# ABSTRACT OF SANITARY REPORTS.

Vol. VI. Washington, D. C., April 10, 1891.

No. 15.

[Published at the Marine-Hospital Bureau in accordance with act of Congress of April 29, 1878.]

#### UNITED STATES.

Report of official experiments with the Koch "lymph" in progress.

WASHINGTON, D. C., April 7, 1891.

SIR: I have the honor to transmit the following report upon the

progress of the experiments with tuberculin at this hospital:

The case of lupus shows steady but slow progress toward cure. The left side of the nose has healed considerably since the last report, and new skin is forming around the margins of the ulcer. In the past two weeks the tendency to the destruction of tissue seems to have been completely arrested. The dose in this case has now reached .030 gram, and with this amount there is absolutely no general "reaction."

It has been deemed inexpedient during the past week to resume the treatment upon cases Nos. 7 and 8, their condition not being materially changed since my last report. Case No. 6 continues to show slight improvement, there being now but little cough, diminished expectoration, and a diminution of hectic symptoms. The same remarks apply to case No. 12. The improvement in case No. 1 promises at this time to be permanent. His general condition improves from week to week.

Very respectfully, your obedient servant,

H. D. GEDDINGS,
Assistant Surgeon, M.-H. S.

To the Supervising Surgeon-General.

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

FLORIDA—Pensacola.—Month of March, 1891. Population, 11,751. Total deaths, 16, including phthisis pulmonalis 2 and enteric fever 2. IOWA—Keokuk.—Month of March, 1891. Population, 18,589. Total

Iowa—Keokuk.—Month of March, 1891. Population, 18,589. Total deaths, 23, including phthisis pulmonalis 2 and diphtheria 2.

MASSACHUSETTS—Newton.—Month of January, 1891. Population, 24,375. Total deaths, 28, including phthisis pulmonalis 5 and scarlet fever 1.

Month of February, 1891. Total deaths, 19, including enteric fever 1 and croup 1.

 $22 \tag{165}$ 

MICHIGAN.—Month of March, 1891. The secretary of the State board of health says that the month of February was the first entire month in which influenza was the most prevalent disease reported. "Influenza continued in March to be the most prevalent disease. This is regarded with alarm, because the statistics for a series of years prove that nearly every one of the most dangerous diseases in Michigan increases after influenza has increased. Under the circumstances every one should exercise extraordinary care to avoid exposures to cold," etc.

Reports to the State board of health, Lansing, from 214 observers indicate that measles, whooping cough, inflammation of brain, and cerebro-spinal meningitis increased, and that cholera infantum, dysentery, inflammation of bowels, diphtheria, puerperal fever, typhoid fever, erysipelas, and remittent fever decreased in prevalence.

Diphtheria was reported present during the month at 52 places, scarlet fever at 78 places, enteric fever at 17 places, and measles at 28 places.

Week ended March 28, 1891. Reports to the State board of health, Lansing, from 46 observers indicate that puerperal fever, diphtheria, erysipelas, and inflammation of kidney increased, and that cholera morbus, whooping cough, membranous croup, cerebro-spinal meningitis, typhoid fever, and typho-malarial fever decreased in area of prevalence.

Diphtheria was reported present during the week at 14 places, scarlet fever at 36 places, enteric fever at 7 places, and measles at 52 places.

MISSOURI—Kansas City.—Month of February, 1891. Population, 132,416. Total deaths, 120, including phthisis pulmonalis, 24; scarlet fever, 2; diphtheria, 2; croup, 1; and measles, 1.

OHIO.—Month of February, 1891. Reports to the State board of health from 63 cities and towns, having an aggregate population of 1,229,393, show a total of 1,579 deaths, including phthisis pulmonalis, 189; enteric fever, 51; scarlet fever, 11; croup and diphtheria, 87; measles, 5; and whooping cough, 3.

#### Publications received.

Annuaire Statistique de la Ville de Paris, 1888.

Fourteenth annual report of the State board of health, New Jersey, 1890.

