ABSTRACT OF SANITARY REPORTS.

Vol. VI.

Washington, D. C., June 19, 1891.

No. 25.

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

UNITED STATES.

SPECIAL REPORTS.

Gulf quarantine station.

Passed Assistant Surgeon Carter reports the Norwegian bark Broderfolket arrived at quarantine station June 8, 1891, from Rio de Janeiro via Pascagoula. Vessel clean. Fourteen in crew. No sickness en route or on arrival, save one case of phthisis pulmonalis, but two cases of yellow fever in Rio, both of which were sent to hospital.

Royal Commission on Vaccination—Responses to request for information published in Abstract No. 21.

COMMONWEALTH OF MASSACHUSETTS,

Office of State Board of Health,

13 Beacon Street, Boston, June 5, 1891.

DEAR SIR: In response to your request for information relative to smallpox and vaccination, for the English Royal Commission on Vaccination, I would respectfully transmit the accompanying extract from the Massachusetts Registration Report for 1889, containing the statistics of mortality from smallpox in this State for a period of forty years, together with a brief extract from my article on vaccination in Wood's Reference Handbook of the Medical Sciences, vol. 7.

During the past fifteen years no deaths due to vaccination in Massachusetts have come to the knowledge of the State board of health, and no cases of injury which were not attributable either to faulty constitution of the patient, or to carelessness or neglect in the method of vaccination, or selection of lymph of a proper quality. Bovine lymph is now used for vaccination in this State in probably nine-tenths of all cases.

Respectfully yours,

SAMUEL W. ABBOTT,

Secretary.

To the Supervising Surgeon General, M.-H. S.

The Bureau also acknowledges the receipt of pamphlet on vaccination, by W. C. Van Bibben, M. D., Baltimore. The above papers have been forwarded to the British Legation, and other responses are solicited.

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

ALABAMA—Mobile.—Month of May, 1891. Population, 31,076. Total deaths, 64, including phthisis pulmonalis 13 and enteric fever 2.

CALIFORNIA—San Francisco.—Month of May, 1891. Population, 298,997. Total deaths, 530, including phthisis pulmonalis, 79; enteric fever, 9; scarlet fever, 1; diphtheria, 18; croup, 8; measles, 1; and whooping cough, 4.

FLORIDA—Alachua County.—Month of May, 1891. Estimated population, 23,000. Total deaths, 22, including phthisis pulmonalis 2 and enteric fever 1.

Jacksonville.—Month of May, 1891. Population, 17,201. Total deaths, 41, including phthisis pulmonalis 6 and enteric fever 2.

Iowa—Dubuque.—Month of May, 1891. Population, 30,311. Total deaths, 35, including phthisis pulmonalis, 3; enteric fever, 1; and scarlet fever, 2.

MASSACHUSETTS—Brockton.—Month of May, 1891. Population, 27,-294. Total deaths, 41, including phthisis pulmonalis, 5; enteric fever, 1; diphtheria and croup, 5; and whooping cough, 1.

Springfield.—Month of May, 1891. Population, 44,179. Total deaths, 74, including phthisis pulmonalis, 6; scarlet fever, 1; and diphtheria, 1.

MICHIGAN.—Week ended June 6, 1891. Reports to the State board of health, Lansing, from 71 observers, indicate that inflammation of brain, dysentery, cholera morbus, pleuritis, and remittent fever increased, and that membranous croup, cholera infantum, scarlet fever, and whooping cough decreased in area of prevalence.

MINNESOTA—Minneapolis.—Month of May, 1891. Population, 164, 738. Total deaths, 194, including phthisis pulmonalis, 19; enteric fever, 4; diphtheria, 13; measles, 2; scarlet fever, 2; and whooping cough, 7.

Winona.—Month of May, 1891. Population, 18,208. Total deaths, 24, including phthisis pulmonalis 4.

NEW HAMPSHIRE—Manchester.—Month of May, 1891. Population, 44,126. Total deaths, 51, including phthisis pulmonalis, 6; influenza, 2; and membranous croup, 1.

TENNESSEE—Nashville.—Month of May, 1891. Population, 76,168. Total deaths, 67, including phthisis pulmonalis, 30; enteric fever, 1; measles, 2; and whooping cough, 4.

