

ABSTRACT OF SANITARY REPORTS.

VOL. VII. WASHINGTON, D. C., JANUARY 1, 1892. No. 1.

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

UNITED STATES.

SPECIAL REPORTS.

Summary of the weekly inspection of immigrants at Port Huron, Mich., week ended December 19, 1891.—Number of immigrants inspected, 524. Number classified as to nationality: Germans, 125; Norwegians and Swedes, 117; Italians, 55; Danes, 39; French Canadians, 36; Russian Jews, 26; Poles, 23; Hollanders, 19; English, 15; Bohemians, 12; Hungarians, 6; Arabs, 2; Belgians, 2; Irish, French, Fins, Austrians, of each, 1. Number of persons vaccinated, 28.

No case of contagious or infectious disease appeared among any of the immigrants. Their destination was generally Chicago and the Northwest; a few to various places in Michigan.

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

MICHIGAN.—Week ended December 19, 1891. Reports to the State board of health, Lansing, from 44 observers indicate that measles, inflammation of brain, membranous croup, pneumonia, and influenza increased, and that typho-malarial fever, whooping cough, pleuritis, inflammation of kidney, scarlet fever, and erysipelas decreased in area of prevalence.

Diphtheria was reported present during the week and since at 45 places, scarlet fever at 41 places, enteric fever at 33 places, and measles at 10 places.

MISSOURI—*Kansas City*.—Month of November, 1891. Population, 132,416. Total deaths, 110, including croup, 8; diphtheria, 9; scarlet fever, 1; enteric fever, 4; and phthisis pulmonalis, 11.

NEW YORK—*Buffalo*.—Month of November, 1891. Population, 255,664. Total deaths, 430, including scarlet fever, 14; diphtheria, 12; croup, 24; enteric fever, 22; and phthisis pulmonalis, 46.

TENNESSEE—*Memphis*.—Month of November, 1891. Population (estimated), 60,000. Total deaths, 118, including diphtheria, 1; enteric fever, 4; and phthisis pulmonalis, 20.

Publications received.

Report of the health department of the city and county of San Francisco, Cal., fiscal year ended June 30, 1891.

Metropolitan asylum board reports, for the year 1890, of the statistical committee and the medical superintendents of the infectious hospitals and imbecile asylums, etc., London, England.

Fascicule No. 36, conseil supérieure de l' assistance publique, session Juin, 1891.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—											
				Phtthisis pulmonalis.	Yellow fever	Smallpox.	Varioloid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.	
New York, N. Y.....	Dec. 26.....	1,515,301	889	86							4	23	46	2	4
Chicago, Ill.....	Dec. 26.....	1,069,850	545	49							52	11	26	4	3
Boston, Mass.....	Dec. 26.....	448,477	292	32								6	6		3
Baltimore, Md.....	Dec. 19.....	434,439	233	18								9	12		1
Baltimore, Md.....	Dec. 26.....	434,439		19								1	7		1
Cincinnati, Ohio.....	Dec. 18.....	296,908	211	26								5	13	1	3
Cincinnati, Ohio.....	Dec. 25.....	296,908	207	24							5	1	7		
Cleveland, Ohio.....	Dec. 26.....	261,253	84	7							1	1	8		1
Washington, D. C.....	Dec. 19.....	230,392	123	14							4	4	2		2
Milwaukee, Wis.....	Dec. 26.....	204,468	101	6							5	5	17	2	2
Minneapolis, Minn.....	Dec. 26.....	164,738	46									3		1	
Rochester, N. Y.....	Dec. 26.....	133,896	85	6							2		1		
Providence, R. I.....	Dec. 26.....	132,146	90										1		
Toledo, Ohio.....	Dec. 25.....	81,434	32								2				1
Nashville, Tenn.....	Dec. 26.....	76,168	57	8									1		
Fall River, Mass.....	Dec. 25.....	74,398	31	1											
Portland, Me.....	Dec. 26.....	36,425	10												
Binghamton, N. Y.....	Dec. 26.....	35,005	24	1									4		
Mobile, Ala.....	Dec. 19.....	31,076	9	2											
Galveston, Tex.....	Dec. 11.....	29,084	15	1							1				
Galveston, Tex.....	Dec. 18.....	29,084	22												

Erratum.—In ABSTRACT No. 51, December 18, the total number of deaths in Denver, Colo., should read 37, instead of 3.

