

PUBLIC HEALTH REPORTS.

UNITED STATES.

Review of plague situation at San Francisco.

[Memorandum prepared by Asst. Surg. D. M. Currie by direction of Surg. A. H. Glenan. Received January 20, 1903, after adjournment of the plague conference, January 19, 1903.]

Ninety-three cases of plague have occurred within the city of San Francisco between the dates of March 6, 1900, and December 11, 1902. Six of these were whites, 4 Japanese, and the remainder Chinese. Six have been pneumonic, of which 2 were purely pneumonic. The others probably secondarily pneumonic—that is, secondary to bubonic. Two have been purely tonsillar; 4 have recovered; 89 proved fatal. In 8 cases, the claim was made that they had come from other parts of the State. All were taken sick in the Chinese quarter with the exception of 5—1 Japanese and 4 whites, the former almost certainly being infected in the Chinese quarter. One of these whites was a woman whose husband was a teamster for the Chinese, and she herself lived within a block of the Chinese quarter. Another, a trained nurse, was infected from a Chinese patient. Another, a white sailor, who denied having been in Chinatown for a year and a half, and the last, a white clerk who was known to have gone on sprees, and therefore whose movements were doubtful, to say the least. The longest lapse that has occurred between cases is ninety-two days, during which time Chinatown was being cleansed by the State board of health, the next longest seventy-two days, which ended February 22, 1902. There have been 3 lapses of fifty days. All the cases occurring in the Chinese quarter beginning March 6, 1900, up to date, have been about equally distributed throughout, although taking a given month they are frequently found to have occurred in a comparatively localized area. So far as is known, there have not been over 5 cases that are even probably contacts, and as to one or two of these the connection is doubtful as to whether it was contagion from one to the other or from a common source. It is probable that all the dead in Chinatown are seen. We have had some evidence from Chinese sources in several cases that sick have been removed in order to avoid necropsy. In these particular cases we have been unable to find out whether it was true. If cases were removed from the city, from what we have observed here—namely, that few or

no contacts contract the disease—it is probable that no spread of the disease would take place.

Except from the certificates of the attending physicians, we have no means of ascertaining whether the whites in different parts of the city dying are infected with plague.

The city board of health says that after the population of Chinatown is taken, exclusive of Japanese, the mortality runs 30 per 1,000, which is high, considering there are very few children. But these statistics are based on the dead which we see, the great majority of which are not plague.

The Chinese object to necropsy to a moderate extent, but not seriously as a rule—not as much so as the whites. We necropsy all cases, first, that have been seen by us during life and are regarded as suspicious of plague, such as acute buboes, pneumonia, and acute febrile diseases the causes of which are doubtful or can not be ascertained. Second, all cases which have not been seen by us and in which, on an inspection of the body, the cause of the death is not evident, such as fracture of the skull, chronic tuberculosis, ascites, etc. The only exceptions that have been made to this rule have been in 2 cases of pneumonia, and 1, a well-nourished man, dying suddenly, in which legal action was threatened by the Chinese, and these bodies were passed by the city board of health against our recommendations. All cases of plague and all cases suspicious of plague that have been necropsied have been carried through all the usual and ordinary bacteriological tests before diagnosis has been made. If a case is regarded as suspicious of plague, the city bacteriologist is notified and is present at the necropsy. In addition to this, the city board of health is notified that the provisional diagnosis of this office is bubonic plague. Acting upon this and the concurrence of its bacteriologist, the body is buried in lime, and they (the city board of health) close the room in which the man was found sick or dead and disinfect it with sulphur and place a quarantine over it for from five to fifteen days.

The contacts (except in pneumonic cases) are not quarantined as a rule. By contacts in pneumonic cases are meant those men who are found in the room when the policeman arrives to institute the quarantine. After the body is limed it is hermetically sealed in a zinc coffin and buried by the Chinese undertaker. There is no reasonable doubt about the disposition of the bodies. The clothes are buried with them.

No person attending the necropsies has contracted the disease, nor, so far as we know, did any case of plague develop among the 135 white men employed in cleansing Chinatown.

It would appear that the months of July, August, September, and early October are the months of maximum plague mortality, and those of November, December, and January the minimum.

The population of Chinatown is estimated at 15,000 during the winter months, namely, from November to March inclusive, and is smaller

between March and November, as about 5,000 Chinese leave the city for the ranches in the State and the Alaskan canneries. The greatest number of cases of plague is in the seasons when there is the smallest population. Up to the last few weeks most weeks showed a larger number of dead than sick; in other words, while I believe we see all the dead, there are a great number of sick even from ordinary chronic diseases who are not seen during life. Every effort has been made to see all the sick, but owing to lack of cooperation of the Chinese and their fear of quarantine, this has been impossible; but during the last few weeks there has been a very marked and favorable increase in the number of sick seen by this office.

The method by which we see the sick is as follows: It is known to the Chinese that all cases which have been seen by us during life and found not to be plague, will be passed without necropsy. Therefore, a certain per cent of the population report their sick to us for the sole purpose of avoiding necropsy in case of death. This, as will be readily seen, permits us to visit only those sick who the Chinese believe are going to die. We have repeatedly, through the Six Companies, and directly, urged the Chinese to report even trivial cases to us, assuring them that their interests would not be injured thereby, but up to the present time, possibly owing to contrary influences brought to bear against us by the agents of the State board of health, we have been unable to secure their full confidence and cooperation.

As a rule, the Chinese laymen and physicians strongly suspect plague even at an early stage of the disease, but on the other hand any acute febrile illness they regard in about the same light. In short, they are not able to make a very accurate differentiation between acute febrile cases. The cases which occur, with well marked buboes, they recognize as readily as do the trained white physicians. If the Chinese believe the case to be one of plague, they rarely report it to this office, because their whole fear is the quarantine and the necropsy of the body. All they can hope to gain by reporting is the prevention of the necropsy of the body, and therefore they have no inducement in this case to report.

There were examined previous to November 8, 1902, some 50 or 60 rats (estimated) which were obtained at irregular intervals by offering small rewards. The examination of these showed none to be infected with plague. On November 8, the city board of health began to systematically trap rats in Chinatown, employing 3 men and 50 traps. The traps were set entirely in the sewers. These men were also instructed to look for dead rats in Chinatown and bring them with the live to this laboratory. The live rats were chloroformed on arrival here and with the dead rats necropsied and examined bacteriologically. Of the 481 rats examined so far, 15 were found to be infected with plague. Of the 15, 12 were caught or found dead (mostly the latter) within a radius of 100 feet from 629 Merchant street, which is one-half

block to the east of Chinatown. The other 3 were caught in various parts of Chinatown. The rats in this city other than the district known as Chinatown and possibly a block or two beyond its borders have not been examined.

Diphtheria on the steamship Buffalo at Pensacola.

Acting Asst. Surg. R. C. White reports from Pensacola, Fla., January 3, 1903, as follows:

The U. S. S. *Buffalo* arrived at this port December 30, 1902, from Kingston, Jamaica, with a record of 8 cases of diphtheria on board, 2 of them having died en route to Pensacola. The ship, which has been visited by me twice since its arrival, is in good sanitary condition and has now no sickness on board, all the cases having been removed to the naval hospital. Every precaution has been taken to prevent any infection from reaching the city, and no danger is apprehended from that source.

Respectfully,

R. C. WHITE,
Acting Assistant Surgeon, In Charge.

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

CALIFORNIA—*Los Angeles*.—Month of December, 1902. Estimated population, 135,000. Total number of deaths, 219, including diphtheria, 10; enteric fever, 6; scarlet fever, 1, and 49 from tuberculosis.

San Diego.—Month of December, 1902. Estimated population, 20,000. Total number of deaths, 37, including 6 from tuberculosis.

CONNECTICUT—*Bridgeport*.—Month of December, 1902. Estimated population, 72,000. Total number of deaths, 117, including diphtheria, 3; enteric fever, 2, and 14 from tuberculosis.

FLORIDA—*Tampa*.—Month of December, 1902. Estimated population, 22,000. Total number of deaths, 35, including 7 from tuberculosis.

ILLINOIS—*Kankakee*.—Two weeks ended January 15, 1903. Estimated population, 15,500. Total number of deaths, 14, including enteric fever, 2, and 2 from tuberculosis.

INDIANA—*Jeffersonville*.—Month of November, 1902. Census population, 10,774. Total number of deaths, 16, including 1 from scarlet fever.

Month of December, 1902. Total number of deaths, 22, including 4 from whooping cough.

The December reports to the State board of health show that small-pox, for the twenty-third consecutive month, leads the list as the most prevalent disease; then follow, in the order given, tonsillitis, rheumatism, bronchitis, pneumonia, influenza, typhoid fever, intermittent fever, scarlet fever, pleuritis, diarrhea, diphtheria, erysipelas, inflammation of bowels, whooping cough, measles, dysentery, puerperal fever, cerebro spinal meningitis, cholera infantum, and cholera morbus.

The number of deaths reported during the month was 2,634, which makes a death rate of 12.3. This is an improvement as compared with

the corresponding month last year, when there were 2,842 deaths, which is a rate of 13.3. The deaths by important ages were as follows: Under 1 year of age, 431; 1 to 5, 166; 5 to 10, 74; 10 to 15, 56; 65 and over, 703. The deaths from important causes were as follows: Consumption, 319; typhoid fever, 91; diphtheria, 57; scarlet fever, 11; measles, 1; whooping cough, 18; pneumonia, 267; diarrheal diseases, under 5, 23; cerebro-spinal meningitis, 14; influenza, 19; puerperal fever, 8; cancer, 96; violence, 120, and smallpox, 17. The death rate in the cities during the month was 14.5, and in the country, 11.1. The death rates from the following diseases were less in the country than in the cities: Consumption, death rate per 100,000, 140.3; in the country, 129.4; diphtheria, cities, 42.6; country, 12; pneumonia, cities, 133.4; country, 120.9; cerebro-spinal meningitis, cities, 12.3; country, 3.5; cancer, cities, 61.8; country, 36.2; violence, cities, 64.6; country, 51.9; smallpox, cities, 22; country, .7. The diseases in which the country death rate exceeded the death rate in cities were: Typhoid fever, cities, 37.1; country, 45.4; influenza, cities, 1.3; country, 12.8; puerperal fever, cities, 1.3; country, 4.9. The death rate for Indianapolis for the month was 17.9; Evansville, 8.7; Fort Wayne, 15.1; South Bend, 16.3; Terre Haute, 18.6.

IOWA—*Dubuque*.—Period from January 1 to January 17, 1902. Estimated population, 40,000. Total number of deaths, 31. No deaths from contagious diseases.

MARYLAND—*Baltimore*.—Month of December, 1902. Estimated population, 525,000—white, 445,000; colored, 80,000. Total number of deaths, 928—white, 698; colored, 230—including diphtheria, 23; enteric fever, 7; measles, 13; scarlet fever, 1; whooping cough, 4, and 106 from tuberculosis.

MICHIGAN.—Reports to the State board of health, Lansing, for the week ended January 10, 1902, from 70 observers, indicate that inflammation of kidney, phthisis pulmonalis, smallpox, intermittent fever, whooping cough, and measles were more prevalent and diphtheria was less prevalent than in the preceding week. Meningitis was reported present at 3, whooping cough at 23, measles at 42, diphtheria at 44, enteric fever at 47, scarlet fever at 95, smallpox at 127, and phthisis pulmonalis at 237 places.

The Monthly Bulletin of Vital Statistics says:

There were 2,666 deaths in Michigan during the month of December, 1902, an increase of 309 over the preceding month. The death rate rose from 11.7 to 12.8 per 1,000 population, being slightly higher than the rate for December, 1901, which was 12.6. By age periods, there were 463 deaths of infants under 1 year; 166 deaths of children aged from 1 to 4 years, inclusive, and 850 deaths of elderly persons over 65 years of age. Important causes of death were as follows: Tuberculosis of lungs, 165; other forms of tuberculosis, 29; typhoid fever, 59; diphtheria and croup, 68; scarlet fever, 16; measles, 11; whooping cough, 23; pneumonia, 291; meningitis, 26; influenza, 35; cancer, 122; accidents and violence, 173. As compared with the preceding month, an

increase was shown in the deaths from tuberculosis, diphtheria, pneumonia, influenza, and external causes and a decrease in the number reported from typhoid fever and scarlet fever. There were 5 deaths returned from smallpox during the month, as follows; Sault Ste. Marie City, 2; Duncan Township, Houghton County; Detroit City; Arenac Township, Arenac County, each 1. One death was reported from hydrophobia in Saginaw,

Grand Rapids.—Month of December, 1902. Estimated population, 90,000. Total number of deaths, 78, including diphtheria, 1; enteric fever, 3; scarlet fever, 1, and 8 from tuberculosis.

MINNESOTA—*Minneapolis.*—Month of December, 1902. Census population, 202,718. Total number of deaths, 173, including diphtheria, 2; enteric fever, 4; scarlet fever, 3, and 24 from tuberculosis.

OHIO.—Reports to the State board of health for the seven weeks ended December 27, 1902, from 66 localities having an aggregate population of 1,286,269, show 100 deaths from diphtheria, 63 from enteric fever, 2 from measles, 39 from scarlet fever, and 4 from whooping cough.

Cleveland.—Year ended December 31, 1902. Estimated population, 400,000. Total number of deaths, 6,134, including diphtheria, 110; enteric fever, 133; measles, 13; scarlet fever, 31; whooping cough, 34; smallpox, 224, and 490 from phthisis.

PENNSYLVANIA—*York.*—Month of December, 1902. Estimated population, 37,000. Total number of deaths, 42, including scarlet fever, 2, and 7 from tuberculosis.

TEXAS—*San Antonio.*—Month of December, 1902. Estimated population, 63,000. Total number of deaths, 137, including diphtheria, 6, and 28 from tuberculosis, of which 14 were of nonresidents.

WISCONSIN—*Milwaukee.*—Month of December, 1902. Estimated population, 300,000. Total number of deaths, 362, including diphtheria, 13; enteric fever, 5; measles, 1; whooping cough, 7, and 45 from tuberculosis.

Inspection of immigrants.

WEEKLY.

Place.	Week ended.	No. of ves- sels.	No. of immi- grants.
	1903.		
Boston, Mass.....	Jan. 17	9	1,803
Philadelphia, Pa.....	Jan. 19	2	192
Do	Jan. 24	2	104
San Juan, P. R.....	Jan. 10	1	1

MONTHLY.

