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UNITED STATES.

Acid Fuchsin as an Agent for the Differentiation of Bacteria.

[By ED. ANDRADE-PENNY, M. D., Assistant in the Hygienic Laboratory, United States Marine-Hospital Service, Washington, D. C.]

The changes of reaction brought about by different kinds of bacteria in the culture media where they are grown have not been carefully studied. There exists considerable variance of opinion among bacteriologists as to the reactions of the intestinal micro-organisms, more especially the bacillus typhosus and bacillus coli communis. Brieger holds that the bacillus typhosus produces an acid change. Klemensciewicz states that both these produce an acid reaction which is more marked in the bacillus coli. Thoinot and Masselin, on the other hand, say that, according to their experience, coli communis produces first an alkaline reaction, which gradually changes into an acid. Peré, after a careful investigation, states that in peptone bouillon made from meat less than forty hours old both coli communis and typhosus produce acid which gradually changes to an alkali, the stage of acidity being shorter with typhosus than with coli. These reactions varied according to the time the meat was kept before use. Peré concludes that the different and contrary results of the investigators are due to the influence of the variable composition of the media, and not so much to the micro-organisms in question.

In view of these contradictory statements, and believing that very important and useful data for the differentiation of bacteria and for the complete knowledge of their biological properties could be obtained from the careful study of the reactions they produce in different culture media, I have undertaken a series of experiments. The results obtained deal with those forms of bacilli which are usually found in the intestinal canal, viz, bacillus coli communis, bacillus typhosus, bacillus proteus vulgaris, bacillus acidi lactici, and bacillus lactis aerogenes. The experiments made with the spirilla will be the subject of another communication.

Aqueous solutions of acid fuchsin (Fuchsin, S. Grübler) have been found to be excellent indicators for acids and alkalies. Solutions of this aniline dye lose their bright-red color in the presence of alkalies and recover it or become more intensely red when acted upon by acids either mineral or vegetable. It has been found that 0.01 centigram of caustic potash combines with 0.005 miligram of acid fuchsin and forms a colorless salt, the sensibility of which is that 0.00003 of a gram detects 0.001 of c. c. of pure hydlochloric acid. The intensity of the color assumed by the indicator is directly in relation to the amount of the reagent. Moreover, as far as it has been observed, the addition of acid fuchsin to the culture media has not the slightest influence on the growth of the germs.

To 10 c. c. of ordinary bouillon more than 0.5 c. c. of a saturated aqueous solution of acid fuchsin was added without inhibiting the growth. This indicator has the advantage of being readily soluble in water; the solutions are entirely clear and transparent and do not produce precipitates when the medium is rendered sufficiently alkaline to completely decolorize it. This is quite in contrast with other aniline colors, which have more or less these properties. It is known that Legrain used solutions of ordinary basic fuchsin for the same purpose. This has not, in our hands, yielded good results, because it is far less sensitive than acid fuchsin; the solutions are cloudy and throw down a brownish-red precipitates in the presence of alkalies, which interferes with the tests.

These tests include many kinds of media, to which has been added the acid fuchsin, viz, ordinary peptone bouillon, beef tea, Dunham's peptone solution, Dunham's peptone solution with glycerin, somatose solution, and somatose solutions with glycerin; also these media, to which agar-agar and gelatin had been added. Of each medium two specimens were prepared, one pink and the other decolorized, the difference being that the pink is exactly neutral in its reaction, while the so-called decolorized is slightly alkaline. The amount of acid fuchsin in both is about the same.

After many trials it was found that the most sensitive of the pink media is one that is exactly neutral and contains acid fuchsin in the proportion of 1 to 25,000 or 1 to 33,000, those decolorized having an alkalinity equal to 0.006 miligram of caustic potash in every 100 c. c., containing acid fuchsin in the proportion of 1 to 33,000.

PREPARATION OF THE MEDIA.

Neutral peptone bouillon is prepared in the usual way and titrated for sodium chloride, so that it contains 0.5 centigram to the liter. This is important, as an increase of the salt proportionally diminishes the growth of the bacteria, and hence interferes with the reaction. After the bouillon is prepared the acid fuchsin in aqueous solution is added, so that the medium contains the fuchsin in the proportion of 1 to 25,000 for the pink or neutral bouillon.

The decolorized or alkaline bouillon is prepared by adding to every 100 c. c. of the neutral medium 0.006 milligram of caustic potash and acid fuchsin in the proportion of 1 to 33,000.

After the addition of the fuchsin the bouillon is boiled for about half an hour and then filtered, put into tubes, each containing 10 c. c., and then sterilized in the usual way. It is observed that on heating the media the color deepens, while on cooling the original color returns, but it is sometimes paler.

Dunham's solution of peptone, with 6 per cent glycerin containing acid fuchsin in the proportion of 1 to 33,000, has been found the best adapted for the differentiation of the intestinal organisms. The decolorized solution is made in the same manner as for the decolorized bouillon. The advantage of this medium over others is that on account of its absence of color it indicates the slightest trace of acid.

Instead of Dunham's peptone solution, somatose has also been employed in the same manner, adding to its solutions the same amount of salt and glycerin. It is not so satisfactory as Dunham's solution, owing to the deep orange tint of the solution, and before the proper color was obtained the amount of acid fuchsin had to be increased so that it contained it in the proportion of 1 to 2,500. Decolorized solutions are prepared in the same manner as others.

Solid media of agar-agar or gelatin are prepared from Dunham's or somatose solutions. The glycerin, however, should not be added until they are neutralized and filtered; otherwise the media may not be clear and transparent. This is especially so with gelatin. The same amounts of acid fuchsin are added to each, and they are neutralized in the usual manner.

The experiments were made with one specimen of bacillus proteus vulgaris, one of bacillus acidi lactici, one of bacillus lactis aerogenes, six different specimens of bacillus

typhosus and five of coli communis. The specimens of bacillus typhosus and bacillus coli communis were obtained from different sources, viz, from New York, from the laboratory of the Johns Hopkins University, from the laboratory of the Army Medical Museum, from the Bureau of Animal Industry, and from the Hygienic Laboratory M. H. S., another specimen of bacillus typhosus, furnished through the kindness of Dr. Reed of the Army Medical Museum, and designated by him by the name of "blue typhoid" on account of the deep blue tint assumed by its cultures in litmus milk after a certain number of days. Each experiment was checked by plate cultures, so that in no instance was there any contamination by other bacteria. As a general rule, the cultures used in these experiments were bouillon cultures twenty-four or thirty-six hours old and at a mean temperature of 37° C., although experiments were also made with cultures considerably older and grown under different conditions.

The following results were obtained by planting the micro-organisms already mentioned in acid fuchsin bouillon:

(1) After six to eight hours the bacilli acidi lactici, coli communis, and lactis aerogenes develop a considerable quantity of acid, especially bacillus acidi lactici and bacillus lactis aerogenes. This acid reaction is indicated by the increased intensity of the pink bouillon or the appearance of the pink color in the decolorized one.

(2) After twenty-four hours the acid reaction begins to disappear, the bouillon now has a paler tint, and at the end of forty-eight or fifty hours they show a marked alkaline reaction, which increases rapidly until the pink color entirely disappears, the cultures presenting then a yellowish hue.

(3) Bacillus proteus vulgaris does not present an acid stage from the beginning; it alkalinizes the medium so that at the end of twenty-four hours the pink bouillon has lost almost all its color.

(4) Bacillus typhosus shows the acid production of the initial stage later than any of the preceding, it occurring after ten or twelve hours and remains acid for a long period, varying from seven to ten days, and even longer; then the acidity gradually disappears; usually at the twelfth day the decolorization of the pink medium is accomplished.

The changes of reaction of the cultures are shown by the color assumed by the medium, and there will be a sharp distinction between the bacillus typhosus and the other bacteria mentioned, so great that it is easy to differentiate it from the others. Especially is this well marked in fresh cultures. If the culture has been kept on laboratory media for a long time, this change is not so pronounced, as was demonstrated in one of the specimens of the typhoid bacillus which had been kept under prolonged cultivation. There was a marked diminution in its acid-producing power, making the difference between its cultures and those of bacillus coli communis very slight. It was found on further study that this property was influenced by the character of the media, especially in the composition of the beef tea, which is by no means constant. Accordingly other media were brought into use, bearing always in mind that such would always be of constant composition, and in which the differences of reaction changes between bacillus typhosus and the other intestinal microorganisms should be the same, notwithstanding the different ages and sources of the cultures used. This medium is the peptone solution prepared according to the formula of Dunham, with the addition of glycerin and acid fuchsin. The addition of the glycerin is essential to bring about the reaction, as no marked change is observed in simple Dunham solution.

The following results were obtained with this medium:

(1) During the first forty-eight hours bacillus acidi lactici and bacillus lactis aerogenes produce a strong acid reaction, especially so with the former, but bacillus coli communis, bacillus proteus vulgaris, and bacillus typhosus do not produce any marked change.

(2) At the end of forty-eight or fifty hours B. coli communis and proteus vulgaris produced also acid, so that the cultures become quite red.

(3) Bacillus typhosus does not show any marked acid production until the fifth or seventh day, when it acquires the same tint as the others.

By observing the color of the cultures after forty-eight or fifty hours it is very easy to distinguish the pale pink or colorless culture of bacillus typhosus from the intensely red of the other organisms. As these results have been constant and have not shown any variation in a very long series of experiments made under different circumstances, this test is positive, establishing the presence of or differentiating bacillus typhosus from the other intestinal micro-organisms and especially from B. coli communis.

