

ABSTRACT OF SANITARY REPORTS.

VOL. V.

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No. 22.

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UNITED STATES.

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

GEORGIA—*Savannah*.—Month of April, 1890. Population, 60,000. Total deaths, 93, including phthisis pulmonalis 13 and enteric fever 2.

IOWA—*Davenport*.—Month of April, 1890. Population, 33,715. Total deaths, 22, including croup, 1; diphtheria, 10; and influenza, 1.

MISSOURI—*Kansas City*.—Month of April, 1890. Population, 180,000. Total deaths, 156, including phthisis pulmonalis, 20; croup, 1; diphtheria, 2; enteric fever, 2; and measles, 6.

NEBRASKA—*Omaha*.—Month of April, 1890. Population, ———. Total deaths, 82, including diphtheria 10 and enteric fever 1.

NEW HAMPSHIRE—*Manchester*.—Year ended December 31, 1889. Population, 43,000. Total deaths, 827, including phthisis pulmonalis, 76; croup, 25; diphtheria, 23; scarlet fever, 5; enteric fever, 16; measles, 4; and whooping-cough, 6.

RHODE ISLAND.—Month of April, 1890. Reports to the State board of health show a total of 462 deaths, including phthisis pulmonalis, 44; croup, 7; diphtheria, 22; enteric fever, 9; influenza, 5; measles, 17; scarlet fever, 1; and whooping-cough, 4.

The towns making returns represent an estimated population of 309,458. The death rate is considerably smaller than for the previous month, and the general sickness throughout the State was reported as somewhat less than in March.

The *Monthly Bulletin* for May says:

Returns for April, 1890, from nearly every section of the State indicate that bronchitis, pneumonia, croup, scarlatina, and typhoid fever were considerably less prevalent than during the previous month, while diphtheria, measles, and whooping-cough were more largely prevalent, but not epidemic in any locality.

Compared with April, 1889, pneumonia, bronchitis, scarlatina, and typhoid fever were less prevalent during the last month, and diphtheria, measles, whooping-cough, and croup were more prevalent.

TENNESSEE.—Month of April, 1890. Reports to the State board of health from cities and towns representing an estimated population of 222,451 show a total of 319 deaths, including phthisis pulmonalis, 57; diphtheria, 2; enteric fever, 10; measles, 14; and whooping-cough, 2.

The *State Board of Health Bulletin* for May says:

The principal diseases, named in the order of their greater prevalence, in the State for the month of April were: Malarial fever, pneumonia, consumption, rheumatism, tonsilitis, and dysentery.

Measles are reported in the counties of Anderson, Blount, Cannon, Davidson, Gibson, Hamilton, Hawkins, Knox, Madison, Maury, McNairy, Montgomery, Rhea, Robertson, Rutherford, Sevier, Shelby, Stewart, Tipton, and Williamson; typhoid fever in Anderson, Davidson, Hickman, Houston, Knox, Lincoln, Maury, Montgomery, Robertson, Rutherford, Sevier, Shelby, and Stewart; influenza, or "la grippe," in Anderson, Cannon, DeKalb, Gibson, Hawkins, Henderson, Henry, Houston, Humphreys, Robertson, Sullivan, and Wayne; whooping-cough in Davidson, Franklin, Gibson, Knox, Robertson, and Shelby; scarlet fever in Davidson, Lincoln, Sevier, and Shelby; diphtheria in Davidson, Hamilton, Sevier, and Shelby; mumps in Dyer, Gibson, and Maury; cerebro-spinal meningitis in Henry, Rutherford, and Sumner; croup in Sullivan, meningitis in Hickman, varicella in Williamson, erysipelas in Houston.

Publications received.

Annual report of the board of health of the city of Manchester, N. H., 1889.