Place.	Month ended.	No. of immi- grants passed.	No. re- jected.
	1902.		
Eagle Pass, Tex.....	Dec. 31	115	10
El Paso, Tex.....	.....do.....	632	6
Honolulu, H. I.....	Nov. 30	2,035	46
Do.....	Dec. 31	1,397	203
New York, N. Y.....	.....do.....	40,567	301
San Francisco, Cal.....	.....do.....	614	8

Reports from national quarantine

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
	UNITED STATES:				
1	Alexandria, Va.....	Jan. 24			
2	Beaufort, N. C.....	do.			
3	Biscayne Bay, Fla.....	do.			
4	Boca Grande, Fla.:				
5	Punta Gorda.....	do.			
6	Punta Rassa.....	do.			
7	Brunswick, Ga.....	Jan. 17			
8	Cape Charles, Va.....	Jan. 24			
9	Cape Fear, N. C.....	Jan. 17			
10	Cedar Keys, Fla.....	Jan. 24			
	Columbia River, Oreg.....	Jan. 10	Br. ship County of Linlithgow (a).	Dec. 27	Shanghai.....
11	Cumberland Sound, Fla...	Jan. 17			
12	Delaware Breakwater Quarantine, Lewes, Del.	do.			
13	Dutch Harbor, Alaska.....	Dec. 13			
14	Eastport, Me.....	Jan. 22			
15	Eureka, Cal.....	Jan. 10			
16	Grays Harbor, Wash.....	Jan. 17			
17	Gulf Quarantine, Ship Island, Miss.....	do.			
18	Key West, Fla.....	do.			
19	Los Angeles, Cal.....	do.			
20	Newbern, N. C.....	Jan. 24			
21	Nome, Alaska.....	Dec. 28			
22	Pascagoula, Miss.....	Jan. 24			
23	Port Angeles, Wash.....	Jan. 17			
24	Portland, Me.....	do.			
25	Port Townsend, Wash.....	do.	Br. bk. Comliebank (a).....	Jan. 1	Panama.....
26	Reedy Island, Del.....	do.			
27	St. Georges Sound, Fla.:				
28	East Pass.....	do.			
29	West Pass.....	do.			
30	St. Johns River, Fla.....	do.			
31	San Diego, Cal.....	do.			
	San Francisco, Cal.....	do.	Am. ss. Newport.....	Jan. 13	Panama.....
32	San Pedro, Cal.....	do.			
33	Santa Barbara, Cal.....	do.			
34	Santa Rosa, Fla.....	do.			
35	Savannah, Ga.....	do.			
36	Sitka, Alaska.....	Jan. 4			
37	South Atlantic Quarantine, Blackbeard Island Ga.	Jan. 17			
38	Tampa Bay, Fla.....	do.	Ger. ss. Orient.....	Jan. 11	Nuevitas.....
39	Washington, N. C.....	do.			

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				do.....	
4				do.....	
5				do.....	
6					1
7				No report.....	
8				No transactions.....	
9				No report.....	
10	Portland.....	Held.....		Mud ballast; disinfected, being discharged; 1 case smallpox isolated on board; officers and crew bathed and vaccinated, and effects disinfected; patient isolated on shore. Oriental crew and passengers on Br. ss. Indrapura from Hongkong examined.	3
11				No report.....	
12				No transactions.....	
13				No report.....	
14					14
15				From Honolulu; glandular region of crew examined.	1
16				No transactions.....	
17					4
18					8
19					2
20				No report.....	
21				do.....	
22				do.....	
23				do.....	
24					4
25	Port Townsend.....	Ballast discharged; vessel disinfected completely.	Jan. 15	10 cases and 2 deaths from yellow fever in Panama; 3 cases and 2 deaths en route. Glandular region of fore-castle crew and steerage passengers on Am. ss. Tacoma and Jap ss. Kinshiu Maru, from Hongkong, examined.	5
26					11
27					2
28				No transactions.....	
29					2
30					3
31	San Francisco.....	Held for observation one night.	Jan. 10	1 vessel boarded and passed. Temperature of all on board Ger. ss. Ramsea, from Hamburg, taken.	14
32				No report.....	
33				do.....	
34				do.....	
35				Physical examination of crew on Aust. ss. Siam, from Boston.	3
36					3
37					1
38	St. Petersburg.....	Held for discharge of ballast and fumigation.	Jan. 13	Ballast discharged; hold swept and fumigated.	1
39				No transactions.....	

Reports from national quarantine

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
	CUBA:				
40	Cienfuegos.....	Jan. 24			
41	Havana.....	do.			
42	Matanzas.....	do.			
43	Nuevitas.....	do.			
44	Santiago de Cuba.....	do.			
	HAWAII:				
45	Hilo.....	Dec. 27			
46	Honolulu.....	Jan. 3			
47	Kahului.....	do.			
48	Kihel.....	Dec. 27			
		Jan. 3			
49	Koloa.....	do.			
50	Lahaina.....	do.			
	PHILIPPINES:				
51	Cebu.....	Dec. 6			
52	Iloilo.....	Nov. 29			
53	Manila.....	Dec. 13			
	PORTO RICO:				
54	Ponce.....	Jan. 10	Ger. ss. Galicia	Jan. 5	Colombia.....
			Ss. Maracaibo	Jan. 7	Curaçao.....
55	San Juan.....	do.			
	Subports—				
56	Aguedilla.....	do.			
57	Arecibo.....	do.			
58	Arroyo.....	do.			
59	Fajardo.....	{ Jan. 3			
		{ Jan. 10			
60	Humacao.....	Jan. 10			
61	Mayaguez.....	do.	Ger. ss. Galicia	Jan. 6	Cartagena.....

Reports from State and

Number.	Name of station.	Week ended.	Name of vessel.	Date of arrival.	Port of departure.
1	Baltimore, Md.....	Jan. 24			
2	Bangor, Me.....	do.			
3	Boston, Mass.....	do.			
4	Charleston, S. C.....	Jan. 17			
5	Elizabeth River, Va.....	Jan. 24			
6	Galveston, Tex.....	Jan. 17			
7	Gardiner, Oreg.....	do.			
8	Marcus Hook, Pa.....	Jan. 24			
9	Mobile Bay, Ala.....	Jan. 17			
10	New Bedford, Mass.....	Jan. 24			
11	New Orleans, La.....	Jan. 12	Br. ss. Westhall (a)	Jan. 3	Tampico.....
			Br. ss. Strabo.....	Jan. 12	Santos and Rio....
12	Newport News, Va.....	do.			
13	Newport, R. I.....	do.			
14	New York, N. Y.....	do.			
15	Pas Cavallo, Tex.....	do.			
16	Port Royal, S. C.....	do.			
17	Providence, R. I.....	do.			
18	Quintana, Tex.....	do.			
19	Sabine Pass, Tex.....	do.			
20	St. Helena Entrance, S. C.....	do.			

a Previously reported.

and inspection stations—Continued.

Number.	Destination.	Treatment of vessel, passengers, and cargo.	Date of departure.	Remarks.	Vessels inspected and passed.
40				No report	
41				do	
42				do	
43				do	
44				do	
45				No transactions	
46					6
47				No transactions	
48				do	
49				do	
50				do	
51				No report	
52				do	
53				do	
54	Hamburg	Held in quarantine	Jan. 5		2
	New York	do	Jan. 7		
55					4
56					1
57					1
58				No transactions	
59					1
60					1
61	Hamburg	Held in quarantine	Jan. 6		1

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					2
5				No report	
6					7
7				No report	
8				do	
9					15
10				No report	
11	New Orleans	Disinfected and held	Jan. 8		
	do	do			
12				No report	
13				do	
14				do	
15				do	
16				do	
17				do	
18				do	
19				do	
20				do	

Smallpox in the United States as reported to the Surgeon-General Public Health and Marine-Hospital Service, December 27, 1902, to January 30, 1903.

For reports received from June 28, 1902, to December 26, 1902, see PUBLIC HEALTH REPORTS for December 26, 1902.

Places.	Date.	Cases.	Deaths.	Remarks.
California:				
Fresno.....	Dec. 1-Dec. 31	8		
Los Angeles.....	Dec. 8-Jan. 17	10		
Oakland.....	Dec. 1-Dec. 31	6		
Sacramento.....	Dec. 7-Jan. 3	4		
San Francisco.....	Dec. 8-Jan. 18	40		
Stockton.....	Dec. 1-Dec. 31	8		
Total for State.....		76		
Total for State, same period, 1902.....		68		
Colorado:				
Arapahoe (Denver included).....	Dec. 7-Jan. 10	37		
Garfield County.....	Dec. 1-Dec. 31	1		
Larimer County.....	do	2		
Las Animas County.....	do	1		
Mesa County.....	do	1		
Otero County.....	do	58		
Pueblo County.....	do	5		
Rio Blanco County.....	do	17		
Routt County.....	do	2		
Yuma County.....	do	2		
Total for State.....		126		
Total for State, same period, 1902.....		138		
Connecticut:				
Hartford.....	Dec. 1-Dec. 31	1		Imported.
Killingly.....	do	3		
New Britain.....	do	1		
Norwich.....	do	6		
Plainfield.....	do	4		
Preston.....	do	1		
Putnam.....	do	6		
Sprague.....	do	15		
Thompson.....	Jan. 10	1		
Willimantic.....	Dec. 1-Dec. 31	1		
Total for State.....		39		
Total for State same period, 1902.....				
District of Columbia:				
Washington.....	Jan. 11-Jan. 17	2		
Total for District.....		2		
Total for District, same period, 1902.....		2		
Florida:				
Escambia County.....	Dec. 7-Jan. 10	49		
Total for State.....		49		
Total for State, same period, 1902.....				
Georgia:				
Atlanta.....	Dec. 11-Jan. 7	17	4	
Total for State.....		17	4	
Total for State, same period, 1902.....				
Illinois:				
Chicago.....	Dec. 14-Jan. 17	29		
Peoria.....	Dec. 1-Dec. 31	4		
Total for State.....		33		
Total for State, same period, 1902.....		176	1	
Indiana:				
Adams County.....	Nov. 1-Dec. 31	31		
Allen County.....	do	17		
Bartholomew County.....	Dec. 1-Dec. 31	2		

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indiana—Continued.				
Boone County	Nov. 1-Dec. 31	1	.....
Carroll County	Dec. 1-Dec. 31	2	.....
Cass County.....	Nov. 1-Dec. 31	13	.....
Clark County.....	Dec. 1-Dec. 31	1	.....
Clay County.....	Nov. 1-Dec. 31	2	.....
Clinton County.....	.....do.....	3	1	
Crawford County.....	Dec. 1-Dec. 31	1	.....
Daviess County.....	Nov. 1-Dec. 31	50	.....
Decatur County.....	.....do.....	1	.....
Dekalb County.....	.....do.....	20	.....
Delaware County.....	.....do.....	2	.....
Elkhart County.....	Dec. 1-Dec. 31	2	.....
Fayette County.....	Nov. 1-Dec. 31	3	.....
Floyd County.....	.....do.....	1	.....
Fountain County.....	.....do.....	1	.....
Fulton County.....	.....do.....	1	.....
Gibson County.....	Nov. 1-Dec. 31	2	.....
Grant County.....	.....do.....	13	.....
Greene County.....	.....do.....	36	.....
Hancock County.....	.....do.....	45	.....
Harrison County.....	.....do.....	5	.....
Howard County (Kokomo included).	.....do.....	11	.....
Jackson County.....	Dec. 1-Dec. 31	7	.....
Jay County.....	Nov. 1-Dec. 31	18	.....
Johnson County.....	Dec. 1-Dec. 31	1	.....
Knox County.....	Nov. 1-Dec. 31	174	.....
Kosciusko County.....	.....do.....	2	.....
Lagrange County.....	Dec. 1-Dec. 31	20	.....
Lake County.....	Nov. 1-Dec. 31	71	1	
Laporte County.....	.....do.....	9	.....
Lawrence County.....	.....do.....	86	.....
Madison County (Elwood included).	.....do.....	4	.....
Marion County (Indianapolis included).	Nov. 1-Jan. 17	167	26	
Marshall County.....	Dec. 1-Dec. 31	4	.....
Martin County.....	Nov. 1-Dec. 31	11	.....
Monroe County.....	.....do.....	42	.....
Morgan County.....	Dec. 1-Dec. 31	4	.....
Noble County.....	Nov. 1-Dec. 31	5	.....
Orange County.....	.....do.....	3	.....
Owen County.....	Dec. 1-Dec. 31	6	.....
Pulaski County.....	Dec. 1-Dec. 31	4	.....
Randolph County.....	Nov. 1-Dec. 31	34	.....
Ripley County.....	.....do.....	51	.....
Shelby County.....	.....do.....	1	.....
St. Joseph County (South Bend included).	Nov. 1-Jan. 17	18	1	
Starke County.....	Dec. 1-Dec. 31	5	.....
Steuben County.....	.....do.....	2	.....
Tippecance County.....	Nov. 1-Nov. 30	5	.....
Tipton County.....	.....do.....	1	.....
Vanderburgh County (Evansville included).	Nov. 1-Jan. 24	7	2	Three cases imported.
Vermillion County.....	Dec. 1-Dec. 31	6	.....
Vigo County.....	Nov. 1-Dec. 31	46	.....
Wabash County.....	.....do.....	7	.....
Washington County.....	Dec. 1-Dec. 31	58	.....
Wayne County.....	.....do.....	2	.....
Total for State.....		1,147	31	
Total for State same period, 1902.		18		
Iowa:				
Davenport.....	Nov. 1-Nov. 30	3	.....
Total for State.....		3		
Total for State, same period, 1902.		95		
Kansas:				
Wichita.....	Jan. 11-Jan. 17	1	.....
Total for State.....		1		
Total for State, same period, 1902.		381	1	During the month of December 27 cases and 1 death were reported by county health officers.

