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EPIDEMIC INFLUENZA.

A RECRUDESCENCE OF THE DISEASE.

Reports to the Public Health Service from a number of localities are to the effect that a recrudescence of cases of influenza or of influenza-like cases has occurred. The reports are from widely scattered localities. Increases in the number of cases have been reported, for example, from places in Massachusetts, South Carolina, Georgia, Ohio, Indiana, Illinois, and Washington. In a considerable proportion of the localities reporting a recrudescence of influenza various measures have been taken to prevent public gatherings and in some instances the schools were again closed. The comment is made in some of the reports that the new cases have appeared among school children.

In this connection it may be of interest to note that a recrudescence of influenza in Vienna late in September is described in a newspaper published in that city in October. It interrupted school courses, about one-fifth of the schools being closed. In the absence of compulsory notification no reliable statistics were available. Fatal cases were said not to be common; nevertheless, in the last week in September the number of deaths from pneumonia was said to be three times the normal incidence.

The following table shows the number of cases reported weekly in extra-cantonment zones from September 15 to November 30, inclusive. It will be noted that increases in influenza cases are shown for a number of zones.

Cases of influenza reported in extra-cantonment zones.

State and zone.	Cases reported week ended—										
	Sept. 21.	Sept. 28.	Oct. 5.	Oct. 12.	Oct. 19.	Oct. 26.	Nov. 2.	Nov. 9.	Nov. 16.	Nov. 23.	Nov. 30.
Massachusetts:											
Devens	.....	.....	18	53	46	58	13	11	24	6	.....
Connecticut:											
New London Sanitary District	170	617	835	688	582	235	114	77	66	73	94
New Jersey:											
Dix	.....	.....	.....	45	48	124	57	89	2	.....	4
Ohio:											
Sherman	.....	.....	732	589	422	299	69	26	38	54	58
Iowa:											
Dodge	.....	3	10	545	853	365	126	208	40	519	934

Cases of influenza reported in extra-cantonment zones—Continued.

State and zone.	Cases reported week ended—										
	Sept. 21.	Sept. 28.	Oct. 5.	Oct. 12.	Oct. 19.	Oct. 26.	Nov. 2.	Nov. 9.	Nov. 16.	Nov. 23.	Nov. 30.
Kansas:											
Funston	2	.....	23	223	354	212	173	75	94	79	235
Leavenworth	.....	4	5	102	145	205	143	95	118	162	400
Virginia:											
Humphreys	.....	66	117	602	.....	145	72	21	.....	6	19
Lee	.....	.....	2,488	2,492	1,940	595	305	79	.....	2	7
Portsmouth and Norfolk County health district	7	456	4,674	4,144	1,386	637	145	8	7	9	.....
Tidewater health district	3	219	594	787	1,751	493	804	2	.....	2	.....
North Carolina:											
Greene	.....	.....	546	803	452	260	61	49	52	100	173
Polk	.....	.....	.....	.....	.....	.....	.....	284	262	314	294
South Carolina:											
Charleston Sanitary District	.....	.....	.....	.....	.....	.....	208	172	70	78	175
Jackson	.....	2	1,253	4,427	1,500	474	87	6	13	53	35
Sevier	.....	26	403	1,718	631	538	166	3	4	278	117
Wadsworth	.....	7	69	231	477	388	234	49	112	144	126
Georgia:											
Gas and Flame School	.....	.....	51	730	1,408	1,257	531	260	233	85	93
Gordon	.....	.....	.....	844	1,598	707	372	134	124	.....	141
Hancock	6	3	35	371	337	244	281	153	259	290	33
Picric Acid Plant	.....	.....	264	150	248	81	42	41	14	16	14
Wheeler	.....	.....	26	152	880	932	522	253	257	671	523
Florida:											
Johnston	.....	3	198	2,944	1,750	541	233	10	.....	3	8
Kentucky and Indiana:											
Taylor	.....	3	380	3,620	3,772	2,082	1,146	513	454	837	935
Georgia and Tennessee:											
Oglethorpe	.....	3	31	880	2,203	527	73	26	11	2	38
Alabama:											
McClellan	.....	.....	69	609	2,577	331	232	38	229	105	90
Sheridan	.....	3	6	220	256	75	55	1	32	80	99
Mississippi:											
Gulfport health district	.....	.....	453	1,161	1,450	1,614	753	388	227	113	206
Shelby	.....	.....	50	252	300	289	107	50	6	179	35
Arkansas:											
Eberts	2	48	89	695	450	378	219	44	118	33	75
Pike	.....	34	1,285	4,299	3,137	651	324	94	76	95	209
Louisiana:											
Beauregard	.....	12	212	866	1,735	620	253	78	33	8	5
Gerstner Field	.....	.....	.....	.....	.....	651	360	186	174	177	309
Oklahoma:											
Doniphan	.....	.....	6	13	117	160	12	4	5	2	8
Texas:											
Bowie	.....	119	505	316	241	132	68	32	38	14	36
Logan	.....	24	.....	125	175	144	341	1	.....	.....	.....
MacArthur	1	1	65	281	313	404	233	75	10	5	12
Travis	1	2	265	861	2,476	2,176	844	385	124	149	254
Washington:											
Bremerton	.....	.....	.....	12	457	64	77	82	46	47	60
Lewis	.....	3	.....	9	46	77	72	44	32	12	7
Vancouver	.....	.....	.....	.....	593	49	156	183	47	120	154

PREVENTING THE INTRODUCTION OF COMMUNICABLE DISEASES BY RETURNING SOLDIERS.

Now that the soldiers are about to return from overseas, health officers throughout the country will have to exercise the greatest vigilance in order that exotic epidemic diseases may not be carried into this country and spread with disastrous results. Among the hundreds of thousands of returning soldiers a number may exist, probably will exist, who will be carriers of diseases ordinarily not prevalent in this country, or not prevalent in that part of the country to which the soldier returns. Among the diseases especially to be feared are cholera, typhus, and plague.

The danger is by no means imaginary, hence explicit instructions have been issued to all quarantine officers, urging the most careful examination, including laboratory tests, of all units liable to be carriers of these diseases. In addition to this, officers of the Public Health Service trained in quarantine procedure either have been sent to various ports of Europe or will be sent as the occasion may arise. There they will supervise the enforcement of the United States quarantine regulations applicable at foreign ports against ships and passengers destined for ports of the United States. It is expected that compliance with the quarantine regulations, as bearing on returning troops, will be effected by the cooperation of the United States military authorities in the examination, delousing, and disinfection, when necessary, of the troops prior to embarkation.

While all persons, even soldiers, entering the ports of this country, are subjected to the United States quarantine regulations, the entry of the returning soldiers will be facilitated by the effective cooperation which the officers of the Public Health Service receive from their colleagues in the Army and Navy. The plans now being worked out include a careful medical examination of all the soldiers prior to embarkation, delousing of all the clothing and other infested materials, the holding of suspicious cases for a period of observation and examination, in short all measures needed to insure that no cholera, plague, typhus, trench fever, or other exotic disease is introduced into this country.

In the opinion of competent observers there is little danger of the introduction of cholera from the soldiers now in France and Germany. On the Russian front, however, conditions are by no means so satisfactory, for the country is still in a chaotic condition and cholera has been known to be prevalent in various sections. It is from this quarter, also, that the possibility of the introduction of plague must be considered.

Somewhat similar precautions will be taken to prevent, or at least minimize, the spread of disease by soldiers discharged from training camps. It may be recalled that after the Civil War many Northern States were seeded with malaria carried home by soldiers who had contracted the infection in the South. So far as this disease is concerned, however, the antimalaria work carried on by the Army and the Public Health Service in and around the training camps, has been so thorough that the danger from this source is negligible.

Altogether the coming few years will be very busy for health authorities everywhere, and it is to be hoped that the public will realize the need of giving them the greatest possible support and cooperation.

ANOPHELES CRUCIANS.

HABITS OF LARVÆ AND ADULTS.

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In the course of malaria investigations conducted in Alabama during the summer of 1918 the writer was afforded an exceptional opportunity for the study of *Anopheles crucians* Wied. Since this species is in many respects the least known of the three anophelines (*punctipennis*, *quadrimaculatus* and *crucians*) common to the gulf coast region of the United States a particular effort has been made to obtain as much information as possible regarding the phases of its habits and characteristics that might have any bearing on the malaria problem. In this category may be placed such features as the food habits of larvæ and adults, the choice of breeding places, seasonal distribution, range of flight and selection of hiding places. Each of these subjects has received as much attention as circumstances would permit.

Description of Environment.

Before considering the data in detail it will be necessary to describe briefly the main features of the territory in which the investigations were made, for the most interesting observations are intimately connected with the physical peculiarities of the environment.

About 2 miles west of the outskirts of Montgomery, Ala., was [1] a shallow swamp, about 3 miles long and from a few feet to 200 or 300 yards wide, running in a north and south direction. This swamp occupied a natural watercourse, which during the rainy season had a sluggish flow, but which later dried up into a series of shallow, isolated puddles. Throughout most of its length the swamp was heavily wooded, but in parts it was open and grassy, thus affording a wide range of conditions. At the lower end the waters suddenly converged into a narrow channel, where, in the spring, the flow was rapid through a winding course to the river. Under ordinary conditions the waters of the swamp proper were clear and practically free from algæ, etc., although the bottom was covered with a mat of dead leaves from the thick foliage overhead.

Into the swamp near its upper end, as shown in the accompanying map, flowed a small ditch, carrying refuse from a chemical factory in which sulphuric acid was manufactured. The waters of this ditch were impregnated with chemicals to such an extent that the ground and the débris in the swamp were plainly discolored for a considerable distance. The discoloration was, of course, progressively less noticeable below the ditch inlet, but it extended almost to the end of the swamp in the sections where the water was deepest and stood longest.

[1] Conditions are now materially altered by drainage and other antimosquito measures.

To the east of the swamp lay a stretch of open and almost level country, sparsely settled by negroes and a few whites. Further east, at a distance of about 1½ miles, the population increased as the outskirts of Montgomery were approached.

Throughout this general area and the territory bordering it several small ditches, puddles, etc., were scattered here and there, but present interest is centered primarily in the above-described swamp.

This swamp was first observed on April 13, at a time when the weather had not yet warmed up after the exceptionally cold winter preceding. Temperature records for the week ending April 13 show a maximum of 67 and a minimum of 35° F., with a mean of from 40 to 59. Little if any breeding had been observed elsewhere in the region up to that time, but in spite of the temperature the waters of the swamp were found to be literally covered with *Anopheles* larvæ, many of them nearly full grown. Pupæ were also present, although no collections were made at the time to determine whether or not they were *Anopheles*. The writer has never observed such prolific *Anopheles* breeding in any other place. The larvæ were seemingly everywhere—in the shade, in the sun, in among the grasses and bushes, and out in the open water—without any apparent discrimination. And collections made subsequently showed them to belong to only one species—*Anopheles crucians*.

From April until August this swamp was kept under observation and a large number of larvæ and pupæ were collected for identification or for experiments. These collections continued to give nothing but *crucians*, save for occasional specimens of *Culex*, that became more and more numerous as the warm weather came on.

Careful collecting for several miles around this area failed to indicate the breeding of *crucians* in any place other than the above described swamp, although with the advent of warm weather both *punctipennis* and *quadrimaculatus* were found here and there throughout the territory, even up to within a few feet of the swamp. It was evident, therefore, that the waters of the swamp possessed some peculiarity favorable to *crucians* but repellant to the other two species. Of course, the chemical wastes emptying into the upper end of the swamp were at once suspected, and the results of subsequent investigation leave little doubt that they were the determining factor.

The various lines of evidence pointing to this conclusion, together with data relative to the particular effects of the chemical contamination, may be summed up as follows:

A. CHEMICAL CONSTITUTION OF THE WATER.

An analysis of a sample of the swamp water taken in August gave the results following.

	Parts per million.
Total residue on evaporation (180° C.)	398.5
Calcium (Ca)	14.6
Magnesium (Mg)	12.8
Iron (Fe)	.9
Aluminum (Al)	6.7
Sodium (Na)	75.5
Potassium (K)	17.8
Silica (SiO_2)	37.2
Sulphate (SO_4)	184.8
Chloride (Cl)	21.3
Ammoniacal nitrogen	.08
Organic nitrogen	.23
Nitrogen as nitrite	.00
Nitrogen as nitrate	.28
Total acidity (phenolphthalein)	104.0

Since this sample was taken at a distance of nearly 2 miles from the source of contamination and at a time when the waters in this part of the swamp (the lower end) were diluted with rain water, the analysis probably represents almost the minimum, rather than the maximum, concentration of the contaminating chemicals. As may be seen, the water is acid and has a high content of sulphates, sodium, potassium, iron, and aluminum.

B. VISIBLE EFFECTS ON THE SWAMP ITSELF.

The discoloration of the soil and débris in the swamp has already been mentioned.

C. GENERAL EFFECTS ON LIFE IN THE SWAMP.

1. *Gross vegetation.*—At the ditch inlet small trees and bushes were dead or noticeably affected for a few yards. Otherwise the gross vegetation appeared to be normal.

2. *Aquatic vegetation.*—Practically no aquatic vegetation was to be found, except traces of green algæ here and there.

3. *Fish.*—Fish were entirely absent, although they had free access from several sources. Ditches and small ponds adjacent to and connected with the swamp were full of fish (*Gambusia* and perhaps others).

Experiments showed the water to be poisonous to fish. Eleven healthy specimens of *Gambusia* put into a jar of water freshly taken from the swamp died as follows: At the end of one hour, 3 dead; at the end of three hours, 10 dead; at the end of five hours, all dead.

Control specimens lived in a similar jar of uncontaminated water for several weeks.

Other specimens put into pools in the swamp all died within a few hours.

4. *Aquatic insects.*—In the spring aquatic insects were practically absent, probably because of the cold weather, but later numerous forms, such as the Dytiscids, Gyrinids, dragon-fly larvæ, damsel-fly larvæ, etc., appeared in normal numbers.

5. *Microscopic fauna and flora.*—Microscopical examination of the swamp water indicated a decided scarcity of Protozoa, rotifers, unicellular algæ, etc., compared with other bodies of water in the vicinity.

D. EFFECTS ON THE LARVAL FOOD.

Since little is known respecting the essential food of *Anopheles* larvæ this subject can only be treated in a general way. The evidence is particularly interesting, however, in the light it throws on the food habits of *A. crucians.*

Considering the fact that *crucians* was propagating in enormous numbers it is evident that the food supply was of a suitable nature and at least fairly abundant. It seems hardly possible that the scanty microscopic fauna and flora in the water could have provided this food supply, and attention is drawn to the only other material in evidence—a relatively large amount of what appeared to be disintegrated plant tissue. The water was rich in minute, microscopical particles of this colorless, but evidently organic material. It is very strongly suggested that this furnished the bulk of the food for the prolific development of larvæ.

Apparently this disintegrated material was derived from the mass of dead leaves covering the bottom of the swamp, and it seems probable that its abundance was the result of chemical action caused directly or indirectly by the chemicals emptied into the swamp from the chemical factory.

If these deductions are correct it would appear that *A. crucians* can subsist in nature on a diet made up primarily of nonliving vegetable matter. That it will do this in the laboratory is certain from experimental evidence to be published at a later date.

Habits of the Adults.