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.	Varicolid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping- cough.
New York, N. Y.	May 24.	1,613,507	751						1	6	26	30	4
Philadelphia, Pa.	May 17.	1,064,277	375						2	6	9	3	4
Brooklyn, N. Y.	May 24.	859,612	295							1	15	4	4
Baltimore, Md.	May 24.	500,343	196						2		8	3	
St. Louis, Mo.	May 17.	450,000	138							2	4		
St. Louis, Mo.	May 24.	450,000	146						2	2	4		
Boston, Mass.	May 24.	420,000	179						2	1	8	1	
San Francisco, Cal.	May 16.	330,000	142							2	2		
Cincinnati, Ohio.	May 23.	325,000	109						4	1	6		3
Detroit, Mich.	May 17.	250,000	71							2	7		
Cleveland, Ohio.	May 3.	240,310	111						1		3	4	4
Cleveland, Ohio.	May 10.	240,310	98						1		2	2	3
Milwaukee, Wis.	May 24.	240,000	53						2	1	5		
Minneapolis, Minn.	May 17.	200,000	42						1		1		
Minneapolis, Minn.	May 24.	200,000	51								3	5	
Kansas City, Mo.	May 24.	180,000	37						1			2	
Denver, Colo.	May 23.	150,000	54						3		5	6	
Providence, R. I.	May 24.	130,000	50								1		1
Indianapolis, Ind.	May 23.	129,346	32							2			
Richmond, Va.	May 24.	100,000	52									4	1
Toledo, Ohio.	May 23.	92,000	25										
Fall River, Mass.	May 24.	69,000	21										
Nashville, Tenn.	May 24.	68,531	15										
Charleston, S. C.	May 24.	60,145	38										
Manchester, N. H.	May 24.	43,000											
Portland, Me.	May 24.	42,000	16										
Binghamton, N. Y.	May 24.	35,000	9									1	
Altoona, Pa.	May 17.	34,397	9										
Auburn, N. Y.	May 17.	26,000	11						1				
Auburn, N. Y.	May 24.	26,000	11								1		
Newton, Mass.	May 24.	22,011	9										
Rock Island, Ill.	May 17.	16,000											
Pensacola, Fla.	May 17.	15,000	4										

Temperature and precipitation, week ending May 24, 1890.

[Received from the Signal Office, War Department.]

TEMPERATURE.

About the normal temperature has prevailed in the Southern States, the Ohio Valley, and on the New England coast during the past week, while the cold weather has continued in the Lake regions and the Northwest, the average daily temperature in the upper lake region and the upper Mississippi valley ranging from 5° to 10° below the normal. The week has been warm in the Rocky Mountain regions and on the Pacific coast. The temperature for the season, from January 1 to May 24, continues above the normal throughout the States east of the Mississippi and in the Southwest, although the departure is less than at the opening of the month. In the Northwest, where the season has been colder than usual, the daily average temperature for the entire period has only been about 2° below the normal.

PRECIPITATION.

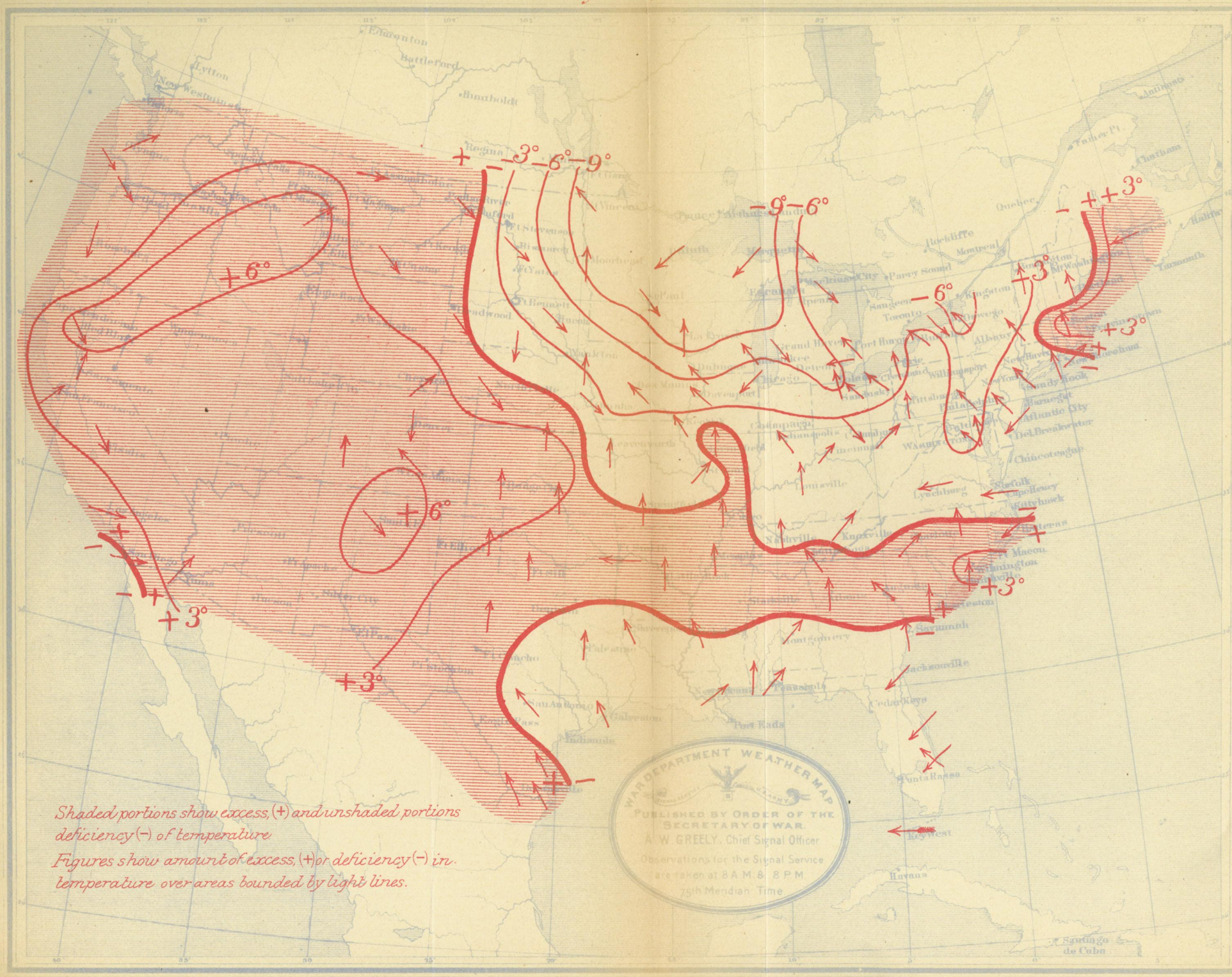
There has been more rain than usual during the week in the interior of New England and the middle Atlantic States, the Lake regions,

