

# WEEKLY ABSTRACT OF SANITARY REPORTS.

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TREASURY DEPARTMENT,  
OFFICE SUPERVISING SURGEON-GENERAL,  
U. S. MARINE-HOSPITAL SERVICE,  
Washington, D. C., February 22, 1889.

*Abstract of Sanitary Reports received through the Department of State from foreign countries during the week ended February 22, 1889, and information received through other channels.*

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*England and Wales.*—The deaths registered in 28 great towns of England and Wales during the week ended February 2, corresponded to an annual rate of 18.8 a thousand of the aggregate population, which is estimated at 9,398,273. The lowest rate was recorded in Portsmouth, 14.4, and the highest in Blackburn, viz., 33.6 a thousand. Diphtheria caused 6 deaths in Manchester, 5 in Salford, 3 in Nottingham, and 2 in Sheffield.

*London.*—One thousand five hundred and seventy-two deaths were registered during the week, including measles, 71; scarlet fever, 11; diphtheria, 38; whooping-cough, 38; enteric fever, 10; diarrhoea and dysentery, 13. The deaths from all causes corresponded to an annual rate of 18.8 a thousand. Diseases of the respiratory organs caused 410 deaths; different forms of violence, 55; and 12 suicides were registered. In greater London 1,942 deaths were registered, corresponding to an annual rate of 18.0 a thousand of the population. In the "outer ring" the deaths included measles, 12; diphtheria, 7; and whooping-cough, 6.

During the year 1888, 510,690 deaths were registered in England and Wales, including diarrhoea, 12,194; whooping-cough, 11,602; measles, 9,513; scarlet fever, 6,240; fever (typhus, enteric, or ill-defined) 5,206; diphtheria, 4,907; small-pox, 1,022. Different forms of violence caused 16,783 deaths. The total number of deaths corresponded to an annual rate of 17.8 a thousand of the estimated population, which is 37,440,505.

*Ireland.*—The average annual death rate, represented by the deaths registered during the week ended February 2, in the 16 principal town districts of Ireland, was 25.3 a thousand of the population. The lowest rate was recorded in Sligo, viz., 4.8, and the highest in Cork, viz., 31.8 a thousand. In Dublin 187 deaths were registered, including measles, 2; enteric fever, 4; scarlet fever, 3; dysentery, 1; and erysipelas, 1.

*Scotland.*—The deaths registered in 8 principal towns during the week ended February 2, corresponded to an annual rate of 21.4 a thousand of

the population, which is estimated at 1,314,274. The lowest mortality was recorded in Leith, viz., 13.6, and the highest in Glasgow, viz., 25.1 a thousand. The aggregate number of deaths registered from all causes was 547, including small-pox, 1; measles, 18; scarlet fever, 4; diphtheria, 5; whooping-cough, 20; fever, 9, and diarrhœa, 8.

*Marseilles, France.*—The U. S. Consul furnishes the following report of vital statistics for the year 1888:

The aggregate mortality and death rate per 1,000 inhabitants at Marseilles, during the past six years, show the following fluctuations:

<i>Year.</i>	<i>Deaths.</i>	<i>Rate per 1,000.</i>	<i>Year.</i>	<i>Deaths.</i>	<i>Rate per 1,000.</i>
1882 .....	10,915	30.0	1886 .....	13,158	34.9
1883 .....	11,390	31.0	1887 .....	10,967	28.9
1884 .....	12,500	33.0	1888 .....	10,871	28.4
1885 .....	12,152	32.9			

The excessive mortality of 1884 and 1885 was due to the epidemic of cholera which prevailed during those years, and that of 1886 was likewise the result of the visitation of small-pox, which caused the death of 2,031 persons during the year.

During the past year this city has been notably free from epidemics, and the death rate, as above given, may be accepted as about normal for Marseilles in the present condition of its tenements, sewers, and general mode of life.

