

ABSTRACT OF SANITARY REPORTS.

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UNITED STATES.

SPECIAL REPORTS.

Yellow fever—Gulf Quarantine Station.

The following has been received, dated July 28, 1890 :

SIR: I have the honor to report a case of yellow fever from the British ship *Curllew*, developing on the 26th instant, at night. Said ship is from Rio Janeiro, bound for Ship Island. She lay in Gamboa (outer roads of Gamboa), and took aboard eleven (11) men from Rio. She has been here since July 16, and had just finished her ballast and cleaning up when this man was taken.

Very respectfully,

H. R. CARTER,
Passed Assistant Surgeon.

Vessel leaving cholera-infected district of Spain for United States.

The United States consul at Barcelona, under date of July 16, 1890, notified this Bureau that the Russian bark *Jupiter* sailed from Valencia on the morning of the 16th July, bound for Savannah, Ga.

Rules and regulations of the Mississippi State Quarantine at the ports of Harrison and Hancock Counties.

1. The quarantine station for the counties of Hancock and Harrison shall be on Ship Island, and all vessels subject to quarantine shall anchor as near to said station as the water will permit, in accordance with the instructions of the quarantine physician, and it shall be the duty of pilots to anchor all vessels in accordance with these rules and regulations and the instructions of the quarantine physician.

2. All vessels arriving from foreign ports, and all vessels having sickness on board, desiring to enter or load from any port in Hancock or Harrison Counties, shall immediately proceed to the boarding station, and shall be visited by the quarantine physician between sunrise and sunset as soon as possible after arrival.

3. No person on board any vessel arriving at the boarding station shall be allowed to communicate with any person on board another vessel, or with any other person, until such vessel has been visited by

the quarantine physician, nor shall any person off of land or other vessel, be allowed to communicate with said vessel until a permit has been obtained from the quarantine physician.

4. The quarantine physician shall carefully inspect all vessels arriving at the boarding station, and require answers from the officers in command, and keep a record of such answers to the following questions: Port of departure and date of departure; name of vessel, name of commander, sanitary condition and destination; number of days of passage; ports visited since leaving port of departure, with date and length of visit; cargo and where taken on, kind and sanitary condition; bilgewater, whether clean or unclean; ballast, kind and condition; number of officers, passengers, and crew, and their sanitary condition; what sickness has occurred on board vessel during passage, or in port, and dates of sickness; deaths during passage, or in port, with dates and causes, if known; names of all vessels communicated with in the course of passage, with dates of such communications and names of ports from which said vessels sailed, also whether there was any sickness on board said vessels, and the character of the sickness, if known.

5. All vessels, together with their cargoes, passengers, crews, and baggage, arriving at the boarding station from inter-tropical American and West India Islands ports, shall be subjected to thorough maritime sanitation according to the following classification:

FIRST CLASS.—Vessels arriving from non-infected ports. Shall be subject to thorough sanitation without detention longer than is necessary to place them in such condition.

SECOND CLASS.—Vessels arriving from suspected ports. Shall be subjected to thorough sanitation with detention for a period of five (5) days from the time disinfection has been completed.

THIRD CLASS.—Vessels arriving from infected ports. Shall be taken to the refuge station of the United States Government, and placed in charge of the Marine-Hospital Service, to remain until securing a clean bill of health from the officer in charge.

FOURTH CLASS.—Vessels arriving infected without regard to port of departure. That is, vessels which have yellow fever or other contagious or infectious disease on board at time of arrival, or have had the same during the voyage or while at any port. Shall be taken to the refuge station of the United States Government, and placed in charge of the Marine-Hospital Service, to remain until securing a clean bill of health from officer in charge.

6. Supplies and mail intended for vessels in quarantine, or for the quarantine service, shall be delivered at some suitable point between the mainland and the quarantine station, and after the departure of persons delivering such supplies and mail, the same may be obtained and delivered to the proper vessel or service under the direction of the quarantine physician.

7. All lighters and persons engaged in removing ballast from vessels in quarantine for such a period as may be determined by the quarantine physician. But no such lighters or persons shall be released from quarantine within a less period than the vessel from which ballast is taken is required to remain.

8. No person on board any vessel in quarantine shall be allowed to communicate with another vessel, or any person on board another vessel in quarantine, without the written permission of the quarantine physician.

