

WEEKLY ABSTRACT OF SANITARY REPORTS.

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TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL,
U. S. MARINE-HOSPITAL SERVICE,
Washington, D. C., July 5, 1889.

Abstract of Sanitary Reports received through the Department of State from foreign countries during the week ended July 5, 1889, and information received through other channels.

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

GREAT BRITAIN—*England and Wales.*—The deaths registered in 28 great towns of England and Wales during the week ended June 15, corresponded to an annual rate of 16.6 a thousand of the aggregate population, which is estimated at 9,555,406. The lowest rate was recorded in Brighton, viz., 11.1, and the highest in Preston, viz., 33.0 a thousand. Diphtheria caused 3 deaths in Manchester, and 2 in Salford.

London.—One thousand two hundred and forty-seven deaths were registered during the week, including measles, 32; scarlet fever, 11; diphtheria, 26; whooping-cough, 39; enteric fever, 8; diarrhœa and dysentery, 34. The deaths from all causes corresponded to an annual rate of 15.0 a thousand. Diseases of the respiratory organs caused 169 deaths. In greater London 1,551 deaths were registered, corresponding to an annual rate of 14.3 a thousand of the population. In the "outer ring" the deaths included measles, 6; diarrhœa, 8; diphtheria, 7, and whooping-cough, 7.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended June 15, in the 16 principal town districts of Ireland, was 22.0 a thousand of the population. The lowest rate was recorded in Galway, viz., 3.4, and the highest in Waterford, viz., 32.4 a thousand. In Dublin 150 deaths were registered, including measles, 1, enteric fever, 1; whooping-cough, 3; diarrhœa, 1; dysentery, 1, and erysipelas, 1.

Scotland.—The deaths registered in 8 principal towns during the week ended June 15, corresponded to an annual rate of 20.5 a thousand of the population, which is estimated at 1,314,274. The lowest mortality was recorded in Perth, viz., 11.1, and the highest in Paisley, viz., 24.9 a thousand. The aggregate number of deaths registered from all

causes was 524, including measles, 26; scarlet fever, 3; diphtheria, 10; whooping-cough, 35; fever, 4, and diarrhœa, 17.

Malta.—The United States consul, under date of June 5, 1889, transmits the following dispatch to the Secretary of State:

In compliance with the act of April 29, 1878, I have the honor to transmit herewith a report, in duplicate, of the diseases and deaths in the Malta Islands from the 1st to the 15th of May, 1889.

I usually transmit these reports and returns under separate cover and posted as "printed matter," but the above-mentioned reports are, this time, forwarded to you under cover of a dispatch in order that I may at the same time inclose certain newspaper articles treating upon the important subject of "Malta fever."

The Duke of Edinburgh having contracted and taken away with him this "Malta fever," at the time he relinquished his Admiral's command in the Mediterranean, and having been treated for this fever after his arrival in England, has called wide attention to the origin and character of the disease—the medical journals in England and on the continent giving it much professional study and attention.

I consider it of interest and importance, therefore, that I transmit at this time several articles that were published in the local newspapers of Malta, written upon the subject of the so-called "Malta fever." These articles I have clipped from the papers, and herewith inclose for the information of the Surgeon-General of the Marine-Hospital Service in Washington. In several instances these articles were written by physicians who have had large practice with fever cases.

It is a significant fact that by far the largest number of "Malta-fever" patients are found among the naval population—contracted, it is thought, from living on or near the Grand Harbor, into which more or less drainage from the towns finds its way and becomes stagnant. The articles inclosed treat upon the subject with considerable thoroughness. The more intelligent of the Maltese people claim that this fever is not peculiar to Malta, but is of the same general character as those fevers that are met with at Rome, Naples, Leghorn, and other Mediterranean towns. They resent its being called "Malta fever," to the detriment, they say, of the reputation for healthfulness of the Maltese Islands. That the fever is of a malarial character is generally admitted.

The disease return herewith gives all the information called for in the Surgeon-General's Form No. 1974, relating to causes of death, population of the island, prevailing diseases, and other similar intelligence.

The health of the native population is at this date good.

The percentage of sick in the military hospitals is at present but a trifle over 3½ per cent., while that in the naval hospital is between 6 and 7.

Extracts from Malta newspapers upon the subject of the so-called Malta fever.

