1		
Harrison .....	do .....	35	2	
Hoboken.....	do .....	19	1	
Jersey City.....	do .....	57		
Kearny.....	do .....	3		
North Bergen Town.....	do .....	1		
Secaucus.....	do .....		9	
Union.....	do .....	1		
West New York .....	do .....	2		
Weehawken .....	do .....	3		
Passaic County.....	Oct. 1-Nov. 16...	3		
Total for State.....		433	53	
Total for State, same period, 1900.		6		
<b>New York:</b>				
Buffalo .....	June 25-Dec. 4...	75	2	
Dunkirk.....	July 1-July 6...	1		
Elmira.....	June 16-Oct. 17...	22		
Gowanda.....	July 29.....	7		
New York .....	June 23-Dec. 14...	597	166	
Rochester.....	July 1-July 31...	5		
Total for State .....		707	168	
Total for State, same period, 1900.		63	6	
<b>North Carolina:</b>				
Alamance County.....	May 1-Nov. 30...	1		
Buncombe County.....	do .....	26		
Burke County.....	do .....	9		
Cabarrus County.....	do .....	43		
Caswell County.....	do .....	13		
Chatham County.....	do .....	4		
Cleveland County.....	do .....	18		
Cumberland County.....	do .....	37		
Davie County.....	July 1-Nov. 30...	4		
Duplin County.....	Nov. 1-Nov. 30...	5		

## Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>North Carolina—Continued.</b>				
Durham County	May 1-Nov. 30...	20		
Forsyth County	July 1-Nov. 30...	5	1	
Gaston County	May 1-Nov. 30...	17		
Granville County	.....do.....	4		
Greene County	.....do.....	3		
Guilford County	.....do.....	16		
Haywood County	July 1-Nov. 30...	4		
Henderson County	.....do.....	50		
Johnston County	May 1-Nov. 30...	19		
McDowell County	.....do.....	5		
Mecklenburg County	.....do.....	46		
Nash County	.....do.....	2		
Orange County	.....do.....	37		
Person County	.....do.....	78		
Polk County	.....do.....	2		
Randolph County	July 1-Nov. 30...	30		
Robeson County	May 1-Nov. 30...	2		
Rockingham County	.....do.....	28		
Rowan County	.....do.....	3		
Rutherford County	.....do.....	3		
Sampson County	.....do.....	1		
Stanly County	.....do.....	11		
Stokes County	Nov. 1-Nov. 30...	1		
Vance County	May 1-Nov. 30...	2		
Wake County	.....do.....	20		
Wayne County	.....do.....	18		
Total for State		587	1	
Total for State, same period, 1900.		548		
<b>North Dakota:</b>				
Barnes County	July 1-Sept. 15...	24		
Bottineau County	Sept. 15-Dec. 2...	12		
Bowdon	Oct. 20-Oct. 26...	1		
Burleigh County	July 14-July 20...	1		
Case County (Fargo)	July 1-Nov. 25...	6		
Edmond County	Sept. 15-Oct. 15...	6		
Foster County	Sept. 15.....	1		
Grand Forks County	.....do.....	6		
Kidder County	Nov. 23-Nov. 29...	4		
Lamoure County	Sept. 15-Oct. 25...	8		
Mayville	Sept. 15-Nov. 2...	4		
Pembina County	July 1-July 6...	5		
Richland County	.....do.....	2		
Rolette County	Sept. 15.....	1		
Stutsman County	July 7-Nov. 30...	3		
Trall County	July 14-July 20...	1		
Wells County	Sept. 15.....	5		
Fisher	July 7-July 13...	1		
Lakota	July 1-July 6...	2		
Total for State		93		
Total for State, same period, 1900.		28	2	
<b>Ohio:</b>				
Adams County	Jan. 1-July 31...	27	1	
Allen County	.....do.....	8		
Ashland County	.....do.....	15		
Ashtabula County	.....do.....	31		
Athens County	.....do.....	19		
Auglaize County	.....do.....	5		
Belmont County	.....do.....	44		
Brown County	.....do.....	7		
Carroll County	.....do.....	1		
Champaign County	.....do.....	6	1	
Clark County	.....do.....	6		
Clermont County	June 1-July 31...	1		
Columbiana County	Jan. 1-July 31...	2		
Coshocton County	.....do.....	81		
Crawford County	.....do.....	23		
Cuyahoga County (Cleveland)	Jan. 1-Dec. 21...	1,315	18	
Defiance County	Jan. 1-July 31...	21		
Delaware County	.....do.....	4		
Erle County	.....do.....	5		
Fairfield County	.....do.....	1		
Franklin County	.....do.....	46		
Gallia County	.....do.....	64	1	
Geauga County	.....do.....	29		
Greene County	.....do.....	2		
Guernsey County	.....do.....	13		

## Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Ohio—Continued.</b>				
Hamilton County (Cincinnati)	Jan. 1-Dec. 13...	105	1	
Hancock County.....	Jan. 1-July 31...	8		
Hardin County.....	do.....	206		
Harrison County.....	do.....	9		
Henry County.....	do.....	11		
Hocking County.....	do.....	6	2	
Huron County.....	do.....	44	1	
Jackson County.....	do.....	82		
Jefferson County.....	do.....	32	1	
Knox County.....	do.....	1		
Lake County.....	do.....	17	1	
Lawrence County.....	do.....	90		
Logan County.....	June 1-July 31...	1		
Lorain County.....	Jan. 1-July 31...	78	2	
Lucas County (Toledo).....	do.....	22		
Mahoning County.....	Jan. 1-June 1...	6		
Marion County.....	do.....	1		
Mercer County.....	do.....	1		
Monroe County.....	June 1-July 31...	64	1	
Montgomery County.....	Jan. 1-July 31...	13	1	
Morgan County.....	do.....	1		
Ottawa County.....	do.....	34	1	
Paulding County.....	do.....	38		
Perry County.....	do.....	57		
Pike County.....	do.....	2		
Portage County.....	do.....	24		
Putnam County.....	do.....	17		
Richland County.....	do.....	71	1	
Sandusky County.....	June 1-July 31...	1		
Scioto County.....	Jan. 1-July 31...	171	2	
Seneca County.....	do.....	7		
Shelby County.....	do.....	76		
Stark County.....	do.....	10	2	
Summit County.....	do.....	2	1	
Trumbull County.....	do.....	15	1	
Tuscarawas County.....	do.....	4		
Van Wert County.....	do.....	15		
Vinton County.....	do.....	32	1	
Washington County.....	do.....	72	1	
Williams County.....	do.....	91		
Wood County.....	do.....	171	1	
Wyandot County.....	do.....	1		
Total for State.....		3,485	42	
Total for State, same period, 1900.		1,666	21	
<b>Oregon:</b>				
Portland.....	June 1-Nov. 30...	13		
Total for State, same period, 1900.		1		
<b>Pennsylvania:</b>				
Adams County.....	Oct. 1-Oct. 31...	1		
Allegheny County (including Pittsburg)	Feb. 1-Oct. 31...	103	1	
Armstrong County.....	Feb. 1-Oct. 31...	1		
Bedford County.....	do.....	25		
Berks County.....	do.....	3		
Blair County.....	do.....	2		
Bucks County.....	Aug. 27-Oct. 31...	10		
Butler County.....	Feb. 1-Oct. 31...	2		
Chester County.....	May 9-Oct. 31...	85	4	
Cumberland County.....	do.....	16		
Dauphin County (including Harrisburg)	do.....	249		
Delaware County.....	do.....	89	4	
Erie County.....	do.....	34		
Fayette County.....	do.....	3		
Franklin County.....	do.....	51		
Greene County.....	do.....	2		
Lancaster County.....	do.....	9		
Lawrence County.....	do.....	53		
Lebanon County (including Lebanon)	Feb. 1-Oct. 31...	181	3	
Luzerne County.....	do.....	46	3	
Lycoming County (including Williamsport)	do.....	101		
McKean County.....	do.....	8		
Mercer County.....	do.....	13	2	
Mifflin County.....	do.....	1		

## Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Pennsylvania—Continued.</b>				
Montgomery County.....	Feb. 1-Oct. 31...	1		
Perry County.....	do.....	17		
Philadelphia County (in- cluding Philadelphia).	do.....	433	59	
Schuylkill County.....	July 27-Oct. 31...	13		
Sullivan County.....	Aug 27-Oct. 31...	3		
Tioga County.....	Feb. 1-Oct. 31...	6		
Venango County.....	do.....	1		
Warren County.....	do.....	1		
Washington County.....	do.....	12		
Westmoreland County.....	Feb. 1-Aug. 27...	27		
York County.....	do.....	12		
<b>Total for State</b> .....		<b>1,614</b>	<b>76</b>	
<b>Total for State, same period, 1900.</b> .....		<b>30</b>		
<b>Rhode Island:</b>				
Newport.....	Oct. 6-Nov. 16...	11		
Providence.....	June 23-July 6...	3		
<b>Total for State</b> .....		<b>14</b>		
<b>Total for State, same period, 1900.</b> .....		<b>0</b>		
<b>South Carolina:</b>				
Greenville.....	Dec. 8-Dec. 14...	2		
<b>Total for State, same period, 1900.</b> .....		<b>6</b>		
<b>Tennessee:</b>				
Anderson County.....	April 1-Sept. 30...	13	1	
Blount County.....	do.....	37		
Bradley County.....	do.....	15		
Campbell County.....	do.....	15		
Carroll County.....	do.....	9		
Cocke County.....	do.....	93		
Coffee County.....	do.....	30		
Cumberland County.....	do.....	15		
Davidson County.....	do.....	131		
Decatur County.....	do.....	20		
De Kalb County.....	do.....	14		
Dickson County.....	do.....	40		
Dyer County.....	do.....	11		
Fayette County.....	do.....	40		
Franklin County.....	do.....	16		
Gibson County.....	do.....	10		
Giles County.....	do.....	62		
Grainger County.....	do.....	13	1	
Greene County.....	do.....	25	1	
Hamblen County.....	do.....	33		
Hamilton County (including Chattanooga).	do.....	174	5	
Hardeman County.....	do.....	61	2	
Hardin County.....	do.....	17	1	
Haywood County.....	do.....	42		
Henderson County.....	do.....	17	1	
Henry County.....	do.....	61		
Houston County.....	do.....	23		
Humphreys County.....	do.....	65	1	
James County.....	do.....	2		
Lawrence County.....	do.....	1		
Lewis County.....	do.....	1		
Lincoln County.....	do.....	18		
London County.....	do.....	1		
McMinn County.....	do.....	12		
Madison County.....	do.....	1		
Marion County.....	do.....	154	3	
Marshall County.....	do.....	5		
Meigs County.....	do.....	3		
Morgan County.....	do.....	11		
Obion County.....	do.....	60		
Perry County.....	do.....	47		
Polk County.....	do.....	12		
Rhea County.....	do.....	8		
Roane County.....	do.....	29		
Robertson County.....	do.....	32	4	
Rutherford County.....	do.....	70	2	
Sevier.....	do.....	4		
Shelby County (including Memphis).....	do.....	416	72	

*Smallpox in the United States, etc.—Continued.*

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Tennessee—Continued.</b>				
Stewart County.....	Apr. 1-Sept. 30...	1	.....	
Sumner County.....	.....do.....	2	.....	
Trousdale County.....	.....do.....	43	.....	
Union County.....	.....do.....	9	.....	
Washington County.....	.....do.....	52	.....	
Weakley County.....	.....do.....	10	.....	
Williamson County.....	.....do.....	23	.....	
Wilson County.....	.....do.....	23	.....	
Total for State.....	.....	2,155	94	
Total for State, same period, 1900.	.....	1,393	18	
<b>Texas:</b>				
Jasper County.....	June 17-July 17.....	.....	2	
San Antonio.....	July 1-Nov. 30...	8	.....	
Total for State.....	.....	8	2	
Total for State, same period, 1900.	.....	642	6	
<b>Utah:</b>				
Ogden.....	July 1-July 31...	1	.....	
Salt Lake City.....	June 16-Dec. 14...	49	.....	
Total for State.....	.....	50	.....	
Total for State, same period, 1900.	.....	307	2	
<b>Vermont:</b>				
Burlington.....	Sept. 29-Dec. 14...	48	.....	
Total for State, same period, 1900.	.....	28	.....	
<b>Virginia:</b>				
Roanoke.....	June 1-June 30...	1	.....	
Total for State, same period, 1900.	.....	29	1	
<b>Washington:</b>				
Adams County.....	Mar. 28-Nov. 1...	5	.....	
Chehalis County.....	June 1-Nov. 1...	15	.....	
Chelan County.....	Aug. 1-Oct. 1...	6	.....	
Clallam County.....	June 18.....	3	.....	
Columbia County.....	Jan. 1-Apr. 1...	13	.....	
Cowlitz County.....	June 30.....	.....	.....	
Douglas County.....	Apr. 4.....	1	.....	
Kitsap County.....	July 18.....	1	.....	
King County (including Seattle).	Jan. 1-Oct. 1...	105	3	
Kititas County.....	Feb. 18-Sept. 28...	8	.....	
Klickitat County.....	Aug. 16.....	4	.....	
Lincoln County.....	Feb. 1-Nov. 1...	48	.....	
Pacific County.....	Mar. 6.....	2	1	
Pierce County (including Tacoma).	Jan. 1-Dec. 8...	31	.....	
Skaminia County.....	June 10.....	1	.....	
Snohomish County.....	Mar. 1-Sept. 20...	36	.....	
Spokane County (including Spokane).	Jan. 1-Nov. 1...	227	2	
Stevens County.....	Jan. 1-Oct. 28...	27	.....	
Thurston County.....	Feb. 16.....	1	.....	
Walla Walla County.....	Feb. 18.....	8	.....	
Whatcom County.....	May 1-Aug. 1...	40	.....	
Whitman County.....	June 1-Nov. 1...	74	.....	
Total for State.....	.....	656	6	
Total for State, same period, 1900.	.....	53	1	
<b>West Virginia:</b>				
Berkeley County.....	July 21.....	9	.....	
Wheeling.....	June 16-Dec. 14...	4	.....	
Total for State.....	.....	13	.....	
Total for State, same period, 1900.	.....	29	.....	

Reported prevalent in logging camps.