9. No boat shall approach within one-half mile of any vessel coming into Ship Island Pass, until such vessel shall have been visited by the quarantine physician, except authorized pilots, and they only for the purpose of piloting such vessels into port, and tow boats under the direction of the quarantine physician.

10. All vessels when discharged from quarantine shall remove at least one mile from quarantine limits (said limits to be designated by suitable buoys), and as directed by the quarantine physician.

11. No officer or person in charge of any vessel in quarantine shall allow any person, boat, or craft, propelled by steam or otherwise, to come alongside or on board his vessel without the written permission of the quarantine physician.

12. The quarantine physician shall select a suitable point near the quarantine station to be designated as a boarding station, and shall cause suitable instructions to be issued to all pilots regarding the same.

13. The quarantine physician shall charge a fee of five dollars for each vessel inspected, and a fee of ten dollars for each vessel disinfected, and the cost of materials used in such disinfection.

Any person violating these rules shall be subject to a fine of not exceeding three hundred dollars nor less than twenty-five dollars.

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

FLORIDA—*Pensacola*.—Month of July, 1890. Population, 15,000. Total deaths, 32, including phthisis pulmonalis, 2; enteric fever, 4; and whooping-cough, 1.

IOWA.—Month of June, 1890. The following mortuary report is extracted from the *Monthly Bulletin* for July:

Burlington—June.—Consumption, 3; pneumonia, 1; diphtheria, 2; heat stroke, 3. Total deaths, 23. Population, 23,000. Death rate per 1,000, 1.

Davenport—June.—Consumption, 2; pneumonia, 1; diphtheria, 1; meningitis, 2; heat stroke, 7. Total deaths, 42. Death rate per 1,000, 1.24.

Des Moines—June.—Consumption, 5; pneumonia, 2; diphtheria, 2; meningitis, 2; heat stroke, 1. Total deaths, 51. Population, 53,000. Death rate per 1,000, 0.96.

Dubuque—June.—Consumption, 1; pneumonia, 1; heat stroke, 5. Total deaths, 32. Death rate per 1,000, 0.77.

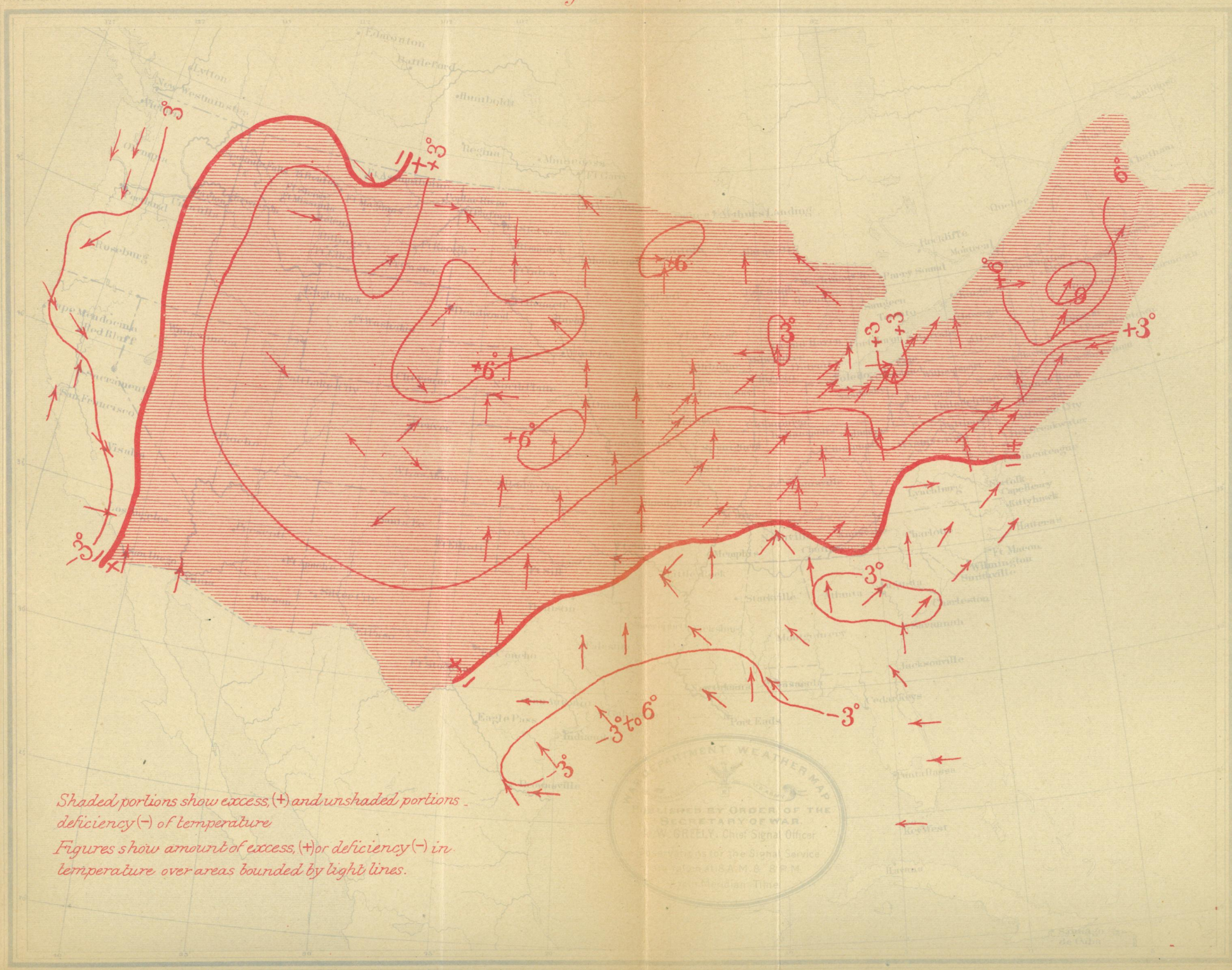
Keokuk—June.—Consumption, 4; pneumonia, 1; typhoid fever, 1; meningitis, 1. Total deaths, 22. Population, 14,500. Death rate per 1,000, 1.75.