West Virginia, upper Ohio valley, east Tennessee, southern Minnesota, southeast Dakota, and portions of Iowa, Missouri, and Illinois. Well-distributed showers occurred throughout the Southern States, and generally from Texas northward to Dakota. Very heavy local rains are reported from eastern Missouri, western Pennsylvania, and eastern Iowa, where the rain-fall exceeded two inches. Over the grain regions of southern Minnesota and southeast Dakota, the rain-fall exceeded one and one-half inches, while in the northern portions of these States about one-half inch of rain is reported. No rain occurred on the Pacific coast south of Oregon.

The seasonal rain-fall continues in excess generally throughout the Northern States east of the Mississippi, and in Tennessee, the Ohio Valley, Arkansas, and Texas. There has also been an excess of rain in western Nebraska, on the Pacific coast north of the 35th parallel, and in the extreme northern portion of Minnesota. In the south Atlantic and southern portions of the east Gulf States the deficiency of rain-fall since January 1 ranges from ten to fifteen inches, or about one-half of the normal rain-fall has occurred. In Kansas and eastern Nebraska about 60 per cent. of the normal rain-fall is reported, while in central Minnesota, and thence westward to the Missouri Valley, including the belt of country extending from Moorehead westward to Bismarck and Fort Buford, the rain-fall for the season has been less than 40 per cent. of the usual amount for that region, while in southern Minnesota the seasonal rain-fall generally exceeds 75 per cent. of the normal.