*Smallpox in the United States, etc.—Continued.*

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Wisconsin:</b>				
Ashland County .....	Aug. 1-Aug. 8...	1	.....	October, number of counties, 28; 519 cases, 2 deaths. November, number of counties, 42; 596 cases, 3 deaths.
Brown County (including Greenbay).	Aug. 18-Dec. 15...	45	.....	
Clark County.....	Aug. 1-Aug. 8...	17	.....	
Douglas County.....	do .....	3	.....	
Dunn County.....	do .....	6	.....	
Fond du Lac County .....	Dec. 4-Dec. 10...	1	.....	
Kewaunee County.....	Aug. 1-Aug. 8...	1	.....	
Milwaukee County (including Milwaukee).	Sept. 7.....	1	.....	
Marathon County.....	Sept. 7.....	2	.....	
Showano County.....	do .....	8	8	
Winnebago County.....	do .....	5	.....	
Eighty places.....	May 5-May 31.....	347	0	
Sixty-seven places .....	June 1-June 30.....	288	3	
Fifty-two places.....	July 1-July 31.....	268	0	
Nine places.....	Aug. 1-Aug. 8.....	35	8	
Forty-four places .....	Aug. 9-Sept. 30...	164	5	
Total for State .....		1,192	24	
Total for State, same period, 1900.....		412	4	
Grand total.....		17,496	575	
Grand total, same period, 1900.....		7,795	137	

*Plague in the United States as reported to the Surgeon-General, United States Marine-Hospital Service, from June 28, 1901, to December 27, 1901.*

[For reports received from January 1, 1901, to June 28, 1901, see PUBLIC HEALTH REPORTS for June 28, 1901.]

## PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>California:</b>				
San Francisco.....	July 6.....	1	1	
Do .....	July 9.....	3	2	
Do .....	July 11.....	1	1	
Do.....	Aug. 29.....	1	1	
Do.....	Sept. 11.....	1	0	
Do.....	Sept. 14.....	1	1	
Do.....	Sept. 20.....	1	.....	
Do.....	Sept. 27.....	1	1	
Do.....	Sept. 28.....	1	1	
Do.....	Sept. 29.....	1	1	
Do.....	Oct. 10.....	1	1	
Do.....	Oct. 19.....	1	1	
Do.....	Oct. 30.....	1	1	
Do.....	Nov. 4.....	1	1	





Table of temperature and rainfall, week ended December 16, 1901.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	α Excess.	α Defic'ncy.	Normal.	Excess.	Deficiency.
<b>Atlantic Coast:</b>						
Eastport, Me.....	26	13		.91	.45	
Portland, Me.....	28	11		.78	1.14	
Northfield, Vt.....	23	11		.69	1.11	
Boston, Mass.....	32	12		.76	1.38	
New Haven, Conn.....	34	7		.73	1.79	
Albany, N. Y.....	30	8		.63	1.42	
New York, N. Y.....	36	8		.70	.48	
Harrisburg, Pa.....	36	7		.70	.87	
Philadelphia, Pa.....	37	9		.56	.83	
New Brunswick, N. J.....	37	6		.77	.81	
Atlantic City, N. J.....	38	5		.85	1.27	
Baltimore, Md.....	39	4		.70	.72	
Washington, D. C.....	38	6		.68	.99	
Lynchburg, Va.....	41	3		.66	1.18	
Cape Henry, Va.....	45	3		.84	1.14	
Norfolk, Va.....	44			.84		.31
Charlotte, N. C.....	45	4		.89	.69	
Raleigh, N. C.....	45	4		.70	2.06	
Kittyhawk, N. C.....	47	0		.91	.56	
Hatteras, N. C.....	49	4		1.24	.10	
Wilmington, N. C.....	49	5		.64	.20	
Columbia, S. C.....	48	2		.63	.49	
Charleston, S. C.....	52	3		.70		.25
Augusta, Ga.....	48	3		.77		.12
Savannah, Ga.....	53	2		.72		.27
Jacksonville, Fla.....	57	2		.63	.81	
Jupiter, Fla.....	68	3		.51	.71	
Key West, Fla.....	71	1		.35	2.04	
<b>Gulf States:</b>						
Atlanta, Ga.....	46		4	.91	.59	
Tampa, Fla.....	63	2		.52		.05
Pensacola, Fla.....	56		6	.86		.17
Mobile, Ala.....	53		6	.98		.45
Montgomery, Ala.....	50		5	1.05	.54	
Meridian, Miss.....	51		8	1.10	.38	
Vicksburg, Miss.....	52		7	1.12	.45	
New Orleans, La.....	56		4	.98		.22
Shreveport, La.....	50		7	1.05	.47	
Fort Smith, Ark.....	44		7	.70	.40	
Little Rock, Ark.....	46		8	.95	1.95	
Palestine, Tex.....	52		8	.81		.06
Galveston, Tex.....	58		6	.91		.16
San Antonio, Tex.....	56		7	.42		.39
Corpus Christi, Tex.....	60		8	.24		.24
<b>Ohio Valley and Tennessee:</b>						
Memphis, Tenn.....	45		8	.81	1.49	
Nashville, Tenn.....	42		8	.78	2.18	
Chattanooga, Tenn.....	44		5	.91	1.99	
Knoxville, Tenn.....	40		3	.91	2.96	
Lexington, Ky.....	39		5	.76	1.32	
Louisville, Ky.....	40		10	.91	2.18	
Indianapolis, Ind.....	35		10	.70	2.19	
Cincinnati, Ohio.....	38		7	.70	1.85	
Columbus, Ohio.....	35		5	.63	2.26	
Parkersburg, W. Va.....	36	1		.77	1.19	
Pittsburg, Pa.....	36	4		.63	2.47	
<b>Lake Region:</b>						
Oswego, N. Y.....	30	3		.77	2.09	
Rochester, N. Y.....	30	6		.63	2.49	
Buffalo, N. Y.....	31	5		.77	2.32	
Erie, Pa.....	33	3		.73	1.52	
Cleveland, Ohio.....	32	0		.62	2.42	
Sandusky, Ohio.....	34		6	.56	1.69	
Toledo, Ohio.....	33		7	.56	2.04	
Detroit, Mich.....	31		4	.56	2.07	
Lansing, Mich.....	29		5	.42	1.31	
Port Huron, Mich.....	29		2	.55	1.14	
Alpena, Mich.....	26		1	.56	.49	
Sault Ste. Marie, Mich.....	24		5	.49		.08
Marquette, Mich.....	24		10	.56		.30
Escanaba, Mich.....	21		6	.42	.09	
Green Bay, Wis.....	27		15	.58	.20	
Grand Haven, Mich.....	31		5	.62	.87	
Milwaukee, Wis.....	27		12	.42	.88	
Chicago, Ill.....	31		11	.56	.36	
Duluth, Minn.....	21		16	.31		.12

α The figures in this column represent the average daily departure.

Table of temperature and rainfall, week ended December 16, 1901—Cont'd.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
<b>Upper Mississippi Valley:</b>						
St. Paul, Minn.....	22		16	.32		.17
La Crosse, Wis.....	26		18	.35		.12
Dubuque, Iowa.....	28		13	.42	.92	
Davenport, Iowa.....	30		14	.42	.76	
Des Moines, Iowa.....	29		16	.35	.20	
Keokuk, Iowa.....	32		11	.43	.19	
Springfield, Ill.....	35		15	.63	.83	
Cairo, Ill.....	41		10	.73	2.22	
St. Louis, Mo.....	37		12	.66	1.75	
<b>Missouri Valley:</b>						
Columbia, Mo.....	35		13	.45	.57	
Springfield, Mo.....	41		13	.65	1.79	
Kansas City, Mo.....	35		13	.35	.83	
Topeka, Kans.....				.21	.25	
Wichita, Kans.....	41		18	.21	.10	
Concordia, Kans.....	35		17	.08		.08
Lincoln, Nebr.....	32		18	.14		.13
Omaha, Nebr.....	30		16	.21		.10
Sioux City, Iowa.....	31		24	.28		.08
Yankton, S. Dak.....	25			.21		
Valentine, Nebr.....	29		26	.07	.55	
Huron, S. Dak.....	22		18	.14		.07
Pierre, S. Dak.....	26		19	.07	.04	
Moorhead, Minn.....	14		17	.16		.08
Bismarck, N. Dak.....	18		18	.14		.09
Williston, N. Dak.....	16		15	.15		.08
<b>Rocky Mountain Region:</b>						
Havre, Mont.....	26		14	.14		.06
Helena, Mont.....	30		15	.21	.23	
Miles City, Mont.....	20		16	.07		.04
Rapid City, S. Dak.....	33		26	.05	.23	
Spokane, Wash.....	33		6	.56		.52
Walla Walla, Wash.....	42		19	.49		.41
Baker City, Oreg.....	28		6	.42		.40
Winnemucca, Nev.....	31		6	.34		.25
Pocatello, Idaho.....	27		5	.35		.10
Boise, Idaho.....	34		3	.42		.26
Salt Lake City, Utah.....	33		7	.40	.09	
Lander, Wyo.....	20		11	.07	1.02	
Cheyenne, Wyo.....	30		18	.07	.45	
North Platte, Nebr.....	30		21	.14	.05	
Denver, Colo.....	34		17	.18	.46	
Pueblo, Colo.....	35		19	.14	.09	
Dodge City, Kans.....	36		16	.15		.13
Oklahoma, Okla.....	41		14	.59	.14	
Amarillo, Tex.....	36		12	.21		.19
Ablene, Tex.....	49		13	.35		.32
Santa Fe, N. Mex.....	31		3	.21		.15
El Paso, Tex.....	45		2	.14		.11
Phoenix, Ariz.....	54		8	.24		.24
Yuma, Ariz.....	56		7	.07		.07
<b>Pacific Coast:</b>						
Seattle, Wash.....	42		5	1.40		1.30
Tacoma, Wash.....	41		5	1.71		1.64
Portland, Oreg.....	42		5	1.78		1.54
Roseburg, Oreg.....	43		8	1.46		1.35
Eureka, Cal.....	49		6	1.86		1.48
Red Bluff, Cal.....	46		4	1.22		1.18
Carson City, Nev.....	34		3	.49		.49
Sacramento, Cal.....	46		3	.94		.94
San Francisco, Cal.....	51		3	1.12		1.12
Fresno, Cal.....	45		3	.35		.35
San Luis Obispo, Cal.....	54		7	1.05		1.05
Los Angeles, Cal.....	56		6	.95		.95
San Diego, Cal.....	56		3	.53		.52

α The figures in this column represent the average daily departure.

## FOREIGN AND INSULAR.

### BARBADOS.

#### *Quarantine information—Yellow fever in St. Lucia.*

BARBADOS, *December 6, 1901.*

SIR: On the 2d instant, his excellency the governor received a telegram from the administrator of St. Lucia, that there had been a death from yellow fever among the troops stationed there, and on the 3d instant another death was reported, and subsequently 8 cases and 6 deaths in all were reported, in consequence of which, on the recommendation of the board, all vessels and persons arriving here who had been in St. Lucia within fourteen days prior to arrival here are quarantined to complete the fourteen days.

The outbreak is, my board understands, confined to the military, and therefore, it is hoped that it is only local to the morne and will soon die out, especially as the white troops have been removed from the morne.

On the evening of the 2d instant, a seaman who had been admitted to the general hospital in the morning, was found to be suffering from yellow fever, and he was at once sent to the quarantine hospital, where he is progressing nicely. He arrived here on Sunday from St. Lucia.

The quarantine against Liverpool and Glasgow for plague was removed on the 3d instant.

Quarantine is in force here also against Colon, Panama, Pernambuco, and Rio de Janeiro for yellow fever and smallpox; and against Bombay, Calcutta, Cape of Good Hope, Hongkong, Manila, Mauritius, Naples, Oporto, Port Said, and Rio de Janeiro for plague.

The health of the island is good.

Respectfully,

JAS. SANDERSON,  
*Clerk, Quarantine Board.*

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

### BRITISH COLUMBIA.

#### *Smallpox at Vancouver.*

WASHINGTON, D. C., *December 20, 1901.*

SIR: I have the honor to inform you that a telegram of the 17th instant has been received from the consul at Vancouver which reads as follows, viz:

Several cases smallpox reported here to-day. Health officer energetically isolating all cases. Quarantine rigidly enforced. Shall vessels bound for Alaska take bills of health?

I should be pleased to receive an expression of your views in the matter.

Respectfully,

JOHN HAY,  
*Secretary of State.*

HON. SECRETARY OF THE TREASURY.

[Telegram, December 19, 1901.]

Referring to my letter of December 18, consul at Vancouver telegraphs smallpox scare subsided. Only cases have been isolated. No present action needed.

JOHN HAY,  
*Secretary of State.*

HON. SECRETARY OF THE TREASURY.

CHINA.

*Reports from Hongkong—A study of the mosquito with relation to malaria and filariasis.*

HONGKONG, CHINA, *November 22, 1901.*

SIR: I have the honor to transmit herewith the abstract of bills of health issued at this station for the week ended November 9, 1901.

Five steamers were inspected during the week. 628 individuals were bathed at the disinfecting station, and 829 bundles of clothing and bedding were disinfected by steam. There were 4 rejections during the week because of fever. One case of enteric fever was reported in the colony, otherwise there were no cases of communicable diseases reported for the week.

The Hongkong Government Gazette of November 9, 1901, contains a report on the examination of mosquitoes during the year ended September 30, 1901, by Dr. J. C. Thomson, M. D., M. A. The mosquitoes were collected weekly throughout the colony by members of the police force. Dr. Thomson reports the examination of 31,390, 3.7 per cent of that number being anopheles. There were 3 species of anopheles and 12 species of culex. Two species of the anopheles have been recognized as new and have been named *anopheles maculatus* and *anopheles minimus* by F. V. Theobald, entomologist at the British Museum. The third species was a subvariety of *anopheles sinensis*. A chart accompanying the report shows the relative prevalence of malaria and anopheles. The anopheles curve reached its lowest point in February and its highest point in July. The malarial curve, based on the presence of the disease among troops stationed in Hongkong, also reached its lowest point in February and its highest in July.

The most interesting of the culex group is the *culex fatigans*, the usual intermediate host of the blood parasite, *filosia noahirua*, which is not uncommon in Hongkong.

Dr. Thomson, as a prophylactic measure, recommends kerosene to destroy the larvæ and sulphur disinfection to destroy the adult hibernating insects.

Respectfully,

JOHN W. KERR,  
*Assistant Surgeon, U. S. M. H. S.*

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

*Prevalence of dengue.*

HONGKONG, CHINA, *November 19, 1901.*

SIR: I have the honor to transmit herewith the abstract of bills of health issued at this station during the week ended November 16, 1901. Seven vessels were inspected during the week, 217 individuals were bathed at the disinfecting station, and 265 bundles of clothing and

bedding were disinfected by steam. No cases of quarantinable diseases were reported during the week.

Dengue is at present very prevalent in the colony. Acting Assistant Surgeon Hugh is at present suffering with a rather severe attack of the disease. Three cases of diphtheria also occurred in the colony during the week. The British steamship *Adams*, which was granted a supplemental bill of health to New York during the week, disembarked 2 of the crew suffering with enteric fever.

Respectfully,

JOHN W. KERR,  
*Assistant Surgeon, U. S. M. H. S.*

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

CUBA.