Eighteenth annual report of the city of Cleveland, 1890.

## MORTALITY TABLE, CITIES OF THE UNITED STATES.

		. 3. 30. 30.	from				I	)eat	hs fr	om-	-			
Cities.	Week ended.	Population, U. Census of 1890	Total deaths fall causes.	Phthisis pul- monalis.	Yellow fever.	Smallpox.	Varioloid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
New York, N. Y.* Philadelphia, Pa. Philadelphia, Pa. Brooklyn, N. Y. Boston, Mass. San Francisco, Cal. Cincinnati, Ohio. Cleveland, Ohio. Cleveland, Ohio. Cleveland, Ohio. Minneapolis, Minn. Louisville, Ky. Rochester, N. Y. Providence, R. I. Toledo, Ohio. Richmond, Va. Richmond, Va. Richmond, Va. Richmond, Va. Richmond, Va. Richmond, Va. Charleston, S. Charleston, S. Charleston, Tex Galveston, Tex Galveston, Tex Auburn, N. Y. Newton, Mass. San Diego, Cal. Rock Island, Ill. Rock Island, Ill. Reensacola, Fla.	Apr. 4 Apr. 4 Apr. 4 Apr. 4 Apr. 4 Apr. 3 Mar. 28 Apr. 3 Apr. 4 Apr.	1,513,501 1,046,964 1,046,964 806,343 448,477 298,997 296,908 261,546 205,669 164,738 161,005 138,327 132,043 82,652 80,838 80,838 80,838 876,309 74,398 54,592 36,608 35,093 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 21,158 25,887 24,357 16,153 35,993 21,158 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 24,357 16,153 35,993 29,118 25,887 26,153 26,	1, 100 460 492 197 114 186 691 180 60 60 60 60 47 47 45 31 31 33 33 11 11 15 8 8 8 11 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	137 64 43 43 31 28 14 9 7 2  6 7 1  1 1 1 3						8 38 43 1 7 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			22 1 6 1 2 1 1	13 4 4 2 6 6 6 1 1 3 3
Lynn, Mass Lynn, Mass	Mar. 28 Mar. 28 Apr. 4		22 15	1 4										

<sup>\*</sup> Forty-eight deaths were reported from influenza during the week.

Table of temperature and rainfall, week ended April 3, 1891.

[Received from War Department, Signal Office.]

