# ABSTRACT OF SANITARY REPORTS.

Vol. VI. Washington, D. C., February 27, 1891.

No. 9.

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#### UNITED STATES.

Report of official experiments with the Koch lymph in progress.

Washington, D. C., February 25, 1891.

SIR: I have the honor to submit the following report upon the progress of the experiments with tuberculosis. The case of lupus, mention of which was made in the last ABSTRACT, has been subjected to four injections, the maximum dose attained being .003 gram. It can now be said that the disease is apparently yielding to the remedy. Probably one-fifth of the ulcerated surface has cicatrized, and the remainder presents a healthy granulating appearance.

As to the cases of pulmonary and laryngeal tuberculosis under treatment, it can only be said that as yet there is no definite change in their condition for better or worse. Under doses of .006 gram of the lymph, repeated on three occasions, two patients showed no febrile reaction and complained of no discomfort. An increase to .007 gram produced in both of them a "reaction," reaching 38.5° C., and accompanied by more pain and general malaise than has ever before been produced.

A microscopical examination of the sputum, on February 23 and 24, showed an absence of tubercle bacilli in cases Nos. 1, 3, and 4. In cases

Nos. 7, 9, and 11 they were diminished somewhat in number.

In none of the cases is there any important change in the physical signs. In case No. 11 (tubercle of larynx) the huskiness of voice has markedly disappeared, the patient has gained slightly in weight, and cough has somewhat diminished.

I append further tabulated statement as to weight of patients and other

matters of detail:

Patient.	Weight at last state-	Present	Differe wei		f injecons.	imum ose.	Remarks.	
	ment, Feb. 11.	weight.	Gain.	Loss.	No. of in tions.	Maximu dose.		
	Kilos.	Kilos.	Kilos.		8	Grams.		
	72.45 60.075	71.55		.9		. 007	Died.	
	67.95	67, 95			8	.007	Dicu.	
	52.2	52.65	. 45		9	.006		
	51, 975	51,525	• • • • • • • • • • • • • • • • • • • •	. 45	9	.006		
	55, 575	54		1.575	9	. 007		
	69.75 42.3	69.75 39.60		2.7	9	.006	·	
••••••	45	45		2.1	9	.005		
••••••••	54	51.75		2. 25	. 9	.006		
	54.9	55, 35	.45	<b>2</b> . <b>2</b> 0	. 5	. 005		
		55, 775			í	.001	First treatment.	

Very respectfully, your obedient servant,

H. D. GEDDINGS.

Assistant Surgeon, M.-H. S.

To the Supervising Surgeon-General.

13

Smallpox in Texas—Inquiry concerning Government aid.

The following letter has been received, by reference, from Hon. W. H. Crain, M. C., with request for opinion in relation to the remedy suggested:

House of Representatives, Austin, Tex., February 17, 1891.

DEAR SIR: \* \* \* I am constrained to write for various reasons. First, and to the point, our State, or the western part of it, is suffering greatly from the ravages of that direful scourge of the human family, the smallpox, and you will see by a casual glance at the papers of the State, as well as all those of the western portion of all the Southwestern States, that this infliction has been introduced into our country from the sister republic of Mexico. Every case, even to one developed in northwest Illinois, comes by our Mexican citizens or Now we want protection by our national authorthose from Mexico. ities, and I would most respectfully suggest that a system of quarantine be concocted, in connection with a system of hospitals established along our southwest border, that shall effectually protect us from this curse. I have not digested the matter sufficiently to formulate a plan, yet I believe the wisdom of our nation should be brought to bear upon this matter until we receive all the protection necessary to insure us perfect immunity to our people of all the States. The present prevalence of this disease threatens to become epidemic. If it should, the horrors of the situation can better be imagined than described. Now there are many ways of preventing; one of the most effective would be a national law making vaccination compulsory in connection with the quarantine laws. It is asserted that the presentation of a certificate of vaccination is indispensable in the empire of Prussia to consummate matrimony, and it is a well-established fact that all subjects of the German and Prussian Empires give three or more years of their early lives to compulsory military service of their respective Governments, and the first thing, after passing the medical examination requisite, is the immediate vaccination of the party. Now this is the reason of the entire exemption of those nations from this pest of the human family, and within my recollection no severe visitation of this plague has ever occurred in those countries, and it is derogatory to our standing as a nation that we are behind the world in any or all sanitary measures conducive to the welfare of our entire nation.

