

ABSTRACT OF SANITARY REPORTS.

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No. 21.

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UNITED STATES.

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

ALABAMA—*Mobile*.—Month of April, 1890. Population, 40,000. Total deaths, 59, including phthisis pulmonalis, 13; croup, 1; and enteric fever, 1.

CALIFORNIA.—Reports to the State board of health from 100 localities, having an estimated population of 825,150, show a total of 1,037 deaths, including phthisis pulmonalis, 178; diphtheria, 17; croup, 10; scarlet fever, 3; measles, 13; whooping-cough, 4; and enteric fever, 20.

Los Angeles.—Year ending November 30, 1889. Population, 80,000. Total deaths, 178, including phthisis pulmonalis, 111; croup, 19; diphtheria, 60; scarlet fever, 1; enteric fever, 37; and whooping-cough, 9.

Sacramento.—Month of April, 1890. Population, 35,000. Total deaths, 36, including phthisis pulmonalis, 7; diphtheria, 1; and enteric fever, 1.

Connecticut.—Month of April, 1890. Reports to the State board of health from 165 cities and towns, having an aggregate population of 753,707, show a total of 1,087 deaths, including phthisis pulmonalis, 126; influenza, 3; measles, 1; scarlet fever, 9; diphtheria and croup, 48; whooping-cough, 10; and enteric fever, 13.

Small-pox was reported at Bridgeport.

The *Monthly Bulletin* says:

Small-pox is again banished from the State. How can the efficiency and good work of local boards of health be more emphatically demonstrated than by the experience of the last few months, in restricting and stamping out this most contagious and dreaded disease? It has invaded in turn such towns as Windsor Locks, Waterbury, East Windsor, Meriden, and Bridgeport, since the beginning of the year, and yet in each place under the energetic exercise of the authority invested in the local boards of health, such rigid isolation of patients and thorough vaccination has been practiced that it has been wholly extinguished. In some of these towns, notably Waterbury and Bridge-

port, the notification was so prompt and the preventive measures so thorough that the disease attacked no other than its first victim.

Of what force are the oft exploded arguments of the anti-vaccinationists in the face of such facts?

We do not succeed so well in exterminating other infectious diseases, like scarlet fever and diphtheria, because we have no protective agency corresponding to vaccination, which defends individuals from these diseases. Hence the conclusion is just that the extinction of small-pox in a community or town is largely due to the protection which vaccination gives, and is not merely the result of isolation and disinfection.

Isolation and disinfection, however, are important factors in the prevention of epidemics, and being the chief reliance in other infectious diseases than small-pox should be practiced with more vigilance than is sometimes observed.

It can not be too often impressed upon the minds of local boards of health, charged with the protection of the health of their constituents, that prompt *notification* of contagious diseases, rigid isolation of the patients, and thorough disinfection of their surroundings will always, if intelligently and persistently practiced, be attended with satisfactory success. In short, if an outbreak of contagious disease in any community is not limited to those who are first discovered with it, it will be because of the culpable neglect of these precautions.

KENTUCKY—*Louisville*.—Month ending May 3, 1890. Population, 227,000. Total deaths, 348, including phthisis pulmonalis, 37; diphtheria, 6; scarlet fever, 2; enteric fever, 5; and measles, 1.

MASSACHUSETTS—*Worcester*.—Month of April, 1890. Population, 85,000. Total deaths, 126, including phthisis pulmonalis, 13; scarlet fever, 1; diphtheria, 3; and whooping-cough, 2.

MICHIGAN.—Week ending May 10, 1890. Reports to the State board of health, Lansing, from 58 observers, indicate that cholera-morbus, inflammation of brain, inflammation of bowels, membranous croup, typhoid fever, typho-malarial fever, pleuritis, diarrhœa, measles, and dysentery increased, and that cholera infantum, puerperal fever, cerebro-spinal meningitis, inflammation of kidney, intermittent fever, diphtheria, and influenza decreased in area of prevalence.

Diphtheria was reported present during the week at 25 places; scarlet fever at 21 places; enteric fever, which increased by 26 per cent., at 14 places; and measles, which increased by 27 per cent., at 42 places.

Detroit.—Month of April, 1890. Population, 250,000. Total deaths, 306, including phthisis pulmonalis, 12; diphtheria, 29; enteric fever, 1; measles, 1; and scarlet fever, 6.