Table of temperature and rainfall, week ended December 25, 1891.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Mean temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
New England States:						
Eastport, Me.	25	79		.98	.14	
Portland, Me.	23	104		.77	.26	
Boston, Mass.	31	79		.73	.27	
Block Island, R. I.	36	61		.91		.30
Middle Atlantic States:						
Albany, N. Y.	28			.63		
New York, N. Y.	34	67		.77	.59	
Philadelphia, Pa.	35	71		.61	1.06	
Atlantic City, N. J.	38	60		.91		.10
Baltimore, Md.	37	63		.70	.55	
Washington, D. C.	36	70		.70	.28	
Lynchburg, Va.	38	64		.84	.05	
Norfolk, Va.	43	59		.84		.79
South Atlantic States:						
Charlotte, N. C.	42	37		1.12		.53
Wilmington, N. C.	48	68		.80		.61
Charleston, S. C.	50	40		.84	.14	
Augusta, Ga.	49	24		.84	.61	
Savannah, Ga.	52	37		.75	.81	.14
Jacksonville, Fla.	35	33		.42		
Key West, Fla.	70	3				.34
Gulf States:						
Atlanta, Ga.	45	38		1.15		.56
Pensacola, Fla.	55	5		1.12		1.04
Mobile, Ala.	52	19		1.05		.83
Montgomery, Ala.	50	32			1.0*	
Vicksburg, Miss.	49	55		1.19		.08
New Orleans, La.	56	13		1.08		.99
Shreveport, La.	48	27		1.12	4.04	
Fort Smith, Ark.	42	32		.70		.48
Little Rock, Ark.	41	28		.86	3.53	
Palestine, Tex.	49	33		.77	1.43	
Galveston, Tex.	57	17		1.05		.27
San Antonio, Tex.	54	26		.40	.12	
Corpus Christi, Tex.	55	36		.45		.33
Brownsville, Tex.*	59	49		.42		.42
Rio Grande City, Tex.†	57			.28		
Ohio Valley and Tennessee:						
Meraphis, Tenn.	42	74		.87	4.02	
Nashville, Tenn.	41	63		.79	.51	
Chattanooga, Tenn.	43	56		1.05		.42
Knoxville, Tenn.	40	67		.94		.49
Louisville, Ky.	37	79		.90	1.51	
Indianapolis, Ind.	32	85		.75	.80	
Cincinnati, Ohio.	36	71		.77	.55	
Columbus, Ohio.	33	74		.70	.39	
Pittsburg, Pa.	34	84		.63	.12	
Lake Region:						
Oswego, N. Y.	28	67		.77	.20	
Rochester, N. Y.	28	84		.63	.50	
Buffalo, N. Y.	29	75		.77	.40	
Erie, Pa.	32	62		.70	.68	
Cleveland, Ohio.	30	77		.60	.45	
Sandusky, Ohio.	30	73		.57	.22	
Toledo, Ohio.	30	76		.56	.07	
Detroit, Mich.	30	61		.56		.19
Port Huron, Mich.	26	77		.49	.32	
Alpena, Mich.	23	91		.56		.42
Marquette, Mich.	21	90		.49		.16
Grand Haven, Mich.	28	48		.56		.32
Milwaukee, Wis.	26	76		.49		.30
Chicago, Ill.	28	76		.49		.35
Duluth, Minn.	15	111		.28	.21	
Upper Mississippi Valley:						
St. Paul, Minn.	17	92		.28	.23	
La Crosse, Wis.	22	85		.28	.18	
Dubuque, Iowa.	24	75		.42		.10
Davenport, Iowa.	26	77		.39		.12
Des Moines, Iowa.	24	67		.35		.06
Keokuk, Iowa.	27	82		.49		.11
Springfield, Ill.	31	61		.63		.45
Cairo, Ill.	38	65		.77	1.60	
St. Louis, Mo.	34	71		.54		.23

* One observation interpolated.

† Missing.

Table of temperature and rainfall, week ended December 25, 1891—Continued.

Locality.	Mean temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Missouri Valley:						
Springfield, Mo.....	35	48	.....	.49	.....	.37
Kansas City, Mo.....	31	55	.....	.28	.....	.22
Concordia, Kans.....	30	34	.....	.14	.....	.05
Omaha, Nebr.....	24	60	.....	.21	.32	.....
Valentine, Nebr.....	22	24	.....	.17	.21	.....
Huron, S. Dak.....	16	44	.....	.21	.....	.01
Pierre, S. Dak.....	18	59	.....	.14	.....	.03
Extreme Northwest:						
Moorhead, Minn.....	8	80	.....	.21	.....	.07
Bismarck, N. Dak.....	12	31	.....	.14	.....	.06
Buford, Fort, N. Dak.....	10	42	.....	.16	.....	.11
Rocky Mountain Slope:						
Assiniboine, Fort, Mont.*.....	14	.....	.....	.14	.....	.....
Helena, Mont.....	22	3	.....	.27	.....	.10
Salt Lake City, Utah.....	33	.....	62	.40	.38	.....
Cheyenne, Wyo.....	28	.....	35	.07	.19	.....
North Platte, Nebr.....	26	.....	3	.15	.21	.....
Denver, Colo.....	33	.....	37	.14	.51	.....
Montrose, Colo.....	27	.....	77	.14	.44	.....
Pueblo, Colo.....	34	.....	44	.14	.....	.02
Dodge City, Kans.....	31	13	.....	.14	.....	.14
Abilene, Tex.....	45	12	.....	.21	.....	.15
Santa Fé, N. Mex.....	32	.....	80	.14	.....	.08
Pacific Coast:						
Olympia, Wash. †.....	40	.....	4	2.21	.79	.....
Portland, Oreg.....	41	.....	9	1.89	.38	.....
Roseburg, Oreg.....	43	.....	24	1.54	.50	.....
Red Bluff, Cal.*.....	47	.....	.....	1.26	.....	.....
Sacramento, Cal.*.....	48	.....	.....	.98	.....	.....
San Francisco, Cal.....	52	.....	17	1.25	.....	.69
Los Angeles, Cal.....	55	.....	32	1.09	.....	1.03
San Diego, Cal.*.....	56	.....	.....	.56	.....	.....
Yuma, Ariz.*.....	56	.....	.....	.14	.....	.....