A comparison of the births and deaths by months during the year just closed gives the following encouraging exhibit:

<i>Months.</i>	<i>Births.</i>	<i>Deaths.</i>	<i>Months.</i>	<i>Births.</i>	<i>Deaths.</i>
January .....	1,018	1,091	July .....	920	890
February .....	990	1,030	August .....	926	901
March .....	1,024	1,109	September .....	934	815
April .....	863	921	October .....	955	810
May .....	851	905	November .....	875	741
June .....	859	831	December .....	909	827
Total .....				11,124	10,871

This shows an increase of 107 births over those of 1887, this being the first year since 1881 in which the births have exceeded the number of deaths. Of the 11,124 births recorded 1,649 (or 14.8 per cent.) were illegitimate, a slight falling off from the percentage of the previous year.

In respect to the causes of mortality, pulmonary diseases, as usual, stand at the head of the list, the proportion being as follows: Pneumonia, 1,142; consumption, 1,060; bronchitis, 560; enteritis, 584; convulsion, 500; diphtheria, 468; measles, 331; meningitis, 407; small-pox, 120; athrepsie, 249; scarlet-fever, 19; suicide, 102; all other causes, 5,329.

The most interesting aspect of the death record is that which is obtained by an analysis of the mortality by arrondissements or precincts. No where could be found a more pertinent illustration of the costliness of crowded, ill-kept dwellings, and deficient drainage. In the modern quarters of the city, that of the "Perfecture" and "Palais de Justice" for instance, where the streets are well watered, wide, clean, and the sewers ample and well constructed, the death rate reached only 19.2 and 22, respectively, per thousand inhabitants. In the old, densely built quarter of the City Hall, where the ancient buildings front on narrow,

dark, noisome streets, having only surface sewerage, the death rate reached 40.3 per thousand. In the suburban quarter of Saint Louis, where all sanitary arrangements are primitive to the last degree, and the habits of the people equally so, the mortality was 41.9 per thousand.

Suicides show a slight decrease, the totals being 137 in 1886, 109 in 1887, and 102 in 1888. The marriages numbered 2,964, about the same as those of the preceding year, but divorces increased from 79 in 1887 to 109 last year.

Of all the costly and elaborate sanitary improvements which have been proposed and discussed so earnestly since the cholera visitations of 1884 and 1885, only one is now in process of completion. This is a transverse sewer, about a mile in length, which is being tunneled through rock at a depth of 60 to 80 feet, and which, when completed, will carry the sewage of the southeastern portion of the city, which is now drained into the old Port, to a point on the shore known as the "Catalans," where it will be discharged into the open sea. This will no doubt effect some amelioration, but the still more important and difficult problem of gathering and carrying away the flood of sewage from the ancient portion of the city which lies between the old Port and "La Joliette," and which now pollutes the docks and necessitates constant dredging to keep them navigable, is still unsolved except in theory.

During the month of January, 1889, 950 deaths were registered in an estimated population of 375,378. The deaths included small-pox, 11; enteric fever, 22; diphtheria, 30; measles, 19; whooping-cough, 1; diarrhœa enteritis, 33. The health of Marseilles is in normal condition for the season; the slight increase in small-pox being not greater than the average for January.

*Havana, Cuba.*—Three deaths from yellow fever were registered during the week ended February 9, 1889.

*Cardenas, Cuba.*—February 8, 1889: Good health prevails in town and harbor. Weather cool and dry.

*Catania, Italy.*—The United States consul reports 23 deaths from small-pox during the month of January, 1889. The sanitary condition of the city is not very good.

*Trieste, Austria.*—The United States consul reports 8 cases and 1 death from small-pox during the month of January, 1889.

*San Juan, Porto Rico.*—The United States consul reports 74 deaths from all causes during the month of December, 1888, including 1 from yellow fever. "In Ponce some cases of small-pox, and in Curacao also, but all decreasing."

*Acapulco, Mexico.*—Twenty-four deaths were registered during the month of January, 1889, including dysentery, 2; and small-pox, 3.

*Ceara, Brazil.*—One hundred and eleven deaths were registered during the month of December, 1888. No contagious diseases. Sanitary condition of city good.

*Cardenas, Cuba.*—February 15, 1889: Good health prevails in town and harbor. Weather cool and dry.