Under this heading may be considered the choice of breeding places, seasonal distribution, range of flight, and local distribution with reference to human habitations.

A. CHOICE OF BREEDING PLACES.

It is impossible to state whether the chemical properties of the swamp waters possess an attraction for the egg-laying females and the abundance of *crucians* is due to this factor, or whether the females lay their eggs indiscriminately and their development in the contaminated water is due to the peculiar properties of the latter being

especially suited to the eggs and larvæ of this species. One is tempted to suggest the former, in view of the sharp limitation of *crucians* to this one particular swamp, but there are no actual observations to indicate that *crucians* eggs were not laid in adjacent waters.

Certain experiments were made, however, to test the ability of *crucians* larvæ to develop in waters producing other species, and the ability of *punctipennis* and *quadrimaculatus* larvæ to develop in the swamp. These were as follows:

Cages of fine wire gauze were put into the swamp and into uncontaminated waters near by. In the former were put larvæ of *punctipennis* and *quadrimaculatus* taken from fresh water, and in the latter were put larvæ of *crucians* from the swamp. Likewise the same sort of test was made in the laboratory in artificial containers.

In the former case *punctipennis* larvæ were able to live side by side with *crucians* in the swamp water, and at least one *punctipennis* adult was hatched out. Vice versa, *crucians* larvæ were able to develop in waters outside of the swamp. In this case the cage had an open top, to make conditions as nearly normal as possible, and it is not known whether the specimens hatched, but it is certain that some reached the pupal stage. Similarly in the laboratory *punctipennis* larvæ developed from the newly hatched stage to maturity in water from the *crucians* swamp, changed daily. Five *punctipennis* adults hatched from one such culture. To a lesser degree *crucians* larvæ developed in uncontaminated water. Apparently their development was retarded, since only one adult was obtained from about 20 larvæ, and many larvæ failed to pupate. It is possible, of course, that this failure to develop may have been due to some other cause than the difference in water, but no such cause could be detected.

In this connection it should also be noted that the effectiveness of the swamp waters in favoring the development of *crucians* at the expense of other species became less marked as the channel was followed away from the swamp proper. This of course varied to a considerable extent with the amount of water in the swamp and channel. Early in the season, when the water was flowing in large quantities, that in the channel was practically the same as that in the swamp, but later, when the flow stopped and the pools in the channel were fed mainly from rain water that had not come from the swamp, it was observed that *punctipennis* and *quadrimaculatus* as well as *crucians* bred in the pools. All three species were hatched from larvæ collected in the channel about half a mile below the swamp outlet.

These facts when considered together, suggest that the discrimination between breeding places, on the part of *crucians* as distinguished from the other two species, is not entirely due to the inability of the

larvæ to develop in the less favored places. Although the water in the unfavorable places apparently does have a detrimental effect on development it does not entirely prevent it, and it seems not improbable that the determining factor in nature is either the selection of "favorable" places for egg laying, or else a direct effect of the water on the eggs—that in the "unfavorable" places destroying them before they hatch. There is room for considerable more investigation on this point, however.

B. SEASONAL DISTRIBUTION.

In the locality under consideration *crucians* appears early in the season (first week in April or earlier) and continues breeding until late summer and possibly fall. At the time the observations were discontinued (late August) they were still breeding in the swamp, wherever there was water.

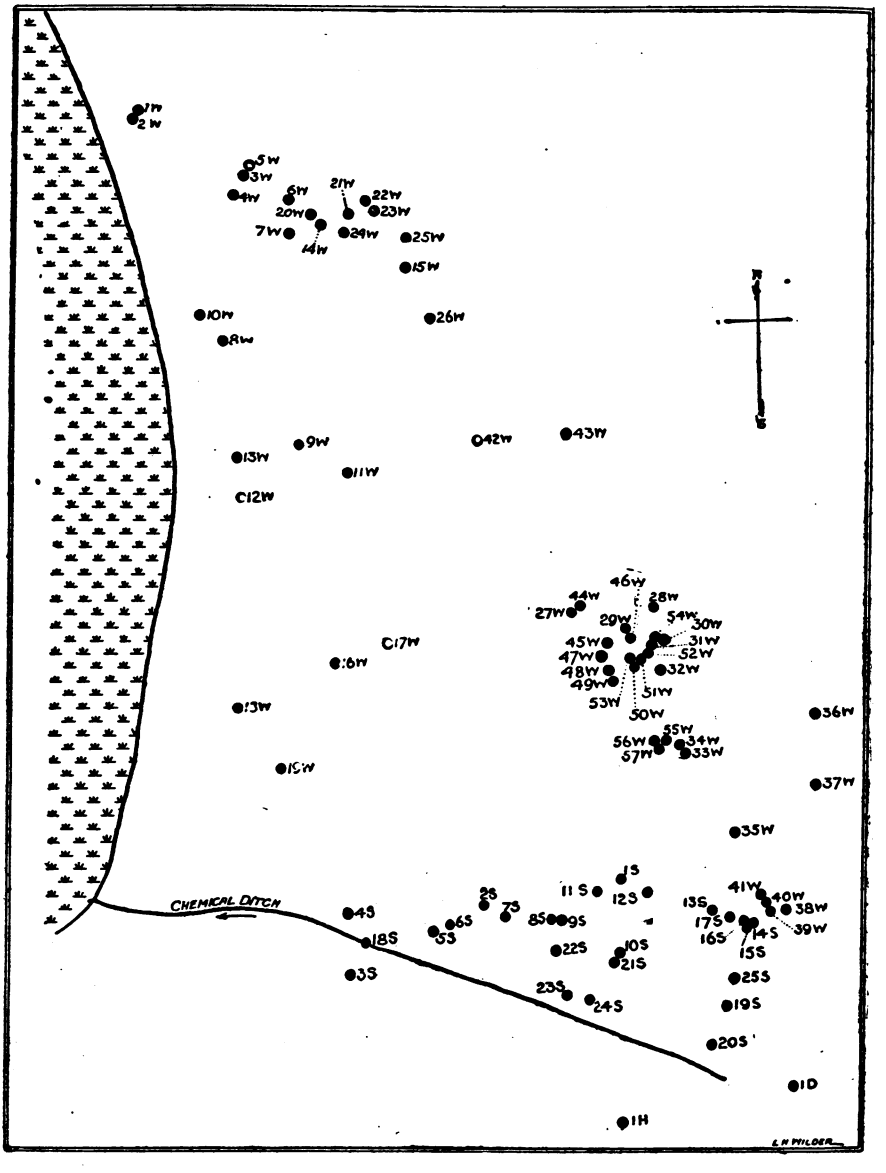
It is to be noted that this observation of *crucians* breeding prolifically early in April is somewhat at variance with the records of other observers who have found *crucians* to be mainly a fall and winter breeder.

C. RANGE OF FLIGHT.

During June and July efforts were made to determine the range of flight of *A. crucians* from the swamp toward the city of Montgomery. Collections were made in and around buildings at distances varying from 500 to 10,000 feet in the region lying between the swamp and the city. An attempt was made to check these observations by means of stained specimens according to the method used by Le Prince at Panama, but owing to unavoidable delays this part of the work was begun late in the season, after much of the swamp had been drained, and the number of mosquitoes available for staining was too small to give reliable results. Consequently the data presented here are from unstained specimens. It seems very probable that all of these specimens actually came from the swamp, and that the distances recorded represent actual ranges of flight, for our collections of larvæ failed to reveal the presence of *crucians* anywhere in the region except in the swamp. But the possibility that a few specimens might have been derived from some other source casts some doubt on the reliability of the extreme records where only one or two specimens are involved. However, there can be little question as to the significance of the data as a whole, and it is believed that they give a good idea of the general dispersal and range of flight for the species.

The principal data are best shown by the accompanying chart and tables. In comparing these it should be noted that emphasis was placed on collecting at distances of more than 3,000 feet, since it was obvious that specimens were very numerous at shorter distances.

As a result the records from the greater distances, although giving smaller numbers of specimens, really represent the results of longer and more careful search than those from shorter distances. A particular effort was made to inspect thoroughly at the extreme outer range, beyond 9,000 feet. The fact that only three specimens were



found at distances between 9,000 and 10,000 feet, among 24 buildings examined, and that none was found over 10,000 feet from the swamp, not only serves to limit the range of flight, but gives further indication that few if any sources of crucians existed outside of the swamp.

Table 1 gives the data in detail, arranged in such a way as to indicate the approximate distance from the swamp, the number of specimens taken from each station, the nature of the places in which the specimens were found, and the number of buildings examined in each case. A station usually represents a collection of buildings close together, such as a dwelling and its various outhouses, or two or three dwellings that happen to form a group. Each station is numbered in the tables and on the map, to facilitate comparison. The distances were obtained by survey, and are believed to be as accurate as is necessary for the purpose—i. e., to within about 100 feet.

TABLE 1.—*Showing flight of Anopheles crucians from breeding grounds.*

NOTE.—The stations (consisting usually of a group of buildings) are arranged according to distance from the swamp, and the records are classified to indicate the nature of place from which the specimens were taken. Records of *punctipennis* and *quadrimaculatus* are given in parentheses—e. g., (2p, 1q) following the record of *crucians* from the same place.

Station number.	Under house.	In house.	In barn.	In pig-pen.	In privy.	In shed.	Total.	Number buildings examined.	Distance from swamp.
									Feet.
1W	6						6	1	750
2W	143 (2p,1q)						143	2	550
8W	7						7	1	850
10W						27	27	1	750
12W	27*		36				63	2	1,000
13W	11						11	2	850
3W			1	18			19	6	1,700
4W	17						17	3	1,650
5W							0	4	1,850
9W	10						10	1	1,750
18W	8	1		2			11	3	1,500
19W	13		16			6	35	4	2,000
6W	1						1	2	2,350
7W							0	2	2,250
11W	26						26	2	2,500
14W	4						4	3	2,750
16W	18 (1p)						18	1	2,750
20W	3						3	3	2,600
15W	8 (2p, 6q)						8	2	3,750
17W	10						10	1	3,500
21W	3						3	3	3,250
22W							0	3	3,350
23W	1						1	1	3,500
24W	7 (2p)		8			4	19	7	3,100
25W	1 (1p)						1	3	3,750
26W	7 (2p, 4q)		1				8	6	3,850
3S	13		3			3	19	4	4,000
4S	20 (1p, 1q)						20	4	3,750
18S	(1)						35	1	4,000
42W			4				4	2	4,350
5S	5					1	6	6	4,850
27W	1 (2p)						1	5	6,000
43W	1						1	1	5,750
44W	1						1	4	6,000
2S	2						2	2	5,500
6S	3						3	2	5,100
7S	2						2	1	6,000
29W	2 (2p, 4q)						2	5	7,000
45W							0	3	6,750
46W							0	4	7,000
47W	1						1	4	6,500
48W							0	3	6,750
49W							0	1	6,850
50W							0	2	7,000
51W							0	2	7,000
8S	7 (4q)	1 (2q)				3 (1q)	11	4	6,500
9S	2 (2q)	(5q)	40 (3q)				42	5	6,600
22S	2						2	1	6,750
23S	1 (1q)						1	3	7,000
28W							0	3	7,250

[1] Under bridge 35 (2p, 1q).

TABLE 1.—*Showing flight of Anopheles crucians from breeding grounds*—Continued.

Station number.	Under house.	In house.	In barn.	In pig-pen.	In privy.	In shed.	Total.	Number buildings examined.	Distance from swamp.
									Feet.
30W							0	2	7,500
31W	1						1	4	7,350
32W	1 (1p)						1	4	7,400
52W							0	1	7,250
53W	1 (1q)						1	1	7,100
54W							0	3	7,350
55W							0	4	8,000
56W	(1q)						0	5	7,850
57W							0	2	7,850
1S	2 (1p)					1	3	14	7,500
10S	1				1		2	2	7,650
11S			1				1	4	7,250
12S	1						1	5	7,850
21S							0	2	7,500
22S			1 (6q)	4 (1q)			5	9	7,350
33W				1 (1p)			1	4	8,250
34W	2 (2p)						2	3	8,200
35W	4 (1p)					(1p)	4	5	9,000
13S	1						1	3	8,850
17S							0	4	9,000
1H	4 (2q)						4	2	8,500
38W			(1q)				0	2	9,350
39W	(1q)						0	2	9,750
40W							0	3	9,750
41W	1 (1p)						1	2	9,700
14S							0	4	9,350
15S							0	3	9,350
16S							0	2	9,100
19S	1						1	3	9,350
20S							0	2	9,250
25S	1						1	1	9,350
36W							0	1	10,000
37W							0	3	10,000
1D							0	1	10,750

In comparing the records, it appears at once that certain types of hiding places are much more favorable than others, a fact that has considerable effect on the distribution. For instance, a stable or pig pen, if suitably constructed and in use, generally harbors more *crucians* than other buildings much nearer the swamp. Another feature to be noted is the apparent attraction of the ditch leading from the chemical factory to the swamp.[1] The distribution suggests that some of the mosquitoes follow up this ditch from the swamp and then spread out over the adjacent territory. An alternative explanation is, of course, that another source of *crucians* existed south of the ditch, causing an influx from this direction, but no such source was found. That *crucians* did not breed in the ditch itself is practically certain from the fact that the acid in the ditch was so concentrated as to destroy rubber boots and other organic products, and from the fact that no larvæ of any kind were ever found in the ditch.

Reviewing the general features of the data on flight range, the following conclusions appear to be warranted, pending more exact evidence from experiments with stained specimens:

When breeding in large numbers, *crucians* will become distributed over an area within approximately seven thousand feet of the source,

[1] Note the larger catches at points near the ditch, e. g,. stations 18S, 8S, 9S.

in numbers sufficient to be of sanitary importance. From seven thousand to nine thousand feet the menace will be questionable, probably depending on circumstances, and at more than nine thousand feet it will be negligible. The latter two conclusions, since they are based on the absence rather than presence of the mosquitoes, may be considered reliable in so far as they limit the zone of sanitary importance. The zone may be narrower, but it can not be much wider than that indicated, except where topographic or other features make the situation essentially different from that under consideration.

So far as is known, winds had no effect on the distribution in the present case. There were no prevailing winds during the period of observation, and the occasional gusts produced no noticeable effects on distribution.

D. DISTRIBUTION WITH REFERENCE TO DWELLINGS—CHOICE OF HIDING PLACES.

As indicated by the data in Table 1, *crucians* shows very little tendency to choose dwelling houses for hiding places in the daytime. The great bulk of the specimens were found underneath the houses or in stables, pig pens, etc. In this respect *crucians* seems to resemble *punctipennis* rather than *quadrimaculatus*. In the table the catch of *quadrimaculatus* and *punctipennis* is given in parenthesis side by side with that of *crucians* to indicate the relative abundance in the different types of hiding places. It is significant to note that out of the 634 *crucians* only 2, or three-tenths of 1 per cent, were found in dwellings, while of the 48 *quadrimaculatus* 7, or 14 per cent, were found in dwellings. All of the observations on *crucians* point toward the same conclusion in this regard. It was found that stables or pig pens, if in use, even when situated a quarter of a mile or more from any dwellings, were obviously favored by *crucians* and that damp places near the ground—underneath houses, under bridges, etc.—were given preference over the interior of habitations. There is still some question with respect to *crucians*, as with respect to *punctipennis*, regarding the interpretation to be placed on its obvious avoidance of dwellings in the daytime. Whether this is due to a preference for the blood of domestic animals rather than of man and indicates a constant avoidance of dwellings, or whether it is due simply to an avoidance of dwellings *in the daytime*, after having fed on occupants of the dwellings during the night, remains to be determined.