*Missing.

†One observation interpolated.

FOREIGN.

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

Sanitary Commission at Constantinople—Report of United States Commissioner—Cholera at Damascus.

REPORT NO. 34.

Since the 10th of October last cholera has made its appearance at Damascus. The first cholera deaths were officially registered on that date, though, according to the unofficial news received here, cholera had been raging days and weeks before. It is stated that the physicians of Damascus had warned the authorities of the existence of cholera, but they did not want to listen to them.

The first persons attacked were two *zaptiehs*, who died in the military hospital. After these the authorities were obliged to publish the existence of the epidemic. Since the beginning of the scourge up to the present, 667 deaths have been officially registered.

Whether the epidemic has been imported from Aleppo or from the Hedjaz is not known. There are different reports about it. It has been said, for instance, that pilgrims ran away from the sanitary cordon at Aias-Zerka, and entered the city of Damascus with all their luggage. Others state that a long time ago all the villages around the mountain Jebel-el-Kalalamem were affected with the epidemic. It is stated by others that travelers coming from Aleppo imported the sickness. The fact is that since the appearance of cholera the people have lost their heads. It is to be observed that everyone in the vilayet of Damascus, as in the other surrounding vilayets, thought to check the epidemic by quarantine cordons.

All the roads around Damascus have been guarded by these cordons. It is sufficient to mention that from the latter town to Beirut travelers must undergo three quarantines of ten days each. That is to say, that within a distance of 120 kilometers the traveler must undergo thirty days in three different lazarettos. Lazaretto means, in this country, one or more tents, without a physician and without water; only a few *zaptiehs* or soldiers for guarding and taxing the travelers.

Every day the different authorities, the government or the ambassadors, receive protestations against these quarantines, which hinder trade. The inhabitants complain of them, for the cost of living is excessively high and they fear a dearth will ensue, and the increase of the epidemic will be the natural consequence.

Many physicians of Damascus have already fled, fearing the scourge. At Aleppo since the 17th of October last no deaths have been registered, though in the surrounding villages one or more deaths occur; for instance, at Raka, on the left side of the Euphrates. The sanitary physician in the Hedjaz reports that the sanitary condition of that province is good.

We have no information as to what happens in the Yemen, but there, also, cholera is raging.

The sanitary condition of Constantinople does not present anything peculiar. A new batch of Jews has arrived from Russia, and among them a few cases of diphtheria have been observed.

SPIRIDION C. ZAVITZIANO.

CONSTANTINOPLE, November 12, 1891.

REPORT No. 35.

The news concerning the sanitary condition of Aleppo is good. During the past week there have not been any cases or deaths from cholera, not only in the city of Aleppo, but in all the vilayets of the same name; therefore sanitary cordons and quarantines have been established. Since the outbreak of the epidemic—that is to say, since the 9th of June last up to the 5th of November—1,659 deaths have been officially registered.

At Damascus also the epidemic is losing its strength, one or two deaths being daily registered.

We might believe that in a few days cholera would also disappear from that city and province if new cases were not noticed in neighboring villages in or outside the quarantine cordons.

Since the appearance of the epidemic at Damascus on the 11th October last up to the present date, 778 deaths have been officially registered.

The news from Hedjaz is good. In Yemen, on the contrary, cholera still exists, though decreasing also.

As I have already mentioned, the quarantines have been abolished for the places where cholera has disappeared, but the troops will undergo quarantine as before, until the international sanitary administration should consider it fit to withdraw this exceptional measure. It has been remarked that cholera spreads by the movement of the troops. This has been seen nearly always, and, therefore, the sanitary administration has taken special measure that the troops should undergo quarantine.

In the island of Crete there is an epidemic of dysentery. In the capital there is a little epidemic of typhoid fever. I do not lay stress on the epidemic of smallpox being endemic, the authorities not compelling the population to be vaccinated.

The number of deaths in the month of October is 854, of which 61 are from smallpox.

SPIRIDION C. ZAVITZIANO.

CONSTANTINOPLE, *December 2, 1891.*

BRAZIL—Rio de Janeiro.—Week ended October 31, 1891. Population, 450,000. Total deaths, 426, including yellow fever, 6; smallpox, 122; enteric fever, 2; and typhus, 2. The sanitary condition of the city is reported as fairly good, and smallpox is apparently on the decrease.

Week ended November 7, 1891. Total deaths, 427, including yellow fever, 5; smallpox, 97; enteric fever, 3; and typhus, 2. Smallpox is still decreasing. Recent heavy rains have improved the sanitary condition of the city.

Santos.—Week ended November 14, 1891. Population, 20,000. The average number of cases of yellow fever in hospital during the week was 77, with 30 deaths from that disease. The fever is increasing, but is still confined to the shipping and among the sailors. Consular bills of health are indorsed "yellow fever exists at this port."