*Reports from Cienfuegos, Casilda, and Santa Cruz del Sur.*

CIENFUEGOS, CUBA, *December 9, 1901.*

SIR: Through the chief quarantine officer for the island of Cuba, I have the honor to transmit the following report for the district under my command for the week ended December 7, 1901: Nine deaths have occurred in this city; of these, 2 occurred in the civil hospital. No contagious diseases reported. Causes of death were as follows: Per-nicious fever, 2; paludism, 2; heart disease, 1; eclampsia, 1; enteritis, 1; bronchitis, 1; congestion, cerebral, 1. Death rate per 1,000 inhabitants, 11.73. Five vessels inspected and passed, granted free pratique; 4 vessels admitted without inspection; 1 vessel, the U. S. collier *Lebanon*, boarded and passed; 18 bills of health issued vessels leaving this port, and 22 alien steerage passengers on steamship *Comino* were inspected and passed.

*Casilda.*—Acting Asst. Surg. A. Cantero reports 9 deaths in the city of Trinidad. No contagious diseases reported; 11 vessels inspected and passed, granted pratique; 11 bills of health issued vessels leaving Casilda, and no alien passengers landed at that port.

*Santa Cruz del Sur.*—Acting Asst. Surg. P. M. Quevedo reports no deaths at that port for the week ended November 30. No contagious diseases; 6 vessels inspected and passed, granted pratique; 8 vessels were issued bills of health prior to departure, and no alien steerage passengers were landed at that port.

Respectfully,

E. F. NUNEZ,  
*Acting Assistant Surgeon, U. S. M. H. S.*

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

*Inspection of immigrants at Cienfuegos for the week ended December 7, 1901.*

CIENFUEGOS, CUBA, *December 9, 1901.*

SIR: I herewith submit report of alien steerage passengers arriving at this port during the week ended December 7, 1901. December 7, steamship *Comino*, from Liverpool and Spanish ports, with 22 immigrants.

Respectfully,

E. F. NUNEZ,  
*Acting Assistant Surgeon, U. S. M. H. S.*

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

*Reports from Havana and Batabano—One death from yellow fever.*

HAVANA, CUBA, December 11, 1901.

SIR: I have the honor to submit the following report of the transactions of the first quarantine district of the island of Cuba for the week ended December 7, 1901:

No cases of yellow fever have been reported in the city of Havana since October 22, when a case was taken up which had originated in Santiago de Las Vegas. The death from yellow fever mentioned in the mortuary report for this week was that of the steerage passenger removed from the steamship *Buenos Aires*, from Vera Cruz, on the 29th ultimo.

The past week has been a trying one for the officers of this station. Acting Assistant Surgeons McConnell and Torralbas having been detailed to accompany the immigrants from the Spanish steamship *Alfonso XIII* to Mariel, thus leaving Acting Assistant Surgeons McDowell and Frick to perform the inspection and clearance of vessels and the disinfection of vessels and baggage.

The Spanish steamship *Ciudad de Cadiz*, from Spanish ports, arrived on the 5th instant, with 31 cases of measles among the steerage passengers. The sick were removed to Las Animas Hospital for isolation and treatment.

Acting Assistant Surgeon McConnell reports that the immigrants, which number 616, from the steamship *Alfonso XIII* at Mariel have expressed themselves as satisfied and contented.

*Batabano.*—Acting Asst. Surg. Jose M. Campos reports having inspected 4 vessels on arrival and issued 3 bills of health during the week.

I inclose the mortuary and other statistics for the week.

By direction of the chief quarantine officer.

Respectfully,

F. E. TROTTER,

*Assistant Surgeon, U. S. M. H. S., Executive Officer.*

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

[Inclosure.]

*Summary of transactions at Havana for the week ended December 7, 1901.*

PASSENGER DEPARTMENT.

Number of passengers inspected.....	337
Number of passengers vaccinated.....	13
<b>Total</b> .....	<b>350</b>

OUTDOOR DEPARTMENT.

Crews of incoming vessels inspected.....	946
Crews of outgoing vessels inspected.....	902
Number of passengers of incoming vessels inspected.....	2,699
Number of passengers of outgoing vessels inspected.....	540
<b>Total</b> .....	<b>5,087</b>

Number of immigrants inspected and passed.....	2,232
Number of immigrants recommended for further investigation.....	27
Number of immigrants vaccinated.....	300
Number of vaccination certificates issued.....	11
Number of persons vaccinated.....	3
<b>Total number of immigrants inspected</b> .....	<b>2,259</b>

*Summary of transaction at Havana, etc.—Continued.*

## SHORE-DISINFECTING PLANT.

Baggage disinfected .....	21
Baggage inspected and passed .....	493
Express inspected and passed.....	23
Freight inspected and passed.....	1,294
<b>Total number of pieces handled .....</b>	<b>1,831</b>

## DISINFECTING STEAMER SANATOR.

Cargo vessels disinfected.....	3
Number of pieces of baggage disinfected.....	90

## MARIEL QUARANTINE STATION.

Number of persons in quarantine under observation.....	616
Number of pieces of baggage disinfected.....	1,010

## MORTUARY STATISTICS.

Tuberculosis .....	12	Enteritis.....	4
Yellow fever.....	1	Gastric fever.....	1
Pneumonia .....	8	Total number of deaths from all causes..	85

*Inspection of immigrants at Havana for the week ended December 7, 1901.*

HAVANA, CUBA, December 7, 1901.

SIR: I herewith submit report of alien steerage passengers arriving at this port during the week ended December 7, 1901.

Date.	Name.	Where from.	No. of immigrants.
Dec. 1	Steamship Esperanza.....	New York.....	15
Do.....	Steamship Gaditano.....	Liverpool.....	51
Dec. 2	Steamship Miami.....	Key West .....	1
Do.....	Steamship Yucatan .....	Vera Cruz .....	29
Do.....	Steamship City of Washington.....	Tampico .....	3
Dec. 3	Steamship Alfonso XIII .....	Bilbao, Santander, and Corunna.....	910
Do.....	Steamship Aransas .....	New Orleans.....	13
Do.....	Steamship Mexico.....	New York .....	14
Dec. 4	Steamship La Navarre.....	St. Nazaire and Spain.....	828
Dec. 5	Steamship Ciudad de Cadiz .....	Barcelona, Teneriffe, Malaga, Cadiz, Las Palmas, Santa Cruz, La Palma, and San Juan, P. R.....	366
Do.....	Steamship Miami .....	Key West.....	1
Dec. 7	do.....	do.....	1
	<b>Total.....</b>		<b>2,332</b>

Respectfully,

F. E. TROTTER,  
Assistant Surgeon, U. S. M. H. S.

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

*Report of immigrants inspected at the port of Havana, Cuba, during the month of November, 1901.*

Total number of immigrants inspected, 2,080; number passed, 2,071; number certified for deportation on account of dangerous contagious or loathsome diseases, or for other physical causes, 9.

F. E. TROTTER,  
Assistant Surgeon, U. S. M. H. S.,  
Temporarily In Charge.

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

*Vital statistics of Havana during November, 1901.*

HAVANA, CUBA, December 5, 1901.

SIR: I herewith forward vital statistics for the month of November. The report has been slightly changed since last month, from the fact that, during the month, Regla was incorporated in the city of Havana. This somewhat increased the population of the city.

The general sanitary condition of the city is excellent, each month showing a steady improvement over the corresponding month of the preceding year.

Taking November for the past eleven years, we find that the maximum number of deaths occurred in 1898, when we had 2,054; the minimum in 1900, when we had 444 deaths; average 902.36 deaths. This year we had 443 deaths.

Taking the death rate, we find the maximum in 1897, when we had a rate of 106 per 1,000; the minimum in 1900, when we had a rate of 21 per 1,000; average 47.93. This year we have a rate of 19.58 per 1,000. This compares very favorably with cities of the same size in the leading civilized countries of the world.

During the month we have had no cases and no deaths from yellow fever. This can be said of no preceding November since 1762. Taking this month for the last eleven years, the maximum number of deaths from this disease occurred in 1896, when we had 244; the minimum in 1898, when we had 13; average, 48.

If we take the yellow fever as beginning the first of April and consider the same eleven years, it will be seen that the maximum number of deaths, 1,115, occurred in 1896, and the minimum, 79, in 1899; average, 410. This year, for the same period, we have had only 5 deaths.

Last year, 1900, we had, during this month, 214 cases and 54 deaths. This year, the last case of yellow fever occurred on September 28—that is, we have gone over two months without a single case or death belonging to Havana.

I consider this a demonstration that Havana has at last been freed from the infection of yellow fever.

It must be remembered that October and November are the months when yellow fever is rife in Havana, and that, for the past century, there has never been a day during these two months when there were not many cases of yellow fever in the city; and very few years can be picked out, in all this time, in which the record for each day during these months does not show several deaths.

This result I consider due to the system introduced last February of killing infected mosquitoes in the neighborhood of each point of infection as it developed.

The marked difference between this year, 1901, and the preceding eleven years is more clearly shown by the curve chart presented in the body of the report. It will be seen how high the line of averages runs for October and November, and how flat the line for 1901 is; also, how high the line is for 1900, the last year preceding the mosquito work, as compared with 1901, the first year of the mosquito work.

The body of the report will show the large amount of work done with regard to the destruction of the mosquito. Mr. Le Prince, who is in charge of this work, estimates that the mosquitoes in the city are only about one-tenth as numerous this November as they were last November, and I am inclined to think that this is not an exaggerated statement, but of course it is hard to substantiate. At certain places, for reasons



not yet discovered, they are just as bad as they were last year, but in a great many places in the city where they were very bad last year, they have almost entirely disappeared.

Respectfully,  
 W. C. GORGAS,  
*Major and Surgeon, U. S. A., Chief Sanitary Officer.*  
 The ADJUTANT-GENERAL,  
*Department of Cuba, Havana.*

*Reports from Matanzas, Cardenas, Isabela de Sagua, and Caibarien.*

MATANZAS, CUBA, December 11, 1901.

SIR: Through the chief quarantine officer for the island of Cuba, I have the honor to submit herewith the following sanitary report of the quarantine district under my command, for the week ended December 7, 1901:

*Matanzas.*—Nine deaths occurred in the city of Matanzas during the period covered by this report, showing a mortality of 10.37 per 1,000. The principal causes of death were as follows: Enteritis, 3; tuberculosis, 1; nephritis, 1; congenital debility, 1; other causes, 3. One case of diphtheria was reported. Ten vessels arrived during the week; 6 of these were inspected and passed and 4 passed without inspection. Eight bills of health were issued to vessels leaving this port. I have the honor to transmit herewith mortality statistics for the city of Matanzas during the month of November, 1901. Tuberculosis, 14; heart disease, 7; enteritis, 6; carcinoma, 4; cerebral hemorrhage, 4; tetanus, infantile, 3; nephritis, 2; encephalitis, 2; entero-septic fever, 1; infectious fever, 1; malarial fever, 1; senility, 1; arterio-sclerosis, 1; aortitis, acute, 1; anæmia, 2; bronchitis, 1; pneumonia, 1; syphilis, 1; septicæmia, 1; diphtheria, 1; submaxillary abscess, 1; general sclerosis, 1; anthrax, 1. Total, 58; showing a monthly mortality of 15.38 per 1,000. The weather has been quite pleasant.

*Cardenas.*—Acting Asst. Surg. Enrique Saez reports that 8 deaths occurred in Cardenas during the week of the following causes: Enteritis, 2; senility, 1; heart disease, 1; cerebral hemorrhage, 1, and other causes, 3. No case of infectious or contagious character was reported. The death rate during the week was 16.90 per 1,000. Eleven vessels arrived during the week; 3 of these were inspected and passed and 8 passed without inspection. Thirteen bills of health were issued to vessels leaving the port.

*Isabela de Sagua.*—Acting Asst. Surg. Pedro Garcia Riera reports that during the week ended November 30, 1901, 13 deaths occurred in the municipal district of Isabela de Sagua, of the following causes: General debility in children, 2; tuberculosis, 1; arterio-sclerosis, 1; meningitis, 1; tetanus, infantile, 1; heart disease, 1; nephritis, 1; malarial fever, 1; other causes, 4. The death rate during the week was 31.78 per 1,000. For the week ended December 7, 1901, he reports that 9 deaths occurred of the following causes: Tuberculosis, 5; heart disease, 1; tetanus, infantile, 1; other causes, 2. The death rate during the week was 22 per 1,000. No case of infectious or contagious character was reported. Thirteen vessels arrived during the week; 2 of these were inspected and passed and 11 passed without inspection. Thirteen bills of health were issued to vessels leaving the port.

*Caibarien.*—Acting Asst. Surg. Leoncio Junco reports that 3 deaths occurred in Caibarien of the following causes: Gastro-intestinal insufficiency, 1; arterio-sclerosis, 1; unknown, 1. The death rate was 18.10

per 1,000. No case of infectious or contagious character was reported. Seven vessels arrived and were passed without inspection. Five bills of health were issued to vessels leaving the port.

Respectfully,

G. M. GUITÉRAS,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

*Reports from Nuevitas, Puerto Padre, Gibara, Banes, and Baracoa.*

NUEVITAS, CUBA, *December 9, 1901.*

SIR: Through the chief quarantine officer for the island of Cuba, I have the honor to submit the following report for the week ended December 9, 1901: Eleven vessels arrived at this port and 10 bills of health were issued. There were 2 deaths—1 pustula maligna, 1 infantile tetanus. The weather is dried and windy, and nights are cool; the sanitary condition is good.

*Puerto Padre.*—Report shows the arrival of 7 vessels, the issuance of 6 bills of health, 1 death from malaria, and good sanitary condition.

*Gibara.*—Report shows the arrival of 6 vessels, the issuance of 10 bills of health, 3 deaths—1 tuberculosis, 1 infantile tetanus, 1 chronic enteritis, and good sanitary condition.

*Banes.*—Report shows the arrival of 4 vessels, no deaths, and good sanitary condition.

No quarantinable disease is reported at any point in the district.

Respectfully,

OWEN W. STONE,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

NUEVITAS, CUBA, *December 9, 1901.*

SIR: I have the honor to submit reports of weekly transactions at some of the subports under my command.

*Baracoa.*—Abstract of bills of health issued and weekly report of vessels arrived during the week ended November 23, 1901.

*Puerto Padre.*—Abstract of bills of health issued, weekly report of vessels arrived, and weekly report of alien steerage passengers, for the week ended November 30, 1901; also report of immigrants inspected in said month.

*Gibara.*—Abstract of bills of health issued, and weekly report of vessels arrived during the week ended November 30, 1901.

Respectfully,

OWEN W. STONE,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

GIBARA, CUBA, *December 5, 1901.*

SIR: I have the honor to submit the following report for the week ended November 30, 1901: One death occurred in the city, the cause of which was fracture of spine. Death per 1,000 inhabitants, 6.84. Eleven vessels were inspected and passed, granted pratique. Six bills of health were issued vessels leaving the port. No alien steerage pas-

sengers landed. No quarantinable disease has been reported. The sanitary condition of the town is good.

Respectfully,

S. GOMEZ,

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

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

*Inspection of immigrants at Santiago de Cuba for the week ended November 30, 1901.*

SANTIAGO DE CUBA, *November 30, 1901.*

SIR: I herewith submit report of alien steerage passengers at this port during the week ended November 30, 1901. November 29, provisional flag steamship *Julia*, from San Juan, P. R., with 7 immigrants.