It will be noticed that the change of reaction brought about in the glycerin peptone solution with acid fuchsin is different from what takes place in the bouillon, for while the last stage in the bouillon cultures is one of alkalinity after a period of acidity (except in the case of B. proteus vulgaris which has no initial acid stage), in Dunham's solution with glycerin and acid fuchsin no marked change is observed at the beginning, and the last stage is one of acidity. In this case the change of reaction is produced in all probability by an oxygenation of the glycerin, while in the case of bouillon the reaction is due to the influence of the germs of the inosite or any other hydrocarbonates.

Beautiful results were also observed by planting B. coli communis and B. typhosus in Dunham's solution with glycerin and fuchsin, to which agar-agar or gelatin had been added. Stab cultures of B. coli communis and B. typhosus made in the agar medium and kept at 37° C. showed the following: Those of coli communis were pinker than those of bacillus typhosus, the pink color being more marked along the stab, but was diffused throughout the agar. The pink coloration increased, and on the third day the culture presented a brilliant red color. On the other hand, the cultures of bacillus typhosus showed at the end of forty-eight hours pink tint at the upper part of the stab, from whence the color diffused to the upper stratum, gradually fading as it approached the periphery. The deeper strata were unchanged, the line of demarkation between the upper and lower portions being sharply drawn. This condition was changed little by little, the lower portions gradually assuming a red coloration. At the end of twelve days the cultures of bacillus typhosus were red in its whole extent. This shows quite conclusively that the changes are due to an oxygenation of the media by the action of the culture. "Shake" cultures of the same bacteria were made with the same results in a much shorter time, the cultures of coli communis producing the characteristic bubbles on the third day. The red coloration of the cultures of bacillus typhosus began in this case by a narrow superficial zone that gradually extended to the whole tube.

"Shake" cultures in Dunham's solution with glycerin and acid fuchsin showed the difference between bacillus coli communis and bacillus typhosus after being planted twenty-two hours, in spite of the fact that due to extremely hot weather the cultures were kept at 10° C. As in the cases before mentioned, B. coli communis produced an acid change, making more intense the pink color of the cultures, while B. typhosus did not produce any acid until the third day. It is thus seen that in this gelatin medium bacillus typhosus produces acid quicker than in the agar or liquid media.

Bacillus typhosus and B. coli communis were also planted in the somatose solution, with glycerin and acid fuchsin. The results were the same as those observed with the Dunham's solution with glycerin, but the changes were brought about in less than twenty-four hours. At the end of this time the cultures of bacillus coli communis exhibited a bright red color.

It will be seen that by growing the intestinal organisms in the media mentioned above we are enabled to differentiate organisms that are so often confounded with each other.

I am now experimenting with other intestinal bacteria, more especially the spirilla, and the results as far as obtained are promising, and will be given subsequently.

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

Smallpox at Eagle Pass.

CAMP JENNER,
Eagle Pass, Tex., August 13, 1895.

SIR: * * * Many rumors of smallpox appearing in the city have been in circulation, but on investigation they have been found, without exception, to be groundless. Only 1 case thus far has been traced to contagion from the refugees. This occurred in Mexico, 120 miles south of this place, on the line of the Mexican International Railway, over which road the returning immigrants passed. During a short stop made at this point, one of the negro children wandered from the car and entered the house of a railroad section master, and twelve days after smallpox developed in the person of one of his children. The house and occupants, I am informed by the general superintendent of the road, has been quarantined by one of the physicians in the employ of the company.

The most recent source of danger to this section arises from the fact that the baggage (bedding and surplus clothing) of the refugees who arrived on the night of the 5th instant was allowed to remain on the side of the railroad track until noon of the 8th instant. As no guard was placed over this baggage, it was probably pillaged to a considerably extent by the Mexicans and lower class of whites in the vicinity, and as 50 of the 70 negroes to whom this baggage belonged were sick with smallpox when they arrived, the danger from this source is serious, and is rendered more so from the fact that the Mexican population in this part of the State have but little dread of smallpox, and rarely call in a physician to attend a case. The county health officer, however, is active, and is taking measures to obtain early information of any appearances of the disease.

Very respectfully,

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

EAGLE PASS, TEX., *August 16, 1895.*

Deaths from smallpox, 2; from inanition, 1; new cases, 2; 1 refugee.

EAGLE PASS, TEX., *August 16, 1895.*

New cases, 4; deaths, 2; 30 refugees expected to-morrow.

EAGLE PASS, TEX., *August 17, 1895.*

Four new cases; 2 deaths; Steward Gibson reported to-day.

EAGLE PASS, TEX., *August 19, 1895.*

Three new cases, 1 death. Impossible to discharge refugees on account of bad weather. Will disinfect clothing with bichloride solution, burn mattresses, quilts, and pillows.

EAGLE PASS, TEX., *August 20, 1895.*

Three new cases and 1 death. Five convalescents who arrived on the 17th instant discharged.

EAGLE PASS, TEX., *August 21, 1895.*

One death, 2 new cases, 1 refugee discharged, 24 expected on evening train.

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

Smallpox and Diphtheria in Philadelphia.

PHILADELPHIA, *August 16, 1895.*

SIR: Smallpox status in this State is as follows: Philadelpha—Number of cases reported since July 17, 1895, 18; number of deaths reported since July 17, 1895, 1. Number of cases of diphtheria reported in Philadelphia since July 17, 1895, has been 250; number of deaths, 72. Two cases of cerebro-spinal meningitis have been reported in Philadelphia since July 17, 1895, 1 resulting fatally.

Yours, very truly,

BENJAMIN LEE,
Secretary State Board of Health.

Smallpox in Memphis, Tenn.

MEMPHIS, TENN., *August 10, 1895.*

SIR: I have the honor to report that occasional cases of smallpox continue to arise in this city and its outskirts, 10 cases having appeared in July and 3 during the first week of the present month. All the patients were colored except one.

During the last few days of June and the month of July there was an outbreak of smallpox among the colored population of the extreme southwestern portion of this (Shelby) county, 17 cases appearing. Measures to prevent its spread were taken by the county physician, Dr. F. S. Raymond, and it is believed now that the outbreak has been sup pressed.

Very respectfully, yours,

A. C. SMITH,
Passed Assistant Surgeon, M. H. S.

Disinfection of Steamship Antwerp City.

UNITED STATES QUARANTINE STATION,
Port Townsend, Wash., August 3, 1895.

SIR: I have the honor to make the following report upon the disinfection of the British steamship *Antwerp City* at this quarantine station: The *Antwerp City* arrived at Port Townsend on the morning of July 25, 1895. Upon boarding the vessel I ascertained that she was 21 days from Hiogo, Japan; no passengers; water ballast; crew of 26, all Europeans shipped in England except one, who was shipped in Yokohama; stores from England, and water from Hiogo. The captain informed me that on the seventh day out, July 12, 1895, Andrew Sharp, a fireman, was suddenly taken sick with severe vomiting, and that he was sick for several days. The vomiting was not accompanied by pain or diarrhea.

The following is a copy of the ship's log:

July 12, 1895.—Andrew Sharp, fireman off duty, suffering from sickness, treating him as directed in medical guide by linseed poultices to his stomach.

July 14, 1895.—Andrew Sharp still off duty, being very sick and throwing up everything as soon as taking it.

July 16, 1895.—Andrew Sharp still off duty, complains of nothing but feeing sick, is in no pain, but can keep nothing on his stomach, medicine and everything he takes coming up again at once.

July 20, 1895.—Andrew Sharp, fireman, still off duty and unable to keep any food or medicine on his stomach, is in no pain.

July 25, 1895.—Andrew Sharp still off duty, but much better, sickness stopped and every appearance of being well in a few days.

The patient was well nourished, heart and lungs normal, tongue slightly coated, no tenderness over abdomen, temperature normal, pulse 120, due probably to excitement; stated he was able to do light work.

The bill of health showed that there had been 119 cases of cholera with 77 deaths in Hiogo during the two weeks previous to the vessel's sailing, so I sent ashore to request Passed Assistant Surgeon J. O. Cobb to come out in the launch, so that I could consult with him as regards to the disposition of the vessel. After considering all the facts Dr. Cobb and myself decided that it was best for me to take the vessel to the station and disinfect her. She arrived at the station at noon and disinfection was immediately begun. The patient was placed on shore in the hospital. Everything was taken out of the forecastle and the forecastle thoroughly washed by means of a hose with 1–500 acid solution of corrosive sublimate. The clothing of the crew was steamed in the chamber on the wharf. The crew were sent ashore to the detention barracks and the forecastle locked up. The clothing of the officers and engineers was also steamed and their quarters treated in the same way, except that the woodwork was wiped with the acid solution instead of being drenched with the hose. All butter, sugar, and other eatables that were in boxes and cans which had been opened were destroyed. The water-closets, galley, and all other compartments of the ship were flushed with the acid solution. The water ballast was pumped out and the tanks refilled with salt water. The hold was empty and sealed up. The last cargo which the vessel had carried was iron ore, so I did not consider it necessary to do anything to the hold. The water was pumped out of the fresh-water tank and the tank cleaned. It was then flushed with hot water obtained from a tug boat which had come alongside with potable water. After the hot water ran out of the tank the latter was again cleaned and then filled with good water from the tug.

No further sickness having appeared, the vessel was discharged from quarantine August 1, 1895, after the clothing, bedding, etc., of the crew had been again steamed. The patient was discharged August 3, 1895.

Very respectfully,

WM. G. STIMPSON,
Passed Assistant Surgeon, M. H. S.