Publications received.

Report of the health officer of the District of Columbia for 1890. Annual report of the board of health of the city of Mobile, 1890.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

		U. S. 390.	from				1	Deat!	hs fi	rom-	-			
Cities.	Week ended.	Population, U. Census of 1890	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	June 13	1,515,301	743	98						6	34	27	24	e
Chicago, Ill	June 13	1,099,850	404	43						40	6	9	5	2
Brooklyn, N. Y		806, 343	335	37						2	12	14	6	1 2
St. Louis, Mo	June 6	451, 770		15					1	ī		3	2	2
Boston, Mass		448, 477	172	29	•••••						1	3	_	1 .
Baltimore, Md	June 13	434, 439	148	17	•••••			•••••		2		4		1
San Francisco, Cal			130	17	•••••	•• •••			١	3		9		i
		298, 997		9	•••••	•••••	•••••	•••••		5	2	3	2	1 *
Cincinnati, Ohio	June 12	296, 908			•••••		•	•••••		1	1	5	2	ļ
Cleveland, Ohio		261, 343	84	9	•••••	•••••	•••••			2	1			
Washington, D. C		230, 392	89	10	•••••	•••••	•••••	•••••	····	z	•••••	4		1
Detroit, Mich		205, 876	67	3	•••••	•••••	•••••	•••••				2		
Minneapolis, Minn		164,738	40			•••••		•••••	•••••	2	2	3		
Minneapolis, Minn	June 13	164, 738	36	1							1	1		
Rochester, N. Y		133, 896	43							2	1	4		
Kansas City, Mo	June 6	132,716	21							1	1			
Providence, R. I	June 13	132, 146	50							1			l	1 3
Indianapolis, Ind	June 18	105, 436	46	4						l		2	3	l
Toledo, Ohio		81, 434	23	l ī								2	l	
Richmond, Va		81, 388	54	3						1	1	l	2	
Nashville, Tenn		76, 168	34		•••••	•••••	••••			2			ī	1
Fall River, Mass		74, 398	29	3	•••••	•••••				_	•••••	1	î	ı -
Portland, Me		36, 425	ii	"		•••••	•••••			1	•••••	1 *	1 -	
Binghamton, N. Y			15	5	•••••	•••••	•••••			1 -				
		35,005	7		•••••	•••••	•••••	•••••						····i
Yonkers, N. Y		32,033		1	•••••	•••••	•••••	•••••	•••••					1
Mobile, Ala		31,076	17	4		•••••	• • • • • • •		•••••		•••••	•••••	•••••	
Auburn, N. Y		25, 858	15	5			•••••	•••••			•••••		•••••	
Newton, Mass		24, 379	7	}	•••••		•••••				ļ	·····	•••••	ļ
Newton, Mass		24,379	10				•••••			ļ				
San Diego, Cal		16, 159	1											
Rock Island, Ill		13, 634	4											
Rock Island, Ill	June 14	13,634	3		1	١		·		1		l		l
Pensacola, Fla		11,750	5							l		l		ļ
	0	,			1							1	,	

Table of temperature and rainfall, week ended June 12, 1891. [Received from War Department, Signal Office.]