Respectfully,

R. H. VON EZDORF,

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

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

*Report of immigrants inspected at the port of Santiago de Cuba, during the month of November, 1901.*

Total number of immigrants inspected, 552; number passed, 552.

R. H. VON EZDORF,

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

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

*Report of immigrants inspected at the port of Guantanamo, Cuba, during the month of November, 1901.*

Total number of immigrants inspected, 1; number passed, 1.

LUIS ESPIN,

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

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

GERMANY.

*Report from Berlin—Plague and cholera in various countries.*

BERLIN, GERMANY, *December 6, 1901.*

SIR: I have the honor to transmit the following information, obtained from the imperial health office at Berlin:

*Plague.*

RUSSIA.—According to a report dated November 21, no further cases of plague have occurred in Odessa.

GREAT BRITAIN.—According to an official declaration dated November 18, the last plague patient has been discharged as cured from the hospital in Glasgow.

EGYPT.—During the period between November 15 and November 22 another case of plague with fatal result occurred in Ziftah.

BRITISH INDIA.—During the week ended November 1, 10,740 new plague cases and 7,693 deaths were registered in the Bombay Presidency,

being 704 more cases and 632 more deaths than occurred during the foregoing week. In the city of Bombay during the week ended November 2, 186 plague cases and 176 deaths were recorded. Besides these, of the total 779 deaths, 140 were described as suspected plague.

CAPE COLONY.—In the week ended November 2, 1 new case of plague occurred at Port Elizabeth. Three deaths from plague were also registered at the same place.

BRAZIL.—According to a communication of November 5, the plague continues to claim several victims every day in Rio de Janeiro. In Campos, during the period from the middle of September to the end of October, 141 cases of bubonic plague were registered—75 deaths. On October 31 there were 27 plague patients under treatment.

*Plague and cholera.*

BRITISH INDIA.—In Calcutta during the period from October 13 to October 26, 55 persons died from cholera. Furthermore, 36 cases of plague and 35 deaths were officially recorded.

*Cholera.*

DUTCH INDIA.—In Java between October 6 and October 19, in the town and district of Soerabaya, 520 cases of cholera and 350 deaths were registered.

Respectfully,

FRANK H. MASON,  
*United States Consul-General.*

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

GIBRALTAR.

*Removal of restrictions against Glasgow.*

GIBRALTAR, *December 5, 1901.*

SIR: The following appeared in the Official Gazette of the 4th instant:

*Board of health notice.*

GIBRALTAR, *December 4, 1901.*

Glasgow being no longer an infected port, vessels leaving that port after the 3d instant and arriving at Gibraltar with clean bills of health on board will be admitted to free pratique.

By order,

JOHN C. KING,  
*Secretary to the Board of Health.*

Respectfully,

R. L. SPRAGUE,  
*United States Consul.*

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

HAWAIIAN ISLANDS.

*Another death from plague at Honolulu.*

HONOLULU, H. I., *December 9, 1901,*  
*via San Francisco, Cal., December 17, 1901.*

There was a death from plague at Honolulu on December 5.

COFER.

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

## ITALY.

*Report from Naples—A case of plague at Constantinople.*NAPLES, ITALY, *December 2, 1901.*

SIR: I have the honor to report that for the week ended November 30, 1901, the following ships were inspected at Naples:

November 26, the steamship *Columbia*, of the Hamburg-American Line, bound with passengers and cargo for New York. There were inspected and passed 469 steerage passengers and 85 pieces of large baggage. Six hundred and seventy-nine pieces of baggage were disinfected by steam.

November 27, the steamship *Nord America*, of the Veloce Line, bound with passengers and cargo for New York. There were inspected and passed 1,190 steerage passengers and 320 pieces of large baggage. One thousand five hundred and ninety-five pieces of baggage were disinfected by steam.

November 29, the steamship *Trojan Prince*, of the Prince Line, bound with passengers and cargo for New York. There were inspected and passed 438 steerage passengers and 125 pieces of large baggage. Six hundred and eighty-three pieces of baggage were disinfected by steam.

November 30, the steamship *Victoria*, of the Anchor Line, bound with passengers and cargo for New York. There were inspected and passed 337 steerage passengers and 76 pieces of large baggage. Four hundred and seventy-four pieces of baggage were disinfected by steam.

*Inspection at Palermo.*

At Palermo for the week ended November 30, 1901, the following ship was inspected:

November 30, the steamship *Trojan Prince*, of the Prince Line, bound with passengers and cargo for New York. There were inspected and passed 121 steerage passengers and 80 pieces of large and 150 pieces of small baggage. Thirty-five pieces of baggage were disinfected by steam.

*Smallpox in Naples.*

During the week ended November 30, 1901, there were officially reported at Naples 18 cases of smallpox with 1 death.

*Plague in Turkey.*

November 27, 1901, a case of plague was reported as having occurred at Constantinople, November 4, 1901.

Respectfully,

J. M. EAGER,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.**The mosquito and yellow fever as studied in Rio de Janeiro.*NAPLES, ITALY, *December 3, 1901.*

SIR: I have the honor to transmit the following:

*The mosquito and yellow fever.*

In an article published October 12, 1901, in *Le Bulletin Medical*, Paris, Dr. H. de Gouvêa, as a result of thirty years' experience in the practice of medicine in Brazil, gives an account of a careful observation

of the relation of mosquitoes to yellow fever, and concludes that the conditions under which the disease has in the past been propagated in Brazil have at all times been such as to fulfill the requirements of the mosquito theory.

Particularly in regard to Rio de Janeiro, Dr. de Gouvêa says that a careful inquiry into the history of yellow fever in that city gives a complete confirmation of the theory of Finlay. The city is sheltered from the wind with a hot climate; it is built on a low and humid soil with numerous depressions; it has beneath it a vast natural reservoir of subterranean water, constantly renewed by rains and filtrations from neighboring mountains; and, consequently, during the period of heavy rainfalls, which in general is that of intense heat, many stagnant pools form on the surface of the soil because it is impossible for the deep surface water to empty itself into the bay. These topographical conditions of soil and climate form a veritable paradise of mosquitoes. There is found, in fact, a union of conditions favorable for the procreation of the mosquito.

During the early years of the prevalence of the yellow fever in Rio de Janeiro, it failed to reach the towns situated so far in the interior that the journey occupied more time than the period of incubation of yellow fever. Persons fell sick en route, but convalescents or the effects of the sick did not carry the disease inland. Later, when the quicker transportation by land was established, yellow fever began to appear farther from the coast, and the interior towns lost their exemption from the disease unless they were so situated as to afford no breeding place for the mosquitoes. Petropolis, for example, is a case in point. This city is situated at an altitude of 800 meters, and is known for its salubrity and freedom from paludism. Petropolis is built in a valley. The incline of the ground is such that the valley empties its waters promptly into a deep river. Thus a sort of natural drainage is effected. When the railroad was built from Rio de Janeiro to Petropolis, the latter city soon became the residence in the season of many wealthy persons whose principal place of abode was at Rio de Janeiro. In that epoch, it occurred that during every yellow fever epidemic at Rio de Janeiro, a certain number of persons leaving Rio de Janeiro would fall ill of yellow fever at Petropolis. But, though no sanitary measures were taken against the transmission of the malady, the disease did not spread among the people of Petropolis.

The epidemic history of Sao Paulo is interesting. A part of this city is built along the side of a plain where there are numerous pools of stagnant water; the remainder is high. At one time there was a small epidemic in the lower portion, but the higher sections, where there were no pools, remained exempt. The isolation hospital was in a part of the city where mosquitoes were never seen and, though the personnel of the hospital numbered many persons who were probable reagents, not a single case of transmission was observed.

It is stated in Dr. de Gouvêa's paper that yellow fever has never been imported into the parts of the province of Rio Grande, in which malaria does not exist, though the exempt parts have always been in communication with Rio de Janeiro and Santos, distant, respectively, four and three days by sea.

Respectfully,

J. M. EAGER,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

*Italian emigration regulations.*NAPLES, ITALY, *November 25, 1901.*

SIR: As a supplement to the synopsis of the new Italian emigration law contained in my letter dated September 3, 1901, I have the honor to submit the following abstract of a translation of the sanitary portions of the regulations made under the law:

Steamers shall be supplied with disinfecting apparatus of the Genest-Herscher type or similar, approved of by the surveying commission who will examine them periodically to insure their good condition.

Steamers fitted to carry emigrants on transoceanic voyages shall be allowed to carry emigrants in the first between deck and the orlop deck beneath it, providing they have a minimum height of 2 meters measured from deck to deck, and are not formed by temporary decks.

All decks formed otherwise than with iron beams properly riveted to the sides of the ship and with deck planks of at least 50 millimeters in thickness, or iron plates properly worked and fitted with scuppers, shall be considered as temporary erections.

Emigrants shall not be allowed on more than 2 decks, with the exception of quarter-decks or other solidly-built superstructures.

Every emigrant berthed in quarter-decks or between decks shall be allowed an air space of 2.75 cubic meters, and in such calculation the height of the between deck shall be taken from deck to deck, but any height exceeding 2.50 meters shall not be taken into account.

Should steamer carry passengers in the orlop deck, each passenger shall be allowed an air space of 3 cubic meters.

Notwithstanding the above measurements, no steamer shall be allowed to carry more passengers than it can comfortably accommodate on deck. To this effect free space on deck shall be at least equal to 0.45 square meter for every passenger shipped, and all deck spaces on poop, quarter-deck, or other erection shall be reckoned therein, provided it shall be solid in structure and fitted with solid rails.

From such free space or spaces on deck, the first and second class passengers' space is always to be deducted.

The total area of the hatches and other openings conducting air to the different compartments occupied by emigrants in the between deck and the orlop deck, shall be equal to at least 5 per cent of the surface of said compartments. If such proportions be not obtainable in some compartments, the number of emigrants carried in such compartments shall be reduced in proportion of the area of the hatch.

Every compartment below deck in which more than 25 emigrants are to be berthed, shall be accessible by at least 1 hatchway, and providing passengers do not exceed 50, 1 ladder shall be sufficient. From 50 to 150, 2 ladders shall be required, and 3 ladders for a higher number. If emigrants berthed in 1 compartment exceed 200 in number, the steamer is to have 2 hatches, 1 at the forward and another at the after end, or else 1 large one with 4 ladders, providing the circulation of air shall be recognized sufficient by the inspecting commission.

Every ladder shall have a width of at least 80 centimeters and a hand rail and a canvas or other device to prevent children from falling through the ladder.

The ladders, instead of being connected with the principal hatches, may communicate with the deck by means of lateral openings that are covered by companions provided with doors of ample dimensions.

Even during the loading and discharging operations the passengers' compartments shall be accessible by a passage reserved for them.

Therefore if a compartment be outside of the usual hatch, not provided with a special descent or a door leading to another compartment provided with a ladder, part of the hatch is to be so arranged as to allow of its exclusive use by emigrants, separating it from the rest by means of a solid railing of iron beams to avoid accidents.

Every hatch of the deck or orlop deck is to be fenced off by a double row of chains.

The compartments indicated in preceding article shall be supplied with iron ventilators, the center of their cowl to be at least 2 meters above the deck and must in any case be above the awning. The shaft of the ventilators shall be of at least 7 decimeters section and distributed as follows:

Compartment holding from 25 to 100 emigrants, 2 ventilators; compartment holding from 100 to 200 emigrants, 3 ventilators; compartment holding above 200 emigrants, 5 ventilators.

Should ventilators existing in any of the compartments be of smaller dimensions than the above-mentioned, an additional number of ventilators shall be allowed providing the total sections of such ventilators correspond with the above regulations.

All compartments situated alongside the engine or the boiler casings, and in all the orlop decks shall be provided with an electric air extractor for the proper circulation of air.

The inspecting commission may also where it shall be thought needful, order air extractors in between decks.

The commission may order in every compartment of the orlop deck 2 windows of the Uttley or similar type to be provided in order to insure a constant circulation of air.

Subject to exception of berths for children between 6 and 10 years of age, all berths shall not be less than the following dimensions viz, 1.80 meters in length by 0.56 in width, measured inside the lee boards forming the berth. The lower berths shall be at least 40 centimeters from the deck and the row above 70 centimeters from the lower row.

The berths shall be made of iron conveniently divided from one another, in every way fixed solidly and carefully. The lee boards may be of wood, provided they be whitewashed every trip.

All the berths are to be clearly and visibly numbered.

The bedding of each berth is to be composed of a mattress and pillow filled with at least 8 kilos of vegetable hair or other material approved of by the commission and of a woolen blanket, if the berth is used by children, or in cases where the commission shall decide according to the voyage or season there shall be 2 blankets.

No more than 2 rows of berths are allowed whatever be the height of the compartment.

No berths shall be allowed so near the engines and boilers that the health of the passengers is prejudiced thereby.

The distance to be determined as the case may be, taking in account the height of the between deck, the width of the hatches and other openings, the distribution of the berths and the smaller or greater thickness of linings and material of construction and its resistance to the radiation of heat.

The berth must be distant from the coaming of the hatch at least 50 centimeters.

The inspecting commission may order that in the arrangement of the berths at the ship's sides, spaces be left for the entrance of air and light through the side lights.



Every normal berth shall be used by 1 person only, above 6 years ; or by 2 children above 12 months old and less than 6 years old.

Two children of the same sex above 6 years of age and not more than 10 years old, and in preference belonging to the same family, can be placed in 1 berth providing the berths are not less than 80 centimeters wide.

Carriers shall therefore be allowed to build a convenient number of such berths in place of an equal number of berths of normal size, providing all other conditions fixed by these regulations are carried out.

Such larger beds shall also be given in preference to such women as shall have with them children less than 12 months old, or such as are pregnant, and to this effect 10 per cent of the hospital berths shall also be 80 centimeters wide.

All passages between the groups of berths shall have an average width of 80 centimeters with a minimum width of 60 centimeters. Such passages and other places in the compartments not occupied by berths shall be kept free from all objects excepting the passenger's effects, which shall not exceed one-tenth of a cubic meter for each emigrant, and shall be so disposed as not to impede access to such passages or to berths. All other baggage shall be stowed in the hold or in other special compartments.

Should any compartment be only partly used for berthing emigrants, the remaining space may be used for cargo, provided same is divided off by a solid wooden bulkhead, all other conditions as to ventilation remaining unaltered.

Among such goods, however, salt meat, salt fish, and any other goods giving forth strong or other offensive smells, shall be excluded.

Women shall be berthed in separate compartments, divided by solid bulkheads from such as contain men, and shall in preference be berthed in between decks.

It is forbidden to berth children of one sex and over 7 years of age in compartments used by the other sex. If any exception be necessary for special reasons, it is to be granted on sailing by the inspecting commission, during the voyage by the government surgeon or the traveling commissioner.

By way of exception, on steamers where the sleeping compartments either wholly or in part are subdivided in large cabins containing a small number of berths, the inspecting commission shall be authorized to allow such apartments to be used by groups of families.