Give this matter your earnest thought, and let me hear from you on this subject at as early a date as possible. Now one of my thoughts as to the management of this matter is the establishment of hospitals at the five principal points of entry to our domain along the Rio Grande, or our border on the Mexican Republic from whence comes our misery. A hospital at El Paso, at Eagle Pass, at Laredo, at Rio Grande City, at Brownsville, with a patrol or police system between these points, would almost insure immunity with forceful vaccination from this scourge. If the General Government will not take this matter in hand and provide the remedy our State will be obliged to attend to this matter and shoulder a burden that should be carried by the mother Government. I can assure you that the legislature has been well stirred up on this matter, and our whole State well exercised, as you have doubtless seen.

\* \* \* \* \* \* \* Yours truly, JOHN J. DIX.

The following reply was sent:

FEBRUARY 25, 1891.

SIR: I have the honor to acknowledge the receipt yesterday by reference from yourself of the letter of Hon. John J. Dix, dated Austin, Tex., February 17, 1891, concerning the prevalence of smallpox in Texas, and suggesting the establishment by the General Government of temporary smallpox hospitals at several points on the Rio Grande opposite the Mexican border with a patrol system and compulsory vaccination.

In reply, your attention is invited to the *Congressional Record* of this date, and to the debate in the Senate touching upon this same matter.

The epidemic fund from which all the expenses of like measures have previously been paid is not available under the appropriation act now

in force, for use against smallpox.

For the ensuing fiscal year, as will be seen by the *Record*, smallpox has again been included by Senate amendment in the appropriation bill, but, even if it become a law, no expenses under its provision could be incurred until July 1.

I have the honor to remain, very respectfully yours,

JOHN B. HAMILTON,

Supervising Surgeon General, M.-H. S.

Hon. WM. H. CRAIN, M. C.

### Cerebro-spinal meningitis.

Under date of February 17, 1891, Assistant Surgeon Woodward of the Marine-Hospital Service, at Cairo, Ill., reports the outbreak of epidemic cerebro-spinal meningitis at the village of Wyckliffe, Ky., two miles below Cairo, on the Mississippi River. The disease appeared last Thursday, February 12, and so far 7 cases have been reported with 3 deaths, the fatal result occurring within twenty-four hours from the onset. It was not learned what precautions are being taken.

The epidemic of scarlet fever at Cairo, reported by the same officer January 18, 1891, is now declared over, no new cases having been reported for several weeks. No deaths occurred.

Reports of States, and yearly and monthly reports of cities.

ALABAMA—Mobile.—Month of January, 1891. Population, 40,000. Total deaths, 126, including phthisis pulmonalis 14 and croup 3.

CALIFORNIA—Sacramento.—Month of January, 1891. Population, 30,000. Total deaths, 36, including phthisis pulmonalis 7 and diphtheria 3.

San Francisco.—Month of December, 1890. Population, 300,000. Total deaths, 580, including phthisis pulmonalis, 79; enteric fever, 10; smallpox, 3; diphtheria, 33; croup, 20; and whooping cough, 1.

Month of January, 1891. Total deaths, 612, including phthisis pulmonalis, 87; enteric fever, 13; scarlet fever, 2; diphtheria, 38; croup, 16; and whooping cough, 1.

Iowa—Davenport.—Month of January, 1891. Population, 28,500. Total deaths, 35, including phthisis pulmonalis, 5; scarlet fever, 1; and diphtheria, 1.

Dubuque.—Month of January, 1891. Population, 35,000. Total deaths, 42, including enteric fever, 1; scarlet fever, 3; diphtheria, 3; and membranous croup, 2.