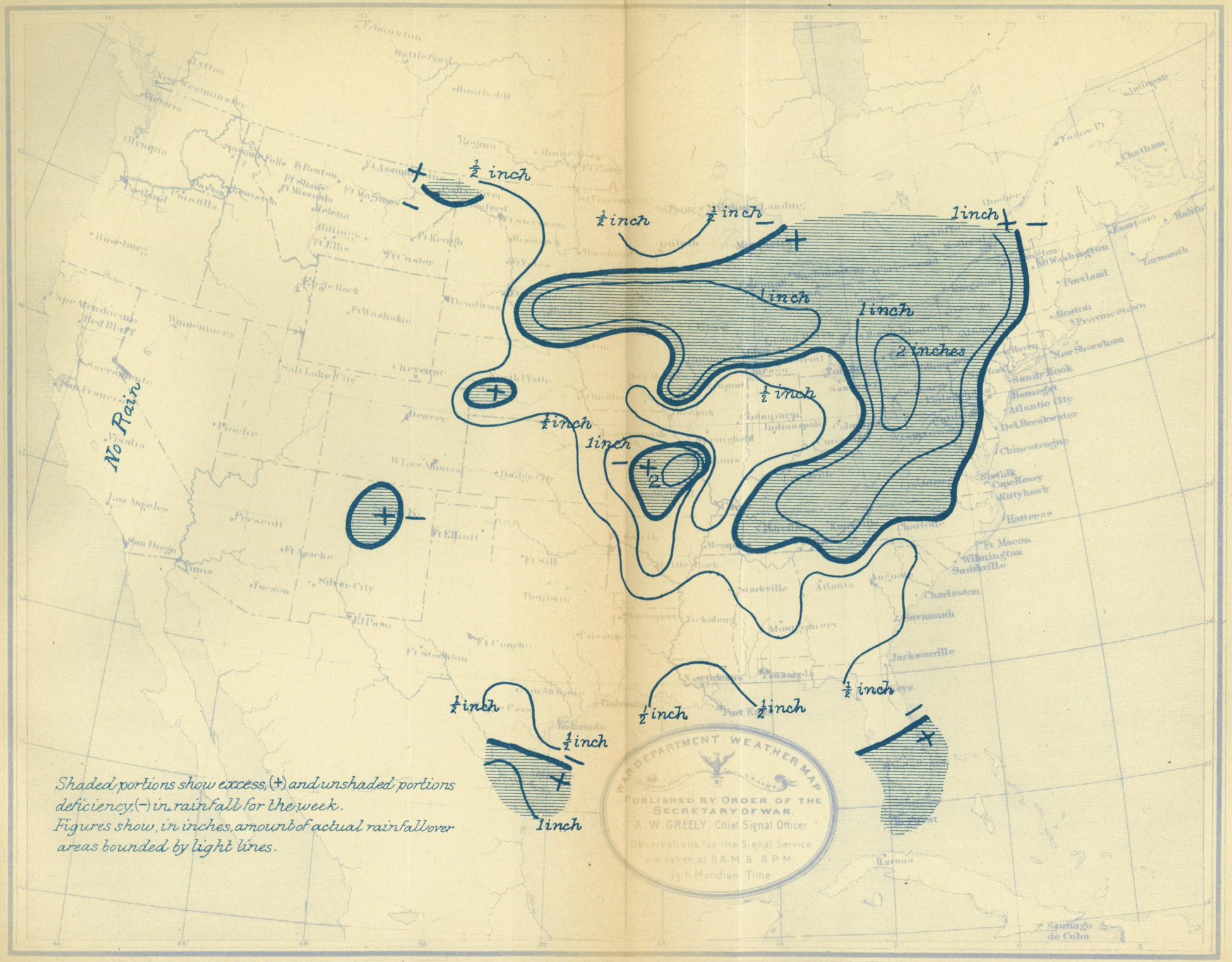
Temperature and Prevailing Direction of Wind, week ending May 23, 1890.

Form 106 F



Rainfall, week ending May 23, 1890.

Form 106 F.



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 10 corresponded to an annual rate of 19.2 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Leicester, viz, 12.5, and the highest in Newcastle-upon-Tyne, viz, 32.3 a thousand. Diphtheria caused 2 deaths in Norwich, 3 in Manchester, 8 in Salford, and 4 in Newcastle-upon-Tyne.

London.—One thousand four hundred and sixty-nine deaths were registered during the week, including measles, 62; scarlet fever, 12; diphtheria, 25; whooping-cough, 99; enteric fever, 3; and diarrhoea and dysentery, 11. The deaths from all causes corresponded to an annual rate of 17.3 a thousand. Diseases of the respiratory organs caused 301 deaths. In greater London 1,870 deaths were registered, corresponding to an annual rate of 16.9 a thousand of the population. In the "outer ring" the deaths included measles, 12; diphtheria, 4; and whooping-cough, 19.

Scotland.—The deaths registered in eight principal towns during the week ended May 10 corresponded to an annual rate of 24.2 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Perth, viz, 14.1, and the highest in Glasgow, viz, 27.3 a thousand. The aggregate number of deaths registered from all causes was 625, including measles, 46; scarlet fever, 8; diphtheria, 4; whooping-cough, 42; fever, 6; and diarrhoea, 12.

