

ABSTRACT OF SANITARY REPORTS.

VOL. V. WASHINGTON, D. C., SEPTEMBER 12, 1890. No. 37.

[Published at the Marine-Hospital Bureau in accordance with act of Congress of April 29, 1878.]

UNITED STATES.

Reports of States, and yearly and monthly reports of cities.

CALIFORNIA—*Sacramento*.—Month of August, 1890. Population, 30,000. Total deaths, 39, including phthisis pulmonalis, ; diphtheria, 4; and enteric fever, 1.

FLORIDA—*Jacksonville*.—Month of July, 1890. Population, 25,000. Total deaths, 34, including phthisis pulmonalis, 5; enteric fever, 4; and whooping-cough, 1.

Pensacola.—Month of August, 1890. Population, 15,000. Total deaths, 31, including phthisis pulmonalis, 3; enteric fever, 6; measles, 1; and croup, 1.

INDIANA—*Evansville*.—Month of August, 1890. Population, 50,000. Total deaths, 77, including phthisis pulmonalis 12 and enteric fever 4

IOWA—*Dubuque*.—Month of August, 1890. Population, 40,000. Total deaths, 21, including phthisis pulmonalis 2 and enteric fever 1.

Keokuk.—Month of August, 1890. Population, 19,825. Total deaths, 21, including phthisis pulmonalis, 3; diphtheria, 1; enteric fever, 2; and scarlet fever, 1.

MASSACHUSETTS—*Fall River*.—Month of August, 1890. Population, 75,000. Total deaths, 162, including enteric fever, 3; diphtheria, 4; and croup, 2.

MICHIGAN.—Week ended August, 30, 1890. Reports to the State board of health, Lansing, from 75 observers, indicate that puerperal fever, membranous croup, cerebro-spinal meningitis, diphtheria, whooping-cough, tonsilitis, inflammation of kidney, scarlet fever, pneumonia, and typhoid fever increased, and that inflammation of brain, measles, influenza, and inflammation of bowels decreased in area of prevalence.

Diphtheria was reported at 27 places, scarlet fever at 25 places, enteric fever at 28 places, and measles at 7 places.

Month of August, 1890. Reports from observers, compared with the preceding month, indicate that dysentery, typho-malarial fever, typhoid fever, cholera infantum, and cholera morbus increased, and that measles, puerperal fever, whooping-cough, and cerebro-spinal meningitis decreased in prevalence.

Compared with the average for the month of August, in the four years 1886-1889, scarlet fever and influenza were more prevalent, and puerperal fever, whooping-cough, typho-malarial fever, erysipelas, and cerebro-spinal meningitis were less prevalent in August, 1890.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of August, 1890, at 49 places, scarlet fever at 48 places, typhoid fever at 61 places, and measles at 24 places.

Reports from all sources show diphtheria reported at 1 place less, scarlet fever at 7 places less, typhoid fever at 32 places more, and measles at 48 places less in the month of August, 1890, than in the preceding month.

Grand Rapids.—Month of August, 1890. Population, 70,000. Total deaths, 143, including phthisis pulmonalis, 10; diphtheria, 7; enteric fever, 6; and croup, 1.

NEW JERSEY—*Hudson County.*—Month of July, 1890. Population, 292,734. Total deaths, 694, including scarlet fever, 13; measles, 2; diphtheria, 34; enteric fever, 9; and whooping-cough, 8.

NORTH CAROLINA.—Month of July, 1890. Reports to the State board of health from 19 cities and towns, having an aggregate population of 118,786, show a total of 147 deaths, including phthisis pulmonalis, 20; enteric fever, 18; diphtheria, 1; and measles, 1.

RHODE ISLAND—*Newport.*—Month of August, 1890. Population, 20,000. Total deaths, 48, including enteric fever 1 and whooping-cough 1.

TEXAS—*San Antonio.*—Month of August, 1890. Population, 50,000. Total deaths, 72, including phthisis pulmonalis, 9; enteric fever, 12; and small-pox, 2.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