New England States: Eastport, Me. Portland, Me. Boston, Mass. Block Island, R. I. Middle Atlantic States: Albany, N. Y. New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. Norfolk, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Guif States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala. Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	54 61 64 60 66 67 70 71 72 72 72	14 28	28 42 35	. 88 . 77 . 77 . 75 . 91 . 74 . 77 . 72	Excess.	. 84 . 77 . 77 . 75
Eastport, Me. Portland, Me. Boston, Mass Block Island, R. I. Middle Atlantic States: Albany, N. Y. New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. Norfolk, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss New Orleans, La. Shreveport, La. Fort Smith Ark	61 64 60 66 67 70 67 71 70 72 72 72 74 76 78	28	28 42 35	.77 .77 .75		.77
Eastport, Me. Portland, Me. Boston, Mass Block Island, R. I. Middle Atlantic States: Albany, N. Y. New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. Norfolk, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss New Orleans, La. Shreveport, La. Fort Smith Ark	61 64 60 66 67 70 67 71 70 72 72 72 74 76 78	28	28 42 35	.77 .77 .75		.77
Portland, Me. Boston, Mass. Block Island, R. I. Middle Atlantic States: Albany, N. Y. New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. Norfolk, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith, Ark	64 60 66 67 70 67 71 70 72 72 72	28	28 42 35	.77 .77 .75		.77
Boston, Mass. Block Island, R. I. Middle Atlantic States: Albany, N. Y. New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. Norfolk, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala. Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	60 66 67 70 67 71 70 72 72 72 74 76 78		28 42 35	. 75 . 91 . 74		.77
New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala. Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	66 67 70 67 71 70 72 72 72		28 42 35	. 91 . 74		.75
New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala. Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	67 70 67 71 70 72 72 72 74 76 78		28 42 35	.74		1
New York, N. Y. Philadelphia, Pa. Atlantic City, N. J. Baltimore, Md. Washington, D. C. Lynchburg, Va. South Atlantic States: Charlotte, N. C. Wilmington, N. C. Charleston, S. C. Augusta, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala. Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	67 70 67 71 70 72 72 72 74 76 78		28 42 35	.74		
Washington J. C. Lynchburg, Va	70 67 71 70 72 72 72 74 76 78		28 42 35	.77		.91
Washington J. C. Lynchburg, Va	67 71 70 72 72 72 74 76 78		28 42 35	72	.03	. 30
Washington J. C. Lynchburg, Va	71 70 72 72 72 74 76 78		42 35			. 32
Washington J. C. Lynchburg, Va	72 72 74 76 78			. 92		.42
Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	72 74 76 78			. 98		.61
Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	74 76 78			. 84		. 38
Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	76 78		28	.98		.74
Wilmington, N. C. Charleston, S. C. Augusta, Ga. Savannah, Ga. Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	76 78					1
Savannah, Ga Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	78		28 28	1.05	1.19	•••••
Savannah, Ga Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark			28	1.36 1.13	.33	.70
Savannah, Ga Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	78		14	.96	2, 87	.70
Jacksonville, Fla Key West, Fla Gulf States: Atlanta, Ga. Pensacola, Fla Mobile, Ala. Montgomery, Ala Vicksburg, Miss. New Orleans, La. Shreveport, La. Fort Smith Ark	78		5	1.69	2.01	.57
Key West, Fla Gulf States: Atlanta, Ga Pensacola, Fla Mobile, Ala Montgomery, Ala Vicksburg, Miss New Orleans, La Shreveport, La Fort Smith Ark	79		5	1.26	. 42	
Gulf States: Atlanta, Ga	82			. 95		. 31
Pensacola, Fla. Mobile, Ala Montgomery, Ala Vicksburg, Miss New Orleans, La Shreveport, La Fort Smith Ark			1			
Mobile, Ala	74		14	.99	1.11	.
Montgomery, Ala	79			1.45		1.29
New Orleans, La Shreveport, La Fort Smith, Ark	79			1.37	.61	
New Orleans, La Shreveport, La Fort Smith, Ark	79			1.13	1.71	
Shreveport, La	78 80			1.05 1.59	1.32	1.19
Fort Smith, Ark			6	.88		.63
Little Rook Andr	75		6	1.05		.40
LAUGHT DANS. A.F.	75 75			1.20		. 22
Little Rock, Ark Palestine, Tex	77			. 89	.01	
Galveston, Tex	81			1.19		1.19
San Antonio, Tex	80			. 63	. 25	
Corpus Christi, Tex	80			.72	.38	
Corpus Christi, Tex	81	14		. 85		
Ohio Valley and Tennessee:	84	14		. 56		. 56
Memphis Tenn	75		14	1.26	.12	
Memphis, Tenn Nashville, Tenn	74		1 1	1.00	3.44	
Chattanooga, Tenn	$7\overline{4}$			1.05	1.85	
Vnovville Tenn	72	12		.98	.86	
Louisville, Ky	72	. 14		1.07		. 63
Indianapolis, Ind	70		15	1.20		. 91
Louisville, Ky	70	•••••	14	1.13	. 29	
Columbus, Onio	68			. 87	11	. 93
Pittsburgh, Pa	69		14	.77	.11	
Lake Region:	61	l	l	. 77		.13
Oswego, N. Y	63	28		.80		.72
Buffalo, N. Y	62	14		.84		. 82
Erie Pa	64			1.09		.99
Cleveland, Ohio	65			. 94	. 29	
Sandusky, Ohio	67			1.05	[. 63
Toledo, Ohio	66		14	. 84		. 30
Detroit, Mich Port Huron, Mich	65 61	14		. 88 . 89		. 77 . 43
Alpena, Mich	57	14		. 85		. 81
	56	42		.91		.59
Grand Haven, Mich	61			. 98		.96
Milwaukee, Wis	60			. 94		. 84
Chicago, Ill	63		14	.88		.80
Duluth, Minn	56		14	1.25		1.24
Upper Mississippi Valley:	00		,,	,,,	. 1	•••
	66 66		14 14	1.14		. 90 . 97
La Crosse, Wis Dubuque, Iowa	67		14	1.05 1.16		.97
Davenport, Iowa	68		28	1.05		.45
Des Moines, Iowa	69		42	1.52		.81
Keokuk Iowa				1.04		. 01
Springfield III	69		28	1.19		. 37
Cairo, Ill		14		1. 19 1. 39 1. 11	.42	