NETHERLANDS.—Month of March, 1890. The deaths registered in the principal cities having an aggregate population of 1,146,123, correspond to an annual rate of 24.6 a thousand. The deaths included typhus and enteric fever, 13; scarlet fever, 1; measles, 12; croup, 31; whooping-cough, 26; diphtheria, 22; and phthisis pulmonalis and throat diseases, 282.

BRAZIL—*Rio de Janeiro.*—Week ended April 19, 1890. Population, 450,000. Total deaths, 233, including yellow fever, 34; small-pox, 2; enteric fever, 7; typhus, 4; pernicious fever, 8; and phthisis pulmonalis, 9. The sanitary condition of the city was reported as fair.

Week ended May 3, 1890. Total deaths, 279, including yellow fever, 41; small-pox, 2; enteric fever, 9; typhus fever, 6; pernicious fever, 5; and phthisis pulmonalis, 6.

CUBA—*Havana.*—Week ended May 15, 1890. Two deaths from yellow fever were reported.

DUTCH GUIANA—*Paramaribo*.—Month of March, 1890. Population, 27,752. Total deaths, 65. None from contagious diseases.

The question of leprosy before the Imperial Society of Medicine.

[Translated for this Bureau from *La Revue Médico-Pharmaceutique*, Constantinople, April 30, 1890.]

At a recent meeting of the Imperial Society of Medicine, Dr. Stékoulis presiding, Dr. Virchow expressed himself as follows on the subject of leprosy:

1. The constant presence of the pathogenic microbe is the only evidence that can be accepted of the microbic nature of a disease.

2. Leprosy may be considered a microbic disease, the *bacillus lepræ* being invariably present. There is not a single instance in which careful search has not resulted in the discovery of a greater or less number of these micro-organisms.

3. The origin and source of supply of these microbes are unknown. Dr. Arning's investigations have proved that leprosy is not caused by the use of putrid fish.

4. Attempts to cultivate the bacillus outside the human body have so far been attended with only negative results. Animal inoculations furnish no positive data.

5. The contagiousness of leprosy is inferential from its indisputably microbic nature. The physicians of Sweden and Norway accept the heredity of the disease and deny its contagiousness.

The succeeding sittings of the Imperial Society will be devoted to the consideration of the heredity, contagiousness, and history of leprosy.

Statistics of mortality in Berlin in 1886 and 1887.

[Translated for this Bureau from *Le Journal d'Hygiène*, Paris, May 15, 1890.]

At the close of 1886 the population of Berlin numbered 1,362,465. At the close of 1887 it numbered 1,414,046. In 1886 the number of deaths was 34,293, and in 1887, 30,333.

Principal causes of death.

Diseases.	1886.	1887.
Zymotic diseases:		
Small-pox	3	3
Measles	565	223
Scarlatina	271	197
Diphtheria, croup	1,688	1,404
Abdominal typhus	181	193
Phthisis pulmonalis	4,318	4,133

Statistics of mortality in Vienna for 1888.

In 1888 the number of deaths at Vienna was 20,349, being 25.4 to 1,000 inhabitants.

Principal causes of death.—Phthisis pulmonalis, 4,687; measles, 253; abdominal typhus, 103; diphtheria, 316; and scarlatina, 230.

Recent studies in purulent fusion of the tissues.

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

Grawitz and de Bary have demonstrated that certain pure chemical substances can, without the intervention of bacteria, produce suppuration in dogs; and that in sub-cutaneous inflammation, in which the bacteria operate effectively, the pyrogenic factor, properly so-called, can not be attributed to the bacteria, but to the chemical products of the same. Grawitz ascertained that the products of development of many micro-organisms which stand in no relation with purulent inflammation may determine inflammation and suppuration in animal tissues. He succeeded after systematic search in obtaining a pure, non-toxic cadaveric alkaloid, the cadaverina of Brieger, and in ascertaining its exciting property. Diluted in the proportion of 2½ per cent. it completely destroyed the cocci after shaking for an hour. Suppuration was induced in dogs in three days by means of sub-cutaneous inoculations (practiced with the utmost care) with 0.3 and 0.5 c. c. of a solution of cadaverina in the proportion of 5 per cent. Rats and mice resisted these experiments, caustic action showing itself, and the skin rapidly forming a scab. When the solution was very light complete re-absorption occurred.

