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EPIDEMIC CEREBROSPINAL MENINGITIS.

The current prevalence of epidemic cerebrospinal meningitis in so far as data are available will be found on pages 703-704.

VACCINE VIRUS.

SHOULD ALWAYS BE KEPT ON ICE.

Vaccine virus rapidly loses its potency unless kept cool. In many drug stores vaccine is kept in a drawer back of the counter instead of in the ice box. Under these conditions the vaccine is likely to be worthless and not to produce successful vaccination. In buying vaccine one should ascertain that it has been properly kept.

It is a matter of common knowledge that biologic products should be kept in a cool place. The United States Pharmacopœia, ninth decennial revision, specifies temperatures between 4.5° and 15° C. for diphtheria and tetanus antitoxin and vaccine virus—the three official products of this class. What is not generally appreciated is the difference between these products in this respect. The change in the antitoxins, serums, and such products as typhoid vaccine is a gradual chemical deterioration, since these contain no living matter; in the case of the antitoxins it can be demonstrated that at reasonable temperatures and within reasonable times the products are not rendered valueless, nor harmful—simply a somewhat larger amount must be used to produce a given effect.

With vaccine virus we have an altogether different situation. The virus is a living thing, suspended in a medium without food for multiplication, and like most minute living things which do not enter the spore state, death rapidly takes place unless the life processes are retarded by refrigeration. No definite and certain limits can be placed on the duration of the life of the vaccine virus at different temperatures, for we know neither the number of living microorganisms of vaccinia originally present nor the minimum number necessary to produce the characteristic vaccination; both are undoubtedly variable. As the virus leaves the manufacturer's hands it is practically always potent. It is a fact, however, that as commonly cared for in drug stores the vaccine virus of commerce deteriorates rapidly.

Virus of various manufacturers purchased at drug stores has been found, though within the stamped expiration date, to give less than

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50 per cent of "takes"; but when obtained direct from the manufacturer, "takes" were nearly 100 per cent. Vaccine virus at pharmacies is often kept in the cellar or in the soda fountain cooler, and the temperature of these places, both winter and summer, has been found to be in the neighborhood of 15° C. (59° F.) or higher. This is by no means satisfactory. Ice-box temperature is not freezing temperature, but usually several degrees above freezing. Vaccine virus should be kept in a metal container in constant contact with the ice itself. If it can be kept at or below the freezing point, so much the better. There is no danger of keeping it too cold.

SMALLPOX.

The mild type of smallpox has been widely prevalent in the United States since 1898. The tables which follow show the number of cases reported in cities during the five weeks ended April 21, and the counties in which 10 or more cases were reported during the month of March. The disease has appeared to be universally of the mild type except in Austin, Tex., where the virulent type is present.

For additional information concerning the current prevalence of smallpox see pages 707-709.

Cases of smallpox reported in cities during 5 weeks ended Apr. 21, 1917.

Place.	Number of cases reported.	Place.	Number of cases reported.
Akron, Ohio	12	Madison, Wis	19
Ann Arbor, Mich	3	Marinette, Wis	4
Austin, Tex	76	Milwaukee, Wis	2
Baltimore, Md	8	Minneapolis, Minn	154
Birmingham, Ala	2	Muscatine, Iowa	4
Buffalo, N. Y	1	Nashville, Tenn	2
Butte, Mont	19	New Castle, Pa	3
Chicago, Ill	20	New Orleans, La	46
Cincinnati, Ohio	14	New York, N. Y	2
Cleveland, Ohio	5	Oakland, Cal	9
Covington, Ky	50	Ogden, Utah	1
Danville, Ill	14	Oklahoma City, Okla	43
Davenport, Iowa	32	Omaha, Nebr	29
Denver, Colo	9	Pittsburgh, Pa	3
Detroit, Mich	1	Pontiac, Mich	16
Dubuque, Iowa	16	Portland, Oreg	5
Duluth, Minn	3	Quincy, Ill	3
East Chicago, Ind	26	Roanoke, Va	2
El Paso, Tex	12	Rockford, Ill	4
Evansville, Ind	5	Rocky Mount, N. C	2
Flint, Mich	20	St. Joseph, Mo	35
Fort Wayne, Ind	18	St. Louis, Mo	57
Fort Worth, Tex	6	St. Paul, Minn	9
Galveston, Tex	4	Salt Lake City, Utah	22
Grand Rapids, Mich	4	San Francisco, Cal	39
Hartford, Conn	7	Seattle, Wash	1
Indianapolis, Ind	1	Sioux City, Iowa	60
Jackson, Mich	32	Springfield, Ill	9
Kansas City, Mo	1	Steubenville, Pa	2
Kokomo, Ind	19	Toledo, Ohio	2
La Crosse, Wis	1	Topeka, Kans	6
Lima, Ohio	6	Washington, D. C	1
Little Rock, Ark	42	Wichita, Kans	12
Los Angeles, Cal	29	Worcester, Mass	2
	2	Zanesville, Ohio	5

¹ Reports for 3 weeks not received.

Counties in which 10 or more cases of smallpox were reported during March, 1917, showing number of cases reported.

State.	Number of cases reported.	State.	Number of cases reported.
Arkansas:		Michigan:	
Garland County.....	14	Alpena County.....	23
Greene County.....	15	Genesee County.....	12
Lawrence County.....	10	Ingham County.....	13
Mississippi County.....	53	Oakland County.....	29
Polk County.....	12	Wayne County.....	16
White County.....	12	Minnesota:	
California:		Hennepin County.....	156
San Bernardino County.....	15	Olmsted County.....	24
San Francisco County.....	31	Polk County.....	10
Kansas:		Ramsey County.....	16
Barton County.....	18	St. Louis County.....	26
Coffey County.....	18	Wright County.....	10
Crawford County.....	37	Oregon:	
Doniphan County.....	13	Clatsop County.....	13
Logan County.....	14	South Carolina:	
Marion County.....	40	Edgefield County.....	12
Sedgwick County.....	17	Wisconsin:	
Shawnee County.....	16	Calumet County.....	25
Sumner County.....	17	Chippewa County.....	12
Wabaunsee County.....	19	Dane County.....	14
Louisiana:		Marinette County.....	10
Assumption Parish.....	11		
Orleans Parish.....	87		

CONFERENCE OF HEALTH AUTHORITIES.

UNITED STATES PUBLIC HEALTH SERVICE IN ANNUAL CONFERENCE WITH STATE AND TERRITORIAL HEALTH AUTHORITIES, WASHINGTON, APRIL 30 AND MAY 1, 1917.

The fifteenth annual conference of the State and Territorial health authorities with the Public Health Service of the United States was held April 30 and May 1, 1917, in the city of Washington. This conference is held annually pursuant to an act of the Congress approved July 1, 1902.

The following were among the matters brought before the conference for its consideration:

The need and advisability of correlating the Federal, State, and local health authorities and agencies to effect a maximum of cooperative efficiency in times of national emergency.

Reciprocal notification by State and Territorial authorities of disease carriers traveling or about to travel from one State or Territory to another.

Minimum standard morbidity tables for use in annual reports of State and Territorial health authorities showing the prevalence and geographic distribution of cases of the notifiable diseases.

What constitutes an epidemic or unusual prevalence of a disease.

The typhus fever situation as it affects the United States and the best means of handling it.

Are health authorities using all available information and known means to reduce the morbidity from pneumonia, syphilis, and tuberculosis.

The sanitation of public conveyances.

Interstate quarantine regulations.

Intrastate quarantine regulations.

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Health insurance versus sickness insurance.

Standard methods of public health accounting.

The status of full-time local health officers in the United States.

Rural public health administration and sanitation.

The development of an area of known disease prevalence through the establishment of a morbidity registration area of the notifiable diseases.

The need for better, more uniform, and comparable morbidity statistics of general hospitals, special hospitals, and sanatoria, and the advisability of the establishment of a registration area for morbidity and medical statistics of these institutions.

The need for uniform and comparable morbidity and medical statistics of penal institutions, and the advisability of the establishment of a registration area for the morbidity statistics of these institutions.

The need for uniform and comparable morbidity statistics of those engaged in certain industries, and the advisability of the establishment of a registration area for such statistics.

The collection and publication of public health and sanitary information as it relates to the several States and Territories, such as public health laws and regulations, directories of State and Territorial health authorities, appropriations made for public health purposes, and public health methods and practices.

Resolutions Adopted.

The following are among the resolutions formally adopted by the conference:

PARTICIPATION OF STATES IN CONFERENCE.

Resolved, That the Secretary of the Treasury be requested, through the Surgeon General of the United States Public Health Service, to call to the attention of the governors and the health authorities of the several States and Territories the important public health aspects of the annual conferences of the State and Territorial health authorities with the United States Public Health Service and to urge that due provision be made for the regular attendance of the proper health officials and for their attendance also on such committee meetings as may be necessary for the work of such conferences.

STANDARD MORBIDITY TABLES.

Resolved. That the conference adopts as minimum standard morbidity tables for publication in annual reports of State and Territorial health authorities tables giving the distribution of cases of the notifiable diseases, as follows:

1. Chronologically by months.
2. By sex.
3. By 5-year age groups up to 25 years and by 10-year age groups after 25 years.
4. By termination (recovery or death).
5. Geographically by counties and municipalities.

RECIPROCAL NOTIFICATION OF DISEASE CARRIERS.

Whereas immediate knowledge of (1) cases of communicable diseases (plague, cholera, typhoid fever, pulmonary tuberculosis, yellow fever, smallpox, leprosy, typhus fever, scarlet fever, diphtheria, measles, whooping cough, poliomyelitis (infantile paralysis), Rocky Mountain spotted or tick fever, epidemic cerebrospinal meningitis, and dysentery, and such other diseases as the Surgeon General of the United States Public Health Service may designate from time to time) recognized in one State, but obviously infected outside that State, and of (2) persons leaving one State for another while in an infectious condition, and of (3) persons leaving a State after exposure to a source or medium of infection of an acute infectious disease,

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would be of great value to the health authorities of the States and Territories which may be concerned and to the United States Public Health Service; be it
Resolved, That during the present war immediate reciprocal notification in regard to such cases and carriers and exposed persons be made by State and Territorial health authorities on forms to be provided by the United States Public Health Service.

HEALTH INSURANCE VERSUS SICKNESS INSURANCE.

Resolved, That in the judgment of this conference the use of the phrase "health insurance" to describe a system of sickness relief that makes no specific, positive, and definite provision for the conservation of health is liable to endanger the efficiency of existing health agencies and retard their further development.

Resolved, That in any scheme for health insurance all activities looking toward the active conservation and promotion of health should be entrusted to the regularly established health conservation agencies, which should be reorganized or reinforced for that purpose if necessary.

DRINKING FOUNTAINS.

INVESTIGATION OF FOUNTAINS AT THE UNIVERSITY OF MINNESOTA.

By H. A. WHITTAKER, Director, Division of Sanitation, Minnesota State Board of Health.

This investigation was undertaken to determine the sanitary condition of the drinking fountains in use at the University of Minnesota and, if they were found to be unsatisfactory, to offer recommendations for correcting defects. The work consisted of a study of the mechanical features of each fountain, bacteriological examinations of the parts of the fountain exposed to the lips of the consumer, and bacteriological examinations of the water supplied to and discharged from the fountain.

The method of conducting this investigation was briefly as follows: Samples of water were collected from taps in the various buildings to represent the water supplying the fountains, and from the jet on each fountain to represent the water discharged from the fountain. A swab was rubbed over all parts of the fountain that might easily come in contact with the lips of the consumer, in order to determine the presence or absence of streptococci. The water samples were examined for the total number of bacteria per cubic centimeter, for *B. coli* in 1 and 100 cubic centimeter amounts, and for streptococci in 100 cubic centimeter amounts. The bacterial counts were made on agar after forty-eight hours' incubation at 37° C. The determinations for *B. coli* were made in accordance with the routine methods used by this division. The examinations for streptococci in 100 cubic centimeter samples of water were made by enriching the samples with quadruple strength dextrose broth and examining

¹ Public Health Reports, vol. 29, No. 20, May 15, 1914, p. 1228-1229.

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microscopically after forty-eight hours' incubation at 37° C. The examinations for streptococci on the swabs were made by inoculating directly into dextrose broth and examining microscopically after forty-eight hours' incubation at 37° C. The presence of streptococci was used to indicate possible contamination from the mouth of the consumer, as these organisms are commonly found in abundance in the mouths of human beings. It must be admitted that streptococci might be contributed from other outside sources, but this is not probable under existing conditions. The presence of *B. coli* was used as an indication of contamination of fecal origin.

Following the collection of the specimens for bacteriological examination, a study of the mechanical features of each type of fountain was made by removing various parts so that the details of construction could be observed.

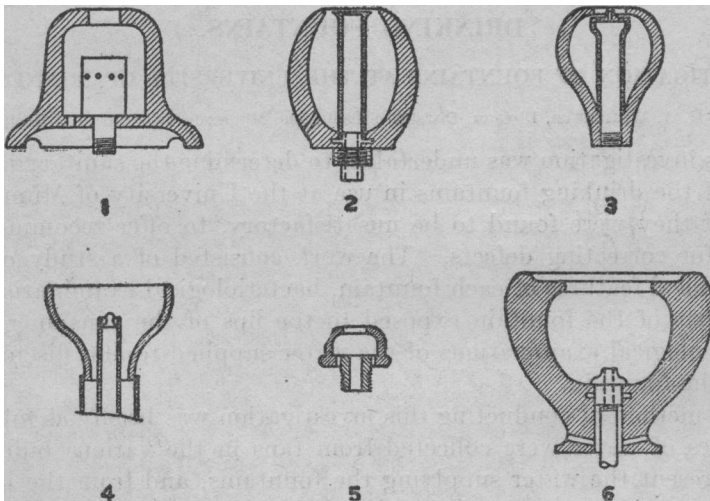


FIG. 1.—Nozzles on drinking fountains examined.

The water supply of the main campus of the University of Minnesota is obtained from the public supply of the city of Minneapolis. This water is taken from the Mississippi River and is subjected to sedimentation, coagulation, filtration, and liquid chlorine treatment before distribution for consumption. The water supply of the department of agriculture is obtained from two drilled wells located on university property.

The results of the bacteriological examinations of the water from both sources are shown in Table 1. The water supply of the department of agriculture is represented by Nos. 1 and 2, and that of the main campus by Nos. 3 to 18, inclusive. The results of the examinations of the drinking fountains are recorded in Table 2, while the

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sketches of the various types investigated are shown in figures 1 and 2. The summarized results of the entire investigation are included in Table 3.