*Nassau, N. P.*—February 9, 1889: No prevailing diseases of impor-

tance. City very healthy. The one case of diphtheria, a child, was landed from a ship.

*Santiago de Cuba.*—The United States consul furnishes the health report for the month of January, as follows:

“Notwithstanding the, for this country, sudden changes of temperature, and the prevailing high winds, the health of this city has been remarkably good during the month of January. The official report of the board of health gives a total of 112 deaths in a population of from 45,000 to 50,000.” The deaths included diarrhoea, 12; dysentery, 10; pernicious fever, 4; yellow fever, 17; consumption, 16; tuberculous affections, 11.

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 .....	Feb. 2.....	5,642,015	1,942					10	13	45	83	
Glasgow .....	Feb. 2.....	545,678	255					5	3			
Warsaw .....	Jan. 26.....	444,814	235				3		7	10		
Amsterdam .....	Feb. 2.....	399,051	191					1		5		
Copenhagen .....	Jan. 26.....	307,000	189						2	6		
Rio de Janeiro .....	Jan. 27.....	300,000	434	109		2	27	9				
Munich .....	Jan. 19.....	281,000	173						4	1		
Palermo .....	Feb. 2.....	250,000	98						2	3		
Bristol .....	Jan. 26.....	229,361	80			1			1			
Bristol .....	Feb. 2.....	229,361										
Belfast .....	Feb. 2.....	229,622	119				1	6		2		
Genoa .....	Feb. 2.....	179,884	131				1			2		
Toronto .....	Feb. 9.....	170,000	30				1	1		3		
Trieste .....	Jan. 19.....	154,500	99			3		1		6		
Trieste .....	Jan. 26.....	154,500	97			5						
Stuttgart .....	Jan. 26.....	125,510	47						1	1		
Stuttgart .....	Feb. 2.....	125,510	49							3		
Pernambuco .....	Jan. 15.....	110,000	64					1	2			
Barmen .....	Jan. 26.....	109,000	41				1					1
Leghorn .....	Feb. 4.....	102,893	58									
Mayence .....	Jan. 26.....	65,802	28							1		
Cadiz .....	Feb. 2.....	65,028	51									
Merida .....	Jan. 29.....	48,121	52									
Callao .....	Jan. 19.....	34,000										
Gibraltar .....	Jan. 27.....	23,581	8									
Kingston, Can .....	Feb. 15.....	17,300	4									
Antigua .....	Feb. 3.....	15,847	10									
Nassau, N. P. ....	Feb. 9.....	12,000										
San Juan del Norte.....	Jan. 21.....	1,004										
San Jaun del Norte.....	Jan. 28.....	1,004										

## UNITED STATES.

*New York Quarantine.*—*History of the Recent Outbreak of Yellow Fever on the United States Steamers Boston and Yantic.*—Dr. Wm. M. Smith, health officer at the port of New York, furnishes advance sheets of so much of his annual report as relates to these steamers after their return from Hayti with yellow fever on board, as follows:

The United States Steamship “Boston,” Captain Ramsey, arrived at quarantine November 24, 1888, from Port au Prince, the 16th of the same month, with three cases of yellow fever on board.

The “Boston” touched at Jamaica, West Indies, on the way out

from New York, October 10; sailed from Port Royal the 13th of the same month and arrived at Livingston, Central America, the 17th. The cruiser touched at the Corn Islands the 23d of October, sailed from there the 24th, arrived at Greytown the 25th and at Port Royal again the 31st of October, for coal. Some of the officers and stewards visited Kingston while at Port Royal. November 5 the "Boston" arrived at Port au Prince and sailed for New York the 16th of the same month.

The vessel anchored and remained in the outer bay during the stay at Port au Prince, a distance of about two miles from the town. Only the captain, one of his aids, and two or three of the cadets went ashore. A steam-launch was used in the communication between the vessel and the shore, which, in every instance, was ordered to lie off at a distance from the wharf while waiting for the return of the officer on shore, and in case it was anticipated that the detention would be considerable, the launch returned to the "Boston."