MICHIGAN.—Week ended July 26, 1890. Reports to the State board of health, Lansing, from 65 observers indicate that membranous croup, pleuritis, typho-malarial fever, inflammation of brain, whooping-cough, and scarlet fever increased, and that enteric fever, puerperal fever, and diphtheria decreased in area of prevalence.

Diphtheria was reported at 17 places, scarlet fever at 22 places, enteric fever at 15 places, and measles at 28 places.

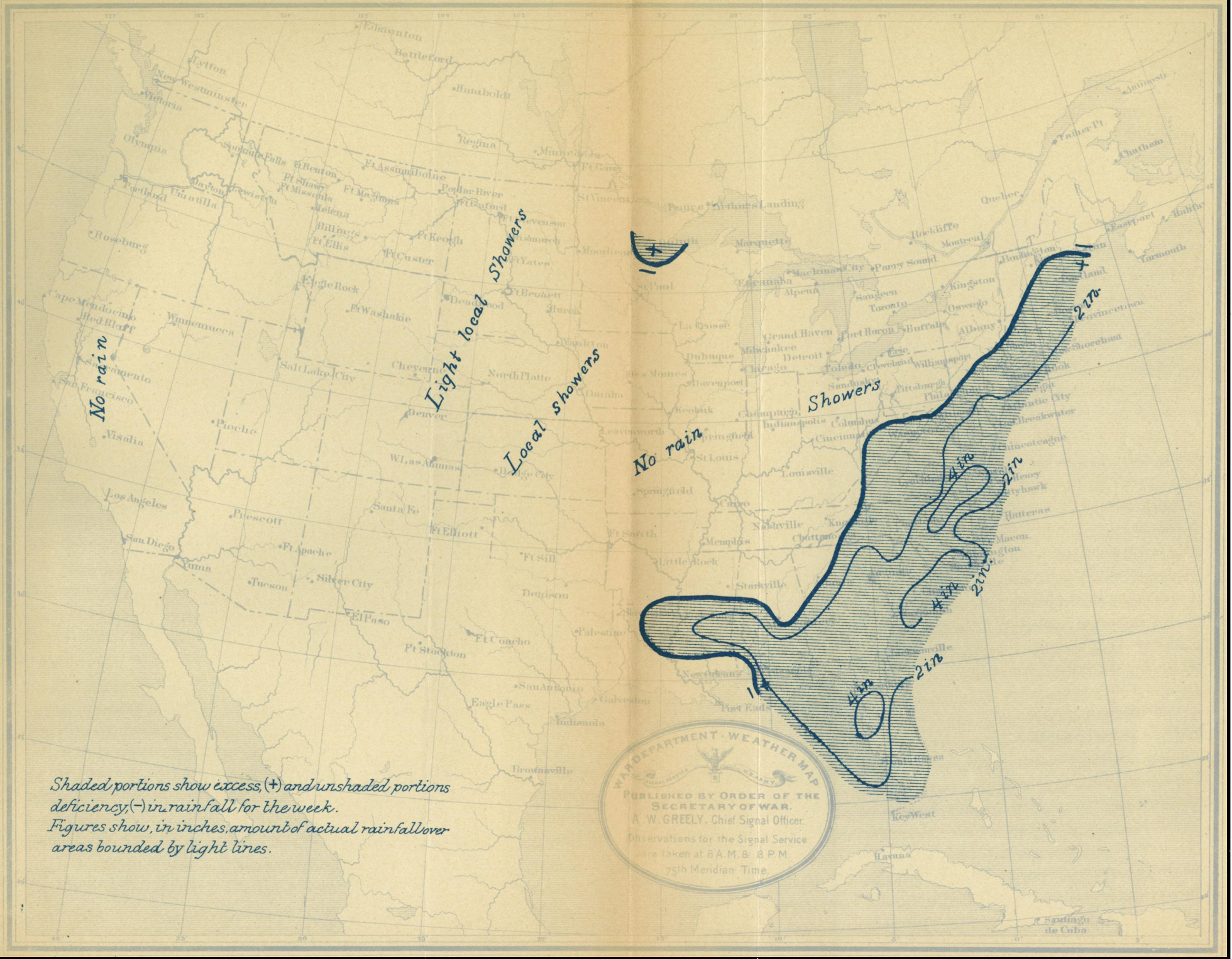
Temperature and Prevailing Direction of Wind, week ending August 1st 1890.

Form 106 F



Rainfall, week ending August 1st 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.

Temperature and precipitation, week ended August 2, 1890.

[Received from the Signal Office, War Department.]

TEMPERATURE.

The week ending August 2 has been decidedly warm throughout the Northern States and Territories, the most marked excesses in temperature occurring in New England, and from Texas northward to Dakota, where the daily temperature ranged from 6° to 8° above the normal. It was cool on the Gulf and Pacific coasts and slightly below the normal generally in the Southern States.

The seasonal temperature continues in excess throughout the agricultural districts east of the Rocky Mountains, except in Dakota and Minnesota, where there is a slight deficiency. West of the Rocky Mountains the seasonal temperature has been slightly below the normal, but this deficiency generally amounts to less than 1° per day.

PRECIPITATION.