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Kentucky:				
Covington.....	Dec. 1-Jan. 10	83	2	
Lexington.....	Dec. 14-Jan. 17	3	.....
Louisville.....	Jan. 1-Dec. 26	214	1	
Newport.....	Jan. 4-Jan. 10	2	.....
Total for State.....		302	3	
Total for State, same period, 1902.....		7	2	
Louisiana:				
New Orleans.....	Dec. 14-Jan. 17	3	.....	Two cases imported.
Total for State.....		3	.....
Total for State, same period, 1902.....		45	3	
Maine:				
Biddeford.....	Dec. 15-Jan. 17	48	.....
Kennebunk.....	Dec. 8.....	6	.....
Lewiston.....	Jan. 10-Jan. 17	7	.....
Portland.....	Dec. 21-Dec. 27	.....	1	
Shiboh.....	Dec. 8.....	7	.....
Aroostook County (Presque Isle included).	To Jan. 20.....	150	.....
Total for State.....		218	1	
Total for State, same period, 1902.....		3	.....
Maryland:				
Baltimore.....	Dec. 28-Jan. 3	1	.....
Cumberland.....	Dec. 1-Dec. 31	16	.....
Total for State.....		17	.....
Total for State, same period, 1902.....		.....	.....
Massachusetts:				
Boston.....	Dec. 14-Jan. 24	79	22	
Cambridge.....	Dec. 25-Jan. 24	9	.....
Chelsea.....	Dec. 27-Jan. 24	3	.....
Everett.....	Dec. 14-Dec. 20	.....	1	
Fall River.....	Dec. 28-Jan. 10	5	.....
Haverhill.....	Jan. 18-Jan. 24	2	.....
Lawrence.....	Dec. 14-Jan. 3	3	.....
Lowell.....	Jan. 4-Jan. 10	1	.....
Melrose.....	Jan. 10-Jan. 17	1	.....
Newton.....	Dec. 1-Dec. 31	.....	1	
Somerville.....	Dec. 21-Dec. 27	1	.....
Total for State.....		104	24	
Total for State, same period, 1902.....		219	33	
Michigan:				
Detroit.....	Dec. 14-Jan. 10	171	1	
Grand Rapids.....	Dec. 14-Jan. 24	57	.....
Total for State.....		228	1	Was present in 51 counties, at 137 places during the week ended Jan. 17, 1903.
Total for State, same period, 1902.....		13	1	
Minnesota:				
Aitkin County.....	Dec. 8-Jan. 5	3	.....
Beltrami County.....	Dec. 15-Jan. 12	8	.....
Benton County.....	Dec. 8-Jan. 12	59	.....
Big Stone County.....	Dec. 15-Jan. 12	25	.....
Blue Earth County.....	Dec. 8-Jan. 12	21	.....
Carver County.....	Dec. 8-Jan. 5	13	.....
Cass County.....	Dec. 15-Jan. 12	8	.....
Chippewa County.....	Dec. 8-Dec. 22	5	.....
Ontonwood County.....	Dec. 30-Jan. 5	1	.....
Crow Wing County.....	Dec. 8-Jan. 5	8	.....
Douglas County.....	Dec. 8-Jan. 12	183	.....
Freeborn County.....	Dec. 30-Jan. 5	4	.....
Goodhue County.....	Jan. 5-Jan. 12	2	.....
Grant County.....	Dec. 8-Jan. 12	12	.....
Hennepin County.....	.....do.....	61	.....
Houston County.....	Dec. 8-Dec. 15	1	.....
Hubbard County.....	Dec. 30-Jan. 12	9	.....
Isanti County.....	Dec. 30-Jan. 5	1	.....
Kanabec County.....	Dec. 8-Dec. 15	5	.....
Kandiyohi County.....	Dec. 8-Jan. 5	6	.....

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Minnesota—Continued.				
Kittson County.....	Dec. 30-Jan. 5	5	1	
Lac Qui Parle County.....	Dec. 8-Jan. 12	12	11	
McLeod County.....	Dec. 8-Jan. 12	12	6	
Marshall County.....	Dec. 15-Dec. 22	22	1	
Meeker County.....	Dec. 8-Jan. 12	12	35	
Millelacs County.....	Dec. 8-Jan. 12	12	6	
Morrison County.....	Dec. 30-Jan. 5	5	7	
Mower County.....	Dec. 8-Jan. 12	12	11	1
Murray County.....	Dec. 8-Jan. 12	12	19	
Nobles County.....	Dec. 15-Jan. 12	12	11	
Norman County.....	Dec. 15-Jan. 12	12	1	
Ottertail County.....	Dec. 8-Jan. 12	12	58	
Pine County.....	Jan. 5-Jan. 12	12	6	
Ramsey County.....	Dec. 8-Jan. 12	12	13	
Renville County.....	Dec. 8-Dec. 15	15	6	
Rice County.....	Dec. 8-Jan. 5	5	6	
Roseau County.....	Dec. 30-Jan. 12	12	8	
St. Louis County.....	.....do.....	.....	8	
Sibley County.....	Dec. 15-Jan. 12	12	15	
Stearns County.....	Dec. 8-Jan. 12	12	20	
Steele County.....	Dec. 15-Jan. 12	12	2	
Stevens County.....	Dec. 30-Jan. 12	12	5	1
Todd County.....	Dec. 15-Jan. 12	12	6	
Wabasha County.....	Dec. 8-Jan. 12	12	9	
Wilkin County.....	Dec. 30-Jan. 5	5	1	
Wright County.....	Dec. 8-Jan. 12	12	26	
Yellow Medicine County.....	Dec. 30-Jan. 5	5	1	
Total for State.....		728	2	
Total for State, same period, 1902.....		2,096	11	
Mississippi:				
Natchez.....	Dec. 22.....	10		
Total for State.....		10		
Total for State, same period, 1902.....				
Missouri:				
St. Louis.....	Dec. 15-Jan. 18	81	2	
Total for State.....		81	2	
Total for State, same period, 1902.....		345	5	
Montana:				
Butte.....	Dec. 23-Dec. 29	29	1	
Helena.....	Dec. 1-Dec. 31	31	6	
Total for State.....		7		
Total for State, same period, 1902.....				
Nebraska:				
Omaha.....	Dec. 14-Jan. 17	17	38	
Total for State.....		38		
Total for State, same period, 1902.....		362		
New Hampshire:				
Manchester.....	Dec. 1-Jan. 24	24	29	
Nashua.....	Dec. 14-Jan. 17	17	32	
Total for State.....		61		
Total for State, same period, 1902.....		6		
New Jersey:				
Camden County (Camden in- cluded).....	Dec. 14-Jan. 24	24	14	
Essex County (Newark in- cluded).....	.....do.....	24	2	
Hudson County (Jersey City included).....	Dec. 22-Dec. 28	28	1	
Union County (Plainfield in- cluded).....	Jan. 10-Jan. 17	17	2	Imported.
Total for State.....		41	2	
Total for State, same period, 1902.....		827	47	

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
New York:				
Binghamton.....	Dec. 21-Dec. 27	1		
Buffalo.....	Dec. 14-Jan. 17	10		
New York.....	Dec. 14-Jan. 24	9	1	
Total for State.....		20	1	
Total for State, same period, 1902.....		295	25	
North Carolina:				
Buncombe County.....	Nov. 1-Nov. 30	28		
Burke County.....	do	10		
Cabarrus County.....	do	4		
Caldwell County.....	do	1		
Cherokee County.....	do	7		
Cleveland County.....	do			A few.
Craven County.....	do	30		
Cumberland County.....	do	1		
Forsyth County.....	do	30		
Gaston County.....	do			Do.
Graham County.....	do	6		
Guilford County.....	do	2		
Iredell County.....	do	1		
Jones County.....	do	4		
McDowell County.....	do	17		
Mecklenburg County (Charlotte included).	Nov. 1-Dec. 31	214	21	
Onslow County.....	Nov. 1-Nov. 30	32		
Randolph County.....	do	4		
Surry County.....	do	51		
Swain County.....	do	30		
Union County.....	do	32		
Yadkin County.....	do	11		
Total for State.....		515	21	
Total for State, same period, 1902.....		140		
Ohio:				
Butler County (Hamilton included).	Dec. 14-Jan. 17	3		
Cuyahoga County (Cleveland included).	Dec. 14-Jan. 24	62	20	
Hamilton County (Cincinnati included).	Dec. 13-Jan. 16	45	1	
Lucas County (Toledo included).	Dec. 6-Jan. 10	50	3	
Montgomery County (Dayton included).	Dec. 14-Jan. 24	23		
Trumbull County (Warren included).	Dec. 7-Dec. 27	5	1	
Total for State.....		193	25	
Total for State, same period, 1902.....		528	10	
Pennsylvania:				
Allegheny County (Pittsburg and McKeesport included).	Dec. 14-Jan. 17	85	14	One case imported from Philadelphia.
Berks County (Reading included).	Jan. 6-Jan. 12	1		
Blair County (Altoona included).	Dec. 21-Jan. 17	4	5	
Cambria County (Johnstown included).	Dec. 14-Jan. 17	18	3	
Erie County (Erie included).	do	28	2	
Lawrence County (Newcastle included).	Jan. 1-Dec. 31	26		
Lycoming County (Williamsport included).	Dec. 28-Jan. 3	1		
Northumberland County.....	Dec. 1-Dec. 31	14		
Philadelphia County.....	Dec. 14-Jan. 24	136	8	
Schuylkill County (Pottsville included).	Dec. 1-Dec. 31	2		
Total for State.....		315	32	
Total for State, same period, 1902.....		581	88	

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Rhode Island:				
Newport	Dec. 28-Jan. 3	1	1	
Warwick	Dec. 25-Dec. 31	4		
Total for State		5	1	
Total for State, same period, 1902.		62		
South Carolina:				
Charleston	Dec. 21-Jan. 24	17		
Douglass	Nov. 1-Nov. 30	32		
Georgetown	Jan. 23	1		
Jonesville	Nov. 1-Nov. 30	4		
Monticello	do	4		
Wolling	do	50	3	
James Island	do	7		
Wadmalaw and Edisto Is- lands.	do	49	1	
Total for State		164	4	
Total for State, same period, 1902.		4		
South Dakota:				
Sioux Falls	Dec. 21-Dec. 27	1		
Total for State		1		
Total for State, same period, 1902.				
Tennessee:				
Shelby County (Memphis in- cluded).	Dec. 7-Jan. 24	23		Two cases imported.
Total for State		23		
Total for State, same period, 1902.		43		
Texas:				
San Antonio	Dec. 1-Dec. 31	3		
Total for State		3		
Total for State, same period, 1902.				
Utah:				
Salt Lake City	Dec. 1-Jan. 17	75	1	Three cases imported.
Total for State		75	1	
Total for State, same period, 1902.		5		
Virginia:				
Danville	Jan. 10-Jan. 17	9	1	
Total for State		9	1	
Total for State, same period, 1902.		41		
Washington:				
Tacoma (a)	Dec. 8-Dec. 21	2		
Total for State		2		
Total for State, same period, 1902.		96	1	
Wisconsin:				
Greenbay	Dec. 22-Jan. 18	4		
Milwaukee	Dec. 7-Jan. 24	45		
Total for State		49		
Total for State, same period, 1902.		4,357	23	
Grand total		4,705	156	
Grand total, same period, 1902.		11,167	253	

^a There were 3 deaths erroneously reported for Tacoma, Wash., in PUBLIC HEALTH REPORTS for January 23, 1903.

Plague in the United States as reported to the Surgeon-General, Public Health and Marine-Hospital Service, from December 27, 1902, to January 30, 1903.

[NOTE.—In accordance with custom, the tables of epidemic diseases are terminated semiannually, or at the close of the calendar year, and new tables begun. For record of plague in San Francisco for calendar year 1902, see PUBLIC HEALTH REPORTS No. 52, December 26, 1902. A summary of cases since March, 1900, when the first case was officially reported, is as follows: Calendar year 1900, cases, 22; deaths, 22. Calendar year 1901, cases, 28; deaths, 25. Calendar year 1902, cases, 41; deaths, 40.]

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
California:				
San Francisco.....	Dec. 11	1	1	

Weekly mortality table, cities of the United States.

Cities.	Week ended.	Population, U. S. census of 1900.	Total deaths from all causes.	Deaths from—														
				T. beruclosis.	Yellow fever.	Smallpox.	Variceloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.				
Alton, Ill.	Jan. 17	14, 210	7															
Altoona, Pa.	do.	38, 973	7															
Ann Arbor, Mich.	do.	14, 509																
Ashtabula, Ohio.	do.	12, 949	4	1														
Baltimore, Md.	do.	508, 957	230	33						2	1	6	5	2				
Belleville, Ill.	do.	17, 484	5															
Biddeford, Me.	do.	16, 145																
Binghamton, N. Y.	do.	38, 647	18	2						2		3						
Boston, Mass.	do.	560, 892	202	22		3				3	1	4		5				
Brockton, Mass.	do.	40, 063	12	1						1								
Cambridge, Mass.	do.	91, 886	25	3						1	1						2	
Camden, N. J.	do.	75, 935	23															
Carbondale, Pa.	Jan. 14	13, 536	0															
Charleston, S. C.	Jan. 17	55, 807	33	4														
Chelsea, Mass.	do.	34, 072	13															
Chicago, Ill.	do.	1, 698, 575	626	55						22	9	9	10	9				
Chicopee, Mass.	Jan. 10	19, 167	6	1							2							
Do.	Jan. 17	19, 167	7															
Cincinnati, Ohio.	Jan. 9	325, 902	130	13						5	1	1		1				1
Do.	Jan. 16	325, 902	114	13						2		2		2				
Cleveland, Ohio.	Jan. 17	381, 766	138	5						9		4						2
Clinton, Mass.	do.	13, 667	2															
Colorado Springs, Col.	Dec. 13	21, 085	9	3														
Do.	Dec. 20	21, 085	6															
Do.	Dec. 27	21, 085	5	1														
Do.	Jan. 3	21, 085	7	1							1							
Do.	Jan. 10	21, 085	8	2														
Do.	Jan. 17	21, 085	13	6							1							
Danville, Va.	do.	16, 520				1												
Dayton, Ohio.	do.	85, 333	30	3						2								1
Denver, Colo.	Jan. 10	133, 859	41	11						1								
Dunkirk, N. Y.	Jan. 17	11, 616	8									1						
Elmira, N. Y.	do.	35, 672	9															
Erie, Pa.	do.	52, 733	13	2	1													
Evansville, Ind.	do.	59, 007	16	3						1								
Everett, Mass.	do.	24, 336	4															
Fall River, Mass.	do.	104, 863	52	3						1	1	1						
Fitchburg, Mass.	Jan. 10	31, 531	6															
Do.	Jan. 17	31, 531	9	1									1					
Freeport, Ill.	do.	13, 258	5															
Galesburg, Ill.	do.	18, 607	2															
Gloucester, Mass.	do.	26, 121	10															
Grand Rapids, Mich.	do.	87, 565	18	2														
Green Bay, Wis.	Jan. 18	18, 684	7															
Hamilton, Ohio.	Jan. 17	23, 914	5															
Haverhill, Mass.	do.	37, 175	14	1														
Holyoke, Mass.	do.	45, 712	16															
Jacksonville, Fla.	do.	28, 429	14	1														
Jersey City, N. J.	Jan. 18	206, 433	75	6								1						
Johnstown, Pa.	Jan. 17	35, 936	7															
Kokomo, Ind.	do.	10, 609	5															
Lawrence, Mass.	do.	62, 559	35	1						3				1				1
Lexington, Ky.	do.	26, 369	10	1														
Lewiston, Me.	do.	23, 761																
Lowell, Mass.	do.	94, 969	49	2									2					
Lynchburg, Va.	do.	18, 891	10	3														
McKeesport, Pa.	do.	34, 227	19	1								1						
Malden, Mass.	do.	33, 664	9	2														
Medford, Mass.	do.	18, 244	5															
Melrose, Mass.	do.	12, 962	7	1														2
Memphis, Tenn.	do.	102, 320	33	1														
Milwaukee, Wis.	do.	285, 315	94	12								6						5
Mobile, Ala.	do.	38, 469	22	3														
Nashua, N. H.	do.	23, 898	5															
Nashville, Tenn.	do.	80, 865	24	4														
Newark, N. J.	do.	246, 070	102	10	1					3	2	2						2
New Bedford, Mass.	do.	62, 442	20	1									1					
Newburyport, Mass.	do.	14, 478	8															
New Orleans, La.	do.	287, 104	139	24						2		2						
Newport, Ky.	Jan. 18	28, 301	9								1							
Newport, R. I.	Jan. 17	22, 034	8									2						

Weekly mortality table, cities of the United States—Continued.