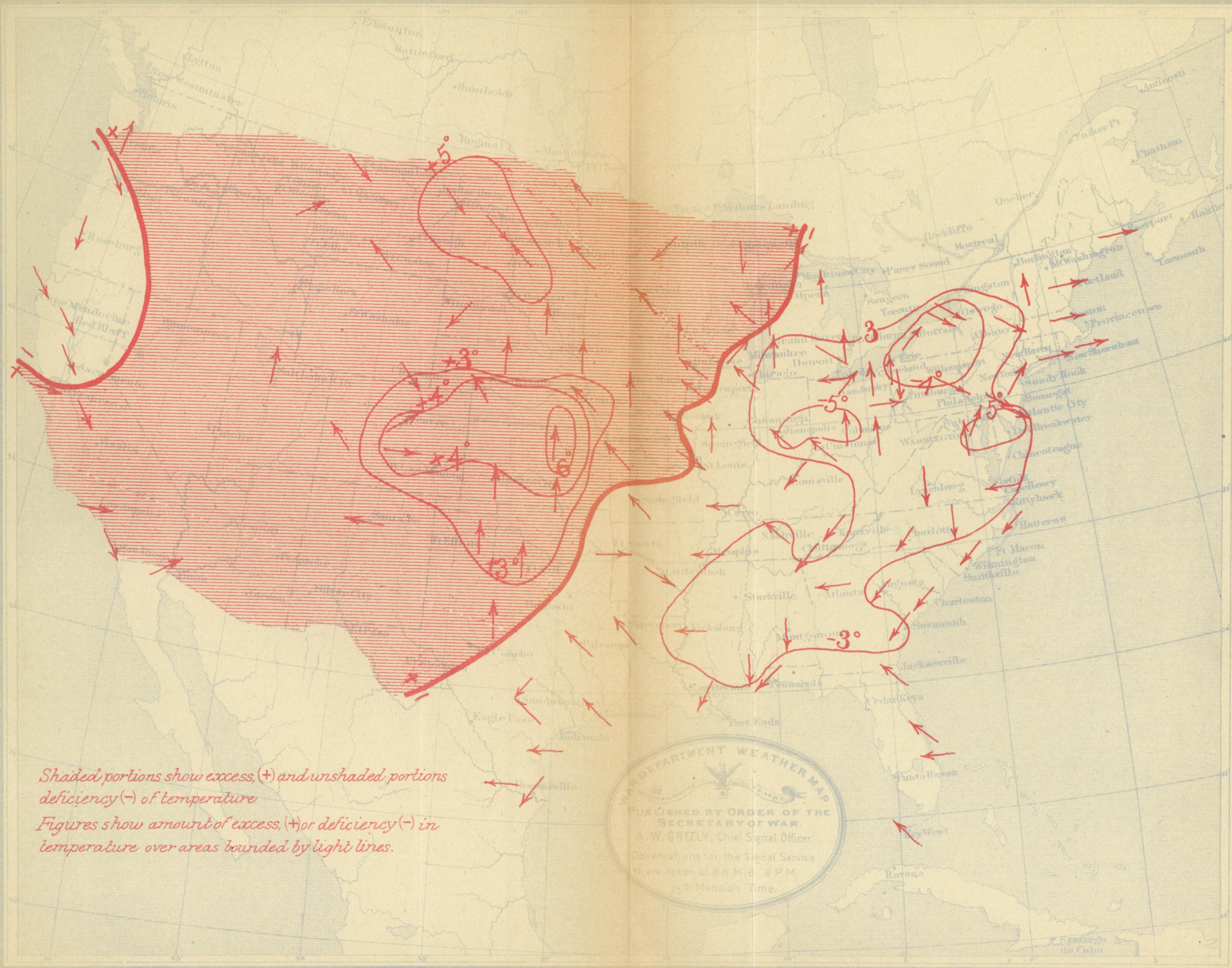
Cities.	Week ended.	Estimated popula- tion.	Total deaths from all causes.	Deaths from—										
				Cholera.	Yellow fever.	Small-pox.	Variceloid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping- cough.
Philadelphia, Pa.....	Aug. 30.....	1,064,277	390							14	3	11	1	7
Brooklyn, N. Y.....	Aug. 30.....	871,852	397							4		10	2	9
Brooklyn, N. Y.....	Sept. 6.....	871,852	378							3	2	3	1	4
Baltimore, Md.....	Sept. 6.....	500,343	158							6		4		6
Boston, Mass.....	Sept. 6.....	446,507	191							7	1	11		
Cincinnati, Ohio.....	Sept. 5.....	325,000	94							3		6		
New Orleans, La.....	Aug. 30.....	254,000	106									1		1
Washington, D. C.....	Aug. 30.....	250,000	125							7	2	6	1	
Washington, D. C.....	Sept. 6.....	250,000	100							8	1	4		
Pittsburgh, Pa.....	Aug. 30.....	240,000	81							10		4		1
Detroit, Mich.....	Aug. 30.....	230,000	76							2		10		
Milwaukee, Wis.....	Sept. 6.....	220,000	86						1	3		3	1	
Minneapolis, Minn.....	Aug. 30.....	200,000	45							3		3	1	
Minneapolis, Minn.....	Sept. 6.....	200,000	47									1	1	
Kansas City, Mo.....	Aug. 30.....	135,000	33							1				
Kansas City, Mo.....	Sept. 6.....	135,000	20							3				
Rochester, N. Y.....	Sept. 5.....	135,000	49							1		1		
Providence, R. I.....	Sept. 6.....	130,000	50							1		2		1
Indianapolis, Ind.....	Sept. 5.....	129,346	27							1	1			
Richmond, Va.....	Aug. 30.....	100,000	46							1		1		3
Richmond, Va.....	Sept. 6.....	100,000	33							2		3		
Toledo, Ohio.....	Sept. 5.....	81,650	35							1		3		
Nashville, Tenn.....	Sept. 6.....	75,695	30											1
Fall River, Mass.....	Sept. 6.....	75,000	24									1		
Charleston, S. C.....	Aug. 30.....	60,145	58							3				2
Charleston, S. C.....	Sept. 6.....	60,145	32							2				
Portland, Me.....	Sept. 6.....	42,000	11											
Galveston, Tex.....	Aug. 15.....	40,000	14											
Galveston, Tex.....	Aug. 22.....	40,000	7							1				
Galveston, Tex.....	Aug. 29.....	40,000	20							1		1		
Binghamton, N. Y.....	Sept. 6.....	35,000	7											
Altoona, Pa.....	Aug. 2.....	34,397	13											
Altoona, Pa.....	Aug. 9.....	34,397	14											
Altoona, Pa.....	Aug. 16.....	34,397	11											
Yonkers, N. Y.....	Aug. 30.....	32,000	10											
Yonkers, N. Y.....	Sept. 6.....	32,000	10											
Auburn, N. Y.....	Aug. 30.....	26,000	12								1			
Auburn, N. Y.....	Sept. 6.....	26,000	7											
Newton, Mass.....	Aug. 30.....	22,011	11									1		
Rock Island, Ill.....	Aug. 30.....	16,000	3											
Pensacola, Fla.....	Aug. 30.....	15,000	5							2				

Table of temperature and rain-fall, week ended September 5, 1890.

[Received from War Department, Signal Office.]

Locality.	Mean temperature in degrees, Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
New England States:						
Eastport, Me.	59		5	.81		.55
Portland, Me.	65		10	.73		.35
Boston, Mass.	67		16	.79		.71
Block Island, R. I.	67		10	.75		.63
Middle Atlantic States:						
Albany, N. Y.	69		23	.77		.01
New York, N. Y.	71		8	.87		.55
Philadelphia, Pa.	72		17	.84		.80
Atlantic City, N. J.	71		41	.84		.84
Baltimore, Md.	74		29	.91		.49
Washington, D. C.	74		36	.94		.80
Lynchburg, Va.	75		26	.79		.79
Norfolk, Va.	75		29	1.18		1.18
South Atlantic States:						
Charlotte, N. C.	76		31	.80		.72
Wilmington, N. C.	77		22	1.70		1.07
Charleston, S. C.	80		12	1.57	1.17	
Augusta, Ga.	78		12	.91		.05
Savannah, Ga.	80		32	1.42	4.34	
Jacksonville, Fla.	80		8	1.75		.60
Key West, Fla.	84		21	1.41	1.27	
Gulf States:						
Atlanta, Ga.	75		25	.75		.31
Pensacola, Fla.	79		11	1.63	2.07	
Mobile, Ala.	80		29	1.30		.60
Montgomery, Ala.	80		29	.71		.09
Vicksburg, Miss.	80		21	.97		.95
New Orleans, La.	81		17	1.15		.29
Shreveport, La.	80		12	.87		.86
Fort Smith, Ark.	77		8	.69		.33
Little Rock, Ark.	76		6	.82		.78
Palestine, Tex.	79		1	.64		.64
Galveston, Tex.	83		11	1.64		1.64
San Antonio, Tex.	81		7	.97		.75
Corpus Christi, Tex.	83		18	1.39	.25	
Rio Grande, Tex.	84			.87		
Ohio Valley and Tennessee:						
Memphis, Tenn.	77		6	.75		.71
Nashville, Tenn.	76		26	.80		.58
Chattanooga, Tenn.	74		18	.99		.29
Knoxville, Tenn.	73		11	.75		.76
Louisville, Ky.	74		11	.71		.61
Indianapolis, Ind.	74		34	.69		.17
Cincinnati, Ohio.	74		30	.63		.11
Columbus, Ohio.	71		27	.68		.08
Pittsburgh, Pa.	70		26	.65	.45	
Lake Region:						
Oswego, N. Y.	67		34	.60		.43
Rochester, N. Y.	68		21	.59		.56
Buffalo, N. Y.	67		30	.77		.76
Erie, Pa.	69		35	.91		.80
Cleveland, Ohio.	68		26	.84		.68
Sandusky, Ohio.	70		28	.82		.32
Toledo, Ohio.	69		24	.63	1.04	
Detroit, Mich.	68		23	.64	.10	
Port Huron, Mich.	66		17	.62		.49
Alpena, Mich.	63		4	1.02		.76
Marquette, Mich.	63	7		.88		.24
Grand Haven, Mich.	66		20	.78		.86
Milwaukee, Wis.	67		10	.72		.40
Chicago, Ill.	70		16	.72		.58
Duluth, Minn.	63		29	.98	.04	
Upper Mississippi Valley:						
St. Paul, Minn.	66	15		.80		.14
La Crosse, Wis.	67	5		1.15	.61	
Dubuque, Iowa.	68	3		.82	1.78	
Davenport, Iowa.	70	15		.82		
Des Moines, Iowa.	68	17		.88	.23	
Keokuk, Iowa.	72			.82	1.82	
Springfield, Ill.	71		3	.85		.82
Cairo, Ill.	75		14	.62		.61
St. Louis, Mo.	74		31	.76		.48
Springfield, Mo.	74		13	.56	.10	

Temperature and Prevailing Direction of Wind, week ending September 5th 1890.