An excess of rain-fall occurred during the week along the Atlantic and east Gulf coasts, including the greater portions of New England, the middle and south Atlantic States, and portions of the east Gulf States. The precipitation was greatest in the Carolinas, where it ranged from two to six inches. Heavy rains also occurred in eastern and southern Georgia, southern Alabama, and central Mississippi. The week was very dry in the central Mississippi valley, and from Texas northward to Dakota, where, in connection with very high temperature and hot southerly winds, the growing crops have doubtless been injuriously affected. Drought continues in Illinois and in portions of Missouri and Indiana, but at the close of the week generous showers occurred in the upper Ohio valley and the interior of the middle Atlantic States.

The rain-fall for the season continues in excess generally in the west Gulf States, and the central Mississippi and Ohio valleys, the lower lake region, and northern portions of New England and the middle Atlantic States. In the drought region of the Missouri Valley and Kansas the seasonal rain-fall ranged from 50 to 70 per cent. of the normal, while in Minnesota and the Dakotas it ranged from 80 to 90 per cent. In the south Atlantic and east Gulf States the large seasonal deficiency of rain-fall previously reported has been followed by generous rains, making the seasonal rain-fall in the section range from 70 to 90 per cent. These heavy rains coming late in the season may result in some injury to growing crops.

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 July 19 corresponded to an annual rate of 18.0 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Portsmouth, viz, 11.8, and the highest in Manchester, viz, 26.2 a thousand. Diphtheria caused 2 deaths in Salford, 4 in Manchester, and 5 in Liverpool.