Locality.	Mean ter	nperature Fahrenhe	in degrees it.	Rainfall in inches and hundredths.						
Locanty.			Normal.	ormal. Excess. l						
New England States:										
Eastport, Me Portland, Me	33	10		. 91		. 6				
Portland Me	36			.70		.10				
Boston, Mass	39			.95		,,_				
Block Island R I	39			.75		.5				
Block Island, R. I Middle Atlantic States:										
Albany N V	39	14		. 63	.50					
New York N V	43			.88	.40					
Philadelphia, Pa	45		14	.70	.30					
Albany, N. Y.  New York, N. Y.  Philadelphia, Pa.  Atlantic City, N. J.	42		14	.84	.70					
	47		28	. 81	1.80					
Washington, D. C	47		26	. 88	1.59					
Washington, D. C. Lynchburg, Va. Norfolk, Va.	50		42	.84	1.13					
Norfolk, Va	51		28	1.02	.40					
louth Atlantic States				1.02						
Charlotte, N. C	55	1	14	. 95	. 30	l				
Wilmington, N. C	57			.88	.50					
Charlotte, N. C. Wilmington, N. C. Charleston, S. C.	61		14	.94	.20					
Augusta, Ga	60		28	1,03	.10					
Savannah, Ga	62			. 87	.93					
Jacksonville, Fla	65			.70	l	.4				
Key West, Fla	74			.21		.2				
lulf States:										
Atlanta, Ga	57		28	1.08	1.20					
Pensacola Fla			14	1.10	1.20	.7				
Mobile Ala	63			1.53		.9				
Mobile, Ala	61			1.33	.40					
Vickshurg Miss	62			1.50		6				
	cc			1.30		1.8				
Shrayanort La	63			1.21		1.7				
Port Smith Ark	57		28	.93	1.10					
Shreveport, La	58		28	1.06	1.10	ļ				
Polostino Tow	63			.91		.7				
Galveston, Tex	65	.:	14	.70		.7				
				70		.7				
Communa Christi The	01			.72		.8				
Pro	68 71			.29		.2				
San Antonio, Tex	73			.28		1 : : :				
This Weller and Terrores	10			.28						
Ohio Valley and Tennessee:	57	ì	14	1.29	.40					
Memphis, Tenn Nashville, Tenn	54		1	1.15	. 20					
Chattanage Tenn	56			1.24	.40					
Chattanooga, Tenn	54				.40	.1				
Knoxville, Tenn	51		28	1.26 .98						
Louisville, Ky	31			.96	. 1.90					
Cincinapolis, Ind	45			.84	1.30					
Cincinnati, Onio	48		14	.77	.60					
Columbus, Ohio	44			. 67	.60					
Pittsburgh, Pa	45			.70	.10					
ake Region:	0=									
Oswego, N. Y	35	28		.54						
Rochester, N. Y	36	28		.67	.30					
Bunaio, N. Y	35	42				.1				
Erie, Pa	38	42			.90					
Cleveland, Ohio Sandusky, Ohio Toledo, Ohio	39	14			.60					
Sandusky, Ohio	40	14		.56	.20					
Toledo, Unio	40	14			.60					
Detroit, Mich	39	14		.49	. 60					
Port Huron, Mich	34	28		.60	.30					
Alpena, Mich Marquette, Mich	30	42		.49	.60					
Marquette, Mich	29	28			1.70					
Grand Haven, Mich	37				.60					
Grand Haven, Mich	36	14		.63	.40					
Unicago, Ill	38			.66	.30					
Duluth, Minn	31			.38	.30					
Jpper Mississippi Valley:		į.			i					
St. Paul, Minn	37		14	.45						
La Crosse, Wis	39		14	. 42	.30					
Dubuque, Iowa	41			.56						
Davenport, Iowa	42			.53						
Des Moines, 10wa	4-3		40	. 42						
Keokuk, Iowa	45		28	. 49						
Springfield, Ill	46		14	. 49						
Cairo, Ill St. Louis, Mo			14	. 87	.30					
	50		28	. 73						

Table of temperature and rainfall, week ended April 3, 1891—Continued.

Locality.	Mean ter	nperature Fahrenhe	in degrees it.	Rainfall in inches and hundredths.						
•	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency				
Missouri Valley:										
Springfield, Mo	51	l	35	.77		. 60				
Kansas City, Mo	48		42	.59	. 10					
Concordia, Kans	46	•••••		. 65						
		-•	56		1,30					
Omaha, Nebr	44		42	.58		.40				
Valentine, Nebr	40		28	.31	. 70					
Huron, S. D			42	. 24	.70	<b></b>				
Sully, Fort, S. D Extreme Northwest:	39		28	. 26	. 20					
Moorhead, Minn	30	16	1	.31	. 30					
Bismarck, N. D	33		14	.37		. 30				
Buford, Fort, N. D	34			.17		1				
Rocky Mountain Slope:						.20				
Assinniboine, Fort, Mont	38	l	42	.14		. 10				
Helena, Mont	40		56	. 17						
Custer, Fort, Mont	41		44	. 17		. 21				
Salt Lake City, Utah	46		80	. 52	. 70	l				
Cheyenne, Wyo	39		70	. 52	.40					
North Platte, Nebr	43		28	.18	1.00					
Denver, Colo	44		112	.40	2.30					
Montrose, Colo	45		84	. 24	.10					
Pueblo, Colo	46		56	.30	iõ					
Dodge City, Kans			28	.21	.10	.10				
Sill, Fort, Ind. T	58		28	.51		.50				
Santa Fé, N. Mex			70	.21		.20				
Pacific Coast:	44		10	. 21						
Olympia, Wash	47	l	70	. 89	l	.80				
Portland, Oreg	51		28	.97						
Roseburg, Oreg			28	.67						
Red Bluff, Cal	58		7	.67		.67				
Sacramento, Cal	58		2	.70		1				
San Francisco, Cal			2	.67						
Los Angeles, Cal				. 49		.50				
San Diego, Cal										
			•••••	. 21		. 30				
Yuma, Ariz	68		28							

#### FOREIGN.

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

#### SPECIAL REPORTS.

Report from Berlin upon the action of the Koch lymph.