Cities.	Week ended.	Population, U. S. census of 1900.	Total deaths from all causes.	Deaths from—													
				Tuberculosis.	Yellow fever.	Smallpox.	Variceloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.			
Newton, Mass.....	Jan. 17	33, 587	9														
New York, N. Y.....	do.....	3, 437, 202	1, 430	183		1					10	16	47	10	14		
Norristown, Pa.....	do.....	22, 265	12	1													
North Adams, Mass.....	do.....	24, 200	6														
Northampton, Mass.....	do.....	18, 643	2														
Omaha, Nebr.....	do.....	102, 555	19														
Oneonta, N. Y.....	do.....	7, 147	3	1													
Palmer, Mass.....	do.....	7, 801	4	1													
Philadelphia, Pa.....	do.....	1, 293, 697	498	48		2				19	2	5					2
Pittsburg, Pa.....	do.....	321, 616	154	18		3				11	3	5	2				5
Plainfield, N. J.....	do.....	15, 369	6							1							
Providence, R. I.....	do.....	175, 597	77	8										1			2
Quincy, Mass.....	do.....	23, 899	6	1													
Salt Lake City, Utah.....	Jan. 10	53, 531	17	1		1								3			
Do.....	Jan. 17	53, 531	15											2			
San Francisco, Cal.....	Jan. 4	342, 782	169	26						3				8			
Do.....	Jan. 11	342, 782	194	29						1				4			
Santa Barbara, Cal.....	Jan. 10	6, 587	3	2													
Shreveport, La.....	Jan. 17	16, 013	10							2							
Somerville, Mass.....	do.....	61, 648	16								2	1					
South Bend, Ind.....	do.....	35, 999	15	1													
Steeltown, Pa.....	do.....	12, 068	3														
Streator, Ill.....	do.....	14, 079	2														
Tacoma, Wash.....	Jan. 11	37, 714	14	2						1		1					
Titusville, Pa.....	Jan. 17	8, 244	1														
Waltham, Mass.....	do.....	28, 481	11														
Washington, D. C.....	do.....	278, 718	151	15						2			1				4
Wichita, Kans.....	do.....	24, 671	7														
Williamsport, Pa.....	do.....	28, 757	7										1				
Wilmington, Del.....	do.....	76, 508	39	3						5			1				1
Winona, Minn.....	do.....	19, 714	2														
Yonkers, N. Y.....	Jan. 16	47, 931	16	2						1							

FOREIGN AND INSULAR.

AFRICA.

End of plague in the subdistrict of Magude.

United States Consul Hollis reports from Lourenço Marquez, December 10, 1902, that a letter dated November 30 had been received stating that the board of health of Lourenço Marquez had determined the sub-district of Magude to be clean and entirely free from plague.

The SURGEON-GENERAL.

BAHAMAS.

Epidemic dysentery.

DEPARTMENT OF STATE, *January 21, 1903.*

SIR: Referring to your letter of the 15th instant, requesting information in regard to a disease prevailing in the Bahamas which is said to resemble cholera, I have the honor to inform you that the following telegram of the 20th instant has been received from the consul at Nassau, viz, "Government doctor reports dysentery eleuthera from drought, not like cholera; mortality not serious."

Respectfully,

DAVID J. HILL,
Acting Secretary.

The SECRETARY OF THE TREASURY.

BRAZIL.

Reports from Bahia.

BAHIA, BRAZIL, *December 22, 1902.*

United States Vice-Consul Hirsch reports as follows: For the week ended December 20, 1902, there were reported in Bahia 85 deaths. The causes of death were the following: Artero-sclerosis, 4; asthma, 1; beriberi, 3; bronchitis, 4; diarrhea and dysentery, 6; erysipelas, 1; enteritis, 2; malarial fevers, 6; gangrene, 1; gastritis, 5; hepatitis, 3; elephantiasis, 1; meningitis, 1; Bright's disease, 3; stillborn, 2; infantile tetanus, 4; tuberculosis, 12, and from other causes, 26.

BAHIA, BRAZIL, *December 29, 1902.*

For the week ended December 27, 1902, there were reported in Bahia 84 deaths. The causes of death were the following: Apoplexy, 2; diphtheria, 1; aneurism, 1; arterio-sclerosis, 1; asthma, 1; beriberi, 2; bronchitis, 4; malarial fevers, 5; gangrene, 1; gastritis, 3; hepatitis, 5; meningitis, 1; senile debility, 1; Bright's disease, 5; nephritis, 1; stillborn, 1; pneumonia, 1; peritonitis, 1; tuberculosis, 13, and from other causes, 34.

During this week there were reported 4 cases of smallpox, but no deaths.

The SECRETARY OF THE TREASURY.

CANADA.

*Inspection of immigrants at St. John, New Brunswick.*ST. JOHN, NEW BRUNSWICK, *January 19, 1903.*

Assistant Surgeon Billings reports for the week ended January 17, 1903, as follows: Immigrants inspected, 161; detained, 6; passed, 155.

The SURGEON-GENERAL.

CHINA.

Treatment and cure of leprosy in south China by Dr. Adolph Razlag.

[No. 227.]

CANTON, CHINA, *September 4, 1902.*

SIR: In further continuation of my Nos. 196 and 213, concerning the treatment and cure of leprosy in south China, by Dr. Adolph Razlag, an American citizen, I have the honor to report as follows:

The wonderful success attending Dr. Razlag's efforts has attracted considerable attention here among both natives and foreigners, especially amongst the Manchu and Chinese high officials, civil and military, and will also, I have no doubt, be viewed with profound interest by humanitarians everywhere, as well as by men and women versed in medical science. His initial operations began, as I have already related in my previous dispatches, on April 20, 1902, in the leper village, which is situated about 6 miles to the east of Canton.

The results of the first 4 cases have gone far to show that his work of treatment, etc., has passed beyond the stage of what might aptly be called experimentation. For, although the 4 patients have only been four months under treatment, 3 of them have returned to their ordinary avocations—one a native preacher and teacher attached to the American Presbyterian mission at Kuk Fau, one a coolie carrying heavy loads of matting, rice, etc., on his shoulders from almost daybreak until darkness sets in, between 8 and 9 o'clock at night, and one a boy of 16 years, who has made a practical recovery, while the fourth one is still under treatment, his case being undoubtedly a desperate one when first taken in hand, its features predicting but little hope of a successful issue. A second group of patients, 13 in number, all of them in advanced stages of this loathsome and repulsive disease, is now under treatment in the new house immediately adjoining the leper village or settlement, which, through my efforts, H. E. Tao Mu, viceroy of the Two Kwangs, has courteously placed at the disposal of Dr. Razlag for his patients. The condition and treatment of each leper are detailed in the following report, prepared at my instance by Dr. Razlag, who, by the way, defrays the entire expenses of food, clothing, medicines, etc., for the unfortunates, whose condition he is alleviating and to whose hopeless and despairing hearts he has brought rays of comfort and gladful hope. In his report he presents a plausible and commendable scheme for the establishment of an island sanitarium, where the lepers of both sexes and all ages can be segregated and successfully treated. I feel it to be my duty to suffering humanity to commend his scheme (or plan) to the serious consideration of the Department and of the scientific world. As I have personally witnessed the progress of his leprosy patients from the nauseating and repellent stages of foul ulceration, etc., to comparative recovery, I have necessarily a strong belief in the efficacy of his methods

of treatment, and, as I have had considerable personal experience and some actual practical knowledge of these and kindred subjects, I regard with favor and ask your courteous permission to recommend the scheme, embracing the proposed island sanitarium and its methods of government and treatment.

The following is Dr. Razlag's report :

In the past few years various circumstances and opportunities gave me the impulse to start with interest in the treatment of leprosy, and after some success I met difficulties that forced me to go to China to continue there my study and experiments, more or less undisturbed. I found Canton to be the best and largest field, as not far away from this city there is a leper village named Fat Fung Yun, with 982 leper inhabitants, and after having secured one large apartment by the courtesy of the American Medical Missionary Society, in their hospital at Canton, I took in 3 men selected from the village. Of these, 2 are now in a condition to support themselves, the third will have to stay under treatment for about two months more, as he was the worst case in the leper village and the healing of his wounds requires a longer period. Why the treatment of wounds necessitates a slow course will be clearly explained under the head of treatment. After about one month's work in the hospital I was anxious to get a place outside of the city, and through the efforts of the United States consul, Hon. Robert M. McWade, H. E., the Viceroy Tao Mu gave me the permission to use the newly erected leper asylum, near the "lepratown" for my further work. This building consists of 70 (rooms) wards, with accommodation for about 200 lepers. In the course of time, more patients were admitted, each of them with a different history and distinct development of the disease, and now I have, at the present time, 11 men and 2 women under my treatment there.

This new building is erected on elevated ground, but is without any windows, and the nearest well from which to get water for domestic and other purposes is a distance of 1 mile away. As the bathing is indispensable in the treatment of leprosy, I have to keep one man to carry the water all day long.

Lepratown, as well as the asylum, is nearly 5 miles away from the city and close to the main road to the interior.

The lepers belonging to the leper village are allowed to go to Canton to beg and look for their meals, and we meet lepers going in and out of that city continually, a condition that ought to be restricted, even if nothing else in regard to isolation should be done. These lepers wander over the same road and paths as other people who come and go to and from Canton, bringing fruits, vegetables, and other merchandise. My observations show that daily at least 18,000 people pass barefooted over the same paths as the lepers with their ulcerated feet and limbs (continually discharging) along this road from the leper town to the city. On both sides are vegetable gardens and a few small lakes. These lakes are maintained so that during the dry season the gardens can be sprinkled with the reserved water. The gardeners collect the night soil or excrementitious matter daily from the leper town and also from the city and throw it into these lakes, the polluted water from which gives, in their opinion, more nourishment to the vegetables when it is plentifully sprinkled on them. Not alone that, but almost all men and many of the women going to the city, as well as the lepers, wash their feet and legs and sometimes their bodies also in these lakes. Besides, I can also state positively, from my own observation, that all the vegetables brought in by this road are washed in this water before they enter the town, where they are sold to natives. Dogs, cows, oxen, buffaloes, pigs, chickens, and ducks are all day long in and around the leper town. They eat the grass that grows in the lepers' cemetery and drink the water out of these lakes, the buffaloes and ducks taking their baths there also. The leper town itself is without any official or other supervision, and is a place of horror to our eyes. No foreign or native doctor lives within miles of it or goes there at all. These few remarks will show the existing conditions in this place and of 37 other leper villages in south China. Every town in China has lepers in an average percentage of 1 in 200, some villages 1 in 100, and a few with 1 in 30. Canton itself has 20,000 lepers. The same conditions, and in some respects worse, will be found in Siam.

The Philippines are in some ways better, as the leprosy there is not spread all over, but Visayas and Moros give such strong evidence of it as to indicate the advisability of introducing strict isolation there as soon as practicable. In this direction something has already been done.

I know the Philippines very well, and believe that the reports of the number of lepers there are not correct. In the last report, the province of Laguna shows 1 leper, but there are surely about 100 there.

The newly selected island for lepers in the Philippines will probably suit in a way, but I wish to say that too much money should not be wasted on fine buildings, etc.

Molokai, in the Hawaiian Islands, is largely improved by the American Government, but practically it will need very many changes to make it well adapted for this special purpose.

Herewith I submit my ideas, propositions, and suggestions. Everyone knowing the history of leprosy will, unconditionally, agree that to stop the development of this dreadful disease, it is necessary to get the unrestricted and unlimited control over the afflicted, and the only way to aid materially in bringing about successful results is complete isolation enforced by proper laws. The lepers ought to be transferred to an island.

Such an island must be in a tropical climate, securing a mild warm temperature, so that the treatment would not be interrupted by rough or cold weather and other inconveniences. The island should be surrounded by fresh-water rivers for bathing and all other purposes. Wells would not suit, as it would cost an enormous sum to build enough wells, for the patients need water all the time, and, as they can not live close together, wells would have to be constructed at every 300 or 400 yards distance. A vast number of the lepers are weak and can not even walk or carry water any distance, and, in addition, we must restrict in every possible way the number of servants or attendants.

Even having wells, it would be almost impossible to make arrangements for a continuous regular supply of good water, so it is unquestionable that the one island selected must have such a natural water supply as fresh-water rivers.

The building ought to be erected close to the river (anyhow so that the river in the rainy season can not damage their residences, etc.), and here is another great advantage over wells and a necessity for flowing rivers.

The use of the water must be guided by rules or regulations. As the lepers have no other work except to keep their bodies, houses, and yards clean, I would suggest the following :

Every building to have a box or barrel, where all the refuse matter ought to be put, and at night these barrels should be emptied into the river. In the course of the night, all this dirt will be carried to the sea, so in the morning the river is clean again. All refuse can not be carried by the running water, but the main part has gone and all of it that can be burned should be destroyed in that way. No doubt, such dirt or refuse matter as human excrement, soiled bandages, etc., will be carried away by the flow of the river overnight and will not infect the water which is to be used by the lepers the next day. In the daytime the river is for baths and other washings, and no dirt or refuse should then be thrown into it.

