

WEEKLY ABSTRACT OF SANITARY REPORTS.

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TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL,
U. S. MARINE-HOSPITAL SERVICE,
Washington, D. C., August 23, 1889.

Abstract of Domestic and Foreign Sanitary Reports received during the week ended August 23, 1889, published in accordance with section 4, Act of Congress, approved April 29, 1878.

UNITED STATES.

Reports from National Quarantine Stations.

CAPE CHARLES, VA.—There were 29 vessels spoken and 4 inspected and passed for the week ended August 16.

DELAWARE BREAKWATER, DEL.—The American ship John A. Briggs arrived at this station August 20, thirty-nine days from Rio de Janeiro. The crew were all well, but there had been several cases of yellow fever on board while in Rio. The vessel brought the dead body of the captain's wife. The captain stated that it was in a hermetically sealed leaden coffin, and the coffin encased in a box coated with pitch. He desired to ship by rail to Machias, Me. The quarantine officer was instructed to refuse to allow shipment of the body until the permission of the boards of health of the States through which it must pass was obtained. Although the medical certificate stated "pernicious stroke" as the cause of death, the inference is strong that the death was actually caused by yellow fever.

Two vessels inspected and passed for the week ended August 17.

GULF QUARANTINE (NORTH CHANDELEUR ISLAND), LA.—The schooner Connecuh, previously reported, was discharged August 8. The bark Olive Mount, also reported in last abstract, was discharged August 14. The Spanish bark Maria Bilboa arrived August 13 from Havana en route to Pascagoula. This vessel had 4 cases of yellow fever on board in September last, and was treated at Ship Island. Her sanitary condition is reported as *now* excellent. She has been scraped and newly painted everywhere above ballast. Her ballast was of sandstone and earth. As this vessel had lain for ten days at the San José wharf in Havana, and while lying in open bay prior to sailing 2 of the crew were missing and 1 sent to the hospital, it was considered necessary to again disinfect the vessel.

The Norwegian bark *Southern Queen* arrived August 14 from Rio de Janeiro with 2 cases of sickness from lead colic and 1 of extensive ulcer, and 2 men not on the crew-list. Two men were sick in hospital at Rio, 1 probably not yellow fever, 1 doubtful; 1 man left in Rio, said to have consumption, and the man shipped in his place had just come from the hospital. The master had a fever (in bed eight days), commencing the second day out of Rio. The clinical history was one of yellow fever. One other man was sick on the third day with the same history. "Both of these were certainly yellow fever, brought aboard by the man newly shipped." (He had come on board with his hospital clothes.) There was no other sickness on board until the vessel was painted, off Pensacola, when the men had lead colic. Held for disinfection.

SAN DIEGO, CAL.—Three vessels inspected and passed.

SOUTH ATLANTIC.—During a severe storm on Sapelo Island the officers' quarters at this station were struck by lightning. Passed Assistant Surgeon White was severely injured, and the quarters much damaged. Passed Assistant Surgeon White's injuries include some severe burns and a deep wound in the foot and leg. His clothing was torn, and the shoe on one side torn into fragments. A gentleman sitting near suffered no injury.

Assistant Surgeon Groenevelt has been detailed to take temporary charge of the station.

GEORGIA.—Inspector Posey reports as follows on the sanitary condition of Brunswick :

U. S. MARINE-HOSPITAL SERVICE,
DISTRICT OF THE GULF,
Port of Brunswick, Ga., August 10, 1889.

GENERAL: In obedience to your letter of the 2d August and telegram of the 5th, I returned to Brunswick, Ga., arriving there on the afternoon of August 6. I made known the object of my visit to the various practitioners, and requested the privilege of visiting with them any cases under treatment whose course and symptoms were similar to the case of young Nightingale.

During my stay there I received no invitation from these gentlemen, as they stated that there were no cases of that character under their care.

Previous to the occurrence of these more sthenic types of malarial-remittent fever, the city authorities had been forced to open several large drains in the city, thus exposing a great deal of moist soil containing a large amount of rich vegetable humus and some animal matter, to effect a more thorough drainage of the city (which has but a slight elevation), the large drains emptying into the Brunswick River and adjoining creeks, whose waters are salt, and during high tides prevents the rapid emptying of the city's ditches. A large percentage of the class of cases mentioned occurred where these excavations were most

extensive, and, I think, accounts for the intensified toxic effects exhibited by these types of malarial fever.

The experience of sanitarians is justly opposed to any extensive disturbance of the soil in tropical and subtropical towns and cities during the summer season, as it has almost invariably aggravated the indigenous types of fever by adding a more virulent element to the atmosphere from the moist soil exposed to the intense heat of the southern sun.

The phenomenal growth in the last four years of this handsome city, whose population is now estimated at 10,000, and which ranks as an important sea-port city for the exportation of the staple products—cotton, resin, turpentine, and lumber—of Georgia and adjoining States, is destined in the near future to become a formidable rival of her older competitors on the Atlantic sea-board.

In view of the fact that her tonnage for export cargoes comes almost exclusively from South and Central American and Gulf ports, as well as from the West Indies, the question of maritime quarantine and sanitation becomes one of vital interest to this city.