Rainfall, week ending September 5th 1890.

Form 106 F.

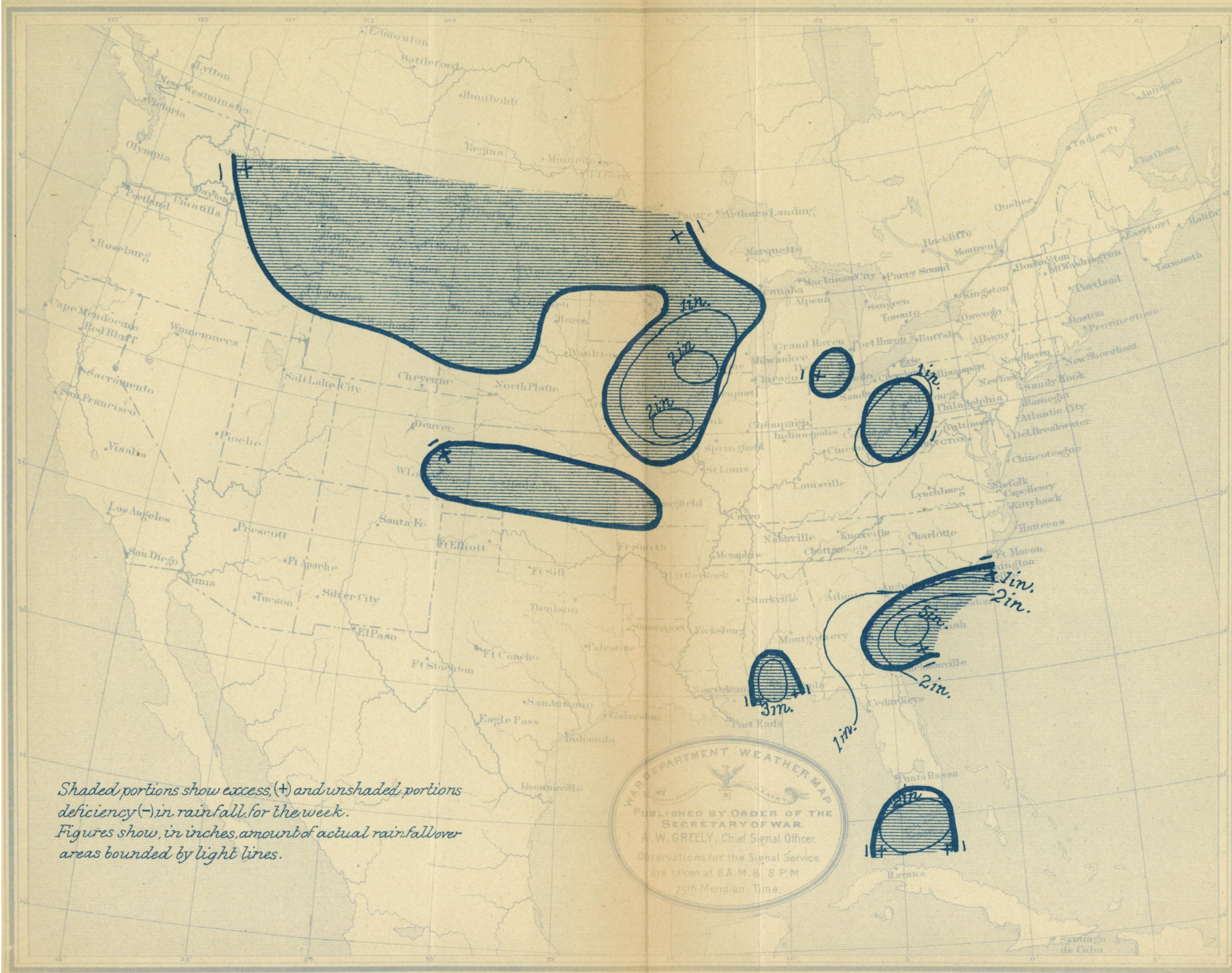


Table of temperature and rain-fall, week ended September 5, 1890—Continued.

Locality.	Mean temperature in degrees, Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Missouri Valley:						
Kansas City, Mo.....	73	7	.....	.79	.....	.07
Concordia, Kan.....	71	43	.....	.81	.....	.51
Omaha, Nebr.....	70	25	.....	.83	.....	.48
Valentine, Nebr.....	66	17	.....	.35	.29	.....
Huron, Dak.....	64	34	.....	.43	.....	.28
Extreme Northwest:						
Moorhead, Minn.....	60	17	.....	.59	.65	.....
St. Vincent, Minn.....	57	16	.....	.48	.....	.24
Bismarck, Dak.....	61	40	.....	.37	.19	.....
Buford, Fort, Dak.....	58	41	.....	.19	.25	.....
Rocky Mountain Slope:						
Assiniboine, Fort, Mont.....	58	9	.....	.28	.76	.....
Helena, Mont.....	57	16	.....	.31	.19	.....
Custer, Fort, Mont.....	61	.....	.....	.19	.....	.....
Rapid City, Dak.....	56	.....	.....	.13	.59	.....
Salt Lake City, Utah.....	69	12	.....	.21	.....	.13
Cheyenne, Wyo.....	62	17	.....	.16	.....	.16
North Platte, Nebr.....	68	31	.....	.38	.....	.37
Denver, Colo.....	66	32	.....	.26	.....	.17
Dodge City, Kans.....	72	25	.....	.44	.34	.....
Elliott, Fort, Tex.....	72	23	.....	.60	.....	.59
Sill, Fort, Ind. T.....	76	20	.....	.64	.....	.64
Santa Fé, N. Mex.....	73	9	.....	.44	.....	.36
Pacific Coast:						
Olympia, Wash.....	59	24	.....	.57	.....	.51
Portland, Oreg.....	63	.....	9	.34	.....	.14
Roseburg, Oreg.....	64	.....	9	.16	.....	.13
Red Bluff, Cal.....	78	.....	23	.10	.....	.10
Sacramento, Cal.....	72	.....	12	.45	.....	.45
San Francisco, Cal.....	60	24	.....	.25	.....	.25
Los Angeles, Cal.....	68	34	.....	.25	.....	.25
San Diego, Cal.....	68	11	.....	.02	.....	.02
Yuma, Ariz.....	88	23	.....	.04	.....	.....

FOREIGN.

(Reports received through the Department of State and other channels.)

GREAT BRITAIN—*England and Wales.*—The deaths registered in 28 great towns of England and Wales during the week ended August 23 corresponded to an annual rate of 21.0 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Bristol, viz, 13.0, and the highest in New-Castle-on-Tyne, viz, 29.4 a thousand. Diphtheria caused 6 deaths in Salford, 2 in Manchester, 3 in Liverpool, and 2 in Birmingham.