Discussion.

There can be little doubt that in its selection of breeding places and in the physiological adaptability of its eggs and larvæ *Anopheles crucians* differs materially from *Anopheles quadrimaculatus* and *punctipennis*. Numerous observers record *crucians* larvæ developing

in brackish or salt water. Howard, Dyar, and Knab (p. 1025) state that the larvæ live "usually in tidal marshes," and that "Smith in New Jersey found that the species breeds upon the salt marsh, but whether in water of saline content is not stated." They also quote Dr. Beyer as reporting that below New Orleans the adults of this mosquito constitute "an abundant pest in the salt and brackish water marshes along the lake shores east of the river, where they occur throughout the year, not even diminishing in numbers during freezing weather." Similarly, Dr. H. R. Carter in a personal communication to the writer refers to *crucians* as breeding in slightly diluted sea water at Newport News, Va., adding that no fresh water was available in the locality.

Such observations as these, together with the ones cited in the present paper, all suggest that *crucians* is attracted by water containing an excess of mineral salts. Apparently no particular type of chemical contamination is essential, for there is little in common between brackish water in tidal marshes and swamp water impregnated with sulphuric acid products.

It is even doubtful whether the attraction is limited to mineral salts, for there is some reason to believe that a concentration of organic products is equally effective. Dr. Carter, in the personal communication referred to above, cites the presence of *crucians* larvæ in pools full of decaying vegetation. The writer has observed the same thing in Florida, where even large swamps, thus characterized, appear to produce no other species of *Anopheles* than *crucians*. Such places are almost invariably full of larvæ of the genus *Uranotaenia*, which appear to thrive amid decaying vegetable matter. Frequently, however, the concentration in places of this nature becomes too great for *crucians*. The writer has found numerous instances in which this has occurred.

This relation of *crucians* to contaminated water brings up another question that should not be overlooked, in view of its possible importance in practical malaria control. Among the antimosquito measures in vogue at the present time is the use of niter cake as a larvicide. This material is a by-product (often discarded as waste) in the manufacture of sulphuric acid, and, as it happened, was one of the principal elements producing the contamination of the swamp considered in the present paper. The question at once arises, therefore, whether the use of niter cake as a larvicide is not apt to bring about a condition the opposite of that desired by inducing the breeding of *crucians* as soon as the concentration becomes low enough. The probability of this result seems sufficient to warrant considerable care in the use of niter cake.

If it were known that *crucians* is unimportant as an agent in malaria transmission, its peculiarities might serve as an aid in de-

veloping measures to combat the real culprits, but, with the present uncertainty on this point, to eradicate the others by bringing about conditions suitable to *crucians* would be to invite serious trouble.

Regarding the range of flight of *Anopheles* mosquitoes it is of interest to compare the present results with those obtained for other species. The two most satisfactory experiments on *Anopheles* flight are those recorded by Le Prince (1916 and 1917) at Panama and at two places in South Carolina. The former involved *A. tarsimaculata* Goeldi and *A. albimanus* Wied., the latter *A. quadrimaculatus* Say. The two Panama species were found to fly at least 6,250 feet, five of the forty specimens being taken at this distance, while the longest recorded flight of *A. quadrimaculatus* in South Carolina was 5,565 feet. In the latter case the results are based on four mosquitoes, one taken at 5,565 feet, two at 3,245 feet, and one at 2,800 feet from the source.

In all of these experiments the data are taken from stained specimens and represent actual flight ranges. They leave no doubt that the respective species will fly at least as far as the distances given, provided conditions are similar to those of the experiments. But do they not also indicate that in all probability these species frequently fly considerably farther? And what do they indicate regarding the proportion of individuals that reach the greater distances? From the standpoint of practical malaria control these two questions are of prime importance, and it is worth while to examine the data from this angle.

The catches of stained specimens at Panama, as given by Le Prince and Orenstein (p. 114), were the following:

2 between 1,000 and 2,000 feet.
7 between 2,000 and 3,000 feet.
0 between 3,000 and 4,000 feet.
24 between 4,000 and 5,000 feet.
2 between 5,000 and 6,000 feet.
5 at 6,250 feet.

From this it is to be observed that 12½ per cent of the recorded mosquitoes flew the maximum distance (6,250 feet), and that of those that exceeded 4,000 feet 16 per cent reached this point. Of course the numbers in the table are too small to give reliable percentages, but they are sufficient to show that a considerable proportion of the mosquitoes reached the greatest recorded distance (6,250 feet), and it can hardly be doubted that the actual flight of many individuals must have been materially greater than this, or would have been greater had there been dwellings to attract them farther. How much farther they may have flown in numbers sufficient to be of sanitary importance is a matter of conjecture, but a conservative

estimate would hardly put the range at less than 7,000 feet, with a probability that some individuals would get well beyond this.

Turning to the data on *A. quadrimaculatus*, we find the following records. Of the four stained specimens captured—

1 was taken at 2,800 feet.
2 were taken at 3,245 feet.
1 was taken at 5,565 feet.

Here it is even more difficult to estimate the percentages at different distances, but since, as they stand, the figures would show 25 per cent of the mosquitoes reaching 5,565 feet, it is reasonable to suppose that a good many went materially farther.

Although these records establish definite values for the flight of individual mosquitoes, it is difficult, as just indicated, to obtain from them an answer to the primary practical question as to how far the mosquitoes fly in numbers sufficient to be of sanitary importance. To answer this question it is necessary to have records of many individuals. The most desirable data would consist of records from a large number of stained specimens, but these are not available at present. The next best evidence is that obtained from unstained specimens taken under conditions making it reasonably sure that the source of the specimens is known. Such conditions are met fairly well by the data on *Anopheles crucians* presented in the present paper. It is not certain that the source of every mosquito recorded in these data is known, but it is certain that the great bulk of the specimens are from one place (the swamp), and since we are not concerned with the individual extreme records so much as with the general distribution, the facts justify certain tentative conclusions.

Summary of Flight Records.

In Table 2 is presented a summary of the records.

TABLE 2.—*Showing the average number of specimens of Anopheles crucians per station (group of buildings) at graduated distances from the swamp.*

Distance (feet).	Total number of specimens.	Number of stations.	Number of specimens per station.
0 to 1,000	257	6	43
1,000 to 2,000	92	6	15
2,000 to 3,000	52	6	9
3,000 to 4,000	124	11	11
4,000 to 5,000	10	2	5
5,000 to 6,000	10	6	2
6,000 to 7,000	59	12	[1] 5
7,000 to 8,000	15	16	1
8,000 to 9,000	12	6	2
9,000 to 10,000	3	10	$\frac{1}{10}$
Over 10,000	.....	3	.....

[1] The large numbers here are due to the catch at station 9S (see Table 1), a particularly favorable place near the ditch carrying the chemical wastes.

From this it may be seen that at more than 9,000 feet the catch averaged less than one specimen to every three groups of buildings. Between 9,000 and 7,000 feet it averaged between one and two specimens per group of buildings—22 groups yielding 27 specimens. It is only at a distance of 7,000 feet or less that the numbers are great enough to be of definite importance.

Comparing this with the conclusions drawn provisionally from the experiments of Le Prince with stained mosquitoes it is seen that they are in relative agreement in indicating a flight of approximately 7,000 feet in numbers sufficient to be important. In practical anti-malaria work, therefore, it would appear justifiable to control a zone approximately 7,000 feet wide around the area to be protected, increasing or decreasing the distance according to special local conditions.

This, of course, may not apply to species other than those studied. For instance, in the eastern United States *Anopheles punctipennis* may not conform to the range of flight of *quadrimaculatus* and *crucians*, although it probably does not deviate far from it.

With respect to the importance of *crucians* as an agent in malaria transmission there is little to add to what has already been said. Its habits would indicate that it is not so important as *quadrimaculatus*, although it may be more important than *punctipennis*. This question is being studied by the writer at the present time.

Literature Cited.

Howard, Dyar and Knab. 1912. The Mosquitoes of North and Central America and the West Indies. Carnegie Institution of Washington. Washington, D. C. Four volumes.

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TREATMENT AND DISPOSAL OF CREAMERY WASTES.

By EARLE B. PHELPS, Professor of Chemistry, Hygienic Laboratory, United States Public Health Service.

An experimental investigation of the treatment and disposal of creamery wastes was carried out during the years 1916–17 by the United States Public Health Service, cooperating with the Dairy Division, Bureau of Animal Industry, United States Department of Agriculture.[1] This investigation was carried out at the plant of the

[1] This investigation was in immediate charge of Sanitary Engineer H. B. Hommon, United States Public Health Service, who is responsible for its general plan and direction. He was assisted in the design and construction by Sanitary Engineer H. R. Crohurst and, during the period of operation, by Sanitary Chemist H. P. Corson, in resident charge. Mr. L. A. Rogers, Bacteriologist, in Charge of Research Laboratories, Dairy Division, cooperated throughout and lent helpful assistance. The work of preparation of a complete report was interrupted by the advent of the war, and Mr. Hommon is now serving in France as a captain in the Sanitary Corps, United States Army. This preliminary presentation of methods and results is made, because of a considerable demand for information upon the subject and in order to make the results of the investigation promptly available. It is intended to publish the complete report at some later date.

demonstration creamery of the Dairy Division at Grove City, Pa. It was begun in October, 1915, but owing to difficulties of construction and necessity for remodeling, the actual satisfactory operation of the plant was delayed until May, 1916. It was discontinued at the end of October, 1917.

This creamery is operated under the supervision of the Dairy Division of the Department of Agriculture, and the business consists mainly of butter making. Some cottage cheese and casein are made, and other experimental work is carried on by the Government, but the wastes treated consisted essentially of those from making butter. The milk is delivered by the farmers to the creamery, where it is separated, most of the skimmed milk going back to the farmers. No skimmed milk or buttermilk goes into the sewer; in fact, nothing goes into the sewer that contains any product in amounts that can be utilized as food for either man or animals.

The wastes that were treated consisted of those from washing cans, and cleaning and rinsing the churns, together with a small amount of milk, cream and buttermilk that was spilled on the floors. The water used for condensing and cooling purposes and all exhaust steam were discharged into a separate sewer direct to the creek and were not treated with the other wastes from the creamery.

The experimental disposal plant consisted of a septic tank, an Imhoff tank, and two sand filters. Difficulties were had with the Imhoff tank, owing to imperfect construction work and leakage, leading to a considerable odor about the plant, so that this tank was not actually used during the investigation.

In May, 1916, the plant was put in operation, the sand filter being operated at a nominal rate of 25,000 gallons per acre per day, and the septic tank on the basis of a 12-hour storage period. The results of the operation were excellent almost from the start. During July the nominal rate of filtration was gradually increased to approximately 70,000 gallons per acre per day, at about which point it was maintained throughout the investigation. With the advent of cold weather a noticeable reduction occurred in the degree of nitrification, and a somewhat less marked effect was shown by the relative stability and oxygen demand values. The degree of purification was always satisfactory for discharge into a comparatively small volume of diluting water in cold weather, and the spring of 1917 brought with it increased biological activity and resulting improvement in quality of the effluent.

A noticeable and quite unexpected result was the complete neutralization of the characteristic acidity of the settled wastes, the average values for 18 months being 226 parts per million of acidity in the settled waste and 356 parts per million of bicarbonate alkalinity in the filter effluent. As the sand used was clean quartz sand, this change can be explained only as the result of biological activity. The following tables, I and II, give the average analytical results, by

months, of the raw and settled waste and of the filter effluent, together with rates of operation:

TABLE I.—*Monthly averages of analyses of creamery waste, before and after treatment in a septic tank, showing removal of certain constituents.*

[Analytical values in parts per million.]

Date.	Suspended solids.			Organic nitrogen.			Oxygen consumed.			Acidity.	
	Untreated waste.	Tank effluent.	Removed.	Untreated waste.	Tank effluent.	Removed.	Untreated waste.	Tank effluent.	Removed.	Untreated waste.	Tank effluent.
1916.			*P. ct.*			*P. ct.*			*P. ct.*		
May	552	237	57	182	106	42	2,195	1,402	36	120	634
June	333	230	31	132	115	13	1,082	429	60	131	466
July	290	249	14	76	55	28	599	232	61	.....	191
August	460	276	40	76	57	25	630	236	63	.....	166
September	538	329	39	98	44	55	879	315	64	.....	239
October	562	278	51	58	35	40	487	182	63	.....	40
November	833	271	67	106	46	57	767	201	74	236	244
December	577	325	43	84	41	51	717	216	70	132	143
1917.											
January	567	306	46	95	53	44	578	215	63	116	141
February	601	289	52	106	44	58	802	258	68	.....	138
March	1,114	515	54	122	51	58	1,285	275	79	220	141
April	916	566	38	78	45	42	757	240	68	32	40
May	525	250	52	66	34	48	762	257	66	.....	184
June	531	280	47	62	42	32	628	243	61	70	210
July	380	219	43	44	34	23	816	215	74	153	376
August	400	214	47	34	27	20	468	153	67	125	160
September	360	233	35	67	37	45	716	208	71	220	198
October	386	182	53	72	56	22	715	222	69	185	323
Weighted, average.	517	279	46	84	50	40	782	283	64	153	226

TABLE II.—*Monthly averages of analyses of creamery waste, after treatment in a septic tank and through a sand filter, showing removal of certain constituents.*

[Analytical values in parts per million.]

Date.	Suspended solids.		Organic nitrogen.		Oxygen consumed.		Nitrate.	Dissolved oxygen.	Alkalinity.	Relative stability.	Rate of filtration, g. a. d.
	Filter effluent.	Removed.[1]	Filter effluent.	Removed.[1]	Filter effluent.	Removed.[1]					
1916.		*P. ct.*		*P. ct.*		*P. ct.*					
May	16	97.1	7.33	96.0	50.0	97.7	21.4	1.8	282	78	25,000
June	8	97.6	13.65	89.7	60.0	94.5	103.0	2.3	161	95	24,900
July	13	95.5	1.12	98.5	29.0	95.2	43.9	1.8	304	94	46,500
August	7	98.5	1.20	98.4	10.5	98.3	19.3	3.2	344	88	72,800
September	5	99.1	.27	99.7	10.1	98.9	11.5	2.9	418	79	71,100
October	16	97.2	.63	98.9	8.8	98.2	12.5	6.9	340	95	67,400
November	17	98.0	1.22	98.8	9.5	98.8	11.5	8.8	299	82	62,200
December	4	99.3	1.21	98.6	6.2	99.1	6.8	9.5	352	85	63,000
1917.											
January	15	97.3	1.62	98.3	11.6	98.0	4.4	8.5	382	55	74,900
February	29	95.2	2.56	97.5	17.8	97.8	2.3	9.4	370	30	56,200
March	33	97.0	3.52	97.1	23.2	98.2	1.8	7.7	338	32	62,000
April	52	94.3	3.20	95.9	35.0	95.4	.....	6.8	439	27	62,800
May	28	94.7	4.42	93.3	28.7	96.2	8.1	4.5	377	59	72,900
June	20	96.2	4.62	92.5	13.1	97.9	22.1	2.7	422	83	.....
July	32	91.6	2.38	94.6	13.6	98.3	7.5	2.0	340	68	64,400
August	22	94.5	1.05	96.9	6.4	98.6	15.5	4.1	392	92	75,100
September	38	89.5	1.29	98.1	7.9	98.9	7.0	5.2	368	84	.....
October	69	82.1	1.98	97.2	8.4	98.8	2.7	5.1	395	43	.....
Weighted, average.	20	96.1	2.47	97.1	17.6	97.7	15.9	4.4	356	71	.....