At my request, Dr. J. A. Dunwody, city health officer, and who also has charge of the quarantine station, escorted me to inspect its location and methods on the afternoon of August 7. It is situated on a small sand-spur in Oglethorpe Bay, 3 miles by river from the city wharves. Intervening between the station and the corporate limits of the city is an area of salt marsh 1 mile wide. At this point all vessels are boarded, inspected, and detained, subject to the quarantine regulations of the port. The present site of the station is highly objectionable on account of its proximity to the city, which renders it easy for crews of vessels undergoing quarantine to visit the city. The present crude system of disinfection and fumigation affords only a very limited protection, and, in view of the increasing tonnage from tropical ports, the health authorities have determined to establish a new station on the opposite side of the river at the entrance of Oglethorpe Bay, which will be entirely isolated. This station will adopt the "Holt system" on a scale adapted to their present needs. I think that on account of the character of vessels seeking cargoes at the port of Brunswick, and the crude methods of disinfection, it is constantly exposed during the summer months to the introduction of yellow fever, and the progressive health authorities have resolved to devote the handsome revenue derived from disinfection fees (which heretofore has been diverted into the city's exchequer) to establish a model station, which will possess all the apparatus, and apply the improved methods of the modern system of maritime sanitation and quarantine evolved by that accomplished sanitarian, Dr. Joseph K. Holt, of New Orleans, La. The adoption of this system will enable the health authorities of the city of Brunswick to secure the highest degree of protection against the introduction of infectious and contagious diseases, and induce tonnage to seek that port.

The following statement was obtained from Health Officer Dunwody, which shows the number of vessels and tonnage which were required to discharge ballast at the station from August 1, 1888, to August 1, 1889: 128 vessels, having a total tonnage of 75,637.

I append letter from Dr. Dunwody in regard to the methods pursued at the quarantine station.

Respectfully yours,

J. L. POSEY, M. D.,
Sanitary Inspector, U. S. M. H. S.

OFFICE HEALTH OFFICER,
Brunswick, Ga., August 10, 1889.

J. L. POSEY, M. D.,

Sanitary Inspector M. H. S., Brunswick, Ga.

DEAR SIR: In pursuance of the request to give you a résumé of the system of quarantine as practiced in this port, I beg to state the following facts: Upon the arrival of a vessel it is immediately inspected, and if it is found that it comes from an infected port, and has or has had any sickness on voyage, it is sent to the Sapelo Quarantine Station peremptorily; if I find no sickness on board and none on passage, it is ordered to discharge ballast at the quarantine station; however, before the ballast is touched, it, in company with the *entire* vessel, is treated to a thorough bath of the bi-chloride of mercury, 1 to 1,000; the clothing, mattresses, and ship's linen is sprayed with the same solution. The hold of the vessel is required to be closed for thirty hours; the fore-castle and cabin are in like manner closed for eight hours, during the fumigating process. I use 3 pounds of sulphur to 1,000 cubic feet of space. After the ballast is discharged the same process is repeated, and the detention period is five days after it has been discharged.

If a vessel comes from a port not known to be actually infected, but to be regarded as suspicious, there is but one process of disinfection and fumigation, which is done after the ballast is out and the usual five days' detention, after which time they are given free pratique, provided everything is all right at the expiration of that time.

Respectfully,

J. A. DUNWODY,
Health Officer.

Rules and Regulations of the Board of Health.

From and after this date the following regulations for the government of quarantine at this port will be enforced:

RULE I. *Be it ordained by the mayor and aldermen of the city of Brunswick in council assembled,* That the quarantine station for vessels entering this port be, and the same is hereby, established at the quarantine station in Oglethorpe Bay, known as the Quarantine Station of the city of Brunswick, Ga.

RULE II. *Be it ordained by authority aforesaid,* That quarantine station for all vessels entering St. Andrew's Sound shall be station established by Rule No. 1 of these rules.

RULE III. *Be it further ordained by the authority aforesaid,* That all vessels from infected or suspected ports, and all vessels having sickness on board, must be brought to anchor either at quarantine station, or at St. Simon's Sound, if their destination be St. Simon's or Back River, and there remain without allowing any one to board, leave, or hold any communication with such vessels, except the health officer or his deputy, until the health officer shall have examined such vessel, and given the necessary instructions required by the board of health.

RULE IV. *Be it ordained by the authority aforesaid,* That all pilots piloting on St. Andrew's Sound and Satilla Rivers are hereby instructed to bring all vessels arriving from infected or suspected ports to quarantine station in Oglethorpe Bay.

RULE V. *Be it further ordained by the authority aforesaid,* That all vessels from infected or suspected ports having sickness on board, or having had same during voyage, from such port or ports, must be directed by pilot to proceed at once to the national quarantine station at Sapelo. Vessels discharged from the national quarantine station with certificate of national quarantine officer, must be brought to anchor in St. Simon's Sound, if destined to Back River or St. Simon's Island; to anchor at quarantine station, if bound to Brunswick; at St. Andrew's, mouth of Jeykl Creek, if bound to Satilla Rivers, and there remain until inspected and released by health officer of this port.

RULE VI. *Be it further ordained by the authority aforesaid,* That all vessels from foreign ports direct or via American ports, with or without sickness on board, shall, during entire year, be compelled to anchor at the quarantine anchorage grounds as above specified, and there remain until released by written permit of the health officer.

RULE VII. *Be it further ordained by the authority aforesaid,* That all coast-wise vessels arriving at port of Brunswick between May 1 and November 1 must be inspected by health officer or his deputy and given permit by such officer before landing either passenger or freight, and no person shall board or leave such vessel or hold communication therewith before health officer has made the inspection; but steam vessels and steamboats, running regularly to the port of Brunswick, may, by the captain or for his successors in office of such vessels giving a bond in the sum of \$1,000, to the mayor and council of the city of Brunswick that there shall not be landed from said vessel any passenger or freight, should there be any sickness on board or having been any sickness during the voyage, until the health officer shall have examined said vessel, and given permit to land passengers and freight.