A résumé of the results shows that 77 drinking fountains, which represented 15 different types, were examined. Sixty-five per cent of these fountains were of the continuous-flow type and 35 per cent of the intermittent type operated by the consumer. The nozzles on all of these fountains discharged the water vertically. The height

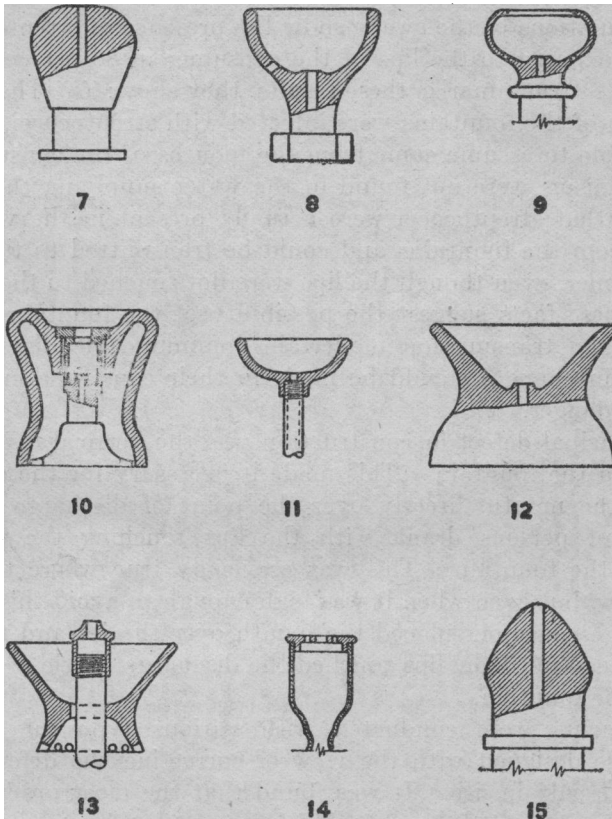


FIG. 2.—Nozzles on drinking fountains examined.

of the water jet above parts of the fountain that could be touched by the lips of the consumer was less than 1 inch in 40 per cent of the fountains. On examination of the various types shown in figures 1 and 2, it is seen that all are subject to contamination by the consumer, either directly by the lips or by water falling back from the lips onto the jet or the surrounding parts. Certain of these types have closed receptacles around the point of discharge; which retain a part of the water discharged from the outlet. Coloring matter

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added to these receptacles was not entirely removed for long periods of time.

The bacteriological examinations of the water supplied to 18 university buildings show consistently low bacterial counts, and *B. coli* and streptococci were not found present in 100 cubic centimeter amounts. The results on water discharged from the fountains show higher bacterial counts in a few instances, and the presence of streptococci in 11 per cent of the fountains examined, but *B. coli* was not found present in 100 cubic centimeter amounts in any case. The examinations of the swabs show the presence of streptococci on the parts exposed to the lips of the consumer in 80 per cent of the fountains. To summarize these results, they show: (a) That a large proportion of the fountains were infected with streptococci, which it is reasonable to assume came from the mouths of the consumers, as these organisms were not found in the water supplying these fountains; (b) that streptococci were actually present in the water discharged from the fountains and could be transmitted to the mouth of a consumer, even though the lips were not touched to the infected parts. These facts suggest the possibility of the fountains being a factor in the transmission of certain communicable diseases, and that certain changes should be made in their construction to eliminate this danger.

The principal defect in construction was the vertical discharge of water from the fountain. This made it necessary for the consumer to place the mouth directly over the point of discharge, and the majority of persons drank with the lips touching the discharge nozzle of the fountain. This was especially true where the water jet was low, but even when it was high enough to avoid this practice the average consumer placed the mouth over the jet and then lowered the head until the lips touched the discharge nozzle or adjacent parts of the fountain.

Experiments were conducted with various types of fountains which were designed with the view of correcting the defects noted in those already in use. It was found that the most practical construction to obviate the principal defect mentioned was to discharge the water from the fountain at such an angle that the consumer could drink without approaching the point of discharge, thus eliminating the possibility of water falling back from the mouth onto parts of the fountain at or near the point of discharge. This principle was suggested previously by Pettibone, Bogart, and Clark¹ following an investigation of drinking fountains at the University of Wisconsin.

¹ Journal of Bacteriology, Vol. 1, No. 5, Sept. 1916, p. 471.

It was found necessary in a practical design to entirely protect the point of discharge and to guard the nozzle against the approach of the consumer. The nozzle shown in figure 3 fulfills these requirements, and can be substituted for the nozzle used on practically any of the common types of drinking fountains. This type of nozzle protects the point of discharge by inclosing the small discharge tube in a larger tube which is cut at an angle with its upper surface extending beyond the outer extremity of the inner tube. The wire muzzle prevents the consumer from approaching the point of discharge. This nozzle can be used on the constant or intermittent flow type. In cases where the water pressure varies to a large degree, pressure regulators should be installed. Doubtless there are many other mechanical possibilities of accomplishing the same result, but the

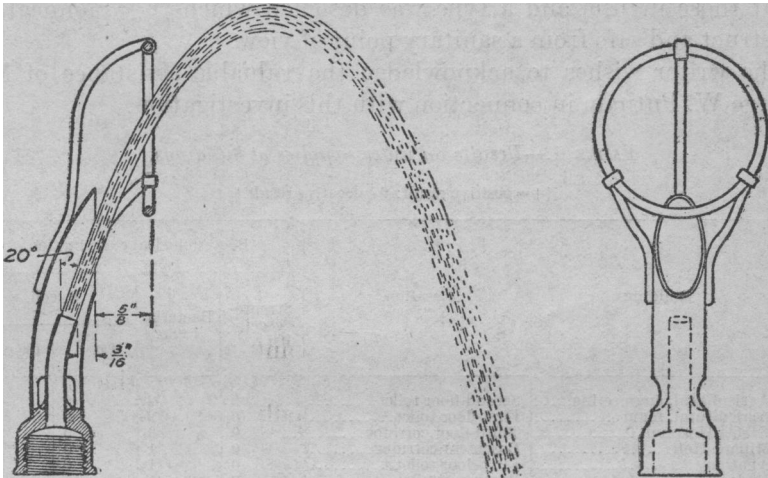


FIG. 3.—A protected type of drinking fountain nozzle.

one shown is simple and inexpensive, and it can be attached to practically any fountain.

Figure 4 shows a consumer drinking from an unprotected type of fountain with the mouth directly over the jet. A cross section of the nozzle of this fountain is shown in figure 2, No. 7. Figure 5 shows a consumer drinking from the same fountain with the improved nozzle shown in figure 3. This improved nozzle was installed on a fountain located in the main corridor of one of the university buildings. It was kept in operation for several weeks, during which time a large number of persons used the fountain daily. The regular tests were applied to this fountain at different times during this period, with the results shown in Table 4. These results indicate that this type of fountain nozzle will protect the consumer.

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CONCLUSION.

This investigation included the 77 drinking fountains in use at the University of Minnesota. These fountains represented 15 different types, all of which were found to be improperly constructed to prevent them from contamination by the consumer. The bacteriological examinations conducted on these fountains showed that 80 per cent were infected with streptococci, and that the water from 11 per cent of these fountains contained organisms of this type when they were not found present in the water supplied to the fountains. These results indicate that drinking fountains may be a factor in the transmission of communicable diseases, a condition which should be remedied.

Experiments were conducted with various fountain nozzles to supplant those in use, and a type was designed which is economical to construct and safe from a sanitary point of view.

The writer wishes to acknowledge the valuable assistance of Mr. George W. Putnam in connection with this investigation.

TABLE 1.—Results on water supplies at buildings.

[+ = positive result; 0 = negative result.]

No.	Building.	Location.	Bacteriological examination.			
			Streptococci, 100 c. c.	Bacteria, 1 c. c.	B. coli.	
					1 c. c.	100 c. c.
1	Agricultural, engineering.....	Second-floor toilet.....	0	2	0	0
2	Agricultural, main.....	First-floor toilet.....	0	2	0	0
3	Elliott Hospital.....	Third-floor corridor.....	0	3	0	0
4	Millard Hall.....	Basement corridor.....	0	1	0	0
5	Anatomy.....	First-floor toilet.....	0	1	0	0
6	Biology.....	Basement toilet.....	0	1	0	0
7	Main engineering.....	do.....	0	2	0	0
8	Experimental engineering.....	do.....	0	1	0	0
9	Mines.....	do.....	0	2	0	0
10	Chemistry.....	Second-floor toilet.....	0	2	0	0
11	Men's Union.....	Basement toilet.....	0	4	0	0
12	Dentistry.....	Second-floor corridor.....	0	2	0	0
13	Pharmacy.....	Basement toilet.....	0	2	0	0
14	Mechanic arts.....	do.....	0	2	0	0
15	Pathology and public health.....	First-floor laboratory.....	0	0	0	0
16	Electrical engineering.....	Basement toilet.....	0	3	0	0
17	Folwell Hall.....	do.....	0	1	0	0
18	Education.....	do.....	0	2	0	0

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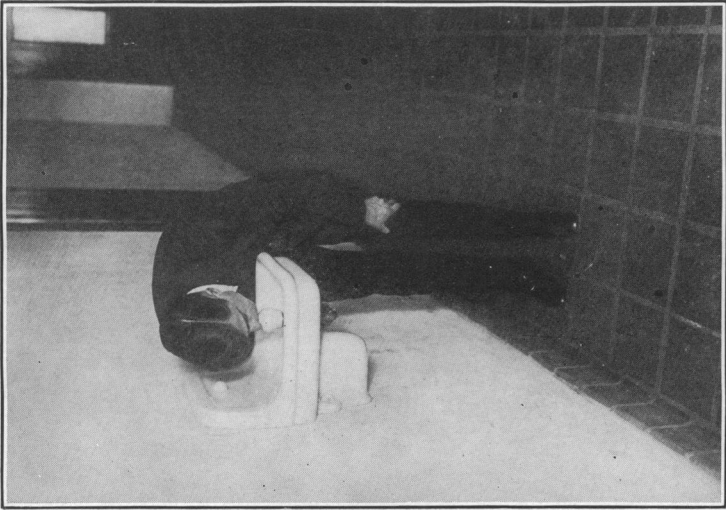


FIG. 4.—CONSUMER DRINKING FROM ONE OF THE UNPROTECTED TYPES OF FOUNTAIN.

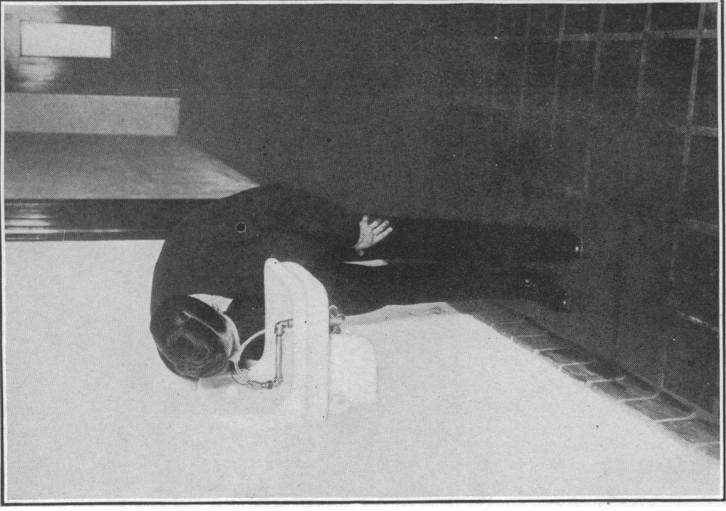


FIG. 5.—CONSUMER DRINKING FROM PROTECTED TYPE OF FOUNTAIN.

TABLE 2.—Results on drinking fountains.

[N—north end; S—south end; E—east end; W—west end; c—constant-flow type; i—intermittent-flow type; ci—intermittent type used as constant-flow type. +—positive result; 0—negative result.]

No.	Building.	Location.	Type.	Height of water jet in inches.	Bacteriological examination.				
					Swab.		Water.		
					Strep-tococci.	Strep-tococci in 100 c. c.	Bac-teris, 1 c. c.	B. coh.	
					1 c. c.	100 c. c.			
1	Agricultural engineering.	Corridor, second floor N	1	0.1 c	0	0	2	0	0
2	do	Corridor, first floor S...	1	.4 c	+	0	100	0	0
3	do	Corridor, third floor...	1	.3 c	+	+	6	0	0
4	do	Blacksmith shop...	2	.4 c	+	+	2	0	0
5	do	South shop...	2	1.0 c	+	+	2	0	0
6	Agricultural, Main	Corridor, first floor...	3	3.0 i	+	+	4	0	0
7	do	Corridor, second floor...	3	.8 i	+	+	4	0	0
8	Agricultural, power plant.	Tool room...	4	.5 ic	+	+	3	0	0
9	Rikott Hospital...	Corridor, third floor...	5	3.0 i	+	0	4	0	0
10	do	Corridor, fourth floor...	5	1.5 i	+	0	5	0	0
11	do	Corridor, fifth floor...	5	.6 i	+	0	4	0	0
12	do	Corridor, second floor...	5	4.0 i	+	0	8	0	0
13	do	Corridor, first floor...	5	6.0 i	0	0	10	0	0
14	Millard Hall	Corridor, third floor N.	6	.6 c	0	0	5	0	0
15	do	Corridor, third floor S.	6	.5 c	+	0	5	0	0
16	do	Corridor, second floor N	6	1.4 c	+	0	25	0	0
17	do	Corridor, second floor S	6	.3 c	+	+	2	0	0
18	do	Corridor, basement N.	6	1.4 c	+	0	1	0	0
19	do	Corridor, basement S.	6	1.3 c	+	0	1	0	0
20	do	Corridor, first floor S.	6	.4 c	+	0	2	0	0
21	do	Corridor, first floor N.	6	1.5 c	+	0	2	0	0
22	Anatomy	Corridor, third floor...	6	.8 ic	+	0	5	0	0
23	do	Corridor, second floor...	6	.8 i	0	0	5	0	0
24	do	Corridor, first floor...	6	1.3 i	+	+	3	0	0
25	do	Corridor, basement...	6	1.0 ic	+	0	3	0	0
26	Biology	do	7	.4 i	0	0	2	0	0
27	do	Corridor, first floor...	7	1.1 ic	0	0	2	0	0
28	do	Corridor, second floor...	7	2.0 i	0	0	3	0	0
29	do	Corridor, third floor...	7	1.6 ic	+	0	2	0	0
30	Main engineering	Corridor, basement S.	8	1.0 i	+	0	5	0	0
31	do	Corridor, basement N.	8	1.0 i	+	0	7	0	0
32	do	Corridor, first floor N.	8	1.0 i	+	0	9	0	0
33	do	Corridor, first floor S.	8	.9 i	+	0	2	0	0
34	do	Corridor, second floor S.	8	1.3 i	0	0	4	0	0
35	do	Corridor, second floor N	8	1.3 i	+	0	4	0	0
36	do	Corridor, third floor N.	8	1.0 i	+	0	3	0	0
37	Experimental engineering.	Corridor, first floor...	8	.5 ic	+	0	2	0	0
38	Chemistry	Corridor, third floor N.	9	1.3 i	+	0	2	0	0
39	do	Corridor, second floor S	9	.4 i	+	0	45	0	0
40	do	Corridor, first floor S.	9	2.5 ic	+	0	8	0	0
41	do	Corridor, first floor N.	9	.6 ic	+	0	6	0	0
42	do	Corridor, basement N.	9	1.5 i	0	0	4	0	0
43	do	Corridor, basement S.	9	1.3 i	+	0	3	0	0
44	Mines	Corridor, third floor...	7	1.8 ic	+	0	2	0	0
45	do	Corridor, second floor...	7	1.8 ic	0	0	1	0	0
46	do	Corridor, first floor...	7	.8 ic	+	0	2	0	0
47	do	Corridor, basement...	7	2.5 i	+	0	2	0	0
48	Men's Union	Corridor, first floor...	10	.1 ic	+	+	2	0	0
49	Dentistry	Corridor, second floor...	12	1.8 c	+	0	2	0	0
50	do	Corridor, first floor...	12	1.0 c	+	+	1	0	0
51	do	Corridor, basement...	12	1.3 c	+	+	1	0	0
52	Pharmacy	Corridor, first floor...	8	1.8 c	0	0	3	0	0
53	Mechanic arts	Corridor, basement...	11	1.0 c	0	0	2	0	0
54	Library	Corridor, first floor...	11	.5 c	0	0	3	0	0
55	Women's gymnasium.	do	7	.6 i	+	0	33	0	0
56	Pathology and public health.	Corridor, second floor N	14	12.0 i	+	0	2	0	0
57	do	Corridor, second floor S	14	1.3 i	+	0	4	0	0
58	do	Corridor, first floor...	13	.5 c	+	0	2	0	0
59	Mechanical engineering.	do	11	.6 c	+	0	6	0	0