*Smallpox in the United States as reported to the Supervising Surgeon-General Marine-Hospital Service, August 1 to August 22, 1895.**

Places.	Date.	Cases.	Deaths.	Remarks.
Louisiana:				
New Orleans	July 20–July 27		1	
Michigan:				
Battle Creek	do	2		
Detroit	July 22–July 29			Smallpox reported.
Missouri:				
St. Louis	July 20–July 27	1		
New York:				
Brooklyn	July 27–Aug. 3	1		
	Aug. 10–Aug. 17	1		
Pennsylvania:				
Philadelphia	July 17–Aug. 16	18	1	
Tennessee:				
Memphis	Aug. 3–Aug. 10	3		
Texas:				
Eagle Pass	July 29–Aug. 21	155	40	
Virginia:				
Patrick Springs	Aug. 3	21	3	

* For smallpox cases and deaths reported to the Marine-Hospital Service, January 1 to July 31, 1895, see Nos. 13, 22, and 31, Vol. X.

Report of Immigration at New York for the Week ended August 17, 1895.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of New York, August 19, 1895.

Number of Alien Immigrants who Arrived at this Port during the Week ended August 17, 1895; also Names of Vessels and Ports from which they Arrived.

Date.	Vessel.	Where from.	No. of immigrants from Russia.	No. of immigrants.
1895.				
Aug. 11	Steamship Maasdam	Rotterdam and Boulogne	30	205
Do...	Steamship Marsala	Hamburg	2	78
Aug. 12	Steamship Furnessia	Glasgow	95	276
Do...	Steamship La Normandie	Havre	12	196
Aug. 13	Steamship Berlin	Southampton	44	346
Do...	Steamship Fulda	Bremen	20	152
Do...	Steamship State of Nebraska	Glasgow	82	137
Aug. 14	Steamship Majestic	Liverpool and Queenstown	5	622
Do...	Steamship Stuttgart	Bremen	80	216
Do...	Steamship Westernland	Antwerp	9	181
Do...	Steamship Italia	Naples, etc		118
Do...	Steamship Chateau Lafite	Bordeaux		103
Aug. 15	Steamship Patria	Hamburg	93	160
Do.....	Steamship Virginia	Stettin, Helsingborg, etc		271
Do.....	Steamship Spree	Bremen		176
Aug. 16	Steamship Fürst Bismarck	Hamburg	53	282
Do.....	Steamship Bohemia	do	104	216
Aug. 17	Steamship Werkendam	Amsterdam	36	79
Do.....	Steamship Etruria	Liverpool and Queenstown		151
Do.....	Steamship New York	Southampton	3	311
	Total		668	4,276

ED. F. MCSWEENEY,
Acting Commissioner of Immigration.

Report of Immigration at Philadelphia for the Week ended August 17, 1895.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of Philadelphia, August 17, 1895.

Number of Alien Immigrants who Arrived at this Port during the Week ended August 17, 1895; also Names of Vessels and Ports from which they Arrived.

Date.	Vessel.	Where from.	No. of immigrants from Russia.	No. of immigrants.
1895.				
Aug. 14	Steamship Indiana	Liverpool and Queenstown	36	290
Do...	Steamship Pennsylvania	Antwerp	8	126
Aug. 16	Steamship Kensington	Liverpool and Queenstown	38	662
	Total		82	1,078

JAS. L. HUGHES,
Acting Commissioner of Immigration.

Vessels Arriving at, Departing from, and Remaining at United States Quarantine Stations.

DELAWARE BREAKWATER QUARANTINE.

Week ended August 18, 1895.

Five vessels inspected and passed.

GULF QUARANTINE.

Week ended August 5, 1895.

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of dep'ture.
Brit. bk. Talisman*	July 10	Rio de Janeiro.	Ship Island	Disinfected	July 31.
Mex. sch. Tres Hermanos	Aug. 5	Campeche	Pascagoula	do	

*Previously reported.

One vessel inspected and passed.

Week ended August 12, 1895.

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of dep'ture.
Mex. sch. Tres Hermanos*	Aug. 5	Campeche	Pascagoula	Disinfected	Aug. 9
Span. bk. Gran Canaria	Aug. 11	Havana	do	do	

*Previously reported.

One vessel inspected and passed.

REEDY ISLAND QUARANTINE.

Week ended August 18, 1895.

Thirty vessels inspected and passed.

SAN DIEGO QUARANTINE.

Week ended August 14, 1895.

Three vessels inspected and passed.

SOUTH ATLANTIC QUARANTINE.

Week ended August 17, 1895.

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of dep'ture.
Brit. bkn. Cosmo*	Aug. 1	Rio de Janeiro and Para.	Savannah	Disinfected	Aug. 17
Nor. bk. Mississippi	Aug. 11	Para	Savannah or Brunswick.	Held for disinfection.	
Br. bk. Mistletoe	Aug. 13	Barbados	Savannah	do	

*Previously reported.

Reports of States and Yearly and Monthly Reports of Cities.

CALIFORNIA—*Los Angeles.*—Month of July, 1895. Estimated population, 80,000. Total deaths, 96, including enteric fever, 2; scarlet fever, 1; measles, 2; and phthisis pulmonalis, 9.

Sacramento.—Month of July, 1895. Estimated population, 30,000. Total deaths, 40, including phthisis pulmonalis, 7.

San Francisco.—Month of July, 1895. Estimated population, 330,000. Total deaths, 539, including enteric fever, 15; whooping cough, 1; and phthisis pulmonalis, 117.

CONNECTICUT.—Month of July, 1895. Reports to the State board of health from 167 towns, cities, and villages, having an aggregate population of 809,664, show a total of 1,308 deaths, including measles, 2; scarlet fever, 4; diphtheria, 5; whooping cough, 7; enteric fever, 15; and phthisis pulmonalis, 120.

FLORIDA—*Tampa.*—Month of July, 1895. Estimated population, 21,000. Total deaths, 39, including enteric fever, 2.

ILLINOIS—*Chicago.*—Month of June, 1895. Estimated population, 1,600,000. Total deaths, 1,773, including diphtheria, 80; smallpox, 2; enteric fever, 18; and phthisis pulmonalis, 156.

MARYLAND—*Baltimore.*—Month of July, 1895. Estimated population, 496,315 (white, 422,568; colored, 73,747). Total deaths, 1,178 (white, 896; colored, 282), including measles, 13; enteric fever, 24; scarlet fever, 4; and phthisis pulmonalis, 88.

MASSACHUSETTS—*Brockton.*—Month of July, 1895. Estimated population, 33,939. Total deaths, 28, including phthisis pulmonalis, 6.

Fitchburg.—Month of July, 1895. Estimated population, 29,383. Total deaths, 25. No deaths from contagious diseases.

North Adams.—Two weeks ended August 10, 1895. Population, 16,074. Total deaths, 12. No deaths from contagious diseases.

Northampton.—Month of July, 1895. Estimated population, 16,400. Total deaths, 15, including phthisis pulmonalis, 3.

MICHIGAN.—Week ended August 10, 1895. Reports to the State board of health, Lansing, from 61 observers indicate that inflammation of the bowels and inflammation of the kidney increased, and pleuritis, remittent fever, dysentery, and typhoid fever decreased in area of prevalence. Phthisis pulmonalis was reported present during the month at 178 places, scarlet fever at 27, enteric fever at 40, diphtheria at 22, whooping cough at 12, measles at 6, and smallpox at 2 places—Battle Creek and Detroit.

MINNESOTA—*Minneapolis.*—Month of July, 1895. Estimated population, 164,738. Total deaths, 257, including diphtheria, 5; enteric fever, 9; measles, 5; whooping cough, 8; and phthisis pulmonalis, 18.

St. Paul.—Month of July, 1895. Estimated population, 212,480. Total deaths, 190, including enteric fever, 4; diphtheria, 6; whooping cough, 2; and phthisis pulmonalis, 15.

NEW HAMPSHIRE—*Manchester.*—Month of July, 1895. Estimated population, 55,000. Total deaths, 101, including phthisis pulmonalis, 2.

NEW YORK—*Buffalo.*—Month of July, 1895. Estimated population, 335,709. Total deaths, 534, including diphtheria, 7; measles, 5; enteric fever, 2; and phthisis pulmonalis, 52.

Hornellsville.—Month of July, 1895. Estimated population, 12,000. Total deaths, 9, including 1 from phthisis pulmonalis.

Yonkers.—Month of June, 1895. Estimated population, 36,000. Total deaths, 38, including scarlet fever, 1; and phthisis pulmonalis, 3.

Month of July, 1895. Total deaths, 82, including phthisis pulmonalis, 4.

TENNESSEE—*Nashville.*—Month of July, 1895. Estimated population, 87,754 (white, 54,595; colored, 33,159). Total deaths, 175 (white, 82; colored, 93), including scarlet fever, 2; enteric fever, 9; and phthisis pulmonalis, 26.

UTAH—*Ogden.*—Month of July, 1895. Estimated population, 20,000. Total deaths, 9. No deaths from contagious diseases.

Salt Lake City.—Month of July, 1895. Estimated population, 70,000. Total deaths, 34. No deaths from contagious diseases.

WISCONSIN—*Milwaukee.*—Month of July, 1895. Estimated population, 275,000. Total deaths, 326, including diphtheria, 2; scarlet fever, 1; enteric fever, 2; whooping cough, 2; and phthisis pulmonalis, 18.

OHIO—*Warren.*—Two weeks ended August 12, 1895. Estimated population, 8,000. Total deaths, 4. No deaths from contagious diseases.

RHODE ISLAND—*Newport.*—Month of July, 1895. Estimated population, 20,000. Total deaths, 29, including enteric fever, 1; and phthisis pulmonalis, 1.