Now that the Duke of Edinburgh is reported to be convalescent and to be rapidly shaking off the last effects of the illness which prostrated him, it may not be inopportune to devote a small amount of attention to the malady from which he has been suffering. We do not propose

to consider the pathology of Maltese fever, which is simply a remittent fever of a low type, with its accompanying and consequent prostration. It strongly resembles the fever from which our troops suffered so severely during the Ashantee expedition fifteen years ago, and the worst features about it are the tenacity with which it clings to its victim and the possibility that an attack of it may not pass away without inflicting some permanent injury on the constitution. It may be fairly asked, however, why this malady should be allowed to exist at all; why it should not be stamped out by the removal of its cause. Upon this point there is no doubt whatever. The origin of Maltese fever is to be found in the pestiferous condition of the Grand Harbor at Malta. This is the receptacle of the sewage of the numerous men-of-war and merchant vessels lying at anchor, as well as of that of a great part of Valletta and of the whole of the thickly-populated district, which, on the other side of the harbor, surrounds the Dockyard Creek, itself perhaps the most foul and noisome portion of the port. In this country the discharge of a similar quantity of sewage into a large harbor, though it might not be absolutely free from objection, would at least be a matter of comparatively little import. The rush of the tide would keep it in constant motion and would sweep it away twice in each four-and-twenty hours. In Malta, however, the case is widely different. The rise and fall of the tide, if it has any existence at all, as some people contend, is thoroughly irregular and of the most trivial description. It is at any rate wholly insufficient to impart any useful motion to the mass of water, whilst the prevailing absence of wind during some six months of the year removes an important factor from the cleansing process. The result is that the harbor is nothing more nor less than a vast open cesspool with all its dangers. The process of fermentation goes on unceasingly, and is assisted and intensified by the rays of a broiling sun, whose power from about the beginning of May to the end of September is unmitigated by a single cloud. As soon as the hot weather commences the fever season sets in, and the ships in harbor begin to contribute their pitiful array of cases. It may possibly be pointed out that it was not during the summer months that the illness of the Duke of Edinburgh occurred. This is no doubt true; but fever is almost always present in a greater or less degree. Besides, His Royal Highness had, we believe, already suffered from one attack, which would leave a certain predisposition to a return of the malady, and furthermore, the poison sometimes lies dormant for such a length of time that there is absolutely no telling when the seeds were sown, which were quickened into life by exposure during the operations consequent upon the stranding of the Sultan.

It is a noticeable fact that troops stationed at Malta suffer in a very slight degree from the fever. The reason is obvious to anyone who knows that they are almost without exception quartered either in barracks erected upon high ground at some little distance from the harbor or in forts overlooking the open sea. The crews of ships in port, however, have to work by day and to sleep by night in an atmosphere laden with the noxious products of decomposing sewage, and the result is as certain as anything can be. It is found in a long and dreary list of fever cases. Apart, however, from hygienic considerations, Malta is one of the last places where the sewage ought to be disposed of by being allowed to drain into the sea. Such a method of getting rid of it means simply a mischievous and dangerous waste of material that might

readily be turned to very much more advantageous account. Why should not the sewage be applied to the land? Surely in a place like Malta, there is a very reason why the experiment should be tried. Not only would it get rid of a dangerous nuisance, but it would provide an abundant supply of a valuable fertilizer in the midst of a hard-working community trusting largely to the produce of the land for its support and its wealth. Productive and highly-cultivated, too, as much of it is, the island is, after all, only a volcanic rock, whose sole carpet is artificial soil. Nowhere does the earth lie really deeply; in innumerable cases the covering it affords is exceedingly thin; in not a few instances the original rock crops through. There was, we believe, a time when a law existed that no vessel should be allowed to enter the harbor unless she brought with her a quantity of soil in proportion to her tonnage and deposited it on the island. The necessity for such a regulation has passed away, but there is still ample room for the employment of the rich soil which is to be obtained from properly-treated sewage. If it be suggested that the experiment would be a costly one, it may be applied, in the first place, that the sludge resulting from the treated sewage would have a marketable value; and, in the second place, that it would pay the English Government to guarantee a certain subsidy, if necessary, in order to ensure the health of its ship's crews, who are now the principal sufferers.—*Post*.