London.—One thousand six hundred and twenty-nine deaths were registered during the week, including measles, 73; scarlet fever, 16; diphtheria, 20; whooping-cough, 39; enteric fever, 11; and diarrhoea and dysentery, 255. The deaths from all causes corresponded to an annual rate of 19.2 a thousand. Diseases of the respiratory organs caused 208 deaths. In greater London 2,097 deaths were registered, corresponding to an annual rate of 19.0 a thousand of the population. In the "outer ring" the deaths included measles 21 and whooping-cough 17.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended August 23, in the 16 principal town districts of Ireland, was 21.0 a thousand of the population. The lowest rate was recorded in Lisburn, viz, 4.8, and the highest in Galway, viz, 35.9 a thousand. In Dublin and suburbs 139 deaths were registered, including measles, 2; enteric fever, 4; and whooping-cough, 1.

Scotland.—The deaths registered in eight principal towns during the week ended August 23 corresponded to an annual rate of 18.9 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Greenock, viz, 14.4, and the highest in Leith, viz, 21.2 a thousand. The aggregate number of deaths registered from all causes was 488, including small-pox, 1; measles, 10; scarlet fever, 6; diphtheria, 4; whooping-cough, 27; fever, 3; diarrhoea, 40; and croup and laryngitis, 5.

Gibraltar—Preventive measures by the board of health and by the governor.—

Measures adopted by the board of health.

Notice.—GIBRALTAR, 18th August, 1890.—At a meeting of the board of health held this day it was decided—

That vessels from ports in the Red Sea, excepting Suez, shall be refused admission at this port.

That vessels carrying passengers who can not prove to the satisfaction of the port authorities that they have not been in the ports of Arabia within forty days previous to their arrival here shall not be admitted to pratique.

The board of health also decided to direct attention to their order of 13th October, 1888, repelling all arrivals at this port with pilgrims on board.

Measures adopted by the governor.

• AUGUST 19, 1890.

AN ORDINANCE to make further provision for preventing the introduction of infectious or contagious diseases into Gibraltar.

Whereas it is expedient to make further provision for preventing the introduction of infectious or contagious diseases into Gibraltar—

Be it enacted by his excellency the administrator of the government of the city and garrison of Gibraltar as follows :

1. This ordinance may be cited as “the infectious and contagious diseases ordinance, Gibraltar, 1890.”

2. In this ordinance the following terms have the meanings hereinafter assigned to them, that is to say—

The word “Gibraltar” shall mean and include Her Majesty’s city, garrison, and territory of Gibraltar and the sea-shore thereof.

The words “infected place” shall have the meaning which is assigned to the words “infected place” in the quarantine order in council, Gibraltar, 1885.

3. It shall be lawful for the governor, with the advice and upon the request of the board of health, to prohibit, by an order in writing to that effect and published in the *Gibraltar Chronicle and Official Gazette*, the entrance into Gibraltar of any person who has resided or been, within the period of twenty-one days of his arrival at Gibraltar, in any affected place, or who is, or is suspected to be, actually suffering, or has, within the period of twenty-one days, suffered from any infectious or contagious disease. And the governor shall have power, at the request and with the advice of the board of health, at any time, by notice to that effect published in the *Gibraltar Chronicle and Official Gazette*, to rescind such order.

4. From and after the publication of the order mentioned in the preceding section, and so long as such order shall remain in force, it shall be lawful for the chief of police or any inspector or constable of the civil police, or any person duly authorized by the governor for that purpose, to put the questions contained in the schedule annexed to this ordinance to any person arriving at Gibraltar by land or by sea and desirous of entering therein.

5. All such persons are hereby required to answer such questions and to sign their names at the foot or end of such questions with their answers thereto, in the form in the schedule annexed to this ordinance. And any person who shall decline so to do shall be refused admittance into and prevented from entering Gibraltar.

6. From and after the publication of such order, and so long as such order shall remain in force, any constable, or any person duly authorized by the governor, shall, upon being satisfied that any person desirous of entering Gibraltar has resided or been within the period of twenty-one days of his arrival at Gibraltar in any infected place, or is suspected

to be actually suffering, or has within a period of twenty-one days suffered, from any infectious or contagious disease, refuse admittance into and prevent such person from entering Gibraltar.

7. If the chief of police, or any inspector or constable of police, or any person duly authorized by the governor, shall have reason to suspect that any person desirous of entering Gibraltar is suffering, or has lately suffered, from any sickness, he may refuse to admit such person into Gibraltar until he shall have been examined by the officer of health, and in the event of such person making request for and consenting to such examination it shall be the duty of the officer of health, within a reasonable time, to examine such person and give to the chief of police a certificate signed by him of the state of health of such person.

8. When any person is seen or found committing, or is reasonably suspected of having committed, any offense against this ordinance, any police constable may, without warrant, apprehend him and detain him in custody until such person can be brought before a court of summary jurisdiction.

9. If any person is convicted by a court of summary jurisdiction of an offense against this ordinance he shall for every such offense be liable to a fine not exceeding 2,500 pesetas and not less than 250 pesetas, and, in default, to imprisonment with hard labor for any term not exceeding six months and not less than two months.

10. If any person does any of the following things he shall be guilty of an offense against this ordinance :

I. Makes a false answer to any question put to him under this ordinance.

II. Is found in Gibraltar after having been refused admission under the provisions of this ordinance.

III. Obtains admittance to Gibraltar, with intent to evade the provisions of this ordinance, by any means other than by one of the following entrances, that is to say : The main road from Linea, the bayside barrier, the waterproof wharf, the stone jetty, the ragged staff, and the new mole.

IV. Aids and abets any person in the doing of any of the forgoing things.

11. This ordinance shall come into operation and take effect forthwith.

FRANCE—*Nice*.—Month of July, 1890. Population, 78,842. Total deaths, 123, including phthisis pulmonalis 15 and whooping-cough 1.

SPAIN—*Cholera and small-pox*.—The Secretary of State transmits the following from the chargé d'affaires at Madrid, dated August 26, 1890 :

SIR : I have the honor to inclose a copy of official report of cholera cases and deaths for all Spain to and including August 24, 1890. The disease has increased both in intensity and area covered since last report. We have also a small-pox epidemic in the city of Madrid—from a rough count I should say about 250 cases and perhaps 40 deaths.

I have the honor, etc.,

H. R. NEWBERRY.

Summary of cases and deaths from cholera in all Spain from the beginning of the epidemic to August 24, 1890.

	<i>Cases.</i>	<i>Deaths.</i>
Alicante (province).....	134	82
Badajoz (province).....	77	46
Toledo (province).....	234	116
Valencia (province).....	1, 510	679
In 28 towns now freed from epidemic since official declaration.....	506	312
Total.....	2, 461	1, 235

There were, moreover, a number of cases and deaths which were not officially reported in the towns of Tortosa and San Carlos de la Rapita, in the province of Taragona.