A consideration of the details of the "Boston's" communication with the different ports is necessary to determine at which port, and under what circumstances, those who took the disease became infected.

November 9, Seaman Lassiter was taken sick. The symptoms in this case were so mild that, but for the development of unmistakable symptoms of yellow fever in subsequent cases, it is probable that the case would not have been diagnosed as yellow fever.

John J. Kelly, apprentice boy, was taken sick the 14th and died the 20th. Surgeon W. J. Simon became ill the 15th and died the 26th—two days after arrival at quarantine. Seaman Ewing J. Thrapp was seized the 17th and died the 20th. John Ulzmier, John Rutzell, marines, and Frank Thomas, seaman, were taken sick the 18th; the former died the 21st of November, the second the 23d, the latter recovered and was discharged from the quarantine hospital. Charles Mitchell, seaman, sickened the 19th; was removed at quarantine, and subsequently discharged from Swinburne Island Hospital.

The symptoms in these cases, as seen through the intelligent record of Passed Assistant-Surgeon Lumsden, leave no room for doubt that his diagnosis of yellow fever was correct. The temperature of the patients varied from 100° at the invasion, to 105.8° at the period of the greatest pyrexia. The pulse was often much accelerated in the first twenty-four hours, in some cases running as high as 120, and declining in frequency as the disease progressed and the temperature increased. In the case of Thrapp, who died the fourth day after seizure, the pulse was 120 the first day of the attack, and 72 the day preceding death; the second day of his illness the thermometer indicated 104° F., and the pulse numbered 80. As the stage of collapse approached, the temperature declined, in most instances below the normal standard, and the pulse became less frequent. The tongue was usually "furred centrally, and the edges red;" in the first stages the face was flushed and the eyes congested. As the disease progressed the skin became yellow. "Dark brown" or "black vomit" occurred in every fatal case, and in one case that recovered (Frank Thomas). In every case the urine was scanty and albuminous, the quantity of albumen varying from 10 to 20 per cent. Secretion from the kidneys was suspended for twenty-four hours before the death of Doctor Simon.

The United States steamship "Yantic," Commander Heyerman, arrived at quarantine January 10, 1889, 10 p. m., from Port au Prince with 3 cases of yellow fever on board; one man was reported to have died of the disease on the voyage. To the log of Commander Heyerman,

and the notes of Surgeon McCarthy I am indebted for the following facts:

The "Yantic" went from New York direct to Port au Prince where she arrived December 20th, and proceeded immediately to the inner harbor, anchoring within a hundred yards of the shore, and in close proximity to the steamer "Haytien Republic." Commander Heyerman was under orders from Admiral Luce to take the "Haytien Republic" out of the harbor before sunset, if it was necessary to cut her anchor-chains to obey the order. The "Yantic" remained near the shore the most of the day, and until the "Haytien Republic" could be taken to the outer harbor. The anchorage made outside was  $1\frac{1}{2}$  miles from the town. The 23d of December the "Yantic" left Port au Prince for Santiago de Cuba, arrived there the 24th, and sailed again for Port au Prince the 27th of December; arrived there the 28th, and anchored between one and two miles from the wharves of the city. January 1st the "Yantic" sailed for New York.

The day of the return of the "Yantic" to Port au Prince (December 28th), Lieutenant Charles R. Miles was taken sick. The symptoms in this case speedily convinced Surgeon McCarthy that he had yellow fever on board. On the arrival of the "Yantic" at the New York quarantine Lieutenant Miles was in a semi-conscious state, and so feeble that it was not proper to remove him to the quarantine hospital. He died on the 14th. The 29th H. L. Kellar (equipment yeoman) was taken sick; Mark L. Bristol (naval cadet) the 30th, and Charles W. Rowe the 31st. Keller's case was mild; Bristol's severe; he was delirious, and had "black vomit" the third day of the attack. Corporal Rowe died the 7th of January. Bristol and Kellar were removed to the quarantine hospital, and were subsequently discharged from there.