The *British Medical Journal* of the 18th instant contains an exhaustive and able article entitled "Observations on Malta Fever" by Surgeon David Bruce, M. S. assistant professor of pathology, Royal Victoria Hospital. A large number of the London and provincial press have had something to say on the subject in connection with the illness of the Duke of Edinburgh, and many foolish and incorrect remarks have been printed. The idea exists that "the origin of Maltese fever is to be found in the pestiferous condition of the Grand Harbor at Malta. This is the receptacle of the sewage of the numerous men of war and merchant vessels lying at anchor, as well as of that of a great part of Valetta and of the whole of the thickly-populated district which, on the other side of the harbor, surrounds the Dockyard Creek, itself perhaps the most foul and noisome portion of the port." We have already pointed out that the sewage of Valetta and the Three Cities has had its outfall at some distance at the back of Fort Ricasoli since some years. Whether it should be allowed to drain into the sea at all is another question, and we quote the following from the *Morning Post* of the 18th instant:

* * * * *

We publish in another column a short article from the *Globe* on the so-called "Maltese Fever," about which English people, as a rule, have some very hazy notions. The writer makes some extraordinary remarks, and shows an extraordinary ignorance not only as regards the fever itself, but also as regards the sanitary reforms which have been carried out in this Island since the last ten years.

It is known that the fever in question exists throughout the Mediterranean and is in no way peculiar to Malta; it is generally brought about by a severe chill caused by exposure to the heat of the sun or to night air. Malaria has nothing to do with it.

"The drainage from the town continuously pours into the harbor and the heavier constituents settle down to the bottom, &c.," says the

Globe. Now it is a fact that since ten years the outfall of the drainage is situated two or three miles outside the harbor and no sewage falls into it. The statement of our London contemporary is therefore entirely without foundation, leaving aside the fact that the Duke of Edinburgh never resided in or near the harbor.

In conclusion we would inform the *Globe* that sanitary science has been equal to diverting the land drainage of the island to some part of the coast where its poison germs can do no injury to human life, and we would advise him to be more careful in future as to the information he may receive, so as not to slander the sanitary reputation of the island, as has been done by him in such a careless and untruthful manner.—*Standard, May 28*.

The Duke of Edinburgh is by no means the first British naval officer who knows what a pestilent malady Maltese fever is. His attack appears to be severe, but fortunately in his case it was possible to send the invalid home at once, and, that being the best if not the only remedy, we may expect his speedy convalescence. The public will, no doubt, be puzzled to account for the periodic prevalence of fever at Malta at the beginning of the hot season. It can very easily be explained; malaria is unquestionably the cause. The drainage from the town continuously pours into the harbor, and the heavier constituents settle down to the bottom. There they remain, churned up by passing steamers, until the increasing heat of the sun creates the conditions favorable to the germination of malaria. That this is the origin of the annual epidemic is demonstrated by two facts: the troops on shore do not suffer, nor do the crews of ships a little way out at sea. It is the harbor alone which forms the hot-bed of the mysterious disease called Maltese fever. We use the word "mysterious" not because there is really any mystery about the cause, but in connection with the very varied developments assumed by the fever. Sometimes it is the brain, sometimes the blood, sometimes the lungs that it settles on; be it the one or the other, the victim is quickly reduced to a most feeble condition, and not infrequently succumbs. Six years ago, when the visitation was of a specially severe type, some men-of-war in harbor had a third of their crews on the sick-list. It may well be asked whether there is any real necessity for exposing our sailors to the pestilence. If it be impossible to find any other receptacle for the sewage than the harbor, the fleet might, at all events, be kept at a little distance from Malta during the unhealthy season. If occasion arose, it could be quickly brought back to the island. But we should imagine that sanitary science ought to be equal to diverting the land drainage to some part of the coast where its poison germs would do no injury to human life.—*The Globe, April 29*.

The Maltese papers are much put out at the statement in these columns concerning the above in connection with the Duke of Edinburgh. We are assured that it is a mistake, which we willingly rectify, that the drainage of Valetta now enters the harbor, and that consequently the fever cannot be generated by the impurities deposited therein, which in conjunction with a comparatively tideless sea, would be bound to breed fever. At the same time, from the personal observation of the writer of the article complained of, at no very recent date, the harbors at Malta were certainly not above suspicion. Whether or not any drainage is allowed since to enter them there is no question

that an enormous amount of refuse is daily deposited by the men-of-war and merchantmen, the former, as we remarked before, being detained far too long in the early spring of the year in port. We may assure our contemporaries at Malta that whatever their opinions may be of the cause of the prevalence of fever at Malta it is certainly not shared in by the naval officers who are great sufferers whenever an epidemic arises, such as occurred some seven years ago. It is certainly curious if the sanitary condition of the harbors has nothing to do with the fact that in so many instances the navy only suffers, and the land forces as a rule escape scathless. Perhaps this explanation can be given by *Public Opinion* and the *Malta Standard*.—*Globe*, May 23.

Malta and Gozo.—One hundred and forty-six deaths were registered in the islands of Malta and Gozo from the 1st to the 15th of May, 1889, including measles, 4; whooping-cough, 3; dysentery, 25, and remittent fever, 2.