[1] Based on untreated waste.

The results of this investigation indicate the entire feasibility of satisfactorily treating creamery wastes. The investigation has been in no sense exhaustive, and, in particular, the advantages of Imhoff tank treatment in place of plain sedimentation have not been investigated. It has been demonstrated, however, that plain sedimentation is a satisfactory tank treatment preliminary to sand filtration, and, that with the following specifications, a disposal plant may readily be designed for satisfactory treatment of creamery wastes.

The settling tank should have a net capacity of about one day's output of the creamery. It should have one or more hopper bottoms with side slopes of 45 degrees and a sludge outlet pipe running nearly to the bottom. The total depth from water line to sludge outlet should be about 12 feet. There should be a vertical bottom baffle, extending 3 feet above the upper edge between each two hoppers, and scum baffles extending 5 feet into the liquid over the center of each hopper. The entire tank should be covered with a tight board cover. The effluent from the tank should overflow to a siphon chamber having a capacity of not less than one nor more than six hours' output of waste. This chamber should be provided with an automatic siphon discharging to the filter beds. (See fig. 1.)

The sand filters should have an area of about 725 square feet per 1,000 gallons daily output of waste. This is equivalent to 60,000 gallons per acre per day. The upper layer should be composed of 3 feet of clean fairly coarse sand, such as would be suitable for concrete. This sand should be laid upon an underdrain system composed of parallel or radiating lines of agricultural drain tile suitably imbedded in coarse stone graded upward to fine stone and gravel to exclude the upper sand layer. This filter should be divided into not less than 2 and preferably 4 units, with suitable arrangement for diverting the flow to one or another. The units should be used in rotation.

Intelligent supervision over the operation of this plant is essential. There will be required, first, the daily attention to alternating the doses. At periods varying from one week to one month in intervals, the filter surface may require a light raking. Semiannually the tank will require attention. The accumulated sludge must be removed from the bottom and scum from the surface. This material may be buried. In northern climates the filters will require annual preparation for winter. To this end they should be cleaned by lightly removing a surface layer of not over 1 inch, and then worked into furrows running radially from the point of application of the dose. The ridges of these furrows should project just above the water line when the full dose is applied. During cold weather they support the accumulated ice layer and permit the continued operation of the filter.

Figure 1 is a perspective view of the settling tank, showing all essential details. It is designed for a daily output of wastes of 5,000

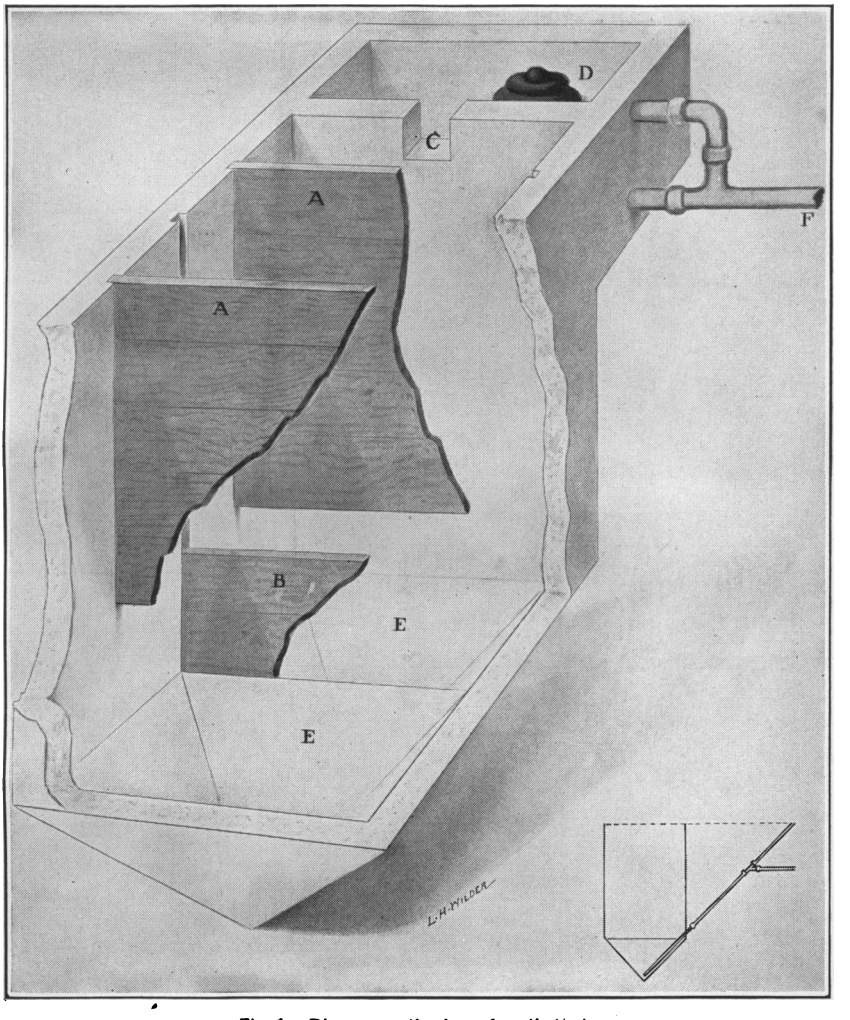

Fig. 1.—Diagrammatic view of septic tank.

gallons. The inside dimensions of the main body of the tank are 7 feet by 14 feet. The rectangular section is 10 feet deep and the hoppers, E, are 3½ feet deep. Baffles A–A extend 5 feet below the water line, and baffle B, 3 feet above the concrete ridge. The outlet C is 1 foot square. The siphon tank D has inside dimensions of 3 feet by 7 feet and 4 feet deep. The sludge-removal pipes, one in each hopper, are not shown on the main sketch, but their location and connections are indicated in the small sketch below.

The sludge line from each hopper should be made of 6-inch pipe, with valves on each line located outside the tank at such an elevation that there will be at least 3 feet static head over the outlet, when the tank is full of waste, to remove the sludge. It will probably not be necessary to remove the sludge more than once a year or possibly once in two years. As a rule the sludge will not be offensive and can be run out on a well-drained piece of ground near the plant and left to dry. It can then be removed and buried or used on land as a fertilizer. If the plant is located near dwellings it may be advisable to dig shallow trenches and cover the sludge with earth as soon as drawn. If the plant is not too near the creamery or private dwellings, a bed of cinders with a fine layer of sand on the surface makes a more satisfactory drying bed. This bed should be 12 inches deep and underdrained with tile, but without the coarse material used in the sand filters. On such a bed the sludge can be dried in about 15 days of clear weather. It is generally advisable to draw the sludge off in the fall after the flies are dead, or early spring before they appear, and it should be done when the creek that receives the wastes is in flood so that the drainage, which will be small, can go direct to the creek.

There are two ways of removing the scum. One is to churn it up and cause as much as possible to settle to the bottom and draw it off with the sludge, and the other is to draw it off with buckets. The scum removed can be hauled away in a water-tight wagon, or it can be placed in shallow piles near the plant and covered with a thin layer of earth. The latter method is preferable and is the one recommended.

The instructions given here are sufficient to enable a sanitary engineer to construct this plant properly. It is not possible to set down more detailed specifications, except with full knowledge of the exact data of the plant in question. It is essential, however, that the works be properly designed to meet the specific requirements, and the services of a competent engineer in designing and constructing this plant are distinctly desirable.

While it is probable that with careful operation the plant described will not give rise to objectionable odors, the possibility of nuisance can not be entirely overlooked, especially during the first few months

of operation. For this reason it is desirable wherever practicable to locate the plant at some distance from dwellings and from the creamery, and to cover the tank with a tight board cover. This cover will also tend to prevent serious fly nuisance.

In view of the rather common use of septic tanks in connection with the disposal of creamery wastes, it ought to be emphasized that the septic tank itself does not constitute a system of final treatment. While such a tank provides considerable removal of organic material, the comparative figures of Table I show that in the essential constituents, particularly the total organic nitrogen and the oxygen consumed, there has not been sufficient improvement to prevent nuisance under the usual conditions of discharge. The primary function of a septic tank is to prepare the waste for further oxidation, and the use of the sand filter for this purpose makes it possible to discharge a final waste which is practically unobjectionable.

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.

EXTRA-CANTONMENT ZONES—CASES REPORTED WEEK ENDED NOV. 30.

CAMP BEAUREGARD ZONE, LA.

	Cases.
Alexandria:	
Gonorrhea	1
Influenza	5
Malaria	3
Tuberculosis, pulmonary	2

CAMP BOWIE ZONE, TEX.

Fort Worth:	
Chancroid	5
Diphtheria	1
Gonorrhea	14
Influenza	36
Meningitis	1
Pneumonia	17
Syphilis	7
Tuberculosis	1
Typhoid fever	2

BREMERTON ZONE, WASH.

Influenza	60
Measles	1

CHARLESTON SANITARY DISTRICT, S. C.

Charleston:	
Diphtheria	1
Influenza	160
North Charleston:	
Influenza	15
Pneumonia	8
Typhoid fever	1
Varioloid	1

CAMP DIX ZONE, N. J.

Influenza:	
New Hanover Township	4

CAMP DODGE ZONE, IOWA.

Influenza:	
Ankeny	11
Bloomfield Township	5
Des Moines	896
Granger	1
Grimes	9
Polk City	12

CAMP DODGE ZONE, IOWA—continued.

	Cases.
Scarlet fever:	
Bloomfield Township	1
Des Moines	7

CAMP DONIPHAN ZONE, OKLA.

Comanche County:	
Influenza	3
Lawton:	
Gonorrhea	5
Influenza	5
Tuberculosis	1

CAMP EBERTS ZONE, ARK.

Gonorrhea:	
England	1
Influenza:	
Austin	8
Austin, R. F. D	12
Austin, route 2	13
Cabot	2
Cabot, R. F. D	5
Carlisle	28
Carlisle, R. F. D	2
England	4
Ward	1
Malaria:	
England	1
Pneumonia:	
Cabot	1
England	1

CAMP FUNSTON ZONE, KANS.

Gonorrhea:	
Junction City	1
Manhattan	2
Influenza:	
Junction City	92
Manhattan	70
Manhattan (rural)	16
Milford	36
Ogden	1
Pottawatomie County	2
Randolph	18

CAMP FUNSTON ZONE, KANS.—continued.

	Cases.
Measles:	
Junction City	1
Ogden	4
Pneumonia:	
Manhattan	1
Scarlet fever:	
Junction City	1

GAS AND FLAME SCHOOL ZONE, GA. AND ALA.

Columbus:	
Influenza	62
Pellagra	1
Pneumonia	5
Smallpox	2
Tuberculosis	1
Typhoid fever	1
Muscogee County:	
Influenza	31
Pellagra	1

GERSTNER FIELD ZONE, LA.

Influenza	309
Pneumonia	3
Smallpox	1

CAMP GORDON ZONE, GA.

Atlanta:	
Diphtheria	3
Gonorrhea	14
Influenza	141
Measles	1
Pneumonia	1
Scarlet fever	3
Smallpox	5
Syphilis	11
Tuberculosis	3
Typhoid fever	1
Chamblee:	
Grippe	2
Measles	1
Royston:	
Whooping cough	8

CAMP GREENE ZONE, N. C.

Charlotte Township:	
Diphtheria	1
Gonorrhea	5
Influenza	173
Measles	1
Mumps	1
Syphilis	7
Trachoma	1
Whooping cough	2

GULFPORT HEALTH DISTRICT, MISS.

Cancer:	
Kiln	1
Dysentery:	
Gulfport	2
Kiln	1
Gonorrhea:	
Biloxi	3
Gulfport	6
Mississippi City	1
Moss Point	2

GULFPORT HEALTH DISTRICT, MISS.—contd.

	Cases.
Hookworm:	
Cuevas	1
Gulfport	1
Influenza:	
Biloxi	44
Gulfport	93
Long Beach	16
Lyman	11
Mississippi City	12
Moss Point	20
Pascagoula	10
Malaria:	
Biloxi	1
Gulfport	16
Kiln	4
Moss Point	4
Pascagoula	2
Pneumonia:	
Biloxi	3
De Lisle	1
Gulfport	3
Kiln	1
Mississippi City	1
Moss Point	1
Syphilis:	
Gulfport	2
Tuberculosis:	
Gulfport	2
Kiln	1
Pascagoula	1
Typhoid fever:	
Lyman	1
Whooping cough:	
Gulfport	1
Logtown	1
Moss Point	5

CAMP HANCOCK ZONE, GA.

Augusta:	
Cerebrospinal meningitis	2
Diphtheria	1
Influenza	33
Measles	1

CAMP HUMPHREYS ZONE, VA.

Alexandria:	
Diphtheria	1
Influenza	19
Smallpox	1
Typhoid fever	1
Whooping cough	3

CAMP JACKSON ZONE, S. C.

Columbia:	
Influenza	35
Measles	1
Pneumonia	3
Whooping cough	1
United States Government Clinic:	
Gonorrhea	2
Syphilis	8

CAMP JOSEPH E. JOHNSTON ZONE, FLA.

Fishers Corner:	
Mumps	1
Scabies	1

CAMP JOSEPH E. JOHNSTON ZONE, FLA.—contd.

Jacksonville:	Cases.
Chancroid	2
Dysentery	1
Gonorrhea	26
Influenza	8
Measles	1
Mumps	4
Ophthalmia	1
Pneumonia	5
Syphilis	19
Trachoma	5
Tuberculosis	2
Ortega:	
Conjunctivitis	1
Malaria	1
Trachoma	1

FORT LEAVENWORTH ZONE, KANS.

Leavenworth:	
Chicken pox	1
Gonorrhea	3
Influenza	362
Smallpox	1
Syphilis	2
Tuberculosis	4
Leavenworth County:	
Influenza	38

CAMP LEE ZONE, VA.

Hopewell:	
Chancroid	5
Gonorrhea	6
Syphilis	1
Petersburg:	
Diphtheria	1
Gonorrhea	2
Influenza	1
Measles	1
Prince George County:	
Influenza	6

CAMP LEWIS ZONE, WASH.

Influenza:	
Collins	2
Lake City	1
Parkland	4
Scarlet fever:	
Hillhurst	1

CAMP M'ARTHUR ZONE, TEX.

Waco:	
Gonorrhea	1
Influenza	12
Pneumonia	1
Syphilis	1
Tuberculosis	1

CAMP M'CLELLAN ZONE, ALA.

Anniston:	
Gonorrhea	9
Influenza	20
Measles	4
Mumps	1
Pneumonia	7
Scarlet fever	1
Syphilis	1
Whooping cough	3

CAMP MERRIT ZONE, N. J.

Chicken pox:	Cases.
Englewood	2
German measles:	
Demarest	1
Influenza:	
Bergenfield	4
Englewood	16
Tenafly	5
Pneumonia:	
Demarest	1
Englewood	2
Scarlet fever:	
Englewood	4

NEW LONDON SANITARY DISTRICT, CONN.