Table of Temperature and Rainfall, Week ended August 19, 1895.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	*Excess.	*Defic'ncy.	Normal.	Excess.	Deficiency.
Atlantic Coast:						
Eastport, Me	61	3		.77	1.83	
Portland, Me	66	2		.84	.96	
Northfield, Vt	63	1		1.07		.27
Boston, Mass	69	1		1.05	.15	
Vineyard Haven, Mass	72	0		1.22	.28	
Nantucket, Mass	68	0		1.05		.45
Woods Hole, Mass	69	1		.97	.03	
Block Island, R. I	68	4		.70		.10
New Haven, Conn	69	5		1.26	.54	
New London, Conn	69	3		1.18		.38
Albany, N. Y	71	3		.84		.64
New York, N. Y	72	4		1.08		1.08
Harrisburg, Pa	73	3		1.12		1.02
Philadelphia, Pa	74	4		1.12		1.12
Atlantic City, N. J	71	7		1.19		1.19
Baltimore, Md	75	1		1.00		.60
Washington, D. C	74	5		.98		.66
Lynchburg, Va	76	2		.91		.01
Cape Henry, Va	77	1		1.26	.04	
Norfolk, Va	76	2		1.46		.36
Charlotte, N. C	77	1		1.25	.95	
Raleigh, N. C	76	2		1.88		.08
Kittyhawk, N. C	78	0		1.72		.12
Hatteras, N. C	77	0		1.47	1.93	
Wilmington, N. C	78	0		1.71	1.19	
Columbia, S. C	79	0		1.31	3.59	
Charleston, S. C	80	2		1.68		.18
Augusta, Ga	80	0		1.07	2.63	
Savannah, Ga	80	2		1.79		1.19
Jacksonville, Fla	82	0		1.47		.47
Titusville, Fla	81		1	.63	.57	
Jupiter, Fla	82		2	1.40		.90
Key West, Fla	84	0		1.05		.85
Gulf States:						
Atlanta, Ga	77	1		.69	4.31	
Tampa, Fla	81		1	2.21		.51
Pensacola, Fla	81		1	2.09		.29
Mobile, Ala	81		1	1.54	2.26	
Montgomery, Ala	80	2		.84	.36	
Meridian, Miss	78	2		.68	.32	
Vicksburg, Miss	81		1	.74	.16	
New Orleans, La	82		2	1.40	2.30	
Shreveport, La	83		1	.38	.22	
Fort Smith, Ark	79	1		.87		.87
Little Rock, Ark	80	2		.91		.91
Palestine, Tex	82	0		.50		.50
Galveston, Tex	83	1		1.19		.99
San Antonio, Tex	83	3		.77		.77
Corpus Christi, Tex	82	0		.74		.64
Ohio Valley and Tennessee:						
Memphis, Tenn	79	3		.85		.85
Nashville, Tenn	77	3		.71		.51
Chattanooga, Tenn	77	1		.98		.38
Knoxville, Tenn	75	3		.98	.12	
Louisville, Ky	76	4		.84		.84
Indianapolis, Ind	73	5		.79		.79
Cincinnati, Ohio	75	5		.98		.98
Columbus, Ohio	72	6		.77		.77
Parkersburg, W. Va	73	3		.91		.91
Pittsburg, Pa	72	2		.77		.07
Lake Region:						
Oswego, N. Y	68	0		.52	.08	
Rochester, N. Y	68	2		.70	1.20	
Buffalo, N. Y	68	2		.70		.00
Erie, Pa	69	1		.73		.63
Cleveland, Ohio	69	1		.70		.60
Sandusky, Ohio	71	3		.83		.63
Toledo, Ohio	70	4		.63		.00
Detroit, Mich	69	0		.66		.56
Lansing, Mich	69	3		.61		.61
Port Huron, Mich	66	2		.56		.16

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

Table of Temperature and Rainfall, Week ended August 19, 1895—Continued.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	*Excess.	*Defic'ncy.	Normal.	Excess.	Deficiency.
Lake Region—*Continued.*						
Alpena, Mich	63	1		.77		.27
Sault Ste. Marie, Mich	62		2	.56		.36
Marquette, Mich	62	2		.64		.14
Green Bay, Wis	66	4		.67	.33	
Grand Haven, Mich	66	4		.64		.24
Milwaukee, Wis	68	4		.63		.53
Chicago, Ill	71	3		.70		.70
Duluth, Minn	64	2		.77		.17
Upper Mississippi Valley:						
St. Paul, Minn	69	1		.77		.47
La Crosse, Wis	69	3		.77		.77
Dubuque, Iowa	71	5		.67		.67
Davenport, Iowa	72	4		.84		.84
Des Moines, Iowa	73	1		.77		.67
Keokuk, Iowa	74	4		.63		.53
Springfield, Ill	73	5		.51		.41
Cairo, Ill	77	3		.63		.63
St. Louis, Mo	77	3		.53		.53
Missouri Valley:						
Columbia, Mo	75	3		.58		.58
Springfield, Mo	76	2		.97		.97
Kansas City, Mo	75	1		.98	.32	
Wichita, Kans	79	1		.96		.86
Concordia, Kans	74	2		.95		.05
Omaha, Nebr	73	1		.77		.37
Yankton, S. Dak	72	0		.70		.70
Valentine, Nebr	70	2		.28		.08
Huron, S. Dak	69		1	.77		.77
Pierre, S. Dak	72	2		.42		.42
Moorehead, Minn	65		1	.63		.43
St. Vincent, Minn	63		1	.49		.19
Bismarck, N. Dak	68	2		.50		.50
Williston, N. Dak	68		4	.28		.28
Rocky Mountain Region:						
Havre, Mont	66		4	.25		.35
Helena, Mont	67		1	.10		.10
Miles City, Mont	72		4	.21		.21
Rapid City, S. Dak	71		1	.35		.35
Spokane, Wash	68		2	.07		.07
Wallawalla, Wash	74		2	.07		.07
Baker City, Oreg	67		1	.00		.00
Winnemucca, Nev	70	2		.00		.00
Salt Lake City, Utah	75	1		.21		.21
Lander, Wyo	68	0		.14		.14
Cheyenne, Wyo	66	0		.35		.25
North Platte, Nebr	72	0		.56		.36
Denver, Colo	70	2		.35		.35
Pueblo, Colo	73	0		.49		.29
Dodge City, Kans	76	0		.75		.75
Oklahoma, Okla	80	0		.65	.95	
Abilene, Tex	81	3		.35		.25
Santa Fe, N. Mex	67	1		.60		.20
El Paso, Tex	81	0		.47		.07
Phœnix, Ariz						
Pacific Coast:						
Tatoosh Island, Wash	57			.63		
Port Angeles, Wash	57			.17		
Olympia, Wash	62		8	.14		.14
Fort Canby, Wash	59		3	.28		.28
Astoria, Oreg	64		4	.21		.21
Portland, Oreg	66		2	.14		.14
Roseburg, Oreg	67		3	.03		.03
Eureka, Cal	56		4	.00		.00
Red Bluff, Cal	81	1		.00		.00
Carson City, Nev	68	2		.04		.04
Sacramento, Cal	74	0		.00		.00
San Francisco, Cal	60		4	.00		.00
Fresno, Cal	81	1		.00		.00
Independence, Cal	78	0		.07		.07
Los Angeles, Cal	73		3	.00		.00
San Diego, Cal	70		2	.03		.03
Yuma, Ariz	92	2		.14		.14

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

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—										
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Altoona, Pa	Aug. 10	30,337	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ashtabula, Ohio	Aug. 17	8,338	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Auburn, N. Y	Aug. 10	25,858	17	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Augusta, Ga	Aug. 9	33,300	38	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Baltimore, Md	Aug. 17	434,439	229	16	.....	.....	.....	.....	.....	5	1	5	2	.....
Bath, Me	Aug. 10	8,723	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Battle Creek, Mich	Aug. 17	13,197	3	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Belleville, Ill	Aug. 10	15,361	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Bennington, Vt	do	6,391	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	6,391	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beverly, Mass	Aug. 10	10,821	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Binghamton, N. Y	Aug. 17	35,005	15	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....
Boston, Mass	do	448,477	254	16	.....	.....	.....	.....	.....	4	3	7	.....	.....
Bristol, Conn	do	7,382	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bristol, R. I	Aug. 10	5,478	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	5,478	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brockton, Mass	Aug. 10	27,294	8	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Brookline, Mass	do	12,103	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brooklyn, N. Y	Aug. 17	806,343	520	44	.....	.....	.....	.....	.....	4	.....	20	2	8
Bucyrus, Ohio	do	5,974	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington, Vt	Aug. 10	14,590	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Butler, Pa	Aug. 17	8,734	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cambridge, Mass	do	70,028	33	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....
Carlisle, Pa	do	7,620	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charleston, S. C	Aug. 10	*54,955	†38	5	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Chester, Pa	do	20,226	9	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Do	Aug. 17	20,226	13	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Cincinnati, Ohio	Aug. 16	296,908	104	11	.....	.....	.....	.....	.....	2	.....	1	.....	5
Cleveland, Ohio	Aug. 10	261,353	120	10	.....	.....	.....	.....	.....	1	.....	2	.....	.....
Do	Aug. 17	261,353	89	8	.....	.....	.....	.....	.....	1	.....	1	.....	.....
Columbus, Ind	do	6,719	3	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Columbus, Ohio	do	88,150	42	2	.....	.....	.....	.....	.....	2	.....	1	.....	.....
Council Bluffs, Iowa	Aug. 10	21,474	7	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....
Crawfordsville, Ind	do	6,089	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	6,089	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dayton, Ohio	Aug. 15	61,220	16	2	.....	.....	.....	.....	.....	1	.....	.....	.....	2
Dedham, Mass	Aug. 3	7,123	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 10	7,123	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fitchburg, Mass	do	22,037	11	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	22,037	14	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Flint, Mich	Aug. 10	9,803	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	9,803	3	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Fort Worth, Tex	Aug. 10	23,076	9	1	.....	.....	.....	.....	.....	1	1	.....	.....	.....
Gloucester, Mass	do	24,651	20	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	24,651	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Rapids, Mich	do	60,278	18	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greenville, Miss	Aug. 10	6,658	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hoboken, N. J	do	43,648	28	3	.....	.....	.....	.....	.....	.....	1	1	.....	.....
Johnstown, N. Y	Aug. 17	7,768	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kalamazoo, Mich	Aug. 10	17,853	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	17,853	12	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lebanon, Pa	do	14,664	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowell, Mass	do	77,696	46	.....	.....	.....	.....	.....	.....	2	1	.....	.....	1
Ludington, Mich	do	7,517	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lynchburg, Va	do	19,709	11	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Manchester, N. H	Aug. 10	44,126	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marinette, Wis	Apr. 20	11,528	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Apr. 27	11,523	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	May 11	11,523	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	May 18	11,523	4	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Do	May 25	11,523	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 1	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 8	11,523	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 15	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 22	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 6	11,523	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 13	11,523	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 20	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 27	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 3	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 10	11,523	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 17	11,523	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Estimated population, white, 28,870; colored, 36,295. Total, 65,165. †Deaths, white, 9; colored, 29.