Table of temperature and rainfall, week ended June 12, 1891—Continued.

Locality.		nperature Fahrenhe	in degrees it.	Rainfall in inches and hundredths.					
Documy.	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency			
Missouri Valley:									
Springfield, Mo	72			1.38	2.08				
Kansas City, Mo	72		14	1.26	2.00	. 70			
Concordia, Kans	71		42	.97					
Omaha, Nebr			42	1.32					
Valentine, Nebr	65		14	.79					
valentine, Neor									
Huron, S. D			14	. 84		.8			
Sully, Fort, S. D	66		14	. 91		.8:			
Extreme Northwest:					l				
Moorhead, Minn	62			. 97					
Bismarck, N. D	63		14	. 92		.4			
Buford, Fort, N. D	63		28	. 80	.86				
Rocky Mountain Slope:									
Assinniboine, Fort, Mont	61		42	.71		.1			
Helena, Mont	59		42	. 62	1.00				
Custer, Fort, Mont	63		14	.74					
Salt Lake City, Utah	66			. 21		. 2			
Cheyenne, Wyo				.40					
North Platte, Nebr	67			.77					
Denver, Colo	65		20	.32	•••••	. 3			
Montrose, Colo	65	14		.04	.02				
D	69				.02				
Pueblo, Colo		•••••	14	. 30					
Dodge City, Kans	71			. 77	.11				
Sill, Fort, Ind. T	76			1.10					
Santa Fé, N. Mex	64			. 21	. 15				
Pacific Coast:									
Olympia, Wash			26	. 38		.0			
Portland, Oreg	63		42	. 49	. 67				
Roseburg, Oreg	61		42	. 35	.74	l			
Red Bluff, Cal	73		- 28	.14	.18				
Sacramento, Cal	68		14	.07		.0			
San Francisco, Cal	60			.07	.03	l			
Los Angeles, Cal			71 1	. ŏ7		.0			
San Diego, Cal	64	•••••	**	.01		i č			
Yuma, Ariz	83		14	.00					
1 UMA, 1112			1.4	.00					

FOREIGN.

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

Sanitary commission at Constantinople—Report of United States commissioner—The quarantines on the Red Sea—Cholera at Camaran.

REPORT No. 23.

Now that cholera has completely disappeared in Turkey, at least according to the official news, the quarantine being abolished, I think apropos to give my report on the quarantine which Moslem pilgrims

undergo.

The pilgrims coming from outside the strait of Bab-el-Mandeb before landing at the Hedjaz are obliged to undergo a quarantine of at least ten days, at the island of Camaran, and when cholera breaks out in the Moslem Holy Land they again undergo quarantine on their return at Camaran, going to the Indian Ocean, and at Tor, near Egypt, before passing the Suez Canal.

I must say, first of all, that the pilgrimages in the holy cities of Islam may be the source of epidemics of cholera which not rarely spread all over the world. The majority of pilgrims come from India, which is known as the source of cholera. On their return they infect their places

of destination, and the ships in which they sail.