Week ended November 21, 1891. The average number of cases of yellow fever in hospital during the week was 103, with 51 deaths from that disease, and 5 from smallpox. The sanitary condition of the city is bad. Deaths from other causes than yellow fever and smallpox are seldom reported.

CANADA—*Smallpox*.—The following report has been received :

BOARD OF HEALTH OF THE PROVINCE OF QUEBEC,
Montreal, December 28, 1891.

SIR: I beg to send you the following statement regarding the existence of smallpox in the province:

Counties.	Municipalities.	Cases since outbreak.	Deaths.	Recovered.	Still sick.	Houses infected since outbreak.	Houses presently infected.
	Quebec City.....	5	3	2	0	3	0
Bonaventure	Carleton.....	9	1	8	0	4	0
Do.....	Shoalbred and Nouvelle.	3	0	3	0	1	0
Rimouski	St. Damase.....	17	5	12	0	4	0
Do.....	Sandy Bay.....	5	0	0	5	3	2
Temiscouata	St. Paul de la Croix...	61	11	50	0	13	0
Do.....	St. Clement.....	8	0	8	0	2	0
Do.....	Ile Verte.....	1	1	0	0	1	0
Gaspé	Pabos.....	6	1	5	0	2	0
Do.....	Newport.....	6	2	4	0	1	0
Quebec	La Jeune Lorette.....	4	0	4	0	1	0
Sherbrooke...	Ascot.....	10	4	6	0	2	0
Do.....	Sherbrooke City.....	13	3	6	4	5	1*
Richmond	Brompton.....	1	0	0	1	1	1

*The civic hospital.

Yours respectfully,

ELZÉAR PELLETIER,
Secretary.

CUBA—*Havana*.—Week ended December 17, 1891. There were 175 deaths from all causes, including yellow fever, 5; enteric fever, 4; so-called pernicious fever, 4; intermittent fever, 1; diphtheria, 2; and la grippe, 16. The grippe is increasing in severity as well as in number of persons attacked.

GIBRALTAR.—The following notice has been published :

GIBRALTAR, *December 3, 1891.*

With reference to the orders of the 14th July last and 6th ultimo, the board of health this day decided to remove the quarantine on arrivals at this port from Mediterranean ports of Turkey in Asia.

By order :

JOHN C. KING,
Secretary to the Board of Health.

GREAT BRITAIN—*England and Wales*.—The deaths registered in 28 great towns of England and Wales during the week ended December 12 corresponded to an annual rate of 19.08 a thousand of the aggregate

population, which is estimated at 9,405,108. The lowest rate was recorded in Leicester, viz, 12.38, and the highest in Plymouth, viz, 45.1 a thousand.

London.—One thousand four hundred and sixty-two deaths were registered during the week, including measles, 45; scarlet fever, 20; diphtheria, 33; whooping cough, 56; enteric fever, 17; and diarrhoea and dysentery, 14. The deaths from all causes corresponded to an annual rate of 21.9 a thousand. Diseases of the respiratory organs caused 340 deaths. In greater London 1,876 deaths were registered, corresponding to an annual rate of 17.3 a thousand of the population. In the "outer ring" the deaths included diphtheria 17 and whooping cough 15.

Ireland.—The average annual death rate represented by the deaths registered during the week ended December 12, in the 16 principal town districts of Ireland, was 32.5 a thousand of the population. The lowest rate was recorded in Sligo, viz, 10.4, and the highest in Cork, viz, 56.0 a thousand. In Dublin and suburbs 168 deaths were registered, including enteric fever, 11; influenza, 3; and whooping cough, 3.

Scotland.—The deaths registered in 8 principal towns during the week ended December 12 corresponded to an annual rate of 32.2 a thousand of the population, which is estimated at 1,338,314. The lowest mortality was recorded in Perth, viz, 20.3, and the highest in Edinburgh, viz, 45.3 a thousand. The aggregate number of deaths registered from all causes was 787, including measles, 6; scarlet fever, 9; diphtheria, 12; whooping cough, 18; fever, 7; and diarrhoea, 7.

INDIA—*Singapore.*—Month of October, 1891. Total deaths, 526, including fevers, 169; bowel complaints, 49; cholera, 1; beri-beri, 37.

NETHERLANDS.—Month of September, 1891. The total number of deaths registered in the 12 principal towns, having an aggregate population of 1,172,989, was 591, including typhus and enteric fever, 13; measles, 8; croup, 11; diphtheria, 13; whooping cough, 32; and diarrhoea and dysentery, 43.

SWITZERLAND—*Luzerne.*—Month of November, 1891. Population, 20,800. Total deaths, 37, including diphtheria 2.

Cholera in Amoy.

The United States consul at Amoy, Edward Bedloe, M. D., makes the following report relative to cholera in Amoy:

Amoy bears the unenviable reputation of being the dirtiest and most unhealthful city on the globe. The reputation is thoroughly deserved. What is a more unpleasant fact is the promise of the present tendency of affairs to a lower and worse condition. The reasons are obvious to a new comer at a glance.

The city is built on the edge of a mountainous island and is exceedingly old. Inscriptions on ancient tombs run back as far as the beginning of the Christian era, and coins found in accidentally-discovered graves date to dynasties from 500 to 1000 B. C.