MORTALITY TABLE, CITIES OF THE UNITED STATES—Continued.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—									
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Medford, Mass	Aug. 17	11,709	4	1										
McKeesport, Pa	Aug. 10	20,741	8							1				
Memphis, Tenn	Aug. 17	64,495	41	4						2		1		
Michigan City, Ind	Aug. 10	10,776	6											
Middletown, Ohio	do	7,681	1											
Milford, Mass	Aug. 19	8,720	3											
Milwaukee, Wis	Aug. 17	204,468	106	6										
Minneapolis, Minn	Aug. 9	164,738	41	3						1		1	4	2
Nashville, Tenn	Aug. 17	76,168	36	3						1				2
New Bedford, Mass	do	40,733	21	3						1				
New Brunswick, N. J	do	18,603	5											
New Haven, Conn	Aug. 15	81,298	35	4						2				
New Orleans, La	Aug. 10	242,039	128	17						2		1		1
Newport, R. I	Aug. 17	19,457		1										
Newton, Mass	do	24,379	10											
New York, N. Y	do	1,515,301	916	80						9	2	23	10	19
Norristown, Pa	do	19,791	8	2										
Northampton, Mass	Aug. 10	14,990	8	1										
North Attleboro, Mass	July 27	6,727	1											
Do	Aug. 3	6,727	3											
Do	Aug. 10	6,727	2	1										
Olean, N. Y	Aug. 17	7,358	3											
Omaha, Nebr	do	140,452	30	3						5				
Oneonta, N. Y	do	6,272	0											
Ottumwa, Iowa	Aug. 10	14,001	6	1										1
Passaic, N. J	Aug. 16	13,028	12											
Pensacola, Fla	Aug. 10	11,750	4	1						1				
Portage, Wis	July 13	5,143	0											
Portland, Me	Aug. 10	36,425	17	1								1		
Do	Aug. 17	36,425	13							1				
Pottstown, Pa	do	13,285	6											
Poughkeepsie, N. Y	do	22,206	11											
Providence, R. I	do	132,146	68								1	1		
Pueblo, Colo	Aug. 10	24,558	8	3										
Richmond, Va	do	81,388	30	2						1				
Rye, N. Y	do	9,680	6	3										
Do	Aug. 17	9,680	8	1										
Salt Lake City, Utah	Aug. 10	44,843	10											1
San Diego, Cal	do	16,159	3											
San Francisco, Cal	do	298,997	114	16						3				
Santa Barbara, Cal	do	5,864	0											
Scranton, Pa	Aug. 17	75,215	33	1						2	2			1
Seneca Falls, N. Y	Aug. 10	6,116	5											
Shreveport, La	do	11,979	2	1										
Do	Aug. 17	11,979	5	1										
Sioux Falls, S. Dak	Aug. 10	10,177	4											1
Somerville, Mass	Aug. 3	40,152	13	2										
Do	Aug. 10	40,152	20	1								1		
Do	Aug. 17	40,152	14	1										
South Bethlehem, Pa	Aug. 18	10,302	8	1										
Sterling, Ill	Aug. 10	5,824	0											
Superior, Wis	do	11,983	9											
Taunton, Mass	Aug. 17	25,448	16											
Tiffin, Ohio	do	10,801	3									1		
Urbana, Ohio	Aug. 10	6,510	2											
Utica, N. Y	Aug. 17	44,007	12	3										
Waltham, Mass	do	18,707	6											
Washington, D. C	Aug. 10	230,392	140	12						4	1	2		1
West Bay City, Mich	do	12,981	7							1				
Wilmington, Del	Aug. 17	61,431	34	1						2				
Winona, Minn	Aug. 10	18,208	3											
Woburn, Mass	Aug. 17	13,499	5							2				
Worcester, Mass	Aug. 9	84,655	34	2						2				
Yonkers, N. Y	Aug. 16	32,033	18	2								1		
Youngstown, Ohio	Aug. 17	33,220	9								1			

FOREIGN.

[Reports received from the United States consuls through the Department of State and from other sources.]

Cholera and Yellow Fever as reported to the Supervising Surgeon-General Marine-Hospital Service, January 4 to August 21, 1895.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Camaran Quarantine Station.	Mar. 23-Apr. 24	85	173	
	June 19-June 21	17	16	
Mecca	Apr. 22-May 6	.....	213	
	June 9-June 14	.....	17	
Jeddah	May 1	.....	28	
Taif	June 19-June 21	.....	24	
Argentina:				
Buenos Ayres	To Jan. 10	125	59	
	Jan. 1-Jan. 31	87	27	
	Feb. 1-Feb. 28	.....	45	
	Mar. 13	8	.....	
	Mar. 21	5	3	
Montevideo	Mar. 13	.....	3	
	Mar. 16	16	.....	
	Mar. 18	5	.....	
	Mar. 21	2	1	
Rosario	do	8	2	
San Nicholas	Mar. 29	7	3	
Asia Minor:				
Tarsus	June 1	.....	.....	Cholera reported.
Brazil	Dec. 11-Feb. 4	.....	.....	*Cholera reported.
Alegre	Apr. 3	1	.....	
Bahia	do	.....	.....	Cholera reported.
Cachoeira	Feb. 24-Mar. 3	40	21	
Desergano	Mar. 20	11	.....	
Itapemerim	do	50	2	
Porto Novo	Apr. 3	.....	.....	Do.
Rio de Janeiro	Dec. 1-Dec. 31	6	5	
	Jan. 1-Jan. 31	.....	45	
	Feb. 1-Feb. 28	.....	105	
	Mar. 1-Mar. 28	93	31	
	Mar. 29-Apr. 20	.....	8	
	May 11-May 18	.....	1	
Santo Antonio de Muriatre	Apr. 3	18	15	
Volta Redondo	do	1	.....	
Ceylon:				
Colombo	Jan. 26-Feb. 2	8	8	
China:				
Chefoo	Aug. 14	.....	.....	Do.
Foochow	Apr. 30	.....	.....	Do.
Hongkong	June 15-June 22	.....	1	
Tien-Tsin	Aug. 14	.....	.....	Do.
India:				
Bombay	Dec. 11-Jan. 8	.....	4	
	Mar. 5-Mar. 12	.....	1	
	Apr. 23-May 21	.....	7	
	May 28-June 18	.....	2	
	June 26-July 9	.....	2	
Calcutta	Nov. 17-Feb. 13	.....	431	
	Mar. 2-Mar. 20	.....	303	
	Mar. 31-July 6	.....	730	
Madras	Dec. 7-Feb. 22	.....	68	
	Mar. 2-Mar. 8	.....	2	
	Mar. 16-Mar. 30	.....	2	
	May 11-May 17	.....	1	
	June 22-July 5	.....	3	
Singapore	June 21-June 26	27	13	
Japan:				
Hiogo	Apr. 13-Apr. 20	1	.....	
	May 4-May 11	1	.....	
	May 18-June 3	12	8	
	June 8-June 29	106	69	
	June 30-July 6	104	79	
	July 6-July 20	189	161	

*Towns Cachoeira, Cruzeiro; Campo Bello, Barra; Reyende Quelens, and Volta Redondo.