In calculating the number of emigrants, children under 12 months old shall not be reckoned. Two children from 12 months up to 10 years old shall be reckoned as 1 adult.

Every compartment where passengers are berthed shall be attended by a steward used to life at sea. The inspecting commission can, according to circumstances or number of emigrants, order that there be 2 stewards per compartment. On foreign steamers the steward or one of the two shall be Italian or speak Italian fluently.

It is prohibited to take emigrants or other passengers as stewards.

Every steamer conveying more than 50 emigrants shall be fitted with 2 compartments to be used as hospitals, 1 for men and 1 for women, situated on deck or in between decks, conveniently fitted, properly ventilated, and securely divided off from passengers' compartments, and capable of holding at least 4 per cent of the total number of emigrants and also of the crew carried, provided there is no special hospital for the latter ; each place in the hospital being reckoned at the rate of 3.50 cubic meters.

The captain, in agreement with the navy surgeon or the commissioner, shall be allowed, on sailing, to fit only half the number of such hospital berths, and shall fit the others only in case of need.

The hospital shall also be fitted with an ambulance room and a special compartment, properly illuminated and large enough to have a bed placed therein of the ordinary dimensions and around which there shall be space enough to move freely.

Each hospital shall be fitted with a bath and water-closet to be used only by patients, and hygienically built in all respects. When special reasons shall not allow fitting permanent water-closets, the inspecting commission may exceptionally allow portable ones of the latest pattern in their stead.

The berths in the hospital shall be all so arranged that one of their longer sides (1.80 m.) is adjacent to the passage and directly accessible. Passages between such berths shall be at least 1 meter wide.

The berths are to be provided with spittoons, and furnished with horsehair or wool mattresses and pillows of at least 10 kilos weight in all, and supplied with at least 4 sheets and 2 pillowcases each.

Steamer shall be fitted with steam laundry, which may be combined with disinfecting apparatus heretofore mentioned. Should this be impossible, a special compartment to be used as laundry with washtubs divided into 4 sections each sufficient for 1 person, with feed cock for fresh water and independent scuppers so as to avoid the water in the several sections mixing, is to be provided.

The washtubs shall be at the disposal of the emigrants all day; every day, for at least three hours, fresh water is to be supplied and to be renewed at convenient intervals.

The steamer shall also be supplied with 2 tubs containing 50 liters each to be used eventually for chemical disinfectants and with 2 warm shower baths, 1 for men and the other for women.

Latrines for the emigrants must be provided for in at least 2 separate groups, 1 for the exclusive use of men and the other for women exclusively; the closets are to be convenient and hygienic, and judged such by the inspecting commissioner.

Each closet may contain 1 common collector, and must be divided in several places by a sheet-iron division of at least 1 meter in height, and also have arm rests and a screen in front. The water-closets shall be properly fitted with a constant flow of water and shall be properly ventilated.

The water-closets shall be at least 2 in number for steamers carrying up to 100 emigrants, and be increased in the proportion of 2 for every additional 150 emigrants, and divided proportionately between men and women.

The women's water-closet shall be situated as near as possible to the hatches communicating with the compartment where they are berthed. Those for men are to be provided also with urinals.

If the water-closets are located on deck, the steamer is to be provided with 2 additional water-closets, 1 for men and the other for women, in between decks, conveniently located, to be open in exceptional cases when ordered by the government surgeon.

If conditions of steamer do not allow of the construction of such water-closets in between decks, transportable privies are to be provided for; in such case the steamer is to be fitted with a sewer leading off board at a fit place.

At nighttime all berthing compartments and other localities at the disposal of emigrants, including water-closets and the outer and inner

passages must be illuminated by electric light, every compartment having a safety oil lamp besides.

The naval surgeon on foreign or national steamers carrying emigrants shall ship two days previous to that fixed for sailing. On board national steamers, as well as foreign, he wears his regular uniform and takes his seat at table at the captain's right in the first-class saloon, special cases only excepted. He is in charge of the sanitary service on board, whether a second doctor be shipped or a third one in proportion to the number of emigrants, or whether the owner shall have a surgeon of his own on board. In the latter case passengers other than emigrants shall have the option of making use of the owner's doctor, but the latter is to keep the government surgeon daily informed of the nature of the diseases he is treating and their progress. Whenever such diseases threaten the general health on board, the government surgeon is entitled to interfere with a view to ascertaining exactly the measures taken or to be taken in the interests of all concerned.

The government surgeon takes charge of the medical stores and all other apparatus, such as medicine chest and surgical instruments, and shall see that they are exactly as prescribed in the respective tables. When he leaves the steamer he shall deliver same back again.

The government surgeon shall, besides affording his services gratuitously to all persons on board, take care that good sanitary conditions are preserved on the steamer during the entire voyage. He shall, above all, see to the scrupulous carrying out of the following prescriptions:

(a) That the victuals distributed to the emigrants are of a good quality, properly cooked and prepared, and corresponding in quantity to such as shall be established by the table annexed to these by-laws.

(b) That the emigrants shall be served gratuitously with good fresh water, to be distributed in a way to exclude the possibility of its transmitting diseases, in the quantity of at least 5 liters per person per day.

(c) That should any doubt arise during the voyage as to the good quality of the water taken on board such water is properly sterilized by boiling, or, in such cases where it may be necessary, substituted by distilled water until the captain may be able to get a fresh supply of good water, after having emptied and disinfected the tanks by the best modern hygienic system, and before allowing such water to be taken on board the surgeon shall ascertain that it is of good quality and free from any impurities.

(d) That the steamer is in a permanent state of cleanliness, and especially that the water-closets are repeatedly and thoroughly cleaned and disinfected.

(e) That all compartments carrying emigrant passengers or crew are kept in a healthy and clean condition and properly disinfected as soon as any infectious or contagious diseases shall break out in such compartments.

(f) That the emigrants' compartments, while the emigrants are on board, are daily properly cleaned and swept with sawdust mixed with disinfectants when needed, or else properly scrubbed.

(g) That when there is any suspicion or outbreak of infectious disease, all linen and personal effects which may have come in contact with the patients are immediately disinfected and washed or destroyed, and that the patients are possibly isolated in separate compartments as hereinbefore prescribed.

In case of epidemics breaking out on board or of conditions endangering the health of the passengers, the government surgeon shall take

or cause to be taken all such other means as he may think necessary, including the destruction of such articles as can not well be disinfected.

In case of death on board caused by ordinary illness or through accident, the government surgeon, after having ascertained beyond doubt the death, shall provide for the removal of the corpse (except should the steamer be arriving in port within twenty-four hours) in the usual way.

If, however, death shall have been caused by an infectious disease, he shall take steps to get rid of the body as quickly as possible, and shall see that all belongings of the deceased as well as the compartment where the former was, are most radically disinfected.

The government surgeon shall accompany the captain to the sanitary offices of the ports of call on the way when getting pratique, and keep himself well informed as to the state of health at the place, and should infectious diseases prevail, he shall take all such precautionary measures as may be needed for the health of the persons on board, in as far as such measures are consistent with commercial interests and nautical exigencies of ship.

The government surgeon shall record in his log book all facts respecting the sanitary state of the ship, both outwards and homewards. Besides that, he shall make a report for every trip, stating all his observations regarding the special sanitary conditions of emigrants going abroad and returning home, as well as on the medical geography, exotic pathology, and such other medical arguments on exotic medicine and naval hygiene as the minister of the navy or the director of health shall request him to study. He shall, on return, deliver such log book and report through the harbor master to the medical officer of the province, who, after having examined same, shall forward it to the director of the sanitary service of the navy, sending at the same time a copy thereof to the sanitary department of the home office.

Before leaving the steamer and within three days of her arrival in port the surgeon shall ascertain that the blankets, mattresses, berths, and compartments have been properly disinfected and cleaned, and he shall hand the captain a certificate to this effect which the captain shall exhibit to the inspection commissioner. In the absence of the government surgeon, the said disinfection shall be looked after by the civil surgeon substituting him, and the certificate certified to by the traveling commissioner.

Should the government surgeon be guilty of negligence in assisting the sick and rigorously carrying out all sanitary measures, or should he fail to announce infectious diseases developed on board, or should he be guilty of any other fault respecting his professional and military duties, he shall incur punishment not only in accordance with the sanitary laws, but also with the royal navy regulations.

If the number of emigrants exceeds 700, and the commissioner of emigration, in agreement with the home secretary, orders it, an assistant surgeon shall be taken on board. Such surgeon may be chosen by the carrier from amongst those which the home secretary shall have approved.

The authorization shall not be granted to anyone that has not been admitted to practice as a physician and surgeon two years previously and can prove by documents that he has a sufficient knowledge of sanitary service and the capacity of practicing the medical profession as a physician, surgeon, and accoucheur.

Doctors having obtained such authority to act as assistant surgeons

on board shall be inscribed at the prefecture at Genoa, Naples, and Palermo.

In the case of Italian steamers, the assistant surgeons form part of the crew and are entered in the crew lists.

Doctors that shall have proved to be unfit for sea life shall not be allowed to ship again.

An assistant surgeon is compulsory in the case of steamers taking on board, at port of call, such number of emigrants as shall, added to those previously shipped, exceed 700.

If in such cases the captain can not secure the services of an assistant surgeon, the government surgeon shall not allow third-class passengers to be carried beyond the abovesaid limit.

The commissioner can, on the basis of the regulations of the preceding articles, order a third surgeon, if the number of emigrants exceeds 1,500.

Assistant surgeons shall be canceled by the home secretary from the list of those allowed to act in that capacity, if found guilty of negligence in the performance of their duties.

If they abandon their service during the voyage for which they have been engaged, without being duly authorized to do so, they are not only declared deserters, but are, according to maritime commercial law, if sailing on an Italian steamer, canceled from the list of surgeons authorized to serve on board of steamers, and subject to the refunding of any damages arising to the parties interested through their negligence.

In case of infectious diseases developing on board, the dispositions of previous regulations shall apply.

In every case amongst the crew there shall be an infirmary assistant and a nurse declared fit for such duties by the harbor surgeons; also with regard to their fitness for sea life, and they shall be either Italian or speak the Italian language fluently.

In cases where 2 surgeons are shipped, there shall be 2 infirmary assistants and 2 nurses, and 3 in the case provided that the number exceeds 1,500. Such infirmary assistants shall not be admitted unless they can produce a satisfactory certificate.

In cases where 2 surgeons are shipped, the infirmary assistants shall be placed under the direct superintendence of the government surgeon.

It is prohibited to take emigrants or other passengers for the service of infirmary assistant or nurse.

Steamers carrying emigrants shall be provided with medicine chests and surgical instruments as indicated in the prescription of medicines and medical supplies.

All foodstuffs shall be of good quality, perfectly preservable and in quantity corresponding to the average duration of the voyage which the steamer is to undertake, increased by one-third.

Such increase shall be larger if there be any probability of the steamer being quarantined abroad.

The provisions shall be kept properly stored, protected from damp and from too high temperature and in conveniently ventilated places.

At least three days before sailing, the captain shall send the harbor master a list signed by him certifying to the exact quality and quantity of provisions put on board. Together with such list, he shall send samples in duplicate of the principal articles, it being understood that one of the samples is intended for the analysis which the harbor master may think necessary, while the other is to be delivered to the government surgeon or the traveling commissioner on board to compare them with the victuals actually supplied during the voyage.

If the chemical analysis shows that any of the articles of supply are falsified or adulterated or otherwise impure, such stuff is to be seized and put at the disposal of the judiciary authorities with a view to legal action being taken. In such cases, the carrier is to bear the expenses of the analysis.

Tables annexed to the by-laws indicate the qualities and quantities of the provisions to which emigrants are entitled.

Children of less than 5 years of age, infants excepted, are entitled to quarter rations; those up to 10 years, to half; above 10, to full rations.

Patients and convalescents shall receive such food and medicine as may be determined by the ship's surgeon, who shall also be entitled to order supplementary rations of beef tea or soups to children and women who may need them.

The food shall be distributed under ordinary circumstances amongst groups not exceeding 6 in number, and this may be limited to a smaller number by an order of the commissioner of emigration.

Whenever possible, each group shall be formed by members of the same family and when needed only completed by single parties.

The emigrant galley shall be separated from the saloon galley and shall be ample enough and supplied with the necessary utensils in proportion to the number of emigrants, to the satisfaction of the inspecting commission. No copper or lead utensils shall be allowed unless they be properly tinned. The bakery and oven shall also be proportionate to the number of persons carried, and to the satisfaction of the inspecting commission.

The number of cooks for the emigrant galley shall be sufficient, the inspecting commission deciding on such point. At least the chief cook is to be an Italian and in possession of the passport prescribed.

Fresh water shall be supplied of the best quality, free from any impurity and in such quantity as shall be needed to allow passengers 5 liters per person per day, taking into account the longest probable time of the trip and the quantity that can be supplied from the distiller. The supply of fresh water is never to be less than is needed for three days' consumption.

The water is to be kept in tanks such as to avoid any alteration during the whole trip, and these are to be protected as much as possible from the influence of high temperature.

The tanks are to be cleaned after every voyage and can not be filled with a fresh supply unless first inspected by the government surgeon or the traveling commissioner.

Besides the tanks for drinking water on deck for the use of emigrants, smaller ones of the capacity of 25 to 30 liters must be held at the disposal of the emigrants in every compartment of between deck for night use or for cases in which for reasons of bad weather they are prevented from going on deck. In order to be accessible also for passengers berthed in orlop deck, said tanks are to be placed near the ladders leading there.

Tanks are not to be provided with suckers, but with automatic cocks conveniently arranged for taking the water from them.

The steamers must be provided with a conveniently constructed ice house, holding at least 10 tons of ice, which shall be divided in 2 sections, 1 for infirmary use and the other for preserving victuals.

In case the steamers be, for the latter purpose, provided with a refrigerator, 1 ice house of the capacity of 5 tons for the exclusive use of the infirmary and passengers shall be sufficient.

Before emigrants are shipped, their personal effects which may not

be entirely clean shall be disinfected ashore at the expense of the emigration fund at the locality provided for that purpose. Such personal effects as emigrants do not take with them in the berths can be deposited in the holds and need not be disinfected.

Such emigrants as shall need it shall be compelled to take a hot bath before sailing, under the superintendence of the surgeon, with the assistance of the hospital assistants.

Until a proper locality shall be in working order, such disinfections and such baths shall take place on board at the expense of the carrier and by means of the apparatus with which the ship is to be fitted according to regulations, under the superintendence of the harbor surgeon or the one on board.

During the inspection of emigrants the emigration commission shall verify the sanitary state of the crew and all the persons shipped.

Should any persons presenting themselves for shipment be sick or convalescent, they shall prevent their shipment in all cases where there may be any possibility of contagious diseases or other dangerous sickness, or of any such disease as may be a nuisance to other passengers, keeping especially sight of persons coming from any place where epidemics are prevalent.