SPAIN—*Valencia—Cholera—Reports for the city and province of Valencia for the week ended August 11, 1890.*—The United States consul at Barcelona transmits the following :

In the city of Valencia there were 48 cases of cholera and 28 deaths. In the province of Valencia, August 8—

	<i>Cases.</i>	<i>Deaths.</i>
Algernesí.....	4	2
Alcira.....	3	2
Carlet.....	0	1
Valldigna.....	2	2
Belgida.....	0	1
Cuatretonda.....	8	2
Castellon de Rugat.....	4	1
Cerdá.....	1	0
Granja.....	1	1
Manuel.....	1	0
Millares.....	1	2
Onténiente.....	3	1
Palma.....	4	1
Rotglá.....	4	0

August 9—

Algernesí.....	3	4
Alcira.....	2	0
Ador.....	2	0
Crespins.....	2	0
Ayelo de Malferit.....	1	0
Carlet.....	2	2
Valldigna.....	3	2
Castellon de Rugat.....	5	1
Canals.....	25	7
Manuel.....	2	0
Onténiente.....	1	1
Palma.....	1	1
Riola.....	1	0
Utiel.....	2	2
Valladá.....	1	1

August 10—

Alcira.....	0	1
Ribera.....	0	2
Ayelo Malkrit.....	2	2
Anna.....	1	0
Belyida.....	1	1
Cuatretonda.....	7	1

August 10—*Continued.*

	<i>Cases.</i>	<i>Deaths.</i>
Canals.....	7	3
Cerdá.....	0	1
Tavaco.....	2	1
Luchente.....	4	1
Llanera.....	1	0
Palma.....	1	1
Rotglá.....	2	0
Utiel.....	5	3
Grave.....	1	1

August 11—

Algernesi.....	1	0
Ador.....	0	1
Albalet.....	3	2
Alcudia.....		0
Belgida.....	1	0
Cuatretonda.....	5	3
Castellon de Rugat.....	0	1
Canals.....	7	2
Luchente.....	5	1
Llanera.....	2	0
Masamagrell.....	0	1
Onténiente.....	16	14
Rotglá.....	1	0
Silla.....	0	2
Terrateig.....	0	1
Torrella.....	1	0
Utiel.....	3	2
Vallada.....	1	1
Castellon.....	1	1

August 12—

Algernesi.....	1	0
Carlet.....	5	2
Anna.....	0	1
Valldigua.....	1	0
Cuatretonda.....	2	1
Castellon de Rugat.....	0	1
Canals.....	2	2
Cerdá.....	0	1
Taraco.....	1	0
Fenollet.....	1	0
Llanera.....	0	1
Montesa.....	2	0
Onténiente.....	6	3
Paiporta.....	3	1
Rotglá.....	1	0
Utiel.....	8	6
Vallada.....	1	0
Sellent.....	3	1
Argobispo.....	1	0
Sollana.....	1	0

August 13—

Algernesi.....	1	1
Alcantara.....	1	0
Ador.....	3	1
Albalat.....	6	4
Alberique.....	1	0
Alcudia.....	2	1
Valldigua.....	0	1

August 13—*Continued.*

	<i>Cases.</i>	<i>Deaths.</i>
Cargagente.....	1	0
Cuatretonda.....	1	1
Canals.....	2	1
Yaraca.....	0	1
Llosa.....	1	1
Onténiente.....	8	4
Paiporta.....	2	1
Riola.....	2	0
Utiel.....	6	2
Castellon.....	0	1
Sollana.....	0	1
Bollaite.....	2	0

August 14—

Algernesí.....	1	1
Alcira.....	3	1
Albalat.....	1	0
Alfarrasí.....	1	0
Alberique.....	1	1
Alcudia.....	1	1
Buñol.....	1	1
Cuatretonda.....	0	1
Enova.....	1	1
Luchente.....	3	1
Onténiente.....	5	3
Palma.....	3	1
Valldigua.....	2	0
Utiel.....	5	2
Argobispo.....	2	2

August 15—

Algernesí.....	3	2
Alcira.....	3	2
Albalat.....	2	0
Alfarrasí.....	1	1
Alberique.....	1	0
Carlet.....	3	1
Belgida.....	1	0
Onténiente.....	3	1
Rotglá.....	1	0
Valldigna.....	0	2
Argobispo.....	0	1
Antella.....	1	0

SWITZERLAND—*Zurich*.—Month of July, 1890. Population, 91,323. Total deaths, 123, including phthisis pulmonalis, 18; typhus fever, 1; diphtheria and croup, 2; and whooping-cough, 1.

ITALY—*Turin*.—Month of July, 1890. Population, 314,827. Total deaths, 160, including 3 from enteric fever.

CHINA—*Shanghai*.—The following letter has been received from the United States consul-general, dated July 25, 1890:

SIR: In reply to your circular of June 5, in relation to weekly sanitary reports, I have the honor to state:

There are no reliable health reports obtainable in Shanghai. The situation here is peculiar. The foreign community, of about 4,000 population, is divided into two municipalities, one of which, the

French, does not collect such information, and the other, known as the American and British settlements, has a health officer, but he makes only annual returns, while of the Chinese community who live contiguous to and among the foreigners, and constitute a population of about 200,000, there is no sanitary record whatever kept.

Under these circumstances any attempted periodical sanitary report would be very imperfect, and I would respectfully submit entirely useless for any practical purpose.

Though there is a good deal of commerce between this port and the United States, there is almost no direct passenger communication, nearly all passengers going by way of Japan to Europe, the ship on which they travel being reported from other ports, while the sanitary condition of merchant ships from here is shown by the bills of health furnished them.

These facts are respectfully reported for the consideration of the Department.

I have the honor to be, sir, your obedient servant,
J. A. LEONARD, *Consul-General*.

EGYPT—*Precautions taken against the introduction of cholera into Egypt.*—The State Department transmits the following letter and reports from the consul-general at Cairo, dated August 8, 1890 :

SIR: The cholera at Mecca appears to have increased somewhat. The Egyptian authorities are taking vigorous measures to prevent its introduction into Egypt. Strict quarantine is enforced on all arrivals from the Arabian Red Sea coast. It is believed that the number of Egyptians now on their pilgrimage is about 3,500. A special cholera commission has been formed in Cairo for the purpose of introducing measures for the preservation of the public health.

Orders have been given to the proper authorities for the inspection of cities and towns, with a view to removing all possible causes of disease, and to establish a state of cleanliness.

The annual fair at Tantah, where there is always a great gathering of people from all parts of the country, has been postponed until October.

Should the cholera appear in Egypt I shall not fail to telegraph to the Department at once. I have the honor to be, sir, with the greatest respect,

Your most obedient servant,
LOUIS B. GRANT, *Acting Consul-General*.

The Egyptian Quarantine Board—Meeting of 8th August, 1890.

[Translation.]

The Board has made the following decisions :

1. It has appointed Dr. Osman Samy its delegate at Medina and Yambo. Dr. Mustapha Ebeid remains intrusted with the delegation of the Board at Jeddah.

2. The coast of the Gulf of Suez to be closely watched in order to prevent any clandestine landing effected by sailing vessels or sambocks. For this purpose the Government will place at all points where landings can be effected soldiers in sufficient number and having sailing boats at their disposal.

3. A sanitary post will be established at Chaloof on the Suez Canal, on the caravan route, in order to prevent the entry into Egypt by this route of persons from the Hedjaz, who will be sent to the quarantine camp at the Wells of Moses.

For the same object the sanitary posts at Kantara and Ismailia are to be reinforced.

4. Sailing vessels and sambocks from the Arabian coast of the Red Sea are to be refused access to Kosseir, Suakin, and the other Egyptian ports on the African coast. The sanitary authorities and the governors are intrusted with the execution of this measure, to which the greatest publicity is to be given, not only in the Egyptian ports, but also in the Arabian ports. The Egyptian Government has already appointed a cruiser for this special duty.