The cleaner the island the more pleasant the aspect and the better the moral and physical conditions. Thus, the generally neglected lepers will have some congenial and easy occupation, and in a short time will begin to realize and know the difference between cleanliness and dirt, which they in fact are not now able to distinguish. I do not favor the suggestion of building boats to carry the dirt down the river to the sea, as the main thing is to keep the island forever clean and free from all dirt whatever. The boats would be also a source of contamination.

Wells would be of but little use, as he who knows the poor, neglected leper is convinced that they have no idea how to keep themselves and their surroundings clean without at the same time making their premises dirty. The natural and continual flow of the river is an advantage that could not be replaced by any other artificial means, and it is the most economical way to give necessary cleanliness that brings comfort and health to the patient. Just suppose that the flow of the river would have but a force of 3 miles an hour, how easy could all refuse matter reach the sea overnight, and the next day we would have the clean river water for all our purposes and uses. Another thing, having such rivers, the costly building of canals, etc., would not be necessary.

Along the banks of river or rivers the houses for the lepers must be built, and also along the seashores.

Some patients will have to use sea-water baths exclusively, and so, as well along the rivers as along the seashores, their houses must be erected. Behind these houses vegetable gardens and fruit trees of all kinds can be cultivated. Rice and other grain will not be planted on the island, as generally the lepers are not strong enough for such work, and I would advise against the use and importation to the island of other workmen.

The less men and animals on the island the better. About the keeping of animals on such an island I would give the following suggestions :

In the houses of the employees, as well as of the lepers, no animals of any description should be allowed, and the keeping of dogs, cats, monkeys, or birds should be strictly forbidden. Cats and dogs are of no use on such an island, as all the buildings will be erected in a way that will keep off rats, mice, etc.

Certain places will be set aside, not far from the kitchen, where ducks, chickens, pigs, and other animals used for food will be confined.

Kitchens, storerooms, and other administration buildings will be erected on the most convenient spots. About bathing tubs and other domestic comforts for the lepers, such arrangements can be made just as circumstances require.

All buildings to be erected on such island must be built in the plainest possible way, with no decorations whatever and with everything just suited for its special purpose and no more. They must be so built that we can reach every corner and keep every place clean with ease.

Chairs, tables, beds, dishes, etc., should also be as plain as possible, and everybody should be provided with such necessaries, all made on one pattern or style. No exception should be made either to the physicians or the patients, for as soon as exceptions are allowed to one person all rules lose their power.

In regard to the doctors, nurses, and other help, it will be of great importance to make it a rule that everybody is obliged to do his full duty. The existence of too many bosses is folly; there must be only one capable head or chief.

In starting such a great and humane work it is really necessary to select the doctors, nurses, and other help from among people of character who take a real interest in the relief of the suffering and who do not work only for the wages or salary given them. They should be benevolent and good-hearted people, who voluntarily and unquestioningly devote themselves to this work. It is preferable to employ only single people, if at all possible, people who will devote their time exclusively to the work designated for them.

No employee, doctor, nurse, or other help should be allowed to take his wife or children along, for obvious reasons. Schools should be also erected, and also a good surgical, bacteriological, and pharmaceutical outfit introduced.

About religion, I wish to say that my opinion is to avoid all troubles in this line. To teach honestly the existence of the Almighty, the absurdity and repugnance of sins, and not very much more.

The head of all affairs on the island must be a doctor, a man well experienced, strict in his orders and in their enforcement, but of mild character.

Every employee must know his duty and perform it, and the principal recommendation at the time of his application should be his actual ability. Adventurers are of no use at all.

The circulation of money should on such an island be restricted as much as possible, and the government should provide the inhabitants with everything just as conditions and circumstances require. With such restrictions a good many troubles can be avoided. The patients must be treated with the utmost possible kindness, consistent with the regulations. No interference should be exercised with their individual freedom of action as long as it does not conflict with the physician's instructions. A good many reasons exist for the separation of men and women as much as possible. All patients should be dressed and fed in the same way and all the outfit of kitchen, bedroom, etc., uniform in kind and style.

Doctors and nurses must treat their patients just as the medical director orders, and they are not allowed to pursue a different method of treatment unless it has been approved by the medical director and a board of medical advisers. This point must be enforced by a special law; if not it may cause needless and dangerous controversies, as well as a conflict of authority.

Every person employed either as doctor or as nurse, or in any other capacity whilst recognized as being an able man in his line of duty, must follow strictly the treatment directed by his superior officer.

A board of medical advisers will be selected, and orders and directions given out by this board must be carried out in the proper way and exactly as they indicate.

Employees inclined to quarrel and make trouble will be dismissed promptly. Such people are generally useless and frequently dangerous. All employees must be strong and healthy and not afraid of work.

The success of the administration will depend very much on the conditions of the island and the observance of its wholesome rules. Anyhow, having the right man in the right place as a medical director is the most important point. Whilst successful results can be realized on one island, it is my belief that better ones could be achieved on a group of two or three islands close together. Men and women must be isolated, and to effect a thorough isolation without being obliged to employ guards, it is necessary to separate them in a way that they can not reach each other, and the sea would be the best barrier.

If the islands are small the lepers who get well should have another place wherein to live until a knowledge of their complete cure will permit of their transfer elsewhere. But this is not so urgent as the principle of separation of the sexes, which is almost

imperative, as our intention is to fight in every way not only against the spread and development of this dreadful disease, but also to check entirely the possible existence of leper descendants. If the possibility of descendants is effectually guarded against we would expect after ten years' work on our island sanatoria that there will be left but few sufferers, and the cured ones will enjoy their lives until the natural end.

It is a remarkable fact that the mortality among lepers has no higher percentage than among patients afflicted with other tropical diseases. Typhoid, pneumonia, smallpox, cholera, plague, dysentery, and the many kinds of pernicious fevers and anæmia are almost unknown to the lepers, and my opinion is that the quite lazy life which they live prevents and protects them from such diseases.

The kind of material to be used for the buildings depends entirely on the climate and other conditions on the island, and it will be the duty of the director, a well-experienced physician, to take all possible advantages that the natural conditions and position of the island offers. One large island will be good enough for the lepers of any country except China, Siam, and India, as these 3 countries together have about 50⁰, 000 lepers more or less.

It is urgent that some government shall begin with this work at an early day. After it has produced excellent results other governments will follow its laudable example.

The conditions in Siam and China will some day give rise to a call for an international congress for settling this important matter, and perhaps it may be precipitated by the execution of the current projects of advancing civilization and business and railroad development.

Before starting such a work it will be necessary to have elected a leper commission consisting of 1 leper expert, 1 expert architect with 2 good designers, 2 doctors with 3 special clerks that are excellent typewriters and stenographers together. All these gentlemen must be of excellent character, trustworthy, industrious, strong, healthy, and sober.

The commission counts 10 men together, as it is advisable to have also 1 trustworthy delegate representative of the government included. Servants are not necessary to take along.

As this work requires a skillful elaboration of all conditions, plans, circumstances, etc., the commission must consist of real experts, each of them in his particular line.

It is necessary that all the work done on this island should be conveniently arranged so that for the future the utmost possible economy in every way could be exercised.

The men in the hot season should wear simply short pants without jacket. The women, pants and jacket made of one piece, so that they may be continually exposed to the fresh air. In the cold or rainy season only heavier cloth should be necessary.

Their shoes should be made of only wooden soles with a strip of soft leather in which to insert the foot. Generally the lepers have all kinds of sores on their feet and a good many are not able to wear even this kind of sole.

With this I hope to have sufficiently explained my intentions and suggestion, and declare, at the same time, myself to be prepared for any work in this line.

TREATMENT.

First of all, the baths are of great importance; I use cold or warm baths of fresh water; also seawater baths, and medicated baths, with iodum, acid. tannicum, potassii permang. liq. calcis sulph., just as the condition of the patient requires.

As sudorific, generally jaborandi, or simply strong coffee or tea. Wounds: Chloride or sulphate of zinc, peroxidum hydrog. ichthyol chrisarobinum, arsenic, acid. tannicum, tr. ferri chlorid, iodum, ol. gynocardia odor., zinci oxid. creosot, croton oil, acid salicyl., tr. iodi, soziodol, sodii, zinci and hydrargyri, potassii permang. strychnin, tar, etc. Dressing with plain absorbent cotton, sometimes with xeroform powder, but never iodoform. It is necessary in the treatment of wounds to make some combination of the above-mentioned drugs, especially in the use of ointments, for which purpose I generally prefer lanolin, tar or glycerin. For the massage and friction of anæsthetic skin, croton oil, strychnin sulph. chaulmoogra oil, in combination with ol. olive, and sometimes pure mucuna pruriens. The œdema can be well reduced by leeches, and I strongly recommend the use of these to a large extent; but great care must be taken how and where to apply them. Internally, liq. pot. arsenitis, or arsenic pills in combination with strychnin and ichthyol; sodii salicyl, ol. jecoris aselli, guayacol, creosot and sometimes airoil seem to produce more good effects than any other drug. I am well acquainted with the use of all the other drugs, as oils, ointments, and liquids used externally or internally, but finally came to the conclusion to keep on the above-mentioned treatment.

Care must be taken that the wounds heal slowly, as a quick closing of ulcers, etc., produces generally again the appearance of nodula as well as œdemata.

The patients must expose themselves as much as possible to the air and be dressed only as much as will cover the body. It will be necessary to adopt in the beginning of the treatment, exclusively, my method, and nobody should be allowed to try any other treatment on the patients.

It is necessary that every doctor shall get acquainted with this method of treatment if he attempts to treat lepers. It is also of great advantage to teach the improved lepers the treatment of wounds and bandaging, as they will thus, by helping the doctor, save a good deal of work. We must remember that no nation or race can be regarded as immune, and, apart from all theories, it is a fact that for everybody infection is dangerous.

Hereditary leprosy counts no more than about one-eighth of the lepers: all the rest is a subjectively contracted disease. In the leper village Fat Fung Yun are 982 lepers, and of these there are only 106 cases of hereditary origin. A hereditary predisposition does not exist, as it is a clear fact that to such an infection a hereditary disposition is an empty theory and nonsense. In spite of what so many authors are writing about it, it is true that predisposition has a good deal to do with every kind of contagion or infection, but in this disease a hereditary predisposition is excluded.

I incline strongly to a belief in a kind of "predisposition" where the skin and system are more or less susceptible or more sensible to surrounding infectious matter.

It is necessary that many other drugs not mentioned here will have to be included in the treatment of leper patients, but at the outset we depend on medicines of proved curative properties.

The strength and applications of the various kind of drugs and remedies vary according to the symptoms and conditions present, and so an exact curative plan must be introduced and taught ad personam by practical experience.

At first our duty is to isolate the lepers, then to stop the development of the disease by healing up all sores, ulcers, and other wounds, then to reduce all nodula, maculae, oedema, and then to relieve the patient of all pains, and at the end to commence with an effective cure to clean out the system as far as possible.

The average time of a successful treatment is at least one year, having everything at hand and under favorable conditions. Even having succeeded in a good many cases, a positive and radical cure should not be spoken of. What is of more importance in regard to our plans is the extermination of this spreading disease. When starting on that line we should try to avoid and preclude the infection of others, and the best way to do so lies in the concentration of all lepers on a separate island, where every effort will not alone be made to relieve them of all suffering and to restore their health, but to stop also the possibility of further generations of lepers. The use of such an island should be given to them for their lifetime, and no returning home should be allowed. To deprive such people of the right of marriage or of sexual connection is nothing but an insignificant restriction.

Taking into consideration the great consequences of marriage and the costly efforts of isolation, a restriction in this way is in comparison almost nothing. With such an isolating plan every year the laws become more strictly enforced, and in the course of but ten years there will be but few uncured cases left on the leper island; and there also by prohibiting marriage, after ten years more the leper islands will be almost empty of inhabitants.

The main work will be in the course of the first five years, and later on the survivors and other improved cases will get used to attending to themselves, to helping each other, and to do a good deal of other work that in the beginning will have to be done by our employed assistants.

As I have been working on the treatment of leprosy for many years, with deep interest and considerable patience, I have acquired a large experience in the various stages of the disease, and for the sake of humanity I am prepared at any moment to accept the commission to work out and finish this project in the most practical and economical way in the Hawaiian Islands, Philippine Islands, India, Japan, China, Siam, or any other place.

Without the aid of a government, I will have to abandon entirely this expensive but important work.

PATIENTS UNDER TREATMENT.

Patient No. 1. Sun Tsz Lung, born in Kowloon twenty-seven years ago; married nine years ago, but on account of his disease separated from his wife and three years ago married a leper woman. First wife and her son show no sign of infection. Second wife has no children. Mother still living, perfectly healthy; father died of consumption.

At the age of 17 years anæsthesia of the skin of right leg; one year later paralytic-like condition of this leg; three months later whitish maculae on both cheeks up to the

eyes. After two years, face, fingers, ears, nose, and left leg oedematous. All over the back and chest blue-black maculae with elevation of the skin. Bottom of left foot (sole) suppurating corns. Both lower extremities and elbows covered with wounds, continually discharging a watery, yellowish matter. Growing of the nails of the toes (right foot) stopped. First sign for *L. mutilans*. He has been living in the leper village for six years. My treatment has been pursued for three months and twenty-eight days.

Present condition: Paralysis of left leg and anaesthesia of the skin fairly relieved by massage, etc. Suppurating corns and all wounds healed up. Slight oedema of the ears still existing. Oedema of face, fingers, and left leg disappeared entirely. Patient otherwise in good health.

Patient No. 2. Taw (Chau) Hay, born in Ko You, 23 years old, single. At the age of 15 years there commenced on his left arm anaesthesia of the skin, with reddish maculae, without elevation of the skin. Four years later, nodular oedema of face and ears (leonic aspect); two years later, left arm and both feet suppurating all over. Paralytic-like walk of both legs. Rheumatic pains.

Father died of a large abscess of the neck; mother healthy and still alive.

Patient has been living in the leper village for three years. My treatment three months and twenty-eight days.

Present condition: Paralysis and anaesthesia disappeared almost entirely by massage treatment, etc. All wounds healed up. Nodular oedema of face and ears relieved, leaving but a slight elevation of the skin. Patient otherwise in good health.