Cholera and Yellow Fever, etc.—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Japan—*Continued.*				
Hiroshima	Mar. 29	1	.....	
Moji	Mar. 19	18	10	
	Mar. 22	.....	1	
Nagasaki	July 5–July 12	29	20	
Yokohama	June 14–June 21	.....	1	
	June 28–July 12	10	8	
Korea:				
Weijii	June 30	.....	.....	Cholera reported.
Russia (governments):				
Kurland	Jan. 20–Jan. 21	1	1	
	Dec. 23–Feb. 2	44	21	
Kursk	Jan. 6–Jan. 19	4	3	
Minsk	Jan. 6–Jan. 12	5	3	
Petrikov	Jan. 4–Jan. 19	6	1	
Podolia	Nov. 11–Apr. 13	2,102	907	
Podolsk	Mar. 24–Apr. 27	28	17	
Radom	Jan. 1–Jan. 26	20	9	
Saratov	Jan. 6–Jan. 12	3	1	
Suwalki	Jan. 18–Jan. 26	25	10	
Taurien	Dec. 30–Jan. 26	35	23	
Tchernigov	Jan. 13–Feb. 16	8	5	
Volhynia	Nov. 4–Apr. 30	586	230	
	May 26–June 22	136	40	
Witebst	Jan. 6–Jan. 12	5	2	
Turkey:				
Adalia	Dec. 11–Feb. 18	230	127	
Adana	May 25–June 1	50	30	
	June 1–June 15	550	300	
	June 15–July 16	660	305	
Alan-Sinar	June 30	12	.....	
Bitlis	Jan. 3	.....	.....	Do.
Bulanik	June 21–June 22	5	5	
	July 1–July 13	35	22	
Djabul	June 26–July 1	15	7	
Constantinople	Nov. 14–May 6	382	212	
	June 20	2	1	
Gok-Sun	July 8	.....	8	
Hadji-Bil	July 7	3	3	
Hatschin	June 10–June 18	9	6	
	July 1–July 8	14	7	
Husu Mansur	July 8–July 10	10	4	
Jumurtalik	June 18–June 20	1	1	
	July 10–July 13	7	5	
Karahissen	July 7–July 11	11	7	
Kara-Isdali	June 17–June 24	17	4	
Karatasch	June 17–June 29	89	44	
	June 30	23	27	
Karszulcadria	July 9	10	2	
Marash	June 10–June 30	27	17	
	June 30–July 14	25	15	
Mersina	May 25–June 1	3	1	
	June 1–June 15	2	2	
	June 15–July 16	410	235	
	June 28–June 29	3	2	
Mesis	June 17–June 29	27	8	
	June 29–July 11	17	8	
Padzardjik	July 8	7	7	
Pera	Feb. 21	.....	.....	Do.
Pajast	June 16–June 29	17	6	
	July 1–July 9	26	24	
Sis	June 10–June 29	87	58	
	July 1–July 10	4	2	
Siverek	Jan. 8–Jan. 21	48	31	
Tarsus	May 18–June 1	470	315	
	June 1–June 15	750	530	
	June 15–July 16	293	143	

YELLOW FEVER.

Brazil:				
Rio de Janeiro	Dec. 1–Mar. 30	.....	164	
	Apr. 1–June 22	.....	301	
	June 30–July 20	.....	36	
Santos	Nov. 23–Jan. 5	.....	6	
	Jan. 26–Mar. 2	123	104	

Cholera and Yellow Fever, etc.—Continued.

YELLOW FEVER—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil—*Continued.*				
Santos	Mar. 9–Mar. 16	50	48	
	Mar. 23–Mar. 30	108	87	
	Apr. 17–Apr. 27	181	135	
	Apr. 27–May 3	105	96	
	May 24–May 31	33	18	
	June 30–July 6	5	1	
Cuba:				
Cienfuegos	June 23–June 30	.....	1	
	July 7–July 21	3	3	
	Aug. 4–Aug. 11	1	.....	
Gibara	Jan. 1–June 23	.....	2	
Havana	Dec. 20–Apr. 4	85	30	
	Apr. 4–May 30	37	16	
	June 1–June 29	31	14	
	June 30–July 25	164	59	
	July 26–Aug. 8	155	54	
	Aug. 8–Aug. 15	75	27	
Matanzas	July 21	4	.....	
Puerto Principe	June 27	.....	.....	About 5 deaths daily.
Sagua la Grande	July 13–July 27	1	.....	
	Aug. 3–Aug. 10	4	.....	
Santiago de Cuba	Mar. 1–Mar. 31	.....	8	
	Apr. 1–Apr. 28	.....	11	
	May 1–May 15	.....	4	
	June 1–June 29	.....	47	
	June 30–Aug. 10	.....	225	
Ecuador:				
Guayaquil	Jan. 24–Feb. 22	14	8	
Mexico:				
Guaymas	May 20	.....	.....	Yellow fever reported.
Mazatlan	....do	.....	.....	Do.
Vera Cruz	Dec. 27–Jan. 24	.....	5	
	Feb. 21–Feb. 28	.....	1	
	Mar. 4–Mar. 21	.....	1	
	Apr. 4–Apr. 18	.....	2	
	May 2–May 30	.....	11	
	May 31–July 11	.....	35	
	July 18–Aug. 8	.....	32	
Salvador	Dec. 9–Jan. 15	.....	12	
Puerto Rico	Nov. 21–Jan. 9	.....	4	
	Feb. 28–Mar. 6	2	1	
	Apr. 17–Apr. 24	1	.....	
San Juan	July 1	.....	.....	Over 100 cases in military hospital.
	July 6–July 27	104	87	
Venezuela:				
Maracaibo	Feb. 2–Feb. 9	.....	1	
	June 8–June 15	1	1	
West Indies:				
Curaçoa	Dec. 28–Jan. 5	3	3	

BRAZIL.

Sanitary Report of Rio de Janeiro.

RIO DE JANEIRO, *July 23, 1895.*

SIR: I have the honor to transmit report for week ended July 20, 1895. There were 10 deaths from accesso pernicioso, an increase of 2; 14 from yellow fever, an increase of 3; 40 from smallpox, an increase of 2; 1 from beriberi, a decrease of 2; 5 from enteric fever, an increase of 3; 1 from measles, a decrease of 2; 1 from influenza, none in the foregoing week; 38 from tuberculosis, a decrease of 9; and none from diphtheria and whooping cough. There were 367 deaths from all causes, being an increase of 17 over the previous week.

Smallpox.—This disease is increasing slowly, and is principally confined to the low-lying part of the city at the upper part of the bay, where

there is a great agglomeration of the most destitute part of the population, and where the uncleanness leaves much to be desired. I have heard of several cases amongst the shipping, but on no vessel bound for the United States. The variola hospital is on an island in that part of the bay fronting the infected district, and known as the Saude, and from which everything is thrown into the water. Now, the bay water is neither hot nor cold enough to kill germs, and as the water is used by the ships for washing the decks, it is quite possible that on its evaporation enough are left to communicate the disease. I have warned all the captains I have met of this danger, but my advice is not always accepted.

Yellow fever.—This disease increased its number of victims by 3 during the week, from what reason I do not know, as the weather is cool and pleasant, unless the infection is communicated from houses not properly disinfected last season.

The other diseases may be considered sporadic, and as for the case of influenza I do not believe in it.

Since last report the following-named ships have been visited or inspected and received bills of health from this office: July 7, steamship *Catania*, German, from Santos to New York. July 19, steamship *Bicla*, British, from Santos to New York. July 22, steamship *Eastern Prince*, British, from Buenos Ayres to New York. Bark *Mobile Bay*, British, for Portland, Oreg.

Respectfully, yours,

R. CLEARY, M. D.,
Sanitary Inspector, M. H. S.

CUBA.

Reports on the Sanitary Condition of Certain Towns.

HAVANA, CUBA, *August 10, 1895.*

SIR: I have the honor to inform you that Dr. Fortun has inspected the three principal ports on the north coast of Cuba, west of Havana, viz, Mariel, Cabanas, and Bahia-Honda.

From Bahia-Honda, August 4, he reports:

The town or village is situated about a mile from the bay and has a population of about 2,000 persons. Around the shore of this bay are several sugar estates, one of which, called the "Gerardo," having a wharf where the only steamer (*The Triton*) which comes here stops. This steamer makes weekly trips from the capital, Havana, to Malas Aguas, stopping at Bahia-Honda or here, and San Cayetano. After she makes her stop at the wharf of the sugar estate she goes to the middle of the bay, where she discharges her cargo in a lighter, and the passengers go ashore in small boats. From the shore to the town the passengers go on horses.

Some of the houses of the place are made of "guano" or the palm tree, but the most are of wood. As in most of the country towns of Cuba, the streets are unpaved, and in the rainy season, which is now, they become almost impassable. It can be said that there is no yellow fever here at present, but there are 9 cases of enteric fever, 5 of which are soldiers, and some cases of scarlet fever in a benign form in the private practice of physicians. There is no civil hospital here, but the detachment of 25 unacclimated soldiers have one, which, though it is disinfective in many respects, is certainly large enough and well ventilated.

The country immediately around is very hilly and uneven, forming between the hills, marshes, and ponds, where a great deal of malaria is developed.

From Cabanas, August 5, he reports:

From Bahia-Honda to this place I came by land on horseback, for by sea I would have been obliged to have taken a small boat or waited for a passing schooner to touch here, which seldom occurs, as the communication with Havana is generally direct by land, the distance being about 18 leagues.

The road, particularly for the first half, is very bad, having to go up and down high hills constantly. Cabanas is a town somewhat larger than Bahia-Honda, has more palm

houses, and is situated 300 or 400 meters from the bay. On the south side runs a chain of mountains or the cordillera, and on the north the bay and coast lined with mangrove swamps and lagoons.

From the cordillera or mountains to the coast there is no level or even land at all, and between the spurs and ridges that are sent off from the mountain chain toward the coast run many streams, which empty into the lagoons and mangrove swamps. Add to this the liquid filth from the many sugar estates, and it will be easily understood why paludal diseases prevail to such an extent that an eminent physician in this region says that more than two-thirds of the sickness in this locality is caused by malaria.

No yellow fever has been observed here yet this year, but in other years cases have occurred which were supposed to be imported. The only shipping visiting the harbor are schooners which ply between here and the capital.

