# ABSTRACT OF SANITARY REPORTS.

Vol. VIII. Washington, D. C., November 10, 1893.

No. 45.

TREASURY DEPARTMENT, U. S. Marine-Hospital Service.—Published in accordance with act of Congress approved February 15, 1893.

#### UNITED STATES.

#### SPECIAL REPORTS.

The yellow fever epidemic at Brunswick, Ga.—Continued.

BRUNSWICK, GA., November 3, 1893.

Twenty-four new cases—9 white, 15 colored. One death, a Chinaman, not reported as yellow fever, but as consumption, proved on necropsy to be yellow fever. Days warm but nights cool.

R. D. MURRAY,

Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

BRUNSWICK, GA., November 4, 1893.

Thirteen new cases—6 white, 7 colored. No deaths. \* \* \*

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

To the Supervising Surgeon General M. H. S.

JESUP, GA., November 4, 1893.

No new cases. Last 2 discharged to-night. Jesup is clear of fever. Weather intensely warm.

F. T. LINCOLN.

Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

- Brunswick, Ga., November 5, 1893.

Five new cases; all colored. One death, a white, from malarial fever. \* \* \*

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

To the Supervising Surgeon-General M. H. S.

JESUP, GA., November 5, 1893.

No new cases. None under treatment. Weather warm and raining. F. T. Lincoln,

Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

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BRUNSWICK, GA., November 6, 1893.

Thirteen cases—9 white, 4 colored; 1 death, colored. \* \* \* Lincoln reports Jesup free from cases for last five days. Rain here yesterday; cold to-day.

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

To the Supervising Surgeon-General M. H. S.

JESUP, GA., November 6, 1893.

No cases of fever; weather cold and raining; frost looked for tomorrow night.

> F. T. LINCOLN, Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

BRUNSWICK, GA., November 7, 1893.

Six new cases—3 white, 3 colored; no deaths. When five days have elapsed it will be safe to discharge guards. Jesup has had no fever since the 4th. Bedding of every deathbed has been burned, and all articles used have been washed and aired as per my advice of a week ago. There were no cases in adjacent houses.

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

To the Supervising Surgeon-General M. H. S.

JESUP, GA., November 7, 1893.

Still no cases; ten days since one has been reported; weather cold and cloudy.

F. T. LINCOLN,

Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

BRUNSWICK, GA., November 8, 1893.

Thirteen cases-10 colored; 3 white; 1 death, adult, white.

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

To the Supervising Surgeon-General M. H. S.

JESUP, GA., November 8, 1893.

Still no cases; weather cool and rainy.

F. T. LINCOLN,

Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

BRUNSWICK, GA., November 9, 1893.

Eleven new cases—9 colored; 2 white; no deaths. \* \* \*

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

To the Supervising Surgeon-General M. H. S.

JESUP, GA., November 9, 1893.

Still no cases. \* \* \* The whole town is in perfect health.

F. T. LINCOLN,

Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

## Inspection of guard service on inland waters.

SAVANNAH, GA., November 4, 1893.

Leave 11 o'clock for Sapelo and fourth inspection.

L. E. COFER.

Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

SAVANNAH, GA., November 6, 1893.

SIR: I have the honor to report my arrival at this station last night from my fourth inspection of guard service. Under the new orders referred to in my last report, only one vessel had been detained, and that only for a period of thirty hours, to ascertain the nature of a case of sickness aboard. The barge, which was towed from Savannah by U. S. revenue steamer *Boutwell*, was turned over to medical officer in command of South Atlantic Quarantine Station in good condition.

Respectfully, yours,

L. E. COFER,

Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

Report of sanitary work on the sea islands of South Carolina.

BEAUFORT, S. C., November 3, 1893.

SIR: I have the honor to make the following report of the sanitary work done on the sea islands of South Carolina just after the storm of August 27, in obedience to order dated—

"SEPTEMBER 9, 1893,

"Relieved at Brunswick and ordered to proceed immediately to Beaufort, where revenue cutter *Boutwell* is at your orders. By direction of Secretary and approval of President you are to take charge of measures necessary to prevent outbreak of pestilential disease and spread of same on St. Helena Island and neighboring islands: First, investigate and make full report of situation; second, employ necessary help and bury all dead bodies, using freely disinfectants; third, authorized to make necessary arrangements and treat and subsist the actually sick. Provisions for those not sick will be furnished by relief committee, and revenue cutter may be used for transporting same. Take action that is immediately necessary under above instructions and wire estimated cost of procedures.

"Faget and Carson ordered to go with you under your orders. Disinfectants will be forwarded by fast freight. \* \* \*

"Surgeon-General M. H. S.

"To Passed Assistant Surgeon G. M. MAGRUDER, M. H. S.,
"Brunswick, Ga."

In accordance with the tenor of my instructions, the islands selected for the work of sanitation were those surrounded by Beaufort and Coosaw rivers and St. Helena Sound, viz: St. Helena, Ladies, Wassaw, Dattah, Coosaw, and Corn islands, to these Paris Island was afterwards added. This territory, which suffered most from the storm, includes an area of about 150 square miles of flat, low-lying land, and supports an estimated population of 9,000 people, almost entirely negroes. Many islands do not contain a single white person, and on none does the white population amount to 10 per cent of the whole.

It does not fall within the scope of this report to attempt to depict the devastation and disaster left in the track of a hurricane whose velocity exceeded 110 miles an hour, and which inundated this low-lying country with a tide which in different localities reached an estimated height of from 7 to 12 feet above high-water mark, nor to chronicle the individual acts of heroism and daring performed by the people. The fact that in the short space of six hours, on this limited area, 660 houses were wrecked and washed away and 211 persons drowned or crushed beneath the timbers of their falling houses bears ample witness to the horrors of this fearful night.

On September 12, after having been present on the preceding day at the meeting of the Beaufort board of health and relief committee, and having obtained from them as much information as possible, an inspection of the territory indicated above was begun and completed in eight days, every form of transportation from a Texas broncho to a mule cart Nearly every plantation was visited, every having been employed. burying place was inspected, and many houses were entered and the sick examined. It was gratifying to see that the reports of unburied dead lying on every hand were exaggerated. It is true that in the hurried burial just after the storm, owing to the water rising after a depth of 2 feet had been reached, the graves were necessarily shallow, and considerable stench arose therefrom, but prior to the date of this inspection all bodies had been reinterred, no odor could be detected and the cemeteries thereafter required no further attention with but one exception, where, in accordance with the teachings of an old superstition, that all persons drowned should continue to have, as they expressed it, "a watery grave," the burying place had been located on the beach, so that the bottom of the graves would be below high-water mark and the body washed by every tide. Some of the graves here were opened by the gale of October 12, and the exposed bodies required reinterment.

In many localities, too, the drowned cattle and stock had been disposed of. One hundred and twenty-six head, however, were found, and buried in accordance with your instructions. It may be noted here, as bearing witness to the violence of the gale, that the buzzard, that important factor in the sanitary system of the South, was driven entirely out of the country; not a single one was seen or heard of for more than two weeks after the storm

The chief sources of danger to health at the time of the above inspection seemed to be the polluted drinking water and the pools of stagnant water which appeared on every hand. The water supply of these islands is derived from shallow wells from 6 to 10 feet deep sunk in the earth, and the sand prevented from falling in by a wooden casing, consisting in most instances of three flour barrels with their heads knocked out and placed one above the other. Over many of these the tide passed, and the rain water filtering into them through sand so recently saturated with salt water was rendered brackish and unfit for use; arrangements were therefore made for emptying these daily, until, by the gradual washing process, and the water filtering through, the sand became clean and the water comparatively free from impurities, and with but few exceptions these wells all yielded good water after being so treated for six successive days.

The question might be asked in this connection, since the wells here are so simple in their construction, why new ones were not dug at once? It is evident, however, that they would not remedy this evil, for they would necessarily be sunk through soil saturated with sea water, and similar in all respects to that surrounding the old ones, and the same

washing process would have to be finally employed. In numerous instances the negroes, not appreciating this, had dug well after well around their dwellings, and were surprised and disheartened to find the same brackish water yielded by all; but on the assurance of ultimate success if the old wells were pumped out daily for a week, they readily commenced work. One hundred and ninety-five wells were thus rendered fit for use, seven new ones dug, and twenty-three curbed.

The surface of the sea islands is almost perfectly level, but few points reaching an elevation of 10 feet above the high-water mark and a greater portion of their area only rising 3 or 4 feet above the level of the spring tides. It will therefore be readily seen that when the sea receded to its proper limits innumerable lakes and pools of water dotted the country in every quarter, and this water then, being rendered brackish by the heavy rains which occurred almost daily for a period of more than two weeks after the storm, and under the influence of the sultry weather which then prevailed, gave rise to unpleasant odors and increased to an alarming degree the malaria from which this section is never free.

In former days, when the land was divided into large plantations and owned and cultivated by white planters, the system of drainage was very thorough and complete, as can now be seen from the lines of old drains which still remain, but during the civil war these lands were confiscated and divided into smaller lots and sold to the negroes, and now the closed ditches, the presence of large trees growing on the sites of former drains, as well as the decrease in the productiveness of the lands, bears ample testimony to the lack of enterprise in this direction. To relieve this unsanitary condition gangs of laborers were put to work, and 39 miles of drains were cleared and opened, thereby relieving a large portion of the

land of its surplus water.