Patient No. 3. Lee Tsang, born in Canton twenty-seven ago, single. At the age of 15, copper-colored spots on both cheeks; two years later, anaesthesia of the skin almost all over the body; two years after that nodular oedema on entire face, ears, and arms, leonic aspect. One year afterwards a reddish skin eruption (*exanthema rubra*) all over the body with itch and rheumatic pain; three years later extensive ulceration involving the entire surface of legs and feet, daily discharging 6 to 8 ounces of thin acrid matter, almost destroying all the skin there; loss of 7 nails of the toes and suppurating corns, just beginning to lose the phalanges. Complete aphasia, and not able to stand or walk. The patient I received in a precarious condition, and he was one of the worst cases in the leper village.

His father died of a sore foot, caused by a fall, and his mother is still living and healthy. He has been living in the leper village for ten years. My treatment, three months and twenty-eight days.

Present condition: Exanthema, anaesthesia, rheumatic pain, and all oedemata disappeared, suppurating corns and all the wounds show a healthy cicatrization. On the legs, 2 spots keeping still open, as it is not advisable to close the skin all over too quick. It will take at least two months more before healing up all openings. Aphasia shows but little improvement, but patient is able to walk. Patient is now in good health and able to walk around without any aid.

Patient No. 4. Sieng Young, 16 years old, single, born at Tsang Ging. At the age of 11 years perfectly black macula with anaesthesia on the face, arms, body, and legs.

Mouth, nostrils, and conjunctiva inflamed and perfectly red. Eyes not able to keep open. Ears beginning to swell. Nails of the toes stopped growing. Alarming condition, as such cases infect all mucous membranes and destroy the body very quickly, giving but little chance to fight successfully the arising symptoms, as all affected parts are continually in an inflammatory condition. Mother died of fever; father blind for sixteen years. He was living with his relatives when attacked.

Present condition: Anaesthesia and black macula somewhat better. Inflammation of the mucous membranes fairly reduced. Eyes easily kept open. Swelling of the ears slowly disappearing. Patient otherwise in good health.

Patient No. 6. Kwang Hao, 25 years old, born in Ping Yun, wife of Cheong Fat. At the age of 16, red spots with suppurating corns on hands and feet; lost 3 toes; feet very much swollen with continual discharges of sticky pus mixed with blood; can hardly walk; very weak; body clean without macula and on the face almost invisible light-red macula. No expression of a leper patient. Contraction of fingers and toes far gone. This kind of leprosy, named *L. mutilans*, very seldom affects face or body in any way. Parents healthy. Patient has no children. Treatment, forty-one days.

Present condition: All wounds are closed and the loss of other toes or fingers stopped; swelling of feet disappeared entirely; no anaesthesia; macula on the face slight; patient improving in health.

Patient No. 7. Cheong Fat, 47 years of age, born in Sen On. At the age of 25, whilst a laborer in Queensland, anaesthesia of the skin on lower extremities and feet; intense rheumatic pains all over body and limbs; three years later feet covered with ulcers, healing somewhat by use of hot bath. After a few months arms covered with ulcers and at the age of 40 years all mucous membranes inflamed. Conjunctivitis, swelling of the ears, and large red spots on the face, fingers beginning to lose phalanges.

In this state he left Queensland and reached the leper village, living there for the past seven years. Parents clean. Treatment forty-one days.

Present condition. All spots and wounds healed up. Face and ears normal. Conjunctivitis somewhat improving. No anaesthesia. Loss of phalanges stopped. Patient improving.

Patient No. 8 Tsat Shing, 28 years old; born in Man Jaw district Manchurian descendant; single; an active soldier since his sixteenth year. Two years ago anaesthesia on legs and feet, with a few ulcers; skin without macula, but lustering; face shows high elevated separated nodula of dark-brown color with a fatty infiltration; expression of face leonin, ears swollen, enlargement of glands all over. Mucous membranes slightly inflamed, patient weak; had never lived in the leper village. Parents healthy. Treatment, thirty-five days.

Present conditions: Wounds on the legs healed up. Anaesthesia slowly disappearing; nodula on the face but little improvement yet. Less oedema of the ears and enlargement of glands much reduced. Patient's strength fairly good. Otherwise in good health.

Patient No. 9. Hing Ten, born thirty-seven years ago in Tungong; single. Two years ago, anaesthesia of the skin on both feet and legs. After one year, dry black spots all over the body. Face covered with copper-blue nodula, with some fatty infiltration; no swellings, patient weak. Parents healthy. Treatment, thirty-one days. Patient never lived in the leper village.

Present condition. Anaesthesia of the skin improving, nodula somewhat reduced, dry black macula on body slowly getting smaller and light. Patient improving slowly but surely. Otherwise in good health.

Patient No. 10. Lyoung Lieng, born twenty-eight years ago, Namboi; single. Eight years ago black dry anaesthesia spots all over the body; after two years nodula, dark blue, on face and ears, with oedema. Toes and fingers covered with ulcers and beginning to lose phalanges; atrophia of the toes; suppurating corns; pain in the muscles and bones; face expression leonin. Parents healthy. Treatment, twenty-eight days. Patient was not living in the leper village before, but is now there as are all the others.

Present condition: Ulcers and suppurating corns healed up; nodula and anaesthesia spots slowly diminishing. Loss of phalanges stopped; contraction of the hand still the same. Where nodula disappear, deep seated spots are left. Patient improving in health.

Patient No. 11. Li Ghee, 34 years of age, born in Sang Wai; single. After living ten years in Singapore red spots appeared on the face and body with swelling of face and ears. After staying in Singapore in the Java Hospital without any treatment in the course of three months all swelling went down, but spots appeared all over the body again. The spots are white, surrounded by red circles about the size of a dollar. Anaesthesia and lustering skin all over the body. Skin has a dark and dry appearance. Small ulcers on the feet. Mucous membranes inflamed. Parents clean. Treatment, thirty-eight days.

Present condition: Ulcers healed up, the white red spots getting dark; mucous membranes still inflamed. Patient very slow in improving.

Patient No. 12. Lao Yew, born thirty-one years ago in Canton. One year ago red spots appeared on left cheek, shortly after that feet and hands and all the body covered with high-elevated but also deep-seated nodula of red blue color. Condition of toes and fingers indicate development of *L. mutilans*; ears inflamed and swollen; mucous membranes somewhat excited. Parents clean. Treatment, three months. Discharged and entered as cook in the leper village.

Present condition: All nodula disappeared, but left distinctly signs where the nodula were; inflammation of mucous membranes gone; ears as well as toes and fingers normal. Patient able for hard work; in good health.

Patient No. 13. Kong Kiet, born forty-six years ago in Pung Yun; single. At the age of 27 years anaesthesia of skin on both feet and arms; red circular spots all over the body; suppurating corns on hands and feet; intensive rheumatic pain, and after ten years contraction of hands and toes muscular atrophy, paralytic walk. Most of his phalanges he lost while trying to walk. Spots changing now to dark, dry skin; patient very neglected and helpless. Parents died thirty years ago; were not lepers. He has lived in Leprotown for seventeen years.

Present condition: Wounds beginning to heal nicely. Other condition unchanged, as he came under treatment only eight days ago. Health somewhat improving.

Patient No. 14. Tzi Sieng, Kwong Sy Province, born twenty-five years ago. Eight months ago patient ate with three other fellows a kind of snake about 3 feet long and 1½ inches thick. Two of them died in the course of one week; about the third man nothing is known what happened.

This kind of snake is regarded as a common meal in the interior of his province, and it is doubtful whether it was caused by the snake or something else. Very likely it seems that to catch the snake some poison was posted.

Soon after this headache and fever started, and in a few weeks on various parts of the body appeared deep flesh-penetrating sores. In such condition I received the patient. Abdomen, chest, face, and hands show 17 sores.

He is not leprous, but I took him as an extraordinary case. Treatment three weeks. Patient improving rapidly. Recovery in about two weeks.

The foregoing is respectfully submitted.

Respectfully,

ROBERT M. MCWADE,
United States Consul.

P. S.—Through Dr. Razlag's sickness and absence in Hongkong, this report was delayed awaiting his final corrections.

The ASSISTANT SECRETARY OF STATE.

NOTE.—For previous notices of Dr. Razlag's work see PUBLIO HEALTH REPORTS for July 25, page 1743, and August 8, page 1839, for year 1902.

Report from Hongkong.

P. A. Surg. John McMullen reports, December 16, as follows: Week ended December 13, 1902. Nine vessels were inspected; 159 steerage passengers and 535 crew were bathed at the disinfecting station, and 821 pieces of baggage were disinfected. Two cases and 2 deaths (Chinese) from cholera were reported in the colony during the time covered by this report. For the same period there were 2 cases of enteric fever reported and 1 case of diphtheria—all European—with no deaths.

The SURGEON-GENERAL.

CUBA.

Revocation of military order No. 159—Appointment of superior sanitary board.

[Translation—Department of Government—Decree No. 1.]

HAVANA, CUBA, *January 2, 1903.*

Assistant Surgeon Trotter reports the following :

“In virtue of the provisions of articles 1 and 3, first section of military order No. 159 (a), series of 1902, with the object of proceeding with the constitution of the superior sanitary board of the island of Cuba, and as proposed by the secretary of Government, I have to promulgate the following :

“Article 1. The nominations of the members of the superior sanitary board of the isle of Cuba, made under military order No. 179, of the date of March 18 last, being of a temporary character pending their approbation by the Government of the Republic, are hereby revoked.

“Art. 2. The following are appointed as active members of the superior sanitary board of the island of Cuba: Dr. Carlos J. Finlay, as chief of sanitation of the island; Dr. Joaquin L. Dueñas, as resident member in the city of Havana and in his capacity of president of the special commission of hygiene of the island of Cuba; Dr. Enrique B. Barnet, as resident member in the city of Havana, and Drs. Juan Guitéras and Ambrosio Grillo, representing the western and eastern parts of the

^a For military order No. 159, see PUBLIC HEALTH REPORTS for June 13, 1902, page 1381.

island, respectively. Drs. Guitéras, Grillo, and Barnet will hold office for a period of two, three, and four years, respectively.

"Art. 3. The following persons, because of their official positions, are appointed as honorary members of the aforesaid superior sanitary board: Dr. Hugo Roberts, first physician of the port of Havana, and Dr. Joaquin L. Jacobsen, president of the league against tuberculosis. In representation of the respective corporations, Dr. Juan Santos Fernandez, for the academy of sciences of Havana; Dr. José Varela Zequeira, for the university; Dr. Gonzalo Arostegui, for the board of education, and Dr. José del Cueto y Pazos, professor of law, for the law faculty.

"Art. 4. The superior sanitary board of the island of Cuba will act as a dependency (bureau) of the department of Government (interior) in accordance with the provisions of decree No. 11, of this presidential office, dated May 20 last.

"Art. 5. The secretary of Government will dictate the necessary measures to give possession of the offices to the gentlemen appointed, and will propose what is deemed necessary to establish this dependency (bureau) and the offices of the superior sanitary board, in harmony with the fundamental law of the Republic.

"T. ESTRADA PALMA.

"EDUARDO YERO, *Secretary of Government.*"

EGYPT.

Management of the cholera epidemic.

Asst. Surg. Victor G. Heiser reports from Alexandria, January 6, as follows: The manner in which the epidemic was managed is very instructive and shows what may be accomplished when modern scientific measures are vigorously applied.

The first case of cholera was reported in the interior of Egypt, July 15, 1902. The disease spread rapidly to all parts of the country. The rapid spread is attributed to the fact that the facilities for getting about from place to place have improved very much since the last epidemic. By the middle of September there were more than 1,500 new cases per day. After that period, as the sanitary measures became perfected, there was a rapid decline in the number of cases. By December 1, the disease had been entirely stamped out, with the exception of a few cases at Alexandria and at a small number of the villages. By January there was only an occasional case at Alexandria. The total number of cases reported to date for all Egypt, was 39,892; total number died, 33,986; total number recovered, 5,906.

The general opinion among the sanitary authorities is that water and possibly a few food products are the only means by which the diseases were spread. The principal food products suspected are those which are generally washed with water, such as dates, lettuce, etc. It is not believed that the Nile was infected, or at least only locally here and there. Experiments made here recently seem to indicate that any running stream of the size of the Nile does not become sufficiently infected to convey such a disease as cholera. The experiments consisted in placing large numbers of the bacillus prodigiosus in running water and attempting to recover the organism a short distance below. The results were always negative. Of course the technical difficulties connected with an experiment of this kind must be borne in mind.

The measures employed to combat the epidemic were isolation, disinfection, and the supplying of drinking water free from cholera germs.

The wells were considered the principal source of infection. More than 10,000 of these were disinfected in Cairo alone. Taps from which free drinking water could be obtained were temporarily constructed in all the infected districts of Cairo. In order to still further discourage the consumption of well water, fire engines were used to pump water from the Nile. In districts where this was done there was an almost immediate falling off in the number of cases. In the villages, artesian wells were bored and the water from them alone used. The disease in such places was checked almost immediately. It is also interesting to observe that the city of Tanta, which in previous epidemics has always had a large number of cases, was entirely free from the disease during this epidemic. The reason for this improved condition of affairs is ascribed to the fact that the water supply is derived from an artesian well which had been bored before the outbreak of the epidemic.

Persons afflicted with cholera were immediately taken to an isolation hospital. In Cairo a number of schools were used for hospitals. All fabrics found in the infected houses were taken to the disinfecting station and disinfected with steam. All containers for fluids were broken and new ones issued in their stead. These containers in Egypt usually consist of earthenware and it is not deemed practical to disinfect them. The floors of the houses were sprinkled with a 1 to 1,000 perchloride of mercury solution. The walls to a height of about 5 feet were treated in a similar manner. This was followed by whitewashing, with a freshly prepared solution of unslacked lime, the surfaces of which had been previously sprinkled with the mercury solution.

The wells were disinfected either with permanganate of potassium or lime solution, the principal object being to so discolor the water in the wells that the natives would not drink it. When those measures were not effective sulphuric acid was poured into the wells.

In the neighborhood of Cairo the Nile was patrolled by guards and vessels in order to prevent people from infecting it with dejecta or otherwise. The dead were wrapped in sheets saturated with perchloride of mercury solution.

I have to thank Sir Horace Pinching and his assistants for showing me about the disinfecting station and supplying me with the data contained in this report.

The SURGEON-GENERAL.

GERMANY.