The commission shall verify that all persons under 16 years of age are supplied with proper certificates of vaccination or of having suffered smallpox, it being the carriers' duty to see that such persons hold the above certificate. It may, however, under special circumstances, and when no inconvenience can result therefrom, allow a few children to be shipped without certificate, providing the ship's surgeon vaccinates them as soon as steamer sails, keeping note of same in his log book.

The commission shall ascertain that every emigrant takes with him a sufficient supply of soap and personal effects for the voyage, and that such are placed in such a manner as not to obstruct passage ways.

It shall verify that the berths, both in men's and women's compartments, are properly distributed, and every head of a family shall have the number of berths allotted to him properly set forth in his ticket, taking care that children are not berthed too close to hatches or to ventilators, and wherever possible giving children berths on the lower row.

It shall ascertain that the rations are properly distributed as well as the necessary eating utensils, and that emigrants are properly grouped for rations, and that they shall receive the rations they are entitled to.

It shall ascertain that live cattle have been placed in properly built stalls so as in no way to endanger the passengers' safety.

It shall verify that no hogs or other animals or anything giving forth offensive smells or causing discomfort to passengers have been placed below deck, and that steamer has not shipped any dangerous cargo prohibited by standing regulations for steamers carrying passengers.

Besides the management of the sanitary service on board, the government surgeon shall look after the interests of the emigrants during the voyage.

For the better carrying out of his functions the government surgeon shall keep with the greatest regularity a log book in which he shall make the following entries:

Any facts which may cause inconvenience to passengers and the dispositions given for remedying same; the complaints he receives and the measures he may adopt for rectifying them; any contravention he may ascertain; the exact hour of arriving and that of sailing at and from the various ports; any pertinent communications made him by

the captain, and his own observations and alterations for improving the service which his experience may suggest to him in the passengers' interest.

Such log book shall be numbered, stamped, and signed by the harbor master at port of sailing, and shall be written out without any vacant spaces or erasures, and shall be closed and signed every twenty-four hours.

The government surgeon and the captain shall agree about the regulations for the discipline on board in respect of hours for rising, cleaning out of the compartments, meals, allowing passengers on deck, medical visits, general silence, and filling up of tubs with fresh water from time to time as prescribed.

Respectfully,

J. M. EAGER,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

NEW BRUNSWICK.

*Smallpox at St. John and vicinity.*

ST. JOHN, NEW BRUNSWICK, *December 10, 1901.*

SIR: In reference to the smallpox situation here at present, I beg leave to report that during the epidemic there have been 76 cases of the disease in the city and suburbs, with 19 deaths. During the week ended December 8, 16 new cases were reported and 3 additional cases yesterday, but none to-day.

Apart from this immediate vicinity, scattering cases traceable to St. John are reported from 5 other localities in the province, to wit, St. Marys (near Fredericton), St. George, Waasis (suspect), Moncton, and Jemsig. There is still a large unvaccinated population in St. John as well as throughout the province. As yet there has been no systematic effort on the part of the authorities of this city to furnish free vaccination to those applying \* \* \*

The epidemic is not confined to any one locality and exists also among the seafaring population. The United States consul's records show that 65 vessels cleared from here for United States ports during the month of November and it is estimated that between 40 and 50 will clear this month.

The crews of these vessels are now fairly well vaccinated, but as their crafts pass slowly along the coast from harbor to harbor there is a special element of danger to small seaports from an infected vessel of this sort.

Respectfully,

M. VICTOR SAFFORD,

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

The SURGEON-GENERAL,

*U. S. Marine-Hospital Service.*

*Smallpox at St. John decreasing.*

ST. JOHN, NEW BRUNSWICK, *December 14, 1901.*

SIR: I beg leave to report that there has been a marked decrease in the number of new cases of smallpox here this week. Only 2 new cases and 1 death have occurred during the last six days, while the number of cases for the preceding week was 16. The total number of cases reported in St. John and vicinity up to date is 78 with 20 deaths. There has also been a decided improvement in the methods of handling the disease,



although they have hardly been in operation long enough to account for the present diminution in the number of cases.

The city is now provided with suitable hospitals for isolating patients, but up to recently many of them received treatment in their own homes.

For the above reasons and because the past measures for disinfection have probably been ineffectual in most instances and because there is still a large number of unvaccinated people in the city, I do not yet feel warranted in withdrawing my recommendation in reference to inspection of vessels as telegraphed to the Bureau on the 7th instant. I believe no danger of the spread of the disease is to be apprehended from the other localities in this province where cases have thus far been reported.

No instructions from the Bureau have reached me since the 5th instant.

Respectfully,

M. VICTOR SAFFORD,  
*Assistant Surgeon, U. S. M. H. S.*

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

#### NOVA SCOTIA.

*Inspection of immigrants at Halifax, St. John, and Quebec for the week ended December 14, 1901.*

HALIFAX, NOVA SCOTIA, *December 14, 1901.*

SIR: I have the honor to report that there were no transactions at the port of Halifax for the week ended December 14, 1901.

At the port of St. John there were inspected 2 immigrants. Passed, 1; detained, 1; cause of detention, trachoma, 1.

At the port of Quebec there were inspected 3 immigrants. Passed, 2; detained, 1; cause of detention, trachoma, 1.

Respectfully,

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

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

#### PHILIPPINE ISLANDS.

*Maritime quarantine transactions for the months of September and October, 1901.*

MANILA, P. I., *November 10, 1901.*

SIR: I have the honor to submit report of quarantine transactions of the quarantine service for the Philippine Islands for the month of September, 1901, as follows:

#### PORT OF MANILA.

Bills of health issued—	
To United States ports.....	8
To foreign ports.....	38
To domestic ports.....	222
Number of vessels inspected—	
From foreign ports.....	43
From domestic ports.....	199
Number of passengers inspected—	
Cabin.....	1,466
Steerage.....	4,281
Number of crew inspected.....	9,496
Number of vessels in quarantine.....	1

PORT OF MANILA—Continued.

Number of vessels disinfected.....	1
Number persons quarantined for observation.....	58
Number persons bathed and effects disinfected.....	58
Number of persons detained in quarantine, at station.....	51
Number of persons vaccinated—	
Crew .....	130
Passengers .....	697
Number of persons remaining in quarantine September 30.....	51
Number pieces baggage disinfected and so labeled.....	3, 361
Number pieces baggage inspected and passed and labeled .....	3, 947

OUTGOING QUARANTINE.

Number of vessels inspected.....	218
Number of passengers inspected.....	3, 976
Number of crew inspected .....	5, 664
Number of passengers and crew rejected (cause of rejection, fever cases).....	1
Number pieces baggage disinfected and so labeled.....	1, 241

FERRYBOATS.

Number of ferryboats inspected.....	354
Number of ferryboat crew inspected.....	4, 599
Number of ferryboat passengers inspected.....	31, 943

SUMMARY.

Total number of vessels inspected .....	814
Total number of passengers inspected.....	41, 666
Total number of crew inspected.....	19, 759
Total number of persons vaccinated.....	827
Total number pieces baggage disinfected .....	4, 602
Total number pieces baggage inspected and passed.....	3, 947

PORT OF CEBU.

Number of bills of health issued to foreign ports. ....	3
Number of vessels inspected—	
From foreign ports.....	2
From domestic ports .....	88
Number of passengers inspected—	
Cabin .....	141
Steerage.....	1, 164
Number of crew inspected .....	2, 674

PORT OF ILOILO.

Number of bills of health issued to foreign ports.....	3
Number of vessels inspected—	
From foreign ports.....	2
From domestic ports .....	29
Number of passengers inspected—	
Cabin .....	282
Steerage .....	2, 401
Number of crew inspected .....	1, 651

Respectfully,

J. C. PERRY,

*Passed Assistant Surgeon, U. S. M. H. S.,  
Chief Quarantine Officer for the Philippine Islands.*

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

MANILA, P. I., *November 14, 1901.*

SIR: I have the honor to submit report of quarantine transactions of the quarantine service for the Philippine Islands for the month of October, 1901, as follows:

## PORT OF MANILA.

Bills of health issued—	
To United States ports .....	233
To foreign ports .....	5
To domestic ports.....	41
Number of vessels inspected—	
From foreign ports.....	58
From domestic ports .....	180
Number of passengers inspected—	
Cabin.....	1,486
Steerage .....	11,647
Number of crew inspected.....	10,023
Number of vessels in quarantine .....	5
Number of vessels disinfected .....	5
Number of persons remaining in quarantine from September.....	51
Number of persons bathed and effects disinfected .....	3,019
Number of persons detained in quarantine at station .....	3,143
Number of persons vaccinated—	
Crew .....	40
Passengers .....	8
Number of pieces of baggage disinfected and so labeled .....	7,194
Number of pieces of baggage inspected and passed.....	2,299

## PORT OF CEBU.

Number of bills of health issued to foreign ports .....	5
Number of vessels inspected—	
From foreign ports.....	3
From domestic ports .....	92
Number of passengers inspected—	
Cabin.....	86
Steerage .....	611
Number of crew inspected .....	2,759

## PORT OF ILOILO.

Number of bills of health issued to foreign ports .....	3
Number of vessels inspected—	
From foreign ports.....	2
From domestic ports .....	22
Number of passengers inspected—	
Cabin.....	176
Steerage .....	407
Number of crew inspected .....	1,119

Respectfully,

J. C. PERRY,  
*Passed Assistant Surgeon, U. S. M. H. S.,  
 Chief Quarantine Officer for the Philippine Islands.*

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

*No plague nor smallpox in Manila.*

MANILA, P. I., *November 12, 1901.*

SIR: I have the honor to report that Manila still remains free from plague and smallpox, no cases having been reported for the week ended November 9, 1901.

Respectfully,

J. C. PERRY,  
*Passed Assistant Surgeon, U. S. M. H. S.,  
 Chief Quarantine Officer for the Philippine Islands.*

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

## PRINCE EDWARD ISLAND.

*Schooner Robin Hood quarantined at Georgetown on account of smallpox.*

GEORGETOWN, PRINCE EDWARD ISLAND, *December 10, 1901.*

SIR. The schooner *Robin Hood*, of Gloucester, Mass., from Gloucester in ballast arrived here, was examined by the health officer of the port and admitted to enter here on November 26, and on December 2 the case of smallpox was developed and immediately the schooner was moved out to quarantine. It was December 9, before the authorities decided to take the man to the marine hospital. He is now in the Charlottetown marine hospital. His name on the articles is Henry Wolf. The name of the master is Stillman Maloue. The owners are Gardner & Parsons, of Gloucester.

Respectfully,

ARCH. J. MACDONALD,  
*United States Consular Agent.*

D. J. VAIL,  
*United States Consul, Charlottetown.*

## RUSSIA.

*Plague regulations—A case of plague at Batoum.*

ST. PETERSBURG, RUSSIA, *November 30, 1901.*

SIR: I have the honor to inclose to you herewith a translated copy of a circular of the imperial commission for combating the plague, which has been sent to me by the imperial Russian ministry for foreign affairs in a note dated November 13-26, 1901.

Respectfully,

CHARLEMAGNE TOWER,  
*Ambassador Extraordinary and Plenipotentiary.*

HON. SECRETARY OF STATE.

[Inclosure—Translation.]

*A circular of the imperial commission for combating the plague.*

Since, within fifteen days, namely up to November 11-24, no fresh case of plague has appeared at Odessa, the commission has determined to suspend the following preventive measures which had been established at Odessa on account of the cases of plague that had occurred there.

1. The prohibition of the export of such merchandise as is likely to transmit the plague.
2. The examination of vessels previous to their departure from Odessa.
3. The sanitary examination of passengers leaving Odessa by rail, and
4. The prohibition to move troops through Odessa.

The commission has found it necessary to continue, however, until further orders, the following measures: (a) The medical examination of all vessels arriving at Odessa from ports of the Black Sea; (b) the medical control of all vessels lying in the port, and (c) the obligation of owners of passenger vessels plying upon internal waterways to carry a doctor upon each of their vessels.

A case of plague has appeared in the city hospital at Batoum; the diagnosis of the case has been confirmed by a bacteriologic examination. The patient is actually on the way of recovery. All preventive measures have been taken.

*Foreign and insular statistical reports of countries and cities—Yearly and monthly.*

**BAHAMAS—Dunmore Town.**—Two weeks ended December 6, 1901. Estimated population, 1,232. No deaths and no contagious diseases reported.

**Governors Harbor.**—Two weeks ended December 7, 1901. Estimated population, 1,500. No deaths and no contagious diseases reported.

**Green Turtle Cay—Abaco.**—Two weeks ended December 5, 1901. Estimated population, 3,314. No deaths and no contagious diseases reported.

**Nassua.**—Two weeks ended December 9, 1901. Estimated population, 12,535. No deaths and no contagious diseases reported.

**BRAZIL—Ceara.**—Month of September, 1901. Estimated population, 50,000. Total number of deaths, 73, including enteric fever, 8, and 2 from smallpox.

Month of October, 1901. Total number of deaths, 54, including 3 from enteric fever.

**CANADA—Province of Ontario.**—Reports to the provincial board of health for the month of October, 1901, from 765 municipalities having an aggregate estimated population of 2,111,864, show a total of 2,081 deaths, including diphtheria, 63; enteric fever, 65; measles, 4; scarlet fever, 15; whooping cough, 8, and 164 from tuberculosis.

**FORMOSA.**—Month of September, 1901. Estimated population, 2,797,543. Number of deaths not reported. Thirty-seven deaths from plague, 5 from smallpox, and 2 from typhus fever reported.

**FRANCE—Roubaix.**—Month of November, 1901. Estimated population, 124,447. Total number of deaths, 162, including diphtheria, 1; enteric fever, 2, and 6 from whooping cough.

**GREAT BRITAIN—England and Wales.**—The deaths registered in 33 great towns in England and Wales during the week ended November 30, 1901, correspond to an annual rate of 20.3 per 1,000 of the aggregate population, which is estimated at 11,463,026. The highest rate was recorded in Oldham, viz, 28.5, and the lowest in Huddersfield, viz, 9.9.

**London.**—One thousand seven hundred and eighty-five deaths were registered during the week, including measles, 54; scarlet fever, 12; diphtheria, 40; whooping cough, 12; enteric fever, 9; smallpox, 21, and diarrhea and dysentery, 13. The deaths from all causes correspond to an annual rate of 20.5 per 1,000. In Greater London 2,400 deaths were registered, corresponding to an annual rate of 18.9 per 1,000 of the population. In the "outer ring" the deaths included 23 from diphtheria, 10 from measles, 5 from scarlet fever, 2 from smallpox, and 6 from whooping cough.

**Ireland.**—The average annual death rate represented by the deaths registered during the week ended November 30, 1901, in the 21 principal town districts of Ireland was 18.8 per 1,000 of the population, which is

estimated at 1,079,708. The lowest rate was recorded in Drogheda, viz, 4.1, and the highest in Galway, viz, 42.8 per 1,000. In Dublin and suburbs 141 deaths were registered, including enteric fever, 2; scarlet fever, 1; whooping cough, 1, and 27 from tuberculosis.