It is useless, I suppose, to dwell upon the imperfect sanitary conditions of the Hedjaz, especially at the moment of the pilgrimage when hundreds of thousands of men meet in towns of no more than 12,000 inhabitants. A few words about the hospital of Medina will show the state of affairs. This hospital (if indeed it can be called such) is situated in the middle of the town in the most populous quarter, under the only and public pharmacy. There are here two dark cellars, in which twelve beds are placed, one close beside the other. The M. D. on entering must be preceded by a servant carrying a censer with burning incense on account of the bad odor which prevails, and when he wishes to write a prescription he must go out of the cellar in order to have light. * *

To prevent an outbreak of cholera, the International Sanitary Administration has decided to oblige the pilgrims to undergo quarantine

before entering the Hedjaz.

In the year 1867 a commission was sent to the Red Sea to examine and find a convenient place where all the pilgrims coming from outside the straits of Bab-el-Mandeb could undergo quarantine. Among all the little islands scattered about in the Red Sea they decided on Camaran, the plan of which I inclose.

Camaran is situated about 180 miles northward from Bab-el-Mandeb, 1 mile farther southward from the Arabian coast. It contains about 60 square miles; there are more than nine sweet water wells, about 10 miles from the principal village (Camaran), and with the exception of a few date palms it is quite barren. There are five more little villages, whose inhabitants are all fishers.

Since the year 1882 the International Sanitary Administration has established the cordons and the huts where the pilgrims undergo quarantine. Mr. Ducca, M. D., was the first sanitary inspector and under

his direction they built the stores, huts, and the cisterns, dug new wells, and generally arranged the lazaretto, yet it is far from meeting the requirements of a model lazaretto.

Since the year 1882 about one hundred and forty-seven thousand pilgrims have undergone quarantine, carried by two hundred and twenty-two steamships and two sailing vessels, besides others carried by samboats, a kind of large sailing boat. The average number of pilgrims landed on the island of Camaran every year is 16,000, the smallest number being 9,067 in the year 1882, and the highest 20,890 in 1888.

Twice since the establishment of the lazaretto (1882) cholera has made its appearance in Camaran. In 1882 an English steamship, the *Hesperia*, started from Bombay bound for Aden, Jeddah, and England, carrying more than five hundred pilgrims, who were obliged to land at Camaran, where 19 deaths from cholera were registered. The majority of the pilgrims were from Bokhara and Afghanistan, whence they went to Bombay after a nearly three months' journey on foot. Notwithstanding a good bill of health, the *Hesperia* had deaths from cholera during the voyage, but in this year (1882) cholera did not spread from Camaran, although 19 deaths occurred there.

Last year cholera again made its appearance among the pilgrims

landed at Camaran, carried by the English steamship Deccan.

These pilgrims were 1,290 in number, and on account of want of room and the monsoon, a strong wind which blows periodically on the Indian Ocean, they were obliged during the voyage to stay under deck. The Deccan, after she left Bombay, had 65 deaths from cholera among the pilgrims and 4 among the crew. Arriving at Camaran, the physician of the board, who was not a physician at all, having no diploma, stated the health of the passengers to be good, excepting that a few of them were suffering from simple diarrhea. He did not state that deaths had occurred during the travel and that they were due to On the same day the pilgrims landed, 8 of them died with all the symptoms of cholera. The scourge attacked more the Indians from Bengal and the Bokharianes. It is to be presumed that it spread to the other pilgrims who were confined in other encampments under sanitary cordons, and we must suppose that these new attacks passed By this way we can explain why cholera suddenly made its appearance at Mina or Moona, one of the Moslem holy cities, where the pilgrims go after they have undergone quarantine. From Mina the cholera epidemic spread all over the Hedjaz. Here I must report that the Egyptian sanitary representative in Mecca presumes, in his report, that the epidemic broke out in the Hedjaz among the pilgrims who came by land from Bassorah and Bagdad through the desert.

The pilgrims carried by the *Deccan* were prevented from going to the Hedjaz on account of the epidemic, and during their stay at the

lazaretto forty-three among them died from cholera.

I have said that the lazaretto of Camaran is far from possessing the sanitary conditions required by science. I must dwell a little upon this question.