My attention is called to the fact that here, where malarial diseases exist to such a frightful extent, there are so few cases of "fiebre de borras." I had no opportunity of conversing with the physician here who makes the study of paludal diseases a specialty, as he lives on his sugar estate, but from the other physicians in town I learn that the cases of fiebre de borras are not many, when one would think if that disease is a paludal manifestation there ought to be many cases of it here.

From Mariel, August 6, he reports as follows:

The distance from Cabanas to Mariel, 6 or 7 leagues over an unfinished wagon road, was made in a coach.

Mariel is a town of some 800 inhabitants, situated at the head of a most beautiful harbor or bay, about 4 or 5 miles from its boca or entrance.

Into the west side of this bay two small rivers empty, and there are some swamps and marshes along its banks, while the eastern side is crowned with a continuous range of hills.

As in Cabanas, there are about 25 unacclimated soldiers, but no infectious diseases have made their appearance this season.

The lazaretto or quarantine establishment and grounds for the whole island of Cuba is near the entrance to the mouth of the harbor.

On land there are four very large buildings, each perhaps 100 meters in length, one being for well persons, another for those under observation, a third for the sick, and the fourth is a storehouse. The first three have annexed enormous cisterns for water and are divided interiorly into departments. Part of the storehouse is used for the necessities of the lazaretto and a part for cargo.

There are small buildings annexed to the larger ones for kitchens, wash houses, etc., besides a house for the director.

The lazaretto has one of Geneste-Herschers large disinfecting stoves, which is not in complete order yet.

The only separation between the building for the sick and the other buildings is a low wall scarcely a meter high.

HAVANA, *August 8.*

From Mariel to Havana I passed through the town called Guanajay, a village of the interior, with about 6,000 inhabitants, the judicial capital of the places just visited, and connected with Havana by railroad. Here about a month ago a soldier from Artemisa, a neighboring town, died of yellow fever, but no other case has occurred among the detachment of 50 soldiers who are there. Physicians there say that cases of that disease have occurred in other years, generally imported.

Very respectfully, your obedient servant,

D. M. BURGESS,
Sanitary Inspector, M. H. S.

Yellow Fever Increasing in Cuba.

HAVANA, *August 16, 1895.*

Yellow fever prevails at Espirito Santo.

BURGESS,
Sanitary Inspector, M. H. S.

HAVANA, *August 17, 1895.*

Yellow fever at Havana increasing slowly.

BURGESS,
Sanitary Inspector, M. H. S.

CHINA.

Cholera not Epidemic at Shanghai.

The following cablegram has been transmitted to this office by the Department of State:

SHANGHAI, CHINA, *August 19, 1895.*

Cholera not epidemic.

UNITED STATES CONSUL-GENERAL.

KOREA.

Cholera in Korea.

SEOUL, KOREA, *June 29, 1895.*

SIR: The Japanese authorities have announced that an epidemic of Asiatic cholera has broken out at Meiju and adjacent points in the north of Korea. I have, therefore, the honor to inform you of this fact, and that I have to-day cabled you as per copy herewith appended.

The sanitary condition of the cities of Peng Uang and Meiju is very bad, dead bodies of Chinese and animals killed during the battles last year having been allowed to remain unburied throughout the winter. We have confidently expected an outbreak of cholera among the natives of that section, as well as among the Japanese troops still remaining there, of whom there is a considerable number acting under the commissary department of the Japanese army.

Cholera morbus, so called, has caused a number of deaths in this city and at Chemulpo. We expect cholera here soon, and are making such preparations as we can to meet it, as are the Japanese officials.

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

JOHN M. B. SILL,
United States Consul-General.

Hon. ASSISTANT SECRETARY OF STATE.

INDIA.

Cholera in Singapore.

SINGAPORE, *July 10, 1895.*

SIR: I have the honor to submit to you the inclosed report from the principal civil medical officer at Singapore, showing that from the 25th of June to the 8th of July, inclusive, there were 28 cases of cholera admitted into the hospital here, 20 of which resulted fatally. The disease appears still to confine itself to the native population.

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

E. SPENCER PRATT,
United States Consul-General.

Hon. ASSISTANT SECRETARY OF STATE.

[Inclosure.]

July 10, 1895.

Cases of cholera admitted to hospital, and deaths, from June 25 to July 8, inclusive: June 25, 6 admissions, no deaths; June 26, 4 admissions, 2 deaths; June 27, 2 admissions, 5 deaths; June 28, 1 admission, no deaths; June 29, 1 admission, 1 death; June 30, 1 admission, 2 deaths; July 1, no admissions, 1 death; July 2, 4 admissions, 2 deaths; July 3, 4 admissions, 1 death; July 4, 1 admission, 2 deaths; July 5, 2 admissions, 2 deaths; July 6, no admissions, 1 death; July 7, no admissions, 1 death; July 8, 2 admissions, no deaths. Total admissions, 28; total deaths, 20.

MAX. F. SIMON, M. D.,
Principal Civil Medical Officer.

To the UNITED STATES CONSUL-GENERAL.

STATISTICAL REPORTS.

CUBA.—Under date of August 17, 1895, the United States sanitary inspector, M. H. S., at Havana, reports as follows:

There were 141 deaths in this city during the week ended August 15, 1895. Twenty-seven of those deaths were caused by yellow fever, with 75 new cases approximately; 3 were caused by enteric fever, 1 by so-called pernicious fever, 1 by paludal fever, 7 by enteritis, 1 by dysentery, 7 by smallpox, and 4 by pneumonia.

GREAT BRITAIN—*England and Wales.*—The deaths registered in 33 great towns of England and Wales during the week ended August 3 corresponded to an annual rate of 20.7 a thousand of the aggregate population, which is estimated at 10,591,530. The lowest rate was recorded in Halifax, viz, 10, and the highest in Liverpool, viz, 30 a thousand.

London.—One thousand eight hundred and six deaths were registered during the week, including measles, 67; scarlet fever, 24; diphtheria, 57; whooping cough, 17; enteric fever, 12; and diarrhea and dysentery, 373. The deaths from all causes corresponded to an annual rate of 21.4 a thousand. In greater London 2,361 deaths were registered, corresponding to an annual rate of 20.4 a thousand of the population. In the "outer ring" the deaths included 29 from measles and 11 from diphtheria.

Ireland.—The average annual death rate represented by the deaths registered during the week ended August 3 in the 16 principal town districts of Ireland was 18 a thousand of the population. The lowest rate was recorded in Lisburn, viz, 0.0, and the highest in Wexford, viz, 31.6 a thousand. In Dublin and suburbs 172 deaths were registered, including whooping cough, 2; smallpox, 3; scarlet fever, 2; and enteric fever, 1.

Scotland.—The deaths registered in 8 principal towns during the week ended July 27 corresponded to an annual rate of 18 a thousand of the population, which is estimated at 1,500,435. The lowest mortality was recorded in Edinburgh, viz, 13.7, and the highest in Paisley, viz, 28.3 a thousand. The aggregate number of deaths registered from all causes was 520, including scarlet fever, 3; measles, 17; diphtheria, 2; and whooping cough, 12.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Aix la Chapelle	July 27	110,533	65	.....	.....	.....	.....	.....	.....	2	.....	.....
Alexandria	July 15	231,396	173	.....	.....	.....	.....	3	.....	3	.....	.....
Amapala	July 29	1,500	2	.....	.....	.....	.....	2	.....	.....	.....	.....
Do	July 6	1,500	3	.....	.....	.....	.....	3	.....	.....	.....	.....
Do	July 13	1,500	2	.....	.....	.....	.....	2	.....	.....	.....	.....
Do	July 20	1,500	2	.....	.....	.....	.....	2	.....	.....	.....	.....
Do	July 27	1,500	2	.....	.....	.....	.....	2	.....	.....	.....	.....
Amherstburg	Aug. 10	2,300	1	.....	.....	.....	.....	.....	.....	.....	.....	.....