Scheurlen is of the opinion that chemical substances do not produce suppuration. This, as he states, can be produced only by micro-organisms in virtue of chemical properties which cause inflammation and suppuration in the tissues affected. To demonstrate this, Scheurlen examined the products of development and transformation produced by a series of bacteria in organic tissues and in liquids. He experimented on rabbits, injecting into a dense and sterilized putrefactive liquid (rabbit's blood) a sterilized infusion of staphylococci and solutions of cadaverina and putrescina. These liquids he put in small tubes of sterilized glass, 1 c. c. in capacity, and aseptically introduced under the skin of the rabbits. After some weeks he broke, under the cutis, the two points of the tubes and left the liquids to act. In a short time he noticed that a yellow-white doughy mass, measuring from 3 to 4 m. m., obstructed the orifices of the tubes. This mass, which was not found at any other point of the surrounding tissue, consisted of pure pus. Hence this suppuration completely lacked the progressive character which marks the suppuration determined by micro-organisms.

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.
London.....	May 3.....	5,758,500	1,957	.....	.....	1	.....	6	15	23	85
Paris.....	May 3.....	2,260,945	1,094	.....	.....	3	.....	9	4	34	49
Glasgow.....	May 3.....	545,678	337	.....	.....	.....	.....	3	5	2	21
Glasgow.....	May 10.....	545,678	278	.....	.....	.....	.....	4	5	2	22
Rome.....	Apr. 12.....	418,217	147	.....	.....	.....	.....	.....	.....	4	.....
Amsterdam.....	May 3.....	406,402	189	.....	.....	.....	.....	1	.....	5	.....
Amsterdam.....	May 10.....	406,402	180	.....	.....	.....	.....	3	.....	2	.....
Copenhagen.....	May 3.....	312,387	120	.....	.....	.....	.....	.....	2	6	.....
Munich.....	Apr. 19.....	298,000	158	.....	.....	.....	.....	1	.....	11	.....
Munich.....	Apr. 26.....	598,000	148	.....	.....	.....	.....	.....	.....	6	.....
Palermo.....	May 3.....	250,000	84	.....	.....	.....	.....	.....	2	1	.....
Bristol.....	May 10.....	232,248	64	.....	.....	.....	.....	.....	.....	.....	.....
Rotterdam.....	May 10.....	203,472	89	.....	.....	.....	.....	.....	.....	.....	.....
Trieste.....	Apr. 26.....	158,054	81	.....	.....	.....	.....	.....	.....	3	.....
Trieste.....	May 3.....	158,054	97	.....	.....	.....	.....	.....	.....	3	.....
Stuttgart.....	May 3.....	130,000	53	.....	.....	.....	.....	.....	.....	.....	.....
Stuttgart.....	May 10.....	130,000	57	.....	.....	.....	.....	.....	.....	4	.....
Barmen.....	May 3.....	113,000	42	.....	.....	1	.....	.....	.....	.....	1
Havre.....	May 3.....	112,074	77	.....	.....	.....	.....	3	.....	2	10
Catania.....	May 5.....	109,000	119	.....	.....	.....	.....	.....	.....	4	1
Leghorn.....	May 4.....	103,659	56	.....	.....	.....	.....	.....	.....	.....	.....
Mayence.....	Apr. 26.....	65,802	36	.....	.....	.....	.....	.....	1	2	.....
Cadiz.....	May 4.....	57,157	39	.....	.....	.....	.....	.....	.....	.....	.....
Schiedam.....	May 11.....	25,600	10	.....	.....	.....	.....	.....	.....	.....	.....
Cardenas.....	May 12.....	24,000	11	.....	.....	.....	.....	.....	.....	.....	.....
Cardenas.....	May 18.....	24,000	8	.....	.....	1	.....	.....	.....	.....	.....
Vera Cruz.....	May 15.....	23,800	23	.....	.....	.....	.....	.....	.....	.....	.....
Gibraltar.....	May 4.....	23,681	5	.....	.....	.....	.....	.....	.....	.....	.....
Kingston, Can.....	May 16.....	18,284	11	.....	.....	.....	.....	.....	.....	.....	.....
Sagua la Grande.....	May 10.....	15,605	5	.....	.....	.....	.....	.....	.....	.....	.....
Flushing, Neth.....	May 10.....	12,793	4	.....	.....	.....	.....	.....	.....	.....	.....
La Guayra.....	May 3.....	7,428	1	.....	.....	.....	.....	.....	.....	.....	.....
La Guayra.....	May 10.....	7,428	5
San Juan del Norte.....	Mar. 10.....	900
San Juan del Norte.....	Mar. 17.....	900

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