P. A. Surgeon J. J. Kinyoun, U. S. M.-H. S., transmits the following from Berlin, dated March 21, 1891:

At present I am still engaged in the study of the chemical products

of the tubercle bacillus and its influence upon tissue.

The large number of cultures of the tubercle bacillus which were made some time ago are progressing in not so satisfactory manner as could be desired; only a part of them at present show any growth, and the experiment in part has had to be repeated. At present everything presages a successful termination. The great obstacle attending the growth of the tubercle bacillus is in not yet finding a suitable medium to grow it upon. I learn on every hand, even from the highest authority in such matters, that enormous numbers of cultures have to be prepared in order to obtain sufficient for analysis, etc. At least twenty-five days will yet have to elapse before the cultures will be ready for manipulation.

Hueppe and Zoll have made another communication, in which they give their resumé of the preparation of a lymph, which gives the same reactions in infected animals as that of Doctor Koch's. Weyl has, of course, sounded the keynote, which makes its preparation not so diffi-

cult as was first supposed.

I am making comparative experiments on animals with the Koch lymph for the purpose of determining its action on healthy and morbid tissues, and the exact influence exerted by the cells on the tubercle bacillus.

The treatment of cases suffering from tubercle of the lung is still being carried out in the leading hospitals, although fewer in number than at first. The cases now under treatment show proportionately better results than at the beginning of the year, which I think is due wholly to the fact that more careful examinations of the cases are made, and only those selected that are in the first stage. Virchow in his arraignment of the treatment really had a salutary effect, and, in the reaction which followed, limited the treatment to institutions where patients could be better observed than in private practice; also it brought about what I have always contended for since seeing the first cases under treatment, a careful physical examination of each case, which I regret to say was not the rule.

A varied amount of work is now being carried on in questions concerning immunity, which is available for my course of instruction.

The recent epidemic of cholera in Syria-Notes and statistics.

The following report, dated February 23, 1891, has been received from Mr. Erhard Bissinger, United States consul at Beirut, Syria:

The cholera that lately ravaged Syria appears to have been more widespread and fatal in the vilayet (province) of Aleppo than in the other three infected vilayets of Syria, namely: Adana, Beirut, and Syria proper. Mount Lebanon escaped entirely, and the vilayets of Beirut and Syria were only partially infected. Of the principal cities in the former, only Tripoli and vicinity suffered severe loss, and in the latter the dreaded epidemic was mainly confined to Homs and Hamath. Damascus and Beirut city have thus far been spared.

No official cholera statistics have been published, but an American physician residing in Aintab, aided by some of his colleagues, has made

the following—

Estimates of fatal cases of cholera in the vilayet of Aleppo.

Cities.	Popula- tion.	Deaths.	Percent- age.
Aintab	60,000 120,000	350	. 6
Aleppo	20,000 15,000	3,000 2,700 500	2.5 13.5 3.3
Killis Marash	20,000 30,000	1,200 1,500	6 5

Aintab and Aleppo appear from this exhibit to have suffered least. The difference between these and other cities is largely attributed to prophylactic measures, such as the drinking of boiled water, etc., which was generally observed in Aintab, thanks to the timely counsels of practicing American physicians there, whereas in Antioch, Killis, Marash, etc., alcoholics were generally resorted to as a prophylactic.

