WEEKLY ABSTRACT OF SANITARY REPORTS.

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TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL,
U. S. MARINE-HOSPITAL SERVICE,
Washington, D. C., March 16, 1888.

Abstract of Sanitary Reports received through the Department of State from foreign countries during the week ended March 16, 1888, *and information received through other channels.*

(Published in accordance with section 4, act approved April 29, 1878.)

England and Wales.—The deaths registered in 28 great towns of England and Wales during the week ended February 25 corresponded to an annual rate of 21.6 a thousand of the aggregate population, which is estimated at 9,398.273. The lowest rate was recorded in Cardiff, viz., 13.0, and the highest in Plymouth, viz., 32.2 a thousand. Small-pox caused 20 deaths in Sheffield, 1 in Leeds, 1 in greater London, 5 in Manchester, 1 in Liverpool, 1 in Oldham, and 1 in Blackburn.

London.—One thousand seven hundred and seventy-two deaths were registered during the week, including 18 from measles; scarlet fever, 32; diphtheria, 30; whooping-cough, 127; enteric fever, 16; diarrhœa and dysentery, 8; and choleraic diarrhœa, 1. Diseases of the respiratory organs caused 478 deaths; different forms of violence, 62; and 9 suicides were registered. The deaths from all causes corresponded to an annual rate of 21.6 a thousand. In greater London 2,225 deaths were registered, corresponding to an annual rate of 21.0 a thousand of the population. In the "outer ring" 9 deaths from diphtheria; whooping-cough, 34; and small-pox, 1, were registered.

Ireland.—The average annual death rate represented by the deaths registered during the week ended February 25 in the 16 principal town districts of Ireland was 31.2 a thousand of the population. The lowest rate was recorded in Armagh, viz., 10.3, and the highest in Dundalk, viz., 74.2 a thousand. In Dublin 192 deaths were registered, including 2 from measles; whooping-cough, 4; scarlet fever, 8; and enteric fever, 3.

Scotland.—The deaths registered in 8 principal towns during the week ended February 25 corresponded to an annual rate of 22.6 a thousand of the population, which is estimated at 1,299,000. The lowest mortality was recorded in Greenock, viz., 10.1, and the highest in Paisley, viz., 27.8 a thousand. The aggregate number of deaths registered from all causes was 571, including 9 from measles; diphtheria, 7; scarlet fever, 3; whooping-cough, 32; fever, 1; and diarrhœa, 9.

Havana.—Two deaths from yellow-fever and 20 from small-pox are reported for the week ended March 3, 1888.

Contagious pneumonia among French swine.—Report by Consul Mason:

MARSEILLES, *February* 4, 1888.

During the month of June last there appeared among the swine in the vicinity of Marseilles a new and mysterious disease, which has since assumed the proportions of a general and serious epidemic. Its symptoms were coughing, diarrhœa, loss of appetite and strength, and in some cases the appearance of red blotches on the skin. A large majority of the hogs attacked died within a few days, and the farmers and swine-growers of this region, unable to resist the spread of the epidemic, attempted to escape it by selling off their hogs. On the 21st of September a large fair was held in Aubagne, a small city about ten miles from Marseilles, at which several thousand infected hogs were sold, nearly all of which have since died, and spread the epidemic throughout this department and as far north and westward as Lyons and Beziers. It is estimated that more than 30,000 swine died of the malady in this department during the last four months of 1887. The entry and sale in Marseilles of freshly-killed pork from the surrounding country was prohibited in December by municipal decree, and until some effective remedy for the disease can be found, hog-raising is practically at an end in this part of France. When the epidemic became serious, two experts, MM. Conil and Chantemesse, from the Society of Biology, at Paris, were sent by the Minister of Agriculture to make a thorough study of the disease and report their conclusions to the government. Their observations are not yet concluded, but at a recent meeting of the municipal sanitary committee they presented an informal report of progress, from which, as well as from personal inquiry and observation, the following facts have been derived: They pronounce the disease "contagious pneumonia," and they believe it to be identical with the "schweine seuche," described by Loeffler and Schutz, and the "swine plague," which has been investigated by Professor Salmon in the United States. At first they were inclined to believe it to be what has been hitherto known in France as the "rouget," but certain indications disprove this theory, and the disease is now recognized as a new and highly contagious malady, the origin of which no one has satisfactorily explained. There is no importation of swine to Marseilles from any country where this disease, or anything like it, has been previously known, and certainly no pork products, except lard, are admitted to France from the United States. Like the endemic cholera of the Mediterranean ports, it seems to have been of local origin. Thus far, as already indicated, no effective remedy for swine affected by this disease has been announced. It was soon noticed, however, that such animals as had been slightly attacked and recovered