MINNESOTA—*Minneapolis*.—Month of April, 1890. Population, 200,000. Total deaths, 179, including phthisis pulmonalis, 17; enteric fever, 1; diphtheria, 9; measles, 4; scarlet fever, 4; and leprosy, 1.

NEW YORK—*Yonkers*.—Month of April, 1890. Population, 31,000. Total deaths, 40, including phthisis pulmonalis 8.

Publications received.

Annual report of the health officer, Los Angeles, Cal., 1889.

Twenty-third annual report of the health department of the city of Cincinnati, 1889.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—												
				Cholera.	Yellow fever.	Small-pox.	Varioloid.	Variella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.		
New York, N. Y.	May 17	1,612,609	705													
Chicago, Ill.	May 17	1,100,000	361							4			31	37		4
Philadelphia, Pa.	May 10	1,064,277	307							22			17	17		
Brooklyn, N. Y.	May 17	859,612	304							17			3	3		1
Baltimore, Md.	May 17	569,343	199							3			3	3		
St. Louis, Mo.	May 10	450,000	149							1			1	1		1
Boston, Mass.	May 17	420,000	186							1			1	1		
Cincinnati, Ohio	May 17	325,000	118							5			7	7		
New Orleans, La.	May 10	254,000	129										3	3		
Detroit, Mich.	May 10	250,000	70										3	3		
Washington, D. C.	May 17	250,000	105										1	1		1
Milwaukee, Wis.	May 17	240,000	66							1			1	1		
Newark, N. J.	May 17	196,169	77							3			2	2		
Denver, Colo.	May 9	150,000	55							3			1	1		
Providence, R. I.	May 17	130,000	47							3			1	1		
Indianapolis, Ind.	May 16	129,346	29										1	1		
Richmond, Va.	May 17	100,000	52										1	1		
Toledo, Ohio.	May 16	92,000	28							1			3	4		3
Fall River, Mass.	May 17	69,000	24													
Nashville, Tenn.	May 17	68,531	29							1						1
Charleston, S. C.	May 10	60,145	30													
Charleston, S. C.	May 17	60,145	35							1						
Manchester, N. H.	May 17	45,000	10													
Portland, Me.	May 17	42,000	9													
Galveston, Tex.	May 2	40,000	9											1		
Galveston, Tex.	May 9	40,000	9													
Binghamton, N. Y.	May 17	35,000	13													1
Altoona, Pa.	May 3	34,397	9													
Altoona, Pa.	May 10	34,397	7													
Yonkers, N. Y.	May 16	31,000	6													
Newton, Mass.	May 17	22,011	6													
Rock Island, Ill.	May 11	16,000	5													
Pensacola, Fla.	May 10	15,000	3													

Temperature and precipitation, week ending May 17, 1890.

[Received from the Signal Office, War Department.]

TEMPERATURE.

The week ending May 17 has been warmer than usual along the Atlantic and Pacific coasts and cooler in the central valleys, the Lake region, and the Northwest. The deficiency in temperature has been most marked in States of the upper Mississippi valley and the Dakotas, where the daily temperature has ranged from 6° to 10° lower than usual, and where the cool weather continues this morning with local