RULE VIII. *Be it further ordained by the authority aforesaid,* That no person shall board any vessel at the quarantine station, or at anchor in St. Simon's or St. Andrew's Sounds, under quarantine rules, or any vessels coming into the port before their arrival at their anchorage, if under the quarantine rules, or go alongside such vessels to hold any communication with such vessels, except the pilots, or health officer and his assistants required to disinfect such vessels, or the master or crew of such tug-boat as is employed by such vessels to tow them inward or outward from the quarantine anchorage, and only then while engaged in such necessary work. No person shall visit or land at quarantine station without a written permit from the health officer for each and every visit.

RULE IX. *Be it further ordained by the authority aforesaid,* That no steam tug or other vessel with any passenger or person other than her regular crew shall be permitted to have any communication whatever with any vessel under quarantine rules, except as hereinbefore provided.

RULE X. *Be it further ordained by the authority aforesaid,* That all vessels while under quarantine restrictions, must display a yellow flag at mast-head.

RULE XI. *Be it further ordained by the authority aforesaid,* That from May 1 to November 1 of each year, no vessel from infected or suspected ports will be allowed to either lighter or bring cargo of fruit up to the city.

RULE XII. *Be it further ordained by the authority aforesaid,* That pilots must in all cases before boarding any vessel make inquiry as to the sani-

tary condition of such vessel ; if vessel has or has had sickness during voyage of pestilential character on board, he must not board her, but must direct her to national quarantine station. Pilot upon boarding a vessel subject to quarantine rules must have yellow flag displayed at mast-head and hand copy of the quarantine regulations to master at once, and immediately upon her arrival at anchorage report same to health officer.

RULE XIII. *Be it further ordained by the authority aforesaid,* That in case sickness breaks out on any vessel in the port of Brunswick, it shall be the duty of the health officer to examine such vessel and ascertain the nature of such sickness, and if in his opinion it is necessary he shall send such vessel to quarantine, or Sapelo Quarantine. When any sickness occurs aboard any vessel in port it shall be the duty of the master of such vessel to immediately report such sickness to the health officer.

RULE XIV. *Be it further ordained by the authority aforesaid,* That from May 1 to November 1 all vessels from infected or suspected ports, and all vessels from South America, West Indian, or Mexican ports, shall be required to discharge ballast at the quarantine station, or at any other point designated by the board of health, and undergo such process of cleaning and disinfecting as may be directed by the health officers before receiving permits to go to loading berths. After November 1, the place for discharging ballast shall be in the discretion of the health officer.

RULE XV. *Be it further ordained by the authority aforesaid,* That all vessels after discharging ballast at quarantine station shall move at once from the dock, if other vessels are waiting berth to discharge.

RULE XVI. *Be it further ordained by the authority aforesaid,* That any person or persons loitering around vessels which are under the quarantine rules, in small boats or otherwise, shall be held guilty of a violation of the quarantine regulations.

RULE XVII. *Be it further ordained by the authority aforesaid,* That the following charges shall be made by the health officer, and collected from the vessel subjected to the rules of the quarantine :

For every square-rigged vessel boarded and inspected, for each visit.....	\$ 7 50
For every schooner boarded and inspected, for each visit.....	5 00
For every steamer or steamship boarded and inspected, for each visit.....	10 00
For every vessel in St. Andrew's Sound, for each visit.....	15 00

FUMIGATION FEES.

For every vessel of 100 tons or less, fumigating and disinfecting, each process...	\$10 00
For every vessel over 100 tons and less than 250 tons, each process.....	16 00
For every vessel of 250 tons or over and less than 500 tons, each process.....	22 00
For every vessel of 500 tons or over and less than 750 tons, each process.....	28 00
For every vessel of 750 tons or over and less than 1,000 tons, each process.....	34 00
For every vessel of 1,000 tons or over and less than 1,250 tons, each process.....	40 00
For every vessel of 1,250 tons or over and less than 1,500 tons, each process.....	46 00
For every vessel of 1,500 tons or over and less than 1,750 tons, each process.....	52 00
For every vessel of 1,750 tons and over, each process.....	58 00

RULE XVIII. *Be it further ordained by the authority aforesaid,* That any master or others in authority aboard any vessel who shall, when questioned, either by pilot before or after boarding or by health officer as to sickness being or having been aboard during voyage, and who shall give false answers, or who shall give any false information as to the sanitary condition of said vessel shall be deemed guilty of a violation of the rules of the board of health, and shall, on conviction before

the police court be fined in a sum not exceeding \$200, or imprisonment thirty days, or both, at the discretion of the court.

RULE XIX. *Be it further ordained by the authority aforesaid*, That any master of any vessel or any pilot or any other person violating any of the provisions of this ordinance, shall, on conviction thereof in the police court, be fined in a sum not exceeding \$100 or imprisonment for a period not exceeding thirty days, or both, for each offense, in the discretion of the court.

RULE XX. *Be it further ordained by the authority aforesaid*, That all ordinances or parts of ordinances conflicting with this ordinance, be, and the same are hereby, repealed, so far as they so conflict.

Brunswick, Ga., this May 3, 1889.

J. A. BUTTS,
Chairman Board of Health.
W. F. SYMONS,
Secretary.

Adopted and approved by the mayor and council of the city of Brunswick.