Each arrival of pilgrims is set apart in a sanitary cordon, in which huts have been built in order to shelter them. These huts, called areeshes, are built of straw; the pilgrims lie on the ground. Neither the hut nor the ground can be disinfected, it not being possible to do

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any kind of disinfection, although after the departure of pilgrims, it is

true, sulphur is burnt.

In each cordon there is a so-called hospital, *i. e.*, a hut in which there is no bed, nor anything for the comfort of a healthy person, much less for a sick one. I must not omit to say that these so-called hospitals have no cesspools. * * *

The pilgrims who go to Hedjaz from the north, I mean who embark at the Mediterranean seaports, are compelled to undergo quarantine only upon coming back and when the cholera epidemic breaks out

during the pilgrimage.

They undergo quarantine at Tor, where the general conditions, sanitary and living, are far worse than those at Camaran. At least in the latter place there are huts, the areeshes, under which they are sheltered; the medical service is well organized, as is that of water supply. At Tor there is a small number of tents, which can shelter but a part of the pilgrims, the rest being obliged to be exposed to the burning sun of that climate. The water is of the worst quality, dirty, and not seldom is deficient. The food is as dear as possible, and besides that, poor pilgrims are plundered in an awful way.

During the last quarantine, for instance, in order to deprive them of valuable carpets and other objects, the employés threatened to burn all their luggage as being infected. The unprotected pilgrims, in order not to see all their goods burnt, deprive themselves of what is coveted

by the lazaretto men.

It is to be hoped that in future both lazarettos will be improved. SPIRIDION C. ZAVITZIANO.

CONSTANTINOPLE, May 18, 1891.

Postscript—Cholera at Camaran.

Immediately after I had written the above report, two telegrams were received at the general sanitary administration from the sanitary inspector at Camaran, under date 15th and 16th instants, stating the outbreak of cholera among the 280 pilgrims (Bengalis) carried by the steamship *Sculptor*. They landed at Camaran, according to the regulations, to undergo quarantine. Among the pilgrims five died from cholera. Orders have been given to the sanitary physician at Jeddah in order to prevent the spread of the epidemic to the Holy Land.

Disinfection of old rags imported into the United States from Japan.

The United States consul at Osaka and Hiogo writes, under date of May 1, 1891, to the Secretary of State, as follows:

I have the honor to inform you that in consequence of the prevalence of Asiatic cholera in Japan during the past year, several exporters of old rags to the United States applied to me in December last for information regarding the disinfection of such rags. I informed them that it was optional with them to disinfect them here or at the port of arrival in the United States, but that if the disinfection took place here the process would have to be accomplished by means of superheated steam in a closed chamber or by boiling under the supervision of an inspector. Disinfecting chambers have accordingly been erected under the direction of a competent engineer by two of the leading firms,

and the work of disinfection is being accomplished in the most thorough manner.

One of the said firms, Messrs. Smith, Baker & Co., with the purpose of shipping their rags to Boston and Portland, Me., without disinfecting them, have recently applied to me for the authentication of certificates showing that cholera or other contagious diseases have not existed in this district for the past six months. While it is true that no disease has prevailed in this district in an epidemic form since the 28th of October last, inasmuch as the present stock of rags was gathered during the late cholera epidemic, it would, in my opinion, be unwise to admit them into the United States for disinfection without being first Indeed, since cholera and other contagious diseases have existed throughout Japan in an endemic form for the past fourteen years, it is questionable whether common prudence would not require disinfection at all times. With the view of furnishing the health authorities of the United States the best information obtainable in regard to the matter referred to, I have consulted Dr. John C. Berry, an eminent American physician at Kyoto, and the head of a flourishing medical university of that place, and also Dr. Ralph S. Miller, the leading English physician of this port. The opinions of these gentlemen, given in letters addressed to me, are herewith inclosed.

BAHAMAS—Green Turtle Cay, Abaco.—Two weeks ended June 4, 1891. Population, 3,610. Total deaths, 5. No deaths from contagious diseases.

CUBA—Havana.—The United States sanitary inspector writes as follows, dated June 6, 1891:

There were 135 deaths in this city during the week ended June 5. Three of those deaths were caused by yellow fever, with, approximately, 9 new cases; 8 were caused by smallpox, 4 by enteric fever, 11 by so-called pernicious fever, 1 by croup, and 1 by hydrophobia.