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TABLE 2.—Results on drinking fountains—Continued.

No.	Building.	Location.	Type.	Height of water jet in inches.	Bacteriological examination.				
					Swab.		Water.		
					Strep-tococci.	Strep-tococci in 100 c. c.	Bac-teria, 1 c. c.	B. coli.	
								1 c. c.	100 c. c.
60	Electrical engineer- ing.	Corridor, first floor....	11	.5 c	+	0	2	0	0
61	Pillsbury Hall.....	Corridor, basement....	11	1.0 c	+	0	5	0	0
62	Armory.....	Corridor, first floor S...	11	.8 c	+	0	2	0	0
63	do.....	Corridor, first floor N...	11	.1 c	+	0	2	0	0
64	Folwell Hall.....	Corridor, basement....	13	2.0 c	0	0	5	0	0
65	do.....	Corridor, first floor W...	13	1.8 c	+	0	3	0	0
66	do.....	Corridor, first floor E...	13	1.5 c	+	0	1	0	0
67	do.....	Corridor, second floor W	13	3.0 c	+	0	8	0	0
68	do.....	Corridor, third floor...	13	2.0 c	+	0	5	0	0
69	Physics building.....	Corridor, basement....	11	.5 c	+	0	5	0	0
70	Music.....	do.....	11	.5 c	+	0	5	0	0
71	Law.....	Corridor, first floor...	11	.8 c	+	0	4	0	0
72	Education.....	Corridor, basement W...	15	1.5 c	0	0	5	0	0
73	do.....	Corridor, basement E...	15	1.0 c	+	0	3	0	0
74	do.....	Corridor, first floor E...	15	1.5 c	+	0	4	0	0
75	do.....	Corridor, first floor W...	15	1.0 c	0	0	4	0	0
76	do.....	Corridor, second floor W	15	.5 c	+	0	3	0	0
77	do.....	Corridor, second floor E	15	1.5 c	+	0	4	0	0

TABLE 3.—Summarized results of investigation.

Number examined.....	77
Number of types.....	15
Height of water jet:	
Continuous—	
Minimum..... inches..	0.1 ^b
Maximum..... do.....	3.0 ^b
Intermittent—	
Minimum..... do.....	0.4
Maximum..... do.....	12.0
Bacteriological examination:	
Swab from fountains—Streptococci positive..... per cent..	80
Water from fountains—	
Streptococci in 100 c. c. positive..... do.....	11
Bacteria per c. c. average.....	6
B. coli positive—	
1 c. c.....	0
100 c. c.....	0
Water from buildings—	
Streptococci in 100 c. c. positive.....	0
Bacteria per c. c. average.....	2
B. coli positive—	
1 c. c.....	0
100 c. c.....	0

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

TABLE 4.—Results on drinking fountain with improved nozzle.

Number of examinations.....	3
Bacteriological examination:	
Swab—Streptococci positive.....	0
Water from fountains—	
Streptococci in 100 c. c. positive.....	0
Bacteria per c. c. average.....	3
B. coli—	
1 c. c.....	0
100 c. c.....	0
Water from building—	
Streptococci in 100 c. c. positive.....	0
Bacteria per c. c. average.....	0
B. coli—	
1 c. c.....	0
100 c. c.....	0

MECHANICAL FANS.

THEIR USE TO INCREASE THE EFFICIENCY OF FUMIGATING GASES.

By S. B. GRUBBS, Surgeon, United States Public Health Service.

While making experiments at the Boston Quarantine Station to test the penetrating powers of fumigating gases, it was observed that a rat in a certain box (box 1) that had shown no symptoms after one hour exposure to cyanide gas in the room was quickly overcome when a small electric fan was started in order to drive the gas through a window. This incident was the more remarkable as the window was on the opposite side of the room and the fan was on the window sill, driving the gas outside. Although the strength of the gas was being rapidly decreased, the agitation of the air by the fan apparently caused the gas to penetrate rapidly the holes in the box holding the rat.

Experiments were therefore made to investigate the penetration of cyanide gas when mechanically agitated as compared with the same gas under natural conditions. Of these experiments one series may be cited. They were made in a room of 500 cubic feet capacity, practically air-tight, and with a small electric fan (8-inch, delivering 390 cubic feet per minute) in one corner near the ceiling and directed toward the center of the room. The boxes used were intended to imitate the hiding places of rats on shipboard. They may be described as follows:

Box 1.—Air-tight wooden box, 8 by 8 inches by 2 feet, with two partitions 1 inch apart near one end. This end has four 1-inch holes. The middle partition has two 1-inch and two half-inch holes. The

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

inner partition has two 1-inch, two half-inch, and two three-eighths inch holes.

Box 2.—Same as box 1, with one less 1-inch hole in end and inner partition.

Box 3.—Air-tight wooden box, 4 by 4 inches by 4 feet, with one 2-inch hole near one end. A wire partition confines the rat to closed end.

Box 4.—Same as box 3, except hole is 1 inch instead of 2 inches.

Box 5.—Packing box, 12 by 18 inches by 4 feet. Box is tight except top, which has cracks.

Box 6.—Air-tight wooden box, 6 feet long, 2 inches square at one end and 10 inches square at the other. A wire partition confines rat to small end. There is one 2-inch hole near large end.

All except box 5 have a glass side and were placed near a window, where the effects on the rats could be noted.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

	Box 1.		Box 2.		Box 3.		Box 4.		Box 5.		Box 6.	
	Overcome in—	Final result.	Overcome in—	Final result.	Overcome in—	Final result.	Overcome in—	Final result.	Overcome in—	Final result.	Overcome in—	Final result.
One full-grown rat in each box.												
4 ounces NaCN per 1,000 cubic feet, 1 hour exposure. Electric fan not running.	49 minutes.	Recovered.			52 minutes.	Recovered.						
Same.	41 minutes.	do.	Not affected.	None.	27 minutes.	Died.						
4 ounces NaCN per 1,000 cubic feet, 1 hour exposure. Electric fan running.	25 minutes.	Died.	28 minutes.	Recovered.	32 minutes.	Recovered.	20 minutes.	Recovered.			10 minutes.	Died.
Same.	24 minutes.	Recovered.	37 minutes.	do.	29 minutes.	Died.	45 minutes.	do.			26 minutes.	Do.
4 ounces NaCN per 1,000 cubic feet, 1½ hours exposure. Electric fan not running.			58 minutes.	do.			1 hour and 5 minutes.	do.			Not affected.	None.
6 ounces NaCN per 1,000 cubic feet, 1 hour exposure. Electric fan not running.			39 minutes.	do.			Not affected.	None.			do.	Do.

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As will be seen, better results were obtained with the fan in one hour than in one and a half hours without the fan, everything else being equal; or, the time being the same, 4 ounces of sodium cyanide with the fan did as well as 6 ounces without it.

Unfortunately no practical method of applying this method to large spaces is known. Attempts have been made to circulate the air in the holds of vessels, using a gasoline-driven air propeller—the aerotruster—and two types of electric fans bringing the current from the quarantine steamer. The air current of the larger electric fan (diameter 15 inches, delivering 1,500 cubic feet per minute) in the average hold of a vessel is relatively about one-thirtieth as strong as that of the 8-inch fan in the small room in which the experiments were conducted. It has been tried repeatedly with some apparent increase of efficiency, but not enough to justify a routine use of the method. The aerotruster, which delivers over 20,000 cubic feet of air per minute, has been placed in the hold and allowed to run during fumigation, using test animals in boxes with varying numbers of one-fourth inch holes. This gave much better results than are ordinarily obtained. In addition the current caused by the aerotruster in the hold rapidly cleared it of gas when the hatch covers were removed.

There are practical difficulties to the routine use of fans during fumigation, but if these are overcome the procedure will be of considerable value. Electric fans are often found in the living quarters of vessels or in buildings, and when possible these should be used when such places are fumigated.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CEREBROSPINAL MENINGITIS.

Recent Prevalence in Certain States.

The following table gives the number of cases of epidemic cerebrospinal meningitis reported in those States in which the reports of the health departments have indicated the presence of the disease. The data were brought up to May 8 by telegraphic reports from the several State health departments. (See also Public Health Reports of May 4, 1917, page 661.)

	Cases.		Cases.
Connecticut (Mar. 1-May 9):		Kansas (Mar. 1-Apr. 30):	
Fairfield County—		Butler County.....	2
Bridgeport.....	13	Franklin County.....	3
Hartford County—		Gove County.....	2
Hartford and vicinity.....	111	Wyandotte County—	
New Haven County—		Kansas City.....	23
New Haven.....	9	Other counties.....	10
Waterbury.....	5	Total.....	40
Other counties.....	10		
Total.....	148	Maryland (Mar. 1-May 8):	
District of Columbia (Mar. 1-May 8)....	10	Baltimore County—	
		Sparrows Point.....	10
Illinois (Mar. 1-May 7):		Other counties.....	8
Cook County.....	43	Total.....	18
Franklin County.....	3	Massachusetts (Mar. 1-May 8).....	30
La Salle County.....	2	No unusual prevalence.	
Peoria County.....	5		
St. Clair County.....	2	Michigan (Mar. 1-May 8).....	10
Will County.....	4	No two cases in any one county.	
Williamson County.....	5		
Other counties.....	9	Minnesota (Mar. 1-May 8):	
Total.....	73	Hennepin County.....	7
Indiana (Mar. 1-31):		Minneapolis.....	93
Lake County.....	3	Ramsey County—	
Marion County.....	15	St. Paul.....	28
Owen County.....	2	St. Louis County.....	4
Other counties.....	2	Duluth.....	7
Total.....	22	Other counties.....	30
		Total.....	169

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CEREBROSPINAL MENINGITIS—Continued.

New York (Mar. 1-May 8):	Cases.	Pennsylvania (Jan. 1-Apr. 30):	Cases.
New York City.....	90	Philadelphia County—	
Remainder of State.....	33	Philadelphia.....	111
		Allegheny County—	
Total.....	123	Pittsburgh.....	48
		Other counties.....	125
		Total.....	284
Ohio (Apr. 1-30):		Rhode Island (Mar. 1-May 8):	
Cuyahoga County—		Newport County—	
Cleveland.....	34	Portsmouth.....	1
Franklin County—		Providence County—	
Columbus.....	3	Providence.....	16
Hamilton County—		Total.....	17
Cincinnati.....	4		
Mahoning County—		Wisconsin (Mar. 1-May 8):	
Youngstown.....	5	Milwaukee County.....	12
Trumbull County—		Other counties.....	24
Liberty Township.....	7	Total.....	36
Lordstown Township.....	3		
Other counties.....	23		
Total.....	79		

Hawaii Report for March, 1917.

During the month of March three cases of cerebrospinal meningitis were reported in Honolulu, Hawaii.

City Reports for Week Ended Apr. 21, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	5	3	Minneapolis, Minn.....	10	
Binghamton, N. Y.....	1	1	Newark, N. J.....	1	1
Boston, Mass.....	2	2	New Britain, Conn.....	1	
Bridgeport, Conn.....	2	1	New Castle, Pa.....	1	
Buffalo, N. Y.....	1	1	New Haven, Conn.....	3	1
Chicago, Ill.....	9	7	New York, N. Y.....	5	3
Cleveland, Ohio.....	8	4	Norristown, Pa.....	1	
Columbus, Ohio.....	2		Omaha, Nebr.....	2	2
Dayton, Ohio.....	1	1	Philadelphia, Pa.....	47	14
Denver, Colo.....		1	Pittsburgh, Pa.....	17	7
Detroit, Mich.....	4	1	Providence, R. I.....	4	
Duluth, Minn.....		1	Rochester, N. Y.....		1
Evansville, Ind.....		1	Saginaw, Mich.....		1
Hartford, Conn.....	4	2	St. Joseph, Mo.....	2	
Jersey City, N. J.....		2	St. Louis, Mo.....	7	5
Kansas City, Kans.....	3		San Francisco, Cal.....	1	1
Kansas City, Mo.....	3	2	Toledo, Ohio.....	1	
Medford, Mass.....	1		Washington, D. C.....		1
Milwaukee, Wis.....	2	2	Wilmington, Del.....	1	

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 712.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

ERYSIPELAS.**City Reports for Week Ended Apr. 21, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alameda, Cal.	1		Kalamazoo, Mich.	4	2
Ann Arbor, Mich.	2		Kansas City, Mo.	1	4
Binghamton, N. Y.	4		Los Angeles, Cal.	3	2
Boston, Mass.	3	3	Milwaukee, Wis.	9	
Bridgeport, Conn.	2	1	Nashua, N. H.		1
Brookline, Mass.	1		Newark, N. J.	14	
Buffalo, N. Y.	10	1	New Castle, Pa.	1	
Butler, Pa.	1	1	New York, N. Y.		7
Cambridge, Mass.	1	2	Omaha, Nebr.	2	
Camden, N. J.	1		Pasadena, Cal.	1	
Chicago, Ill.	43	9	Philadelphia, Pa.	13	5
Cincinnati, Ohio.	3		Pittsburgh, Pa.	13	3
Cleveland, Ohio.	15	2	Providence, R. I.	1	
Cumberland, Md.	2		Rochester, N. Y.	4	1
Dayton, Ohio.	1		St. Louis, Mo.	25	1
Denver, Colo.	2		St. Paul, Minn.	7	1
Detroit, Mich.	14		San Diego, Cal.	1	
Duluth, Minn.	2		San Francisco, Cal.	2	2
El Paso, Tex.		1	Schenectady, N. Y.	1	1
Erie, Pa.	1		Somersville, Mass.		1
Hartford, Conn.	3		Williamsport, Pa.	1	
Jackson, Mich.	1				

MALARIA.**City Report for Week Ended Apr. 21, 1917.**

During the week ended April 21, 1917, one case of malaria was reported in Los Angeles, Cal.

