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TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL,
U. S. MARINE-HOSPITAL SERVICE,
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Abstract of Sanitary Reports received through the Department of State from foreign countries during the week ended February 3, 1888, 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 January 14 corresponded to an annual rate of 23.3 a thousand of the aggregate population, which is estimated at 9,398,273. The lowest rate was recorded in Sunderland, viz., 14.2, and the highest in Manchester, viz., 34.9 a thousand. Small-pox caused 27 deaths in Sheffield, 1 in Bristol, 4 in Leeds, and 1 in London.

London.—One thousand nine hundred and forty deaths were registered during the week ended January 14, including 25 from measles; scarlet fever, 25; diphtheria, 16; whooping-cough, 152; enteric fever, 22; and diarrhœa and dysentery, 11. Diseases of the respiratory organs caused 579 deaths; different forms of violence, 69; and 11 suicides were registered. The deaths from all causes corresponded to an annual rate of 23.6 a thousand. In greater London 2,458 deaths were registered, corresponding to an annual rate of 23.2 a thousand of the population. In the "outer ring" 15 deaths from diphtheria; measles, 10; fever, 6; and whooping-cough, 37, were registered.

Ireland.—The average annual death rate represented by the deaths registered during the week ended January 14 in the 16 principal town districts of Ireland was 35.4 a thousand of the population. The lowest rate was recorded in Sligo, viz., 14.4, and the highest in Dundalk, viz., 48.0 a thousand.

Dublin.—Two hundred and forty-two deaths were registered during the week ended January 14, including 4 from measles; whooping-cough, 7; diphtheria, 2; scarlet fever, 10; typhus, 1; enteric fever, 4; diarrhœa, 3; and dysentery, 1. Diseases of the respiratory organs

caused 60 deaths. Six accidental deaths were registered, and in 43 instances the causes of death were uncertified. The deaths from all causes corresponded to an annual rate of 35.7 a thousand.

Scotland.—The deaths registered in 8 principal towns during the week ended January 14 corresponded to an annual rate of 24.0 a thousand of the population, which is estimated at 1,299,000. The lowest mortality was recorded in Greenock, viz., 10.8, and the highest in Paisley, viz., 31.2 a thousand. The aggregate number of deaths registered from all causes was 607, including 26 from measles; diphtheria, 8; whooping-cough, 26; fever, 8; and diarrhœa, 10.

Hobart Town.—Forty-six deaths were registered during the month of November, including 3 from enteric fever.

Calcutta.—One thousand and forty-one deaths were registered during the month of October, 1887, showing an annual ratio of 28.8 a thousand of the population. There were 73 deaths from cholera, against 47 in the preceding month.

Havana.—Two deaths from yellow fever and 57 from small-pox were reported for the week ended January 21, 1888.

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.
Paris	January 14	2,260,045	1,127	.....	.....	8	.....	33	4	24
Glasgow	January 14	545,678	253	.....	.....	.....	.....	3	.....	6
Amsterdam	January 7	389,916	180	.....	.....	.....	.....	.....	.....	4
Amsterdam	January 14	389,916	215	.....	.....	.....	.....	.....	.....	5
Copenhagen	January 3	290,000	158	.....	.....	.....	.....	.....	6	4
Munich	December 31	269,000	139	.....	.....	.....	.....	.....	4	7
Munich	January 7	269,000	147	.....	.....	.....	.....	1	2	6
Palermo	January 15	250,000	123	.....	.....	.....	.....	.....	1	3
Genoa	January 14	179,415	139	.....	.....	9	.....	.....	1	.....
Leipsic	January 14	170,000	44	.....	.....	.....	.....	.....	1	3
Trieste	January 7	154,500	105	.....	.....	7	.....	1	1	2
Bremen	January 7	122,000	48	.....	.....	.....	.....	.....	.....	1
Havre	January 7	112,074	64	.....	.....	1	.....	3	.....	.....
Mayence	January 7	65,701	27	.....	.....	.....	.....	.....	.....	1
Merida	January 16	48,711	16	.....	.....	.....	.....	2	.....	.....

UNITED STATES.

New York.—The following is a report of an analysis of the water of New York Bay, by Assistant Surgeon J. J. Kinyoun, Marine-Hospital Service:

The cities and towns discharging their sewage into the New York Bay have an estimated population of 3,000,000 of people. In view of

this fact, a chemical and biological examination of the bay water was undertaken, for the purpose of determining its contents, and also to find how long it would support life of the different micro-organisms, more especially that of Asiatic cholera. Accordingly, specimens were obtained at different places, being collected in sterilized flasks. The first was obtained at the Narrows; the second alongside the steamship Britannia (lying in quarantine); the third at Hoffman's Island, and the fourth at Swinburne Island. These different specimens were collected within thirty minutes, and just at incoming tide.

Chemical examination of one liter:

Narrows—	
Chloride of potash and soda	20.8 grams.
Carbonates	A trace.
Iodine	A trace.
Free ammonia	A trace.
Albuminoid ammonia	.158 gram.
Steamship Britannia—	
Chloride of potash and soda	20.82 grams.
Carbonates	A trace.
Iodine	A trace.
Free ammonia	A trace.
Albuminoid ammonia	.158 gram.
Hoffman's Island—	
Chloride of potash and soda	21.64 grams.
Carbonates	A trace.
Iodine	A trace.
Free ammonia	A trace.
Albuminoid ammonia	.158 gram.
Swinburne Island—	
Chloride of potash and soda	21.814 grams.
Carbonates	A trace.
Iodine	A trace.
Free ammonia	A trace.
Albuminoid ammonia	.158 gram.

Reaction was slightly alkaline.

Plate cultivations were made from each of the different specimens, and at the end of five days had developed colonies of bacteria. Examination showing the number of micro-organisms:

Narrows	4,500 to cubic centimeter.
Britannia anchorage	10,200 to cubic centimeter.
Hoffman Island	9,600 to cubic centimeter.
Swinburne Island	11,700 to cubic centimeter.

The micro-organisms found in each were several varieties of micrococci and one of a large bacillus. These were transferred to cultivation-tubes for further observation. On November 12, test-tubes, partly filled with sea-water, were thoroughly sterilized and inoculated in the usual manner, with pure cultivations of the spirilla of Asiatic cholera, and also of Finkler and Prior. Cultivation-tubes were inoculated from the water from day to day for the purpose of determining the longevity of the growths. During the first five days the water seemed to exert a slight inhibitory influence over their development. It was further observed that until January 20, a period of sixty-nine days, the characteristic growth of the spirillum of cholera Asiatica could be produced in peptone gelatine. That of Finkler and Prior has a yet longer lease of life.

Examinations made from time to time, both by the plate method and direct staining, show conclusively that these spirilla have not only been kept alive, but have also greatly increased in numbers.

After closely studying the currents of the upper bay, I am led to believe that if dejecta from cholera patients should be thrown into the lower bay, cholera could gain a foothold on the contiguous shores, where every condition favorable to its development and propagation sometimes exists.

JOHN B. HAMILTON,

Supervising Surgeon-General, Marine-Hospital Service.