Quite different results appear to have been obtained from the same treatment, due doubtless to the comparative care with which all details and minutiæ were carried out. As an instance it may be cited that out of 560 cases treated by an American physician only 33 proved fatal, or a little less than 6 per cent., while the loss to native doctors with the identical treatment was from 20 to 25 per cent. The remedy used in both cases was composed of the following ingredients: 2 grains of opium, 2 grains of gum camphor, 3 to 6 grains of calomel, 15 grains of sugar of milk, the whole very thoroughly triturated and administered in a teaspoonful of water every one to three hours according to the severity of the symptoms.

Calomel appeared to have been the most important part of the medication and alcoholics the least efficient. In cases where vomiting was so severe as to interfere with medication by the mouth, rectal medica-

tion was resorted to.

A strict milk diet of from three to five days, and restriction of water to teaspoonful doses as long as tendency to vomit continued, was a

very essential part of the treatment.

No reliable data respecting mode of treatment has as yet been procurable from the infected districts in the Adana, Beirut, and Syria vilayets; should any facts of interest or importance come to light, they will in due time form the subject of another brief report.

BRAZIL—Para—Yellow fever and leprosy.—The following has been received from the United States consul under date of February 28, 1891, addressed to the Assistant Secretary of State:

Attached herewith is my health report for the month of February, just ended, showing an increase in the death rate of 35 per cent. as compared with previous month.

The deaths reported from yellow fever have increased gradually but steadily each month.

Your attention is called to the facts about leprosy.

These figures are from the official records and can not be disputed; probably 25 per cent. might be added to the death rate, by reason of those too poor for regular burial, or whose deaths may occur outside of the city proper.

The U. S. and B. M. S. S. Co. are interested, I believe, in the large

The U. S. and B. M. S. S. Co. are interested, I believe, in the large hotel at Barbadoes, which they extensively advertise as a famous health resort, and for this reason are desirous of having clean bills of health

from this port, the latest before touching at Barbadoes.

As you well know, this island is the most thickly populated on the earth's surface, and though a British colony, quite a number of

American invalids spend their winter at the hotel.

I have understood privately that the U. S. and B. M. S. S. Alliancia, which sailed from this port on December 26, 1890, buried at sea a girl who died aboard from yellow fever soon after leaving the port, yet their officials felt aggrieved that I did not issue them a clean bills of health.

Mr. W. Brambeer, one of the prominent foreign merchants, died on last Friday morning, and I attended his funeral in the same afternoon. I learn that the body was exhumed on Sunday following, and placed in a half wooden and half metallic case, to be sent to New York by the next American steamer. I am asked to issue a consular certificate in this case, and in the absence of any precedent or law, I will, if called upon, state the facts without opinion or comment. The cause of death is not stated as yellow fever, and I am not sure what it was, but it is patent to all that this body should not be put aboard an American vessel at this port at this season.

The steamship *Finance*, of same line, on her last trip to New York, January 7, took away from Para about twenty gypsies who had come to Para as contract immigrants, and not being able to support themselves, went about the streets with performing monkeys, bears, etc., and if it were probable to carry contagious diseases at this season to our country

no more capable means of communication could be found.

The mortality of the city of Para for the month of February, 1891.—Yellow fever, 14; American typhus, 6; billious fever, 2; pernicious fever, 2; remittent billious fever, 1; icteric typhus, 1; icteric fever, 1; intermittent fever, 3; malarial fever, 4; malarial cachexy, 7; hepatitis, 6; fevers (unclassified), 17; tuberculosis, 18; enteritis, 17; tetanus, 16; still born, or dying at birth, 16; heart affections, 12; leprosy, 3; beri-beri, 8; syphilitic rheumatism, 1; syphilitic cachexy, 1; other diseases, 49; total, 205.

Ceara.—Month of January, 1891. Population, 35,065. Total deaths, 123. No deaths from contagious diseases.

Maceio. — Month of January, 1891. Population, 17,000. Total deaths, 42.

Month of February, 1891. Total deaths, 45.

Parimaribo.—Month of February, 1891. Population, 28,221. Total deaths, 86, including 1 from typhus fever.