M. J. COLSON,
Mayor.
E. A. NELSON,
Clerk and Treasurer.

Reports of States, and Yearly and Monthly Reports of Cities.

CALIFORNIA.—From the report for July of the permanent secretary of the California State board of health (Dr. Tyrell), the following is extracted :

Reports received from 120 localities throughout the State indicate a remarkable absence of zymotic diseases. All observers agree that a general mildness of type characterized the sickness which had come under their notice, which will, perhaps, in a measure account for the limited mortality recorded during the month. As might be expected, the most prevalent of all disorders of the system were those affecting the stomach and bowels, and this was particularly noticed during and after the very warm days that were experienced in the earlier and latter part of the month.

Cholera infantum was noticed in several reports. It was present in Sacramento, Cedarville, College City, Mariposa, Lodi, Forest Hill, Fresno, Salinas, Chico, Grass Valley, Lakeport, Lemoore, Oakland, Rocklin, San Bernardino, San José, and San Francisco.

Diarrhoea and dysentery were observed with undue frequency in Alturas, Fresno, Hollister, Williams, North Bloomfield, Shasta, Red Bluff, Anderson, Redding, Brownsville, Eureka, Lemoore, Merced, Colfax, College City, Benicia, Susanville, Lakeport, El Monte, Santa Paula, Etna Mills, Calico, Downey, Oakdale, Truckee, Los Angeles, Marysville, Oakland, and San Francisco.

Small-pox was not reported from any locality during the month. We have therefore come to the reasonable conclusion that the disease is now entirely absent from the State for the first time in over two years. This fact should now be taken advantage of by urging immediate vaccination of all unvaccinated persons, so that if the disease is again imported into the State it will find no pabulum upon which to feed, and

will die for want of sustenance. By thorough vaccination there need not be another case of small-pox in California. It is to be hoped that the new law upon vaccination will tend toward this desirable end, and by protecting our children, lessen the chances of any severe epidemic, even if again attacked by the insidious foe.

Measles was observed in a few instances, in San José, Lodi, and Angels Camp. It was very mild, and without any mortality.

Scarlet fever is mentioned in but two reports, and they were sporadic cases.

Diphtheria and croup are mentioned in reports from Sacramento, Napa (imported from Howell Mountain), Anaheim, El Monte, Downey, Los Angeles, San José, Red Bluff, Truckee, Eureka, Fresno, Salinas, and San Francisco. The disease is not reported epidemic in any locality, and the type is not of a severe character, according to the advices received.

Whooping-cough was noticed in Napa, Lemoore, Mariposa, Redding, Elsinore, Susanville, San José, Dixon, Eureka, Fresno, Chico, Hollister, Los Angeles, Oakland, and San Francisco.

Erysipelas in a sporadic form was observed in Truckee, Redding, North Bloomfield, Lower Lake, Long Beach, Fresno, Cedarville, Dixon, Chico, and San Francisco.

Typho-malarial fever, as it is called, seems to prevail in many localities; it is noticed in reports from Anderson, Igo, Lemoore, College City, Oakdale, Anaheim, Truckee, Shasta, Los Angeles, Tulare City, and Visalia. Although the disease is frequent, the mortality is exceedingly limited.

Typhoid fever, while not prevailing to any great extent, was noticed in reports from Sacramento, Redding, Anderson, Etna Mills, North Bloomfield, Chico, El Monte, Calico, Downey, San José, Alturas, Fresno, San Diego, Placerville, Los Angeles, Mendocino, Nevada City, Santa Ana, Pasadena, Sisson, Watsonville, and San Francisco. As this is the season of the year when typhoid fever is most likely to prevail, and thereby increase the chances of the contamination of our drinking water, and as it is also at this time that visitors leave the warm valleys to seek health and recreation at the various mountain and seaside resorts, we can not too earnestly advise such sojourners to criticise keenly the sanitary surroundings of the place in which they propose to spend their summer holiday; examine the outhouses and privies; see where the sewage is conveyed and deposited; note the proximity of the closets to the well, and if the well is a dug one, and within 300 feet of the sewer, cess-pool, or privy, do not drink the water from such well, except you know it to be boiled. In short, avoid all summer resorts where cleanliness and sanitation is not the rule, where every outhouse, privy, and cess-pool is not deodorized and disinfected as regularly as the week comes around. Without this, danger is ever present, and we firmly believe that more typhoid fever is contracted in these insalubrious country houses, whose portals we seek for health, than the public is aware of. The frequent proximity of cow yards, hen roosts, stables, and even pig pens, make the surrounding atmosphere anything but salubrious. It is therefore an act of prudence to study the sanitary surroundings of a pleasure resort before incurring the exposure, and perhaps fatal danger, which insanitary conditions always present.

Remittent and intermittent fevers were quite prevalent along the river bottoms, which is to be expected at this season of the year.

Pneumonia is not mentioned as frequent in any of our reports. Some cases were noticed in San Francisco, Eureka, Benicia, Anderson, Angels Camp, College City, Chico, Jackson, Los Angeles, Mariposa, Oakland, Salinas, San José, Santa Ana, and Trinity.

Bronchitis was also noticed in several towns along the sea-coast. The type was not of a severe character, and its prevalence was limited.

Cerebral fever is mentioned in reports from Anderson, Angels Camp, College City, Fresno, Lodi, Eureka, Napa, Sacramento, San José, Susanville, and San Francisco. The appearance of cerebral fever in different sections of the State would seem to confirm the opinion of late observers that the infectious germ is preserved in the soil, and thence passed into the atmosphere, as it is now known that epidemics of this disease may appear at any season independent of local temperature; and as drying does not destroy the vitality of the disease germ, it may explain those cases of the disease which seem to spread by way of the air.