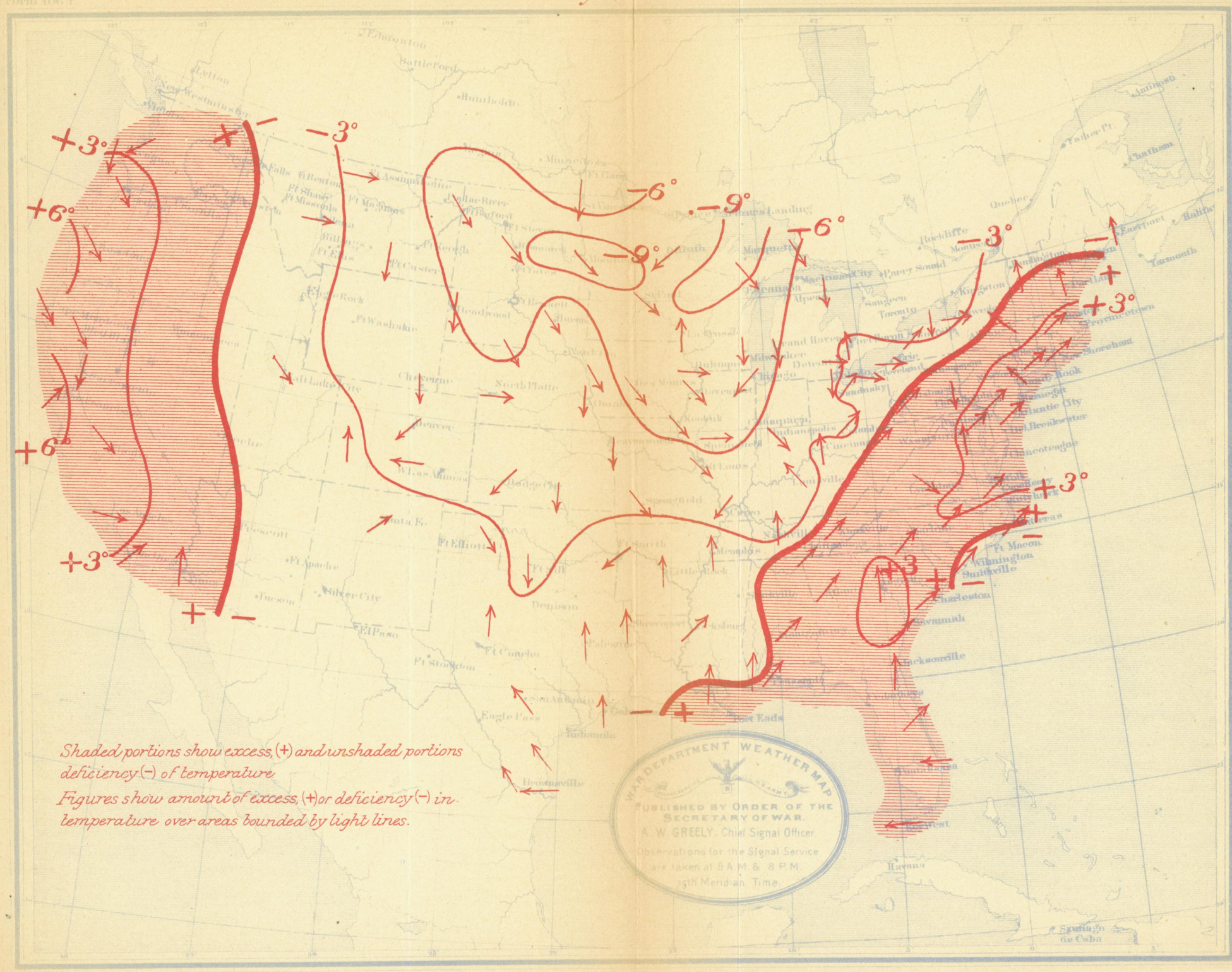
snows. The temperature for the season, January 1 to May 17, continues in excess in all agricultural districts east of the Rocky Mountains and south of the forty-second parallel. The seasonal excess in temperature over this region, though marked, is apparently growing less. The deficiency in temperature for the season previously reported for the extreme northwest is also growing less, and with the advance of the season the thermal conditions are apparently approaching the normal both in the regions of excess and deficiency in temperature.

PRECIPITATION.

The region of excessive rain-fall during the present week is substantially the same as that of the previous week, and includes almost the entire country east of the Mississippi, except along the immediate east Gulf coast. Generous showers also occurred in the west Gulf States, and light showers in the Missouri Valley and in the Northwest. There was also an excess of rain-fall in central and northern California. Very light showers occurred on the north Pacific coast and over the greater portion of the Dakotas and Minnesota. The rain-fall for the season, January 1 to May 17, continues in excess generally over the central valleys, the Lake region, New York, and Pennsylvania, and the interior of New England. The deficiency previously noted in the south Atlantic and east Gulf States has been reduced, and the seasonal rain-fall over those sections amounts to more than 50 per cent. of the normal. There is a large deficiency in seasonal rain-fall from central Minnesota westward to the Missouri Valley and northwest Dakota. Over this section less than 40 per cent. of the usual rain-fall has occurred, although showers were reported in this section this morning. About 60 per cent. of the seasonal rain-fall has occurred in northern Kansas and northwest Missouri, while there has been an excess of rain-fall in western Nebraska and northern Colorado.