Rio de Janeiro—Yellow fever, etc.—Week ended February 21, 1891. Population, 450,000. Total deaths, 419, including fever, 103; smallpox, 11; enteric fever, 7; phthisis pulmonalis, 29; pernicious fever, 12; and measles, 1.

The United States consul writes as follows:

Yellow fever is steadily increasing as the hot season advances, and, while it is not so rife as in 1889, it is bad enough to render necessary a careful examination into the condition of every vessel arriving at United States ports from this place.

CEYLON—Colombo—Smallpox.—Week ended February 22, 1891. The United States consul reports 88 cases of smallpox and 19 deaths therefrom.

Galle—Cholera.—The United States consul at Colombo also reports 5 cases of cholera and 3 deaths at the town of Galle during the week ended February 22, 1891.

CUBA—Havana.—The United States sanitary inspector sends the following weekly report, dated March 28, 1891:

Week ended March 26, 1891. Total deaths, 132, including yellow fever, 3 (6 new cases); enteric fever, 4; so-called pernicious fever, 2; croup, 8; and glanders, 1.

EGYPT.—Week ended March 5, 1891. The towns in upper and lower Egypt, including Gizeh and the Suez Canal, show a total of 836 deaths, including phthisis pulmonalis, 54; enteric fever, 27; smallpox, 2; diphtheria and croup, 3; measles, 1; and whooping cough, 10.

FRANCE—Nantes.—Month of January, 1891. Population, 127,482. Total deaths, 383, including phthisis pulmonalis, 43; enteric fever, 21; typhus fever, 3; diphtheria, 2; measles, 25; and whooping cough, 4.

Month of February, 1891. Total deaths, 276, including phthisis pulmonalis, 33; enteric fever, 23; diphtheria, 2; typhus fever, 2; measles, 6; and whooping cough, 2.

Rheims.—Month of February, 1891. Population, 97,903. Total deaths, 196, including phthisis pulmonalis, 17; diphtheria and croup, 5; and enteric fever, 3.

GERMANY—Swinemünde—Vessel bound for the United States leaving foreign port without taking bill of health.—The United States consul at Stettin, under date of March 14, 1891, reports that the steamship Hecla of the Thingvalla line of steamers has left the port of Swinemunde for New York without taking a bill of health.

GREAT BRITAIN—England and Wales.—The deaths registered in 28 great towns of England and Wales during the week ended March 21 corresponded to an annual rate of 21.9 a thousand of the aggregate population, which is estimated at 10,010,426. The lowest rate was recorded

in Derby, viz, 12.6, and the highest in Blackburn, viz, 36.0 a thousand. Diphtheria caused 5 deaths in Manchester, 3 in Salford, 2 in Liverpool, and 2 in Newcastle-upon-Tyne.

London.—One thousand seven hundred and fifty-one deaths were registered during the week, including measles, 44; scarlet fever, 5; diphtheria, 33; whooping cough, 48; enteric fever, 13; and diarrhœa and dysentery, 15. The deaths from all causes corresponded to an annual rate of 20.3 a thousand. Diseases of the respiratory organs caused 556 deaths. In greater London 2,199 deaths were registered, corresponding to an annual rate of 19.5 a thousand of the population. In the "outer ring" the deaths included whooping cough 13; diphtheria 7; measles, 9.

Sunderland.—Two weeks ended March 7, 1891. Population, 138,859. Total deaths, 146, including scarlet fever 1 and diphtheria 1.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended March 21, in the 16 principal town districts of Ireland, was 26.0 a thousand of the population. The lowest rate was recorded in Kilkenny, viz, 8.5, and the highest in Lurgap, viz, 46.2 a thousand. In Dublin and suburbs 192 deaths were registered, including diphtheria, 2; enteric fever, 14; and whooping cough, 5.

Scotland.—The deaths registered in eight principal towns during the week ended March 21 corresponded to an annual rate of 25.9 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Leith, viz, 15.5, and the highest in Glasgow, viz, 32.2 a thousand. The aggregate number of deaths registered from all causes was 676, including measles, 24; scarlet fever, 5; diphtheria, 3; whooping cough, 32; fever, 4; and diarrhea, 5.