*Scotland.*—The deaths registered in 8 principal towns during the week ended November 30, 1901, correspond to an annual rate of 22.2 per 1,000 of the population, which is estimated at 1,656,525. The lowest mortality was recorded in Greenock, viz, 17.5, and the highest in Paisley, viz, 28.0 per 1,000. The aggregate number of deaths registered from all causes was 706, including diphtheria, 8; measles, 29; scarlet fever, 3, and 7 from whooping cough.

*JAMAICA—Port Antonio.*—Two weeks ended December 7, 1901. Estimated population not reported. No deaths and no contagious diseases.

*JAVA—Batavia.*—Two weeks ended November 9, 1901. Estimated population, 150,000. Total number of deaths not reported. Twenty-eight deaths from cholera reported.

*MALTA.*—Three weeks ended November 30, 1901. Estimated population, 183,679. Total number of deaths, 258, including diphtheria, 7, and 6 from enteric fever.

*SPAIN—Corunna* —Month of November, 1901. Estimated population, 40,500. Total number of deaths, 108, including enteric fever, 1, and 27 from tuberculosis.

*Valencia.*—Two weeks ended November 30, 1901. Population, 204,000. Total number of deaths, 244, including 32 from smallpox.

*Vigo.*—Month of November, 1901. Estimated population, 20,000. Total number of deaths, 41, including 1 from smallpox.

*Cholera, yellow fever, plague, and smallpox, June 28, 1901, to December 27, 1901.*

[Reports received by the Surgeon-General United States Marine-Hospital Service from United States consuls through the Department of State and other sources.]

[For reports received from December 28, 1900, to June 28, 1901, see PUBLIC HEALTH REPORTS for June 28, 1901.]

**CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Borneo:</b>				
Bandjermasin.....	Aug. 1-Aug. 31...	100	69	
<b>Egypt:</b>				
Suez.....	Sept. 21.....	6	1	On ship Inchmoor during voyage from Soerabaya.
<b>India:</b>				
Bombay.....	May 22-Nov. 26.....		107	
Calcutta.....	May 19-Nov. 23.....		682	
Madras.....	May 18-Nov. 15.....		997	
<b>Japan:</b>				
Formosa, Tamsui.....	May 1-June 30...	5	1	
Onsen District.....	Sept. 1-Sept. 14...	1	0	
Yokohama.....	July 14-Sept. 31...	8	3	
<b>Java:</b>				
Batavia.....	June 2-Nov. 9...	705	594	
Soerabaya.....	Aug. 1-Aug. 31...	1,800	1,400	
	Oct. 6-Oct. 19...	520	350	
Samarang.....	Aug. 1-Aug. 31...	1,050	600	
<b>Straits Settlements:</b>				
Singapore.....	May 23-Nov. 9.....		30	
<b>Sumatra:</b>				
Padang.....	Sept. 1-Sept. 8...	1	1	
Palembang.....	July 13-Aug. 31...	87	52	

**YELLOW FEVER.**

<b>Brazil:</b>				
Para.....	Oct. 1-Oct. 31...	177	56	
Pernambuco.....	May 17-Oct. 15.....		7	
Rio de Janeiro.....	May 15-Nov. 10.....		89	
<b>Colombia:</b>				
Bocas del Toro.....	June 26-Oct. 25...	11	1	
<b>Costa Rica:</b>				
Port Limon.....	July 4-Oct. 12...	29	17	
<b>Cuba:</b>				
Casilda.....	Sept. 29-Oct. 5.....	1		
Cienfuegos.....	July 15-July 18...	2		
Cumanayagua.....	Aug. 18-Aug. 24...	1		
Daiquiri.....	Sept. 8-Sept. 14...	1		
Havana.....	June 28-July 27...	7		
	July 28-Aug. 10...	6	1	Six from Santiago de las Vegas. One from Regla, 1 from San Antonio de los Banos, 1 from steamship Monterey, and 1 from Finca Riquena. Seven cases and 3 deaths resulted from inoculation by the mosquito.
	Aug. 10-Aug. 31...	13	5	
	Sept. 1-Oct. 26...	11	2	One from Santiago de las Vegas.
	Dec. 1.....	2	1	One case from British steamship Ardanmohr. One death from Spanish steamship Buenos Aires.
Marianao.....	July 28-Aug. 10...	1	1	
Matanzas.....	July 21-July 27...		1	
	Aug. 25-Aug. 31...	2		
	Sept. 1-Oct. 22...	3	1	
Pinar del Rio.....	July 28-Aug. 3...	1		
Regla.....	.....do	1	1	
Santa Clara.....	Oct. 26.....	2		
Santiago.....	Sept. 20.....	6	1	On steamship Ethelbryhta.
Trinidad.....	Oct. 1.....	1		
<b>Dutch West Indies:</b>				
Curacao.....	Sept. 22-Dec. 6...	13	4	
<b>Haiti:</b>				
Cape Haitien.....	Oct. 5.....	1		
Port au Prince.....	Aug. 20-Aug. 26...	1	1	
<b>Jamaica:</b>				
Kingston.....	June 15.....		1	

*Cholera, yellow fever, etc.—Continued.*

## YELLOW FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Mexico:</b>				
Merida .....	June 14-Sept. 23 .....	16	3	Two cases from steamship Mathilda. From steamship — from Progreso; 1 from steamship Yucatan from Vera Cruz. Endemic.
Progreso .....	July 22-Oct. 6 .....	5	3	
Tampico .....	July 26-Aug. 22 .....	2	1	
Valladolid .....	Sept. 23-Sept. 23 .....	4	4	
Vera Cruz .....	June 23-Dec. 14 .....	221	94	
<b>Porto Rico:</b>				
San Juan .....	July 16 .....	1	.....	On steamship Saint Simon from Cape Port au Prince and Santo Domingo.
<b>Salvador:</b>				
San Salvador .....	June 20 .....	.....	.....	Several cases.
<b>Windward Islands:</b>				
St. Lucia .....	Dec. 2-Dec. 6 .....	8	6	

## PLAGUE.

<b>Africa:</b>					
Cape Town .....	Feb. 16-Aug. 17 .....	737	355		
Maitland .....	June 9-June 15 .....	2	.....		
Port Elizabeth .....	June 9-July 27 .....	33	13		
Simonstown .....	June 9-June 15 .....	1	.....		
<b>Australia:</b>					
Brisbane .....	Mar. 1-June 30 .....	24	9		
<b>Brazil:</b>					
Rio de Janeiro .....	July 3-Nov. 10 .....	.....	114		
<b>China:</b>					
Amoy .....	May 26-Sept. 1 .....	5,460	700	Estimated. Prevailing.	
Canton .....	June 8 .....	.....	.....		
Hongkong .....	May 19-Oct. 5 .....	1,035	1,005		
Newchwang .....	Aug. 30 .....	2	.....		
Shanghai .....	June 9 .....	.....	1	From steamship Empress of China. Prevailing. Do.	
Sheck Lung .....	June 8 .....	.....	.....		
Tung Kun .....	do .....	.....	.....		
<b>Egypt:</b>					
Alexandria .....	Apr. 7-Nov. 20 .....	52	26		
Benha .....	do .....	5	3		
Mansura .....	do .....	1	1		
Minieh .....	do .....	5	1		
Mit Gamr .....	do .....	20	11		
Port Said .....	do .....	26	16		
Zagazig .....	do .....	77	32		
Ziftah .....	do .....	5	4		
<b>England:</b>					
Liverpool .....	Oct. 26-Nov. 7 .....	5	3		
<b>France:</b>					
Le Frioul .....	July 7 .....	15	.....	From steamship Laos from Port Said.	
<b>Hawaiian Islands:</b>					
Honolulu .....	May 31-Dec. 10 .....	10	10		
Kauai Island .....	Nov. 13 .....	2	2		
<b>India:</b>					
<b>Bombay Presidency and Sind:</b>					
<b>Northern Division—</b>					
Bombay City .....	May 12-Nov. 16 .....	3,879	3,954		
Broach District .....	do .....	1,242	1,248		
Kaira District .....	do .....	179	124		
Surat District .....	do .....	3,202	1,695		
Thana District .....	do .....	1,852	1,169		
<b>Central Division—</b>					
Khandesh District .....	do .....	775	615		
Poona District .....	do .....	1,176	766		
Poona City .....	do .....	681	495		
Satara District .....	do .....	20,489	14,178		
Sholapur District .....	do .....	283	201		
<b>Southern Division—</b>					
Belgaum District .....	do .....	26,358	19,730		
Bijapur District .....	do .....	21	14		
Dharwar District .....	do .....	25,773	17,264		
Hubli Town .....	do .....	2,670	2,426		
Kanara District .....	do .....	389	276		
Kolaba District .....	do .....	832	622		
Katnagiri District .....	do .....	144	108		
<b>Sindh—</b>					
Hyderabad District .....	do .....	6	2		
Karachi District .....	do .....	40	32		
Karachi City .....	do .....	665	523		



## Cholera, yellow fever, etc.—Continued.

## PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India—Continued.</b>				
<b>Bombay Presidency and Sind—Continued.</b>				
<b>Political Charges—</b>				
Aundh State .....	May 12–Nov. 16...	652	420	
Baroda State .....	.....do.....	509	324	
Bhavnagar Town.....	.....do.....	1		
Cutch State.....	.....do.....	1,215	1,043	
Janjira State.....	.....do.....	14	12	
Kathiawar State.....	.....do.....	443	393	
Kolhapur and Southern Maharatta Country.	.....do.....	22,741	13,908	
Sachin State.....	.....do.....	52	29	
Savanur State.....	.....do.....	67	39	
<b>Outside Bombay Presidency and Sind:</b>				
<b>Madras Presidency—</b>				
Salem District .....	.....do.....	418	274	
<b>Bengal:</b>				
Bhagalpur Division.....	.....do.....	32	31	
Burdwan Division.....	.....do.....	8	9	
Calcutta.....	.....do.....	503	490	
Chota Nagpur Division.....	.....do.....	76	53	
Orissa Division.....	.....do.....	0	0	
Patna.....	.....do.....	2,026	1,540	
Presidency.....	.....do.....	6	5	
<b>Northwest Province and Oudh:</b>				
Agra Division.....	.....do.....	3	2	
Allahabad.....	.....do.....	147	132	
Benares.....	.....do.....		449	
<b>Punjab Province:</b>				
Delhi Division.....	.....do.....	530	279	
Jullunder Division.....	.....do.....	3,425	1,603	
Lahore Division.....	.....do.....	1,884	926	
Rawalpindi.....	.....do.....	2,071	1,174	
<b>Mysore State:</b>				
Bangalore City.....	.....do.....	268	209	
Bangalore Civil and Mil- itary Station.	.....do.....	163	114	
Bangalore District.....	.....do.....	1,326	1,015	
Chitaldrug District.....	.....do.....	151	105	
Kadur.....	.....do.....	197	125	
Kolar District.....	.....do.....	177	121	
Mysore City.....	.....do.....	2,028	1,525	
Mysore District.....	.....do.....	2,189	1,671	
Shimoga.....	.....do.....	371	203	
Rajputana State.....	.....do.....	8	6	
Tumkur District.....	.....do.....	160	97	
Kashmir.....	.....do.....	363	181	
<b>Italy:</b>				
Naples.....	Sept. 7–Oct. 12...	26	8	
<b>Japan:</b>				
Formosa.....	Jan. 1–Sept. 30...	4,285	3,441	
Nagasaki.....	Jan. 4–July 18...		2	On steamship Kintuck and on steamship Empress of China.
Yamanashi Ken.....	June 22.....	1	1	
Mauritius.....	June 7–Oct. 24...	193	180	
<b>Mozambique:</b>				
Magude.....	Nov. 19.....	5		
<b>Paraguay:</b>				
Asuncion.....	June 23.....	1		
<b>Philippine Islands:</b>				
Cavite.....	May 19–July 6...	4	1	
Cebu.....	July 6.....	2		
Concepcion.....	.....do.....	1		
Manila.....	May 11–Oct. 26...	230	189	
Malolos.....	July 6.....	3		
Malabon.....	.....do.....	6		
Naic.....	.....do.....	3		
Paranaque.....	.....do.....	3		
San Antonio.....	.....do.....	1		
Santa Rosa.....	May 19–July 6...	2		
Taguig.....	Sept. 8–Sept. 14...	1	1	
<b>Russia:</b>				
Batoum.....	Nov. 30.....	1		
Odessa.....	Nov. 10.....			Reported.
<b>Scotland:</b>				
Glasgow.....	Oct. 19–Nov. 1...	5	1	

*Cholera, yellow fever, etc.—Continued.*

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Straits Settlements:</b>				
Singapore .....	July 14-July 27..		2	
<b>Turkey:</b>				
Constantinople.....	Apr. 27-Sept. 12..	20	5	Reported. Do.
Samsoun.....	Oct. 11.....			
Smyrna.....	Sept. 28.....			

SMALLPOX.