Owing to the large number of sick noticed on the first inspection of the islands it was thought advisable to station physicians at some of the points where the need seemed greatest. Accordingly, Dr. Carson was assigned to St. Helena and afterwards to Coosaw and Ladies islands, Dr. Copeland to St. Helena and Wassaw, Dr. Allen Stuart to Paris Island, Dr. J. C. Woodruff to Edisto, and Dr. W. P. Gibbes, temporarily, to Ladies, Coosaw, and Corn islands. The work which fell to the lot of these gentlemen was arduous in the extreme, the inconveniences and privations which their nomadic life on the islands necessarily entailed they bore without complaint, and the cheerful manner with which they performed their duties is worthy of all commendation. Medical attendance and medicines were furnished free to all sick or disabled applicants, and the large number of patients treated bears evidence of the appreciation of the islanders of this form of assistance. Three thousand seven hundred and nine cases were treated during the six weeks of active work on this section, the vast majority of which was malaria, as will be seen from the following table:

Malarial fever, intermittent, 2,542 cases; malarial fever, remittent, 15 cases; dysentery, 34 cases; diarrhea, 29 cases; cholera morbus, 206 cases; bronchitis, 128 cases; typhoid fever, 6 cases; ascarides, 135 cases; constipation, 68 cases; anæmia, 20 cases; rheumatism, 253 cases; miscellaneous diseases and injuries, 273 cases; total, 3,709 cases.

On the 22d of September your second order, directing an inspection of the islands as far north as the Stone River, was received, and as soon thereafter as practicable Hutchinsons, Fenwicks, Bennetts, Edisto, Little Edisto, Jehossee, Wademelaw, Youngs, Johns, and Kiawah islands and Hilton Head were visited.

My report on the condition of this section was forwarded some weeks ago, and, as will be seen from it, nothing was done here from lack of funds further than the appointment of Dr. Woodruff as physician to Edisto.

Summary.—Cases treated, 3,709; wells rendered fit for use, 195;

stock buried, 126; drains opened (miles), 39.

As mentioned in my former reports, the crops were almost entirely St. Helena and the adjacent territory suffered most, not only in this way but also in loss of life, stock, and dwellings. It will therefore be readily seen that the most difficult question which now suggests itself is that of subsisting these impoverished people during the approaching winter. A very few supplies were saved from the flood, but at the date of the present writing these have almost all been consumed, and it is a question of but a short time before the majority of these people will be in actual need. Happily for the country, the colossal work of furnishing subsistence to this large population has been undertaken by the Red Cross Society, under the leadership of its president, Miss Clara Barton, who has already been in the field for the past six weeks doing noble work and it is surely to be hoped that the approach of spring will find another magnificent charity brought to the successful termination which usually characterizes the work of this society.

I desire, in concluding this report, to express my thanks to Capt. Blake and Lieuts. Wild and Cushing, commanding the revenue steamers Morrill and Boutwell, for their efficient aid in making my inspections. Without their cordial cooperation the work would have been attended with considerable difficulty and great personal inconvenience. G. W. Wilkins, of St. Helena Island, I also wish to express my especial thanks for his able and willing assistance and cordial hospitality. gentleman accompanied me during the first week of my inspection, and his intimate knowledge of place and people was of inestimable aid in hastening the inspection and rendering the work less arduous.

Very respectfully,

G. M. MAGRUDER, Passed Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

Report of sanitary inspector at El Paso, Tex.

EL PASO, TEX., October 31, 1893.

SIR: I have the honor to report that during the month of October, 1893, 345 passengers entered the United States via M. C. Railway, all of whom were inspected, and signed affidavit that they had not come in contact with contagious diseases.

There were 45 children amongst these passengers, 17 of whom were the children of 85 immigrants. As they did not have any marks of former

successful vaccination, the operation was performed at once.

In the State of Chihuahua, about 300 miles from El Paso, Tex., there are four different settlements of Mormons. These people wander constantly to and fro from between their settlements and Utah, and very

often bring their children along, who are not vaccinated.

Without exception, all these Mormons are from principle antivaccinists, and attempt to prove their cause by assertions that no good has resulted to humanity from vaccination, and absolutely refuse to have their children vaccinated. These people are traveling a large stretch of country between Mexico and the United States, and become dangerous to other people, because smallpox is epidemic in almost every State of Mexico through all the year.

I have the honor to be, very respectfully, your obedient servant, E. ALEXANDER,

Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

## Discontinuance of sanitary inspectors.

In accordance with orders from the Surgeon-General M. H. S., the services of the sanitary inspectors who have been on duty on the Canadian and Mexican frontiers during the past summer were discontinued on November 1, 1893. The officers of the Marine-Hospital Service at Quebec will, however, be kept on duty there until the cessation of immigration at that port.

Report of immigration at New York for the week ended November 4, 1893.

## Office of U. S. Commissioner of Immigration, Port of New York, November 6, 1893.

Number of alien immigrants who arrived at this port during the week ended November 4, 1893; also names of vessels and ports from which they arrived.

Date.	Vessel.	Where from.	Total.
1893. Oct. 29 29 30 30 31 31 Nov. 1 1 2 2 4 4	Steamship Umbria Steamship La Bretagne Steamship Fulda Steamship Amalfi Steamship Amalfi Steamship Devonia Steamship Basele Steamship Majestic Steamship Noordland Steamship Spree Steamship Grecian Steamship Lucania Steamship Lucania Steamship Lucania Steamship Hungaria	Hamburg. Rotterdam Glasgow. Bremen Liverpool Antwerp Bremen Glasgow. Southampton Liverpool	19 49 6 8 6 33 34 28 29 8 12

Dr. J. H. Senner, Commissioner of Immigration.

To the Supervising Surgeon General M. H. S.

Report of immigration at Philadelphia for the week ended November 4, 1893.

## Office of U. S. Commissioner of Immigration, Philadelphia, Pa., November 7, 1893.

Number of alien immigrants who arrived at this port during the week ended November 4, 1893; also name of vessel and port from which it arrived.

Date.	Vessel.	Where from.	Total.
1893. Nov. 1	Steamship Pennsylvania	Antwerp	202

JNO. J. S. RODGERS, Commissioner of Immigration.

# VESSELS REMAINING, ARRIVING AT, AND DEPARTING FROM UNITED STATES QUARANTINE STATIONS.

#### CAPE CHARLES QUARANTINE.

Week ended November 4, 1893.

Twenty-eight vessels inspected and passed.

#### DELAWARE BREAKWATER QUARANTINE, REEDY ISLAND STATION.

Week ended November 5, 1893.

Name of vessel.	Date of arrival.	Where from.	Destina- tion.	Treatment of vessel and cargo.	Date of dep'ture.
British s. s. Annie	Oct. 26	Poti	Philadel- phia.	Disinfected	Oct. 31

Sixteen vessels inspected and passed.

#### DELAWARE BREAKWATER QUARANTINE.

Week ended November 4, 1893.

Eight vessels inspected and passed.

#### GULF QUARANTINE.

#### Week ended October 21, 1893.

Name of vessel.	Date arriv		Where from.	Destina- tion.	Treatment of vessel and cargo.	Date of dep'ture.		
British bk. Asiana	Oct.	16	Greenock	Ship Island	Held for not having consular bill of health. Released by Surgeon-Gen-	Oct.	21	
Am. sc. Anna M. Stamner	Oct.	16	Vera Cruz	Pascagoula.	eral. Disinfected	Oct.	22	

#### KEY WEST QUARANTINE.

#### Week ended October 28, 1893.

Name of vessel.	Date of arrival.	Where from.	Destina- tion.	Treatment of vessel and cargo.	Date of dep'ture.
British bkn. J. H. Dexter*,	Oct. 4	Cienfuegos	Hampton Roads	Disinfected	
American schr. Irene British bkn. C. W. James	Oct. 17 Oct. 28	Havana Santos	Kev West	do	Oct. 22

<sup>\*</sup>Previously reported.

## SOUTH ATLANTIC QUARANTINE.

## Week ended October 28, 1893.

Name of vessel.	Date o		Where from.	Destination.	Treatment of vessel and cargo.	Date dep't	
American ship Esther*	Oct. Oct. 1 Oct. 1	4	Neuvitas	Fernandina	Disinfecteddodo.	Oct.	22 22 25
Norwegian bk. Kong Carl*					Held for disinfec-		
American sc. Waterman A. Taft, jr.* Norwegian bk. Mimi Norwegian bk. Bertha	Oct. 2	3	Santos	Sapelo S'd	dododododo	Oct.	27

<sup>\*</sup>Previously reported.

List of countries and places in which cholera has been officially reported since June 1, 1893.

[Those in italics have been reported during the week ended November 9, 1893.]

AFRICA.—Alexandria, at lazaretto; Mogador, quarantine station; Saint Louis, Richard Tull, Dagana, N'Daen, Dalmath, Podor, Malam, and Goree-Dakar, Senegal.

Arabia.—Djeddah, Mecca, Medina, Mina; also along the Hejaz.

AUSTRIA AND AUSTRIA-HUNGARY.—Beregh, Bohorodezany, Bralia (Roumania), Dees, Doboka, Hattyen-Kerec, Kolomea, Nadworna, Sanok, Stanislaw, Szaholes, Szalnok, Szatmar, Tisza, Vienna; also in Galicia and Bukowina, Buda-Pesth, Kis-Varda, Doreebad, Szaboles (county of), Marmoros (county), Jasz-Nagy-Kun Szolnok.

Belgium.—Antwerp, city and province, Brussels.

Brazil.—Rio de Janeiro,\* San Paulo.

FRANCE.—Alais, Aubenas, Avignon, Bordeaux, *Brest*, Cadiè, Camaret, Cette, Chautenay les Nantes, Cuers, Hyèrès, Larcat, La Seyne, La Vallette, Lambezellec, Limoges, Lorient district, Lyons, Marseilles, Mines, Mirepoix, Montpellier, Nantes, Pamiers, Pierre Benité, Privas, Salon, Sorgues, Toulon, Toulouse, Vannes district, Department of Basses Alpes.