BERLIN, *January 8, 1903.*

Consul-General Mason reports as follows: The death rate of Berlin for the week ended December 27, 1902, was somewhat higher than in the foregoing week, amounting to 16.7 per 1,000 inhabitants—considerably higher than for the corresponding week of the previous year, in which it only amounted to 15.1. In spite of this increase, however, only 2 of the large German cities showed in the Christmas week more favorable health conditions than Berlin, namely, Leipsig and Schöneberg (with 10.3 per 1,000 inhabitants). Dresden, Nürnberg, Charlottenburg (with 19.3), London, Munich, Stuttgart, Cologne, Hamburg, Königsberg, as well as Paris and Vienna, all had higher mortality rates than Berlin. The participation of children in their first year in the mortality was less than in the foregoing week, the increase in the

number of deaths being confined to the higher age classes. The mortality rate among infants fell from 4.7 to 4.4 per 1,000, being thereby only half that of Essen, Munich, and Stettin. There was no important change in the number of cases of acute diseases of the respiratory organs and acute intestinal diseases—the former causing 81, the latter 39 deaths. The statistics showed an important abatement of influenza, which caused during this week 10 deaths as compared with 16 in the foregoing week. Seventy-seven deaths were caused by consumption. Since the previous week, there was a slight increase in the number of cases of measles and diphtheria—the former causing 9, the latter 3 deaths. Scarlet fever claimed 5 victims, and 3 persons died by violence during the Christmas week.

Plague and cholera in various countries.

BERLIN, GERMANY, *January 10, 1903.*

Plague.

BRITISH INDIA.—In the Bombay presidency during the week ended December 13, there were registered 8,631 new plague cases and 6,544 deaths, of which 134 cases (128 deaths) occurred in the city of Bombay and 15 cases (10 deaths) in the town and port of Karachi.

QUEENSLAND.—During the week ended November 30, 1 death from plague was registered in Townsville.

Plague and cholera.

BRITISH INDIA.—In Calcutta during the week ended December 6, 25 persons died of plague and 51 died of cholera.

Cholera.

TURKEY.—According to the eighth official bulletin regarding cholera in Palestine, there were registered in Jaffa, between December 8 and December 14, 27 deaths from cholera; in Jerusalem, on December 11, 1 death; in Jericho, between December 6 and December 11, 6 deaths, and in 14 other districts of the Sandschack of Jerusalem, 993 deaths; in Amman, between December 8 and December 11, there were registered 15 deaths from cholera; at Salt and Adjilam, between December 3 and December 7, 8 deaths; at Acre, 13 deaths, and at Redjid, between December 4 and December 7, 17 deaths from cholera were recorded.

According to the ninth official bulletin of December 23, 43 more deaths from cholera were recorded, among which 10 occurred in Jaffa, 3 in Jericho, 3 in Ragheb, and 18 deaths in other districts; 5 deaths in Amman, between December 13 and December 21, and 4 in 2 districts of the Sandschack of Acre. The total number of deaths occurred in Palestine since the outbreak of the disease in October, 1902, amounted, according to the bulletin of December 23, to 3,407.

EGYPT.—During the period from December 9 to December 22, there were recorded, according to the official reports, in the whole of Egypt, 77 new cholera cases and 65 deaths.

DUTCH INDIA.—In Soerabaya, between November 16 and November 29, there were registered 87 fresh cholera cases and 55 deaths.

BERLIN, GERMANY, *January 8, 1903.*

GREAT BRITAIN.—The board of agriculture, by virtue and in exercise of the powers in them vested under the diseases of animals acts, 1894

and 1896, and of every other power enabling them in this behalf, do order, and it is hereby ordered, as follows :

Animals from certain States in the United States of America prohibited.

1. Unless and until the board otherwise order, it shall not be lawful to land any animal brought from the following States in the United States of America, namely: the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island, and the first schedule (prohibited countries and parts of countries) to the foreign animals order of 1896 shall be read and have effect as if the said 6 States were included in the list of prohibited countries and parts of countries mentioned in that schedule.

Interpretation.

2. In this order terms have the same meaning as in the foreign animals order of 1896.

Commencement.

3. This order shall come into operation on the fifth day of December, one thousand nine hundred and two.

Short title.

4. This order may be cited as the foreign animals (amendment) order of 1902 (No. 2)

In witness whereof the board of agriculture have hereunto set their official seal this twenty-eighth day of November, one thousand nine hundred and two.

T. H. ELLIOTT, *Secretary.*

The SURGEON-GENERAL.

HAWAII.

Quarantine report, month of December, 1902.

Port of Honolulu.—Incoming quarantine: Vessels inspected from foreign ports, 16; vessels inspected from domestic ports, 27; crew inspected, 3,481; cabin passengers inspected, 833; steerage passengers and stowaways inspected, 3,619; sick in detention from last month, none; in detention from last month, none; sick in detention for this month, 1; in detention for this month, 385; pieces of baggage disinfected, 1,540; packages of freight disinfected, none; vaccinations, 520.

Port of Hilo.—Vessels inspected, 4; crew inspected, 77; passengers inspected, 34; vessels remanded, none.

Port of Kahului.—Vessels inspected, 2; crew inspected, 34; passengers inspected, 1; vessels remanded, none.

Port of Kihai.—Vessels inspected, none; crew inspected, none; passengers inspected, none; vessels remanded, none.

Port of Lahaina.—Vessels inspected, 2; crew inspected, 33; passengers inspected, 4; vessels remanded, none.

Port of Koloa.—Vessels inspected, none; crew inspected, none; passengers inspected, none; vessels remanded, none.

L. E. COFER,

Passed Assistant Surgeon,

Chief Quarantine Officer, Hawaiian Islands.

The SURGEON-GENERAL.

JAPAN.

*Plague reported in Tokyo.*YOKOHAMA, JAPAN, *December 27, 1902.*

SIR: I have the honor to report that the newspapers state that 5 cases of pest with 1 death have recently occurred in Tokyo.

No official confirmation of the above has been received by me.

Newspaper clippings relative to the alleged outbreak (taken from The Japan Times, the only daily newspaper published in English in Tokyo), are inclosed.

For the week ended December 20, bills of health were granted 8 vessels, having an aggregate personnel of 811 crew and 1,119 passengers. The official report of infectious diseases for Yokohama for the above period notes the following cases: Enteric fever, 3 cases, no deaths; diphtheria, 5 cases, no deaths.

Respectfully,

DUNLOP MOORE,
Assistant Surgeon.

The SURGEON-GENERAL.

KOREA.

Concerning quarantine for cholera.

[No. 11—Consular.]

SEOUL, KOREA, *December 1, 1902.*

SIR: Referring to my dispatches Nos. 99, consular, of June 28 last, and 4, consular, of August 9 last, regarding the enforcement of quarantine regulations against vessels arriving from the ports of China, including Hongkong, from Japan, and from Russian ports in the Liaotung Peninsula, I have the honor to inform you that I have been officially notified by the commissioner of customs at Chemulpo that such quarantine regulations have been discontinued from the date of November 22 last. Cholera, which was prevalent throughout Korea during the months of August, September, and October, and the early part of November, has not entirely disappeared.

Respectfully,

GORDON PADDOCK,
Vice and Deputy Consul-General.

The ASSISTANT SECRETARY OF STATE.

MEXICO.

Certain localities reported free from plague.

[Telegram.]

GUAYMAS, MEXICO, *January 26, 1903.*

WYMAN, *Washington:*

Will probably be week before boat to Topolobampo. Can not locate Topolarico. Favela, Mexican bacteriologist, arrived here to-day direct from Topolobampo, Agiabampo, Apome, Mochicahai and vicinity. Have read his report; few cases disease scarlatina-form eruption; no plague.

GRUBBS.

PHILIPPINE ISLANDS.

Weekly report of outgoing quarantine at Manila, P. I., instituted for the protection of other Philippine ports on account of the prevalence of cholera in Manila—Week ended December 6, 1902.

Number of vessels remaining in quarantine from last week (a), 6; vessels entering quarantine during the week, 12; vessels discharged from quarantine, 10; vessels sailing for infected ports without quarantine, inspected and passed, 45; crew entering quarantine during the week, 349; cabin passengers entering quarantine during the week, 6; steerage passengers entering quarantine during the week, 72; crew inspected during the week, 2,367; passengers inspected during the week, 1,059; vessels disinfected during the week, none; vessels remanded to Mari-veles Quarantine Station, none; cases of quarantinable diseases occurring among persons in detention, cholera, none; pieces of baggage disinfected, 1,340; pieces of baggage inspected and passed, 450; vessels remaining in quarantine December 6, 8.

J. C. PERRY,

Passed Assistant Surgeon,

Chief Quarantine Officer for the Philippine Islands.

The SURGEON-GENERAL.

PORTO RICO.

Vital statistics of San Juan, P. R., for the month of December, 1902.

Assistant Surgeon King reports January 6, for the month of December, 1902, as follows:

Anæmia, 2; aortic insufficiency, 2; athrepsia, 3; bronchitis, 2; cachexiæ, 3; cancer of the tongue, 1; cancer of the neck, 1; cardiac lesion, 2; cerebral embolism, 1; chronic alcoholism, 1; cianosis, 1; dropsy, 2; eclampsia, 1; endocarditis, 3; enterocolitis, 6; enteritis, 2; epilepsy, 1; gastro-enteritis, 6; hemorrhage, internal, 1; hemorrhage, traumatic, 1; leprosy, 1; locomotor ataxia, 1; mitral insufficiency, 4; nephritis, 1; old age, 2; paralysis, 4; pernicious fever, 2; pneumonia, 2; rachitis, 2; stomatitis, 1; tetanus, 2; tubercle of lungs, 5. Total, 69.

December, 1901, births, 77; deaths, 64.

December, 1902, births, 73; deaths, 69.

The SURGEON-GENERAL.

Mortality statistics of Ponce.

Assistant Surgeon Goldberger reports for the month of December 1902, as follows:

Ponce jurisdiction (city, playa, and surrounding country). Digestive system, 27; respiratory system, 11; circulatory system, 4; nervous system, 2; anæmia, malnutrition, inanition, 10; malaria, 5; tuberculosis, 6; cancer, 2; nephritis, 1; septicæmia, puerperal, 1; metritis, 4; burns, 1; obstruction of intestines, 1; ankylostomiasis, 1; syphilis, 1. Total, 76.

December, 1901, births, 157; deaths, 98.

December, 1902, births, 126; deaths, 76.

The SURGEON-GENERAL.

^a Vessels for clean ports are held in quarantine five days before being allowed to sail and inspected daily; vessels for badly infected ports are inspected and cleared without quarantine.

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

AFRICA—*Lourenço Marquez.*—Month of November, 1902. Estimated population, 7,000. Total number of deaths, 29. No deaths from contagious diseases reported.

BRAZIL—*Pernambuco.*—Two weeks ended November 30, 1902. Estimated population, 200,000. Total number of deaths, 217, including enteric fever, 2; smallpox, 5, and 45 from phthisis pulmonalis.

BRITISH COLUMBIA—*Victoria.*—Month of December, 1902. Estimated population, 21,000. Total number of deaths, 11. No deaths from contagious diseases.

EGYPT—*Alexandria.*—Two weeks ended December 26, 1902. Estimated population, 335,000. Total number of deaths, 360, including 16 from cholera.

FRANCE—*Roubaix.*—Month of December, 1902. Estimated population, 124,660. Total number of deaths, 210, including diphtheria, 2; scarlet fever, 1; whooping cough, 4, and 26 from smallpox.

Rouen.—Month of November, 1902. Estimated population, 116,316. Total number of deaths, 236, including enteric fever, 3, and 48 from tuberculosis.

GREAT BRITAIN—*England and Wales.*—The deaths registered in 76 great towns in England and Wales during the week ended January 3, 1903, correspond to an annual rate of 20.0 per 1,000 of the aggregate population, which is estimated at 14,862,880.

London.—One thousand eight hundred and thirty-four deaths were registered during the week, including measles, 54; scarlet fever, 12; diphtheria, 29; whooping cough, 61; enteric fever, 14, and diarrhea, 20. The deaths from all causes correspond to an annual rate of 20.9 per 1,000. In Greater London 2,539 deaths were registered. In the "outer ring" the deaths included 7 from diphtheria, 10 from measles, 1 from scarlet fever, 10 from whooping cough, and 6 from diarrhea.

Ireland.—The average annual death rate represented by the deaths registered during the week ended January 3, 1903, in the 21 principal town districts of Ireland was 28.9 per 1,000 of the population, which is estimated at 1,092,401. The lowest rate was recorded in Queens-town, viz, 0.0, and the highest in Newry, viz, 46.2 per 1,000. In Dublin and suburbs, 224 deaths were registered, including diphtheria, 4; enteric fever, 1; measles, 9; scarlet fever, 4; typhus fever, 1; whooping cough, 1, and 37 from tuberculosis.

Scotland.—The deaths registered in 8 principal towns during the week ended January 3, 1903, correspond to an annual rate of 21.6 per 1,000 of the population, which is estimated at 1,679,923. The lowest mortality was recorded in Perth, viz, 17.0, and the highest in Greenock, viz, 27.8 per 1,000. The aggregate number of deaths registered from all

causes was 707, including diphtheria, 13; measles, 10; scarlet fever, 3, and 33 from whooping cough.

ITALY—*Milan*.—Month of November, 1902. Estimated population, 504,653. Total number of deaths, 834, including diphtheria, 17; enteric fever, 25; scarlet fever, 1; smallpox, 1, and 79 from tuberculosis.

JAMAICA—*Kingston*.—Month of December, 1902. Estimated population, 46,542. Total number of deaths, 101, including 14 from phthisis pulmonalis.

MALTA.—Two weeks ended December 27, 1902. Estimated population, 189,749. Total number of deaths, 205, including diphtheria, 2, and 3 from enteric fever.

SPAIN—*Corunna*.—Month of December, 1902. Estimated population, 50,000. Total number of deaths, 121, including enteric fever, 6, and 28 from tuberculosis.

Valencia.—Four weeks ended December 31, 1902. Estimated population, 204,000. Total number of deaths, 480, including 6 from enteric fever.

Vigo.—Month of December, 1902. Estimated population, 22,000. Total number of deaths, 45. No deaths from contagious diseases reported.

Cholera, yellow fever, plague, and smallpox, December 27, 1902, to January 30, 1903.