NETHERLANDS.—The deaths registered in the principal cities of the Netherlands, having an aggregate population of 1,129,678, during the month of April, 1889, corresponded to an annual rate of 22.3 a thousand. The lowest rate was recorded in Maastricht, viz., 13.7, and the highest in Hertogenbosch, viz., 36.4 a thousand. The deaths included typhus and enteric fevers, 8; measles, 56; croup, 20; whooping-cough, 24; diphtheria, 15, and diarrhœa and dysentery, 24.

BRAZIL—*Rio de Janeiro*.—For the week ended June 2, 1889, there were 379 deaths from all causes, in a population of 300,000, including yellow fever, 12; small-pox, 3; typhus fever, 6; enteric fever, 3, and diphtheria, 1.

Maceio.—For the month of May, 1889, there were 195 deaths registered from all causes, in a population of 17,000, including small-pox, 164. The sanitary condition of the city was reported as bad.

Pernambuco.—During the month of May, 1889, there was 1 death from yellow fever and 6 from beri-beri.

PORTO RICO—*San Juan*.—Month of April, 1889. Population, 23,000. Total deaths, 69, including small-pox, 1.

Month of May, 1889. Total deaths, 72. No deaths from contagious diseases. The United States consul says: "There being no report of diseases or deaths published, it is difficult to make a reliable report, as one would wish. I can, however, state that this island has been remarkably healthy for the past month."

CUBA—*Cardenas*.—June 21, 1889. Rainy, with much heat. Health of town and bay good.

NEW PROVIDENCE—*Nassau*.—June 22, 1889. City very healthy. Weather hot and rainy.

WEST INDIES—*Barbadoes*.—June 8, 1889. Health of island good.

PHILIPPINE ISLANDS—*Manila*.—Advices from San Francisco, with Hong Kong dates to May 23, 1889, are as follows:

The *China Mail* says: "The state of the public health at present in Manila is anything but satisfactory. Not only is cholera afflicting the people, but small-pox also carries off a goodly number of victims daily, besides other general diseases too common to be of any special mention. The following is a list of the deaths during the last few days in the different hospitals within the municipal radius of Manila, collected from our Manila files: From the 9th to the 10th of May—Cholera, 29; small-pox, 9; common diseases, 29. From the 10th to 11th of May—Cholera, 39; small-pox, 7; common diseases, 26. From 11th to 12th of May—Cholera, 39; small-pox 12; common diseases, 24. From 12th to 13th of May—Cholera, 27; small-pox, 7; common diseases, 18. From 13th to 14th of May—Cholera, 28; small-pox, 6; common diseases, 25. From 14th to 15th of May—Cholera, 28; small-pox, 7; common diseases, 18."

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.....	June 15....	545,678	236					3	2	6		27
Copenhagen.....	June 8....	307,000	150							1		
Rotterdam.....	June 8....	197,724	109							1		
Toronto.....	June 22....	175,000	32							1		
Stuttgart.....	June 15....	125,510	42							1		
Pernambuco.....	May 28....	120,000	88			1		12				
Pernambuco.....	June 4....	120,000	95	1			1	1				
Mayence.....	May 18....	65,802	47			1		1	1			
Mayence.....	May 25....	65,802	17									
Georgetown, Dem.....	May 30....	52,000										
Curaçao.....	June 15....	25,000	6									
Vera Cruz.....	June 20....	23,800	24									
Gibraltar.....	June 9....	23,631	3									
St. Thomas.....	May 24....	13,500	8									
St. Thomas.....	May 31....	13,500	12									
St. Thomas.....	June 7....	13,500	14									
St. Thomas.....	June 14....	13,500	10									
LaGuayra.....	June 15....	7,428	6									

UNITED STATES.

THE PREVENTION OF TUBERCULOSIS.—The following is the conclusion of a report forwarded to the board of health of New York City in response to the accompanying resolution of the board:

Resolved, That Drs. T. M. Prudden, H. M. Biggs, and H. P. Loomis, the pathologists of this department, be and are hereby requested to formulate a brief and comprehensive statement regarding the contagiousness of tuberculosis in man, stating therein the evidence of the same and recommending, in the briefest possible manner practicable, the simplest means of protection from its influence.

CONCLUSIONS.

1. That tuberculosis is a distinctly preventable disease :
2. That it is not directly inherited ; and
3. That it is acquired by the direct transmission of the tubercle bacillus from the sick to the healthy, usually by means of the dried and pulverized sputum floating as dust in the air.