London.—One thousand five hundred and twenty-two deaths were registered during the week, including measles, 114; scarlet fever, 12; diphtheria, 19; whooping-cough, 56; enteric fever, 6; and diarrhoea and dysentery, 111. The deaths from all causes corresponded to an annual rate of 16.4 a thousand. Diseases of the respiratory organs caused 216 deaths. In greater London 1,900 deaths were registered, corresponding to an annual rate of 17.2 a thousand of the population. In the "outer ring" the deaths included measles 25 and whooping-cough 8.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended July 19, in the 16 principal town districts of Ireland, was 18.8 a thousand of the population. The lowest rate was recorded in Dundalk, viz, 4.4, and the highest in Galway, viz, 43.7 a thousand. In Dublin and suburbs 140 deaths were registered, including measles, 5; enteric fever, 4; and whooping-cough, 3.

Scotland.—The deaths registered in eight principal towns during the week ended July 19 corresponded to an annual rate of 18.3 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Leith, viz, 10.6, and the highest in Perth, viz, 21.9 a thousand. The aggregate number of deaths registered from all causes was 474, including measles, 27; scarlet fever, 5; diphtheria, 4; whooping-cough, 31; fever, 1; diarrhoea, 11; and croup and laryngitis, 3.

FRANCE—*Nice.*—Month of June, 1890. Population, 78,482. Total number of deaths, 140, including phthisis pulmonalis, 17; diphtheria and croup, 6; scarlet fever, 1; small-pox, 1; and enteric fever, 1.

SPAIN—*Cholera.*—The following dispatch has been received by the Secretary of State from the chargé d'affaires at Madrid, dated July 18, 1890:

The condition of the epidemic is, perhaps, a little worse than at the time of my last report, July 8. It covers more territory and the intensity has increased. There have been three cases and two deaths in

Madrid during the last two days. Newspaper reports are contradictory, but the new cases average about 30 each day and the deaths 15;

The emigration from the province of Valencia has been enormous—three hundred people arrived in Barcelona from there yesterday, while whole villages are depopulated, leaving only the poor and sick, who are actually starving and are in great distress in every way. The official report of the number of cases and deaths from cholera, to and including the 17th day of July, 1890, gives 595 cases and 326 deaths.

Province and city of Valencia.

The United States consul at Barcelona, under date of July 16, 1890, transmits the following continuation of statistics relative to cholera in Valencia:

In the province of Valencia there were, on July 8, in—

	<i>Cases.</i>	<i>Deaths.</i>
Carcagente	2	0
Beniopa	1	1
Gandia	10	7
Castellon de Rugat	2	1

On July 9 in—

Gandia	10	8
Montichelvo	1	0
Beniopa	1	1
Carcagente	0	1
Almiserat	1	0
Albatat	1	1

On July 10 in—

Gandia	4	5
Montichelvo	1	0
San Geronimo	1	1
Carcagente	0	1

On July 11 in—

Gandia	6	4
Manuel	1	0
Enova	1	0
Benifairo'	1	0
Puebla Larga	2	0

On July 12 in—

Gandia	3	5
Millares	4	3
Montichelvo	1	0
San Geronimo	1	0
Beniopa	1	0
Ayelo Rugat	1	0
Rotova	0	1

On July 13 in—

Gandia	8	3
Enova	0	1
Beniopa	2	1
Sueca	5	3
Castellon de Rugat	17	1
Rotova	1	0
Benagnacil	1	0
Yativa	2	1

On July 14 in—

	<i>Cases.</i>	<i>Deaths.</i>
Gandia.....	4	5
Sueca.....	3	2
Castellon Rugat.....	4	2
Millares.....	5	1
Tativa.....	2	1
Rafol de Salem.....	1	0

In the city of Valencia from the 8th to the 14th (inclusive) of July there were 8 cases and 3 deaths, and 1 case scarlet fever.

In Palma, Majorca, during the week ended July 7 there were 2 cases of diphtheria. Total number of deaths 25. For the week ended July 14 there were no deaths there from contagious or infectious diseases. Total number of deaths 27.

In Port Mahon, Minorca, whose population according to the last census (December, 1887) is 18,445, there were no contagious nor infectious diseases. Prevailing diseases, rheumatism and catarrhal fevers.