It is important to determine the source of the infection which infected the victims of the "Boston" and "Yantic," to enable those who touch or lie near infected ports to escape this fatal disease.

There is a concurrence of testimony among the officers of the "Boston," that none of those who had yellow fever on that vessel were ashore while the vessel was at Port au Prince. The steamer was anchored too far in the open bay to warrant the belief that the infection was carried thither by the wind blowing from the shore.

The utmost caution was observed in communicating with the shore, while at Port au Prince, by the commanding officers of the "Boston" and "Yantic;" and the fact that none of the officers who were ashore, or of the crew who manned the boats used by them, had yellow fever, affords very positive evidence that the precautions taken were effectual. It may be assumed that the men on the "Boston" were infected at one of the several ports touched at before reaching Port au Prince. This is scarcely possible. The last port touched at by the "Boston" was Port Royal, the 31st of October, fourteen days before the development of the first well-marked case, and nine days before the doubtful case of Lassiter above mentioned. The incubative period of yellow fever seldom exceeds five days. Those cases which have seemed to be an exception to this rule, in many instances have been concealed for the first day either ignorantly or intentionally. There are, however, some instances in which the evidence would *seem* to prove that the incubation of the disease may be protracted considerably beyond five days. It is believed that such instances are rare exceptions to the rule.

There is good reason to believe that in many instances the incubative

period of the disease is much less than five days. Doubtless the period varies in different individuals, owing to differences in the virulence of the infection, and to the varying susceptibilities of individuals which favor a greater or less rapidity of development. In this respect yellow fever is similar to malarial diseases, and unlike such contagious diseases as small-pox, in which the incubative period is certain and well known.

Neither the "Boston" or the "Yantic" received anything on board from the shore, while at Port au Prince, except meat and fruit. The fruit, consisting of bananas and oranges, was taken to the vessels by natives in what is called "bumboats," and is sold to those on board. The main-decks of the "Boston" and "Yantic" are so low that communication between those on them and the "bumboats" was easy, and doubtless frequent, while the natives were vending their fruit. The wet, dirty, and sun-heated bottoms and timbers of the boats of the natives, exposed as they must be at all times, when at the shore or wharves, to an infected atmosphere as well as to the infected filth of the gutters that drain into the bay, certainly supply all the conditions necessary for the propagation of the infection. It would be rather a matter of surprise than otherwise if the boats of the natives were not impregnated with the infection of yellow fever when it prevails at Port au Prince.

The officers of the "Yantic" generally believe that the disease was contracted on the 20th of December, from proximity to the shore while engaged in the preparation to take the "Haytien Republic" out of the harbor. The objection to this is, that it was eight days subsequent to that exposure before the first case of yellow fever developed, an unusually long period for the incubation of the infection. And it should be borne in mind, in this connection, that the disease was even more virulent on the "Boston," which was anchored nearly two miles from the city during the period of her stay in Haytien waters.

The period covered by the development of yellow fever on board of the "Boston" affords pretty conclusive evidence that the disease was contracted while at Port au Prince. The same is true of the "Yantic," unless it is assumed that the victims on that vessel contracted the disease while at Santiago. There is reason to believe from consular reports, and from other sources of information, that there was no yellow fever at that port when the "Yantic" was there. For the same reason it is believed that the "Boston's" people did not contract the disease at the ports touched before their arrival at Port au Prince, and for the additional one that the first unmistakable case did not develop until ten days after leaving the last of those ports—Kingston.

No case occurred on the "Boston" after the third day out from Port au Prince *en route* for New York. The cases on the "Yantic" developed the 28th, 29th, 30th, and 31st of December. The vessel sailed for New York the day following the development of the last case. No case occurred after leaving Port au Prince.

The history of the disease on the "Boston" and the "Yantic" affords satisfactory evidence to the writer that the persons who suffered from it contracted the infection while at Port au Prince, and that the infection did not infect either vessel. In other words, that the infection was limited to the individuals who contracted the infection at that port. Nevertheless, both vessels named were thoroughly cleansed and disinfected with a solution of mercuric chloride, one to five hundred, and repeated fumigations with sulphurous acid gas, produced by the

combustion of sulphur in the proportion of 3 pounds to 1,000 cubic feet of space. All textile fabrics were subjected to one or the other of these agents, and in case of the "Yantic" were subsequently exposed for a considerable time to a temperature several degrees below 32° Fahrenheit.