GERMANY.—Barmen, Berlin, Cologne, Danzig, Donaueschingen, Duisburg, Geestemünde, Hamburg, Homberg (district of Moers), Magdeburg, Neuss, Neuwied, Neustadt, Papiermühle, Solingen, Stettin, St. Goars, St. Goarshausen.

GREAT BRITAIN.—Hull, Grimbsy, Liverpool, London, Newcastle, Rotherham.

India.—Calcutta.

ITALY.—Aquila (province of), Anna Capri, Alessandria (province of), Barra, Bubbio, Caivano, Campalasso, Capri (island of), Castellamare, Canerta, Cueno (province of), Feddio, Fresonaro, Furori Grotta, Gragnano, Gaeta, Genoa, *Leghorn*, Maddaloni, Montegioco, Naples,† Origlio, Pisa, *Palermo*, Pavia, Piedmont, Roccanerano, Rome, Rounigliano, Rouaverano, San Guliano Vecchio, San Salvatore, Sorrento, Sulmona, Torre Garfali, Torre Annunziata, Trapani.

Japan.—Hiogo, Osaka.

NETHERLANDS.—Ameide, Amsterdam, Avereest, Delft, Deventer, Dubbledam, Durgerdam, Elden, Giesendam, Hansweert, Kralingen, Koog a. d. Zaan, Leerdam, Molenaarsgraaf, Nieuwe-Wetering, Oudshoorn a. d. Rhijn, Ouwerschie, Puttershock, Renkum, Rotterdam, Rumpt, Rozendaal, Streefkerk, Ter Neusen, The Hague, Utrecht, Wonbrugge, Werkendam, Ysselmonde, Zuilichem, Zwijndregt, Zaandam.

RUSSIA.—Governments of Astrakhan, Baku, Bessarabia, Charchoff, Cherson district, Don district, Elissavetpol, Ekaterinoslav, Erivan, Grodno, Kalish, Kaluga, Kazan, Kharkoff, Kieff, Koutais, Kostroma, Kovno, Kuban, Kursk, Kutaisk, Livonia, Lublinsk, Lomza, Minsk, Moscow, Movieff, Nicolaieff, Nijni-Novgorod, Novocherkask, Orel, Olonetz, Orenberg, Orloff, Perm, Penza, Petersburg, Plozk, Podolia, Podolsk, Plotavà, Radom, Redout-Kale, Riazan, Saratoff, Samara, Sedletz, Sebastopol, Simbirsk, Smolensk, Stavropol, Tamboff, Taurida, Tersk, Tchernigoff, Terscheu district, Tiflis, Tobolsk, Tomsk, Tula, Tver, Ufa, Vilna, Viatka, Vladimer, Volinsk, Volhymnia, Voronesh, Warsaw, Yaroslaff; cities of Baku, Batoum, Cronstadt, Ekaterinoslav, Helsingfors, Kertch Kieff, Moscow, Nijni-Novgorod, Poti, Rostoff, Riga, St. Petersburg, Sebastopol, Tiflis, Warsaw.

SERVIA.—Belgrada.

<sup>\*</sup>Officially denied.

<sup>†</sup> In the province of Naples the following towns are reported: Cassino, Chinetela, Gragnano, Nocera, Pagana, Scafati.

Spain.—Abando, Algorta, Amorevieta, Arboleda, Arrigarriaga, Baracaldo, Basauri, Begoña, Berango, Bilbao, Catalonia, Campillo, Deusto, Echavarria, Erandio, Gallarta, Galdames, Guenes, Labarge, La Concha, La Franco Belga, Las Arenas, Les Carreras, Lejona, Matamoras, Musques, Legueitio, Orconera, Ortuella, Parcocha, Portugalete, Pucheta, San Salvador del Valle, Santurce, Sestão, Turre, Urioste, Ursuell, Vedia, Zalle.

SWEDEN.—Umea.

Turkey.—Aboulhassib, Abovdjeruil, Abrufassié, Avassum, *Bagdad*, Bassorah, Constantinople, Chatra Amara, Djilila, Guèrmah, Hai, Hassan-Hayoun, Hit, Aamissieh, Kut, Menasin, Mohammerah, Mountefik, Nazrieh, Samara, Shouk-el-Sheouk, Smyrna, Tau, Zolen, Zubeir.

United States.—Jersey City.

Oities where yellow fever has been officially reported to this Bureau as existing since June 1, 1893.

[Those in italics have been reported during the week ended November 9, 1893.]

Brazil.—Pará, Pernambuco, Rio de Janeiro, Santos.

CUBA.—Cienfuegos, Havana, Matanzas, Neuvitas, Sagua la Grande, Santiago de Cuba.

COSTA RICA.—Limon.

ECUADOR.—Guayaquil.

MEXICO.—Merida, Vera Cruz.

Colombia.—Bocas del Toro.

UNITED STATES.—Georgia, *Brunswick*, Detention Camp near Waynesville, Jesup, near Hazelhurst, 1 case; St. Simons Island, Jekyl Island, Conquest's Camp.

VENEZUELA.—Caracas.

Reports of States and yearly and monthly reports of cities.

CALIFORNIA—Los Angeles.—Month of October, 1893. Population, 65,000. Total deaths, 82; including phthisis pulmonalis, 12; enteric fever, 4; diphtheria, 2; and whooping cough, 1.

FLORIDA—Pensacola.—Month of October, 1893. Estimated population, 15,000. Total deaths, 14, including phthisis pulmonalis, 3, and enteric fever, 1.

Iowa.—Month of September, 1893. The following mortuary report is taken from the Monthly Bulletin for October:

Atlantic.—Typhoid fever, 1; diarrhea, 1; cholera infantum, 1. Total deaths, 5. Population, 5,000. Death rate per 1,000, 1; for August, 1. Burlington.—Consumption, 2; diphtheria, 2; typhoid fever, 1; meningitis, 2; cholera infantum, 2; accidents, 3. Total deaths, 23. Diphtheria is confined to one ward, and spread through carelessness of a family of negroes. Population, 30,000. Death rate per 1,000, 0.706; for August, 0.733.

*Clinton.*—Typhoid fever, 2; cholera infantum, 2; accidents, 1. Total deaths, 17. Population, 22,000. Death rate per 1,000, 0.77; for

August, 1.77.

Council Bluffs.—Consumption, 1; tuberculosis. 1; diphtheria, 1; malarial fever, 1; meningitis, 3; cholera infantum, 6. Total deaths, 23. Population, 35,000. Death rate per 1,000, 0.60; for August, 0.74.

Davenport.—Consumption, 2; pneumonia, 2; diphtheria, 1; whooping cough, 1; meningitis, 2; violence, 3; cholera infantum, 5; typhoid fever, 2; dysentery, 3; cancer, 2. Total deaths, 42. Population, 34,500. Death rate per 1,000, 1.2; for August, 1.04.

Des Moines.—Consumption, 2; tuberculosis. 4; diphtheria, 8; typhoid fever, 4; cholera infantum, 5; accidents, 3; cancer, 2. Total deaths, 45. Population, 75,846. Death rate per 1,000, 0.59; for August, 1.07.

The death rate for the year ending October 1 was 10 per 1,000.

Dubuque.—Consumption, 4; diphtheria 5; whooping cough, 2; malarial fever, 2; meningitis, 2; pneumonia, 2; cholera infantum, 4; caucer, 2; accidents, 4. Total deaths, 47. Population, 40,000. Death rate per 1,000, 1.7; for August, 1.12.

Fort Dodge.—Typhoid fever, 1; dysentery, 1; pneumonia, 1. Total deaths, 6. Population, 6,000. Death rate per 1,000, 1; for August, 0.66.

Keokuk.—Diphtheria, 2; consumption, 1; dysentery, 2; cancer, 1; accidents, 1. Total deaths, 16. Population, 20,000. Death rate per 1,000,0.8.

Mason City.—Consumption, 1; cholera infantum, 2; paralysis, 1. Total deaths, 5. Population, 5,000. Death rate per 1,000, 1; for August 1.5. Le Mars.—Cholera infantum, 1. Total deaths, 1. Population, 5,000. Death rate per 1,000, 0.2.

Ottumva.—Consumption, 1; typhoid fever, 5; accidents, 4. Total deaths, 23. Population, 17,000. Death rate per 1,000, 1.6; for August, 1. Sioux City.—Typhoid fever, 1; consumption, 2; pneumonia, 1; dysentery, 1. Total deaths, 14. Population (estimated), 37,500. Death rate per 1,000, 0.36; for August, 0.74.

Dubuque.—Month of October, 1893. Population, 40,000. Total deaths,
29, including phthisis pulmonalis, 4; enteric fever, 1; and diphtheria, 1.
Keokuk.—Month of October, 1893. Estimated population, 20,000.
Total deaths, 26, including 7 from phthisis pulmonalis.

MICHIGAN.—Four weeks ended October 28, 1893. Reports to the State board of health, Lansing, from 246 observers indicate that bronchitis, typhoid fever, and influenza increased, and cholera morbus, cholera infantum, dysentery, and diarrhea decreased in area of prevalence. Compared with the average for the month of October in the seven years 1886-1892, typhoid fever was more prevalent, and typhomalarial fever, intermittent fever, remittent fever, erysipelas, inflammation of the kidney, influenza, and consumption were less prevalent in October, 1893. cluding reports by regular observers and others, typhoid fever was reported present in Michigan in the month of October, 1893, at 109 places, scarlet fever at 78 places, diphtheria at 66 places, and measles at 7 places; consumption was reported present by 35 per cent of the observers making weekly card reports. Reports from all sources show typhoid fever reported at 34 places more, scarlet fever at 11 places more, diphtheria at 10 places more, and measles at 2 places less in the month of October, 1893, than in the preceding month.