5. On the proposal of the Government the Egyptian pilgrims, after having passed a term of twenty days quarantine at Tor in the two different camps, to be reckoned from the day on which the last case of cholera occurs among them, and after having been submitted to the measures of disinfection prescribed by the regulations, will be conveyed to the island of Shadwan, south of Tor, where they will be kept in quarantine for ten days, and where they will be subjected to further measures of disinfection.

They will then be conveyed by a special vessel to Suez, where they will be submitted to a final medical inspection.

The direction of the Shadwan camp is intrusted to Dr. Milton, who will be placed under the orders of the Quarantine Board throughout the duration of the return from the pilgrimage.

ALEXANDRIA, *8th August*, 1890.

DR. ARDOUIN,
Acting President.

After enumerating prophylactic measures to be enforced, the Board announces the following as measures proposed in case of an epidemic of cholera appearing on Egyptian territory:

1. The immediate closing of schools and all establishments of this description, whether private or public.

2. The closing of rag stores and the prohibition of the sale of rags during the prevalence of the epidemic and for three months after its disappearance.

3. The temporary prohibition of the sale of "fessih" throughout the country.

4. The temporary suspension of opening cesspools for the purposes of emptying them or, what is equivalent, the temporary prohibition of the removal of fecal matters.

5. The constant supervision of the quality of the water supplied to the public.

6. The establishment of isolated ambulances for cholera patients in all great centers.

So far as the capital is concerned, four places whose topographical situation is good can be pointed out now:

a. The island of Rodah or the neighboring lands of Der-el Tin, where cholera patients from Old Cairo and the neighborhood could be treated in the ambulances.

b. Abasseeyeh, some place on the desert to be selected.

c. Boolak, on the waste land in its neighborhood.

d. The fourth ambulance might be placed on the waste land beyond the old Helooan railway station.

For the great centers of Lower and Upper Egypt it would be advisable to select spots at some distance from dwelling houses and situated in a southerly direction.

7. The formation of a special staff entrusted with the disinfection of houses and of the corpses of cholera patients.

8. The formation of an ambulance staff, with about 60 conveyances, which could be lent by the army of occupation and by the Egyptian army, thus saving the Government unnecessary expense.

These conveyances would be stationed at the caracols and sanitary offices.

9. The formation of a staff of medical officers, male and female nurses for the ambulances.

10. The immediate purchase of disinfectants and other drugs most in use in time of cholera epidemics, and which would cost about L.E. 3,200, as follows:

Jeye's fluid, 5,000 kilos; sublimate, 500 kilos; sulphuric acid, 500 kilos; tincture of opium, 500 kilos; calomel, 250 kilos; brandy, 5,000 litres; mustard, 5,000 kilos; quicklime.

11. The burning of clothes soiled by cholera patients which would be first conveyed in hermetically-sealed boxes lined with zinc to places far removed from dwelling-houses.

12. Rooms in which deaths from cholera have occurred to be disinfected and white-washed.

13. A mixture of sand and quicklime is to cover the corpses of cholera patients in deep graves.

14. The cloths covering biers containing the corpses of Moslems to be burnt and the biers themselves to be washed and disinfected.

15. Hearses having conveyed the corpses of Europeans who have died from cholera to be, each time, submitted to complete washing and disinfection.

16. A special staff will be placed in each cemetery to carry out the preceding measures.

17. It is absolutely forbidden to throw into the street water having served for washing corpses of cholera patients.

18. The consultative hygienic commission appointed in the Moode-reeyehs and Gouvernorats by decree dated — is entrusted with the execution of these measures.

19. A sub-commission dependent on the principal commission is to be at once constituted in each markaz, consisting of the mamoor of the district, the officer of police, and the medical officer of the district.

20. Every medical officer and chemist in the service of the Government, or in receipt of a pension, as well as every official and employé of the State who may be summoned by the board of health, during the epidemic, is to proceed wherever his services may be required, under penalty of being put on his trial before a disciplinary council.

The board of health will prepare later a table for the use of its medical officers, and which will indicate to them the manner in which disinfectants and drugs generally in use in time of cholera is to be applied.

CAIRO, August 15, 1890.

Respectfully submitted.

LOUIS B. GRANT,
Acting Consul-General.

EGYPT—*Small-pox*.—The United States consul-general submits the following report published by the board of health :

[*Egyptian Gazette* of July 18, 1890.]

The quarantine board having asked the board of health to supply it with information respecting the small-pox epidemic, the reported prevalence of which in Egypt had caused the Austro-Hungarian Government to forbid the entry of rags, the board of health has sent a report to the quarantine board in which it stated that small-pox in Egypt is of a benign character, and has only made its appearance in a few towns and districts as in former years. The rate of mortality is normal. In Europe small-pox epidemics assume a serious character and cause great mortality, but in Egypt small-pox can not be considered as an epidemic, but as a disease which breaks out every year at the same period, and the propagation of which is prevented, thanks to the energetic measures taken by the health officers. According to the latest returns small-pox may now be considered as having entirely disappeared from Egypt; but there are now only 56 patients throughout the country under treatment for small-pox in a benign form, all of whom are making favorable progress toward recovery. These 56 patients are situated as follows: 24 in Dakahleeyeh province, 25 in Sharkeeyeh, 6 in Behera, and 1 in Galioobeeyeh.

As to the report of rags from Egypt, the board of health proposes, in order to avoid any injury to trade, that one or more machines should be established on the Alexandria quays for the disinfection of rags before shipment.

CUBA—*Havana*.—The sanitary inspector, United States Marine-Hospital Service, under date of September 4, 1890, writes as follows:

I have the honor to inform you that there were 651 deaths in this city during the month of August. Sixty four of these deaths were caused by yellow fever, 13 by enteric fever, 17 by so-called pernicious fever, 2 by bilious fever, 1 by paludal fever, 1 by small-pox, 7 by diphtheria and croup, and 6 by measles. Thirty-six of the deaths by yellow fever were in the military hospital, while the remaining 28 occurred among civilians in private hospitals and different parts of the city.

The mortality from cholera infantum and cholera which had been so great during the months of June and July has diminished very much, while measles prevails so actively and to such an extent that it may be called an epidemic over the whole island. The weather is for the most part very hot now, but excessively changeable and rainy, apparently causing the large amount of muscular rheumatism and neuritis which exists at present here.

Yellow fever.—Week ended August 28, 1890. The United States consul-general reports 78 cases of yellow fever and 11 deaths therefrom.

BRAZIL—*Pernambuco*—*Small-pox*.—The United States consul reports 181 deaths from small-pox in Pernambuco during the two weeks ended August 12, 1890.

The action of solar light on bacteria.

[From the address of Doctor Koch to the Berlin Congress. Translated for this Bureau from *La Pratique Médicale*, Paris, August 19, 1890.]

The study of the action of light and heat on bacteria has given results of importance to the prevention of disease.

Solar light has a destructive effect on the bacilli of tuberculosis. These bacilli are killed within a period varying from some minutes to some hours, according to the solidity of the layer of culture exposed to the sun. Diffused light has the same effect, but its action is slower. Cultures exposed to the light at a window, perish in from five to seven days.

The contagion of leprosy.

[Translated for this Bureau from *La Rivista Internazionale d'Igiene*, Naples, July, 1890.]