In San Felin de Guixols and Torrevieja there are no contagious nor infectious diseases.

Increase of cholera in Spain.

A cablegram of August 5, 1890, received through the Department of State from the United States legation at Madrid, says that there is a heavy increase in cholera. Widely distributed.

SWITZERLAND—*Zurich*.—Month of June, 1890. Population, 91,323. Total deaths, 104, including phthisis pulmonalis, 24; typhus fever, 1; scarlet fever, 1; diphtheria and croup, 3; and whooping-cough, 1.

BRAZIL—*Bahia*.—The United States consul writes as follows, under date of June 28, 1890:

The sanitary condition of this city is good, with the exception of a few isolated cases of small-pox.

In some of the interior towns small-pox has appeared to such an extent as to become epidemic.

The governor of this State has just ordered an ambulance to Alagoinhas, a town about sixty miles from here towards the interior. Small-pox is said to prevail there to an alarming extent.

The disinfecting power of chloride of lime.

[Nissen, F., in the *Zeitschrift für Hygiene*, Bd. viii, page 62. Translated for this Bureau from the *Central blatt für Bakteriologie und Parasitenkunde* of July 11, 1890.]

Contrary to the previous statement of Koch, Sternberg, and, later, Jäger, found that chloride of lime possesses decided germicide power. In consequence of these contradictory results, Nissen undertook, at the suggestion of Koch, a new experimental research to decide the question.

The result of this shows that, as a matter of fact, chloride of lime has very great disinfecting power. At first micro-organisms without spores, and having comparatively little resisting power, were tested, in bouillon culture, by Esmarch's method. As chloride of lime solution gives an abundant precipitate with bouillon, the cultures were first

diluted. The chloride of lime solution was added either filtered or not filtered. The result was the same in either case.

The bacillus of typhoid fever was destroyed in bouillon cultures, at the end of five minutes, by 0.12 per cent. of chloride of lime; the cholera bacillus and anthrax bacilli without spores by the same proportion usually in one minute.

Anthrax spores of moderate resisting power (killed in three minutes by flowing steam), dried on silk threads, were destroyed in fifteen to thirty minutes by a 5 per cent. solution of chloride of lime. * * *

Putrid fluids and feces were very quickly disinfected by the addition of chloride of lime. Bouillon which had become putrid was, as a rule, thoroughly sterilized in five minutes by the addition of 0.1 per cent. In diarrhoeal feces an addition of 0.5 per cent. of chloride of lime, either in solution or as a powder, destroyed the typhoid bacillus inside of ten minutes. Nissen thinks, therefore, that chloride of lime is especially suitable for the disinfection of bed-pans.

NOTE.—These results correspond entirely with those previously reported by the committee on disinfectants of the American Public Health Association, published in 1885.

Experimental studies in the antiseptic properties of the essences.

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

Codeac and Mesmier have fixed a scale of the antiseptic value of the essences, based on the duration of their contact with the micro-organisms. In their experiments they made use of the typhus bacillus and the bacillus of glanders to establish a comparison between the action of the microbicides in ordinary use and the action of the essences.

With regard to the typhus bacillus it is shown that the essence of cinnamon has antiseptic properties very nearly equal to those of sublimate in the proportion of 1 to 1000. Comparison with other antiseptic agents, as, for example, boric acid, carbolic acid, sulphate of copper, and iodoform, is altogether favorable to the essences. Many essences check the development of the bacillus after a few hours or minutes, while the other antiseptic agents are effective only after the lapse of the same number of days. The antiseptic action of the several essences is graded down to those which are effective against the bacillus of typhus only after ten days' contact.

Following the same method, Codeac and Mesmier experimented with the bacillus of glanders, and proved the antiseptic action of the essences to be the same for glanders as for the bacillus of typhus. Mineral antiseptics, however, exert an influence on the micro-organism of glanders superior to that which they exert on the typhus bacillus.

The experiments conducted by Codeac and Mesmier confirm those of Chamberlane, who tested the antiseptic properties of the essences in a state of vapor and in direct contact with the bacillus anthracis. The result of these investigations is that all essences possess variable

antiseptic properties, and that some possess them in as high a degree as the most active chemical antiseptics, sublimate, iodoform, and sulphate of copper.