MEASLES.**California—Los Angeles.**

Senior Surg. Brooks reported that during the week ended April 28, 1917, 354 cases of measles were notified in Los Angeles, Cal.

Georgia—Savannah.

Passed Asst. Surg. Ridlon reported that during the period from April 15 to May 5, 1917, 80 cases of measles were notified in Savannah, Ga.

Washington—Seattle.

Surg. Lloyd reported that during the week ended April 21, 1917, 135 cases of measles were notified in Seattle, Wash., making a total of 7,980 cases reported since February 15, 1916.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 712.

PELLAGRA.**City Reports for Week Ended Apr. 21, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Austin, Tex.		2	Charleston, S. C.		2
Birmingham, Ala.	4		Nashville, Tenn.	5	
Boston, Mass.	1	1			

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

PNEUMONIA.

City Reports for Week Ended Apr. 21, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa.....	1	.....	Los Angeles, Cal.....	11	8
Baltimore, Md.....	13	24	Manchester, N. H.....	4	4
Binghamton, N. Y.....	5	5	Newark, N. J.....	42	10
Canton, Ohio.....	1	2	New Castle, Pa.....	4	.....
Chicago, Ill.....	264	158	Pasadena, Cal.....	1	1
Cleveland, Ohio.....	21	30	Philadelphia, Pa.....	108	79
Dayton, Ohio.....	4	4	Pittsburgh, Pa.....	40	23
Detroit, Mich.....	24	50	Racine, Wis.....	2	2
Duluth, Minn.....	12	6	Reading, Pa.....	5	2
Flint, Mich.....	4	.....	Rochester, N. Y.....	16	2
Grand Rapids, Mich.....	2	6	San Diego, Cal.....	2	2
Harrisburg, Pa.....	2	7	San Francisco, Cal.....	5	8
Jackson, Mich.....	2	.....	Schenectady, N. Y.....	3	1
Kalamazoo, Mich.....	1	.....	Springfield, Ill.....	1	6
Kansas City, Mo.....	6	21	Toledo, Ohio.....	8	11
Lancaster, Pa.....	2	.....	Wichita, Kans.....	2	.....
Lincoln, Nebr.....	2	2	York, Pa.....	2	.....

POLIOMYELITIS (INFANTILE PARALYSIS).

City Reports for Week Ended Apr. 21, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Los Angeles, Cal.....	1	1	New York, N. Y.....	2	.....
Newark, N. J.....	1	.....	Philadelphia, Pa.....	1	.....
New Haven, Conn.....	1	.....		

RABIES IN ANIMALS.

South Carolina—Spartanburg.

Passed Asst. Surg. Grimm reported that one case of rabies in a dog was reported at Spartanburg, S. C., May 4, 1917. A case also occurred at the same place in March, 1917. Both cases were proved positive by laboratory examination.

City Reports for Week Ended Apr. 21, 1917.

During the week ended April 21, 1917, one case of rabies in animals was reported in Buffalo, N. Y., and two cases were reported in Detroit, Mich.

ROCKY MOUNTAIN SPOTTED FEVER.

Washington—Odessa.

Collaborating Epidemiologist Tuttle reported May 3, 1917, that a case of Rocky Mountain spotted fever had been notified at Odessa, Lincoln County, Wash.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 712.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

SMALLPOX.**Connecticut.**

Collaborating Epidemiologist Black reported that during the week ended May 5, 1917, 12 cases of smallpox were notified in Connecticut as follows: Berlin 4, Hartford 1, Southington 4, Waterbury 2, Watertown 1. No cases of smallpox were notified in the State during the week ended April 28, 1917.

Illinois—Cairo.

Acting Asst. Surg. Barrows reported that during the week ended April 28, 1917, one case of smallpox was notified at Cairo, Ill., and that on April 29 two additional cases were notified, making a total of 22 cases of the disease reported in Cairo and vicinity since January 1, 1917.

Minnesota.

Collaborating Epidemiologist Bracken reported that during the week ended May 5, 1917, seven new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Hennepin County, Eden Prairie Township, 1; Itasca County, Mardel, 1; Lincoln County, Arco, 1; Meeker County, Harvey Township, 3; Olmsted County, Stewartville, 2; Ottertail County, Parkers Prairie, 2; Todd County, Staples, 6.

Oklahoma—Kusa.

Asst. Surg. Slaughter reported May 8, 1917, the occurrence of an epidemic of smallpox of the mild type in Kusa, Okla., where an estimate placed the number of cases present at 60 in a population of about 2,000.

Texas—Galveston.

Surg. Bahrenburg reported that on May 7, 1917, two cases of smallpox were notified in Galveston, Tex., and on May 8 one additional case was notified, making a total of 19 cases reported in that city since February 19, 1917.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

SMALLPOX—Continued.
Montana Report for January, 1917.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Montana:						
Blaine County.....	1				1	
Cascade County.....	16				16	
Great Falls.....	9					9
Chouteau County.....	1				1	
Custer County.....	1				1	
Fergus County.....	5				5	
Flathead County.....	6				6	
Kalispell.....	2					2
Gallatin County.....	10				10	
Hill County.....	20			1	19	
Jefferson County.....	1				1	
Lewis and Clark County.....	5				5	
Helena.....	1				1	
Lincoln County.....	6				6	
Madison County.....	3					3
Missoula County.....	7				7	
Phillips County.....	1		1			
Powell County.....	1				1	
Frairie County.....	4				4	
Richland County.....	1					1
Sheridan County.....	11				11	
Silverbow County.....	9		2		7	
Butte.....	50					50
Teton County.....	7		1		6	
Valley County.....	1					1
Yellowstone County— Billings.....	1				1	
Total.....	180		4	1	109	66

Montana Report for February, 1917.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Montana:						
Cascade County.....	3				3	
Great Falls.....	4				4	
Chouteau County.....	1					1
Custer County.....	1				1	
Fergus County.....	3				3	
Flathead County.....	1					1
Gallatin County.....	3				3	
Granite County.....	1				1	
Hill County.....	19			2	17	
Jefferson County.....	2			1	1	
Lewis and Clark County— Helena.....	3					3
Lincoln County.....	11				11	
Missoula County.....	4				4	
Musselshell County.....	4		1		3	
Park County— Livingston.....	1					1
Richland County.....	15				15	
Sheridan County.....	7			1	6	
Silverbow County.....	5					5
Butte.....	47					47
Teton County.....	1				1	
Valley County.....	3			1	2	
Yellowstone County.....	1				1	
Total.....	140		1	5	79	55

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

SMALLPOX—Continued.

Miscellaneous State Reports.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Colorado (Mar. 1-31):			Oregon (Mar. 1-31):		
Boulder County	9	.....	Clatsop County	13	.....
El Paso County	2	.....	Multnomah County—		
Montrose County	8	.....	Portland	7	.....
Total	19	.....	Total	20	.....

City Reports for Week Ended Apr. 21, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Austin, Tex.	4	3	Los Angeles, Cal.	2	.....
Birmingham, Ala.	2	.....	Madison, Wis.	1	.....
Buffalo, N. Y.	1	.....	Milwaukee, Wis.	1	.....
Cairo, Ill.	6	.....	Minneapolis, Minn.	34	.....
Chicago, Ill.	3	.....	Nashville, Tenn.	2	.....
Cleveland, Ohio	13	.....	New Orleans, La.	5	.....
Covington, Ky.	2	.....	Oakland, Cal.	1	.....
Danville, Ill.	5	.....	Oklahoma City, Okla.	6	.....
Davenport, Iowa.	4	.....	Omaha, Nebr.	4	.....
Detroit, Mich.	7	.....	Pittsburgh, Pa.	1	.....
Dubuque, Iowa.	1	.....	Pontiac, Mich.	3	.....
Duluth, Minn.	6	.....	Portland, Ore.	1	.....
East Chicago, Ind.	11	.....	Roanoke, Va.	1	.....
El Paso, Tex.	1	.....	St. Joseph, Mo.	11	.....
Evansville, Ind.	1	.....	St. Louis, Mo.	13	.....
Flint, Mich.	1	.....	St. Paul, Minn.	4	.....
Grand Rapids, Mich.	1	.....	Salt Lake City, Utah.	1	.....
Indianapolis, Ind.	12	.....	San Francisco, Cal.	2	.....
Jackson, Mich.	1	.....	Springfield, Ill.	1	.....
Kansas City, Mo.	5	1	Steelton, Pa.	2	.....
Kokomo, Ind.	1	.....	Toledo, Ohio.	1	.....
La Crosse, Wis.	1	.....	Washington, D. C.	1	.....
Little Rock, Ark.	7	.....	Wichita, Kans.	3	.....

TETANUS.

City Reports for Week Ended Apr. 21, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich.	1	.....	Philadelphia, Pa.	1	1
Charleston, S. C.		1	Pittsfield, Mass.	1	1
New Orleans, La.		2			

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 712.

TYPHOID FEVER.

Massachusetts—Gardner.

Collaborating Epidemiologist Kelley reported that during the period from March 1 to April 30, 1917, 20 cases of typhoid fever were notified in Gardner, Mass. The infection was suspected to be from milk supplies.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

TYPHOID FEVER—Continued.

State Reports for March, 1917.

Place.	New cases reported.	Place.	New cases reported.
Hawaii:		Oregon:	
Hawaii—		Baker County.....	1
North Hilo district.....	1	Clatsop County.....	3
Oahu—		Columbia County.....	1
Ewa district.....	1	Jackson County.....	1
Honolulu.....	7	Linn County.....	1
Waialua district.....	1	Multnomah County—	
		Portland.....	1
Total.....	10	Total.....	8

Montana Report for January, 1917.

Place.	New cases reported.	Place.	New cases reported.
Montana:		Montana—Continued.	
Big Horn County.....	1	Lewis and Clark—	
Blaine County.....	112	Helena.....	1
Cascade County—		Musselshell County.....	7
Great Falls.....	1	Valley County.....	1
Custer County.....	8	Yellowstone County.....	3
Dawson County.....	1	Billings.....	1
Hill County.....	1		
Jefferson County.....	1	Total.....	138

Montana Report for February, 1917.

Place.	New cases reported.	Place.	New cases reported.
Montana:		Montana—Continued.	
Blaine County.....	16	Missoula County—	
Cascade County—		Missoula.....	1
Great Falls.....	1	Musselshell County.....	24
Chouteau County.....	3	Rosebud County.....	1
Custer County.....	3	Sheridan County.....	1
Hill County.....	1	Yellowstone County.....	4
Jefferson County.....	1		
Madison County.....	1	Total.....	57

City Reports for Week Ended Apr. 21, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Albany, N. Y.....	4		Erie, Pa.....	2	
Baltimore, Md.....	6	2	Evansville, Ind.....	1	
Beaver Falls, Pa.....	6		Fall River, Mass.....	1	
Binghamton, N. Y.....	1		Flint, Mich.....	1	
Birmingham, Ala.....	13		Fort Worth, Tex.....	1	
Boston, Mass.....	2		Galesburg, Ill.....	1	
Buffalo, N. Y.....	2		Grand Rapids, Mich.....		2
Butler, Pa.....	2		Jersey City, N. J.....		1
Canton, Ohio.....		1	Kansas City, Mo.....	1	1
Charleston, S. C.....	4		Kenosha, Wis.....	1	
Chicago, Ill.....	7	2	Kokomo, Ind.....	1	
Cincinnati, Ohio.....	5	1	La Crosse, Wis.....	1	
Cleveland, Ohio.....	3	1	Lincoln, Nebr.....	2	
Dayton, Ohio.....	1		Los Angeles, Cal.....	1	
Detroit, Mich.....	2	2	Lowell, Mass.....		1
East Chicago, Ind.....	1		Milwaukee, Wis.....	3	2

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

TYPHOID FEVER—Continued.

City Reports for Week Ended Apr. 21, 1917—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Minneapolis, Minn.....	3	.....	San Francisco, Cal.....	4	.....
Nashville, Tenn.....	2	.....	Schenectady, N. Y.....	1	.....
Newburyport, Mass.....	1	.....	Somerville, Mass.....	3	.....
New Haven, Conn.....	1	.....	South Bend, Ind.....	2	.....
New Orleans, La.....	4	1	Springfield, Ill.....	5	.....
New York, N. Y.....	8	3	Toledo, Ohio.....	3	.....
Pasadena, Cal.....	1	.....	Topeka, Kans.....	1	.....
Philadelphia, Pa.....	4	1	Trenton, N. J.....	1	.....
Pittsburgh, Pa.....	3	.....	Troy, N. Y.....	1	.....
Portland, Me.....	5	.....	Washington, D. C.....	4	.....
Providence, R. I.....	3	.....	Wilkes-Barre, Pa.....	4	1
Reading, Pa.....	1	.....	Wilkinsburg, Pa.....	5	.....
Saginaw, Mich.....	1	.....	Williamsport, Pa.....	.....	1
St. Louis, Mo.....	7	.....	Winston-Salem, N. C.....	1	.....
St. Paul, Minn.....	1	.....	Zanesville, Ohio.....	4	2
Salt Lake City, Utah.....	1	.....		

TYPHUS FEVER.

Texas.

Senior Surg. Pierce reported that during the week ended April 28, 1917, one new case of typhus fever was notified at El Paso, Tex., making a total of 82 cases reported at points along the Texas-Mexico border since July 1, 1916.

During the same week 75,649 persons were inspected by medical officers at ports of entry on the border. Of this number 4,792 were disinfected for destruction of vermin, 2,277 were vaccinated, 1 person was turned back on account of refusing disinfection, and 10 were refused admission because of illness.