Since the discovery of the bacillus of leprosy it has been repeatedly shown that this parasite is present in immense quantities in the leprous nodules. Notwithstanding the failure to develop leprosy by inoculation with the bacillus some authorities have endeavored to demonstrate the etiological importance of the parasite. Others, notably Unna, in a paper entitled "The bacillus of leprosy and its relations to the skin tissue," have asserted the bacillus of leprosy to be an innocuous parasite. Cornil and others have shown that the closest research has failed to demonstrate whether the bacilli contained in the leprous nodules are living or dead.

Inoculation with the dead bacilli of leprosy induces a phlogistic reaction and a complete or partial absorption of the injected substance. The bacilli are incorporated with the cells, preserving their form and property of coloration, while the incorporating cells undergo marked alteration and are increased in size. These alterations are identical with those obtained by the writer from inoculation with desiccated leprous tissue, and by Vassius and others with fresh leprous nodules, and would seem to show that the leprous bacilli are incorporated after the manner of a foreign substance, and that they provoke neither a local nor general leprous affection. Wesener's theory, founded on the results of comparative experiments, is that the large proportion of the leprous bacilli are innocuous. The dead bacilli no longer furnish products of nutritive exchange and act only as incapsulated foreign bodies. This hypothesis approximately explains the two forms of leprosy. In the first stage, the inoculous, living bacilli are introduced into the skin; they induce eruption and fever, multiply and die. The second stage is a consequence of their absorption into the cell. The bacilli are dead and inclosed in thickened cells. It has been observed that in this stage the disease is arrested often for years. The progress of the disease infers a new infection and the transportation into the blood of bacilli capable of multiplication. This theory readily explains the fact that experiments in inoculation with leprous nodules have been ineffective, and also accounts for the slight contagion of leprosy and the negative results of its transmission to man. The dead bacillus is not susceptible of cultivation and it can not infect.

Geographical pathology—Europe—Diseases prevailing in the several countries.

[Translated for this Bureau from *La Rivista Internazionale d'Igiene*, Naples, June, 1890.]

GREAT BRITAIN.—Scotland: Phthisis pulmonalis, croup, diphtheria, and rheumatism. England: Bronchitis, pulmonitis, and all affections of the respiratory organs. Ireland: Typhus fever, including the exanthematic form, endemic, and permanent. Scrofula, largely prevalent. Recurrent typhus and enteric fever, generally diffused throughout the United Kingdom. Scarlatina in its gravest forms, very frequent; intermittent fever, very rare; small-pox and measles present no special features.

HOLLAND.—All forms of intermittent fever, diarrhœa, dysentery, and hemorrhoidal diseases, general; phthisis pulmonalis, decreasing. Small-pox, of rare occurrence during a long period, epidemic in 1870-'71. Alcoholism, mental diseases, and convulsions, rare by comparison with the percentage in other countries in the same latitude.

BELGIUM.—Phthisis pulmonalis, widely diffused, causing in the central portions of the country more than one-fifth of the mortality. In Brussels the number of consumptives is greater, relatively, than in any other city of northern or central Europe. Diseases of the digestive apparatus and the nervous centers, with rheumatism, predominate in the pathology of Belgium. Exanthematic typhus, recurrent fever, and cancer give a lower per cent. than in contiguous countries. The same is true of alcoholism.

FRANCE.—Phthisis and inflammations of the respiratory organs; in southern and eastern France abdominal typhus is much diffused; malaria prevalent along the western and southern littoral; goître and cretinism endemic in the mountain districts; cerebro-spinal meningitis frequently epidemic, as also miliary fever in the north of France. The last-named disease is almost unknown in other European countries.

SPAIN AND PORTUGAL.—Malarial diseases, intermittent in the north, remittent in the south, associated with dysentery, and frequently fatal; enteric fever, frequently epidemic and malignant; yellow fever, imported by way of the sea in 1800, 1820, 1857, 1871, and 1878; mortality from phthisis unimportant along the coast, but frequent in the central provinces; cerebro-spinal meningitis, frequently epidemic; pellagra, scalius, and schroderma, endemic in some provinces; syphilis, widely diffused and of very serious character.

ITALY.—Malarial fever and pellagra are the most prevalent diseases. Pellagra, the genesis of which is coeval with the introduction into the country of Indian corn, infests the northern provinces; goître and cretinism, endemic in Piedmont, Lombardy, Liguria, and Tuscany; typhus fever, apoplexy, and renal calculi, frequent. Cholera and plague belong to the eastern littoral. Yellow fever was imported into Leghorn early in the present century. At Malta malaria is unknown, while dysentery is frequent.

SWITZERLAND.—Pulmonary affections, rheumatism, goître, cretinism, and deaf mutism are the diseases of most frequent occurrence.

AUSTRO-HUNGARY.—Malarial fever, bilious typhus, and recurrent typhus prevail in the Danubian provinces; dysentery, phthisis, cardiac affections, apoplexy, arthritis and rheumatism, diffused; malignant syphilis, frequent; scrofula, enormously diffused.

GERMANY.—Typhus fever in the exanthematic and recurrent forms, frequent; epidemics of diphtheria, frequent and disastrous; neuropathy and apoplexy, very frequent; alcoholism, in the same percentage as in other countries; goitre and cretinism, endemic in the mountain districts; phthisis, less than in Vienna; dysentery and scrofula, rare. As regards trichinosis, Germany, and especially Saxony, is in the front rank of European countries.

DENMARK AND ICELAND.—Pernicious intermittent fever diminished; cancerous diseases, urinary calculi, alcoholism, and mental disorders, increased; phthisis, less frequent than in contiguous countries; small-pox and measles occur in light form. In Iceland influenza and catarrhal bilious fever predominate; convulsions and tetanus of the newborn, frequent; also rheumatism, neuralgia, hysteria, and chlorosis; phthisis, unknown; malaria and syphilis, almost entirely absent. In a few districts scabies is endemic.

SWEDEN AND NORWAY.—In Norway malaria is inconsiderable, while Sweden is seriously affected with it as high as 65° north latitude. In Norway phthisis has diminished; in Sweden it is widely diffused. Rheumatic affections and inflammation of the air passages furnish an almost equal contingent of cases for the two countries. The same is true of diphtheria. Ophthalmic affections are confined to the northern provinces.

RUSSIA.—Malaria is widely diffused in west and south Russia. Intermittent fever of a malignant type prevails along the banks of the great rivers that empty into the Black and Caspian Seas. Phthisis is rare in north Russia and in Siberia, but in middle Russia, especially in Moscow and St. Petersburg, it attains a considerable percentage. Diphtheria has of late years appeared as a devastating epidemic. Violent epidemics of dysentery occur in the southern provinces at the close of the hot season.

TURKEY IN EUROPE.—Malarial and enteric fevers are widely diffused. Typhus fever in the exanthematic form is persistent in Constantinople. Diseases of the respiratory organs, due to variations in temperature, are very frequent. Syphilis is enormously diffused. The plague has not appeared since 1842.