Grand Rapids.—Month of October, 1893. Estimated population, 90-000. Total deaths, 97, including phthisis plumonalis, 11; enteric fever, 5; scarlet fever, 1; diphtheria, 4; and whooping cough, 1.

NEW YORK.—Month of September, 1892. Reports to the State board of health from 8 districts, including New York City, Brooklyn, and 148 other cities, towns, and villages, show a total of 9,346 deaths, including smallpox, 23; phthisis pulmonalis, 912; scarlet fever, 34; croup and diphtheria, 411; measles, 24; and whooping cough, 85.

OHIO—Cincinnati.—Month of October, 1893. Estimated population, 325,000. Total deaths, 475; including phthisis pulmonalis, 55; enteric fever, 12; scarlet fever, 2; diphtheria, 26; croup, 6; and whooping cough, 2.

Publications received.

Report of Health Office, Port of New York, 1893.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

		ა <u>ი</u> .:⊗:	from				]	Deat	hs fr	om-	-			
Cities.	Week ended.	Population, U. Census of 1890.	Total deaths fall causes.	Phthisis pul- monalis.	Yellow fever.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Altoona, Pa Binghamton, N. Y. Boston, Mass. Brooklyn, N. Y. Cincinnati, Ohio Cleveland, Ohio Erie, Pa Fall River, Mass. Galveston, Tex Indianapolis, Ind Indianapolis, Ind Indianapolis, Ind Manchester, N. H. Milwaukee, Wis. Minneapolis, Minn Mobile, Ala. New York, N. Y. Omaha, Nebr Omaha, Nebr Omaha, Nebr Omaha, Nebr Omaha, Nebr Omaha, Nebr Pensacola, Fla. Philadelphia, Pa Portland, Me Providence, R. I. Richmond, Va.	Sept. 2 Sept. 9 Sept. 16 Sept. 23 Oct. 7 Oct. 14 Oct. 21 Nov. 4	30, 337 30, 337 30, 337 30, 337 30, 337 30, 337 30, 337 35, 000 448, 477 806, 343 296, 948 261, 353 40, 634 74, 398 29, 084 105, 436 105, 436 105, 436 105, 436 105, 436 107, 436 204, 468 14, 126 204, 468 14, 126 204, 468 140, 452 140, 452 140, 452 140, 452 11, 500 1, 046, 964 36, 425 132, 146	13 20 12 12 12 8 8 8 10 9 9 188 326 68 144 15 37 38 25 152 152 21 18 18 21 14 21 14 21 21 21 21 21 21 21 21 21 21 21 21 21	1 4 1 1 1 1 38 52 111 6 6 1 1 5 4 4 3 18 81 1 5 5 2 2 13 1 1 39 4 4 5 4 4 3 18 8 8 1 1 5 5 2 2 13 1 1 39 4 4 5 4 4 5 4 6 6 6 6 6 6 6 6 6 6 6 6 6		2				1 1 4 3 1 3 4 1 1 9 2 2		6 3 6 49		3

Table of temperature and rainfall, week ended October 30, 1893.

## [Received from Department of Agriculture, Weather Bureau.]

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<sup>\*</sup> The figures in these columns represent the average daily departure. To obtain the average weekly departure these should be multiplied by seven.

Table of temperature and rainfall, week ended October 30, 1893-Continued.

Locality.		erature in Fahrenhe		Rainfall in inches and hundredths.				
Dodney.	Normal.	*Excess.	*Defic'ncy.	Normal.	Excess.	Deficiency		
Upper Mississippi Valley:								
St. Paul, Minn	42		6	. 35		.2		
La Crosse, Wis			7	. 43		.1		
Dubuque, Iowa	46		7	.58	.02			
Davenport, Iowa			8	. 65		.5		
Des Moines, Iowa			6	.72				
Keokuk, Iowa	50		1	.63				
Springfield, Ill			8	.77				
Cairo, Ill			5	.78	1.60			
St. Louis, Mo	54		6	.63	1.00			
Missouri Valley:	94			.05				
	54	!		- 00		1 .		
Springfield, Mo	54 52		6	. 80				
Kansas City, Mo				.72				
Concordia, Kans				. 35				
Omaha, Nebr	48			.44				
Yankton, S. Dak				. 25				
Valentine, Nebr				. 21				
Huron, S. Dak	41		5	.28				
Pierre, S. Dak	44	İ	5	.14				
Moorehead, Minn	36		6	. 40				
St. Vincent, Minn			2	. 31				
Bismarck, N. Dak			6	. 21				
Fort Buford, N. Dak		1	7	.21				
Rocky Mountain Slope:	•					` ·		
Havre, Mont	39	1	5	.14	. 16			
Helena, Mont		2	, ,	.14	.03			
			5	.07	.12			
Rapid City, S. Dak		•••••	2					
Spokane, Wash			_	, 35				
Wallawalla, Wash		1		. 47				
Winnemucca, Nev		3		.14				
Salt Lake City, Utah	47	4		. 35				
Cheyenne, Wyo	42	2		. 14				
North Platte, Nebr			3	.18				
Denver, Colo	47	1		.21				
Pueblo, Colo		0		.07				
Dodge City, Kans	51		3	. 21				
Abilene, Tex	61		0	. 65				
Santa Fe, N. Mex	46	0		. 21				
El Paso, Tex			2	. 21		i .		
Tueson, Ariz			2	.07				
Pacific Coast:			-					
Port Angeles, Wash	. 46	1	l	.70				
Olympia, Wash	49		2	1.05				
Portland, Oregon			3	1.19				
Roseburg, Oregon Red Bluff, Cal		1	2	. 75 . 46				
		1		. 28				
Sacramento, Cal				. 28				
San Francisco, Cal			4	. 35				
Fresno, Cal	62	•••••	3	.14				
Keeler, Cal		ļ	0	. 17				
Los Angeles, Cal		ļ		. 21	.10			
San Diego, Cal	62		1	. 14				
Yuma, Ariz	68	1	1	.07	1			

<sup>\*</sup>The figures in these columns represent the average daily departure. To obtain the average weekly departure these should be multiplied by seven.

#### FOREIGN.

[Reports received from the medical officers of the U. S. Marine-Hospital Service stationed at foreign ports; from the United States consuls through the Department of State, and from other sources.]

#### AFRICA.

## Cholera in Senegal.

UNITED STATES CONSULATE, Goree-Dakar, October 6, 1893.

SIR: Since my last dispatch, No. 172, on the subject of cholera there have been a few deaths from that disease among the blacks who live in the villages near Dakar and 3 cases in Goree, all of them fatal. There appears to be, however, no tendency to spread, cures are now sometimes effected, which was not often the case in the beginning, and as the dry season is now nearly at hand it is confidently hoped that clean bills of health can soon be given.

At St. Louis the disease has nearly if not quite disappeared. The mortality there during July was nearly 700. Owing to the fact that the black population do not to much extent employ physicians it has been difficult to obtain exact information of the progress of the disease among them, but the indications are that the mortality has been great. The

following from a local publication may be of interest:

"From the 1st to the 29th of July there were in Saint Louis 697 deaths, the population of the city proper being 20,173; of these 4 were Europeans. At Dakar, from the 16th to the 28th of July, there were 2 deaths, population about 8,000; at Goree, from the 17th to the 20th, 3 deaths; at Richard Tull, from the 8th to the 23d, 22 deaths; at Dagana, from the 8th to the 23d, 62 deaths; at N'Daen, from the 10th to the 27th, 81 deaths; at Dalmath, 32; at Podor (accounted the hottest place on earth), from the 8th to the 20th, 97 deaths; at Malam, 35. The number of deaths very sensibly decreased about the beginning of August, but the epidemic is said to have done fearful work in the interim."

In There have not been more than 12 fatal cases in Goree out of a population of about 1,500, and the disease appears never to have spread from these.

I am, sir, your obedient servant,

PETER STRICKLAND, United States Consul.

To the Hon. Josiah Quincy,

Assistant Secretary of State.

#### AUSTRIA-HUNGARY.

Cholera in Galicia.

UNITED STATES CONSULATE-GENERAL, Vienna, Austria. October 14, 1893.

SIR: Respectfully referring to my dispatch No. 55, dated October 7, I have the honor to report that cholera cases have considerably decreased in the crownland of Galicia.

Whilst in my last dispatch I reported 134 cases and 60 deaths, only 84 cases, of which 41 proved fatal, occurred during the week ending October 10, 1893.

With highest regards, I remain, respectfully, your obedient servant,

MAX JUDD,

Consul-General.

To the Hon. Josiah Quincy, Assistant Secretary of State.

#### BELGIUM.

## Cholera at Antwerp.

United States Consulate, Antwerp, October 21, 1893.

SIR: I have the honor to say that since my last report on the subject, No. 43, dated October 6, there have occurred in this city 18 new cases of cholera and 9 deaths, as follows: October 15, 1 case; October 16, 3 cases, 3 deaths; October 17, 1 case; October 18, 6 cases, 4 deaths; October 19, 4 cases, 2 deaths; October 20, 3 cases. Total, 18 cases, 9 deaths. This brings the grand total since the outbreak of the disease, on July 28, to 105 cases and 67 deaths.

It is worthy of observation that for the week ending with the date of my last dispatch, viz., from September 29 to October 6, there had been

only 1 case and 2 deaths.