MASSACHUSETTS—Boston—Measles in fishing fleet.—Under date of February 16, 1891, Surgeon Fairfax Irwin reports the existence of quite a number of cases of measles in the fishing fleet trading from Boston and Gloucester, three cases having been treated in the marine hospital during the last ten days.

MICHIGAN.—Week ended February 14, 1891. Reports to the State board of health, Lansing, from 50 observers, indicate that measles increased, and that cerebro-spinal meningitis, inflammation of brain, cholera morbus, membranous croup, typhoid fever, diarrhea, and dysentery decreased in area of prevalence.

Diphtheria was reported present during the week at 32 places, scarlet fever at 38 places, enteric fever at 14 places, and measles at 29 places.

MINNESOTA—Minneapolis.—Month of January, 1891. Population, 164,738. Total deaths, 105, including phthisis pulmonalis, 24; enteric fever, 12; scarlet fever, 1; diphtheria, 15; and measles, 1.

Montana—Butte City.—Month of January, 1891. Population, 30,000. Total deaths, 55, including phthisis pulmonalis, 4; enteric fever, 1; diphtheria, 3; and membranous croup, 4.

NEW HAMPSHIRE—Manchester.—Month of January, 1891. Population, 44,700. Total deaths, 56, including phthisis pulmonalis 8 and enteric fever 2.

NEW YORK—Buffalo.—Month of January, 1891. Population, 255,000. Total deaths, 413, including phthisis pulmonalis, 42; enteric fever, 10; scarlet fever, 2; diphtheria, 19; measles, 7; and croup, 23.

RHODE ISLAND.—Month of January, 1891. Reports to the State board of health from the principal cities and towns representing a population of 293,452, show a total of 438 deaths, including phthisis pulmonalis, 43; enteric fever, 8; scarlet fever, 2; diphtheria, 8; croup, 3; and whooping cough, 4.

TENNESSEE—Nashville.—Month of January, 1891. Population, 76,-309. Total deaths, 92, including phthisis pulmonalis, 19; enteric fever, 1; diphtheria, 1; croup, 2; and measles, 2.

Washington—Seattle.—Month of January, 1891. Population, 48,000. Total deaths, 45, including 4 from enteric fever.

## MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	1	ula-	fron.				I	eatl	ns fr	om-	-			
	Week ended.	Estimated popula-	Total deaths f	Phthisis pul- monalis.	Yellow fever.	Smallpox.	Varioloid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
New York, N. Y		1,663,198	751							3	30	30	18	9
Philadelphia, Pa	Feb. 14	1,069,264	409	44						14	5	13		. 2
Brooklyn, N. Y	Feb. 14	853, 945	342			·				1	10	. 16	8	€
Boston, Mass		448, 477	184							1	2	2		l
Cincinnati, Ohio	Feb. 20	325,000	108	20						4		3		
San Francisco, Cal		300,000	135	18						1		13		
Detroit, Mich	Feb. 14	250,000	42									6		
Washington, D. C	Feb. 14	250,000	111		·					3		3	3	1
Milwaukee, Wis		220,000	98							2		7	1	
Newark, N. J	Feb. 21	194,574	64	4						2		1		ļ
Minneapolis, Minn	Feb. 14	164,738	38							1		4		
Minneapolis, Minn	Feb. 21	164, 738	53									3		
Rochester, N. Y	Feb. 21	138,000	50							1				1
Providence, R. I	Feb. 21	135,000	45							1		2		
Kansas City, Mo	Feb. 14	132, 416	28								' <b>.</b>			
Kansas City, Mo	Feb. 21	132, 416	31											
Richmond, Va	Feb. 14	100,000	34	3										1
Richmond, Va	Feb. 21	100,000	37	3						1	1			
Toledo, Ohio	Feb. 20	82,652	25	••••					•••••		1	2		
Nashville, Tenn	Feb. 21	76, 309	23										2	
Fall River, Mass	Feb. 21	75,000	23										1	
Charleston, S. C	Feb. 14	65, 165	35	1										
St. Louis, Mo		46,000		•						2	1	9	1	3
Galveston, Tex		40,000	12	1						ι				
Portland, Me	Feb. 21	40,000	12							<i>.</i>				
Binghamton, N. Y		35,000	20	. 1									•••••	
Auburn, N. Y		25, 887	11											
Auburn, N. Y	Feb. 21	25, 887	15						•••••			1		
San Diego, Cal		16,000	3	i							·			
Pensacola, Fla	Feb. 14	15,000	7	2										·