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Amsterdam	Aug. 3	452,113	139	.....	.....	.....	.....	1	.....	1	.....	.....
Antigua	June 29	16,664	18	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 6	16,664	25	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 13	16,664	17	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 20	16,664	24	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 27	16,664	14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 3	16,664	16	.....	.....	.....	.....	.....	.....	.....	.....	.....
Antwerp	July 27	262,065	86	.....	.....	.....	.....	.....	.....	3	.....	.....
Autofogasta	June 30	14,000	10	.....	.....	.....	.....	.....	.....	.....	.....	1
Barmen	July 27	125,000	37	.....	.....	.....	.....	.....	.....	.....	.....	.....
Batoum	July 30	28,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belfast	Aug. 3	273,277	133	.....	.....	.....	1	2	2	1	.....	4
Belleville	Aug. 12	10,318	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berlin	July 20	1,820,340	772	.....	.....	.....	.....	2	16	15	11	.....
Birmingham	Aug. 3	496,751	190	.....	.....	.....	.....	1	2	1	.....	2
Bologna	do	145,135	83	.....	.....	.....	.....	.....	.....	1	.....	.....
Bombay	July 9	853,936	436	1	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 16	853,936	462	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 23	853,936	509	1	.....	.....	.....	.....	.....	.....	.....	.....
Bradford	Aug. 3	221,610	71	.....	.....	.....	.....	.....	.....	1	.....	.....
Bristol	July 27	228,139	60	.....	.....	.....	.....	.....	1	1	.....	.....
Brussels	do	507,985	172	.....	.....	.....	.....	2	.....	.....	2	1
Budapest	July 29	600,000	.....	.....	.....	.....	.....	.....	.....	2	1	.....
Cairo	July 15	374,838	354	.....	.....	.....	.....	7	.....	2	.....	.....
Calcutta	July 6	681,560	344	22	.....	6	.....	.....	.....	.....	.....	1
Catania	July 30	120,000	44	.....	.....	.....	.....	5	.....	.....	1	1
Chatham	Aug. 10	10,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chemnitz	July 27	156,800	113	.....	.....	.....	.....	.....	.....	2	8	.....
Christiania	do	174,717	60	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cienfuegos	Aug. 11	23,000	19	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cognac	Aug. 8	17,500	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cologne	July 27	316,438	151	.....	.....	.....	.....	.....	.....	3	.....	.....
Colombo	July 6	130,000	111	.....	.....	.....	.....	1	.....	.....	.....	.....
Crefeld	Aug. 3	107,151	34	.....	.....	.....	1	.....	.....	1	.....	.....
Demerara	June 8	53,176	32	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 15	53,176	40	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 22	53,176	37	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 29	53,176	38	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dresden	July 13	323,152	136	.....	.....	.....	.....	1	.....	5	2	2
Do	July 20	323,152	135	.....	.....	.....	.....	1	.....	3	3	2
Do	July 27	323,152	143	.....	.....	.....	.....	.....	2	1	4	.....
Dublin	Aug. 3	350,000	172	.....	.....	2	.....	.....	.....	.....	.....	.....
Dundee	do	160,163	67	.....	.....	.....	.....	.....	.....	.....	.....	4
Dusseldorf	July 27	169,624	124	.....	.....	.....	.....	.....	1	1	.....	.....
Edinburgh	Aug. 3	273,535	72	.....	.....	.....	.....	1	1	.....	.....	.....
Flushing	do	16,008	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Genoa	do	182,544	106	.....	.....	.....	.....	1	.....	1	3	.....
Gibraltar	July 28	25,800	6	.....	.....	.....	.....	1	.....	.....	.....	.....
Girgenti	July 27	23,847	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glasgow	Aug. 3	695,876	229	.....	.....	.....	.....	.....	1	1	2	5
Gothenburg	July 27	100,400	22	.....	.....	.....	.....	.....	1	.....	1	.....
Guayaquil	July 26	50,000	57	.....	.....	3	.....	.....	.....	.....	.....	.....
Halifax	Aug. 10	38,700	20	.....	.....	.....	.....	.....	1	.....	.....	.....
Hamburg	July 27	608,710	218	.....	.....	.....	.....	4	2	1	.....	5
Do	Aug. 3	608,710	210	.....	.....	.....	.....	1	3	1	.....	1
Hamilton	Aug. 6	15,013	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 13	15,013	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hiogo	July 20	158,693	143	74	.....	.....	.....	1	.....	.....	.....	.....
Kingston	Aug. 10	17,808	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Konigsberg	Aug. 3	169,200	.....	.....	.....	.....	.....	.....	2	2	.....	.....
Leeds	do	395,546	154	.....	.....	.....	.....	2	1	.....	1	2
Leghorn	do	103,277	31	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leith	do	73,048	28	.....	.....	.....	1	1	.....	.....	.....	.....
Licata	July 27	20,000	11	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liége	Aug. 3	160,848	60	.....	.....	.....	.....	.....	1	.....	.....	1
Liverpool	do	503,967	285	.....	.....	.....	.....	6	1	.....	5	7
London, Canada	Aug. 3	35,000	15	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 10	35,000	17	.....	.....	.....	.....	.....	.....	.....	.....	.....
London, England	July 27	6,048,555	2,570	.....	.....	1	.....	15	19	63	120	28
Do	Aug. 3	6,048,555	2,361	.....	.....	1	.....	17	27	68	96	19
Lyons	July 27	500,000	174	.....	.....	.....	.....	.....	2	.....	3	.....
Madras	July 12	452,518	281	.....	.....	.....	.....	.....	.....	.....	1	.....
Madrid	July 29	482,816	326	.....	.....	1	.....	18	2	4	9	.....
Magdeburg	July 13	224,713	162	.....	.....	.....	.....	.....	.....	5	.....	.....
Manchester	July 20	527,010	236	.....	.....	.....	.....	.....	4	2	14	5
Do	July 27	527,010	245	.....	.....	.....	.....	.....	4	1	13	4
Do	Aug. 3	527,010	233	.....	.....	.....	.....	.....	8	.....	14	1

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Mannheim	July 27	88,400	46	.....	.....	.....	.....	.....	.....	.....	1	.....
Maracaibo	do	42,000	20	.....	.....	.....	.....	1	.....	.....	.....	.....
Do	Aug. 3	42,000	19	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marsala	July 27	40,131	20	.....	.....	.....	.....	1	.....	.....	.....	.....
Matamoras	Aug. 9	8,000	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Matanzas	Aug. 7	50,000	26	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mayence	July 27	74,917	40	.....	.....	.....	.....	.....	1	1	1	.....
Do	Aug. 3	74,917	32	.....	.....	.....	.....	.....	.....	.....	.....	.....
Melbourne	July 6	1,140,405	.....	.....	.....	.....	.....	1	.....	3	.....	.....
Do	July 13	1,140,405	.....	.....	.....	.....	.....	1	.....	1	.....	.....
Mersine	June 25	10,000	.....	10	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 2	10,000	.....	50	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 9	10,000	.....	100	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 16	10,000	.....	75	.....	.....	.....	.....	.....	.....	.....	.....
Messina	Aug. 3	107,000	31	.....	.....	.....	.....	1	.....	.....	.....	.....
Monte Christy	Aug. 2	1,500	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montevideo	July 13	244,141	44	.....	.....	.....	.....	.....	.....	1	.....	.....
Moscow	July 20	800,000	732	.....	.....	.....	4	1	2	5	12	1
Do	July 27	800,000	710	.....	.....	.....	11	.....	5	3	7	1
Nagasaki	July 12	39,304	.....	20	.....	.....	.....	.....	.....	.....	.....	.....
Naples	Aug. 3	570,000	266	.....	.....	.....	1	16	.....	.....	.....	.....
Nogales	Aug. 10	1,580	2	.....	.....	1	.....	.....	.....	.....	.....	.....
Nuremburg	July 13	165,038	48	.....	.....	.....	.....	.....	1	.....	.....	.....
Do	July 20	165,038	77	.....	.....	.....	.....	.....	.....	2	.....	5
Odessa	July 27	324,500	194	.....	.....	.....	.....	.....	.....	3	.....	1
Do	Aug. 3	324,500	232	.....	.....	1	.....	4	3	1	2	.....
Palermo	July 27	273,000	130	.....	.....	.....	.....	.....	4	2	.....	.....
Paris	do	2,424,705	1,015	.....	.....	.....	.....	2	11	10	41	13
Do	Aug. 3	2,424,705	868	.....	.....	.....	.....	9	2	6	28	7
Port au Prince	July 15	40,000	24	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 22	40,000	26	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prague	July 27	194,132	124	.....	.....	.....	.....	2	.....	1	2	.....
Puerto Cortez	Aug. 7	1,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rheims	Aug. 3	105,408	45	.....	.....	.....	.....	2	.....	.....	.....	.....
Rio de Janeiro	July 20	600,000	367	.....	14	40	.....	5	.....	.....	1	.....
Rome	May 25	464,579	160	.....	.....	.....	.....	.....	.....	1	5	1
Do	June 1	464,579	134	.....	.....	.....	.....	1	.....	.....	12	.....
Rotterdam	Aug. 3	272,042	96	.....	.....	.....	.....	.....	.....	.....	2	.....
Sagua la Grande	Aug. 10	17,536	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Juan del Norte	July 20	1,280	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 27	1,280	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 3	1,280	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Juan P. R	do	25,000	.....	.....	10	.....	.....	.....	.....	.....	.....	.....
San Pedro	July 27	3,800	25	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	Aug. 3	3,800	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Santiago de Cuba	Aug. 10	70,000	67	.....	18	.....	.....	.....	.....	5	3	.....
Schiedam	Aug. 3	25,983	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
Southampton	do	67,913	22	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Helena	June 15	3,877	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 22	3,877	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	June 29	3,877	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 6	3.877	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. George, Bermuda	Aug. 3	2,713	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Petersburg	July 27	1,100,000	566	.....	.....	.....	1	20	7	11	12	10
St. Stephen	Aug. 10	2,700	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stettin	July 27	435,000	93	.....	.....	.....	.....	1	1	1	.....	.....
Stockholm	do	259,304	94	.....	.....	.....	.....	.....	1	.....	.....	.....
Stuttgart	Aug. 1	139,659	74	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tarsus	June 25	30,000	70	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 2	30,000	60	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 9	30,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	July 16	30,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trapani	July 27	43,095	9	.....	.....	.....	.....	.....	1	.....	1	.....
Trieste	July 27	158,314	89	.....	.....	.....	.....	.....	1	4	.....	.....
Truxillo	Aug. 3	5,000	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuxpan	do	10,280	14	.....	.....	.....	.....	.....	.....	.....	.....	4
Venice	July 20	159,362	66	.....	.....	.....	.....	.....	.....	.....	.....	1
Do	July 27	159,362	65	.....	.....	.....	.....	1	.....	.....	.....	.....
Vera Cruz	Aug. 8	25,500	33	.....	7	.....	.....	.....	.....	.....	.....	.....
Warsaw	July 27	535,968	255	.....	.....	.....	3	.....	5	6	5	2
Winnipeg	Aug. 12	37,062	7	.....	.....	.....	.....	.....	.....	.....	.....	.....

By authority of the Secretary of the Treasury:

WALTER WYMAN,

Supervising Surgeon-General Marine-Hospital Service.