This fact, together with the very favorable state of the weather, induced the conclusion that the disease had entirely disappeared. Observe, also, that from October 6 to October 15, a period of nine days, there appeared not a single case; but upon that day, October 15, the disease reappeared, and has continued with the results before indicated. The weather during all this time was cold, and, I should have supposed, adverse to a continuation of the disease and more adverse still to its reappearance.

It will probably be interesting to notice the curious course of the disease under conditions, as above shown, generally supposed to be very

unfavorable to its existence.

It may be also interesting to observe the course of the disease during the month of October of last year, which is as follows: 1892, October 2 and 3, 4 cases; October 4, 2 cases; October 5, 4 cases; October 6, 6 cases; October 7, 1 case; October 8, 2 cases; October 9 and 10, 14 cases; October 11, 2 cases; October 12, 2 cases; October 14, 2 cases; October 16, 1 case; October 17, 1 case; October 18, 1 case; October 19, 1 case; October 20, 1 case. Total, 44 cases.

The above figures show that from the 1st to the 20th of October of last year there occurred 44 cases, appearing to increase till the 10th of the month, and from then till the 21st to decrease. On that day, I am informed the disease entirely disappeared for the winter, and soon there-

after bulletins ceased to be issued by the authorities.

This year, 1893, for the same time, viz, 1st to 21st of October, there have occurred only 19 cases, less than half of the number of last year.

I am, sir, your obedient servant,

HARVEY JOHNSON, United States Consul.

To the Hon. Josiah Quincy,

Assistant Secretary of State.

UNITED STATES CONSULATE, Antwerp, Belgium, October 25, 1893.

SIR: I have the honor to record an unexpected exacerbation of the cholera figures for the week ending October 21. There were 11 cases and 9 deaths. Seven of the deaths occurred in the hospital, 2 in the city.

On the occasion of my visit to Hospital Stwivenberg a few days ago I was shown 7 cases; 4 of them came from one house in a small street near the river.

Reports (unofficial) continue to give scattering cases of cholera from

the province of Antwerp.

During the same week there were 4 cases of smallpox, with 1 death, and 26 cases of typhoid fever, a total of 90 deaths from all causes in a population of 248,296.

Very respectfully, your obedient servant,

M. J. ROSENAU, Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

Emigrants from noninfected countries not detained at Antwerp.

United States Consulate, Antwerp, Belgium, October 24, 1893.

SIR: I have the honor to make the following report of proceedings: Emigration has fallen off considerably this month. Last week 608 steerage passengers passed my inspection; the week before only 421, while the first week of October saw but 486 embark at Antwerp for America.

The character of the migrating army remains about the same.

In conformity with your dispatch of the 17th instant I am now passing without detention emigrants from Switzerland and those from Germany, excepting the cities of Hamburg, Altona, and their immediate vicinities, and Stettin. They are required upon demand to show a police certificate that they have lived at the place mentioned at least two weeks before coming to Antwerp.

None of the other restrictions have been relaxed; the same supervision of the emigrants while in the city, and of the hotels and the baths, and disinfecting of wearing apparel and of the baggage, is car-

ried on as before.

The Hansa Line has built a very good house on the dock after plans designed by myself for the inspection of their passengers. The structure having been conceived and built solely for this one object, answers the purpose admirably, and is a much-needed convenience. \* \* \*

Respectfully, yours,

M. J. ROSENAU, Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

#### CANADA.

## Arrival of immigrants at Quebec.

QUEBEC, CANADA, November 3, 1893.

SIR: I have the honor to report the following arrival of vessels with immigrants at this port since my last report, viz: October 8, Laurentian, 218; October 10, Stubbenhuk, 225; October 11, Lake Ontario, 77; Octo-

ber 14, Numidian, 173; October 16, Oregon, 153; October 17, Grimm, 150; October 17, Buenos Ayrean, 67; October 18, Lake Huron, 71; October 22, Sardinian, 149; October 24, Lake Winnipeg, 30; October 26, Toronto, 121; October 26, Baumwall, 184; October 29, Labrador, 342; October 30, Mongolian, 123.

All the passengers on every boat were well.

Very respectfully,

CHAS. E. BANKS,

Passed Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

#### CHINA.

Sanitary statistics unobtainable at Ningpo.

United States Consulate, Ningpo, September 23, 1893.

SIR: With reference to the quarantine laws and the various regulations pertaining to the same received during the past few months, and more particularly those regulations calling for weekly health reports, I have the honor to respectfully state that the data required can not possibly be given by the consul or health authorities here.

The Chinese keep no statistics, require no permits for the burial of the dead, and lay no stress upon the cause of death. It is only when cholera or smallpox is more prevalent than usual that the foreigner learns of

it, and then only by his personal observations.

These two scourges are always more or less prevalent in China, but

hardly any attention is paid to them.

The Chinese have absolutely no regard for sanitary laws, and it is not an uncommon sight to see corpses of cholera victims exposed to the view of the passers by for hours if not for days.

The past summer has not experienced the usual amount of sickness, and I am told that so far few, if any, have died of cholera; but on that

point no one here is sure.

In the country there is, of course, during the summer, more or less cholera. It is there that we must look for whatever danger to our people there may be, for it is in the country that the teas and silks are packed for the American market. For reasons previously reported by me to the Department, this tea and silk is shipped direct to Shanghai and thence to the United States, the consul here knowing nothing of it.

The most dangerous season is now on, September and October, but so far I do not hear of any sickness. In the event of such, I of course

will at once notify the Department.

The statistics of this office, which of course refer only to American citizens, show that during the past ten years there have been 7 deaths, of which 6 were from cholera. Three died in the month of October, 2 during September, and 1 in the month of March. The average number per year of Americans in this district is 70. Probably the whole number of foreigners in the district is 500. The native population is variously estimated at from 25,000,000 to 35,000,000.

The above is respectfully submitted in order to show that it is not from carelessness, but from inability, that the weekly sanitary reports have not been forwarded to the Marine Hospital Service.

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

JOHN FOWLER, United States Consul.

#### CUBA.

## Sanitary report of Cienfuegos.

CIENFUEGOS, October 30, 1893.

SIR: \* \* \* The week ending October 28, 1893, there were 23 deaths, as follows: Pernicious fever, 8; yellow fever, 4; enteric fever, 2; puerperal fever, 1; borras fever, 4; septicæmia, 1; epilepsy, 1; phthisis pulmonalis, 2.

There are in the city hospitals to day: Charity hospital, 174 patients: yellow fever (new cases), 4; St. Raphael, 30; yellow fever (new cases), 2; National, 36; yellow fever (new cases), 8; Merchants 12; (new cases)

yellow fever) 6. \* \* \*

I am, sir, your obedient servant,

MANUEL R. MORENO, M. D., Sanitary Inspector, M. H. S.

To the Supervising Surgeon-General M. H. S.

#### GERMANY.

Water supply of Hamburg free from cholera—Total number of cholera cases.

HAMBURG, GERMANY, October 21, 1893.

SIR: Referring to my cablegram of 20th instant, suggesting the sending of noninfected people from Cuxhaven without quarantine, and stating that the epidemic of cholera here was ceasing, I submit the following:

I have to-day learned that the city water supply is now free from bacilli, and hence it is almost certain that no more cases of cholera will

occur unless in families already infected.

Should other cases occur it still remains in my opinion by far the wiser plan to ship these people over Harburg to Cuxhaven, avoiding Hamburg, entirely and so escape any chance of contagion, rather than pen them in barracks here, with possible opportunity to receive the infection and produce the disease on the voyage.

There have been in all a grand total of 122 cases, of which 53 resulted in death, from September 16 to date, and I believe this to be the finale.

Very respectfully,

J. H. WHITE,

Passed Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

Cholera in Stettin.

UNITED STATES CONSULATE, Stettin, October 19, 1893.

SIR: I have the honor to inform you that up to the above date there have been 53 cases and 33 deaths from cholera registered in this city.

There have also been 5 deaths reported at Warsaw, a small village in

my district.

The city of Stettin is in good condition, all sewerage being disinfected. It has been reported by the officials that the origin of the cholera lies in the river water which the people use and drink. The water has been analyzed by Prof. Koch, who pronounces it to contain properties of cholera.

The city officials take the most careful precautions not to have the people use the river water.

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

F. W. KICKBUSCH, United States Consul.

To the Hon. Josiah Quincy, Assistant Secretary of State.

One case of cholera at island of Werder in the Elbe.

United States Consulate, Magdeburg, October 17, 1893.

SIR: I have to report another case of Asiatic cholera to-day.

The owner of a barge, anchored in the Elbe at the island of Werder, coming from Hamburg, was taken sick on the afternoon of October 14 and died the following day. A microscopical examination revealed the fact that death had been caused by Asiatic cholera.

The wife and two children of the deceased have been isolated and all

necessary precautions taken.

I am, sir, your obedient servant,

JULIUS MUTH, United States Consul.

To the Hon. Josiah Quincy,
Assistant Secretary of State.

One case of cholera at Neustadt.

United States Consulate.

Magdeburg, October 14, 1893.

SIR: I have to report to day a case of Asiatic cholera which occurred at Neustadt, a suburb of Magdeburg on the 12th instant.

The particulars of the case I find, after a personal interview with the

chief inspector of the police, to be as follows, viz:

The patient was a laboring man who had lately been suffering from diarrhea, and had been treated in the public hospital. After his discharge he was unable to find work, in consequence of which he had no means to nurse his health properly, and he became physically much reduced. He left his house on the 10th again in search of work, accompanied by his child, when he was seized in an open field with violent cramps, vomiting, and diarrhea, taken to the hospital, where he died the following night. A microscopical examination revealed the presence of cholera bacilli. His death can not be traced to the drinking of unfiltered Elbe water. The city is in a very clean and healthy condition, and no anxiety is felt that this sporadic case means the appearance of an epidemic. No further cases, or even suspicious cases, have been reported since.