Reports to the State board of health of California, from 100 cities and towns, having an aggregate population of 803,550, show a total of 897 deaths, including enteric fever, 29; whooping-cough, 11; scarlet fever, 1; and diphtheria, 15.

San Francisco.—Month of July, 1889. Population, 330,000. Total deaths, 443, including diphtheria, 6; enteric fever, 13; whooping-cough, 3; and scarlatina, 1.

CONNECTICUT.—Reports to the State board of health from 166 towns, having an aggregate population of 756,572, show a total of 1,329 deaths from all causes, including measles, 10; scarlet fever, 4; diphtheria and croup, 35; whooping-cough, 7; and enteric fever, 21.

New Haven.—The following circulars have been issued by the board of health:

1.—TO PREVENT THE SPREAD OF TYPHOID FEVER.

Have the patient sleep alone. Burn all food left by the patient.

Boil all dishes for fifteen minutes immediately after the patient has finished using them.

Clothing removed from the patient and bed-clothing should be disinfected by soaking them for half an hour in a weak solution of carbolic acid, made by mixing 2½ ounces of pure carbolic acid with a gallon of water. Then remove them from this solution and boil in common water for half an hour.

All discharges from the kidneys and bowels must be received into vessels which contain about a pint of strong solution of carbolic acid, made by mixing 5 ounces of pure carbolic acid with a gallon of water. The discharges must remain in the disinfecting solution one hour before being thrown into the water-closet or privy.

All persons who handle or have anything to do with the patient should wash their hands repeatedly with soap and water, and pay great attention to cleanliness.

The physician is requested to see that these rules are carefully observed.

2.—TO PREVENT THE SPREAD OF SCARLET FEVER AND DIPHTHERIA.

As soon as any person is taken sick with scarlet fever, or diphtheria, select a room as remote as possible from the rest of the family.

Remove from the room all unnecessary furniture, rugs, and hangings, then have the patient placed in this room and not allowed to leave it while sick.

Allow only necessary attendants to enter this room.

Keep all other people out of the room and away from those who attend the patient.

Persons who live in the house, or have lived in the house during any part of the disease, must not go to school, church, or to any public gathering, nor to any house where there are children.

Immediately disinfect every article which is taken from the sick room.

To disinfect dishes, boil them in common water for half an hour.

To disinfect bed-clothes, the patient's clothing, towels, napkins, handkerchiefs, and other similar articles: Before removing them from the sick room, place them in a tub, and soak them for half an hour in a weak solution of carbolic acid, made by mixing $2\frac{1}{2}$ ounces of pure carbolic acid with 1 gallon (4 quarts) of water. Then remove the clothes from the room and boil them in common water for half an hour.

Burn all of the food which the patient leaves.

All discharges from the nose, mouth, kidneys, and bowels must be received into vessels containing a strong solution of carbolic acid, which is made by mixing 5 ounces of pure carbolic acid with 1 gallon of water. The discharges must be allowed to remain in this solution for one hour before being thrown into the water-closet or privy.

In case of death, wash the body with the strong carbolic solution. The burial must be private.

After the patient has recovered, or, if the patient dies, after the body has been removed, disinfect the room which the patient has occupied in the following way: Remove from the room and boil all crockery, silver, or plated ware; all cotton, linen, or woolen articles which have been in the room must be soaked in the weaker solution of carbolic acid for half an hour and boiled, as previously directed. Open the windows and allow the dust in the room to settle. Then wash the wood-work, floors, windows, and furniture with the weaker solution of carbolic acid, made by mixing $2\frac{1}{2}$ ounces of pure carbolic acid with 1 gallon of water. Be especially careful to wash the dust from over the doors and windows. Remove all paper from the walls and burn it. Then either whitewash, paper, or paint the walls and ceiling. All bed-ticking, mattresses, pillows, and all upholstered parts to furniture, must be sponged with the weaker carbolic acid solution, and then taken out and thoroughly beaten and brushed. Finally, after these directions have been carried out, the room should be thoroughly aired for two days by opening the doors and windows.

Do not allow any child who has had scarlet fever to attend school until four weeks after the disappearance of the eruption.

Remember that canker rash, scarlet rash, and scarlatina are the same as scarlet fever, and the same precaution must be used. Severe forms of scarlet fever may be caught from mild cases.

In diphtheria, all secretions from the nose and mouth must be received upon cloths which can be burnt, or into a cup, which can be disinfected with the stronger solution of carbolic acid.

The physician is requested to see that these rules are carefully observed.

Month of July, 1889. Population, 85,000. Total deaths, 159, including enteric fever, 2; whooping-cough, 1; and diphtheria and croup, 11.

GEORGIA—*Savannah*.—Month of July, 1889. Population, 57,000. Total deaths, 110, including enteric fever, 3.

ILLINOIS—*Chicago*.—Month of July, 1889. Population, 1,100,000. Total deaths, 754, including diphtheria, 54; scarlet fever, 14; enteric fever, 29; measles, 12; and whooping-cough, 5.

IOWA—*Dubuque*.—Month of July, 1889. Population, 35,000. Total deaths, 30. None from contagious diseases. Ten cases of scarlet fever, 1 of enteric fever, and 4 of erysipelas, were reported during the month. No deaths from these diseases.