The same measures were taken with these vessels that have been adopted with hundreds of vessels that have arrived at the New York quarantine during the past nine years with yellow fever on board, no one of which has ever given evidence of any remaining infection.

The "Boston" was discharged from quarantine December 3d and the "Yantic" on January 21st. It is believed that they were as free from the infection of yellow fever at the time of their discharge as when they sailed for the West Indies on their last cruise.

By direction of the Secretary of the Navy, these vessels were again thoroughly cleansed and fumigated, under the supervision of Assistant Surgeon William Martin, U. S. N.

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.	Varicoid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping- cough.
New York, N. Y.	Feb. 9.	1,553,860	818					1		2	54	47	26	10
New York, N. Y.	Feb. 16.	1,553,860	786			1				4	47	52	24	10
Philadelphia, Pa.	Feb. 16.	1,040,245	417						21	8	9			5
Chicago, Ill.	Feb. 16.	830,000	242						4	3	3	28		2
Brooklyn, N. Y.	Feb. 16.	814,505	364						1	9	36	5	4	10
Baltimore, Md.	Feb. 16.	500,343	155						1			6		
San Francisco, Cal.	Feb. 8.	330,000	127			1			3		1	1		
Cincinnati, Ohio.	Feb. 16.	255,139	114						3	1	2			
Detroit, Mich.	Feb. 16.	250,000	63							4	1	1		2
New Orleans, La.	Feb. 9.	243,000	111								2			
Pittsburgh, Pa.	Feb. 16.	230,000							3	1	3	1		1
Washington, D. C.	Feb. 16.	225,000	108						2	1	1			2
Milwaukee, Wis.	Feb. 16.	210,000	75							7	2			1
Minneapolis, Minn.	Feb. 16.	180,000	46								2			
Kansas City, Mo.	Feb. 16.	180,000	35								2			
Saint Paul, Minn.	Feb. 10.	180,000	28								1	3		
Saint Paul, Minn.	Feb. 17.	180,000	31						4	2	1			
Newark, N. J.	Feb. 12.	179,839	70						4		9			
Providence, R. I.	Feb. 16.	127,000	56						3		3			1
Rochester, N. Y.	Feb. 9.	120,000	45						1		2			2
Rochester, N. Y.	Feb. 16.	120,000	47						2					1
Denver, Colo.	Feb. 15.	100,000	33				1					2		
Richmond, Va.	Feb. 18.	100,000	45											
Toledo, Ohio.	Feb. 15.	80,000	24						1			1		
Camden, N. J.	Feb. 7.	70,000	21						2					
Camden, N. J.	Feb. 14.	70,000	16									1		
Nashville, Tenn.	Feb. 16.	65,153	17						2					
Fall River, Mass.	Feb. 16.	65,000	32								1	3		
Charleston, S. C.	Feb. 16.	60,145	31						2					
Lynn, Mass.	Feb. 16.	50,000	12											
Portland, Me.	Feb. 16.	40,000	17											
Council Bluffs, Iowa.	Feb. 15.	35,000	6											
Davenport, Iowa.	Feb. 16.	33,715	10									4		
East Saginaw, Mich.	Feb. 16.	33,000	12											
Altoona, Pa.	Feb. 9.	30,000	7									1		
Auburn, N. Y.	Feb. 16.	26,000	9											
Haverhill, Mass.	Feb. 16.	25,000	3											
Newport, R. I.	Feb. 14.	22,000	3											
Newton, Mass.	Feb. 16.	21,553	12									1		
Kingston, Canada.	Feb. 8.	17,300	3											
Keokuk, Iowa.	Feb. 16.	16,000	1											
Pensacola, Fla.	Feb. 9.	15,000	3											
Pensacola, Fla.	Feb. 16.	15,000	2											

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