*Temperature and Prevailing Direction of Wind, week ending
May 16 1890.*

Form 106 F



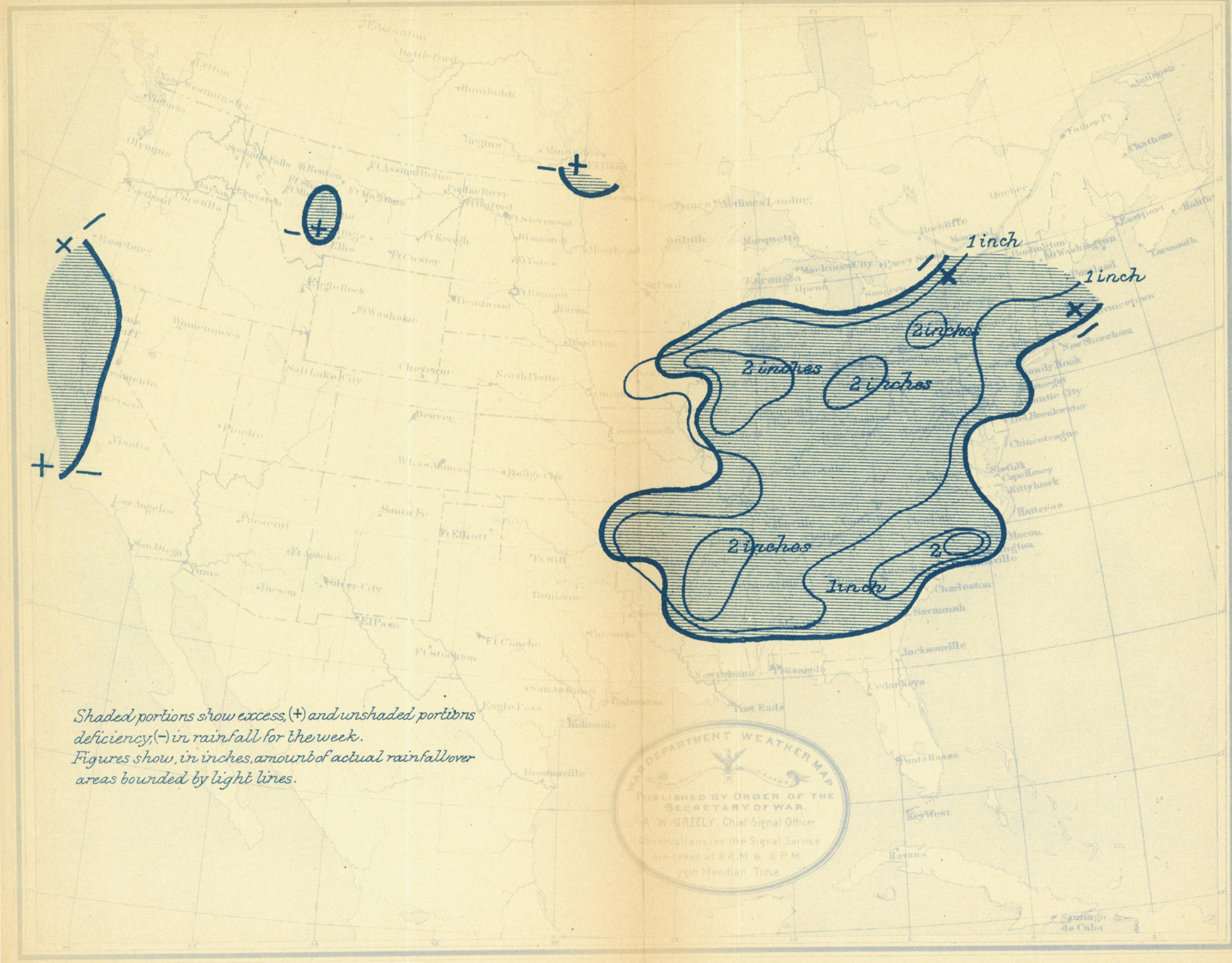
Shaded portions show excess (+) and unshaded portions deficiency (-) of temperature

Figures show amount of excess, (+) or deficiency (-) in temperature over areas bounded by light lines.

WAR DEPARTMENT WEATHER MAP
 PUBLISHED BY ORDER OF THE SECRETARY OF WAR.
 A. W. GREELY, Chief Signal Officer
 Observations for the Signal Service
 are taken at 8 A.M. & 8 P.M.
 15th Meridian Time

Rainfall, week ending May 16, 1890.

Form 106 F



*Shaded portions show excess, (+) and unshaded portions deficiency, (-) in rainfall for the week.
 Figures show, in inches, amount of actual rainfall over areas bounded by light lines.*

U.S. DEPARTMENT WEATHER MAP
 PUBLISHED BY ORDER OF THE SECRETARY OF WAR
 A. W. GREELY, Chief Signal Officer
 Observations for the Signal Service are taken at 8 A.M. & 8 P.M.
 75th Meridian Time.