KENTUCKY—*Louisville*.—Month ended August 3, 1889. Population, 227,000. Total deaths, 338, including diphtheria, 1; scarlet fever, 1; enteric fever, 9; measles, 2; and whooping-cough, 2.

MICHIGAN.—Week ended August 10, 1889. Reports to the State board of health, Lansing, from fifty-five observers, indicate that cholera infantum, cholera morbus, erysipelas, cerebro-spinal meningitis, enteric fever, and typho-malarial fever increased, and intermittent fever decreased in area of prevalence. Including reports by regular observers and others, diphtheria was reported present during the week, and since, at 12 places, scarlet fever at 9 places, enteric fever at 14 places, and measles at 5 places.

NEW HAMPSHIRE.—From the Sanitary Volunteer, which is the official organ of the New Hampshire State board of health, the following report of contagious and infectious diseases for the month of July is extracted:

Diphtheria: Nashua, 8 cases. This is just half the number reported from that city for the month of June. Total number reported since the first of May, 34—Manchester, 9; Claremont, 8; Rochester, 6; Belmont, 2; Milford, 2; and Concord, Stratham, North Hampton, Greenland, Berlin, and Goffstown, 1 case each.

Scarlet fever: Manchester, 75 cases, making 149 cases reported since May 18. In the report rendered by the board of health of Manchester for July, the secretary says: "We have placarded the houses in which the disease existed, distributed the pamphlets published by the State board of health, and have done what we could to secure isolation and disinfection. But the scarlet fever is so mild that some have no doctor and are not confined to the house; the disease is probably spread largely by such persons. Only 2 deaths have been reported from the disease thus far." Goffstown, 3; Concord, 4; and Boscawen, Belmont, and Bridgewater, 1 case each.

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 3, corresponded to an annual rate of 20.5 a thousand of the aggregate population, which is estimated at 9,555,406. The lowest rate was recorded in Portsmouth, viz, 10.6, and the highest in Sunderland, viz, 28.8 a thousand. Diphtheria caused 5 deaths in Manchester, 3 in Salford, and 3 in Sunderland.

London.—One thousand five hundred and thirty-two deaths were registered during the week, including measles, 25; scarlet fever, 11; diphtheria, 45; whooping-cough, 22; enteric fever, 8; diarrhœa and dysentery, 199, and cholera and choleraic diarrhœa, 4. The deaths from all causes corresponded to an annual rate of 18.4 a thousand. Diseases of the respiratory organs caused 182 deaths. In greater London 1,934 deaths were registered, corresponding to an annual rate of 17.9 a thousand of the population. In the "outer ring" the deaths included diarrhœa, 64, and diphtheria, 9.

Scotland.—The deaths registered in 8 principal towns during the week ended August 3, corresponded to an annual rate of 18.3 a thousand of the population, which is estimated at 1,314,274. The lowest mortality was recorded in Dundee, viz, 12.4, and the highest in Paisley, viz, 27.4 a thousand. The aggregate number of deaths registered from all causes was 468, including measles, 8; scarlet fever, 4; diphtheria, 4; whooping-cough, 15; fever, 7, and diarrhœa, 39.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended August 3, in the 16 principal town districts of Ireland, was 21.1 a thousand of the population. The lowest rate was recorded in Sligo, viz, 4.8, and the highest in Drogheda, viz, 38.1 a thousand. In Dublin 140 deaths were registered, including measles, 4; enteric fever, 1; typhus, 1; diarrhœa, 7; dysentery, 1, and whooping-cough, 1.

FRANCE—*Bordeaux.*—Eight hundred and forty-five deaths were registered during the month of July, 1889, in a population of 375,378; including sporadic cholera, 2; small-pox, 11; enteric fever, 26; scarlet fever, 1; diphtheria and croup, 19; measles, 13; whooping-cough, 11, and diarrhœa and enteritis, 186.

BRAZIL—*Ceara.*—Month of June, 1889. Population, 29,000. Total deaths, 225. None from contagious diseases.

ARGENTINE REPUBLIC—*Buenos Ayres.*—Month of June, 1889. Population, 500,000. Total deaths, 1,237, including small-pox, 5; enteric

fever, 51; scarlet fever, 4, and diphtheria, 47. During the winter, thus far, diphtheria and enteric fever have been the prevailing diseases.

MEXICO.—*Tampico*.—*Report of Special Inspection*.—Repeated rumors having reached this Bureau that the southeastern coast of Texas was threatened by reason of the alleged existence of yellow fever in Tampico, on the Mexican coast, between the mouth of the Rio Grande and that State, Dr. F. J. Combe, of Brownsville, Tex., was employed to make a special inspection of the coast of Mexico as far as Tampico. The following is his report:

U. S. MARINE-HOSPITAL SERVICE,
DISTRICT OF THE GULF,
Port of Brownsville, Surgeon's Office, August 13, 1889.

HON. SURGEON-GENERAL, *Washington, D. C.*:

SIR: I have the honor to forward the following report in reference to the rumored prevalence of yellow fever at Tampico, Mexico:

Pursuant to your telegraphic instructions of the 12th ultimo, I left Brownsville July 14 and proceeded overland to Tampico. My route lay almost due southeast, and mostly over a rough, mountainous country, frequently intersected by small rivers, which, being swollen, materially impeded my progress. Though I could not accurately ascertain the distance from Matamoros to Tampico, I would judge it to be, from my own calculation, not less than 420 Mexican miles.

This part of the country is very thinly populated. The people are almost exclusively engaged in stock-raising, but little attention being given to agriculture. I passed through the towns of San Fernando, Jiminez, Sota La Marina, and other small places, where I was required to present myself at their respective custom-houses for inspection.