## Table of temperature and rainfall, week ended February 20, 1891.

## [Received from War Department, Signal Office.]

Locality.	Mean ter	nperature Fahrenhe	in degrees eit.	Rainfall in inches and he dredths.				
Locality.	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency		
New England States:								
Eastport, Me	23		24	1.05		.78		
Portland, Me	24		3	. 91		.10		
New England States: Eastport, Me	29	11		. 87		.18		
Block Island, R. I	31	20	,	1.26		20		
Middle Atlantic States:	26		0	co	00			
Now York N V	26 32	45		. 63 . 95	.90	••••••		
Philadelphia Pa	35	52		.84	.52	***************************************		
Atlantic City N. J.	34	50		.81	. 44			
Baltimore. Md	37	65				.0		
Washington, D. C	36	74		. 84		. 25		
Lynchburg, Va	41	53		. 84		. 5		
Norfolk, Va	44	51		. 91		. 6		
South Atlantic States:		1						
Charlotte, N. C Wilmington, N. C	46	48		1.10	. 21			
Wilmington, N. C	51	49		. 83		.2		
Charleston, S. C Augusta, Ga	53	68		. 84		.8		
Augusta, Ga	52 56	71 66				.3		
Savannah, Ga	60	74		. 77 . 77		.6		
Jacksonville, Fla Key West, Fla	72	25		. 42		.2		
Gulf States:	12	20		. 42				
Atlanta, Ga	. 48	62		1.21	İ	.7		
Pensacola, Fla	58	59		. 96	. 59			
Mobile, Ala	56	63		1.19		1.10		
Montgomery, Ala	54	86		1, 33		.9		
Montgomery, Ala Vicksburg, Miss	54	72		1, 19	. 20			
New Orleans, La	59	70		1.05	1.83			
Shreveport, La	53	59		1.19	. 83			
Fort Smith, ArkLittle Rock, ArkPalestine, Tex	44	26		. 91		.2		
Little Rock, Ark	47	38		1.60	. 65			
Palestine, Tex	53	57		.78	. 96			
Galveston, Tex	58	27 42		. 75	2.38			
San Antonio, Tex	57 59	42		. 56	.70	. 4		
Corpus Christi, Tex	64	42		. 59 . 48	. 50			
Rio Grande City Tex	64	42		.28		.2		
Ohio Valley and Tennessee:	0.		••••••	.20				
	46	62		1.38	. 34	l		
Memphis, Tenn Nashville, Tenn	43	70				. 1		
Chattanooga, Tenn	47	59		1.33		. 6		
Knowville Tenn	44	78				. 7		
Louisville, Ky	40	59		1.19	. 28			
Louisville, Ky Indianapolis, Ind Cincinnati, Ohio	33	51		. 84	3.31			
Cincinnati, Ohio	37	56		.98	. 89			
Columbus, Ohio	32	72		. 91	2.28			
Pittsburgh, Pa	34	70		. 69	2.57	<b> </b>		
Lake Region:	24	20		. 63	. 21	ļ 		
Oswego, N. Y	24	41		.63	1.34			
Ruffelo N V	24	52		.67	1.36			
	28	55		.88	1.72			
Cleveland, Ohio	28	69		. 76	1.68			
Sandusky, Ohio	28	51		.84	1.62			
Toleuo, Onio	28	50		. 49	1.86			
Detroit, Mich	38	35			1.80			
Port Huron, Mich	23	57		. 63	. 80			
Alpena, Mich	18	52			. 36			
Marquette, Mich	16	48		. 42	. 69			
Grand Haven, Mich Milwaukee, Wis	25	46		. 56	. 31			
Milwaukee, Wis	23	51		. 46	.37	······		
Duluth Minn	$\frac{27}{13}$	51 34		$.62 \\ .28$	.79			
Chicago, Ill	13	34	••••••	. 28	. 79			
	16	16		. 21	. 32			
La Crosse. Wis	19	29		.24	.16			
La Crosse, Wis	25	45		. 39	.08			
T 1 7 " W	23	40		. 42		.0		
Dubuque, Iowa				. 35	. 21			
Des Moines, Iowa	23	40			. 41	• • • • • • • • • • • • • • • • • • •		
Keokuk, Iowa	29	29		. 49	. 69			
Dubuque, Iowa Des Moines, Iowa Keokuk, Iowa Springfield, Ill Cairo, Ill	29 32			. 49 1. 03 1. 05	. 69 1. 27 . 45			