were thereby rendered impervious to further contagion. This naturally suggested the idea of vaccination with attenuated cultures of the virus as a preventive, and experiments have been made in this direction so far as to show that rabbits, pigeons, and guinea-pigs die, almost without exception, when inoculated with the original virus at its full strength, but survive in most cases when the material used is a culture attenuated by successive cultivations in gelatine or juices of meat. The malady is extremely contagious, both by inhalation and absorption. If inhaled, the ulcers are found most numerous and malignant in the lungs; if the contagion be swallowed with food or drink, they appear in the stomach and intestines. A single diseased hog, unless promptly removed when the first symptoms appear, is sufficient to quickly contaminate not only an entire herd, but the premises in which they are kept. It is abundantly demonstrated that the germ of infection is a microbe or bacillus which generates rapidly and in myriads among the saliva, the fecal matter, and other secretions of diseased animals. Experiments have shown that the microbe resists stubbornly several leading disinfectants, among which are sulphate of iron, chloride of zinc, lime-water, corrosive sublimate, and spirits of turpentine, and succumbs but slowly to sulphate of copper, oxalic acid, and pure alcohol. The only two chemicals which have been found to destroy it promptly and certainly are hydrochloric and phenic acids, and the most effective wash for contaminated sties and hog-yards is a solution of four parts phenic acid and two parts hydrochloric acid in one hundred parts of water. Desiccation seems to have but little effect upon this stubborn organism. A drop of virus from a diseased animal has been evaporated and the residuum kept absolutely dry for fifteen days, and then, upon being dissolved in meat-juice, has rapidly developed microbes of contagious pneumonia. The one other effective agency of destruction is heat. The germ is effectually destroyed by a temperature of 70° Centigrade, and it thus happens that the meat of a hog which had been affected by this disease is not necessarily deleterious, provided it has been thoroughly cooked, as all pork products should invariably be before being eaten. It is impossible to predict to what limits the present epidemic in southern France may extend before it can be checked. Thus far, the only remedy that has been even suggested is vaccination, and this has reached only the experimental stage. The vaccine has undoubtedly been found and applied successfully to several species of small animals, such as guinea-pigs and rabbits, but the conditions under which it can be safely applied to swine are yet to be demonstrated, since it appears that hogs, when even slightly contaminated by contact with the disease, may live indefinitely, but cannot be fattened. Even a small degree of infection is sufficient to destroy their appetite and the power to assimilate food beyond the barest actual requirements of existence. Hitherto the principal effort has been to restrict the spread of the epidemic. Traffic in hogs has practically ceased in this part of France, and there seems to be but one method by which the farmers and pork-raisers whose premises have been infected can re-establish their business. This will be to slaughter or banish all the swine now in their yards and pens, then cleanse, air, and disinfect the premises thoroughly, and re-establish their stock with clean, healthy hogs, imported from localities sufficiently remote to warrant their freedom from contamination.

The foregoing account shows clearly that the disease is the same as that known here as "swine plague" or "hog cholera."

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	February 25...	2,260,945	1,070	.....	.....	10	.....	17	5	46
Glasgow	February 25...	545,678	272	.....	.....	.....	.....	.....	2	3
Warsaw	February 18...	439,174	215	.....	.....	3	.....	.....	2	8
Calcutta	January 28...	433,219	227	16	.....	.....	.....	.....	.....	.....
Amsterdam	February 25...	389,916	217	.....	.....	.....	.....	1	.....	2
Rome	January 14...	382,973	225	.....	.....	.....	.....	1	1	1
Rome	January 21...	382,973	245	.....	.....	6	.....	6	1	5
Copenhagen	February 14...	300,000	171	.....	.....	.....	.....	.....	5	5
Munich	February 11...	275,000	135	.....	.....	.....	.....	.....	.....	5
Edinburgh	February 18...	262,733	106	.....	.....	.....	.....	.....	2	4
Palermo	February 26...	250,000	132	.....	.....	.....	.....	.....	4	5
Bristol	February 25...	226,510	83	.....	.....	.....	.....	1	1	.....
Genoa	February 18...	179,368	125	.....	.....	11	1	.....	.....	3
Genoa	February 25...	179,368	143	.....	.....	11	1	.....	.....	.....
Leipsic	February 25...	170,000	71	.....	.....	.....	.....	.....	.....	8
Stuttgart	February 25...	125,510	51	.....	.....	.....	.....	.....	.....	2
Gibraltar	February 19...	23,631	7	.....	.....	.....	.....	1	.....	.....

UNITED STATES.

Gulf Quarantine.—Removal of quarantine station from Ship Island.—Act approved March 5, 1888:

AN ACT to authorize the removal of the quarantine station from Ship Island, Miss.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury is hereby authorized to cause the removal of the national quarantine station, now located on Ship Island, in the Gulf of Mexico, to some other island in said Gulf, or in such pass in the Mississippi Delta as may be recommended by a board to be designated by him, and that the necessary quarantine buildings and appliances be established thereon; and that the sum of forty-five thousand dollars, or so much thereof as may be necessary, is hereby appropriated to carry out the purposes of this act.

San Francisco.—Small-pox.—One hundred and fifteen cases and 9 deaths are reported for the month of February, 1888.

JOHN B. HAMILTON,

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