Under these circumstances I prefer to report by dispatch instead of cable, and trust this will be approved by the Department.

I am, sir, your obedient servant,

JULIUS MUTH, United States Consul.

To the Hon. Josiah Quincy,

Assistant Secretary of State.

Relative to experiments with the cholera spirillium on turfmull.

UNITED STATES CONSULATE, Magdeburg, October 17, 1893.

SIR: A more extensive use of the human excrements for manuring purposes has for years been recommended by many agricultural societies.

When cholera appeared last year the question naturally arose whether it would be wise to further recommend it or whether means could be found, even in case of an epidemic, to make use of the excrements without endangering public health. For the last four or five years, and especially this year, by reason of the short straw crop, turfmull (ground peat) has been freely used for bedding animals, and excellent results are Turfmull is very elastic; it absorbs liquids seven to nine times its own weight, i. e., two and one half times as much again as rye straw, and therefore keeps the stable dry; it binds, besides the urine, also the volatile gases, especially the ammonia, and thus preserves this essential feeder of plants in the manure; it purifies the air in the stable and makes it odorless, thus contributing greatly to the health of the animals. It makes a better manure than straw by reason of holding all compact, liquid and volatile substances together, and it can be easier spread on the field, decomposes more quickly in the ground, and last but not least, it is considerably cheaper than straw.

Naturally the attention of the scientific world was turned to turfmull. which had already demonstrated its usefulness in stables. The hygienic institutes of several German universities have since experimented to see whether turfmull alone is a sufficiently strong disinfectant to kill the cholera bacilli in human excrements, or if not, whether it could be mixed with other stronger disinfectants which would effectually destroy the bacilli without invalidating the qualities of the excrements as manure, i. e., without hurting the growth of plants, but rather promoting the same.

The following results have been obtained:

1. Cultures of cholera bacilli were mixed with turfmull taken from three different localities, and in every instance they were killed within fifteen minutes.

2. Turfmull (0.88 ounce) mixed with solid excrements (1.76 ounces), urine (3.52 ounces), destroys the bacilli eventually, but the time varies from one to seven days, and in some cases two weeks were necessary.

3. Turfmull mixed with kainit does not kill the bacilli in human ex-

crements; in some cases it even seems to promote their growth.

4. Turfmull mixed as above, with an addition of superphosphate of lime (0.35 ounce), seems more effectual in destroying bacilli, but cases were reported in which the time necessary for destruction extended to four days.

5. An addition of diluted sulphuric acid (only one-half per cent

strong) to the turfmull quickly and surely killed all bacilli.

The conclusion to be drawn from these experiments is that sulphuric acid is the only safe ingredient which, added to the turfmull, will destroy the bacilli in human excrements without invalidating their qualities as manure.

I may add that a preparation of turfmull has since been made containing 2 per cent sulphuric acid. This preparation has the same appearance as ordinary turfmull, its absorbing power is the same, and its quality as manure is not impaired. It would, therefore, at a very slight increase of cost, answer all sanitary and practical purposes, even in case of an epidemic.

Another valuable result was obtained while experimenting with acetic acid. Common table vinegar, containing about 3 per cent acetic acid, was found to destroy cultures of bacilli within fifteen minutes. As vinegar can be found in every household, it will become a cheap and effectual disinfectant in epidemics, and can be used for cleansing closets, floors, walls, clothing, bedding, etc., in infected households.

I am, sir, your obedient servant,

Julius Muth, United States Consul.

To the Hon. Josiah Quincy, Assistant Secretary of State.

#### GIBRALTAR.

## Quarantine notice.

GIBRALTAR, October 23, 1893.

The board of health have decided to remove the quarantine now imposed at this port on arrivals from Naples.

By order:

JOHN C. KING, Secretary to the Board.

#### GREAT BRITAIN.

## Detention of emigrants at Blackwall.

UNITED STATES CONSULATE-GENERAL, London, October 25, 1893.

SIR: I have the honor to make the following report of operations at Blackwall for the week ended October 21: Eleven emigrants via Rotterdam having been detained five days and their baggage disinfected, were passed; 35 emigrants, Scandinavians, via New Holland, and 21 via Esbjerg, were passed—a total of 67. One emigrant from Germany was held.

Respectfully, yours,

FAIRFAX IRWIN, Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

#### HOLLAND.

Report of cholera and smallpox at Rotterdam for week ended October 25, 1893.

ROTTERDAM, NETHERLANDS, October 25, 1893.

SIR: \* \* \* During the past week but 1 new case of cholera occurred, no deaths. There were during the week 34 cases of smallpox with 4 deaths. During the past four weeks there have been 89 cases of smallpox with 16 deaths.

Very respectfully,

R. M. WOODWARD,
Passed Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

## Rotterdam free from cholera.

ROTTERDAM, NETHERLANDS, October 23, 1893.

SIR: I have the honor to inform you that no new cases of cholera have occurred in the city of Rotterdam since the 17th instant. The last case under treatment was discharged recovered yesterday and the burgo-master's daily health bulletins will be discontinued from this time.

Cholera first appeared here on August 21, 1893. Fifty-one cases with 29 deaths have occurred. Last year 33 cases with 22 deaths were re-

ported.

Very respectfully,

R. M. WOODWARD,

Passed Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

#### ITALY.

No cholera at Naples and Leghorn—Emigrants from noninfected districts not detained.

Naples, November 3, 1893.

Leghorn and Naples clear.

G. B. YOUNG, Assistant Surgeon, M. H. S.

To the Supervising Surgeon-General M. H. S.

WASHINGTON, D. C., November 6, 1893.

May pass without detention emigrants from noninfected districts, as recommended.

WYMAN,

Surgeon-General M. H. S.

To Assistant Surgeon G. B. Young, Naples.

## Cholera at Leghorn.

UNITED STATES CONSULATE, Leghorn, Italy, October 14, 1893.

SIR: I have the honor to report that there was a fresh outbreak of cholera here to-day. It is officially announced that 47 new cases and 9 deaths occurred during the past twenty-four hours up to noon of to-day.

I advised the Hon. W. S. Jones, United States consul-general at Rome, by wire; likewise Dr. B. W. Brown, of the U. S. M. H. S., now stationed

at Genoa.

Simultaneously, I wrote to Assistant Surgeon G. B. Young, of the U.S. M. H. S., now stationed at Naples; also to our consuls stationed respectively at London, Liverpool, Hull, Glasgow, Antwerp, Amsterdam, Rotterdam, Hamburg, Bremen, Gibraltar, Marseilles, and Palermo, as goods are shipped to aforesaid places constantly and thence transshipped to United States ports.

Since outbreak (September 10, 1893) up to yesterday noon, there

were 250 cases, viz, 107 deaths, 35 under treatment, and 108 cured.

I am, sir, your obedient servant,

ALEX. S. ROSENTHAL, United States Consul.

To the Hon. Josiah Quincy,
Assistant Secretary of State.

### Cholera at Palermo.

United States Consulate, Palermo, Italy, October 18, 1893.

SIR: I have the honor to report that since August 16, the day on which cholera made its first appearance at Palermo, to this date there have been, according to official bulletins, 435 deaths, divided for the nine weeks as follows: 5, 13, 33, 29, 31, 51, 111, 112, 50.

It was very gratifying to note that there were fewer deaths the last week than there were the preceding week, from the fact that during the epidemics heretofore at this place cholera was more fatal during the first eight weeks than at any other time, and if the former epidemics are criterions to go by, there will be little more cholera at Palermo this year. However, the city will not be entirely rid of it within the next six weeks at the least.

Of the eight epidemics at Palermo within about the last half century, they have invariably lasted from fourteen to nineteen weeks, the fourth, fifth, sixth, seventh, and eighth weeks of the disease proving the worst. In one of these epidemics there were more deaths the fourth week than in any other, more the fifth in three, more the sixth in one, more the seventh in two, more the eighth in one.

In the epidemic of 1837 there were 24,014 deaths, and it lasted for eighteen weeks; 1854, 5,336 deaths, eighteen weeks; 1855, 1,419 deaths, fifteen weeks; 1866, 3,527 deaths, fourteen weeks; 1867, 3,776 deaths, nineteen weeks; 1885, 2,696 deaths, sixteen weeks; and in 1887, 429 deaths, sixteen weeks.

Practically all business with the States is suspended.

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

WILLIAM H. SEYMOUR,

Consul.

To the Hon. Josiah Quincy,
Assistant Secretary of State.

#### NOVA SCOTIA.

# Arrival of immigrants at Halifax.

HALIFAX, NOVA SCOTIA, November 6, 1893.

Corean arrived; one family of 8 from Germany for Iowa; baggage disinfected by steam.

D. H. INGRAHAM, Consul-General.

To the Supervising Surgeon-General M. H. S.

RUSSIA.

Cholera in Russia.

United States Consulate, Moscow, October 24, 1893.