GREECE.—Intermittent and remittent fevers, with gastric and cerebral complications, predominate. During the winter acute and chronic rheumatism and chronic pleuritis prevail. Phthisis is quite frequent. Syphilis, cholera, scabies, and plague have never prevailed in Greece to the same degree as in contiguous European and non-European countries.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Small-pox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
London.....	Aug. 16.....	5,758,500	2,198					16	30	19	91	
London.....	Aug. 23.....	5,758,500	2,097					11	19	22	94	
Paris.....	Aug. 23.....	2,260,945	881			1		12	10	37	22	9
Liverpool.....	Aug. 16.....	613,463	271				1	2	15	3		
Liverpool.....	Aug. 23.....	613,463	297					3	8	3		
Glasgow.....	Aug. 16.....	545,678	218					2		6		12
Glasgow.....	Aug. 23.....	545,678	213						1	2		
Naples.....	July 19.....	519,655	273					5	4	4		
Brussels.....	Aug. 16.....	469,459	209					2				
Warsaw.....	Aug. 3.....	455,852	277			5			7	16		
Hamburg.....	Aug. 9.....	455,000	239					2		3		
Rio de Janeiro.....	Aug. 9.....	450,000	281		8	2	7	6				
Calcutta.....	July 19.....	433,219	184	6		1						
Amsterdam.....	Aug. 23.....	406,402	151					1		4		
Lyons.....	Aug. 16.....	401,930	201									
Munich.....	July 26.....	298,000	176						4	7		
Munich.....	Aug. 2.....	298,000	150					3	1	4		
Munich.....	Aug. 9.....	298,000	189					2		3		
Odessa.....	Aug. 16.....	276,300	161						3		5	1
Barcelona.....	Aug. 14.....	272,000	138					13				
Edinburgh.....	Aug. 16.....	271,135	98			4			2			
Edinburgh.....	Aug. 23.....	271,135	84						4			
Dresden.....	Aug. 2.....	269,000	118						1	2		
Dresden.....	Aug. 9.....	269,000	135							2		
Dresden.....	Aug. 16.....	269,000	139						1	3		
Palermo.....	Aug. 16.....	250,000	111						1	1		
Antwerp.....	Aug. 16.....	232,418	87									
Antwerp.....	Aug. 23.....	232,418	110			1						
Bristol.....	Aug. 23.....	232,248	58						1			
Belfast.....	Aug. 16.....	232,222	97					6				
Belfast.....	Aug. 23.....	232,222	110				1					
Rotterdam.....	Aug. 23.....	208,472	95									
Genoa.....	Aug. 23.....	180,383	79			2	1			1		
Dunfermline.....	Aug. 9.....	180,000	13					1			1	
Dunfermline.....	Aug. 16.....	180,000	10									
Frankfort-on-the-Main.....	Aug. 23.....	170,733	60						1	3		
Trieste.....	Aug. 16.....	158,000	83					1	1	2		
Venice.....	July 26.....	156,800	70			7		1	5			
Venice.....	Aug. 2.....	156,800	77			6		1	4			
Venice.....	Aug. 9.....	156,800	76			9		1				
Hanover.....	Aug. 9.....	155,000	86									
Sunderland.....	Aug. 9.....	136,506	48									
Sunderland.....	Aug. 16.....	136,506	59									
Funchal.....	Aug. 16.....	133,250	28			6						
Nuremberg.....	Aug. 2.....	129,000	58						1	2		
Stuttgart.....	Aug. 23.....	125,510	46						1	1		
Bremen.....	Aug. 16.....	124,000	32					1	1			
Elberfeld.....	Aug. 9.....	123,000	38				1					1
Elberfeld.....	Aug. 16.....	123,000	33				1			1		
Elberfeld.....	Aug. 23.....	123,000	35									
Cardiff.....	Aug. 23.....	117,012	47									
Dantzic.....	July 26.....	115,140	68					1	1	1		
Leghorn.....	Aug. 24.....	113,723	34					2				
Havre.....	Aug. 23.....	112,074	79					3				
Catania.....	Aug. 18.....	109,000							3			
Crefeld.....	Aug. 19.....	108,000	48							1		
Crefeld.....	Aug. 23.....	108,000	77							2	1	
Zurich.....	Aug. 16.....	91,323	9				3					4
Messina.....	Aug. 23.....	79,971	52									
Leith.....	Aug. 16.....	78,538	21									
Leith.....	Aug. 23.....	78,538	32									
Mayence.....	Aug. 16.....	65,802	31									
Jerez de la Frontera.....	Aug. 16.....	61,708	31			3						
Cadiz.....	Aug. 2.....	57,157	43					2				
Cadiz.....	Aug. 9.....	57,157	40									
Trapani.....	Aug. 16.....	43,095	11									
Cienfuegos.....	Aug. 24.....	40,655	26									
Cienfuegos.....	Aug. 31.....	40,655	23		3							
Marsala.....	Aug. 16.....	40,131	16									
Cape Town.....	Aug. 5.....	36,000	19							3		
Amherstburg.....	Sept. 2.....	30,000	4									
Schiedam.....	Aug. 24.....	25,600	11									

MORTALITY TABLE—FOREIGN CITIES—CONTINUED.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—							
				Cholera.	Yellow fever.	Small-pox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Cardenas.....	Aug. 23....	25,000	16	.....	.....	.....	1	.....	.....	.....	.....
Cardenas.....	Aug. 30....	25,000	15	.....	.....	.....	1	.....	1	.....	.....
Vera Cruz.....	Aug. 28....	23,800	26	.....	.....	.....	.....	.....	.....	.....	.....
Gibraltar.....	Aug. 17....	23,681	6	.....	.....	.....	.....	.....	.....	.....	.....
Girgenti.....	Aug. 16....	23,547	9	.....	.....	.....	.....	.....	.....	.....	.....
Licata.....	Aug. 16....	19,000	10	.....	.....	.....	.....	.....	2	.....	.....
Kingston, Can.	Aug. 29....	18,284	4	.....	.....	.....	.....	.....	.....	.....	.....
Kingston, Can.	Sept. 5....	18,284	10	.....	.....	.....	.....	.....	.....	.....	.....
Matamoras.....	Aug. 23....	16,000	10	.....	.....	3	.....	.....	.....	.....	.....
Matamoras.....	Aug. 30....	16,000	6	.....	.....	1	.....	.....	.....	.....	1
Antigua, W. I..	Aug. 9....	15,847	10	.....	.....	.....	.....	.....	.....	.....	.....
Antigua, W. I..	Aug. 16....	15,847	6	.....	.....	.....	.....	.....	.....	.....	.....
Antigua, W. I..	Aug. 23....	15,847	7	.....	.....	.....	.....	.....	.....	.....	.....
Sagua.....	Aug. 23....	15,605	9	.....	.....	.....	.....	.....	.....	.....	.....
Sagua.....	Aug. 30....	15,605	8	.....	.....	.....	.....	.....	.....	.....	.....
Flushing.....	Aug. 23....	13,200	12	.....	.....	.....	.....	.....	.....	.....	.....
Guelph.....	Aug. 30....	10,173	6	.....	.....	.....	.....	.....	.....	4	.....
Tuxpam.....	Aug. 16....	9,000	4	.....	.....	.....	.....	.....	.....	.....	.....
Colon.....	Aug. 25....	8,000	4	.....	.....	.....	.....	.....	.....	.....	.....
Sarnia.....	Aug. 30....	6,200	6	.....	.....	.....	.....	1	.....	.....	.....
Clifton, Ont....	Aug. 31....	3,500	1	.....	.....	.....	.....	1	.....	.....	.....

JOHN B. HAMILTON,
Supervising Surgeon-General, Marine-Hospital Service.