These towns are but little more than aggregations of stone and adobe-built houses, systematically arranged. The lower class of people live in low thatched roof huts.

The population of any one of these places does not exceed 500 souls. This is the most healthful portion of the State, being on the gradually ascending slope of the table-lands of the Sierra Madre Mountains.

To all my inquiries regarding the diseases most prevalent in this section, I was met with the assurance that with the exception of an occasional visitation of small-pox, measles, and malaria, the people enjoyed exceptionally good health.

I arrived at Tampico July 24, and immediately proceeded to obtain all the information possible regarding the alleged prevalence of yellow fever there. My telegraphic report of the 28th ultimo, as well as my present communication, will, I think, dissipate the erroneous impressions which rumors may have established.

Tampico is situated 22° 16' north latitude, and 1° 12' east longitude from the city of Mexico, being 306 miles from that place.

It is a port of entry on the Panuco River, and is the principal town of the southern district and municipality of Tampico. The city is 6 miles from the coast line. It is bounded on the north by Laguna del Carpintero; on the south and east by the Panuco River; and on the west partly by a low range of hills and by a stretch of swampy ground.

The topography of Tampico and its surroundings may much more be studied to advantage by the perusal of the map which I have this day forwarded to you.

This city has a population of about 7,000 inhabitants. It is quite a hilly town, 14 feet above the level of the sea. Its mean temperature is 77°. Winds, average direction, southeast and southwest. There is no regular system of drainage here, save through gutters, which are built in the middle of the street. This is effected by an inclination in the street of several inches, from the outer edge of the sidewalk to the middle of the thoroughfare. There is also a natural slope to the streets, of several feet, north to the lake and south to the Panuco River. They are paved with cobble-stones, and kept very clean.

The architecture is purely Mexican, the houses being massively built and only one or two stories high. All garbage is daily carted away, and thrown some distance to the leeward of the city. Privy-vaults are the means employed for the collection of human excreta; and as there are no outlets or mains, their filth is continually impregnating the subsoil strata. It is true that there are some houses which throw off their refuse through an underground system of pipes, but these are few and exceptional.

Drinking water is supplied to the inhabitants from cisterns and springs, mostly from the latter. According to an analysis made by a local pharmacist, its quality has been pronounced good. It is cool, clear, and palatable. River water is used by the poor classes.

Meat, fish, vegetables, and fruit, comprise the food of the inhabitants. Those who can not afford the first two mentioned articles of food, subsist upon the latter. I have passed along the wharves, which line the front of the city, and have seen natives making their morning meal of over-ripe and sometimes green fruit. This certainly is unhealthy, especially to those who are obliged to work in the swamps, or otherwise expose themselves to the malarial influence. These very same people are greatly addicted to the use of an alcoholic beverage called "agua dulce." The bad effects of the imbibition of quantities of this liquor makes itself apparent by the bloated countenance and enervating effects which it has upon the systems of the victims of this habit. I am told by a prominent railroad officer, who has had much experience among this class, that they are the first to succumb to exposure or sickness, especially when occupied in the marshy lowlands.

I have elsewhere made mention of the existence of malaria in this section, and I am of opinion that it was the extensive prevalence of the disease here this spring that gave rise to the false rumors which have been circulated in regard to yellow fever.

That this is a highly malarious location is beyond question. Paludal fevers prevail here throughout the entire year, though naturally with a cessation during the winter months. The scum-covered surface of Lake Carpintero, as well as the marshy banks of the Tamése River, afford a luxuriant nidus for the prolific development of the malarial germ. There are summer days when the heat is intense, rising in spite of the sea-breeze to 90° and 91°. This warm temperature, together with the miasms emitted from the decomposing vegetable matter and swampy ground, is apt to prostrate even the most hardy.

When we come to consider that in addition to these conditions favoring the development of the micro-organism these patients are often poorly fed and clad, and not unfrequently without medical attention,

it is not surprising that many of them sicken, not, as is supposed, from yellow fever, but from the ravages made upon their systems by this climatic fever, which, when neglected, often proves fatal.

Tampico possesses two hospitals, one a military, the other a civil, institution. The military hospital is governed by the military authorities; the civil hospital is under the supervision of the local board of health. At the time of my visit the hospitals were almost empty. The *clientelle* was composed principally of a few remittent, intermittent, and surgical cases, as well as one or two venereal cases.

Tampico's commercial relations are mostly limited to a Gulf coast trade, though an occasional American or European steamer may touch at this point.

This city is within the yellow-fever zone, and notwithstanding its proximity to, and constant communication with, Vera Cruz, where yellow fever is endemic, it is surprising, though nevertheless true, that since the epidemics of 1878 and 1879 yellow fever, with the exception of a few suspicious cases, has been a stranger here.

This I assert upon the assurance of the authorities, of the medical profession the board of health, and as the result of my individual investigations. I have studied this subject considerably, and have finally concluded that the seeming immunity of Tampico to yellow fever may be due to one or more of the following reasons:

(1) Vessels of even moderate tonnage can not enter the harbor, owing to the shallowness of the bar. (Soundings 4 to 5 feet.) They usually anchor in the offing, which is 4 miles off the bar and a distance of 10 miles from the city. When there is little or no communication with the shore this is almost complete isolation.

(2) In Vera Cruz vessels can not well come alongside the wharves, hence to a certain extent diminishing the probability of infection.

(3) The locality and surroundings may not altogether be a favorable habitat for the development of the germ.