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 May 3 corresponded to an annual rate of 20.6 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Portsmouth, viz, 15.7, and the highest in Bolton, viz, 36.0 a thousand. Diphtheria caused 3 deaths in Liverpool, 3 in Manchester, and 10 in Salford.

London.—One thousand five hundred and thirty-three deaths were registered during the week, including small-pox, 1; measles, 67; scarlet fever, 15; diphtheria, 18; whooping-cough, 86; enteric fever, 6; typhus, 1; and diarrhœa and dysentery, 21. The deaths from all causes corresponded to an annual rate of 18.1 a thousand. Diseases of the respiratory organs caused 326 deaths. In greater London 1,957 deaths were registered, corresponding to an annual rate of 17.7 a thousand of the population. In the "outer ring" the deaths included measles, 18; diphtheria, 5; and whooping-cough, 24.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended May 3, in the 16 principal town districts of Ireland, was 23.7 a thousand of the population. The lowest rate was recorded in Kilkenny, viz, 4.2, and the highest in Drogheda, viz, 38.1 a thousand. In Dublin and suburbs 172 deaths were registered, including measles, 1; enteric fever, 4; whooping-cough, 2; and diphtheria, 3.

Scotland.—The deaths registered in eight principal towns during the week ended May 3 corresponded to an annual rate of 26.9 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Greenock, viz, 17.0, and the highest in Glasgow, viz, 33.0 a thousand. The aggregate number of deaths registered from all causes was 697, including measles, 41; scarlet fever, 8; diphtheria, 8; whooping-cough, 37; fever, 3; and diarrhœa, 7.

FRANCE—*Marseilles*.—Month of April, 1890. Population, 375,378. Total deaths, 862, including small-pox, 58; enteric fever, 24; scarlet fever, 1; diphtheria and croup, 33; measles, 19; and diarrhœa and enteritis, 39.

BRAZIL—*Para*.—Week ended May 3, 1890. Total deaths, 59, including 1 from yellow fever.

The United States consul says, in a letter dated April 28, 1890:

Para has no such thing as a board of health, or any organized body of physicians paid by the Government to look after the sanitary con-

dition of the city, and, therefore, as I have only the daily newspaper reports, as inclosed, to go by, it will be impossible for me to give all the information required in Form 1974 (consular sanitary report).

No census has been taken in Para since the year 1868, when the population was placed at 30,000. It is now variously estimated to be between 70,000 and 100,000.

BAHAMAS—*Nassau, N. P.*—Week ended May 3, 1890. Population, 12,000. City, healthy. Weather, hot and dry.

Comparison of mortality statistics of Europe.

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

Comparison of the mortuary statistics of the several countries of Europe shows the most frequent causes of death to be for Italy, typhoid fever, malaria, small-pox, and homicide; France, small-pox; Belgium, measles, croup, pertussis, puerperal fever, and diseases of parturition, pulmonary phthisis, and disseminated tuberculosis; Austria, small-pox, scarlet fever, diphtheria and croup, pertussis, pulmonary phthisis, and disseminated tuberculosis; Hungary, pertussis, phthisis, and disseminated tuberculosis; the Germanic Empire, diphtheria, croup, suicide, phthisis, and tuberculosis; Prussia, diphtheria, croup, phthisis, tuberculosis, and accidental death; England, measles, pertussis, scrofula, malignant tumors, and accidental death; Scotland, phthisis, tuberculosis, malignant tumors, and accidental death; Ireland, pulmonary phthisis, disseminated tuberculosis, and other tuberculous and scrofulous affections; Sweden, scarlet fever, phthisis, tuberculosis, alcoholism, and malignant tumors; Norway, diphtheria, croup, phthisis, tuberculosis, malignant tumors, and accidental death; Spain, small-pox, measles, typhoid fever, phthisis, and tuberculosis; Switzerland, croup, alcoholism, malignant tumors, and suicides; Denmark, croup, pertussis, phthisis, tuberculosis, and suicide.

On the coccidium in the eggs of fowls.

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

Professor Podwisotzky, of the University of Kiel, Russia, has verified the presence of coccidii in eggs, a fact of great zoological and still greater etiological importance.

These parasites, long overlooked by pathologists, now claim their full attention. The coccidii are now known to occur more frequently than was supposed and to be connected with many pathologic processes, the causes of which were formerly obscure (*molluscum contagiosum*, etc.). Their presence in eggs is of the highest importance, as showing the avenue by which infection reaches man.