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

[For reports received from June 28, 1902, to December 26, 1902, see PUBLIC HEALTH REPORTS for December 26, 1902.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Dutch India:				
Java, Batavia	Oct. 26-Dec. 13	155	103	
Egypt:				
Alexandria.....	Nov. 25-Jan. 5		93	
Damietta.....	do.....		10	
Behera Province.....	do.....		5	
Gharbieh Province.....	Dec. 2-Jan. 5		2	
Guirgush Province.....	Dec. 25-Jan. 5		29	
Keneh Province.....	Nov. 25-Jan. 5		7	
India:				
Bombay.....	Nov. 19-Dec. 23		5	
Calcutta.....	Nov. 16-Dec. 13		154	
Japan:				
Hiogo.....	Nov. 9-Nov. 23	3	2	
Philippine Islands:				
Manila.....	Nov. 2-Dec. 6	338	251	
Provinces.....	do.....	1,610	1,022	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 13		82	

YELLOW FEVER.

Colombia:				
Panama.....	Dec. 16-Jan. 12	19	5	
Ecuador:				
Guayaquil.....	Dec. 1-Jan. 3		48	
Mexico:				
Coatzacoalcos.....	Dec. 7-Dec. 13	1		
Mexico.....	Dec. 8-Dec. 14		3	
Tampico.....	Dec. 7-Jan. 17		40	
Tuxpam.....	Dec. 24-Dec. 30		1	
Vera Cruz.....	Dec. 14-Jan. 17	43	17	

PLAGUE.

Australia:				
Queensland, Brisbane.....	July 31-Aug. 31	1	1	
Hawaiian Islands:				
Honolulu.....	Dec. 31.....		1	
India:				
Bombay Presidency and Sind—				
Northern Division.....	Nov. 8-Dec. 13	4,289	3,395	Ten cases imported.
Central Division.....	do.....	15,588	12,034	
Southern Division.....	do.....	15,523	11,652	Four cases imported.
Sind.....	do.....	189	144	Three cases imported.
Political charges.....	do.....	7,025	4,918	One hundred and sixty-one cases imported.
Madras Presidency.....	do.....	2,079	1,632	
Bengal—				
Presidency.....	do.....	74	72	Including 5 imported seizures.
Bhagalpur.....	do.....	310	268	Including 12 imported seizures.
Patna.....	do.....	3,820	3,173	Imported.
Chota Nagpur.....	Dec. 6-Dec. 13	1	1	
Upper Province of Agra and Oudh—				
Allahabad.....	Nov. 8-Dec. 13	4,208	3,843	
Benares.....	do.....	1,124	1,078	
Fyzabad.....	do.....	55	50	
Gorakhpur.....	do.....	813	653	
Meerut.....	do.....	195	152	
Lucknow.....	do.....	200	139	
Agra.....	do.....	61	36	
Punjab—				
Jullunder.....	do.....	4,505	2,289	
Lahore.....	do.....	5,212	2,765	
Rawalpindi.....	do.....	960	567	
Delhi.....	do.....	2,493	1,761	

Cholera, yellow fever, etc.—Continued.

PLAGUE—continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<i>India—Continued.</i>				
<i>Central Provinces—</i>				
Narbada.....	Nov. 8-Dec. 13	34	24	Two cases imported.
Mysore State.....	do	6,895	4,916	
Hyderabad State.....	do	3,816	3,108	
Berar.....	do	1,669	1,298	
Rajputana.....	Nov. 15-Dec. 13	6	6	One case imported. Eight cases imported.
Central India.....	Nov. 8-Dec. 13	92	53	
Kashmir.....	Nov. 15-Dec. 13	95	73	
Mauritius.....	Dec. 5-Dec. 11	25	16	
<i>Mexico:</i>				
Ensenada.....	Dec. 25.....	14	13	Reported.
Mazatlan.....	Dec. 31.....			

SMALLPOX.

<i>Argentina:</i>				
Barbados.....	July 1-Dec. 20	1,393	112	
Buenos Ayres.....	Oct. 1-Oct. 31		12	
<i>Austria-Hungary:</i>				
Prague.....	Nov. 23-Jan. 3	72	1	
<i>Belgium:</i>				
Antwerp.....	do	21	8	
Brussels.....	Dec. 1-Dec. 27		4	
Ghent.....	Nov. 23-Dec. 13		6	
<i>Brazil:</i>				
Bahia.....	Nov. 16-Dec. 27	20	1	
Pernambuco.....	Nov. 1-Nov. 30		14	
<i>Canada:</i>				
Manitoba, Winnipeg.....	Dec. 14-Jan. 3	2		On ss. Assyria.
Nova Scotia, Halifax.....	Dec. 24.....	1		
Ontario, Amherstburg.....	Jan. 11-Jan. 17	2		
Quebec.....	Dec. 21-Dec. 27	2		
<i>China:</i>				
Shanghai.....	Nov. 30-Dec. 6	1		
<i>Ecuador:</i>				
Guayaquil.....	Nov. 23-Dec. 20		5	
<i>France:</i>				
Marseille.....	Nov. 1-Nov. 30		37	
Paris.....	Dec. 14-Dec. 20		1	
Roubaix.....	Dec. 1-Dec. 31		26	
Gibraltar.....	Nov. 21-Nov. 30	1		
<i>Great Britain:</i>				
Birmingham.....	Dec. 1-Jan. 10	6		From a vessel.
Bradford.....	do	34		
Cardiff.....	Dec. 20-Dec. 27	1		
Dublin.....	Dec. 20-Jan. 10	2		
Dundee.....	Dec. 1-Jan. 3	6		
Edinburgh.....	Dec. 1-Dec. 6	1		
Glasgow.....	Jan. 9-Jan. 16	1		
Leeds.....	Dec. 1-Jan. 10	46	2	
Liverpool.....	To Jan. 10.....	134	9	
London.....	Dec. 1-Jan. 10	17	1	
Manchester.....	do	24		
Sheffield.....	Dec. 1-Jan. 17	17		
<i>Hawaiian Islands:</i>				
Honolulu.....	Dec. 21.....	1		On ss. Solace.
<i>India:</i>				
Bombay.....	Nov. 19-Dec. 23		22	
Calcutta.....	Nov. 16-Dec. 6		3	
Karachi.....	Nov. 24-Nov. 30	1		
Madras.....	Nov. 15-Dec. 19		3	
<i>Italy:</i>				
Milan.....	Nov. 1-Nov. 30	1	1	
Palermo.....	Nov. 23-Dec. 27	48	4	
Malta.....	Nov. 24-Nov. 30	1		
<i>Mexico:</i>				
City of Mexico.....	Dec. 1-Jan. 11	16	12	
<i>Russia:</i>				
Moscow.....	Nov. 16-Dec. 27	13	6	
Odesa.....	Nov. 23-Jan. 3		9	
St. Petersburg.....	do	78	10	
<i>Spain:</i>				
Canary Islands, Las Palmas.....	Dec. 7-Dec. 13	2		
<i>Straits Settlements—</i>				
Singapore.....	Nov. 1-Dec. 13		17	
<i>Turkey:</i>				
Constantinople.....	Nov. 24-Dec. 14		4	
<i>Uruguay:</i>				
Montevideo.....	Nov. 2-Nov. 8	16	1	

Weekly mortality table, foreign and insular cities.

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.			
Acapulco.....	Jan. 10	6,000	8														
Alexandretta.....	Dec. 27	9,000	7														
Amherstburg.....	Jan. 17	2,250	1														
Amsterdam.....	Jan. 8	533,304	208	15											8		3
Antwerp.....	Dec. 27	285,621	78					1						1			1
Athens.....	do.....	200,000		9					7	1							1
Bahia.....	Dec. 20	230,000	85	12													
Do.....	Dec. 27	230,000	84	13										1			
Beirut.....	Dec. 20	80,000	16														
Do.....	Dec. 27	80,000	20														
Belize.....	Jan. 15	9,000	3														
Belleville.....	Jan. 12	9,300	8														
Bergen.....	Jan. 8	73,000	24	5													
Berlin.....	Dec. 20	1,931,622	598	16											6	2	11
Birmingham.....	Jan. 8	528,181	208												6	3	4
Bombay.....	Dec. 16	776,006	708		122	1		2		1						28	2
Do.....	Dec. 23	776,006	724		121	2		8								25	3
Bristol.....	Jan. 8	334,632	141												2	3	2
Brussels.....	Dec. 27	562,895	189					2		1				1	1	10	1
Budapest.....	Dec. 23	729,383												3	6	3	
Calcutta.....	Dec. 13	847,796	643		18	35											
Callao.....	Nov. 23	30,000	22														
Do.....	Nov. 30	30,000	15														
Do.....	Dec. 7	30,000	21														
Do.....	Dec. 14	30,000	20														
Do.....	Dec. 21	30,000	20														
Do.....	Dec. 28	30,009	18														
Cartagena.....	Jan. 4	8,400	19	2													
Catania.....	Jan. 1	153,523	88							3							
Christiania.....	Dec. 27	226,000	77												1	19	2
Coatzacoalcos.....	Jan. 10	3,000	7														
Cognac.....	Dec. 27	19,483	10							1							
Do.....	Jan. 8	19,483	11	1													
Cologne.....	do.....	390,432	179	45						2	3	2	15				
Colon.....	Jan. 11	8,000	9														
Constantinople.....	Dec. 28	800,000	299							2	1	2	1				
Corunna.....	Jan. 3	44,000	30	5						2		1	2				
Curaçao.....	do.....	31,013	8														
Dublin.....	do.....	373,761	224	37					1	1	4	4	9	1			2
Dundee.....	do.....	162,805	70									2	2				1
Edinburgh.....	Dec. 27	322,966	128							1	1	1	2	1			1
Do.....	Jan. 8	327,441	118									4	1	4			1
Flushing.....	do.....	19,227	10														
Geneva.....	Dec. 20	107,484	36									2					
Girgenti.....	Dec. 27	25,069	10														
Glasgow.....	Jan. 2	775,601	343							5	1	3	2				16
Do.....	Jan. 9	775,601	352							1	2	4					26
Guayaquil.....	Jan. 3	60,000		5		9											
Halifax.....	Jan. 17	40,787	24														
Hamilton, Bermuda.....	Jan. 18	16,113	2														
Havana.....	Jan. 10	236,000	96	23									1				
Havre.....	Dec. 27	180,196	70	16						1						10	
Karachi.....	Dec. 14	106,644	162		14												
Kingston, Canada.....	Jan. 16	19,364	10														
La Palma.....	Dec. 20	5,897	4														
La Rochelle.....	Dec. 28	31,553	9	1													
Lausanne.....	Dec. 20	48,494	9														
Leeds.....	Jan. 8	437,036	156	10						3	1	3	5				
Leith.....	Dec. 27	78,605	30	4									1				
Lioata.....	Dec. 20	24,500	10							1	2						
Do.....	Dec. 27	24,500	11	1							2						
Liege.....	do.....	162,418	37	8													
Liverpool.....	Jan. 3	710,337	307							3	3	2	7	4	14		5
Livingston, Guatemala.....	Jan. 5	3,000	0														
Do.....	Jan. 12	3,000	1														
London.....	Jan. 8	6,705,731	2,539									20	14	41	67		33
Lyons.....	Dec. 20	500,000	201	34										1			
Do.....	Dec. 27	500,000	200	28						3		1	1				
Madras.....	Dec. 5	509,346	372					1								2	
Do.....	Dec. 12	509,346	363					1								1	
Do.....	Dec. 19	509,346	386														
Mains.....	Dec. 27	85,000	34	6								1					1
Do.....	Jan. 8	85,009	38	3													7
Manchester.....	do.....	550,355	221	26								3	2	10			

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.			
Mannheim.....	Dec. 20	145,237	56														
Do.....	Dec. 27	145,237	62														
Mazatlan.....	Dec. 20	20,000	54														
Do.....	Dec. 27	20,000	52														
Messina.....	Dec. 28	109,000	23	1													
Mexico.....	Jan. 11	368,777	343	24				2	19							1	3
Moscow.....	Dec. 20	1,173,427	528	14				1	1			16	4	18	5	4	
Do.....	Dec. 27	1,173,427	567	16				1			12	15	21	5			
Newcastle-on-Tyne.....	Jan. 3	219,021	89									1					2
Nottingham.....	Dec. 20	239,753	78										1				1
Do.....	Dec. 27	239,753	83														1
Do.....	Jan. 3	239,753	81								1						1
Odesa.....	Dec. 27	458,000	175	18				2			1	12	4	3			
Palermo.....	do.....	330,000	144					1			1	1					
Panama.....	Jan. 5	20,000						1									
Do.....	Jan. 12	20,000															
Paris.....	Dec. 27	2,660,559	1,010								5	1	12	7			1
Do.....	Jan. 3	2,660,559	861								8	1	6	2			4
Plymouth.....	do.....	108,000	34														
Port au Prince.....	Dec. 15	60,000	30														
Do.....	Dec. 22	60,000	40														
Do.....	Dec. 29	60,000	25														
Do.....	Jan. 3	60,000	32														
Prague.....	Dec. 27	230,467	136	24							1	4					
Puerto Cortez.....	Jan. 15	2,000	1														
Rheims.....	Dec. 28	108,385	50	16								1	1				
Rotterdam.....	Jan. 3	346,866	131														
St. Georges, Bermuda.....	do.....	2,189															
St. John, New Brunswick.....	Jan. 17	40,711	15	3													
St. Petersburg.....	Dec. 27	1,310,540	660	104							2	11	16	14	16		2
St. Stephen, New Brunswick.....	Jan. 17	2,840	1														
Santa Cruz de Teneriffe.....	Dec. 27	36,500	10	3													
Santander.....	Jan. 5	53,574	29														
Singapore.....	Dec. 6	97,711	241	35		12											
Southampton.....	Jan. 3	107,833	34	5													1
South Shields.....	do.....	103,308	39	2							1						1
Stettin.....	Dec. 27	215,267	88									1	1				
Stockholm.....	Dec. 13	301,695	99	11													
Do.....	Dec. 20	301,695	84	12									1	3			2
Sunderland.....	Jan. 3	149,526	69	6							1						1
Tampico.....	Jan. 10	20,000	26														
Trapani.....	Dec. 27	61,437	22					6									
Utiilla.....	do.....	932															
Do.....	Jan. 3	932															
Vera Cruz.....	Jan. 10	32,000	51	9													
Do.....	Jan. 17	32,000	53	8			4										
Victoria.....	Dec. 6	21,000	3														
Do.....	Dec. 13	21,000	4														
Do.....	Dec. 20	21,000	3														
Vienna.....	do.....	1,744,177	726	100								2	13	16			2
Do.....	Dec. 27	1,744,177	663	91							1	7	13	18			4
Zurich.....	do.....	161,000	52														1

By authority of the Secretary of the Treasury :

WALTER WYMAN,
Surgeon-General Public Health and Marine-Hospital Service.