Table of temperature and rainfall, week ended February 20, 1891—Continued.

Locality.	Mean ter	nperature Fahrenhe	in degrees it.	Rainfall in inches and hun- dredths.					
man,	Normal.	Excess.	Deficiency.			Deficiency			
Missouri Vallev:									
Kansas City, Mo	33	1	! ************************************	. 42	1.24				
Leavenworth, Kans	31			.36	. 59				
Concordia, Kans	30			. 14	.09				
		7				• • • • • • • • • • • • • • • • • • • •			
Omaha, Nebr	20			. 21	. 07				
Valentine, Nebr	24		37	. 14	.11	· · · · · · · · · · · · · · · · · · ·			
Huron, Dak	13		7	. 14	. 24				
Extreme Northwest:									
Moorhead, Minn	5	26		, 21	. 81	l. <b></b>			
Bismarck, Dak	9	10	;	. 15	. 30				
Buford, Fort, Dak	9	1	38	.14		.0			
Rocky Mountain Slope:	-					!			
Assinniboine, Fort, Mont	15		140	.14		.1			
Helena. Mont	23			.14		• •			
Custer, Fort, Mont			98	.12	.00				
Salt Lake City, Utah,	34	10	, , , , , , , , , , , , , , , , , , , ,	.35	U				
Cheyenne, Wyo				. 07					
North Platte, Nebr				. 07	. 02				
Denver, Colo	34			. 14	. 05				
Pueblo, Colo	35			. 19		.1			
Montrose, Colo	32			. 07	. 52				
Dodge City, Kans	33	10		. 14	.01				
Abilene, Tex	49	17		. 28	. 48				
El Paso, Tex	50	42		. 14		. 1			
Sill, Fort, Ind. T	43	14		. 39					
Fort Grant, Ariz	47	1 77		. 35					
Santa Fé, N. Mex	33			.14	. 79				
Pacific Coast:	- 55	10			.15				
Olympia, Wash	39	1	00	1.88	0				
Portland, Oreg	42				U				
				1.68		.3			
Roseburg, Oreg	43			1.18	. 50				
Red Bluff, Cal	50			. 84	6.46				
Sacramento, Cal				. 75	1.80				
San Francisco, Cal	52	1	14	. 92	. 40				
Los Angeles, Cal			14	. 89	2.40				
San Diego, Cal	55		14	. 63	1.40				
Yuma, Ariz			28	. 11	1.00				

#### FOREIGN.

(Reports received through the Department of State and other channels.)

#### SPECIAL REPORTS.

Sanitary Commission at Constantinople—Report of U. S. commissioner— Cholera in Asiatic Turkey.

CONSTANTINOPLE, January 26, 1891.

SIR: I beg to inclose report No. 16 of Dr. Zavitziano, representative of this legation upon the sanitary commission of Pera.

I have the honor to be, sir, etc.,

SOLOMON HIRSH.

Hon. James G. Blaine, Secretary of State, Washington, D. C.