During all this period the hillsides of the city have been used as burying grounds. As the population increased, the houses encroached upon the cemetery land until finally the two became hopelessly intermixed.

The United States consulate is regarded as a very superior locality, but it is surrounded by over a hundred tombs. A score of the large blocks of granite used in and about it are old tombstones. On the hill immediately behind the residence of F. Malcampo, esq., the graves touch one another at every point and form a solid white surface of rock, brick, porcelain, and cement, covering more than a million square feet. Near the Lam-paw-do Joss-house 30,000 bodies are said to have been buried vertically to save space. They lie or stand in a plot of land of as many square feet. Amoy proper and its suburbs have a living population of about one million, and a dead one of four and a half times as many. The wells are shallow and are sunk on the edges of the graveyards and even among the tombs themselves. I have not seen one whose water was not muddy and discolored by the perpetual turning up of the soil.

The city is a relic of the past. It is walled the same as it was in the time of Confucius. It has no sewers whatever. The streets vary from 2 to 6 feet in width; no wheeled vehicle can use them. An equestrian would experience great difficulty in turning a corner. Here and there is an open space or plaza, dug out so as to be a huge open cesspool. Into it the streets discharge their filth and the house-servants the refuse of their houses. Nothing goes to waste in China. The decomposing ooze, no one knows how deep, is used for growing onions, water-cress, water-lilies, and other edible plants. Under a hot tropical sun their growth is marvelous. A single square will produce eight crops a year and support a thousand souls in comfort.

Pigs and pariah-dogs are everywhere. They are so starved that they eat all kinds of refuse. They leave nothing for the rat, cat, or mouse. These have a hard struggle for existence. The rat is especially unfortunate. Besides the disadvantages mentioned, he is esteemed a delicacy by many of the poorer classes and brings a high price in the market.

All garbage and offal is thrown into the yard for the pigs. What these omnivorous quadrupeds refuse is thrown into the streets and lies there until washed away by the rain or carried onward by the feet of the traveling multitude. The amount of street-dirt found in this way is very great and of its nature very offensive and foul-smelling. It accumulates in angles and no-thoroughfares. Where it settles it is always being rooted up by pigs and scratched over and into by pariah-dogs.

It should be said in justice to these two animals that they are excellent scavengers and devour almost everything. The pigs are simply invaluable, consuming even human fecal matter and urine. Without them the population would be swept away in thirty days.

Such are the general physical features of the ancient city of Amoy. While they could be changed, revolutionized, it may be, in forty-eight hours by the action of the authorities, there is very little hope of alteration or improvement. Inertia and *laissez-faire* are too organic a part of

life in the East to permit the introduction and employment of Western sanitary ideas and systems.

A word as to the climate. Amoy lies in 24° 40' north latitude, and is just outside of the Tropic of Cancer. It has practically but two seasons, the wet and the dry. The former begins in February and closes in June, and is about four months' duration; the dry season embraces the remainder of the year. The distinction is more theoretical, however, than practical. The annual rainfall is about 46 inches, which fall in about one hundred days. It frequently descends in large quantities, and in a short time, owing to the local topography, exerts a powerful erosive action, producing gulleys in the thoroughfares and deep channels in the foothills. The temperature varies from a maximum of 95° Fahr. in July to a minimum of 49° Fahr. in March. Its annual mean, 70.7° Fahr., making the isotherm of Amoy the same as that of the Pacific coast of southern California. The barometer is subject to great fluctuations, especially during typhoons. Its annual mean is 30.095; almost the isobar of Mobile, Ala., and Jacksonville, Fla. The hygrometer varies from 95 maximum to 10 minimum, and has an annual mean of 28-30, making it a dry climate.

A good feature is the prevalence of winds. Owing to the ocean on the one hand and the mountains on the other, there is a movement of air which seldom falls below 3 miles an hour in speed. The northeast monsoon blows with great uniformity at 10 miles an hour from September to April, and the southwest monsoon with less regularity at 8 miles an hour the balance of the year. Besides these general winds is a local sea breeze from the Formosa Channel in the evening and a land breeze from the mountains in the morning, which are very conducive to health and comfort.

A more detailed meteorological statement is as follows :

Barometer.

Month.	Maximum.	Minimum.	Mean.	
			<i>Max.</i>	<i>Min.</i>
January.....	30.35	30.02	30.40	30.25
February.....	30.36	29.80	30.34	30.17
March.....	30.60	30.01	30.31	30.16
April.....	30.26	30.01	30.18	30.06
May.....	30.18	29.86	30.08	30.00
June.....	30.16	29.90	30.04	29.94
July.....	30.10	29.58	29.92	29.82
August.....	30.08	29.75	29.97	29.74
September.....	30.10	29.76	30.02	29.94
October.....	29.85	30.29	30.01	30.20
November.....	30.41	30.09	30.32	30.06
December.....	30.43	30.02	30.28	30.17

Thermometer.