City Report for Week Ended Apr. 21, 1917.

During the week ended April 21, 1917, one case of typhus fever was reported in El Paso, Tex.

PREVENTABLE DISEASES.

California Report for Week Ended Apr. 21, 1917.

The State Board of Health of California reported in relation to preventable diseases in California during the week ended April 21, 1917, as follows: Measles has been epidemic at many places in the State for the past six weeks, but shows a falling off during this week, particularly in the larger cities. A total of 971 cases was reported in the State for the week, while 1,252 cases were reported during the preceding week. Chickenpox increased considerably during the week, especially in southern California. At Los Angeles 163 cases of this disease were reported for the week, and only 36 cases the week before. Mumps is prevalent in the northern section of the State.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

At Alameda and Oakland and in Sonoma County and the counties in the upper Sacramento Valley considerable increases in the number of cases were reported. As regards smallpox, one case was reported in Oakland, two cases in Los Angeles, and two in San Francisco. Thirteen cases of typhoid fever were reported, three of them in Butte County, one in Los Angeles, one in Pasadena, one in San Bernardino, four in San Francisco, one in Stockton, and one in Modesto. Whooping cough is scattered throughout the State, and many adults have been affected.

Preventable diseases reported in California during the week ended Apr. 21, 1917.

Disease.	Cases reported.	Disease.	Cases reported.
Cerebrospinal meningitis.....	3	Pneumonia.....	33
Chicken pox.....	228	Scarlet fever.....	88
Diphtheria.....	39	Smallpox.....	5
Erysipelas.....	10	Syphilis.....	47
Gonorrhoea.....	55	Tuberculosis.....	134
Malaria.....	3	Typhoid fever.....	13
Measles.....	971	Whooping cough.....	60
Mumps.....	271		

Massachusetts Report for Week Ended Apr. 21, 1917.

Disease.	Cases reported.	Disease.	Cases reported.
Cerebrospinal meningitis.....	2	Poliomyelitis (infantile paralysis).....	1
Chicken pox.....	155	Scarlet fever.....	157
Diphtheria.....	153	Septic sore throat.....	39
Dog bite.....	1	Tetanus.....	1
Dysentery.....	1	Trachoma.....	1
German measles.....	205	Tuberculosis (pulmonary).....	195
Measles.....	749	Tuberculosis (other forms).....	13
Mumps.....	217	Typhoid fever.....	13
Ophthalmia neonatorum.....	491	Whooping cough.....	58
Pellagra.....	1		

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for January, February, and March, 1917.

During the month of January 15 cases of diphtheria, 497 cases of measles, and 82 cases of scarlet fever were reported in Montana; 19 cases of diphtheria, 526 cases of measles, and 44 cases of scarlet fever were reported during February by the same State. During the month of March 5 cases of diphtheria and 13 cases of measles were reported in Hawaii, and 19 cases of diphtheria, 1,128 cases of measles, and 128 cases of scarlet fever were reported in Oregon.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Apr. 21, 1917.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	589,621	247	14	1	182	3	23	.....	45	28
Boston, Mass.	756,476	.....	52	7	198	2	49	1	69	25
Chicago, Ill.	2,497,722	921	202	25	1,060	10	468	23	203	83
Cleveland, Ohio.	674,073	.....	32	2	105	2	16	.....	37	29
Detroit, Mich.	571,784	273	69	4	117	.....	237	7	34	32
Los Angeles, Cal.	503,812	134	5	1	285	.....	12	1	55	25
New York, N. Y.	5,602,841	1,728	250	32	1,011	27	179	4	262	206
Philadelphia, Pa.	1,709,513	640	89	9	159	4	49	1	101	81
Pittsburgh, Pa.	579,090	.....	33	7	120	2	11	.....	22	20
St. Louis, Mo.	757,309	252	78	3	498	7	88	2	62	24
From 300,000 to 500,000 inhabi- tants:										
Buffalo, N. Y.	468,558	144	11	2	44	.....	17	2	40	9
Cincinnati, Ohio.	410,476	125	9	.....	55	2	16	.....	33	15
Jersey City, N. J.	306,345	110	4	4	40	3	30	.....	18	10
Milwaukee, Wis.	436,535	130	15	1	47	.....	95	2	28	8
Minneapolis, Minn.	363,454	.....	20	.....	17	.....	25	.....	.....	.....
Newark, N. J.	408,894	131	13	1	105	.....	16	.....	69	22
New Orleans, La.	371,747	.....	7	.....	10	.....	2	.....	39	28
San Francisco, Cal.	463,516	153	17	2	177	1	20	.....	28	22
Washington, D. C.	363,980	143	5	.....	212	.....	13	.....	19	17
From 200,000 to 300,000 inhabi- tants:										
Columbus, Ohio.	214,878	71	6	1	22	.....	34	.....	5	9
Denver, Colo.	260,800	.....	23	.....	178	.....	4	.....	.....	14
Indianapolis, Ind.	271,708	.....	6	.....	597	.....	24	.....	11	.....
Kansas City, Mo.	297,847	.....	11	3	121	1	86	1	1	7
Portland, Oreg.	295,463	53	1	.....	45	1	21	.....	2	6
Providence, R. I.	254,960	87	9	2	24	.....	.....	.....	.....	13
Rochester, N. Y.	256,417	84	7	1	52	2	45	4	12	8
St. Paul, Minn.	247,232	61	9	.....	161	.....	14	.....	12	8
From 100,000 to 200,000 inhabi- tants:										
Albany, N. Y.	104,199	.....	2	.....	39	.....	7	.....	14	.....
Birmingham, Ala.	181,762	88	1	.....	144	7	1	.....	8	12
Bridgeport, Conn.	121,579	46	4	2	29	1	11	.....	2	2
Cambridge, Mass.	112,981	37	13	.....	58	1	4	.....	6	6
Camden, N. J.	106,233	.....	3	.....	1	.....	2	.....	5	.....
Dayton, Ohio.	127,224	40	9	1	55	.....	11	.....	6	1
Fall River, Mass.	126,366	55	4	1	45	4	5	.....	17	4
Fort Worth, Tex.	104,562	19	.....	.....	16	.....	2	.....	.....	.....
Grand Rapids, Mich.	128,291	49	8	2	233	4	21	.....	8	2
Hartford, Conn.	110,900	40	3	.....	11	.....	9	.....	10	1
Lawrence, Mass.	100,560	23	4	1	1	.....	.....	.....	1	5
Lowell, Mass.	113,245	44	10	1	7	.....	.....	.....	5	3
Lynn, Mass.	102,425	29	2	.....	4	.....	5	.....	3	4
Nashville, Tenn.	117,057	53	.....	.....	32	.....	5	.....	2	3
New Bedford, Mass.	118,158	32	1	.....	9	.....	2	.....	13	2
New Haven, Conn.	149,685	.....	4	.....	112	.....	1	.....	3	5
Oakland, Cal.	198,604	.....	1	.....	25	.....	13	.....	1	1
Omaha, Nebr.	165,470	37	5	.....	54	.....	34	1	.....	5
Reading, Pa.	109,381	36	2	.....	2	.....	5	.....	6	3
Richmond, Va.	156,687	47	2	.....	101	.....	2	.....	2	.....
Salt Lake City, Utah.	117,399	.....	.....	.....	7	.....	18	2	.....	.....
Springfield, Mass.	105,942	41	4	1	33	1	2	.....	4	3
Syracuse, N. Y.	155,624	59	7	.....	67	.....	23	2	6	9
Toledo, Ohio.	191,554	73	5	.....	45	.....	55	.....	7	14
Trenton, N. J.	111,593	46	3	.....	6	.....	.....	.....	7	7
Worcester, Mass.	163,314	62	6	1	3	1	9	.....	8	5
From 50,000 to 100,000 inhabi- tants:										
Allentown, Pa.	63,505	21	1	.....	4	.....	1	.....	1	.....
Atlantic City, N. J.	57,660	.....	1	.....	44	.....	4	.....	3	.....
Bayonne, N. J.	69,893	.....	3	.....	2	.....	2	.....	.....	.....
Berkeley, Cal.	57,653	9	.....	.....	30	.....	3	.....	.....	.....
Binghamton, N. Y.	53,973	43	11	1	26	.....	6	.....	7	2
Brockton, Mass.	67,449	15	.....	.....	.....	.....	.....	.....	8	.....
Canton, Ohio.	60,852	20	4	.....	6	.....	6	.....	2	2

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—
Continued.

City Reports for Week Ended Apr. 21, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants—Continued.										
Charleston, S. C.	60, 734	31	2	2	1	1	1	2	6	2
Covington, Ky.	57, 144	29	3	5	1	1	1	2	6	2
Duluth, Minn.	94, 495	20	1	18		4		3	1	2
Elizabeth, N. J.	66, 690	18	10	33				11	2	1
El Paso, Tex.	83, 705	57		50	3	2			8	8
Erie, Pa.	75, 195		1	42		4		14	25	2
Evansville, Ind.	76, 078	32	2	54	2				2	2
Flint, Mich.	54, 772		3	15		16			1	1
Fort Wayne, Ind.	76, 183	24	1	4				6	2	5
Harrisburg, Pa.	72, 015	33	2	9		1		5	3	3
Hoboken, N. J.	77, 214	14	1	2	1	5		3	1	1
Johnstown, Pa.	68, 529	25	3	13		20	1	3	3	3
Kansas City, Kans.	99, 437		1	25		17		1	1	1
Lancaster, Pa.	50, 853		3	26				2		
Little Rock, Ark.	57, 343	21		6						
Malden, Mass.	51, 155	16	2	27	1	2		1	1	1
Manchester, N. H.	78, 283	36	2	7		3		1	1	1
Mobile, Ala.	58, 221	23		14				3		
New Britain, Conn.	53, 794	3	2			8			1	1
Norfolk, Va.	89, 612		1	35					1	1
Oklahoma City, Okla.	92, 943	22		7		3			7	7
Passaic, N. J.	71, 744	19	2	5	1	1		3	4	4
Portland, Me.	63, 867	15	2	5		3				
Rockford, Ill.	55, 185		2	18		7		12	2	2
Sacramento, Cal.	66, 895	20	1	6				1	2	2
Saginaw, Mich.	55, 642	23		10		15		1	1	2
St. Joseph, Mo.	85, 236	27	1	9		7				
San Diego, Cal.	53, 330	20	1	28					1	1
Schenectady, N. Y.	99, 519	24	3	73	1	3		3	2	2
Somerville, Mass.	87, 039	16	6	6		1		2		
South Bend, Ind.	68, 946	17		7		12			2	2
Springfield, Ill.	61, 120	17	2	3		1			3	3
Troy, N. Y.	77, 916		1	48		8		3	3	3
Wichita, Kans.	70, 722			90		3		1		
Wilkes Barre, Pa.	76, 776	21	4	4		4		2		
Wilmington, Del.	94, 265	32	1	3						
York, Pa.	51, 656		1	1				3		
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27, 732	4	2	11		1				
Auburn, N. Y.	37, 385	7	1			2			2	2
Austin, Tex.	34, 814	17	1						1	1
Brookline, Mass.	32, 730	10		5		1		1		
Butler, Pa.	27, 632	6	1	1		1				
Butte, Mont.	43, 425	38		24		1	2		4	4
Chelsea, Mass.	46, 192	14	2	2		2		1		
Chicopee, Mass.	29, 319	11							1	1
Cumberland, Md.	26, 074	6	2	3				3	1	1
Danville, Ill.	32, 261	17		3				2	2	2
Davenport, Iowa.	48, 811			1		2				
Dubuque, Iowa	39, 873		2	7		3		2	2	2
East Chicago, Ind.	28, 743	5		41	2	3				
East Orange, N. J.	42, 458	7		5		4		4		
Elgin, Ill.	28, 203	4		24		4		1	1	1
Everett, Mass.	39, 233	4	5	9		1		2		
Everett, Wash.	35, 486	3	2	15				1	1	1
Fitchburg, Mass.	41, 781	7	3	3		2	1	3	1	1
Galveston, Tex.	41, 863	13						1	1	1
Haverhill, Mass.	48, 477		3	7			1	4	2	2
Jackson, Mich.	35, 363	12	2	17		3		1		
Kalamazoo, Mich.	48, 886	22		2					2	2
Kenosha, Wis.	31, 576	12		57		1		1	1	1
Kingston, N. Y.	26, 771	16				1		1	1	1
Knoxville, Tenn.	38, 676		1	4				2		
La Crosse, Wis.	31, 677	8	3			3				
Lexington, Ky.	41, 097	12		20					1	1
Lincoln, Nebr.	46, 515	18	1	87		34			1	1
Long Beach, Cal.	27, 587	6		2						

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Apr. 21, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Continued.										
Lorain, Ohio.....	36,964				1		4			
Lynchburg, Va.....	32,940	9	2		3				2	1
Madison, Wis.....	30,699						16			
Medford, Mass.....	26,234	12	2		11		2		2	1
Montclair, N. J.....	26,318	1			2				1	
Nashua, N. H.....	27,327	17			35					1
Newburgh, N. Y.....	29,603	10	1		1					3
New Castle, Pa.....	41,133		1		2		2			
Newport, Ky.....	31,927	9							2	2
Newport, R. I.....	30,108	4	1							
Newton, Mass.....	43,715	8			16	1	1			
Niagara Falls, N. Y.....	37,353	18	1		16		1			2
Norristown, Pa.....	31,401	5	1		1					1
Ogden, Utah.....	31,404	9			2		9			
Orange, N. J.....	33,080	8	1		6		1		4	
Pasadena, Cal.....	46,540	16			11					4
Perth Amboy, N. J.....	41,185		1		1		1		2	
Pittsfield, Mass.....	38,629	14	1		29		1		1	
Portsmouth, Va.....	39,651	12			22		4			1
Quincy, Ill.....	36,798	13			5		4			2
Quincy, Mass.....	38,136	10					1		1	1
Racine, Wis.....	46,486	12							3	2
Roanoke, Va.....	43,284	15	1		23	1	1			2
San Jose, Cal.....	38,902				7				1	
Steubenville, Ohio.....	27,445	5								
Superior, Wis.....	46,226	7	3		1					2
Taunton, Mass.....	36,283	13	1		2	1	2		1	3
Topeka, Kans.....	48,726	5	3		41		4		2	
Waltham, Mass.....	30,570	7	1		1					
West Hoboken, N. J.....	43,139	3	2		6		3		1	
Wheeling, W. Va.....	43,377	16	2		1				2	1
Williamsport, Pa.....	33,809	4	6		48	3	1			
Wilmington, N. C.....	29,898	10			10					2
Winston-Salem, N. C.....	31,155	13					1	1	3	3
Zanesville, Ohio.....	30,863	13								
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich.....	15,010	11			33		8		7	
Beaver Falls, Pa.....	13,532				2					
Braddock, Pa.....	21,685		1		1		1			
Cairo, Ill.....	15,593	7			8					
Clinton, Mass.....	13,075	2			10				1	
Coffeyville, Kans.....	17,548				7				1	
Concord, N. H.....	22,480	14			19		4			
Galesburg, Ill.....	22,923	9			5					
Kearny, N. J.....	22,753	9			2		1			2
Kokomo, Ind.....	20,312	7	1		1				3	
Long Branch, N. J.....	15,057	6			24		2			
Marquette, Wis.....	14,610	7								
Melrose, Mass.....	17,445	4	1		1		1		1	
Morristown, N. J.....	13,158	10			3				1	1
Nanticoke, Pa.....	22,441	2	2							
Newburyport, Mass.....	15,195	3	1		19	1				
New London, Conn.....	20,771	8			3					
North Adams, Mass.....	22,019	10			1		3			
Northampton, Mass.....	19,846	9			17				4	1
Plainfield, N. J.....	23,280	13			7		2		1	1
Pontiac, Mich.....	17,524		2		8		20			
Portsmouth, N. H.....	11,602		1		1		6			
Rocky Mount, N. C.....	12,067	6			1				1	
Rutland, Vt.....	14,624	5					1			
Sandusky, Ohio.....	20,160	7	1		3					
Saratoga Springs, N. Y.....	12,842	8			1		1		2	1
Steelton, Pa.....	15,337	2	1		4		1		4	
Wilkinsburg, Pa.....	22,361	15								
Woburn, Mass.....	15,862	5								

¹ Population Apr. 15, 1910; no estimate made.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

FOREIGN.