Cerebrospinal meningitis:	
North Stonington	1
Chicken pox:	
Stonington	1
Diphtheria:	
Mystic	2
New London	6
Preston	1
Stonington	1
Influenza:	
Groton (town)	3
Lyme	3
Mystic	6
Preston	7
Stonington	75
Pneumonia:	
Jewett City	1
Norwich	1
Tuberculosis:	
New London	1
Norwich	3
Preston	3
Typhoid fever:	
Norwich	1

FORT OGLETHORPE ZONE, GA. AND TENN.

Diphtheria:	
Chattanooga	1
Gonorrhea:	
Chattanooga	3
Influenza:	
Chattanooga	17
Eastlake	16
North Chattanooga	5
Pneumonia:	
Altonpark	1
Scarlet fever:	
Chattanooga	1

PICRIC ACID PLANT ZONE, GA.

Brunswick:	
Influenza	14
Measles	3
Tuberculosis	1
Typhoid fever	1

CAMP PIKE ZONE, ARK.

Little Rock:	
Bronchitis	1
Chancroid	1
Chicken pox	1

CAMP PIKE ZONE, ARK.—continued.

Little Rock—Continued.	Cases.
Diphtheria	1
Gonorrhea	21
Influenza	172
Laryngitis	1
Malaria	2
Measles	2
Pneumonia	19
Poliomyelitis	1
Scarlet fever	6
Syphilis	4
Tuberculosis	1
Typhoid fever	1
Whooping cough	1
North Little Rock:	
Influenza	37
Malaria	1
Pneumonia	2

CAMP POLK ZONE, N. C.

Chicken pox:	
Raleigh	1
Influenza:	
Durham	77
Durham County	14
Raleigh	201
Wake County	2
Mumps:	
Raleigh	2
Poliomyelitis:	
Raleigh	1
Scarlet fever:	
Durham County	1
Raleigh	1
Septic sore throat:	
Raleigh	2
Tuberculosis:	
Durham	1
Typhoid fever:	
Durham	4
Wake County	1
Whooping cough:	
Durham	1
Raleigh	3
Wake County	2

PORTSMOUTH AND NORFOLK COUNTY HEALTH DISTRICT, VA.

Diphtheria:	
Port Norfolk	1
Portsmouth	1
Gonorrhea:	
Norfolk	6
Syphilis:	
Norfolk	2
Tuberculosis:	
Portsmouth	3

PORTSMOUTH-KITTERY SANITARY DISTRICT, N. H. AND ME.

Portsmouth:	
Chicken pox	1
Syphilis	2

CAMP SEVIER ZONE, S. C.

Influenza:	Cases.
Chick Springs Township	6
Greenville	85
O'Neal Township	2
Tigerville	24
Pneumonia:	
Greenville	2
Pneumonia, broncho:	
Greenville	1

CAMP SHELBY ZONE, MISS.

Hattiesburg:	
Gonorrhea	1
Influenza	34
Malaria	1
Pneumonia	1
Syphilis	1
Tuberculosis	1
Near Hattiesburg:	
Diphtheria	1
Influenza	1

CAMP SHERIDAN ZONE, ALA.

Montgomery:	
Chicken pox	1
Diphtheria	1
Influenza	69
Pneumonia	1
Montgomery County:	
Diphtheria	1
Diphtheria carrier	1
Influenza	30
Pneumonia	1
United States Government Clinic:	
Gonorrhea	8
Syphilis	1

CAMP SHERMAN ZONE, OHIO.

Chicken pox:	
Chillicothe	1
Diphtheria:	
Chillicothe	5
Gonorrhea:	
United States Government Clinic	6
Influenza:	
Chillicothe	42
Ross County	16
Mumps:	
Liberty Township	2

CAMP ZACHARY TAYLOR ZONE, KY. AND IND.

Chicken pox:	
Louisville	1
Diphtheria:	
Jefferson County	1
Louisville	1
Gonorrhea:	
Louisville	1
United States Government Clinic	17
Venereal Clinic, County Jail	11
Influenza:	
Clark County	95
Jefferson County	15[illegible]

CAMP ZACHARY TAYLOR ZONE, KY. AND IND.—continued.

Influenza—Continued.	Cases.
Jeffersonville	117
Louisville	473
New Albany	96
Measles:	
Louisville	1
Pneumonia, lobar:	
Jefferson County	3
Louisville	3
New Albany	1
Syphilis:	
United States Government Clinic	15
Venereal Clinic, County Jail	4
Tuberculosis, pulmonary:	
Louisville	7
Typhoid fever:	
Louisville	3
New Albany	1
Whooping cough:	
Jefferson County	2

TIDEWATER HEALTH DISTRICT, VA.

Newport News:	
Chancroid	1
Gonorrhea	4
Pneumonia	1
Phoebus:	
Typhoid fever	1

CAMP TRAVIS ZONE, TEX.

San Antonio:	
Diphtheria	2
Gonorrhea	1
Influenza	254
Pneumonia	2
Scarlet fever	2
Syphilis	1
Tuberculosis	5
Typhoid fever	5

CAMP UPTON ZONE, N. Y.

Chicken pox	2
Mumps	16
Tuberculosis	3

VANCOUVER ZONE, WASH.

	Cases.
German measles	2
Influenza	154

CAMP WADSWORTH ZONE, S. C.

Diphtheria:	
Spartanburg	1
Gonorrhea:	
Fairfield	1
Fairforest	2
Glendale	1
Greenville	1
Inman	1
Laurens	1
Hayne	1
Pacolet	3
Spartanburg	24
Whitney	1
Influenza:	
Drayton	1
Spartanburg	125
Smallpox:	
Spartanburg	1
Syphilis:	
Spartanburg	1

CAMP WHEELER ZONE, GA.

Bibb County:	
Influenza	8
East Macon:	
Influenza	19
Macon:	
Diphtheria	3
Gonorrhea	4
Influenza	496
Pneumonia	6
Scarlet fever	3
Whooping cough	1

WILMINGTON SANITARY DISTRICT, N. C.

Wilmington:	
Diphtheria	1
Tuberculosis	1
Typhoid fever	1

DISEASE CONDITIONS AMONG TROOPS IN THE UNITED STATES.[1]

The following data are taken from telegraphic reports received in the office of the Surgeon General of the United States Army for the week ended November 22, 1918:

Annual admission rate per 1,000 (disease only):	
All troops	1,133.92
Divisional camps	1,093.50
Cantonments	1,299.03
Departmental and other troops	974.30
Noneffective rate per 1,000 on day of report:	
All troops	45.07
Divisional camps	51.76
Cantonments	46.59
Departmental and other troops	40.01
Annual death rate per 1,000 (disease only):	
All troops	13.76
Divisional camps	18.37
Cantonments	8.08
Departmental and other troops	17.58

[1] Including Porto Rico.

DISEASE CONDITIONS AMONG TROOPS IN THE UNITED STATES—Con.

Cases of special diseases reported during the week ended Nov. 22, 1918.

Camp.	Pneumonia.	Dysentery.	Malaria.	Venereal diseases.		Influenza.	Measles.	Meningitis.	Scarlet fever.	Deaths.	Annual admission rate per 1,000 (disease only).	Noneffective per 1,000 on day of report.
				Total.	New infections.							
Beauregard	.....	2	.....	14	.....	.....	32	2	.....	2	1,490.5	79.7
Bowie	3	.....	.....	108	4	.....	.....	1	.....	4	900.2	44.89
Cody	4	.....	.....	5	.....	186	5	.....	3	20	1,382.0	85.95
Forrest	.....	.....	.....	.....	.....	13	.....	.....	.....	3	928.5	63.12
Fremont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	329.3	42.45
Greene	20	.....	.....	22	2	27	8	.....	.....	1	526.0	42.89
Greenleaf	5	1	.....	14	1	.....	4	1	.....	1	579.0	40.27
Hancock	57	.....	.....	54	4	3	61	.....	109	14	940.7	68.36
Kearny	30	.....	.....	16	2	180	9	.....	.....	12	1,139.8	37.78
Logan	5	.....	.....	45	5	32	4	.....	.....	2	1,077.4	44.8
MacArthur	1	1	2	27	.....	44	40	.....	.....	2	960.1	41.46
McClellan	30	.....	1	19	.....	23	22	.....	.....	3	1,262.1	49.69
Sevier	3	.....	1	21	9	19	14	1	.....	4	1,254.0	43.58
Shelby	32	3	1	78	22	31	5	.....	.....	4	1,778.5	53.17
Sheridan	4	.....	.....	12	3	2	24	.....	.....	2	859.3	46.83
Syracuse	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,260.9	23.27
Wadsworth	39	.....	1	19	2	20	4	1	1	28	1,537.9	73.36
Wheeler	63	.....	1	19	.....	.....	.....	.....	.....	11	1,813.7	53.44
Custer	16	.....	.....	16	9	1	.....	.....	.....	1	466.6	16.73
Devens	18	.....	.....	60	19	21	21	1	1	6	814.3	32.5
Dix	15	.....	.....	2,936	1	37	2	.....	.....	1	5,879.2	37.35
Dodge	25	.....	.....	58	15	74	28	1	.....	4	1,249.1	75.5
Eustis	5	1	.....	28	.....	78	4	.....	.....	4	1,421.7	42.6
Funston	21	.....	.....	55	.....	2	66	.....	2	6	686.6	33.47
Gordon	6	.....	.....	44	.....	59	3	.....	.....	1	1,458.6	68.98
Grant	7	.....	.....	12	.....	27	2	.....	.....	3	464.3	28.8
Humphreys	34	.....	.....	21	.....	68	19	1	.....	5	917.9	36.46
Jackson	13	.....	.....	33	.....	.....	71	.....	.....	3	586.5	42.08
J. E. Johnston	15	.....	3	66	1	7	13	.....	.....	.....	741.1	29.38
Las Casas	12	.....	2	7	.....	89	.....	.....	.....	13	1,245.7	41.39
Lee	6	.....	1	55	1	29	5	.....	.....	5	626.3	39.66
Lewis	96	.....	.....	67	1	109	17	.....	.....	10	1,615.2	70.75
Meade	8	.....	.....	113	7	19	44	1	2	6	815.1	21.07
Pike	10	.....	.....	6	.....	36	15	3	.....	3	1,203.7	63.56
Sherman	27	.....	1	29	.....	72	84	.....	.....	11	1,011.4	48.5
Taylor	18	.....	.....	27	3	69	23	1	6	17	1,940.3	64.6
Travis	14	2	2	27	2	59	12	.....	.....	5	2,194.6	86.26
Upton	31	.....	.....	40	1	257	2	.....	1	6	1,035.4	44.2
Northeastern Department	6	.....	.....	7	1	74	.....	.....	.....	5	1,026.9	37.14
Eastern Department	19	.....	27	41	8	137	10	1	.....	8	707.3	26.8
Southeastern Department	97	.....	27	78	7	230	5	.....	.....	27	1,659.2	37.7
Southern Department	67	.....	1	57	1	662	2	.....	1	19	1,327.6	44.0
Central Department	26	4	.....	12	.....	350	1	.....	3	15	1,502.1	42.01
Western Department	34	.....	.....	14	4	123	.....	1	.....	24	899.8	47.54
Aviation camps	77	.....	.....	76	.....	399	16	.....	9	43	1,067.1	41.2
Ports of embarkation:												
Hoboken	30	.....	.....	28	8	186	59	1	.....	16	867.5	70.8
Newport News	6	.....	.....	34	1	20	37	2	.....	6	1,590.1	108.7
Alcatraz Disciplinary Barracks	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	658.2	1.26
Leavenworth Disciplinary Barracks	.....	.....	.....	2	.....	.....	.....	.....	.....	2	1,455.3	49.78
Jefferson Barracks	6	.....	.....	10	3	23	.....	.....	.....	.....	1,163.2	77.4
Columbus Barracks	.....	.....	.....	2	1	.....	.....	.....	.....	.....	676.3	31.2
Fort Logan	.....	.....	.....	5	3	.....	.....	.....	.....	1	805.2	48.89
Fort McDowell	1	.....	.....	6	.....	.....	.....	.....	.....	.....	730.5	48.67
Fort Sill	.....	.....	.....	15	15	30	.....	.....	1	2	604.1	26.4
Fort Slocum	.....	.....	.....	12	3	.....	.....	.....	.....	.....	446.2	21.7
Fort Thomas	1	.....	.....	7	.....	.....	.....	.....	.....	1	716.8	26.1
West Point	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	272.2	5.81
Arsenals	3	.....	.....	24	.....	26	6	.....	1	1	866.2	32.8
Miscellaneous small stations	3	.....	1	2	.....	.....	.....	.....	.....	1	295.5	9.83
Students' Army Training Corps	10	.....	.....	31	.....	83	.....	.....	1	7	1,210.2	32.9
General hospitals	.....	.....	.....	.....	.....	.....	.....	.....	.....	35	.....	.....
Total	1,079	14	45	4,637	169	3,936	799	19	141	436	1,133.9	45.07

DISEASE CONDITIONS AMONG TROOPS IN THE UNITED STATES—Con.

Annual rate per 1,000 for special diseases.

Disease.	All troops in United States.[1]	Departmental and other troops.[1]	Divisional camps.[1]	Cantonments.[1]	Expeditionary forces.[2]
Pneumonia	36.35	33.60	50.83	32.11	33.07
Dysentery	.46	.03	1.20	.24	4.06
Malaria	1.51	.25	1.20	.72	.35
Venereal	155.66	40.39	81.22	296.36	20.48
Paratyphoid	.20	.52	.....	.....	.02
Typhoid	.06	.17	.....	.....	.30
Measles	26.82	11.83	39.84	34.52	9.06
Meningitis	.63	.04	1.03	.64	1.56
Scarlet fever	4.73	1.39	19.40	.96	.71
Influenza	132.13	195.27	99.60	89.1	.....

[1] Week ended Nov. 22, 1918. [2] Week ended Nov. 14, 1918.

Annual death rate (disease only) all troops in United States and American Expeditionary Forces, France, for the week ending Nov. 15, 1918, 16.02.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Nov. 30, 1918.

Alabama.—Influenza 1,281. Other diseases not being reported.

Arkansas.—Influenza: Pine Bluff 314, Hot Springs 246 cases (death 1, pneumonia), Columbia County 88, Van Buren 80, Izard County 57, Calhoun 47, Garland 46, Decatur 33, Malvern 30, Delight 30, Monroe 29, Conway 53, Hazen—rural—26, Lee 23, Morrilton 21, Quitman 20, Mount Vernon 16, Faulkner 16, Shirley 15, Mansfield 12, Marvell 12, Hempstead 11 cases (death 1, pneumonia), St. Francis 9, Dermott 6 cases (death 1, pneumonia), Siloam Springs 8 cases (deaths 2, pneumonia). Star City epidemic recurring, more serious than previously, 1 death pneumonia following influenza, 12 other cases reported. Diphtheria 2, malaria 28, typhoid fever 5.

Connecticut.—Trachoma: One New Haven. Cerebrospinal meningitis: Waterbury 2, North Stonington 1.

Illinois.—Influenza 6,478; diphtheria 198, of which in Chicago 164; scarlet fever 32, of which in Chicago 19; smallpox 8; gonorrhea 1 each at Payson and Grafton, Waukegan 2, Peoria 11, Rockford 21, Chicago 69; pneumonia 85; poliomyelitis Mooseheart 1; meningitis Cuba Township (Lake County) 1. Add 54 influenza to report for week ended November 23.