Month.	Maximum.	Minimum.	Mean.
January.....	70	48	62.54
February.....	75	51	64.57
March.....	75	48	60.55
April.....	82	55	71.65
May.....	82	66	77.71
June.....	87	70	82.78
July.....	94	76	86.81
August.....	89	77	86.80
September.....	90	73	85.78
October.....	89	80	80.65
November.....	75	66	74.58
December.....	73	51	68.61

Solar radiation.

Month.	Maximum.	Minimum.	Mean.
January.....	132	65	110
February.....	152	76	120
March.....	141	57	100
April.....	148	69	125
May.....	154	92	131
June.....	154	91	136
July.....	156	130	149
August.....	157	141	150
September.....	155	92	144
October.....	148	126	137
November.....	133	113	132
December.....	156	65	110

Weather.

Month.	Days of rain.	Hours of rain.	Inches of rain.	Days of fog.
January.....	9	74½	2.01	1
February.....	7	14¾	1.14	5
March.....	20	103¾	9.25	3
April.....	4	27	1.23	11
May.....	11	56½	3.27	2
June.....	17	78¾	9.83	.....
July.....	10	23	7.90	.....
August.....	12	13½	4.03	.....
September.....	8	14½	0.06	.....
October.....	.....	.....	.....	.....
November.....	.....	3¾	4.27	.....
December.....	1½	36	2.01	.....
Total.....	99	444¾	45.60	22

Under such auspices cholera and other diseases of its class are perennial. They are functions of heat, moisture, and wind. So far as the thermometer is concerned, they increase with the rise in temperature, though the increase is more than an arithmetical ratio.

The winter is marked by a minimum of cases, the summer by a maximum. The relations of moisture and cholera are quite complicated. In the main, it may be said that a very dry air is unfavorable to the progress of the germs or the spread of the disease, while a damp atmosphere is the opposite. Heavy rains, on the other hand, are very antagonistic to cholera. Whether this be on account of the washing away of the accumulated decaying organic matter in the towns and cities, or on account of the precipitation of the germs from the air and walls and their being floated off by the water, is unknown. Perhaps both causes of action are involved in the result. Calm is favorable and high winds unfavorable to the epidemic phase of the malady. Twice in the summer of 1891, when the scourge was carrying off not less than 200 natives a day, it was suddenly terminated by heavy rains and high winds. Consul-General P. S. Hamel, of the Netherlands, has noticed the same fact in Siam, Sumatra, and Java, as have also Dr. James F. Love in Egypt, and Dr. Chas. H. H. Hall (formerly of the U. S. Navy) in the cities of Japan. On the other hand, it has been observed that slight rains, great heat, and a slight circulation of the air are the most favoring conditions of the disease. When these prevail, the death rate rises very rapidly. The reason appears to be that these superinduce a rapid decomposition of dead organic matter, and while infusing the atmosphere of crowded municipalities with deleterious gases and vapors, afford breeding grounds to the germs that may be in the neighborhood.

It is obvious that an excited crowd of people spending an hour in an infected place will carry away with them seeds of disease. Very objectionable therefore, from a sanitary standpoint, is the mode of burial. The body is put in a clumsy coffin, made by rough-hewing a tree trunk into a heavy and hideous box. It is carried on the backs of porters, preceded and followed by a procession of relatives, mourners, musicians, and acquaintances. The funeral cortege usually parades through the thickly populated districts of a city, pausing here and there for the coffin-porters to rest a few minutes. The house of death from which they start is never disinfected, and the rooms in which they pay their respects to the bereaved family are poorly ventilated. Although cremation is practiced by the Chinese, it follows after inhumation at a period varying from six months to six years.

They deserve praise, however, for their general custom of burying within twenty-four hours after death. This lessens the evil to a considerable extent. Many Chinese families throw lime on the coffin until it is covered, and then fill the grave up with earth. This is said to bring the occupant *fung shuey*, or good luck.

Two other customs tend to prevent the spread of the epidemic, both of which should be borne in mind by American legislators. One is that no grave shall be re-opened within a year without the consent of the authorities. The second is that no house shall be built more than two stories high, nor shall be so built as to interfere with the light, air, well-water, or comfort of neighbors. In this way the terrible crowding which occurs in the great cities of America and Europe is entirely avoided. Thus while cholera and other epidemics ravage Chinese communities, there is a much lesser percentage of pulmonary, nerve, and typhoid diseases incident to tenement-house life in the West.

On the other hand, the danger of attack is augmented by several Oriental customs. The house where cholera is, or has just been, is frequently crowded with priests, acolytes, friends, and relatives, who come to exorcise the particular evil spirit which superintends or controls the diseases. * * *

One can not be too careful in his mode of living in Amoy, and probably the same rule applies to all the tropical cities of Asia. A few suggestions may therefore have more than a local application and value.

I. *The floors.*—These should be of bare wood, with neither carpet nor matting. They should be both *swept* and *washed* every day. They and all the woodwork should be sprinkled regularly with a dilute antiseptic, such as cressol, creosote, Joye's disinfectant, Platt's chlorides, chloralum, corrosive sublimate solution, or white vitriol.

II. All clothing should be ventilated and exposed to the sun at least once a week. It should be kept in camphor-wood boxes, and sprinkled with salicyl or a similar non-injurious substance.