ARGENTINA.

Plague—1899-1916.

Plague has been reported present in Argentina as follows: In the year 1899, 40 cases; year 1900, 238 cases; and from 1900 to 1913, present with an average yearly occurrence of about 100 cases. In 1913 an increase in prevalence occurred, with 504 reported cases occurring in 11 Provinces, Misiones Territory, and the Federal Capital. In 1914 there were reported 214 cases, occurring in 9 Provinces and the Federal Capital. In 1915 only 84 cases were reported. In 1916 about 57 cases occurred in the interior of the country during the period from January 1 to April 30.

CHINA.

Plague-Infected Rats—Hongkong.

During the week ended March 24, 1917, out of 2,197 rats examined at Hongkong, 2 were found plague infected.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Apr. 11-20, 1917.		Remain- ing under treatment Apr. 20, 1917.	Disease.	Apr. 11-20, 1917.		Remain- ing under treatment Apr. 20, 1917.
	New cases.	Deaths.			New cases.	Deaths.	
Diphtheria.....	6	1	4	Scarlet fever.....	1	.....	3
Leprosy.....	.....	.....	10	Smallpox.....	.....	.....	11
Malaria.....	10	.....	16	Typhoid fever.....	9	4	23
Measles.....	30	.....	35	Varicella.....	4	.....	9
Paratyphoid fever..	.....	.....	2				

¹ From Europe.

UNION OF SOUTH AFRICA.

Status of Plague—Orange Free State.

During the week ended February 18, 1917, 8 new cases of plague, occurring in three new foci of infection, were notified in Winburg district, Orange Free State, making a total of 14 cases reported from the beginning of the outbreak, February 5, 1917.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

URUGUAY.

Measures against Importation of Poliomyelitis.

By order of the national council of hygiene, dated January 17, 1917, vessels arriving at ports in Uruguay having on board or having had on board during transit cases of poliomyelitis are required to be thoroughly disinfected, the patients to be removed to their places of residence or to hospital, in the discretion of the sanitary authorities, and the families of the patients to be kept under sanitary observation.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During the Week Ended May 11, 1917.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	Feb. 25-Mar. 3.....		13	
Philippine Islands:				
Manila.....				Mar. 4-10, 1917: 1 case, not previously reported.
Provinces:				Mar. 4-10, 1917: Cases, 152; deaths, 113.
Albay.....	Mar. 4-10.....	3	2	
Antique.....	do.....	5	4	
Bohol.....	do.....	4	2	
Capiz.....	do.....	28	25	
Cebu.....	do.....	17	8	
Iloilo.....	do.....	11	7	
Leyte.....	do.....	84	65	
Straits Settlements:				
Singapore.....	do.....	2	2	
Turkey in Asia:				July-Dec. 31, 1916: Cases, 9,565; deaths, 4,909. Mar. 4-15, 1917: Cases, 8; deaths, 7.
Aleppo.....	Mar. 5.....	2	2	Vicinity.
Panderma.....	Mar. 13.....	1		
Turkey in Europe:				
Constantinople.....	Mar. 4-10.....	2	2	

PLAGUE.

Brazil:				
Bahia.....	Mar. 18-31.....	2	2	
China:				
Amoy.....	Mar. 4-24.....			Present, and in vicinity.
India:				Feb. 25-Mar. 3, 1917: Cases, 22,321; deaths, 17,933.
Bombay.....	Mar. 4-10.....	54	49	
Siam:				
Bangkok.....	Feb. 18-Mar. 10.....	3	3	
Straits Settlements:				
Singapore.....	Mar. 4-10.....		1	
Union of South Africa:				
Orange Free State— Winburg district.....	Feb. 12-18.....	8	5	Feb. 5-18, 1917: Cases, 14; deaths, 7; 3 new foci of infection.

SMALLPOX.

Brazil:				
Rio de Janeiro.....	Mar. 11-31.....	33	6	
China:				
Amoy.....	Mar. 4-24.....			Present; and in vicinity.
Chungking.....	Mar. 11-17.....			Present.

¹ From medical officers of the Public Health Service, American consuls, and other sources.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During the Week Ended May 11, 1917—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China—Continued.				
Dairen	Mar. 11-17	2		
Hongkong	Mar. 18-24	3	3	
Shanghai	Mar. 4-24	1	8	
India:				
Bombay	Mar. 4-10	22	12	
Calcutta	Feb. 25-Mar. 3		1	
Mexico:				
Coatepec	Apr. 18			Epidemic; 6 miles from Jalapa. Prevalent.
Jalapa	do			
Monterey	Apr. 9-22		2	
Vera Cruz	Mar. 18-Apr. 7	8		
Russia:				
Moscow	Jan. 1-21	86	20	
Petrograd	Jan. 13-Feb. 3	94	35	
Siam:				
Bangkok	Mar. 4-10	1	1	
Straits Settlements:				
Singapore	Mar. 4-10	1		
Sweden:				
Stockholm	Mar. 18-24	1		
Venezuela:				
Maracaibo	Apr. 15-21		2	

TYPHUS FEVER.

Russia:				
Moscow	Jan. 1-21	84	5	
Petrograd	Jan. 13-Feb. 3	25	3	
Venezuela:				
Maracaibo	Apr. 15-21		1	

Reports Received from Dec. 30, 1916, to May 4, 1917.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Macao				Outbreak with 72 cases reported Mar. 1, 1917.
Chosen (Korea)				
	Aug.-Dec. 29	1,998		
India:				
Bassein	Dec. 31-Mar. 3		44	
Bombay	Nov. 5-Dec. 23	13	12	
Do	Jan. 14-Feb. 10	7	6	
Calcutta	Oct. 15-Dec. 30		161	Oct. 8-14, 1916: Cases, 3.
Do	Dec. 31-Feb. 24		103	
Henzada	Feb. 18-24		1	
Madras	Nov. 5-Dec. 16	5		
Do	Dec. 31-Feb. 10	6	4	Dec. 17-23, 1916: One case.
Moulmein	do		7	
Rangoon	Nov. 26-Dec. 30	5	6	
Do	Dec. 31-Feb. 17	9	8	
Indo-China				
				Apr. 1-June 30, 1916: Cases, 4,540; deaths, 2,889. July 1-Dec. 31, 1916: Cases, 2,984; deaths, 2,398.
Do				
Provinces—				
Anam	Apr. 1-June 30	1,381	2,309	
Do	July 1-Dec. 31	700	544	
Cambodia	May 1-June 30	47	13	
Do	July 1-Dec. 31	164	116	
Cochin-China	Apr. 1-June 30	269	111	
Do	July 1-Dec. 31	123	111	
Kwang-Tcheou-Wan	July 1-Nov. 30	271	264	
Laos	Apr. 1-June 30	102	57	
Do	July 1-Nov. 30	652	630	

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indo-China—Continued.				
Provinces—Continued.				
Tonkin.....	Apr. 1-June 30....	2,780	1,385	
Do.....	July 1-Dec. 31....	999	725	
Saigon.....	Dec. 25-31.....	4	3	
Do.....	Jan. 29-Feb. 4....	3	3	
Japan:				
Fukuoka.....	Jan. 19.....	33	.....
Nagasaki.....	Nov. 27-Dec. 3....	9	4	
Do.....	Feb. 19-25.....	1	1	
Osaka.....	Nov. 16-Dec. 25...	23	57	Aug. 13-Dec. 25, 1916: Cases, 971; deaths, 754.
Do.....	Dec. 26-Jan. 25...	19	10	Jan. 6-16, 1917: Cases, 9. Aug. 14, 1916-Jan. 25, 1917: Cases, 990; deaths, 641.
Taiwan Island—				
Keelung.....	Nov. 13-Dec. 23...	5	7	
Do.....	Feb. 18-24.....	.....	1	
Taihoku.....	do.....	14	5	
Tokyo.....	Jan. 23-Feb. 4....	4	.....
Yokohama.....	Nov. 6-Dec. 3....	5	3	
Districts.....	do.....	1	1	
Java:				
East Java.....	Oct. 14-17.....	5	3	
West Java.....	.....	.....	.....
Batavia.....	Nov. 17-Dec. 7....	23	9	Nov. 17-Dec. 14, 1916: Cases, 135; deaths, 65.
Persia:				
Enzeli.....	Mar. 21-Sept. 9....	74	37	
Kazvin.....	July 18-Sept. 19...	107	65	
Mazanderan Province—				
Amol.....	Nov. 16.....	.....	.....	Epidemic.
Ferikenar.....	Nov. 30.....	8	8	
Recht.....	Mar. 21-Oct. 14...	165	60	
Teheran.....	Aug. 3-Oct. 18....	428	409	At two localities in vicinity: Cases, 64; deaths, 38.
Philippine Islands:				
Manila				
Manila.....	Oct. 29-Dec. 30...	201	70	Not previously reported: Cases, 54; deaths, 2.
Do.....	Dec. 31-Feb. 24...	14	7	
Provinces				
Albay.....	Oct. 29-Dec. 9....	246	147	Oct. 29-Dec. 9, 1916: Cases, 4,191; deaths, 2,030. Dec. 17-30, 1916: Cases, 282; deaths, 188. Dec. 31, 1916-Mar. 3, 1917: Cases, 1,524; deaths, 1,125.
Do.....	Dec. 17-30.....	20	10	
Do.....	Dec. 31-Mar. 3....	60	46	
Antique.....	Nov. 18-25.....	8	7	
Do.....	Dec. 31-Mar. 3....	124	87	
Bataan.....	Oct. 29-Dec. 9....	93	77	
Do.....	Dec. 17-23.....	2	2	
Do.....	Dec. 31-Jan. 6....	2	3	
Batangas.....	Oct. 29-Nov. 18...	1	1	
Bohol.....	Oct. 29-Dec. 9....	46	18	
Do.....	Dec. 17-23.....	1	.....
Do.....	Feb. 25-Mar. 3....	12	6	
Bulacan.....	Oct. 29-Dec. 9....	96	67	
Do.....	Dec. 17-23.....	10	6	
Camarines.....	Oct. 29-Dec. 9....	61	37	
Capiz.....	do.....	45	34	
Do.....	Dec. 17-30.....	27	23	
Do.....	Dec. 31-Mar. 3....	161	120	
Cavite.....	Oct. 29-Dec. 9....	156	113	
Do.....	Dec. 17-30.....	24	13	
Do.....	Dec. 31-Feb. 10...	45	33	
Cebu.....	Dec. 24-30.....	12	6	
Do.....	Jan. 7-Mar. 3....	100	55	
Iloilo.....	Oct. 29-Dec. 9....	237	148	
Do.....	Dec. 17-30.....	37	31	
Do.....	Dec. 31-Mar. 3....	60	50	
Laguna.....	Nov. 2-25.....	12	10	
Leyte.....	Oct. 29-Dec. 9....	127	98	
Do.....	Dec. 17-30.....	90	62	
Do.....	Dec. 31-Mar. 3....	438	360	
Do.....	Dec. 17-23.....	8	2	
Masbate.....	Jan. 14-Feb. 3....	25	18	
Mindanao.....	Dec. 31-Feb. 3....	8	7	
Mindoro.....	Oct. 29-Dec. 9....	126	79	
Misamis.....	Oct. 29-Dec. 9....	17	12	
Do.....	Dec. 17-30.....	49	36	
Do.....	Dec. 31-Feb. 24...	.....	.....

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.	
Philippine Islands—Continued.					
Provinces—Continued.					
Negros Occidental.....	Oct. 29-Dec. 9.....	910	553		
Do.....	Dec. 24-30.....	11	5		
Do.....	Jan. 7-Feb. 10.....	51	46		
Pampanga.....	Dec. 3-9.....	4	3		
Do.....	Dec. 17-23.....	6	5		
Do.....	Dec. 31-Jan. 6.....	1	1		
Rizal.....	Oct. 29-Dec. 9.....	27	14		
Do.....	Dec. 17-30.....	4	2		
Do.....	Dec. 31-Jan. 27.....	1	1		
Romblon.....	Jan. 28-Mar. 3.....	31	22		
Samar.....	Nov. 5-18.....	13	10		
Do.....	Dec. 31-Mar. 3.....	219	172		
Sorsogon.....	Oct. 29-Dec. 2.....	131	71		
Do.....	Dec. 17-23.....	1	2		
Do.....	Jan. 21-Mar. 3.....	107	69		
Tayabas.....	Nov. 5-18.....	1	1		
Zambales.....	Oct. 29-Dec. 2.....	7	1		
Straits Settlements:					
Singapore.....	Oct. 22-28.....	2	2		
Do.....	Jan. 7-Mar. 3.....	3	3		
Turkey in Asia:					
Aleppo.....	Dec. 9-15.....	1	1	Sept. 22-Dec. 12, 1916: Cases, 258; deaths, 117. July 14, 1916-Jan. 18, 1917: Cases, 9,569; deaths, 4,913.	
Do.....	Jan. 15.....	2	2		
Bagdad.....	Nov. 6-30.....	17	6		
Beirut.....	Dec. 7-12.....	2	1		
Panderma.....	Jan. 8-Mar. 13.....	2	1		
Rodosto.....	Jan. 18.....	1	1		
Tarsus.....	Nov. 7.....	1	1		
Turkey in Europe:					
Constantinople.....	Oct. 1-Nov. 17.....	8	1		
Do.....	Mar. 4.....	1	1		

PLAGUE.