The medical department of the ministry of the interior has published the following report:

Place.	Oate. Cases.	Deaths.
In the governments of:		
KazanOct. 1		
Kurskdo		51
Kutaisdo		1
Lublinskdo		1
Moscow Oct. 1	-14 222	
Tula do.	160	
Kovno Oct. 7	-14 84	30
Kostromado.		
Livonia Oct. 8	-14 16	:   8
Minskdo		21
Novgoroddo		. 1
Olonetzdo		
Orloffdo.		. 44
Penza do		
Poltava do		2
St. Petersburg do.		
Simbirsk		
Smolensk do.		
Stavropoldo.		
Sedletz dodo.		
Tamboff do.		
Tver do.		
Charchoffdo.		
Chersondo		
Yaroslaffdo		
Don district Oct. 1		
Kuban districtdo		
Terskdo.	5	
Cities of:		
	6–19 91	
	3–166	
	-14 23	
Cronstadtdo	32	18

N. W. HORNSTEDT, Vice-Consul.

#### SPAIN.

# Cholera in the province of Vizcaya.

The United States consul at Barcelona transmits the following report of cholera cases and deaths in the province of Vizcaya from October 14 to 20, inclusive:

Arrigoriaga, 1 case; Arboleda, 6 cases, 1 death; Baracaldo, 1 case; Begoña, 1 case; Berango, 5 cases, 1 death; Bilboa, 65 cases, 35 deaths; Campillo, 3 cases; Deusto, 2 cases; Erandio, 3 cases; Franco-Belga, 2 cases, 1 death; Gallarta, 2 cases; Guenes, 1 death; Labarga, 1 case; La Concha, 6 cases, 3 deaths; Matamoros, 3 cases, 2 deaths; Orconera, 2 cases; Ortuella, 3 cases; Portugalete, 2 cases, 1 death; Pucheta, 2 cases, 2 deaths; Sestao, 5 cases, 3 deaths; population of province, 235,639; total number of cases, 121; total number of deaths, 51.

#### SWEDEN.

No cholera in Sweden.

UNITED STATES CONSULATE, Stockholm, Sweden, October 17, 1893.

SIR: I have the honor to refer to my dispatch No. 96, under date of October 5, 1893, and to inform you that during the intermediate time no more deaths from cholera have occurred in this consular district.

I am, sir, your obedient servant,

CARL P. GERELL, Vice-Consul of the United States.

To the Hon. Josiah Quincy,

Assistant Secretary of State.

#### STATISTICAL REPORTS.

AUSTRALIA—Sydney.—Month of August, 1893. Population, 411,710. Total deaths, 485, including scarlet fever, 26; diphtheria, 10; measles, 41; and whooping cough, 3.

CUBA—Nuevitas.—Month of October, 1893. Population, 4,045. Total deaths, 10, including 2 from yellow fever.

FRANCE—Nice.—Month of September, 1893. Population, 97,720. Total deaths, 144, including enteric fever, 2; measles, 1; diphtheria and croup, 2; and phthisis pulmonalis, 18.

Rouen.—Month of September, 1893. Population, 111,847. Total deaths, 163, including phthisis pulmonalis, 34; enteric fever, 5; croup and diphtheria, 3; and whooping cough, 1.

St. Etienne.—Two weeks ended October 20, 1893. Population, 133,443. Total deaths, 87, including enteric fever, 2; diphtheria, 2; and whooping cough, 1.

GREAT BRITAIN—England and Wales.—The deaths registered in 33 great towns of England and Wales during the week ended October 21 corresponded to an annual rate of 18.4 a thousand of the aggregate population, which is estimated at 10,327,846. The lowest rate was recorded in Derby, viz, 11.8, and the highest in Blackburn, viz, 26.9 a thousand.

London.—One thousand five hundred and fifty-four deaths were registered during the week, including measles, 20; scarlet fever, 40; diphtheria, 84; whooping cough, 35; enteric fever, 18; diarrhea and dysentery, 44; and 3 from choleraic diarrhea. The deaths from all causes corresponded to an annual rate of 18.8 a thousand. In greater London 1,938 deaths were registered, corresponding to an annual rate of 17.3 a thousand of the population. In the "outer ring" the deaths included diphtheria, 14; scarlet fever, 5; smallpox, 2; measles, 5; and whooping cough, 11.

Hull.—Two weeks ended October 7, 1893. Population, 208,639. Total deaths, 189, including cholera, 3; enteric fever, 14; scarlet fever, 2; diphtheria, 2; and whooping cough, 3.

Ireland.—The average annual death rate represented by the deaths registered during the week ended October 21 in the 16 principal town districts of Ireland was 22.9 a thousand of the population. The lowest rate was recorded in Slico, viz, 5.1, and the highest in Wexford, viz, 36.1 a thousand. In Dublin and suburbs 164 deaths were registered, including measles, 2; whooping cough, 4; enteric fever, 9; and diarrhea, 7.

Scotland.—The deaths registered in 8 principal towns during the week ended October 21 corresponded to an annual rate of 18.6 a thousand of the population, which is estimated at 1,447,500. The lowest mortality was recorded in Paisley and Greenock, viz, 16.6, and the highest in Leith, viz, 22.0 a thousand. The aggregate number of deaths registered from

all causes was 525, including scarlet fever, 11; diphtheria, 5; whooping cough, 14; fever, 9; and diarrhea, 25.

Samoa—Apia.—Under date of October 7, 1893, the United States vice-consul-general reports 4,000 cases of measles in the city of Apia, with 3 deaths therefrom during the four weeks ended October 7, 1893.

TURKEY—Constantinople.—Month of August, 1893. Total deaths, 1,011, including 2 from smallpox.

Month of September, 1893. Total deaths, 862. The United States consul-general reports 172 cases of cholera in the city and suburbs and 107 deaths therefrom from August 29 to September 27, 1893.

## MORTALITY TABLE, FOREIGN CITIES.

v			oula-	from			1	Deat	hs fi	om-	-		
Cities.	Wook onded	week ended.	Estimated popula- tion.	Total deaths from all causes.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Aden	Oct.	7	35,000	11.									-
Aix-la-Chapelle	Oct.	14	107, 860	44							1		
Almeria	Oct.	8	35, 865	29									1
Almeria	Oct.	15	35, 865	22		ļ			1				1
Amsterdam	Oct.	21	426, 480	112					3	·····	2	1	1
Antigua	Oct.	7	16, 664	24						•••••	•••••		5
Antigua	Oct.	14 21	16, 664 16, 664	26	•••••						•••••		6
Bagdad		23	40,000	. 21	48	•••••		•••••					0
Bagdad		30	40,000	52	9						•••••		
Bamberg	Oct.	14	35, 815	8									
Basle	Oct.	14	78,000	30								1	
Batoum	Oct.	16	28,000	2				ļ				<u>-</u>	
Berlin	Oct.	7	1,750,000	609	•••••		··· <u>·</u> ··		5	16	42	7	ļ <u>.</u>
Birmingham	Oct.	21	487, 897	163			1	•••••	4	1	1	1	3
BolognaBordeaux	Oct.	21 22	146,068 252,415	56 78					1 2	·····	3		
Bradford	Oct.	14	221,610	63			3		ĺi	1	î		1
Bradford	Oct.	21	221, 610	63			4		lî	î	î		3
Bremen	Oct.	14	127,000	44			ļ <u>-</u>		Ī	l <del>.</del>	3		
Bristol	Oct.	21	225, 146	71			ļ			<b> </b>			
Brunswick	Oct.	21	110,000	36								••••	
Brussels	Oct.	14	483, 081	143	3	•••••	1		3		•••••	•••••	
Calcutta		16 23	681,560 681,560	379 377						•••••		1	1
Callao	Oct.	1	26, 805	29	*	•••••			•••••			-	1 1
Callao	Oct.	8	26, 805	8									1
Cartagena	Oct.	1	25,000	10									
Cartagena	Oct.	7	25,000	12									
Cartagena	Oct.	14	25,000	13			,		3		١		
Cartagena	Oct.	22	25,000	11									
Catania	Oct.	23	113,000	76		•••••	·• ••·		3		1		3
CeylonChristiania	Oct.	30 21	130,000 161,151	65 <b>5</b> 0	•••••	•••••		•••••		4	•••••		
Cienfuegos	Oct.	28	23,000	26		4			1	4	•••••		
Cognac	Oct.	21	17,500	4			1		1				
Cologne	Oct.	14	301, 877	99						1	8	1	6
Colon	Oct.	21	5,000	5									
Copenhagen	Oct.	14	334,000	98					1	3	2		3
Crefeld	Oct.	21	108,000	63							2		
Danzig Denia	Oct.	21	121,000 14,000	71 3		•••••				2	•••••	. 3	1
Dresden	Oct. Oct.	14 14	308, 930	97		•••••				1	9		
Dundee	Oct.	21	157, 289	62							9		3
Dusseldorf	Oct.	14	160, 750	38									
Edinburgh	Oct.	21	367, 672	100					2	1	1		2
Florence	Oct.	22	164, 460	57							1		ļ
Flushing	Oct.	21	15,000	.5									<b> </b>
Funchal	Oct.	14	35,665	15					3				
GenoaGhent	Oct.	21	182, 170	98	•••••				1	•••••	5		
Gibraltar	Oct. Oct.	21 22	151, 811 25, 755	39 7							•••••	•••••	•••••