#### Sanitary Report No. 16.

My last report, dated January 10, stated that cholera had nearly disappeared. In fact, since 3 deaths from cholera, which occured up to the 10th of this month at Marash, only 4 deaths have been registered at Tripoli in Syria on the 19th instant; two of them in the inland town, and the two others at the seashore. (It is known that the town of Tripoli is divided into two quarters, one of them being inland and the other on the sea.) In the other vilayets—that is, Diarbekir, Maennrietel-Aziz, Adana, and Aleppo—we can not know precisely what happens, for after the official declaration which has been issued, stating the disappearance of the epidemic, we receive strange news about a sickness from which a few deaths occurred whose symptoms resemble the symptoms of cholera.

At the same time it is noticed that by way of precaution new sanitary cordons have been established at Erigh in the vilayet of Maennrietel-Aziz. This cordon has been established for the travelers coming from Aleppo. We can not be sure of the total disappearance of the epidemic, but still if this one has disappeared a new one may break out very easily. Turkish authorities put under quarantine the pilgrims who go to Slejaz, and we must avow that is a very good measure, but at the same time they ought to take care on the southeast of Arabia, in the Persian Gulf, where there is an uninterrupted communication

between Bombay and the Turkish ports.

In India cholera is always and continually raging, though the British representative in the sanitary commission ascertains that the deaths from cholera are, at the most, 10 per week. Having from one side these official British statements, we read on the other, in the official reports sent by the sanitary inspector at Bagdad, that more than 600 men died from cholera on board the steamships between Bombay and Bassora within five months. Besides this, we know that the epidemic which is ending now in Syria had broken out two years ago at Shug-el-Shug on the Euphrates, and the report of Dr. Gazola, sanitary physician at Bagdad, states that the first cases of cholera appeared in Nejid, a Turkish province which is in continual communication with India. I wish to call your attention to the fact that there is no lazaretto in the

Persian Gulf. Speaking of lazarettos, I wish to mention the following fact: Two weeks ago the German consul at Beirut having shaken hands with his wife, who was under quarantine, was likewise compelled to undergo quarantine and enter the lazaretto of Beirut, from which place he sent a dispatch to the German embassy in Constantinople, in which he stated that he will fall surely ill, the lazaretto being in quite a filthy condition. The sanitary administration, in consequence of strong remonstrances on the part of the German representatative in the sanitary commission, inquired, on the statement of the latter. The answer of the physician appointed to the lazaretto was that this one is perfectly clean.

Little by little the number of all the deaths registered in the various localities where cholera has raged is communicated to the central sanitary administration. This number, from the beginning of the epidemic up to the present date, is as follows: In the vilayet of Mannriet-el-Aziz 71 deaths occurred; Aleppo, 2,361; Adana, 97; Damascus, 1,189; Mutessariflic of Tripoli, 416; making a total of 4,134 deaths.

SPIRIDION C. ZAVITZIANO.

. Constantinople, January 23, 1891.

AZORES—Fayal—Smallpox.—The United States consul, under date of January 26, 1891, writes as follows:

SIR: On January 30, 1890, I had the honor to inform you that small-pox had appeared in epidemic form at the island of San Miguel (St. Michaels); on March 29 that it continued; and on July 1 that it had decreased very much in the city, but among the villages, or some of them, it prevailed.

On July 9 I was informed that the civil governor of that island had ordered clean bills of health to be given to all vessels clearing for

Portuguese ports.

Latterly it has been reported as dying out in the villages, but now I learn from an English resident in the "Furnas," a village distant 28 miles from the city, that he left because it was full of smallpox, and this account has been corroborated.

I therefore at once report this fact, which you may wish to communicate to the sanitary officers of Boston, New Bedford, and New York, the ports to which numerous emigrants proceed from these islands, and at the same time to request them to call for the bills of health issued at the consulate at Fayal, on which particulars will be found when any of the contagious diseases in epidemic form exist in any of these islands.