I have just referred to the *seeming immunity* of Tampico to infection by yellow fever, and I would conclude by saying that though the city is in comparatively a good sanitary condition, and is at present free from yellow fever, yet, on account of its communication with infected ports, it daily exposes itself to a visitation from this much dreaded disease.

I would express my thanks to the authorities of Tampico, especially to our consul, Mr. Greathouse, and to Mr. Hitchcock, for the courtesy and assistance shown me.

Very respectfully, yours,

F. J. COMBE, M. D.

Acapulco.—Month of July, 1889. Total deaths, 21, including small-pox, 4.

CUBA.—*Santiago de Cuba*.—The United States consul furnishes the following sanitary report for first half of June, 1889:

Referring to my letter of the 7th instant, I beg to state that the municipal authorities, who had declared the existence of an epidemic of small-pox in this city, have acknowledged their action as premature, and declare such action only a means to frighten people into vaccination. This first half of the month has been healthy in the extreme.

The continuous heavy rains have wrought havoc among children, especially those of the colored race. Diseases and deaths are registered as follows: Varioloid and small-pox, 7 cases, 3 deaths, children; measles, 42 cases; dysentery, 24 cases, 3 deaths; diarrhoea, 36 cases, 4 deaths; yellow fever, in military hospital, 1 case, 1 death.

There is no yellow fever in the town, and the port is entirely clean. As there is not a single case of small-pox in the town to-day (June 21, 1889), I issue clean bills of health. For the last fifteen days I have mentioned the action of the municipality in declaring a small-pox epidemic on bills of health. This at present is unnecessary.

In his dispatch to the Department of State, dated July 27, 1889, the consul says:

The irregularity in sending sanitary reports is owing to the extreme difficulty of obtaining authentic health reports, as it very often takes weeks of application and constant notification to the local health authorities. Is it not possible to have a health inspector reappointed here? Such inspector would be of invaluable service to this consulate, and would be an absolute guard against the introduction into the United States of contagious diseases endemic to this island. The movement of steamers, especially English tramp steamers, taking principally iron ore from here to Philadelphia and Baltimore, is increasing in importance every day, and, if not properly supervised by a physician, is a constant menace to our public health, owing to the proximity of this island to our shores. I trust you will cause the advisability of appointing a health inspector at this port, to be considered.

Cardenas.—Week ended August 9, 1889. Weather warm. Regular rains. Health of town and bay good.

BAHAMAS—*Nassau, N. P.*—Week ended August 3, 1889. Population, 12,000. No prevailing diseases. General health of island very good.

DEMERARA—*Georgetown.*—Reports for the three weeks ended July 18, 1889, show that there have been no cases or deaths from contagious diseases during that period.

NETHERLANDS.—The deaths registered in the principal cities of the Netherlands, having an aggregate population of 1,129,678, during the month of May, 1889, corresponded to an annual rate of 23.0. The lowest rate was recorded in Arnhem, viz, 17, and the highest in Hertogenbosch, viz, 36.1 a thousand. The deaths included typhus and enteric fever, 8; scarlet fever, 5; measles, 55; whooping-cough, 22; and diphtheria, 14.

The consul-general of the Netherlands at New York informs the Department of State, under date of August 13, that—

At the request of the minister of foreign affairs at The Hague, I have the honor to inform you that the minister of the interior and of finance have thought proper to withdraw, on the 27th July last, the prohibition of the import and transit of rags, used wearing apparel, &c., from Sicily into the Netherlands.

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.
Glasgow.....	Aug. 3.....	545,678	208					5	2	1		
Calcutta.....	June 29.....	433,219	201	20								
Rome.....	June 8.....	404,449	158					4		4		
Rome.....	June 15.....	404,449	165			3						
Amsterdam.....	Aug. 3.....	399,051	189					1		3		
Copenhagen.....	July 27.....	307,000	165					4		5		
Munich.....	June 22.....	281,000	179							6		
Munich.....	June 29.....	281,000	157							3		
Munich.....	July 6.....	281,000	174					2		13		
Munich.....	July 13.....	281,000	235					3	4	5		
Edinburgh.....	July 27.....	266,900	77							1		
Trieste.....	July 27.....	154,500	69							1		
Stuttgart.....	Aug. 3.....	125,510	41						2			
Pernambuco.....	July 16.....	120,000	52		1			1				
Pernambuco.....	July 23.....	120,000	98				1	1	2			
Barmen.....	July 27.....	109,000	68								4	
Barmen.....	Aug. 3.....	109,000	50				1			3		
Catania.....	July 29.....	108,000	22						2			
Mayence.....	July 20.....	65,802	36						1			
Leith.....	July 27.....	76,400	25									
Merida.....	July 9.....	47,448	42									
Merida.....	July 16.....	47,448	38					1				
Merida.....	July 23.....	47,448	52						1			
Merida.....	July 30.....	47,448	56									
Guayaquil.....	July 9.....	35,000	97									
Guayaquil.....	July 16.....	35,000	92									
Guayaquil.....	July 23.....	35,000	84									
Vera Cruz.....	Aug. 8.....	28,800	26									
Gibraltar.....	July 28.....	23,561	10						1			
Cartagena, Colombia.....	July 27.....	20,000	6									
Kingston, Can.....	Aug. 9.....	17,300	2									
St. Thomas.....	July 19.....	13,500	11									
St. Thomas.....	July 26.....	13,500	8									
St. Thomas.....	Aug. 2.....	13,500	11									
La Guayra.....	July 27.....	7,428	4									

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