III. Water should never be used as a beverage in its natural state. If drunk, it should be boiled and filtered. Weak tea, coffee, cocoa or broma, soda water, claret and soda, or distilled water should alone be used to quench thirst.*

* There is little, if any, decent drinking water in the treaty ports of China. It contains dirt, lime, and excessive amounts of ammonia nitrates and organic matter. A "good" well water in Amoy showed on analysis the following composition: Total foreign matter in 1 gallon, 400 grains; insoluble (lime, clay, dirt, etc.), 120 grains; gaseous, 15 grains; insoluble organic matter, 55 grains; soluble organic matter, 210 grains.

IV. Bathe regularly every day, and, where possible, use lukewarm water, so as to keep the pores open; use soap sparingly, as when alkaline it produces cutaneous eruptions. A fine toilet soap or, better still, a little ammonia or borax will answer very well.

V. Eat and drink well and generously. The climate is weakening and dangerous, and the system requires a nourishing regimen. Keep the bowels open. Constipation is nature's storm signal in the tropics.

VI. Never hurry or get excited. Do not worry or overwork. Exercise lightly but regularly. Until acclimated consult a physician whenever you are "out of sorts."

The East has nothing new to teach the West in the treatment of cholera. The favorite remedies are Brown's Chlorodyne, the "Sun Cholera Mixture," and similar preparations. The Chinese have several medicines which belong to this class. Nearly all contain camphor, opium, menthol (peppermint), and capsicum (red pepper). Stimulation, intense and repeated, is a necessity. Brandy, whisky, and rum are the chief distillants in vogue. Some physicians recommend *crème de menthe*, benedictine, kummel, and other powerful liqueurs. To sustain the heat of the body, mustard leaves, capsicum plasters, and hot water compresses are of great value. Of all the favorite formulæ, the "Sun Cholera Mixture," with quick doses of brandy, appears to meet with the widest approval.

In the tropics a cholera convalescent must be exceedingly careful in his diet for a week after his recovery, there appearing to be a strong tendency toward enteric fever after the disappearance of the original complaint.

It can not be said that medical science has made much advance in curing this disease in the past forty years. The decrease in the mortality is due largely, if not altogether, to the increase of knowledge. There is hardly a house, hotel, or vessel in the East but is supplied with the powerful medicines mentioned, and the slightest symptom of the dread malady is promptly met with the application of both drugs and stimulants. The old custom of waiting for the doctor and taking a little tea in the interim is done away with entirely.

Visitors to the Asiatic tropics can not be too strongly urged to provide themselves with a sufficient traveling supply of some first-class remedy, either from those named or at the prescription of their family physician. In this way and by following the suggestions hereinbefore mentioned they can preserve their health. Otherwise they are apt to suffer sickness and encounter the danger of dying in a strange land.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated popula- tion.	Total deaths from all causes.	Deaths from—									
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.	
London.....	Dec. 5.....	5,656,900	2,171					15	22	40	67		
Paris.....	Dec. 5.....	2,424,705	971					11	1	20	7		6
Vienna.....	Nov. 14.....	1,378,530	583			1		2	8	43	11		3
Vienna.....	Nov. 21.....	1,378,530	647					1	6	41	9		1
Calcutta.....	Oct. 24.....	681,558	473	65									
Calcutta.....	Nov. 7.....	681,558	451	54									
Hamburg.....	Nov. 28.....	570,534	376					11	4	7			
Glasgow.....	Dec. 5.....	567,143	341					3	5	4	12		8
Liverpool.....	Dec. 5.....	577,116	295				1	6		1			
Buda-Pesth.....	Dec. 10.....	507,000	52				2		14	21			
Brussels.....	Dec. 5.....	482,158	213					8	1				
Warsaw.....	Nov. 28.....	465,272	234			1		2	4	12			
Lyons.....	Nov. 28.....	430,000	168					2	2	10			
Lyons.....	Dec. 5.....	430,000	167					2	2	6			
Munich.....	Nov. 28.....	349,000	170					9	2	2			
Odessa.....	Nov. 26.....	295,000	134			1	2	1	1	2			
Cologne.....	Dec. 5.....	288,266	133				1		1	6	11		
Cologne.....	Dec. 12.....	288,266	160							9	25		
Dresden.....	Nov. 28.....	276,522	100					1		15			
Barcelona.....	Dec. 11.....	272,000	156					7		12			
Edinburgh.....	Dec. 5.....	261,970	192			4		1		1	2		1
Belfast.....	Dec. 5.....	255,896	224					2	1				
Palermo.....	Nov. 28.....	250,000	87					1					
Palermo.....	Dec. 5.....	250,000	82					2		1			
Antwerp.....	Nov. 29.....	238,788	128					1		2			
Bristol.....	Dec. 5.....	222,049	142						3	1			
Bristol.....	Dec. 12.....	222,049	95							1			
Rotterdam.....	Dec. 5.....	209,134	101					1		1			
Rotterdam.....	Dec. 12.....	209,134	105					1		1			
Pernambuco.....	Dec. 1.....	200,000	71							1			
Trinidad.....	Dec. 5.....	189,566	33										
Trinidad.....	Dec. 12.....	189,566	20										
Prague.....	Nov. 28.....	182,530	110			1			4				
Prague.....	Dec. 5.....	182,530	124			5			3	5			
Genoa.....	Dec. 5.....	181,557	106					1		1			
Frankfort-on-the-Main.....	Nov. 28.....	179,850	50							7			
Frankfort-on-the-Main.....	Dec. 5.....	179,850	60							7			
Hanover.....	Nov. 28.....	179,000	100							5			
Trieste.....	Nov. 28.....	158,051	87							3			
Trieste.....	Dec. 5.....	158,051	93							4			
Ghent.....	Dec. 5.....	152,395	58					1					
Christiania.....	Nov. 28.....	151,130	53						1	3			
Christiania.....	Dec. 5.....	151,130	59							1			
Nuremberg.....	Nov. 21.....	149,507	66					2	4				
Nuremberg.....	Nov. 28.....	149,507	59							4			
Stuttgart.....	Dec. 5.....	139,659	57							5			
Stuttgart.....	Dec. 12.....	139,659	53							6			
Funchal.....	Dec. 5.....	133,250	12										
Bremen.....	Nov. 28.....	125,600	49					1	1	2			
Bremen.....	Dec. 5.....	125,600	43										
Stettin.....	Dec. 5.....	116,500	85				1	3		1			
Stettin.....	Dec. 12.....	116,500	80							1			
Havre.....	Dec. 5.....	112,074	106					1		3	1		
Crefeld.....	Dec. 12.....	108,000	87							3			
Gothenburg.....	Nov. 28.....	106,246	25										
Gothenburg.....	Dec. 5.....	106,246	25										
Aix-la-Chapelle.....	Nov. 29.....	106,047	52										
Aix-la-Chapelle.....	Dec. 6.....	106,047	50										
Leghorn.....	Nov. 29.....	103,762	51										
Colombo.....	Nov. 14.....	97,129	.....			1							
Zurich.....	Nov. 21.....	91,323	49				1		5	9	26		3
Zurich.....	Nov. 28.....	91,323	38				4		1	2	23		1
Zurich.....	Dec. 5.....	91,323	62				1		2	11	39		1
Pará.....	Nov. 15.....	80,000	40			3							
Pará.....	Nov. 22.....	80,000	40			1		1	3				
Pará.....	Nov. 29.....	80,000	41			6			4				
Pará.....	Dec. 6.....	80,000	39			6			2				
Leith.....	Dec. 5.....	69,933	35					1		1			
Jerez de la Frontera.....	Nov. 28.....	61,708	36							5			
Jerez de la Frontera.....	Dec. 5.....	61,708	24										
Trapani.....	Nov. 28.....	43,095	10			4							