CEYLON—Galle—Cholera.—Under dates of January 19 and 26, 1891, the United States consul at Colombo reports an epidemic of cholera at Galle. During the week ended January 17, 1891, there were 26 cases and 14 deaths therefrom.

Week ended January 24, 26 cases and 9 deaths.

CUBA—Havana.—Under date of February 7, 1891, the United States sanitary inspector sends the following mortality report:

There were 137 deaths in this city during the week ending the 5th instant. One of those deaths was caused by yellow fever with 4 new cases, 6 by so-called pernicious fever, 2 by enteric fever, 1 by remittent fever, 1 by diphtheria, and one by hydrophobia.

EGYPT.—Week ended January 15, 1891. The towns in upper and lower Egypt, including Gizeh and the Suez Canal, show a total of 726 deaths, including phthisis pulmonalis, 48; enteric fever, 4; diphtheria and croup, 2; and smallpox, 1.

GREAT BRITAIN—England and Wales.—The deaths registered in 28 great towns of England and Wales during the week ended February 7 corresponded to an annual rate of 19.8 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Derby, viz, 12.6, and the highest in Preston, viz, 37.8 a thousand. Diphtheria caused 3 deaths in Manchester.

London.—One thousand six hundred and thirty-nine deaths were registered during the week, including measles, 15; scarlet fever, 22; diphtheria, 34; whooping cough, 37; enteric fever, 6; and diarrhœa and dysentery, 11. The deaths from all causes corresponded to an annual rate of 19.0 a thousand. Diseases of the respiratory organs caused 428 deaths. In greater London 2,072 deaths were registered, corresponding to an annual rate of 18.4 a thousand of the population. In the "outer ring" the deaths included measles, 6; whooping cough, 8; and diphtheria, 4.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended February 7, in the 16 principal town districts of Ireland, was 26.6 a thousand of the population. The lowest rate was recorded in Wexford, viz, 8.6, and the highest in Lisburn, viz, 38.7 a thousand. In Dublin and suburbs 180 deaths were registered, including scarlet fever, 1; enteric fever, 3; diphtheria, 1; and whooping cough, 2.

Scotland.—The deaths registered in eight principal towns during the week ended February 7 corresponded to an annual rate of 21.9 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Greenock, viz, 9.7, and the highest in Paisley, viz, 25.8 a thousand. The aggregate number of deaths registered from all causes was 594, including measles, 24; scarlet fever, 13; diphtheria, 7; whooping cough, 29; fever, 8; and diarrhea, 4.

TURKEY IN ASIA—Cholera.—The United States consul at Beirut, Syria, reports as follows:

Week ended January 20, 1891, three new cases of cholera and thirteen deaths in the city of Tripoli and three new cases and twenty-one deaths in the dependencies of Tripoli, Syria.

Week ended January 27, one death in the city of Tripoli.