Medical antiseptics is not of recent origin. The ancients practiced disinfection, though they were ignorant of the term, and the Egyptians prevented the decomposition of bodies by the use of essences and perfumes.

Diseases prevalent in Constantinople during June, 1890.

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

The sanitary condition of Constantinople is not satisfactory. The number of deaths for the past month is greater by 176, or 12.53 per cent., than in the corresponding month of 1889. Of 871 deaths from May 12 to June 12, 18 were due to small-pox. This disease shows a tendency to become epidemic. Measles has decreased slightly, except on the Asiatic shore of the Bosphorus, where the disease still rages. Broncho-pneumonia and catarrhal pneumonia have also slightly decreased. A number of cases of gastro-enteritis and green diarrhoea have been noted, especially among young children. Scarlet fever, diphtheria, and croup still occur, though out of season. Rheumatism, typhoid fever, and other seasonal diseases are of occasional occurrence. Influenza is reported as epidemic at Medina.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated popula- tion.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Small-pox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping- cough.
London	July 19	5,758,500	1,900					6	12	23	129	
Paris	July 19	2,260,945	906			2		9	1	36	58	5
Liverpool	July 12	613,463	268						20	4		
Glasgow	July 19	545,678	192						1	1		
Brussels	July 12	477,228	176					3				
Warsaw	July 12	455,852	217			9			4	7		
Calcutta	July 14	433,219	154	11	6							
Lyons	July 12	401,930	168					1				
Copenhagen	July 18	312,887	122						1	3		
Cologne	July 12	284,574	124						1	3	1	1
Odessa	July 12	276,300	171			1			3			
Edinburgh	July 19	271,135	87							2		
Dresden	July 12	269,000	96						1	3		
Palermo	July 12	250,000	113						3	1		
Antwerp	July 19	232,418	80					2	1	1		
Bristol	July 19	232,248	80						1	1		
Belfast	July 19	232,222	99					2	1			
Rotterdam	July 19	203,472	66									
Havana	July 26	200,000	190		10			3				
Genoa	July 19	180,377	81			3	1			2		
Frankfort-on-the-Main	July 19	170,733	71						1	2		
Newcastle-upon-Tyne	July 12	162,987	68							1		
Trieste	July 12	158,054	66							1		
Venice	July 5	157,124	64			1		6				
Ghent	July 12	152,395	61							2	1	
Ghent	July 19	152,395	66							1		2
Christiana	July 12	143,600	47						1	2		
Sunderland	July 12	136,506	52						1			
Funchal	July 12	133,250	27			4		1				
Bremen	July 12	124,000	24									
Cardiff	July 19	117,012	40									
Havre	July 12	112,074	67					3			1	1
Havre	July 19	112,074	50					2				
Aix-La-Chapelle	July 21	109,122	72									
Catania	July 21	109,000	68						1	2		
Leghorn	July 20	103,723	38								3	
Gothenburg	July 12	102,782	23						2			
Zurich	July 12	91,323	20				4		4	5		1
Messina	July 19	79,971	37					1		2		
Edinburgh	July 19	78,538	16						2			
Mayence	July 12	65,802	29							2		
Cadiz	July 12	57,157	46					2				
Trapani	July 12	43,095	16									
Cienfuegos	July 27	40,655	27		3							
Girgenti	July 12	33,547	12							1		
Amherstburg	July 29	30,000	3									
Schiedam	July 20	25,600	8									
Cardenas	July 20	25,000	18		4					3		
Cardenas	July 26	25,000	21		3			2				
Vera Cruz	July 24	23,800	23									
Gibraltar	July 13	23,681	9									
Sagua	July 19	15,605	6									
Sagua	July 26	15,605	5									
St. Thomas, W. I.	June 20	15,000	12									
St. Thomas, W. I.	June 27	15,000	6									
Flushing	July 12	12,793	3									
Flushing	July 19	12,793	9									
Denia	July 21	12,000	22	17								
Guelph	July 26	10,173	2									
Sherbrooke	June 30	10,000	18							3		
Tampico	July 21	9,000	9									
Sarnia	Aug. 2	6,200										
Coaticook	July 26	3,800										
Clifton	July 26	3,500										
San Juan del Norte	June 22	870	1									
San Juan del Norte	July 15	870	1									

JOHN B. HAMILTON,

Supervising Surgeon-General, Marine-Hospital Service.