MORTALITY TABLE, FOREIGN CITIES -Continued.

Cities.	Week ended.	Estimated popula- tion.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Trapani.....	Dec. 5.....	43,095	9									
Cienfuegos.....	Dec. 13.....	41,647	18									
Marsala.....	Nov. 28.....	40,131	17							1		
Marsala.....	Dec. 5.....	40,131	18									
Guayaquil.....	Dec. 4.....	40,000	50		15			16				
Matanzas.....	Dec. 16.....	40,000										
Curacoa.....	Dec. 12.....	26,245	4									
Gibraltar.....	Dec. 6.....	25,755	17									
Schiedam.....	Dec. 5.....	25,437	8									
Schiedam.....	Dec. 12.....	25,437	7									
Vera Cruz.....	Dec. 18.....	25,000	10					3				
Cartagena, Col.....	Nov. 29.....	25,000	10									
Cartagena, Col.....	Dec. 6.....	25,000	15									
Girgenti.....	Nov. 28.....	23,547	12									
Girgenti.....	Dec. 5.....	23,547	6						1			
Kingston, Can.....	Dec. 18.....	19,264	6									
Licata.....	Dec. 5.....	19,000	9									
Sagua la Grande.....	Dec. 14.....	18,109	6									
Victoria, B. C.....	Dec. 5.....	16,200	7									
Flushing.....	Dec. 5.....	13,200	6									
Flushing.....	Dec. 12.....	13,200	6									
Sonneberg.....	Dec. 5.....	12,000	7									
Guelph.....	Dec. 19.....	10,539	3							2		
Chatham.....	Dec. 19.....	8,730	1									
La Guayra.....	Dec. 5.....	7,641	3									
La Guayra.....	Dec. 12.....	7,641	9									
Port Sarnia.....	Dec. 22.....	6,600	3									
Coaticook.....	Dec. 19.....	3,082	2									
Clifton.....	Dec. 19.....	3,249	1									
Butaritari.....	Oct. 3.....	3,000	1									
Butaritari.....	Oct. 10.....	3,000										
Butaritari.....	Oct. 17.....	3,000										
Butaritari.....	Oct. 24.....	3,000	1									
Butaritari.....	Oct. 31.....	3,000										
Livingston.....	Dec. 16.....	3,000										
Amherstburg.....	Dec. 19.....	2,266										
Waubaushene.....	Dec. 19.....	1,000										

OFFICIAL :

WALTER WYMAN,

Supervising Surgeon-General Marine-Hospital Service.