# MORTALITY TABLE, FOREIGN CITIES—Continued.

Hamilton, Bermuda	1 1 1 1 1 1 1 2 2	1 1 2 2 3 3 8 2 2 8 2 8 4	10	7 2 1 1 84 4 4 2 2 2 2 2	1	1 1 1 35
Glasgow	1 1 1 1 1 1 1 2 2	8 2 3 8 2 8 8 4 4 6 6	10	1 1 84 4 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3	1 4 20	1 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Glasgow	1 1 1 1 1 1 1 2 2	1 1 2 2 3 3 8 2 2 8 2 8 4	10	7 2 1 1 1 84 4 4 2 2 2 2 2	1 4 20	1 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Guadeloupe         Oct. 8         18,000         11           Guelph         Oct. 28         10,689         6           Halifax         Oct. 28         38,700         10           Hamilton, Bermuda         Oct. 21         15,013         2           Hamilton, Bermuda         Oct. 21         15,013         3           Hanover         Oct. 14         191,400         73           Havre         Oct. 7         116,369         72           Havre         Oct. 14         116,369         62           Hogo         Oct. 21         97,552         30           Konigsberg         Oct. 21         161,520           Leeds         Oct. 21         382,994         121         1           Leghorn         Oct. 21         103,166         69         48           Leith         Oct. 21         103,166         69         48           Liege         Oct. 14         17,889         11         1           Liege         Oct. 21         510,480         242         1           London, Canada         Oct. 21         510,480         242         1           London, England         Oct. 14         438,077         127	1 1 1 1 1 1 1 2 2	1 1 2 2 3 8 2 2 8 8 18 4	10	7 2 1 1 84 4 2 2 2 2 2	4	1 1 1 35 1
Guelph         Oct. 28         10,689         6           Halifax         Oct. 29         38,700         10           Hamilton, Bermuda         Oct. 21         15,013         2           Hamilton, Bermuda         Oct. 28         15,013         3           Hanover         Oct. 14         191,400         73           Havre         Oct. 14         116,369         72           Havre         Oct. 14         116,369         72           Hiogo         Oct. 14         116,369         62           Hiogo         Oct. 21         97,552         30           Konigsberg         Oct. 21         161,520           Leeds         Oct. 21         165,20           Leghorn         Oct. 21         103,166         69         48           Leith         Oct. 21         70,972         30         11           Licata         Oct. 14         17,889         11         11           Liege         Oct. 21         155,898         42         1           Liverpool         Oct. 21         150,480         242         1           London, Canada         Nov. 4         19,746         11         1           Lond	1 1 1 1 2	1 2 2 3 8 2 2 8 8 2	10	7 2 2 1 1 1 84 4 4 2 2 2 2 2 2	4	1 1 1 35 1
Hamilton, Bermuda	1	1 4 2 2 3 8 2 8 2 8 8 18 4	10	7 2 2 1 1 1 84 4 2 2 2 2 2	4	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Hamilton, Bermuda	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	10 40	7 2 2 1 1 84 4 2 2 2 2 2	4	. 1 1 1 355 1
Havre	1 1	4 2 3  8 2  8  8  8  8	10	7 2 1 84 4 2 2 2 2 2	4	. 1 1 1 35 1
Havre	1 1 	2 2 3  8 2  8  8  18 4	10	7 2 1 84 4 2 2 2 2 2	4	. 1 1 1 35
Hiogo	1 1	2 3 8 2 8  8  18 4	10	7 2 1 1 84 4 2 2 2 2 2	4	35
Konigsberg	1 1	8 2 8  18 4	10	7 2  1 84 4 2 2 2	4	35
Leeds	1 1 	8 2 8  18 4	10 40	1 1 84 4 2 2 2	4	35
Leghorn         Oct. 21         103,166         69         48           Leith         Oct. 21         70,972         30            Licata         Oct. 14         17,889         11            Liege         Oct. 21         155,898         42         1           Liverpool         Oct. 21         510,480         242            London, Canada         Oct. 28         19,746         11            London, England         Oct. 21         5,633,806         1,554         3            Lyons         Oct. 14         438,077         127             Madrid         Oct. 14         482,816         275         10           Madrid         Oct. 14         482,816         279         10           Madrid         Oct. 14         216,979         81         1           Magdeburg         Oct. 14         216,979         81         1           Malaga         Oct. 8         130,000         85         6           Malaga         Oct. 15         130,000         85         6           Mangelester         Oct. 21         565,343         186	1	8 18 4	40	1 1 84 4 2 2 2	4	35
	1	8 18 4	40	1 84 4 2 2 2	20	35 1
	1	8 18 4	40	1 84 4 2 2 2	20	35 1
London Canada	2	18 4	40	1 84 4 2 2 2	20	35
	2	18 4 6		84 4 2 2 2	20	1
London, England.         Oct. 21.         5,633,806         1,554         3           Lyons.         Oct. 14.         438,077         127            Madrid.         Oct. 7.         482,816         275         10           Madrid.         Oct. 14.         482,816         279         10           Madrid.         Oct. 14.         216,979         81         1           Magdeburg         Oct. 14.         216,979         81         1           Malaga.         Oct. 8.         130,000         85         6           Malaga.         Oct. 15.         130,000         83         8           Manchester.         Oct. 21.         505,343         186            Manila.         Sept. 23.         160,000         110            Manila.         Sept. 30.         160,000         107	2	4 6		2 2 2	20	1
Madrid.         Oct. 7         482,816         275         10           Madrid.         Oct. 14         482,816         279         10           Madrid.         Oct. 21         482,816         291         12           Maggeburg         Oct. 14         216,979         81         1           Malaga         Oct. 8         130,000         85         6           Malaga         Oct. 15         130,000         83         8           Manchester         Oct. 21         505,343         186         8           Manila         Sept. 33         160,000         110         8           Manila         Sept. 30         160,000         107         8	2	6		$\frac{2}{2}$		
Madrid         Oct. 14         482, 816         279         10           Madrid         Oct. 21         482, 816         291         12           Magdeburg         Oct. 14         216, 979         81         1           Malaga         Oct. 15         130, 000         85         6           Malaga         Oct. 15         130, 000         83         8           Manchester         Oct. 21         505, 343         186         8           Manila         Sept. 23         160, 000         110         10           Manila         Sept. 30         160, 000         107	2	6		$\frac{2}{2}$		. 1
Magdeburg         Oct. 14         216,979         81         1           Malaga         Oct. 8         130,000         85         6           Malaga         Oct. 15         130,000         83         8           Manchester         Oct. 21         505,343         186         8           Manila         Sept. 23         160,000         110         8           Manila         Sept. 30         160,000         107         100		6				1
Malaga         Oct. 8         130,000         85         6           Malaga         Oct. 15         130,000         83         8           Manchester         Oct. 21         505,343         186         8           Manila         Sept. 23         160,000         110         10           Manila         Sept. 30         160,000         107         10						
Malaga     Oct. 15     130,000     83     8       Manchester     Oct. 21     505,343     186        Manila     Sept. 23     160,000     110        Manila     Sept. 30     160,000     107						
Manila		3				.
Manila		3	3	2	2	2
Maracaibo						
Maracaibo						
Marbella				. 2	ļ	
Matamoras						
Melbourne Sept. 2 1,140,405				. 1		
Melbourne Sept. 9 1,140,405				1		
Melbourne Sept. 16 1, 140, 405				3 2	4	
Munich		1	1	6	10	
Nagasaki Oct. 7 61, 999 1				•	• • • • • •	• • • • • • • • • • • • • • • • • • • •
Nogales						
Nuremberg Oct. 7 151,086 66			1	2		
Odessa		8	4	6	1	
Palermo Oct. 14 250,000 150 63		2	1	1		
			1 2	10 5	6	
Plymouth Oct. 21 86,772 25		¦	. 1			
Port Stanley Oct. 7 11,000 2					•	
Port Stanley Oct. 14 11,000 3						
Port Stanley Oct. 28 11,000 2						
Prague Oct. 21 188,140 16		8	1	7		
Puerto Cabello       Oct. 21       10,500       9           Quebec       Oct. 28       70,000				. 1	1	
Queenstown Oct. 14 15,000 4				.		
Queenstown     Oct. 21     15,000     8        Queenstown     Oct. 28     15,000     3						
Rheims	. 1					
Rotterdam         Oct. 21         222,233         68					. 1	
St. Georges			. 1			
St. Petersburg Oct. 7 1,000,000 109 72		16	13	3	3	2
St. Pierre Oct. 7 35,000 13 St. Pierre Oct. 14 35,000 11						
St. Pierre Oct. 21 35,000 14						
St. Stephen Oct. 28 2,700 2	•   • • • • •		.			·

# MORTALITY TABLE, FOREIGN CITIES—Continued.

,			Estimated popula- tion.	Total deaths from all causes.	Deaths from—								
Cities.		•			Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Santiago de Cuba	Oct.	27	50,000	38		1		2			2		
Schiedam	Oct.	21	25, 400	9				ļ					
Sheffield	Oct.	21	335, 566	101					5		1		2
Sonneberg	Oct.	15	12,000	2									l
Southampton	Oct.	21	64, 899	22					1			l	l
Stockholm	Oct.	24	149, 146	64						5	7	l	l
Sttetin	Oct.	14	122,000	81	12			l			4		1
Stuttgart	Oct.	19	139,659	43	1								1
Sunderland	Oct.	21	134, 394	65			<b> </b>		3	1	1	1	
Swansea	Oct.	21	95,000	32			l			1			l
Trapani	Oct.	14	43,095	9			l	1				1	
Trieste	Oct.	14	158, 314	78	l		4			1	3		
Truxillo	Oct.	21	5,000	3	1				<b> </b>				
Tuxpan	Oct.	21	10, 280	10	l				1				
Venice	Oct.	7	163, 707	47			1	[					
Venice	Oct.	14	163,707	30		ļ		l		<b> </b>	l		l
Vera Cruz	Oct.	26	28,500	28		4		ļ					ļ
Warsaw	Sept	. 30		210	ļ		10	1	ļ	7	12		
Warsaw	Oct.	14		231			9	2	1	12	8	5	2
Winnipeg	Oct.	28		20	ļ	l		<b> </b>	5	4	1	4	6
Zurich	Oct.	14	110,000	27	1	1		I	l	l	3		l

By authority of the Secretary of the Treasury:

Walter Wyman, Supervising Surgeon-General Marine-Hospital Service.