The measures, then, which are suggested for the prevention of the spread of tuberculosis are :

1. The security of the public against tubercular meat and milk, attained by a system of rigid official inspection of cattle :
2. The dissemination among the people of the knowledge that every tubercular person may be a source of actual danger to his associates, if the discharges from the lungs are not immediately destroyed or rendered harmless ; and
3. The careful disinfection of rooms and hospital wards that are occupied or have been occupied by phthisical patients.—*Sanitary News*, June 22, 1889.

MICHIGAN.—Reports to the State board of health, Lansing, for the week ended June 22, 1889, indicate that bronchitis, remittent fever, erysipelas, and diarrhœa increased, and diphtheria, measles and influenza decreased in area of prevalence. Including reports by regular observers and others, diphtheria was reported present during the week, and since, at twelve places ; scarlet fever, at seventeen places, and enteric fever, at five places.

NEW JERSEY.—*Hudson County*.—Month of May, 1889. Population, 282,254. Total deaths, 527, including measles, 3 ; scarlet fever, 18 ; diphtheria, 32 ; whooping-cough, 47, and enteric fever, 11.

VIRGINIA.—*Petersburg*.—Month of June, 1889. Population, 25,000. Total deaths, 55, including enteric fever, 1 ; dysentery, 3, and diarrhœa, 1.

REPORTS RECEIVED.

The following board of health reports have been received :

Bulletin of the North Carolina board of health, June, 1889.

Monthly Bulletin State board of health of Rhode Island, May 1, 1889.

Tenth annual report of the board of health, Atlanta, Ga.

Bulletin of the State board of health of Tennessee, June 15, 1889.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—										
				Cholera.	Yellow fever.	Small-pox.	Variceloid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
New York, N. Y.	June 15	1,569,556	718							4	26	50	8	19
New York, N. Y.	June 29	1,571,300	864							12	7	32	6	11
Philadelphia, Pa.	June 29	1,040,245	493							5	2	5	5	3
Chicago, Ill.	June 29	830,000	224							2	4	12	1	2
Brooklyn, N. Y.	June 29	821,525	514							2	1	11	5	10
Baltimore, Md.	June 29	500,343	221							4	4			1
San Francisco, Cal.	June 21	330,000	90							1				
Cincinnati, Ohio.	June 29	325,000	136							1		8	13	
New Orleans, La.	June 22	254,000	125									10		
Cleveland, Ohio.	May 18	235,000	70							3	4	2		
Cleveland, Ohio.	May 25	235,000	82							5	1	3	1	1
Pittsburgh, Pa.	June 29	230,000	70							1	4	2	2	
Detroit, Mich.	June 22	230,000	62									3		
Detroit, Mich.	June 29	230,000	40									1		1
Louisville, Ky.	June 29	227,000	63									1	1	
Washington, D. C.	June 29	225,000	136							2	2			1
Milwaukee, Wis.	June 29	210,000	38								1	2		
Minneapolis, Minn.	June 29	200,000	42							1			1	1
Newark, N. J.	June 18	183,563	91									5	1	1
Newark, N. J.	June 25	183,563	95							1	1	4	1	3
Kansas City, Mo.	June 22	180,000	62										2	
Kansas City, Mo.	June 29	180,000	68							1		1	1	
Rochester, N. Y.	June 22	130,000	34							1		1		4
Rochester, N. Y.	June 29	130,000	36										1	1
Providence, R. I.	June 29	127,000	48							1		1		1
Richmond, Va.	June 29	100,000	52							1				
Denver, Colo.	June 28	100,000	30											
Toledo, Ohio.	June 28	83,500	17											
Nashville, Tenn.	June 29	65,153	30								1			
Fall River, Mass.	June 29	65,000	23											
Charleston, S. C.	June 29	60,145	47										1	
Lynn, Mass.	June 29	50,000	16											
Portland, Me.	June 29	42,000	8											
Manchester, N. H.	June 22	42,000	21											
Galveston, Tex.	June 14	40,000	15											
Galveston, Tex.	June 21	40,000	12										1	
Council Bluffs, Iowa.	June 24	35,000	5											
San Diego, Cal.	June 22	32,000	3							1				
Binghamton, N. Y.	June 30	30,000	9											
Auburn, N. Y.	June 29	26,000	6										1	
Haverhill, Mass.	July 1	25,000	13											
Newport, R. I.	June 27	22,000	6											
Newton, Mass.	June 29	21,553	5							1				
Keokuk, Iowa.	June 29	16,000	6											
Pensacola, Fla.	June 29	15,000	5											

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