Indiana.—Influenza 1,837, syphilis 77, gonorrhea 67.

Iowa.—Chancroid Council Bluffs 1; diphtheria Adair 3, Burlington 1, Cedar Rapids 2, Council Bluffs 1, Des Moines 1, Iowa Falls 2, Mason City 1, Middleton 1, South Fort Des Moines 1; gonorrhea Cedar Rapids 1, Central City 1, Council Bluffs 5, Davenport 4, Grinnell 1, Iowa City 5, Ogden 1, Oskaloosa 1, Persia 1, Sioux City 5; scarlet fever Burlington 4, Carroll 1, Council Bluffs 2, Des Moines 8,

Dow City 1, Grand Junction 1, Mason City 1, Red Oak 1, South Fort Des Moines 1, Valley Junction 1; smallpox Atlantic 1, Boone 1, Burlington 2, Des Moines 1, Nora Springs 1. In rural districts of following counties: Diphtheria Audubon 1, Blackhawk 1, Jackson 1, Story 1, Wright 1; scarlet fever Iowa 1, Polk 2; smallpox Boone 1. For entire State: Influenza 6,547 cases.

Kansas.—State totals: Typhoid fever 17, smallpox 5, diphtheria 16, scarlet fever 25, influenza 15,400.

Reported by mail for preceding week (ended November 23):

Cancer	1	Pellagra	2
Chicken pox	11	Pneumonia	61
Diphtheria	31	Scarlet fever	28
Erysipelas	1	Septic sore throat	4
Gonorrhea	38	Smallpox	20
Influenza	7,928	Syphilis	4
Measles	22	Trachoma	2
Meningitis	1	Tuberculosis	25
Meningitis (influenzal)	1	Typhoid fever	38
Mumps	3	Whooping cough	34
Ophthalmia neonatorum	1		

Maine.—Chicken pox Standish 2, Belfast 1; diphtheria, Eastbrook 1, Bangor 1, South Berwick 1; pellagra, Waterville 1; scarlet fever, Portland 1, Belfast 1; smallpox, Township 16 (range 3) 1 case; tuberculosis, seven cases; typhoid fever, Portland 1, Gorham 1; whooping cough, Portland 4, Friendship 4; influenza, 429 cases.

Massachusetts.—Unusual prevalence. Influenza, 2,969 cases from 126 cities and towns.

Minnesota.—Smallpox (new foci): Dakota County, West St. Paul village 18; Pine County, Brook Park Township 5, Brook Park village 3, Bruno village 1; St. Louis County, Duluth city 1. Two poliomyelitis reported since November 25. Fifty-nine syphilis, 51 gonorrhea, 2 chancroid.

Montana.—Influenza cases officially reported for week ended November 23, 3,404.

New Jersey.—Influenza epidemic in several widely separated localities.

New York.—Outside of New York City. Diphtheria 107, of which in Norwich 12, Buffalo 32; typhoid fever 47, of which in Ilion 9, Kingston 20; pneumonia 202; smallpox 1 in Buffalo; voluntary reports, syphilis 97, gonorrhea 10.

North Carolina.—Whooping cough 50, measles 5, diphtheria 30, scarlet fever 18, smallpox 13, chicken pox 2, infantile paralysis 1, typhoid fever 11, broncho pneumonia 4, lobar pneumonia 1.

Ohio.—Smallpox, Washington Courthouse, 7 cases; venereal diseases 105 cases for entire State.

Vermont.—Several towns report return of influenza, but of milder type than formerly; 450 cases during week. No other unusual prevalence.

Virginia.—Seven cases smallpox Norfolk, 1 Alexandria, 3 Tazewell; 1 case cerebrospinal meningitis Richmond County; 200 cases influenza.

Washington.—No unusual prevalence other than influenza, which is apparently on increase throughout State.

CEREBROSPINAL MENINGITIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Hancock zone, Ga	2	New London sanitary district, Conn	1

State Reports for October, 1918.

Place.	New cases reported.	Place.	New cases reported.
Connecticut:		Kansas—Continued.	
Fairfield County—		Leavenworth County—	
Stamford	1	Basehor	1
Hartford County—		Wyandotte County—	
New Britain	2	Kansas City	3
New Haven County—		Total	6
Beacon Falls	2		
Branford	1		
Meriden	1	Mississippi:	
New London County—		Bolivar County	1
Griswold	1	De Soto County	1
New London	1	Oktibbeha County	1
		Tallahatchie County	1
Total	9	Warren County	1
		Washington County	1
Iowa:			
Cedar County	3	Total	6
Des Moines County	1		
Warren County	1	North Dakota:	
		Steele County	1
Total	5		
		West Virginia:	
Kansas:		Putnam County	1
Butler County—		Monongalia County	1
Beaumont (influenzal)	1		
Cloud County—		Total	2
Hollis (influenzal)	1		

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md	3	1	Newark, N. J	1	3
Boston, Mass	6	5	New Haven, Conn	1	1
Burlington, Vt	1	.....	New Orleans, La	1	.....
Champaign, Ill	.....	1	New York, N. Y	5	3
Cincinnati, Ohio	1	.....	Passaic, N. J	1	.....
Cleveland, Ohio	1	.....	Philadelphia, Pa	2	2
Long Beach, Cal	1	1	Pittsburgh, Pa	1	.....
Lynn, Mass	1	1	Providence, R. I	2	.....
Manchester, N. H	1	1			

CHANCROID.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	5	Camp Pike zone, Ark	1
Camp Joseph E. Johnston zone, Fla	2	Tidewater health district, Va	1
Camp Lee zone, Va	5		

DIPHTHERIA.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	1	Portsmouth and Norfolk County health district, Va	2
Charleston sanitary district, S. C	1	Camp Shelby zone, Miss	1
Camp Gordon zone, Ga	3	Camp Sheridan zone, Ala	2
Camp Greene zone, N. C	1	Camp Sherman zone, Ohio	5
Camp Hancock zone, Ga	1	Camp Zachary Taylor zone, Ky. and Ind	2
Camp Humphreys zone, Va	1	Camp Travis zone, Tex	2
Camp Lee zone, Va	1	Camp Wadsworth zone, S. C	1
New London sanitary district, Conn	10	Camp Wheeler zone, Ga	3
Fort Oglethorpe zone, Ga. and Tenn	1	Wilmington sanitary district, N. C	1
Camp Pike zone, Ark	1		

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 2195.

DYSENTERY.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Gulfport health district, Miss	3	Camp Joseph E. Johnston zone, Fla	1

ERYSIPELAS.

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	1		Milwaukee, Wis	1	
Baltimore, Md	2		Newark, N. J	3	
Buffalo, N. Y	1		New Haven, Conn	1	
Chicago, Ill	8	2	Oakland, Cal	1	
Cincinnati, Ohio	1		Omaha, Nebr	1	1
Cleveland, Ohio	2		Philadelphia, Pa		1
Council Bluffs, Iowa	1		Portland, Oreg	1	
Detroit, Mich	3		St. Louis, Mo	6	
El Paso, Tex		1	St. Paul, Minn	1	1
Fargo, N. Dak	1		Sandusky, Ohio	2	
Independence, Mo	1		Seattle, Wash	1	

GONORRHEA.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	1	Camp McClellan zone, Ala	9
Camp Bowie zone, Tex	14	Fort Oglethorpe zone, Ga. and Tenn	3
Camp Doniphan zone, Okla	5	Camp Pike zone, Ark	21
Camp Eberts zone, Ark	1	Portsmouth and Norfolk County health district, Va	6
Camp Funston zone, Kans	3	Camp Shelby zone, Miss	1
Camp Gordon zone, Ga	14	Camp Sheridan zone, Ala	8
Camp Greene zone, N. C	5	Camp Sherman zone, Ohio	6
Gulfport health district, Miss	12	Camp Zachary Taylor zone, Ky. and Ind	29
Camp Jackson zone, S. C	2	Tidewater health district, Va	4
Camp Joseph E. Johnston zone, Fla	26	Camp Travis zone, Tex	1
Fort Leavenworth zone, Kans	3	Camp Wadsworth zone, S. C	36
Camp Lee zone, Va	8	Camp Wheeler zone, Ga	4
Camp MacArthur zone, Tex	1		

INFLUENZA.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	5	Camp Lee zone, Va	7
Camp Bowie zone, Tex	36	Camp Lewis zone, Wash	7
Bremerton zone, Wash	60	Camp MacArthur zone, Tex	12
Charleston sanitary district, S. C	175	Camp McClellan zone, Ala	90
Camp Dix zone, N. J	4	Camp Merrit zone, N. J	25
Camp Dodge zone, Iowa	934	New London sanitary district, Conn	94
Camp Doniphan zone, Okla	8	Fort Oglethorpe zone, Ga. and Tenn	38
Camp Eberts zone, Ark	75	Picric Acid Plant zone, Ga	14
Camp Funston zone, Kans	235	Camp Pike zone, Ark	209
Gas and Flame School zone, Ga. and Ala	93	Camp Polk zone, N. C	294
Gerstner Field zone, La	309	Camp Sevier zone, S. C	117
Camp Gordon zone, Ga	141	Camp Shelby zone, Miss	35
Camp Greene zone, N. C	173	Camp Sheridan zone, Ala	99
Gulfport health district, Miss	206	Camp Sherman zone, Ohio	58
Camp Hancock zone, Ga	33	Camp Zachary Taylor zone, Ky. and Ind	935
Camp Humphreys zone, Va	19	Camp Travis zone, Tex	254
Camp Jackson zone, S. C	35	Vancouver zone, Wash	154
Camp Joseph E. Johnston zone, Fla	8	Camp Wadsworth zone, S. C	126
Fort Leavenworth zone, Kans	400	Camp Wheeler zone, Ga	523

LEPROSY.

City Report for Week Ended Nov. 16, 1918.

One case of leprosy was reported at New Orleans, La., during the week ended November 16, 1918.

MALARIA.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	3	Camp Joseph E. Johnston zone, Fla	1
Camp Eberts zone, Ark	1	Camp Pike zone, Ark	3
Gulfport health district, Miss	27	Camp Shelby zone, Miss	1

State Reports for October, 1918.

Place.	New cases reported.	Place.	New cases reported.
Kansas:		Mississippi—Continued.	
Butler County—		Copiah County	68
Douglass (R. D.)	1	Covington County	65
Sumner County—		De Soto County	59
South Haven (R. D.)	3	Forrest County	8
Wilson County—		Franklin County	44
New Albany	4	George County	15
Wyandotte County—		Greene County	17
Kansas City	1	Hancock County	74
Total	9	Harrison County	36
		Hinds County	192
Mississippi:		Holmes County	281
Adams County	74	Issaquena County	38
Alcorn County	71	Itawamba County	32
Amite County	40	Jackson County	63
Attala County	34	Jasper County	80
Bolivar County	446	Jefferson County	95
Calhoun County	23	Jefferson Davis County	27
Carroll County	60	Jones County	47
Chickasaw County	16	Kemper County	23
Choctaw County	27	Lafayette County	53
Claiborne County	95	Lamar County	34
Clarke County	56	Lauderdale County	25
Clay County	24	Lawrence County	132
Coahoma County	351	Lee County	37
		Leflore County	303

MALARIA—Continued.

State Reports for October, 1918—Continued.

Place.	New cases reported.	Place.	New cases reported.
Mississippi—Continued.		Mississippi—Continued.	
Lincoln County	46	Simpson County	23
Lowndes County	47	Smith County	20
Madison County	45	Stone County	20
Marion County	71	Sunflower County	416
Marshall County	70	Tallahatchie County	140
Monroe County	56	Tate County	66
Montgomery County	25	Tunica County	206
Neshoba County	51	Union County	28
Newton County	21	Walthall County	18
Noxubee County	26	Warren County	175
Oktibbeha County	12	Washington County	168
Panola County	104	Wayne County	55
Perry County	30	Webster County	33
Pike County	37	Wilkinson County	18
Pontotoc County	85	Winston County	59
Prentiss County	75	Yalobusha County	2
Quitman County	104	Yazoo County	239
Rankin County	21		
Scott County	60	Total	5,996
Sharkey County	159		

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Champaign, Ill		1	Mobile, Ala	2	
Cincinnati, Ohio	1		Palestine, Tex	8	
Memphis, Tenn		3	Tuscaloosa, Ala	1	

MEASLES.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Bremerton zone, Wash	1	Camp Joseph E. Johnston zone, Fla	1
Camp Funston zone, Kans	5	Camp Lee zone, Va	1
Camp Gordon zone, Ga	2	Camp McClellan zone, Ala	4
Camp Greene zone, N. C	1	Picric Acid Plant zone, Ga	3
Camp Hancock zone, Ga	1	Camp Pike zone, Ark	2
Camp Jackson zone, S. C	1	Camp Zachary Taylor zone, Ky. and Ind	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 2195.

PELLAGRA.

State Reports for October, 1918.

Place.	New cases reported.	Place.	New cases reported.
Kansas:		Mississippi—Continued.	
Butler County—		Clay County	6
El Dorado	1	Coahoma County	8
		Copiah County	14
Mississippi:		Covington County	1
Adams County	5	De Soto County	7
Alcorn County	4	Forrest County	2
Attala County	3	George County	1
Bolivar County	41	Hinds County	65
Calhoun County	4	Holmes County	10
Chickasaw County	8	Itawamba County	2
Claiborne County	4	Jackson County	2
Clarke County	1	Jasper County	8

PELLAGRA—Continued.

State Reports for October, 1918—Continued.

Place.	New cases reported.
Mississippi—Continued.	
Jefferson County	1
Jefferson Davis County	1
Jones County	6
Kemper County	1
Lauderdale County	3
Lawrence County	6
Lee County	8
Lincoln County	12
Madison County	5
Marion County	8
Marshall County	7
Monroe County	3
Montgomery County	3
Neshoba County	7
Newton County	4
Noxubee County	3
Panola County	5
Perry County	3
Pike County	3
Pontotoc County	1
Prentiss County	4
Quitman County	5
Rankin County	1
Scott County	1
Simpson County	5
Smith County	1
Sunflower County	8
Tallahatchie County	7
Tate County	3
Tunica County	17
Union County	4
Walthall County	5
Warren County	7
Washington County	9
Wayne County	3
Webster County	6
Yazoo County	13
Total	385

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.
Atlanta, Ga.		3
Birmingham, Ala.		1
Brunswick, Ga.		1
Charleston, S. C.		1
Charlotte, N. C.		1
Columbus, Ga.	1	
Manchester, N. H.	1	1
Memphis, Tenn.	1	1
Nashville, Tenn.	2	
New Orleans, La.	2	3
Northampton, Mass.	1	
Richmond, Va.	1	1
Waco, Tex.		1
Winston-Salem, N. C.	1	1

POLIOMYELITIS (INFANTILE PARALYSIS).

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.
Camp Pike zone, Ark.	1
Camp Polk zone, N. C.	1

State Reports for October, 1918.