The white of boiled eggs often contains grayish or yellow-brown granules. Treated with alcohol these granules revealed under the microscope swarming colonies of coccidii in all stages of development, the living coccidium being found side by side with the free spore and the residuum of dead coccidii.

Professor Podwisotzky has not determined the species to which these coccidii belong, but he notes their marked resemblance to the coccidium oviform, a parasite ordinarily localized in the liver of rabbits, and to the parasite named by him *karyophagus hominis*, localized in the acini of the human liver. He does not affirm these coccidii to be of frequent occurrence, but declares that epidemics of psorospermia occur among chickens, and that at such times eggs are infected with coccidii.

The effect of fatigue on microbic diseases.

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

Charrin and Roger have experimented on the influence of fatigue on the development of microbic disease. The animals observed were forced to tread a wheel similar to that of a squirrel's cage. Guinea-pigs and rabbits did not adopt the movement, being soon seized with vertigo accompanied by a depression of temperature succeeded by a condition of rigid collapse. Cats and dogs, on the other hand, enjoyed too great immunity from the diseases studied by the experimenters. White rats best supported the exercise. They could be compelled to keep in motion seven hours a day, traversing a distance of fifteen kilometers. The experiment could be repeated for four consecutive days without causing death.

The micro-organisms experimented with were the bacillus of the carbuncle and of symptomatic carbuncle.

Charrin and Roger made use of an attenuated virus, the second inoculation of carbuncle. Four rats received 10 drops and were allowed to rest. Not one of them died. Of eight others inoculated in the same proportion, but compelled to exertion, one resisted and seven died in from one to three days. The same results were obtained with virulent carbuncle.

Eleven rats were inoculated with weak doses of symptomatic carbuncle. Five of these, left in their cages, survived; seven, placed in the wheel, died in from twenty-four to thirty hours. In these animals the local lesion was slight or lacking, but the characteristic bacteria were found in the liver and spleen. Fragments of these organs, introduced under the skin of guinea-pigs, caused almost immediate death.

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.....	Apr. 36.....	5,758,500	1,961					6	38	33	74	
Paris.....	Apr. 19.....	2,260,945	1,125			1		7	9	31	47	9
Paris.....	Apr. 26.....	2,260,945	1,130			3		15	7	9	27	9
Warsaw.....	Apr. 19.....	455,852	251			18						
Warsaw.....	Apr. 26.....	455,852	247			22						
Calcutta.....	Mar. 29.....	433,219	327	18		81					1	
Rome.....	Mar. 15.....	415,498	215			1		2		7		
Rome.....	Mar. 22.....	415,498	186					1		8		
Rome.....	Mar. 29.....	415,498	165			1		6		4		
Rome.....	Apr. 5.....	418,217	143							2		
Amsterdam.....	Apr. 26.....	406,402	156							1	15	
Copenhagen.....	Apr. 26.....	312,387	132						1	1	1	
Edinburgh.....	Apr. 19.....	271,135	125						1	1	1	
Palermo.....	Apr. 26.....	250,000	61			1			2	2	1	
Bristol.....	May 3.....	232,248	94					2	2			
Rotterdam.....	May 3.....	203,472	88									
Genoa.....	Apr. 26.....	180,237	87			5				1	1	
Genoa.....	May 3.....	180,250	78			5				1	1	
Pernambuco.....	Apr. 15.....	120,000	96					1	1			
Barmen.....	Apr. 26.....	113,000	45							2		
Havre.....	Apr. 26.....	112,074	102					1				
Catania.....	Apr. 27.....	109,000	119						1	1	1	
Leghorn.....	Apr. 27.....	108,659	58									
Leith.....	Apr. 19.....	78,538	34						2			
Cadiz.....	Apr. 26.....	57,157	55									
Merida.....	Apr. 14.....	47,448	39									
Merida.....	Apr. 21.....	47,448	41									
Merida.....	Apr. 28.....	47,448	36									
Merida.....	May 5.....	47,448										
Schiedam.....	May 4.....	25,600	23									
Cardenas.....	May 5.....	24,000	10									
Vera Cruz.....	May 1.....	23,800	24									
Vera Cruz.....	May 8.....	23,800	19									
Gibraltar.....	Apr. 27.....	23,681	10							1		
Kingston, Can.....	May 9.....	18,284	6									
Sagua la Grande.....	May 3.....	15,605	9									
Flushing, Neth.....	May 3.....	12,793	5									
La Guayra.....	Apr. 26.....	7,428	2									

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