EGYPT.—Week ended May 7, 1891. The towns in upper and lower Egypt, including Gizeh and the Suez Canal, show a total of 1,176 deaths, including phthisis pulmonalis, 66; enteric fever, 71; smallpox, 5; diphtheria and croup, 3; measles, 31; and whooping cough, 7.

GREAT BRITAIN—England and Wales.—The deaths registered in 28 great towns of England and Wales during the week ended May 30 corresponded to an annual rate of 30.9 a thousand of the aggregate population, which is estimated at 10,010,426. The lowest rate was recorded in Norwich, viz, 16.5, and the highest in Salford, viz, 45.9 a thousand. Diphtheria caused 2 deaths in Manchester, 2 in Sheffield, and 3 in Salford.

London.—Two thousand three hundred and thirty-seven deaths were registered during the week, including smallpox, 1; measles, 41; scarlet fever, 10; diphtheria, 27; whooping cough, 70; enteric fever, 7; and diarrhœa and dysentery, 18. The deaths from all causes corresponded to an annual rate of 28.9 a thousand. Diseases of the respiratory organs

caused 591 deaths. In greater London 2,813 deaths were registered, corresponding to an annual rate of 25.9 a thousand of the population. In the "outer ring" the deaths included measles, 15; whooping cough, 14; and diphtheria, 6.

Newcastle-upon-Tyne.—Two weeks ended May 30, 1891. Population, 186,300. Total deaths, 132.

Sunderland.—Two weeks ended May 16, 1891. Population, 138,859. Total deaths, 124, including 1 from diphtheria.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended May 30, in the 16 principal town districts of Ireland, was 21.2 a thousand of the population. The lowest rate was recorded in Kilkenny, viz, 0.0, and the highest in Armagh, viz, 25.8 a thousand. In Dublin and suburbs 127 deaths were registered, including influenza 1.

Scotland.—The deaths registered in eight principal towns during the week ended May 30 corresponded to an annual rate of 23.3 a thousand of the population, which is estimated at 1,357,215. The lowest mortality was recorded in Leith, viz, 16.7, and the highest in Paisley, viz, 29.9 a thousand. The aggregate number of deaths registered from all causes was 607, including measles, 23; scarlet fever, 6; diphtheria, 3; whooping cough, 22; fever, 9; and diarrhea, 4.

Glasgow—Smallpox.—The United States consul at Glasgow reports an outbreak of smallpox in the sailor's home in that city. He states that Doctor Russell, health officer of the city, has serious apprehensions as to the probability of the spread of the disease, and thinks it more than possible that many sailors may have sailed from this port who were exposed to the contagion.

MEXICO—Guaymas.—Month of May, 1891. Population, 6,600. Total deaths, 10. No deaths from contagious diseases.

SIAM—Bankok—Cholera.—Under date of April 21, 1891, the United States minister transmits the following through the State Department:

It is perhaps proper to inform you that cholera prevails here to an alarming extent. I have heard of no one recovering after being attacked. They die very soon; don't live longer than ten to twelve hours. They die every day all around the legation premises; we, however, so far have escaped; we may have prevented its scourge by having the entire premises whitewashed and disinfected. Europeans heretofore have escaped, but are now dying with it. No one gives or pretends to give any satisfactory cause for its intensity at this time or season. The month of June is called the cholera month. One American died last night, W. H. McFarland, aged 27, an employé of the King. Five laborers, natives, died at one place yesterday. Two Europeans at custom-house died yesterday. These are all in my neighborhood, which is healthy compared to other parts of the city. No way of obtaining any accurate account of its extent.

MORTALITY TABLE, FOREIGN CITIES.