Place.	New cases reported.
Connecticut:	
Hartford County—	
Hartford	1
Manchester	3
New Haven County—	
Bethany	1
New Haven	2
Total	7
Iowa:	
Calhoun County	1
Clayton County	1
Dubuque County	22
Fayette County	2
Muscatine County	2
Total	28
Kansas:	
Sedgwick County—	
Wichita	1
Sumner County—	
Belle Plaine (R. D.)	1
Total	2
Mississippi:	
Clay County	4
Madison County	1
Union County	1
Total	6
North Dakota:	
Bowman County	1
South Dakota:	
Edmunds County	15
West Virginia:	
Raleigh County	1
Wood County	1
Total	2

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Champaign, Ill		1	St. Louis, Mo	1	
New Haven, Conn	1	1	San Francisco, Cal	1	

PNEUMONIA.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	17	Camp Merrit zone, N. J	3
Charleston sanitary district, S. C	8	New London sanitary district, Conn	2
Camp Eberts zone, Ark	2	Fort Oglethorpe zone, Ga. and Tenn	1
Camp Funston zone, Kans	1	Camp Pike zone, Ark	21
Gas and Flame School zone, Ga. and Ala	5	Camp Sevier zone, S. C	3
Gerstner Field zone, La	3	Camp Shelby zone, Miss	1
Camp Gordon zone, Ga	1	Camp Sheridan zone, Ala	2
Gulfport health district, Miss	10	Camp Zachary Taylor zone, Ky. and Ind	7
Camp Jackson zone, S. C	3	Tidewater health district, Va	1
Camp Joseph E. Johnston zone, Fla	5	Camp Travis zone, Tex	2
Camp MacArthur zone, Tex	1	Camp Wheeler zone, Ga	6
Camp McClellan zone, Ala	7		

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Abilene, Tex	2		Helena, Ark	11	5
Alton, Ill	1		Henderson, Ky	4	2
Amarillo, Tex	9		Highland Park, Mich	17	4
Asbury Park, N. J	1	2	Hornell, N. Y	6	
Atlantic City, N. J	54	5	Independence, Mo	5	4
Baltimore, Md	8	20	Indianapolis, Ind	13	
Battle Creek, Mich	2		Jackson, Mich	3	3
Beaumont, Tex	11	12	Jersey City, N. J	1	
Bellingham, Wash	1		Kalamazoo, Mich	9	6
Binghamton, N. Y	1		Kansas City, Kans	1	
Bloomfield, N. J	1		Kansas City, Mo	17	34
Boston, Mass	19	15	Kearny, N. J	4	
Bridgeport, Conn	2	18	Lackawanna, N. Y	10	1
Brookline, Mass	3	1	Lawrence, Kans	1	3
Brunswick, Ga	5	6	Lawrence, Mass	1	3
Burlington, Vt	4	4	Lincoln, Nebr	1	
Butte, Mont	82	8	Little Rock, Ark	6	27
Cadillac, Mich	12	8	Long Beach, Cal	10	2
Cambridge, Mass	3	1	Los Angeles, Cal	32	265
Cape Girardeau, Mo	3	1	Louisville, Ky	1	22
Centralia, Ill	4		Lynn, Mass	1	2
Chelsea, Mass	1	3	McAlester, Okla	5	1
Chicago, Ill	602	155	Manchester, Conn	1	1
Chillicothe, Ohio	4	1	Manitowoc, Wis	10	6
Cleveland, Ohio	155	82	Melrose, Mass	3	
Columbus, Ga	11	8	Middletown, N. Y	1	1
Corpus Christi, Tex	3	2	Montclair, N. J	2	2
Cranston, R. I	2	2	Morgantown, W. Va	5	
Dayton, Ohio	20	4	Mount Vernon, N. Y	3	2
Detroit, Mich	41	68	Newark, N. J	56	29
East Orange, N. J	4	1	New Bedford, Mass	6	8
Elgin, Ill	124	3	New Britain, Conn	3	
Englewood, N. J	1	2	Newburgh, N. Y	1	4
Evansville, Ind	8	4	Newburyport, Mass	1	1
Fall River, Mass	2	3	New London, Conn	2	5
Fitchburg, Mass	1		New York, N. Y	716	568
Fort Worth, Tex	18	16	North Adams, Mass	4	4
Fremont, Ohio	2	1	Norwood, Ohio	10	3
Gardner, Mass	2	1	Oak Park, Ill	4	4
Garfield, N. J	3	2	Oklahoma City, Okla	12	8
Grand Rapids, Mich	31	7	Orange, N. J	10	5
Green Bay, Wis	2		Palestine, Tex	4	
Hancock, Mich	2	2	Pasadena, Cal	2	1
Haverhill, Mass	11	4	Passaic, N. J	24	5

PNEUMONIA—Continued.

City Reports for Week Ended Nov. 16, 1918—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Peoria, Ill	275	15	Santa Cruz, Cal	4	1
Philadelphia, Pa	9	38	Saratoga Springs, N. Y	1	.....
Piqua, Ohio	1	1	Sault Ste. Marie, Mich	12	12
Plainfield, N. J	1	.....	Schenectady, N. Y	2	2
Pontiac, Mich	1	1	Sioux Falls, S. Dak	8	.....
Portsmouth, Ohio	8	1	Springfield, Ill	1	20
Quincy, Ill	10	7	Springfield, Mass	22	15
Redlands, Cal	1	.....	Stockton, Cal	65	.....
Richmond, Va	1	7	Toledo, Ohio	3	15
Roanoke, Va	5	.....	Trenton, N. J	1	1
Rochester, N. Y	11	3	Urbana, Ill	2	.....
Rome, N. Y	4	.....	Waco, Tex	7	7
San Diego, Cal	1	3	Westfield, Mass	1	3
Sandusky, Ohio	10	8	Wichita, Kans	7	.....
San Francisco, Cal	17	17	Yonkers, N. Y	12	5
Santa Ana, Cal	4	2			

RABIES IN ANIMALS.

City Reports for Week Ended Nov. 16, 1918.

During the week ended November 16, 1918, rabies in animals was reported as follows: Covington, Ky., one case; Memphis, Tenn., two cases; Poughkeepsie, N. Y., three cases.

SCARLET FEVER.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Dodge zone, Iowa	8	Fort Oglethorpe zone, Ga. and Tenn	1
Camp Funston zone, Kans	1	Camp Pike zone, Ark	6
Camp Gordon zone, Ga	3	Camp Polk zone, N. C	2
Camp Lewis zone, Wash	1	Camp Travis zone, Tex	2
Camp McClellan zone, Ala	1	Camp Wheeler zone, Ga	3
Camp Merrit zone, N. J	4		

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 2195.

SMALLPOX.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Gas and Flame School zone, Ga. and Ala	2	Camp Humphreys zone, Va	1
Gerstner Field zone, La	1	Fort Leavenworth zone, Kans.	1
Camp Gordon zone, Ga.	5	Camp Wadsworth zone, S. C.	1

Kansas Report for October, 1918--Vaccination Histories.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within seven years preceding attack.	Number last vaccinated more than seven years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Kansas:						
Anderson County—						
Richmond (R. D.)	2				2	
Butler County—						
Latham (R. D.)	1				1	
Chautauqua County—						
Cedarvale	1				1	
Cherokee County—						
Baxter Springs	1				1	
Galena	1				1	
Cowley County—						
Arkansas City	2				2	
Cedarvale (R. D.)	1				1	
Winfield (4 R. D.)	11			2	9	
Douglas County—						
Lawrence	1				1	
Franklin County—						
Ottawa	1				1	
Richmond	10				10	
Geary County—						
Alta Vista (R. D.)	3				3	
Hamilton County—						
Hatton	3				3	
Jackson County—						
Whiting	1				1	
Jewell County—						
Courtland (R. D.)	1				1	
Labette County—						
Parsons	2				2	
Marion County—						
Hillsboro	1				1	
Marshall County—						
Oketo (R. D.)	1				1	
Neosho County—						
Erie	1				1	
Pottawatomie County—						
Wamego (R. D.)	1				1	
Riley County—						
Ogden	1				1	
Sedgwick County—						
Wichita (1 R. D.)	23				23	
Seward County—						
Liberal	1		1			
Sherman County—						
Goodland	2				2	
Sumner County—						
Anson	2				2	
Belle Plaine (R. D.)	4				4	
Perth (3 R. D.)	4				4	
South Haven	3				3	
Trego County—						
Collier (R. D.)	1				1	
Wyandotte County—						
Kansas City	2				2	
Total	89		1	2	86	

SMALLPOX—Continued.

State Reports for October, 1918.

Place.	Cases.	Deaths.
Iowa:		
Benton County	1	
Boone County	4	
Cerro Gordo County	5	
Clayton County	1	
Clinton County	6	
Dickinson County	2	
Dubuque County	11	
Floyd County	1	
Hamilton County	1	
Hardin County	1	
Harrison County	5	
Jasper County	3	
Linn County	5	
Lucas County	1	
Marshall County	2	
Montgomery County	1	
Polk County	15	
Pottawattamie County	5	
Scott County	2	
Wapello County	2	
Webster County	5	
Total	79	
Mississippi:		
Attala County	2	
Bolivar County	7	
Chickasaw County	2	
Choctaw County	4	
Clay County	12	
Holmes County	3	
Jones County	1	
Leflore County	2	
Monroe County	8	
Panola County	2	
Pike County	1	
Mississippi—Continued.		
Sunflower County	9	
Tallahatchie County	1	
Tate County	1	
Warren County	1	
Yalobusha County	1	
Yazoo County	1	
Total	58	
North Dakota:		
Bowman County	1	
Morton County	1	
Total	2	
South Dakota:		
Douglas County	1	
Grant County	1	
McCook County	4	
Minnehaha County	2	
Union County	3	
Walworth County	9	
Total	20	
West Virginia:		
Fayette County	1	
Kanawha County	3	
Mercer County	1	
Monroe County	2	
Morgan County	2	
Raleigh County	9	
Wyoming County	1	
Total	19	

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.
Atlanta, Ga	2	
Beaumont, Tex	4	2
Buffalo, N. Y	1	
Burlington, Iowa	12	
Cape Girardeau, Mo	2	
Charlotte, N. C	1	
Cleveland, Ohio	13	
Colorado Springs, Colo	1	
Council Bluffs, Iowa	1	
Denver, Colo	12	
Des Moines, Iowa	4	
Detroit, Mich	1	
Elyria, Ohio	2	
Escanaba, Mich	1	
Fort Dodge, Iowa	1	
Fort Worth, Tex	1	
Frankfort, Ind	1	
Grand Rapids, Mich	2	
Indianapolis, Ind	1	
Kansas City, Mo	1	
Logansport, Ind	2	
Lorain, Ohio	1	
Los Angeles, Cal	1	
Marinette, Wis	6	
Marshalltown, Iowa	6	
Minneapolis, Minn	1	
Muskogee, Okla	3	
Oakland, Cal	2	
Ogden, Utah	12	
Oklahoma City, Okla	2	
Omaha, Nebr	34	
Portland, Oreg	5	
Saginaw, Mich	6	
St. Joseph, Mo	1	
St. Paul, Minn	28	
Salt Lake City, Utah	7	
San Francisco, Cal	1	
San Jose, Cal	1	
Seattle, Wash	6	
Spokane, Wash	3	
Superior, Wis	5	
Tacoma, Wash	4	
Tiffin, Ohio	1	
Vancouver, Wash	2	
Waterloo, Iowa	1	
Wichita, Kans	7	
Zanesville, Ohio	1	

SYPHILIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	7	Camp Pike zone, Ark	4
Camp Gordon zone, Ga	11	Portsmouth and Norfolk County health district, Va	2
Camp Greene zone, N. C	7	Portsmouth-Kittery sanitary district, N. H. and Me	2
Gulfport health district, Miss	2	Camp Shelby zone, Miss	1
Camp Jackson zone, S. C	8	Camp Sheridan zone, Ala	1
Camp Joseph E. Johnston zone, Fla	19	Camp Zachary Taylor zone, Ky. and Ind	19
Fort Leavenworth zone, Kans	2	Camp Travis zone, Tex	1
Camp Lee zone, Va	1	Camp Wadsworth zone, S. C	1
Camp MacArthur zone, Tex	1		
Camp McClellan zone, Ala	1		

TETANUS.

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Houston, Tex		1	St. Louis, Mo	1	
Indianapolis, Ind		1	Staunton, Va	1	
Mobile, Ala		1	San Diego, Cal	1	1
Newark, N. J	1		Toledo, Ohio		1
New York, N. Y		1			

TUBERCULOSIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Beauregard zone, La	2	Picric Acid Plant zone, Ga	1
Camp Bowie zone, Tex	1	Camp Pike zone, Ark	1
Camp Doniphan zone, Okla	1	Camp Polk zone, N. C	1
Gas and Flame School zone, Ga. and Ala	1	Portsmouth and Norfolk County health district, Va	3
Camp Gordon zone, Ga	3	Camp Shelby zone, Miss	1
Gulfport health district, Miss	4	Camp Zachary Taylor zone, Ky. and Ind	7
Camp Joseph E. Johnston zone, Fla	2	Camp Travis zone, Tex	5
Fort Leavenworth zone, Kans	4	Camp Upton zone, N. Y	3
Camp MacArthur zone, Tex	1	Wilmington sanitary district, N. C	1
New London sanitary district, Conn	7		

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 2195.

TYPHOID FEVER.

Cases Reported in Extra-Cantonment Zones, Week Ended Nov. 30, 1918.

	Cases.		Cases.
Camp Bowie zone, Tex	2	Picric Acid Plant zone, Ga	1
Charleston sanitary district, S. C	1	Camp Pike zone, Ark	1
Gas and Flame School zone, Ga. and Ala	1	Camp Polk zone, N. C	5
Camp Gordon zone, Ga	1	Camp Zachary Taylor zone, Ky. and Ind	4
Gulfport health district, Miss	1	Tidewater health district, Va	1
Camp Humphreys zone, Va	1	Camp Travis zone, Tex	5
New London sanitary district, Conn	1	Wilmington sanitary district, N. C	1

TYPHOID FEVER—Continued.

State Reports for October, 1918.