<b>Arabia:</b>				
Aden .....	May 1-Nov. 16..		4	
<b>Argentina:</b>				
Buenos Ayres.....	Apr. 1-Sept. 30..		948	
<b>Austria-Hungary:</b>				
Buda Pesth.....	Sept. 3-Sept. 9..	2		
Prague .....	June 2-Nov. 30..	57		
<b>Belgium:</b>				
Antwerp.....	June 2-Nov. 30..	62	25	
Brussels.....	Sept. 29-Nov. 16..		2	
Ghent.....	Sept. 7-Dec. 7..		21	
<b>Brazil:</b>				
Ceara .....	June 1-Sept. 30..		3	
Pernambuco .....	May 17-Oct. 31..		525	
Rio .....	May 9-Nov. 10..		994	
<b>British Columbia:</b>				
Victoria .....	June 16-June 30..	2		
<b>Canada:</b>				
<b>Quebec Province:</b>				
Beauce County.....	May 30-Sept. 30..	7		
Beauharnois County.....	May 15-May 22..	8		
Brome County.....	May 15.....	14		
Chateauguay County.....	Apr. 11.....	2		
Compton County.....	July 2-July 6..	1		
Gaspé County.....	June 12.....	26		
Hochelega County.....	May 24-June 24..	2		
Huntingdon County.....	Apr. 4.....	8		
Iberville County.....	May 14.....	4		
Jac. Cartier County.....	May 18.....	1		
Joliette County.....	June 20-June 23..	1		
La Prairie County.....	Mar. 2-June 10..	133	1	
Matane County.....	Apr. 10.....	17		
Missisquoi County.....	June 10.....	77		
Montreal County.....	Apr. 20-Sept. 30..	6		
Napierville County.....	Feb. 19.....	22	1	
Ottawa County.....	Mar. 8-Sept. 30..	55	1	
Pontiac County.....	Feb. 28-May 28..	44		
Quebec City.....	Oct. 27-Dec. 14..	154	1	
Rimouski County.....	Feb. 12-July 10..	5	1	
St. Hyacinthe.....	May 18.....	1		
Shefford County.....	May 20.....	3		
Stanstead County.....	June 10-June 25..	2		
Temiscouata County.....	June 4-June 17..	1		
Terrebonne County.....	Apr. 22-May 9..	91		
<b>China:</b>				
Hongkong .....	May 19-June 15..	7	5	
<b>Columbia:</b>				
Bocas del Toro.....	Oct. 23-Oct. 29..	3		
Cartagena .....	July 1-Nov. 24..		12	
Colon.....	Sept. 23-Oct. 6..	4		
Panama.....	June 18-Dec. 9..	863		Deaths unknown.
<b>Ecuador:</b>				
Guayaquil .....	May 12-Sept. 21..	7	4	
<b>Egypt:</b>				
Cairo .....	June 11-Oct. 14..		7	
<b>England:</b>				
Leeds.....	Aug. 25-Aug. 31..	1		
Liverpool.....	June 9-Dec. 7..	14	2	
London.....	July 16-Dec. 7..		182	
Manchester.....	Oct. 20-Oct. 26..	1		
Southampton.....	Sept. 29-Oct. 5..	1		
<b>France:</b>				
Marseilles.....	June 1-Aug. 31..		8	
Nice .....	Aug. 1-Oct. 31..		10	
Paris.....	June 7-Dec. 7..		147	
Rheims.....	Oct. 14-Oct. 20..	2		
St. Etienne.....	Oct. 15-Oct. 31..	1		
<b>Germany:</b>				
Berlin .....	June 18-June 29..	3		
<b>Gibraltar:</b>				
Gibraltar.....	June 3-Nov. 17..	6		

## Cholera, yellow fever, etc.—Continued.

## SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bombay.....	May 22-Nov. 12.....		49	
Calcutta.....	May 19-Nov. 23.....		114	
Karachi.....	May 20-Oct. 20.....	25	14	
Madras.....	May 18-Nov. 15.....		120	
<b>Italy:</b>				
Milan.....	May 1-May 31.....	2		
Naples.....	June 10-Nov. 30.....	1,706	266	
Palermo.....	Aug. 18-Sept. 21.....		2	
<b>Japan:</b>				
Formosa, Tamsui.....	July 31-Sept. 30.....	8	8	
Nagasaki.....	June 11-June 30.....	2	1	
Osaka and Hioga.....	July 21-July 27.....	1		
<b>Korea:</b>				
Seoul.....	July 1-July 6.....		1	
<b>Manitoba:</b>				
Winnipeg.....	Sept. 15-Dec. 7.....	8		
<b>Mexico:</b>				
City of Mexico.....	June 17-Oct. 13.....	9	3	
Fuente.....	Aug. 11.....	3		
Hunucma.....	Sept. 23.....			Endemic.
Merida.....	July 7-July 13.....		4	
<b>Mozambique:</b>				
Lorenzo Marquez.....	Sept. 1-Sept. 30.....		1	
<b>Netherlands:</b>				
Rotterdam.....	June 16-Aug. 10.....	21	2	
<b>New Brunswick:</b>				
St. John.....	Oct. 20-Dec. 14.....	78	20	
<b>Nova Scotia:</b>				
Halifax.....	Sept. 1-Dec. 14.....	97	2	Thirteen from sc. Thalia, 2 from sc. Goodwin, and 1 from sc. Essex.
Windsor.....	Dec. 1-Dec. 14.....	2		
<b>Philippine Islands:</b>				
Manila.....	May 12-Sept. 28.....	26		
<b>Prince Edward Island:</b>				
Georgetown.....	Dec. 2.....	1		On sc. Robin Hood.
<b>Russia:</b>				
Moscow.....	May 26-Nov. 23.....	152	52	
Odessa.....	June 2-Nov. 30.....	41	9	
Riga.....	Jan. 1-June 30.....		74	
St. Petersburg.....	June 2-Nov. 30.....	72	9	
Warsaw.....	May 26-Nov. 29.....		42	
<b>Scotland:</b>				
Dundee.....	July 14-Sept. 28.....	18		
Edinburgh.....	Sept. 1-Sept. 7.....	1		
Glasgow.....	June 15-Dec. 13.....	58	4	
<b>Sicily:</b>				
Messina.....	June 9-Aug. 31.....	136	27	
<b>South Africa:</b>				
Lorenzo Marquez.....	Aug. 1-Aug. 31.....		2	
<b>Spain:</b>				
Barcelona.....	Oct. 16-Nov. 30.....		6	
Corunna.....	June 23-Dec. 7.....		43	
Madrid.....	May 4-Sept. 9.....		34	
Malaga.....	July 1-Oct. 31.....	557	70	
Valencia.....	July 28-Nov. 30.....		1	
Vigo.....	Nov. 1-Nov. 30.....		1	
<b>Straits Settlements:</b>				
Singapore.....	July 14-Oct. 5.....		2	
<b>Switzerland:</b>				
Geneva.....	June 2-June 29.....	5		
<b>Uruguay:</b>				
Montevideo.....	May 11-Oct. 31.....	548	53	
<b>Wales:</b>				
Cardiff.....	June 9-June 15.....	2		



## Weekly mortality table, foreign and insular cities—Continued.

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.	Measles.	Whooping cough.
Trapani.....	Nov. 23	61,431	19											
Tuxpam.....	Dec. 7	13,000	8	1										1
Venice.....	Nov. 23	174,378	61						1					1
Vera Cruz.....	Dec. 7	32,000	52	6			8							
Windsor.....	Dec. 14	3,000												
Yokohama.....	Nov. 16	189,455												

By authority of the Secretary of the Treasury :

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

○

# REPRINT.

TREASURY DEPARTMENT.—U. S. MARINE-HOSPITAL SERVICE.

---

**YELLOW FEVER INCEPION**



## PUBLIC HEALTH REPORTS.

---

Published in accordance with act of Congress approved  
February 15, 1893.

---

VOL XVI.

SEPTEMBER 27, 1901.

No. 39.

---

WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1901.

# PUBLIC HEALTH REPORTS.

---

UNITED STATES.

YELLOW-FEVER INSTITUTE.

TREASURY DEPARTMENT,  
OFFICE OF SUPERVISING SURGEON-GENERAL,  
U. S. MARINE-HOSPITAL SERVICE,  
*Washington, D. C., September 13, 1901.*

The SECRETARY OF THE TREASURY.

SIR: I have to invite your attention to the subject of yellow fever, and to the discussions which have been published in the medical journals and in the daily press during the past few months regarding its transmission. The subject is one with which the U. S. Marine-Hospital Service, through legal responsibility, has been intimately associated since its reorganization in 1871, the publications of this Service being the chief repository of the statistics and other facts pertaining to this disease. The annual reports are largely devoted to this subject. In 1889 a volume was published entitled "Yellow fever, its nature, diagnosis, treatment, and prophylaxis, and quarantine regulations relating thereto," consisting of contributions by medical officers intimately acquainted with the disease, either by scientific or clinical work. A volume was published in the same year containing a report of a commission of medical officers detailed by authority of the President to investigate the cause of yellow fever. The Service, through its national quarantine stations and cooperation with State and local stations, has many times prevented the introduction and, by its detention camps, the spread of the disease.

Within the last year a medical commission of the United States Army, operating in Cuba, has made a report, showing that the mosquito conveys yellow fever and declaring that this is the only method by which the disease is conveyed to man and that it is a particular species of mosquito only which thus transmits it. In their conclusions it is stated that the cause of the disease is unknown. Based upon their findings, demands have already been made upon the Bureau for certain modifications of the quarantine regulations, which, for the present season, the Bureau, with it is deemed justifiable conservatism, has declined to make, but the matter will undoubtedly again be urged during the next season and it is incumbent upon the Bureau to have definite scientific grounds upon which either to modify its present regulations or to main-

tain them. On the one hand, the Bureau has no desire to perform unnecessary labor, nor to impose unnecessary restrictions upon commerce, its traditional policy being to maintain a scientific quarantine and to impose no restraints upon travel or commerce not demanded in the light of science and experience. On the other hand, the Bureau can not, in the interest of commerce, remove time-honored measures without definite justification therefor.

Since the announcement of the findings of the above-mentioned army commission, the Service has continued the prosecution of its inquiries concerning this disease with special reference to the findings of this commission. This has been done not only in the hygienic laboratory, but by special orders transmitted to the officers assigned in April to the several fruit ports of Central America, to the medical officers in Cuba and Porto Rico, and to those at the southern quarantine stations of the United States. A number of reports have been received and published in the PUBLIC HEALTH REPORTS containing facts of interest on the subject. To estimate these facts at their full value, to collect additional facts, and to give direction to future investigation, it has become necessary to devise a plan for a complete study of the subject in all its phases. This duty is incumbent on the U. S. Marine-Hospital Service by reason of the quarantine law of 1893, which provides for making the necessary quarantine regulations against this disease.

Section 4 of this law also requires—

That the Secretary of the Treasury shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States, and shall prepare, publish, and transmit to collectors of customs and to State and municipal health officers and other sanitarians weekly abstracts of the consular sanitary reports and other pertinent information received by him, and shall also, as far as he may be able, by means of the voluntary cooperation of State and municipal authorities, of public associations, and private persons, procure information relating to the climatic and other conditions affecting the public health. \* \* \*

That public health work of this character is incumbent upon the Service is further shown by the act of Congress approved March 3, 1901, in which an appropriation is made for a new building for hygienic laboratory, U. S. Marine-Hospital Service, the function of this laboratory, as stated in the law, being for the investigation under the Surgeon-General of contagious diseases and matters relating to the public health.

Moreover, Congress has provided a fund for the prevention of epidemic diseases which may well be applied to this investigation, as there is no epidemic disease of greater importance as affecting the United States than this one.

In view of the foregoing facts, I have prepared and submit herewith a plan for the organization of a yellow fever institute in the U. S. Marine-Hospital Service, whose object will be to collect all facts con-



cerning yellow fever, to designate the specific lines of investigation to be made, and to make the investigations. The members of this institute are to be the medical officers of the U. S. Marine-Hospital Service, and others specially qualified. They will be assigned for duty to one of four sections, each section having a special list of topics for consideration. Each of the four sections will be under the direction of one of the medical officers on duty in this Bureau, and said Bureau officers, with the director of the hygienic laboratory, the Surgeon-General, and a secretary, will constitute an executive board, which is to have general oversight of all the investigations. This furnishes a convenient method of administration, as the machinery of the institute will be readily operated in the Bureau, while the actual work will be carried on by members at various places.

At present, the Service work on yellow fever is being conducted by a limited number of officers working on more or less independent lines. The institute provides for observation and experiment by a large number of workers in accordance with a general system—in fact, organizing and coordinating the work that has been going on and which is to be done.

The stimulus to the members will be not only the scientific interest in the subject, but the publication of their contributions in the shape of bulletins as often as it seems advisable to the board; and with the Department facilities and necessary funds for incidental expenses, it is believed that the organization will meet with a degree of success warranting its existence.

To illustrate the workings of the commission, in addition to the scheme of organization, there is inclosed a series of topics proposed for investigation in each of the four sections.

Respectfully,

WALTER WYMAN,  
*Surgeon-General U. S. M. H. S.*

Approved, September 25, 1901 :

O. L. SPAULDING,  
*Acting Secretary.*

[Inclosure.]

*Organization—Yellow fever institute—U. S. Marine-Hospital Service.*

*Object.*

The object of the institute is to collect all facts concerning yellow fever, to designate the specific lines of inquiries to be made, and to make them.

*Officers.*

The Surgeon-General of the U. S. Marine-Hospital Service, ex officio chairman of the institute; secretary, the medical officer in charge of the bureau division of scientific research.

An executive board to consist of the chairman and secretary, the director of the hygienic laboratory, and the medical officers in charge

of the following bureau divisions, viz : Division of domestic quarantine, division of foreign quarantine, and division of sanitary reports and statistics.

*Duties of the executive board.*

To direct the investigations, correlate the reports, and supervise publications.

*Members.*

Every medical officer of the U. S. Marine-Hospital Service and others specially qualified.

*Sections.*

Section A. History and Statistics.

Section B. Etiology.

Section C. Transmission.

Section D. Quarantine and Treatment.

Each section will be presided over by a member of the executive board. The chairman of each section will organize the work of the section, subject to the approval of the executive board. He shall direct operations and receive and classify its reports.

Members of the institute will be assigned to the class or classes for which they express a preference. These assignments, so far as medical officers of the U. S. Marine Hospital Service are concerned, will be made with the approval of the Surgeon-General, and their duties under the direction of the section chairman shall not conflict with the regular duties and regulations of the U. S. Marine-Hospital Service.

Publication of the reports received from members will be made from time to time as determined upon by the executive board.

**SECTION A.—HISTORY AND STATISTICS.**

[Chairman of section. Surgeon in charge of Bureau division sanitary reports and statistics.]

*Topics.*

Topic 1. The early history of the disease.

Topic 2. Relation to the slave trade.

Topic 3. History of recent epidemics (since 1850).

Topic 4. Relation to modern sanitation, especially paving, drainage, etc., in cities.

Topic 5. Why did not New Orleans have it in early times while Boston did?

Topic 6. Mortality statistics.

Topic 7. Maps showing yellow fever zones.

Topic 8. Maps showing the infectible territory in the United States.

## SECTION B.—ETIOLOGY.

[Chairman of section. The director of the hygienic laboratory.]

*Topics.*

Topic 1. The cause of the disease.

## SECTION C.—TRANSMISSION.

[Chairman of section. Surgeon in charge of Bureau division of domestic quarantine.]

*Topics.*

Topic 1. The transmission of the disease by the mosquito.

Topic 2. Can any other mosquito than the *stegomya fasciata* carry the infection?

Topic 3. Is the progeny of the mosquito also infected?

Topic 4. How many generations?

Topic 5. Can the mosquito become infected by any other means than by sucking the blood of a patient sick with the disease?

Topic 6. Can the mosquito become infected by contact with the dried blood discharges or other infected materials upon fomites?

Topic 7. Can the disease be transmitted by any other means than through the mosquito?

Topic 8. Can the disease be conveyed by fomites, or through the air, soil, or water?

Topic 9. The geographical distribution of *stegomya fasciata* in relation to the disease.

Topic 10. Is the immunity enjoyed by certain localities due to the absence of this variety of mosquito?

Topic 11. A study of the life and habits of the *stegomya* and allied species, especially with a view to their extermination.

## SECTION D.—QUARANTINE AND TREATMENT.

[Chairman of section. Surgeon in charge Bureau division of foreign quarantine.]

*Topics.*

Topic 1. Is disinfection of baggage necessary to prevent the spread of the disease?

Topic 2. Is any treatment of baggage necessary?

Topic 3. Mosquitoes in baggage, in merchandise, in cars, in ships.

Topic 4. Treatment of the patient.

Topic 5. Guards against mosquito bites.

Topic 6. Immunity of individuals, of races.

Topic 7. Individual prophylaxis.

Topic 8. Communal prophylaxis—sanitation.