Brazil:				
Bahia.....	Nov. 5-Dec. 16.....	15	9	Jan. 1-Nov. 11, 1916: Cases, 14; deaths, 7. Nov. 5-11: Cases, 4; deaths, 2.
Do.....	Jan. 7-Feb. 24.....	4	3	
Joazeiro.....				June 1-Nov. 6, 1916: Cases, 67; deaths, 51.
Pernambuco, State.....	Jan. 16-Apr. 26.....			Present in interior cities.
Ceylon:				
Colombo.....	Oct. 28-Dec. 30.....	50	30	July 23-29, 1916: Cases, 9; deaths, 8.
Do.....	Dec. 31-Feb. 10.....	48	46	
Chile:				
Antofagasta.....	Mar. 12.....	2		
Tacna.....	do.....	1		
Tocopilla.....	Sept. 12.....	1	1	
China:				
Amoy, vicinity.....	Nov. 19-Dec. 2.....			Present.
Do.....	Feb. 18-Mar. 3.....			Present in vicinity.
Chaochowfu.....	Feb. 24.....			Present; 26 miles from Swatow.
Hongkong.....	Dec. 24-30.....	1	1	
Do.....	Jan. 21-Feb. 3.....	24	12	Present in vicinity.
Kansu Province— Taochow.....	Oct. 1-24.....		20	Pneumonic. Reported present in other localities in Province.
Nanking.....	Mar. 4-24.....			Present.
Ecuador:				
Duran.....	Oct. 1-Dec. 31.....	2		Sept. 1-Dec. 31, 1916: Cases, 353; deaths, 119.
Guayaquil.....	Sept. 1-Dec. 31.....	347	116	
Do.....	Jan. 1-31.....	104	43	Jan. 1-31, 1917; Cases, 106; deaths, 43.
Milagro.....	Nov. 1-Dec. 31.....	2	1	
Naranjal.....	Jan. 1-31.....	1	1	
Nobol.....	Oct. 1-31.....	1	1	
Santa Rosa.....	Sept. 1-30.....	1	1	
Taura.....	Jan. 1-31.....	1		
Egypt.....				Jan. 1-Dec. 30, 1916: Cases, 1,702; deaths, 828. Jan. 1-Mar. 27, 1917: Cases, 54; deaths, 32.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt—Continued.				
Alexandria.....	Nov. 12-Dec. 25...	4	3	One case on s. s. Proton, arrived Nov. 16, 1916, from Sidi Barani and Sollum.
Do.....	Feb. 21-Mar. 22.....	2	1	
Port Said.....	Dec. 11.....	1	1	
Do.....	Jan. 18-Mar. 25.....	10	5	
Provinces—				
Assiout.....	Mar. 8-9.....	8	8	
Beni-Souef.....	Feb. 1.....	1	1	
Fayoum.....	Jan. 24-Mar. 20.....	11	5	
Girgeh.....	Mar. 27.....	6	1	
Kenah.....	Mar. 20-27.....	10	7	
Minieh.....	Jan. 25-Mar. 22.....	3	3	
Gold Coast:				
Akkra.....	Apr. 4.....			Present.
Greece:				
Athens.....	Apr. 23.....	2		In military hospital.
Hawaii:				
Panulo.....	Mar. 7.....	1	1	
India:				
Bassein.....	Oct. 22-Dec. 30.....		7	Oct. 15-Dec. 23, 1916: Cases, 89, 512; deaths, 67,068. Dec. 31, 1916-Feb. 21, 1917: Cases, 157, 878; deaths, 126,539.
Do.....	Dec. 31-Mar. 3.....		74	
Bombay.....	Nov. 5-Dec. 30.....	73	59	Oct. 8-14, 1916: Cases, 13; deaths, 7. Received out of date. Original report lost on s. s. Arabia.
Do.....	Dec. 31-Mar. 3.....	300	176	
Henzada.....	Feb. 18-Mar. 3.....		8	
Karachi.....	Oct. 29-Dec. 30.....	4	3	
Do.....	Dec. 31-Mar. 3.....	38	23	
Madras.....	Nov. 19-Dec. 30.....	7	5	Oct. 8-14, 1916: Case, 1; death, 1.
Do.....	Dec. 31-Feb. 24.....	7	5	
Madras Presidency.....	Nov. 5-Dec. 30.....	5,854	3,932	Oct. 8-14, 1916: Cases, 534; deaths, 353. Sept. 17-23, 1916: Cases, 429; deaths, 280.
Do.....	Dec. 31-Mar. 3.....	6,465	4,540	
Mandalay.....	Oct. 28-Dec. 30.....	3	3	
Do.....	Feb. 4-Mar. 3.....		16	
Moulmein.....	Dec. 3-9.....		1	
Do.....	Feb. 4-Mar. 3.....		11	
Myingyan.....	do.....		3	
Prome.....	Oct. 22-Dec. 30.....		177	
Do.....	Dec. 31-Feb. 17.....		101	
Rangoon.....	Oct. 28-Dec. 30.....	43	39	Oct. 1-7, 1916: Cases, 9; deaths, 9.
Do.....	Dec. 31-Mar. 3.....	243	225	
Toungoo.....	Oct. 22-Dec. 30.....		12	
Do.....	Dec. 31-Feb. 24.....		37	
Indo-China:				
Provinces—				
Anam.....	Apr. 1-June 30.....	142	83	Apr. 1-June 30, 1916: Cases, 325; deaths, 148. July 1-Dec. 31, 1916: Cases, 230; deaths, 142.
Do.....	July 1-Dec. 31.....	75	49	
Cambodia.....	Apr. 1-June 30.....	43	41	
Do.....	July 1-Dec. 31.....	57	54	
Cochin-China.....	Apr. 1-June 30.....	135	63	
Do.....	July 1-Nov. 30.....	58	22	
Kwang-Tcheou-Wan.....	do.....	29	8	
Tonkin.....	Oct. 1-31.....	2		
Salgon.....	Nov. 6-Dec. 17.....	9	3	
Do.....	Jan. 1-Feb. 25.....	19	14	
Japan:				
Nagoya.....	Dec. 10-16.....	2		
Taiwan Island—				
Shirin.....	Feb. 18-24.....	1	1	Three miles from Taihoku.
Tansul.....	Feb. 15-21.....	3	3	
Yokkaichi.....	Nov. 12-Dec. 16.....	32	12	
Java:				
East Java				
Djocjakarta Residency.....	Nov. 4-Dec. 31.....	2	2	Aug. 26-Dec. 31, 1916: Cases, 133; deaths, 116. Jan. 15-Feb. 11, 1917: Cases, 25; deaths, 24.
Do.....	Jan. 15-28.....	5	5	
Kediri Residency.....	Aug. 26-Dec. 31.....	20	18	
Madloen Residency.....	do.....	8	8	
Paseroean Residency.....	do.....	3	3	
Samarang Residency.....	Dec. 2-31.....	6	6	
Do.....	Jan. 29-Feb. 11.....	5	5	
Surabaya Residency.....	Aug. 26-Dec. 31.....	49	49	
Do.....	Jan. 15-Feb. 11.....	13	12	
Surakarta Residency.....	Aug. 26-Dec. 31.....	28	23	
Do.....	Jan. 29-Feb. 11.....	2	1	
Mid-Java				
Samarang.....	Aug. 26-Dec. 31.....	1	1	

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mauritius.....	Dec. 9-Feb. 3....	20	11	District of Port Louis.
Peru.....				Jan. 1-Feb. 15, 1917: 101 cases.
				Jan. 1-June 30, 1916: Cases, 360;
				deaths, 191. July 1-Dec. 31,
				1916: Cases, 150; deaths, 77.
Department—				
Ancachs.....	Jan. 1-June 30....	57	21	
Do.....	July 1-Dec. 31....	5	1	
Arequipa.....	Jan. 1-June 30....	23	18	
Do.....	July 1-Dec. 31....	1	1	
Cajamarca.....	do.....	2		
Lambayeque.....	Jan. 1-June 30....	84	32	
Do.....	July 1-Dec. 31....	6	2	
Libertad.....	Jan. 1-June 30....	54	36	
Do.....	July 1-Dec. 31....	75	40	
Lima.....	Jan. 1-June 30....	45	19	
Do.....	July 1-Dec. 31....	40	18	
Callao (province)...	Jan. 1-June 30....	36	20	
Do.....	July 1-Dec. 31....	4	2	
Piura.....	Jan. 1-June 30....	61	45	
Do.....	July 1-Dec. 31....	17	13	
Ancachs—				
Casma.....	Jan. 1-Feb. 15....	3		
Callao—				
Callao.....	do.....	3		
Lambayeque—				
Chiclayo.....	do.....	2		
Libertad.....	do.....	60		Occurring in Guadalupe, Pacas-
				mayo, Salaverry, San Pedro,
				Trujillo (city and country), and
				Viru.
Lima—				
Lima.....	do.....	22		City and country.
Piura—				
Catacaos.....	do.....	11		
Siam:				
Bangkok.....	Oct. 22-Dec. 30....	12	10	
Do.....	Jan. 14-Feb. 17....	9	7	
Straits Settlements:				
Penang.....	Jan. 28-Feb. 24....	3	2	
Singapore.....	Oct. 22-Dec. 30....	7	7	
Do.....	Dec. 31-Feb. 24....	9	8	
Union of South Africa:				
Cape of Good Hope State—				
Uitenhage district.....	Oct. 31-Nov. 12....	2	2	Total, Oct. 23-Nov. 12, 1916:
Orange Free State—				Cases, 24; deaths, 13.
Winburg district.....	Feb. 5-11.....	6	2	On a farm.
Transvaal—				
Potchefstroom district..	Dec. 21-Jan. 21....	12	12	On 2 adjoining farms.

SMALLPOX.

Australia:				
New South Wales—				
Coonamble.....	Dec. 8.....	1		
Queensland—				
Thursday Island, quar-	Feb. 8.....	1		On steamship St. Albans from
antine station.				Kobe via Hongkong. Vessel
				proceeded in quarantine to
				Townsville, Brisbane, and Syd-
				ney, arriving Feb. 16. Re-
				leased Feb. 23.
Austria-Hungary:				
Austria—				
Prague.....	Jan. 21-27.....	1		
Vienna.....	Nov. 12-Dec. 9....	8	1	
Do.....	Feb. 11-Mar. 24....	4		
Hungary—				
Budapest.....	Nov. 5-Dec. 23....	73	2	
Do.....	Dec. 31-Mar. 24....	81	11	

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Brasil:				
Bahia.....	Nov. 12-Dec. 23...	5		
Do.....	Jan. 7-Mar. 17.....	9		
Rio de Janeiro.....	Nov. 12-Dec. 30...	50	12	
Do.....	Dec. 31-Mar. 10...	106	31	
Canada:				
Alberta—				
Lethbridge.....	Feb. 1-23.....	2		
British Columbia—				
Vancouver.....	Feb. 19-Apr. 7....	2	2	
Victoria.....	Feb. 11-17.....	1		
Manitoba—				
Winnipeg.....	Feb. 11-Apr. 7....	6		
Ontario—				
Kingston.....	Mar. 11-17.....	1		
Sarnia.....	Jan. 28-Feb. 10...	3		
Toronto.....	Jan. 28-Mar. 31...	6		
Canary Islands:				
Las Palmas.....	Feb. 25-Mar. 3....	1		On American vessel.
Ceylon:				
Colombo.....	Dec. 31-Jan. 6....	1		
China:				
Amoy.....	Oct. 31-Dec. 9....			Present. Dec. 10-16, 1916; Cases, 3.
Do.....	Feb. 11-Mar. 3....			Present in vicinity.
Antung.....	Jan. 8-14.....	2	1	
Canton.....	Nov. 1-Dec. 20....		14	
Changsha.....	Mar. 11-17.....	3		
Chungking.....	Oct. 28-Dec. 30...			Present.
Do.....	Dec. 31-Mar. 10...			Do.
Dairen.....	Nov. 5-Dec. 30...	63	8	
Do.....	Dec. 31-Mar. 3....	46	17	In vicinity, Jan. 14-20, 1917, 1 case.
Foochow.....	Oct. 29-Dec. 16...			Present.
Harbin.....	Nov. 6-Dec. 17...	3		
Do.....	Jan. 2-Mar. 11....	2		
Hongkong.....	Oct. 28-Dec. 30...	349	243	
Do.....	Dec. 31-Mar. 17...	496	409	Present in vicinity.
Kwangtung Province—				
Chaoyang district.....	Jan. 21-27.....			Present. Vicinity of Swatow.
Manchuria Station.....	Jan. 8-Feb. 25....	4		On Chinese Railway.
Mukden.....	Dec. 9-30.....			Present.
Do.....	Dec. 31-Mar. 18...			Do.
Nanking.....	Nov. 12-25.....			Do.
Shanghai.....	Jan. 28-Feb. 3....	1		
Tientsin.....	Dec. 17-30.....	1	1	
Do.....	Jan. 28-Feb. 3....	2		
Tsingtao.....	Dec. 1-9.....	3		
Do.....	Dec. 28-Mar. 29...	76	4	
Colombia:				
Espinal.....	Feb. 17.....			Present. Suburb of Cartagena.
Cuba:				
Casa Blanca.....	Jan. 12.....	1		Vicinity of Habana. Case landed Jan. 1, 1917, from s. s. Alfonso XII, from Santander, Spain.
Encrucijada.....	Jan. 10.....	1		In Santa Clara Province. Case landed from s. s. Montevideo, from Barcelona, via Las Palmas, Canary Islands, and Porto Rico; arrived at Habana Jan. 6, 1917.
Guanabacoa.....	Jan. 9.....	1		Vicinity of Habana. Case landed from s. s. Montevideo.
Habana.....	Jan. 10-20.....	2		At Mariel quarantine station. From s. s. Montevideo
Ecuador:				
Gnayaquil.....	Nov. 1-30.....	10	1	
Egypt:				
Alexandria.....	Dec. 25-31.....		3	
Do.....	Jan. 8-Mar. 18....	17	7	
Cairo.....	June 11-July 1....	50	20	
Do.....	July 2-Oct. 21....	60	30	
Port Said.....	June 11-17.....	1	1	
Do.....	Aug. 20-Sept. 9....	2		