INDIA—Singapore.—Month of January, 1891. Total deaths, 507, including cholera 1 and fever 156.

ITALY—Milan.—Month of February, 1891. Population, 399,081. Total deaths, 1,123, including smallpox, 1; enteric fever, 10; and diphtheria, 29.

Spain—Barcelona.—Month of February, 1891. Population, 272,000. Total deaths, 876, including smallpox, 16; enteric fever, 16; diphtheria, 44; and measles, 33.

SWITZERLAND.—Week ended February 28, 1891. Reports from 15 cities and towns of Switzerland, having an aggregate population of 503,503, show a total of 265 deaths, including phthisis pulmonalis, 29; enteric fever, 5; scarlet fever, 1; diphtheria and croup, 9; measles, 6; and whooping cough, 4.

Zurich.—Month of February, 1891. Population, 91,323. Total deaths, 181, including phthisis pulmonalis, 20; cholera, 1; typhus fever, 1; and whooping cough, 1.

# MORTALITY TABLE, FOREIGN CITIES.

		ula-	from				Deat	hs f	rom		<del>i</del>	
Cities.	Week ended.	Estimated popula- tion.	Estimated poption. Total deaths fall causes.		Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
London	Mar. 14 Mar. 14 Mar. 21 Mar. 7	5, 877, 390 2, 260, 945 2, 260, 945 1, 368, 156	2, 262 1, 264 1, 198 707			17			11 6 7	28 34 33 37	36 24 15 13	69 12 15 3
Vienna Liverpool Hamburg Glasgow Buda Pesth Brussels	Mar. 14 Mar. 14 Mar. 7 Mar. 14 Mar. 19	1, 368, 156 620, 443 570, 534 545, 678 507, 000	700 266 247 321				3 13	1 3	2 4 1 3 31	24 1 5 4 42	16	
Brussels	Mar. 7 Mar. 14 Mar. 14 Feb. 14 Feb. 28	469, 459 469, 459 417, 542 417, 392 417, 392 401, 930	322 256 248 234 335			8 13	1	12 7 2		2	4 14	1
Lyons Leipzig. Leipzig. Munich. Munich	Mar. 14 Mar. 14 Mar. 21 Mar. 7 Mar. 14	401, 930 360, 671 360, 671 348, 000 348, 000	242 145 108 177 212						 2			
Copenhagen	Mar. 7 Mar. 14 Mar. 7 Mar. 7	312, 387 312, 387 295, 000 281, 699	133 150 139 165	•••••				1	1 3 3	8 13 1 4	  4	
Dresden	Mar. 7 Mar. 14 Mar. 13 Mar. 20 Mar. 7	276, 085 276, 085 272, 000 272, 000 250, 000	114 108 208 226 157					5 6 1	3	4 1 8 11		
Palermo Antwerp Bristol Belfast Rotterdam Rotterdam	Mar. 14 Mar. 14 Mar. 21 Mar. 14 Mar. 14	250,000 238,788 235,171 234,822 209,137	131 96 92 144 137				1	3		1		
Pernambuco Pernambuco Prague Genoa	Feb. 24 Mar. 14 Feb. 28	209, 137 200, 000 200, 000 183, 085 180, 585	89 65 56 150 121			4 5	 3	4	2 1	 2 2		
Genoa	Mar. 14 Mar. 21 Mar. 7 Mar. 14 Mar. 7	180, 585 180, 585 179, 850 179, 850 168, 500	119 112 77 80 78				3			1 1 7 10		
Hanover Konigsberg Trieste Trieste Ghent	Mar. 14 Mar. 15 Mar. 7 Mar. 14 Mar. 14	168, 500 161, 200 158, 054 158, 054 152, 395	67 60 101 101 90			<b>,</b>		1	1	4 2 5	4	
Christiania Nuremberg Nuremberg Stuttgart Stuttgart	Mar. 14 Feb. 28 Mar. 7 Mar. 14 Mar. 21	150, 444 142, 523 142, 523 139, 659 139, 659 133, 250	61 68 77 39 52						1 1 1			
Funchal Funchal Bremen Cardiff	Mar. 7 Mar. 14 Mar. 7 Mar. 14 Feb. 28	133, 250 125, 000 125, 000 121, 477	24 14 42 52 56					1	·	2 2		
Cardiff Cardiff Cardiff Danzig Stettin	Mar. 7 Mar. 14 Mar. 21 Mar. 14 Mar. 14	121, 477 121, 477 121, 477 119, 000 116, 000	64 60 63 59					1 1	1	 1 3		
Havre	Mar. 14 Mar. 8 Mar. 15 Mar. 21 Mar. 7	112, 074 110, 000 110, 000 108, 000 106, 246	72 83 64 72 32					1	2 1	1		
Gothenburg	Mar. 14 Mar. 8 Mar. 15 Mar. 22	106, 246 106, 246 103, 879 103, 879 103, 879	44 57 46 68				1					