		ոլո	from	Deaths from—									
Cities.	Week ended.	Estimated population.	Total deaths frall causes.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.	
London	May 23	5, 877, 290 2, 260, 945	2, 761					9	11	28	53		
Paris Vienna	May 30 May 9	2, 260, 945 1, 378, 530	943 809			9		2	9	32 16	30 20		
Livernool	May 23	620, 443	388 276					2	1	1 6		ļ	
HamburgGlasgow	May 16 May 23	570, 534 570, 534	238					3	1	4			
Glasgow	May 23	545, 678	271					1	4	4			
Glasgow Buda Pesth Buda Pesth	May 30 May 21	243 b/8	296				2	5	5	10	•••••		
Buda Pesth	May 28	507,000 507,000 469,459					ī			12			
Brussels Warsaw	May 23 May 16	469, 459 465, 272	$\frac{217}{172}$			12 1		7	•••••	10	•••••		
Warsaw	May 23	465, 272	202			i	ļ	2	5	12			
Lyons	May 23	430,000 417,542	160				ļ					ļ	
AmsterdamRome	May 23 May 30	417, 542 417, 392	184 195			1		2		4 2	19	1	
Munich	May 16	349,000 349,000	174					ļ	2	7			
Munich Copenhagen	May 23 May 23	349,000 320,000	199 145			•••••		1	1	3			
Cologne	May 23	283, 866	127				1		1	4		3	
Dresden	May 23 May 23	276, 085	120 123				ļ	ļ <u>.</u>	2	1	•••••	ļ	
Edinburgh	May 23 May 29	275, 436 272, 000	134			3		1 2	_ z	11			
		250 , 000	86					2					
Antwerp Antwerp Belfast	May 23 May 30	238, 788 238, 788	94 74				••••	1 2	•••••				
Belfast	May 23	234, 822	106			1		2 2					
Pernambuco	Apr. 20	200,000 182,530	63 127	•••••		1			<u>2</u>	1			
Genoa	May 23 May 30	180, 596	71							1	2		
Genoa Hanover	May 23	180,596 168,500	52							3			
Konigsberg	May 24 May 23	161, 200 158, 054	51 70			•••••		1		1			
Trieste Nuremberg Stuttgart	May 16	142, 523	85					1		2			
Funchal	May 30 May 23	139, 659 133, 250	64 17			•••••		1					
Colombo	May 9	128 000				6							
Bremen	May 23 May 23	125,000 120,459 116,000	36 42	•••••			ļ	1	ļ	3		ļ	
DanzigStettin	May 23 May 23	116,000	61					2		2			
Gothenburg	May 23	106, 246	47								ļ		
RheimsAix-la-Chapelle	May 30 May 24	104, 639 104, 598	43 36	•••••						2			
Leghorn	May 31	104, 598 103, 762	49				l		1				
Zurich Edinburgh Mannheim	May 23 May 23	91, 323 80, 736	39 24	• • • • • • • • • • • • • • • • • • • •					2	22	8	8	
Mannheim	May 23	80,000	16		1		l			1			
Mannheim	May 30	80,000	23										
Mayence Trapani	May 23	73, 271 43, 095	27 16										
Cienfuegos	May 31	41,647	15		1								
Marsala	June 7 May 23	41,647 40,131	17 11										
Gibraltar	May 24	25, 755	5		1		l						
GirgentiLicata	May 23	23,547	11		,				10				
Kingston, Can	May 23 June 5	$20,000 \\ 18,172$	19 18						10	1			
Kingston, Can	June 12	18, 152	.8				l						
Matamoras Hamilton	June 6 June 4	16,000 15,740 15,740	14 1			1							
Hamilton	June 11	15, 740	1					·					
Sagua la Grande	May 30 June 6	15, 605 15, 605	14					,					
Sagua la Grande Cape Haytien Cape Haytien	May 9	15,000	18										
Cape Haytien	May 16	15,000	6							·····			
Cape Haytien	May 23 May 30	15,000 15,000	5										
Cape Haytien	May 30	10, 340	4										
Gueipn	June 7 May 23	10, 173	3					•••••			•••••	1	
Tuxpan	May 23	9,000	6			5				1			

MORTALITY TABLE, FOREIGN CITIES—CONTINUED.

		popula-	from	Deaths from—										
Cities.	Week ended.	Estimated pol tion.	Total deaths all causes.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.		
La Guayra La Guayra Port Sarnia Prescott Amhurstburg Puntarenas Puntarenas Puntarenas	May 23 June 6 June 11 June 6 May 2 May 10 May 16	7, 641 7, 641 6, 200 2, 988 2, 260 2, 200 2, 200 2, 200	3 6 2 2 5 5 5 6											

OFFICIAL:

WALTER WYMAN,

Supervising Surgeon-General, Marine-Hospital Service.