# MORTALITY TABLE, FOREIGN CITIES.

1			Rina	from	Deaths from—								
Cities.	Week ended.		Estimated popula- tion.	Total deaths f all causes.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping
aris	Jan.	31	2, 260, 945	1,103			2		16	5	37	15	-
ienna		17	840,000	424			3		1	8	37 15	14	
iverpool	Jan.	31	620, 443	247					1	1	1		
	Jan.		545, 678	361					2	6	1		
da Pesth	Feb.	5	507, 000 469, 459 455, 852	28		•••••		5		6	9		• ; • • •
russels	Jan.	24	469, 459	227 250		•••••	10	•••••		2	1		• • • • • •
Varsaw Rio de Janeiro	Jan.	24	450, 852 450, 000	250 251	•	8	10 7	2	4 2	1	14		•
tio de Janeiro	Jan.	17	450,000	$\frac{251}{275}$		10	ıí	4			1	·	
tio de Janeiro	Jan.	24	450,000	311		13	13		4		î		
msterdam	Jan.	31	417, 484	206									
msterdam	Feb.	4	417, 484 417, 392	184							6	1	
vons	Jan.	24	401, 930		·						6		٠
eipzig	Jan.	24	360, 671	131				1	2	2	8		٠,
eipzig	Jan.	31	360, 671	121			•		2	3	2	·····	• ••
Iunich ologne arcelona	Jan.	24	345, 000 280, 206	153						1 2	4	2	• • • •
largelone	Jan.	24 30	272,000	141 308				******		<u>.</u>			
Palermo	Jan.	24	250,000	156					1		11		
Bristol	Jan.	31	235, 171	114					. 2	4	1		• • • •
Belfast	Jan.	31	234, 822	143					3	ļ	2		
ntwerp	Jan.	31	232, 418	94					1	1			
totterdam	Jan.	31	209, 137	110									
rague	Jan.	24	188,992	127			1	1	1	3	1		• • • • •
lorence	Jan.	31	182,534 180,598	176			1		20				٠٠
enoa	Jan.	31	180/598	103	•••••		•••••	2	····				
rankfort-on-the-Main rankfort-on-the-Main	Jan.	17	179, 850	71 86			:•••••	, •••••	2	1	10		٠.
rankiort-on-the-main	Jan.	24	179,850	64		•••••			1	1	6		
Ianover Konigsberg	Jan.	25	$165,800 \\ 161,200$	04		•••••	,		1	1			· · · ·
rieste	Jan.	24	158, 054	122					-	ļ <b>.</b>			
rieste	Jan.	17	158,019	115			1		1	2			
enice	Jan.	24	158, 019	130			. 3						٠
enice	Jan.	31	158,019	I14			1			. 4		•   • • • • •	
uremberg	Jan.	10	142, 403 142, 403	77 76					1	1	5		
Turembergtuttgart	Jan.	17	142, 403 139, 659	46									
unchal	Jan.	31	133, 250	• 23								· · · · · · · · · · · · · · · · · · ·	
Bremen	Jan.	24	124, 940	44	•••••	•••••			*****		1		• • •
ardiff	Jan.	17	121, 477	63									
ardiff	Jan.	24	121, 477	50									٠
Cardiff	Jan.	31	121, 477	53									٠
Danzig			119,000	76									
tettin	Jan.	24	116,000	62	•••••						5		
lavreix-la-Chapelle	Jan. Jan.	31	112,074 $111,604$	68 42		• • • • • • • • • • • • • • • • • • • •			1		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• [
refeld	Jan.		108,000	75									
othenburg	Jan.	24	106, 246	38		•••••		1			2		• • •
eghorn	Feb.	1	104,021	78							. ī		
urioh	Ton	24	91,323	20						. 2	8	2	
Iessina Iayence	Jan.		79,971	52			1				. 6		
layence	Jan.	24	73, 271	31							. 5		٠.
ferida Yapani	Jan.	31	46,566	32 10						.			
Jaraala	Jaii. Jan	24	43, 095 40, 131	21	••••	•••••	• • • • • • • • • • • • • • • • • • • •				• • • • • • • • • • • • • • • • • • • •	•	• . •
Iarsala Sape Town	Jan	13	36,000	24					9		• • • • • • •		
chiedam	Jan.	31	25, 300	18									
libraltar	Jan.	25	23, 981	8						 . i			
Hibraltar	Feb.	1	23, 981	11			. 1		. 2				٠.
irgenti	Jan.	24		14	,			. 1					
icata	Jan.	24		17		• • • • • • • • • • • • • • • • • • • •		• • • • • •		. 1	1		• • • • •
Kingston, Canada	reb.	13	18, 264	11 20									
Rio Grande do Sul Hamilton, Bermuda	Feb.	12	16,000 15,700	20			. 1		• • • • • •	•	•		••,•
Flushing	Jan.	31	13, 200	6		• •;•••	• ; • • • • •	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • •
Plushing	Jan.		13, 200 10, 340	10					• • • • • • • • • • • • • • • • • • • •				•
Queenstown	Feb.	7	10, 340	2		· ····							
hatham				3									• • • • •

OFFICIAL:

JOHN B. HAMILTON,

|Supervising Surgeon-General, Marine-Hospital Service.