## MORTALITY TABLE, FOREIGN CITIES—CONTINUED.

Cities,	pula-						Deaths from—								
	Week ended.	Estimated popula- tion.	Total deaths fall causes.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.			
Leghorn	Mar. 15	103, 854	65						-1						
Leghorn	Mar. 22	103, 854	66					1	-						
Zurich	Mar. 14	91, 323	29						1	9	6	4			
Mannheim	Mar. 14	80,000	31							2		1 3			
Trapani	Mar. 7	43,095	8							-					
	Mar. 14		9							•••••	•••••				
Trapani		43,095													
Marsala	Mar. 6	40, 131	14 32								ļ	•••••			
Marsala	Mar. 14	40, 131	32 11			• • • • • • •						• • • • • •			
Schiedam	Mar. 14	25, 400										•••••			
Schiedam	Mar. 21	25, 400	13			• • • • • • •						· · · · · ·			
Cardenas	Mar. 29	25,000	9									•••••			
Curaçoa	Mar. 21	25,000	4												
Gibraltar	Mar. 8	23, 981	12												
Gibraltar	Mar. 15	23, 981	8												
Vera Cruz	Mar. 19	23, 800	30												
Girgenti	Mar. 7	23,547	13												
Girgenti	Mar. 14	23, 547	14								i	ļ			
Licata	Mar. 7	19,000	10	l		·			1	1	·	ļ			
Licata	Mar. 14	19,000	9	ļ	l			1		2		ļ			
Kingston, Can	Mar. 27	18, 284	5					·				l			
Matamoras	Mar. 21	16,000	20	1		_	1								
Rio Grande do Sul	Feb. 14	16,000	21			·									
Antigua	Mar. 7	15, 847	11	1			,	_							
Antigua	Mar. 14	15, 847	17												
Antigua	Mar. 21	15, 847	19												
Dunfermline	Feb. 28	15, 839	12												
		15, 700	12												
Hamilton, Bermuda	Apr. 2 Mar. 20	15, 605	11												
Sagua la Grande															
Sagua la Grande	Mar. 28	15,605	8									·····			
Flushing	Mar. 14	13, 200													
Flushing	Mar. 21	13, 200	6												
Queenstown	Mar. 14	10, 340	2												
Queenstown	Mar. 21	10,340	4									·····			
Tuxpan	Mar. 14	9,000	7												
Tuxpan	Mar. 21	9,000	5									1			
Chatham	Mar. 28	8,730	4									· · · · ·			
La Guayra	Mar. 14	7,641	6							1					
Sarnia	Mar. 28	6, 200	2												
Santiago	Feb. 7	4,500	3								·				
Santiago	Feb. 14	4,500	5												
Santiago	Feb. 28	4,500	3			·	ļ	J			J				
Coaticook	Mar. 28	3, 800	2	1	1		1		1	1	1	1			

OFFICIAL:

JOHN B. HAMILTON,

Supervising Surgeon-General, Marine-Hospital Service.