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
France:				
Marseille.....	Oct. 1-Dec. 31.....		16	
Do.....	Feb. 1-23.....		2	
Paris.....	Dec. 17-23.....	1		
Do.....	Jan. 14-20.....		1	
Germany:				
Barnitz.....	Jan. 7-13.....	1		
Bevensen.....	do.....	1		
Bomlitz.....	do.....	2		
Bremen.....	Dec. 31-Jan. 27.....	3		
Celle.....	Jan. 7-13.....	1		
Danenberg.....	do.....	1		
Dendorf.....	do.....	1		
Egestorf.....	do.....	1		
Geesthacht.....	do.....	2		
Gosewerder.....	do.....	2		
Hamburg district.....	Dec. 31-Jan. 20.....	71		
Harburg.....	Jan. 7-13.....	1		
Husum.....	do.....	1		
Lübeck.....	do.....	8		
Reinfeld.....	do.....	1		
Soltau.....	do.....	1		
Undelos.....	do.....	1		
Winsen.....	do.....	1		
Great Britain:				
Liverpool.....	Feb. 4-Mar. 3.....	3	1	
Greece:				
Athens.....	Jan. 1-Mar. 5.....		6	
Hawaii:				
Honolulu.....	Jan. 9.....	1		From s. s. Tenyo Maru from oriental ports.
Do.....	Jan. 24.....	1		From s. s. Ecuador from Hong-kong.
India:				
Bombay.....	Dec. 10-30.....	5	1	Oct. 8-14, 1916: Cases, 3; deaths, 3. Received out of date. Original report lost on s. s. Arabia.
Do.....	Dec. 31-Feb. 24.....	73	21	
Calcutta.....	Nov. 5-Dec. 2.....		2	
Do.....	Feb. 18-24.....		1	
Karachi.....	Dec. 31-Jan. 13.....	2		
Madras.....	Nov. 5-Dec. 30.....	35	19	
Do.....	Dec. 31-Mar. 10.....	259	42	
Moulmein.....	Oct. 28-Nov. 14.....		4	
Rangoon.....	Oct. 28-Dec. 30.....	17	1	
Do.....	Dec. 31-Mar. 3.....	44	2	
Indo-China:				
Provinces.....				Apr. 1-June 30, 1916: Cases, 331; deaths, 28. July 1-Dec. 31, 1916: Cases, 503; deaths, 194.
Anam.....	Apr. 1-June 30.....	45	8	
Do.....	July 1-Dec. 31.....	114	43	
Cambodia.....	Apr. 1-June 30.....	30	11	
Do.....	July 1-Dec. 31.....	24	10	
Cochin-China.....	Apr. 1-June 30.....	44	5	
Do.....	July 1-Dec. 31.....	336	99	
Laos.....	Aug. 1-Oct. 31.....	39	16	
Tonkin.....	Apr. 1-June 30.....	215	4	
Do.....	July 1-Dec. 31.....	69	25	
Saigon.....	Nov. 6-Dec. 31.....	28	7	
Do.....	Jan. 1-Mar. 4.....	162	40	
Italy:				
Turin.....	Feb. 19-Mar. 18.....	16	3	Roumanian refugees.
Japan:				
Ehime.....	Jan.-Feb.....			Present.
Hyogo.....	do.....			Do.
Kagawa.....	do.....			Do.
Kobe.....	Nov. 28-Dec. 10.....	4	1	
Do.....	Jan. 1-Mar. 25.....	85	18	
Kochi.....	Jan.-Feb.....			Do.
Osaka.....	Jan. 22-Mar. 25.....	314	64	
Java:				
East Java.....				Sept. 16-Dec. 31, 1916: Cases, 62; deaths, 2. Jan. 27-Feb. 11, 1917: Cases, 11; deaths, 1.
Surabaya.....	Nov. 4-10.....	1		Sept. 16-Dec. 29, 1916: Cases, 227; deaths, 24. Jan. 28-Feb. 10, 1917: Cases, 19; deaths, 2.
Mid-Java.....				
Samarang.....	Nov. 4-10.....	3		

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java—Continued.				
West Java.....				Sept. 29-Dec. 28, 1916: Cases, 408; deaths, 63. Feb. 9-22, 1917: Cases, 19; deaths, 3.
Batavia.....	Sept. 29-Dec. 28.....	54	9	
Do.....	Dec. 29-Feb. 22.....	25	2	
Mexico:				
Durango.....	Feb. 17.....			Present; also in vicinity.
Mexico City.....	Dec. 10-30.....	20		
Do.....	Dec. 31-Mar. 3.....	72	2	
Monterey.....	Mar. 12-25.....			
Nuevo Laredo.....	Dec. 10-30.....	1		
Progreso.....	Apr. 7.....	1	1	
Vera Cruz.....	Feb. 18-24.....			
New Zealand:				
Auckland.....	Feb. 4-10.....	4		
Norway:				
Trondhjem.....	Jan. 1-31.....	2		
Philippine Islands:				
Manila.....	Jan. 21-Feb. 17.....	15		July 30-Dec. 30, 1916: Cases, 10.
Portugal:				
Lisbon.....	Nov. 19-Dec. 2.....	6		
Portuguese East Africa:				
Lourenço Marquez.....	Sept. 1-30.....		1	
Russia:				
Archangel.....	Nov. 25-Dec. 29.....	6	8	Nov. 13-25, 1916: Cases, 35; deaths 8.
Do.....	Jan. 1-Feb. 13.....	44	9	
Moscow.....	Oct. 16-Dec. 31.....	139	47	
Do.....	Jan. 27-Feb. 11.....	87	25	
Petrograd.....	Oct. 8-Dec. 30.....	180	68	
Do.....	Dec. 31-Feb. 17.....	112	2..	
Poland:				
Warsaw.....	Oct. 1-Dec. 2.....	25	4	Oct. 1-Dec. 2, 1916: Cases, 38. Mar. 4-20, 1916: Cases, 65; deaths, 7.
Do.....	Jan. 9-Feb. 12.....	39		
Riga.....	Dec. 31-Jan. 27.....	4	2	
Vladivostok.....	Jan. 22-Feb. 4.....	8		
Spain:				
Bilbao.....	Jan. 1-31.....		2	Jan. 1-Dec. 31, 1916: Deaths, 405.
Cadiz.....	Nov. 1-Dec. 31.....		3	
Madrid.....	do.....		14 ⁴	
Do.....	Jan. 1-31.....		35	
Malaga.....	Sept. 1-Nov. 30.....		15	
Seville.....	Nov. 1-30.....		22	
Do.....	Jan. 1-Feb. 28.....		16	
Valencia.....	Nov. 19-Dec. 23.....	5	1	
Do.....	Jan. 14-Mar. 10.....	7		
Straits Settlements:				
Penang.....	Oct. 28-Dec. 30.....	16	3	
Do.....	Dec. 31-Mar. 3.....	32	4	
Singapore.....	Nov. 19-Dec. 30.....	3	2	
Do.....	Jan. 7-Feb. 17.....	2	1	
Sweden:				
Gothenburg.....	Jan. 28-Feb. 3.....		1	
Switzerland:				
Basel.....	Nov. 5-11.....	1		
Do.....	Dec. 31-Mar. 10.....	28		
Tunisia:				
Tunis.....	Nov. 25-Dec. 15.....	51	27	
Do.....	Dec. 30-Mar. 30.....	71	45	
Turkey in Asia:				
Trebizond.....	Nov. 11-Dec. 30.....	1	1	
Do.....	Dec. 31-Feb. 10.....	5	14	
Union of South Africa:				
Johannesburg.....	Sept. 10-Dec. 30.....	45		
Do.....	Dec. 31-Jan. 27.....	6		
Venezuela:				
Maracaibo.....	Mar. 3-Apr. 14.....		19	
On vessel:				
S. S. Nippon Maru.....	Jan. 22.....	2		Landed at Yokohama quarantine.
Do.....	Jan. 24-Feb. 3.....	9	3	En route to Honolulu. Vessel from oriental ports.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—
Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	Feb. 1-28.....	1	1	
Argentina:				
Rosario.....	Nov. 1-30.....		1	
Austria-Hungary:				
Austria—				
Prague.....	Jan. 23-Mar. 10.....	5		
Vienna.....	Nov. 5-Dec. 30.....	21	2	
Do.....	Dec. 31-Mar. 24.....	38	1	
Hungary—				
Budapest.....	Nov. 5-Dec. 30.....	3	1	
Do.....	Jan. 14-Mar. 24.....	94	7	
Belgium:				
Ghent.....	Oct. 29-Nov. 4.....		1	
Liege.....	.....do.....		1	
Do.....	Jan. 23-Feb. 3.....		1	
Canada:				
Ontario—				
Ottawa.....	Apr. 9-15.....		1	
China:				
Antung.....	Nov. 27-Dec. 10.....	6		
Do.....	Jan. 15-21.....	2		
Hankow.....	Nov. 12-18.....	1		
Tientsin.....	Oct. 29-Nov. 4.....	1		
Tsingtao.....	Dec. 23-Mar. 29.....	7		
Cuba:				
Santiago.....	Dec. 7-13.....	1	1	
Egypt:				
Alexandria.....	Nov. 12-Dec. 31.....	28	12	Nov. 19-Dec. 23, 1916: 5 cases
Do.....	Jan. 1-Mar. 13.....	564	122	
Cairo.....	June 11-July 1.....	275	142	
Do.....	July 2-Oct. 23.....	285	149	
Port Said.....	June 11-17.....	20	9	
Do.....	July 2-Oct. 14.....	10	8	
Germany:				
Berlin.....	Oct. 15-Dec. 23.....		7	
Bremen.....	Oct. 22-Dec. 30.....	1	3	
Do.....	Dec. 31-Jan. 27.....	1	3	
Frankfort-on-Main.....	Nov. 12-18.....		1	
Königsberg.....	Nov. 12-Dec. 23.....	5	5	
Do.....	Dec. 31-Jan. 20.....	5	2	
Marienwerder district.....	Dec. 3-9.....	1		Prison camp.
Neidenburg.....	Oct. 29-Nov. 13.....	7		
Nuremberg.....	Oct. 29-Nov. 11.....	3		
Stettin.....	Jan. 21-27.....		1	
Great Britain:				
Belfast.....	Mar. 11-31.....	20	1	
Cork.....	Jan. 7-Feb. 3.....	1		
Glasgow.....	Dec. 3-30.....	4		
Do.....	Jan. 7-13.....		1	
Greece:				
Saloniki.....	Nov. 7-Dec. 25.....		36	
Do.....	Dec. 26-Mar. 10.....		28	
Italy:				
Bari, Province—				
Corato.....	Mar. 5-11.....	5		
Java:				
East Java.....				Sept. 16-Dec. 16, 1916: Cases, 10; Feb. 4-10, 1917: Cases, 6; deaths, 1.
Mid-Java.....				Sept. 16-Dec. 29, 1916: Cases, 87; deaths, 7. Jan. 25-Feb. 10, 1917: Cases, 9; deaths, 1.
Samarang.....	Nov. 4-Dec. 1.....	10		Sept. 29-Dec. 23, 1916: Cases, 185; deaths, 13. Dec. 29, 1916-Feb. 22, 1917: Cases, 59; deaths, 2.
West Java.....				
Batavia.....	Sept. 29-Dec. 28.....	139	12	
Do.....	Dec. 29-Feb. 22.....	48	1	
Mexico:				
Agascalientes.....				Epidemic.
Ciudad Juarez.....	Dec. 22.....			July, 1916-Feb. 5, 1917: Cases, 100 (estimated).
Durango.....	Dec. 12.....			Present.
Do.....	Jan.-Feb.....			Present. Estimated deaths
Mexico City.....	Dec. 3-30.....	835		daily, about 25. Present
Do.....	Dec. 31-Mar. 3.....	1,028		throughout year 1916.
Monterey.....	Apr. 2-8.....		1	
Nuevo Laredo.....	Dec. 10-16.....	4		July 1-Dec. 16, 1916: Cases, 28.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—
Continued.

Reports Received from Dec. 30, 1916, to May 4, 1917—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Netherlands:				
Amsterdam.....	Feb. 25-Mar. 3....	2		
Rotterdam.....	Nov. 26-Dec. 30....	8		
Do.....	Feb. 4-10.....	1		
Russia:				
Archangel.....	Nov. 25-Dec. 29....	29	9	
Do.....	Jan. 1-Feb. 10.....	32	15	
Moscow.....	Oct. 16-Dec. 31....	127	17	
Do.....	Jan. 22-Feb. 11....	57	14	
Petrograd.....	Oct. 8-Dec. 30....	155	44	
Do.....	Dec. 31-Feb. 17....	26	3	
Poland:				
Lodz.....	Oct. 1-Dec. 2.....	201	20	Oct. 1-Dec. 2, 1916: Cases, 1,538; deaths, 119. In invaded regions.
Warsaw.....	do.....	611	36	Mar. 4-May 20, 1916: Cases, 830; deaths, 80.
Do.....	Jan. 9-Feb. 12....	497	27	
Vladivostok.....	Jan. 22-Feb. 4.....	2		
Spain:				
Madrid.....	Nov. 1-Dec. 31....		3	Jan. 1-Dec. 31, 1916: Deaths, 35.
Do.....	Jan. 1-Feb. 28....		3	
Straits Settlements:				
Penang.....	Feb. 25-Mar. 3....	1		
Sweden:				
Stockholm.....	Nov. 28-Dec. 4....	1		
Do.....	Dec. 31-Jan. 6....	3		
Switzerland:				
Basel.....	Feb. 18-24.....	1		
Zurich.....	Dec. 3-9.....	1		
Do.....	Jan. 1-Mar. 17....	4		
Tunisia:				
Tunis.....	Dec. 16-22.....	1		
Turkey in Asia:				
Haifa.....	Oct. 16-22.....	1		Feb. 7, 1917: 54 cases reported in Army of the Orient.
Trebizond.....	Dec. 17-30.....	3	3	
Do.....	Dec. 31-Feb. 3....		5	

YELLOW FEVER.

Brazil:				
Espirito, Santo, State.....	Jan. 27-Feb. 26....	18	4	
Ecuador:				
Babahoyo.....	Nov. 1-30.....	1	1	
Chobo.....	do.....	1		
Duran.....	Oct. 1-31.....	1		
Guayaquil.....	Sept. 1-Dec. 31....	46	24	
Do.....	Jan. 1-30.....	17	7	
Milagro.....	Sept. 1-31.....	1		
Do.....	Oct. 1-31.....	2	1	
Do.....	Jan. 1-31.....	1		
Gold coast.....				1915: Cases, 2; deaths, 2. European and native.

YOUR PATRIOTIC DUTY—BUY A 1917 LIBERTY BOND.

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