Place.	New cases reported.
Connecticut:	
Fairfield County—	
Norwalk	1
Westport	1
Hartford County—	
Bristol	1
Hartford	3
West Hartford	1
Litchfield County—	
Plymouth	1
Woodbury	2
New Haven County—	
New Haven	9
North Haven	1
Seymour	1
Waterbury	6
New London County—	
New London	1
Preston	1
Windham County—	
Sterling	
Total	30
Kansas:	
Anderson County—	
Centerville	1
Bourbon County—	
Hiattville (R. D.)	1
Uniontown	2
Brown County—	
Hiwatha (R. D.)	2
Horton	1
Butler County—	
Augusta (1 R. D.)	3
Douglass	1
Eldorado (2 R. D.)	11
Chase County—	
Cottonwood Falls	1
Elmdale (R. D.)	1
Strong City	1
Chautauqua County—	
Sedan	1
Cherokee County—	
Baxter Springs	7
Columbus	1
Galena (2 R. D.)	6
Scammon (R. D.)	1
Clark County—	
Ashland	1
Coffey County—	
Burlington	1
Strawn (R. D.)	1
Waverly	1
Cowley County—	
Atlanta	1
Arkansas City	1
Grainola, Okla. (R. D.)	1
Udall (R. D.)	1
Crawford County—	
Arcadia	1
Franklin	4
Mulberry	3
Pittsburg (1 R. D.)	3
Walnut (R. D.)	2
Dickinson County—	
Hope	1
Doniphan County—	
Troy (R. D.)	1
Edwards County—	
Lewis	2
Elk County—	
Howard	1
Finney County—	
Garden City	5
Ford County—	
Fort Dodge	1
Gray County—	
Copeland	1
Kansas—Continued.	
Greenwood County—	
Eureka	2
Hamilton	1
Severy	1
Harper County—	
Bluff City (R. D.)	2
Attica (R. D.)	2
Runnymede	1
Jefferson County—	
Meriden	2
Johnson County—	
Olathe	1
Spring Hill (R. D.)	1
Kingman County—	
Kingman	2
Zenda (R. D.)	1
Labette County—	
Altamont	2
Parsons	1
Leavenworth County—	
Jarbalo	1
Leavenworth (1 R. D.)	1
Lincoln County—	
Bernard (R. D.)	1
Linn County—	
La Cygne (R. D.)	1
Lyon County—	
Emporia	2
Marion County—	
Lincolnville (R. D.)	2
Lost Springs	1
Marion (R. D.)	1
Marshall County—	
Vliets	1
Meade County—	
Fowler	2
Montgomery County—	
Cancy	2
Coffeyville (1 R. D.)	10
Dearing	1
Havana	1
Liberty (2 R. D.)	2
Independence	2
Morris County—	
Dunlap	1
Morton County—	
Elkhart	1
Nemaha County—	
Corning (R. D.)	1
Neosho County—	
Chanute	1
Erie (R. D.)	1
Thayer (R. D.)	1
Ness County—	
Arnold (R. D.)	1
Norton County—	
Edmond	1
Norton	1
Osage County—	
Burlingame (R. D.)	1
Lyndon (R. D.)	3
Melvern	1
Ottawa County—	
Minneapolis	1
Miltonvale (R. D.)	1
Pawnee County—	
Larned	2
Pratt County—	
Preston	2
Reno County—	
Hutchinson (1 R. D.)	2
Republic County—	
Belleville (R. D.)	1
Riley County—	
Manhattan (R. D.)	1
Rooks County—	
Webster (R. D.)	1

TYPHOID FEVER—Continued.

State Reports for October, 1918—Continued.

Place.	New cases reported.
Kansas—Continued.	
Russell County—	
Dorrance	1
Scott County—	
Scott City	1
Sedgwick County—	
Colwich	1
Derby	2
Wichita	12
Seward County—	
Liberal	2
Shawnee County—	
Topeka	3
Smith County—	
Lebanon	1
Summer County—	
Belle Plaine (1 R. D.)	2
Wellington	1
Wabaunsee County—	
Alta Vista (R. D.)	1
Washington County—	
Haddam	3
Washington	1
Wilson County—	
Fall River	3
Fredonia (2 R. D.)	5
Neodesha	3
Woodson County—	
Neosho Falls (R. D.)	1
Yates Center (1 R. D.)	2
Wyandotte County—	
Bonner Springs	1
Kansas City	6
Total	201
Mississippi:	
Adams County	5
Alcorn County	3
Amite County	3
Attala County	8
Bolivar County	33
Calhoun County	5
Carroll County	2
Chickasaw County	4
Clarke County	1
Coahoma County	12
Copiah County	12
Covington County	3
De Soto County	7
Forrest County	1
Franklin County	3
Hinds County	3
Holmes County	2
Itawamba County	1
Jasper County	8
Jefferson Davis County	3
Kemper County	6
Lafayette County	15
Lamar County	2
Lauderdale County	2
Leflore County	11
Lincoln County	5
Lowndes County	2
Madison County	8
Marion County	3
Marshall County	12

Place.	New cases reported.
Mississippi—Continued.	
Monroe County	5
Neshoba County	3
Newton County	7
Oktibbeha County	1
Panola County	16
Perry County	1
Pike County	2
Pontotoc County	7
Prentiss County	5
Scott County	2
Sharkey County	1
Simpson County	1
Smith County	2
Stone County	1
Sunflower County	7
Tallahatchie County	9
Tate County	8
Tunica County	4
Union County	8
Walthall County	3
Warren County	6
Washington County	4
Wayne County	2
Winston County	7
Yalobusha County	2
Yazoo County	6
Total	305
North Dakota:	
Burleigh County	3
Cass County	5
Emmons County	1
Grand Forks County	1
McKenzie County	3
Morton County	7
Pembina County	1
Stutsman County	3
Walsh County	1
Total	25
South Dakota:	
Clark County	2
Davison County	4
McCook County	1
Minnehaha County	2
Roberts County	2
Walworth County	2
Total	13
West Virginia:	
Braxton County	6
Hampshire County	2
Hancock County	2
Jefferson County	1
Kanawha County	8
Marshall County	3
Marion County	9
Mercer County	3
Monongalia County	1
Monroe County	4
Total	39

TYPHOID FEVER—Continued.

City Reports for Week Ended Nov. 16, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Albuquerque, N. Mex		1	Los Angeles, Cal	1	1
Allentown, Pa	1		Ludington, Mich	2	
Ann Arbor, Mich		1	McAlester, Okla	2	
Baltimore, Md	1		Medford, Mass	1	
Beaumont, Tex		1	Memphis, Tenn	4	
Beverly, Mass	1		Middletown, N. Y	2	
Bridgeport, Conn	1		Minneapolis, Minn	3	
Buffalo, N. Y	1		Montgomery, Ala	1	
Cape Girardeau, Mo	2		Nashville, Tenn	1	
Centralia, Ill	1		Natick, Mass	1	
Chicago, Ill	1		New Bedford, Mass	1	
Cincinnati, Ohio	2	1	New Orleans, La	8	1
Cleveland, Ohio		1	Newport, R. I	1	
Coffeyville, Kans	2		New York, N. Y	15	4
Columbia, S. C	1		Northampton, Mass	2	
Columbus, Ga	1		Oakland, Cal	1	1
Cortland, N. Y	1		Oklahoma City, Okla	1	
Denver, Colo	1		Philadelphia, Pa	2	2
Detroit, Mich	1		Piqua, Ohio	1	
Durham, N. C	2		Richmond, Va	2	
East Orange, N. J	1		Rome, N. Y	1	
Elgin, Ill	1		Sacramento, Cal		1
El Paso, Tex		1	Saginaw, Mich	1	
Fall River, Mass	2		St. Louis, Mo	24	1
Fort Worth, Tex	3		St. Paul, Minn		1
Galveston, Tex	1		San Francisco, Cal	1	
Hartford, Conn	1		Sault Ste. Marie, Mich	1	
Highland Park, Mich	1		South Bend, Ind	1	
Holyoke, Mass	1		Staunton, Va	5	
Houston, Tex	1		Topeka, Kans	•2	
Independence, Mo	2	1	Trinidad, Colo	1	
Indianapolis, Ind	1		Utica, N. Y	2	
Kankakee, Ill	1		Walla Walla, Wash	3	
Kansas City, Kans	2		Washington, D. C	1	
Kansas City, Mo	1		Wheeling, W. Va	1	
Knoxville, Tenn	1		Winston-Salem, N. C	1	
Little Rock, Ark	1				

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for October, 1918.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Connecticut	248	204	118	North Dakota	11	8	2
Iowa	114		110	South Dakota	21	2	18
Kansas	116	66	134	West Virginia	26	5	23
Mississippi	109	119	50				

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

City Reports for Week Ended Nov. 16, 1918.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Abilene, Tex.	14,954	1			1				4	
Akron, Ohio	93,604	59	8		2				2	
Alameda, Cal.	28,433	15							3	1
Albuquerque, N. Mex.	14,509	13	1							4
Alexandria, La.	16,232	10								2
Allentown, Pa.	65,109		6		4		1			
Alton, Ill.	23,783	25	1							
Altoona, Pa.	59,712		23				1			
Amarillo, Tex.	20,882	3								2
Anderson, Ind.	24,250	6	1							
Arlington, Mass.	13,073	11								
Asbury Park, N. J.	14,629	5	1						2	
Atlanta, Ga.	196,144	69	4				3		6	2
Atlantic City, N. J.	59,515	10								
Attleboro, Mass.	19,776	2								
Auburn, N. Y.	37,823	11	1				3			1
Baltimore, Md.	594,637	234	13	3	3		7		47	22
Barre, Vt.	12,401	5								2
Battle Creek, Mich.	30,159	3	2		1		1			
Bayonne, N. J.	72,204		11				2			
Beacon, N. Y.	11,674	12								
Beatrice, Nebr.	10,437	15								1
Beaumont, Tex.	28,851		1							
Bedford, Ind.	10,613	4					1		1	
Bellingham, Wash.	34,362						1			
Beloit, Wis.	18,547	12								
Berkeley, Cal.	60,427		3							
Berlin, N. H.	13,892	3								
Bethlehem, Pa.	14,353		5		1				1	
Beverly, Mass.	22,128	4								
Biddeford, Me.	17,760	4								
Binghamton, N. Y.	54,864		1				2		3	2
Birmingham, Ala.	189,716	86	6				3		6	5
Boise, Idaho	35,951	10								
Boston, Mass.	767,813	230	38	3	4		22		46	28
Brazil, Ind.	10,472	8								
Bridgeport, Conn.	124,724	84	12	1	1		1		7	5
Bristol, Conn.	16,318	5	1							
Brookline, Mass.	33,526	7					1		1	
Brunswick, Ga.	10,984	9	1							1
Buffalo, N. Y.	475,781	199	29		4	1	9	1	19	15
Burlington, Iowa.	25,144	14					2			
Burlington, Vt.	21,802	14	1		2					
Butler, Pa.	28,677		6							
Butte, Mont.	44,057	41	3				1			
Cairo, Ill.	15,995	9	1		1					
Cambridge, Mass.	114,293	28	7	1	1				3	4
Camden, N. J.	108,117		4				1		5	
Canton, Ill.	13,674	3								
Cape Girardeau, Mo.	11,146	3	1				1			2
Carbondale, Pa.	19,597						1			
Cedar Rapids, Iowa.	38,033						1			
Champaign, Ill.	15,052	5								
Charleston, S. C.	61,041	23								2
Charleston, W. Va.	31,060	19	3							
Charlotte, N. C.	40,759	18	1						2	2
Chelsea, Mass.	43,405	15			1					
Chester, Pa.	41,857		1							
Chicago, Ill.	2,547,201	923	106	7	13		22	1	153	72
Chicopee, Mass.	29,950	16								
Chillicothe, Ohio.	15,625	5	2	1	1					
Cincinnati, Ohio.	414,248	203	16		1		2		5	12
Cleveland, Ohio.	692,259	518	30	4	2		10		11	20
Clinton, Mass.	[1] 13,075	5								
Cohoes, N. Y.	25,292	16	1							1
Colorado Springs, Colo.	33,965	26					2		2	4
Columbia, S. C.	35,135		1				1			
Columbus, Ga.	26,306	20	1							
Columbus, Ohio.	220,135	90	3		1		8		6	5
Corpus Christi, Tex.	10,789	5								1
Cortland, N. Y.	13,321	3								
Council Bluffs, Iowa.	31,838	18	1	1			2			

[1] Population Apr. 15, 1910.

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

City Reports for Week Ended Nov. 16, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Covington, Ky	59,623	15	2	1			1		2	
Cranston, R. I	26,773	13								
Crawfordsville, Ind	11,443	5								1
Cumberland, R. I	10,968	3								
Danville, Ill	32,969	22	1							
Danville, Va	20,183	10								
Davenport, Iowa	49,618		2				2			
Dayton, Ohio	128,959		7				2		2	1
Dedham, Mass	10,618	2								
Denver, Colo	268,439	125	6	1	1		2			16
Des Moines, Iowa	104,052		10				10			
Detroit, Mich	619,648	338	71	6	1		16	1	25	13
Dover, N. H	13,276	7								
Dubois, Pa	14,994						1			
Dubuque, Iowa	40,096		1							
Duluth, Minn	97,077	56	3							2
Dunkirk, N. Y	21,311	10								
Durham, N. C	26,160	5							1	1
East Chicago, Ind	30,286	10								
East Cleveland, Ohio	13,864		2							
Easthampton, Mass	10,656		3						1	
Easton, Pa	30,854		1							
East Orange, N. J	43,761	6					1		3	2
East Providence, R. I	18,485		1							
Elgin, Ill	28,562	8			1					
El Paso, Tex	69,149	41	2				1			8
Elyria, Ohio	19,503	12								
Englewood, N. J	12,603	2	3				5			
Erie, Pa	76,592		6				1			
Escanaba, Mich	15,854	5					2			
Evanston, Ill	29,304	14							1	
Evansville, Ind	76,981		5				1		3	2
Everett, Mass	40,160	8			1				1	
Everett, Wash	37,205		1						1	
Fall River, Mass	129,828	69	2		3		1		9	8
Fargo, N. Dak	17,872	16								
Findlay, Ohio	[1] 14,858						3			
Fitchburg, Mass	42,419	11	4				2			1
Fond du Lac, Wis	21,486	10					1			
Fort Dodge, Iowa	21,039	1	1							
Fort Scott, Kans	10,564	7								
Fort Worth, Tex	109,597	44	4						1	1
Fostoria, Ohio	10,959	3								
Framingham, Mass	14,149	5	1							
Fremont, Ohio	11,034	1								
Fresno, Cal	36,314	25								
Galesburg, Ill	24,629	12								1
Galveston, Tex	42,650	15								
Gardner, Mass	17,554		1							
Garfield, N. J	15,109	4							1	
Geneva, N. Y	13,915	2					1			
Grand Rapids, Mich	132,861	55	9	1	1		12		6	
Green Bay, Wis	30,017	16	1						1	1
Greenfield, Mass	12,251	7								
Greenwich, Conn	19,594				1		2		2	3
Hackensack, N. J	17,412	10								
Hancock, Mich	12,578	3								
Hartford, Conn	112,831		6	1	15				6	4
Hattiesburg, Miss	17,357		3		1					
Haverhill, Mass	49,180	13	2							1
Helena, Ark	11,122	5							1	
Henderson, Ky	12,312	5								
Highland Park, Mich	33,859	8	5				1			
Hoboken, N. J	78,324	22	1						1	2
Holland, Mich	12,459	3								1
Holyoke, Mass	66,503	37	2				1		2	1
Hornell, N. Y	14,857		1							
Houston, Tex	116,878	40	5							3
Hudson, N. Y	12,893	8								
Independence, Mo	11,964	11	2						2	
Indianapolis, Ind	283,622	103	7		3		2		6	6
Ithaca, N. Y	16,017	4					4		2	1

[1] Population Apr. 15, 1910.

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

City Reports for Week Ended Nov. 16, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Jackson, Mich.	35,993	15	1				4			1
Jacksonville, Ill.	15,506	15								
Janesville, Wis.	14,411	5	1							
Jersey City, N. J.	312,557		7				4		15	
Johnstown, N. Y.	10,673	3								
Kalamazoo, Mich.	50,408	23	7	1					2	3
Kankakee, Ill.	14,270	3	1							
Kansas City, Kans.	102,096		7						1	
Kansas City, Mo.	305,816	158	7		2				1	8
Kearny, N. J.	24,325	20	1				1		4	1
Kenosha, Wis.	32,833	7	6	2	1		4			
Knoxville, Tenn.	59,112		3		1		6		2	2
Kokomo, Ind.	21,929	10		1						1
Lackawanna, N. Y.	16,219	10			9					
La Crosse, Wis.	31,833	17							1	2
La Fayette, Ind.	21,431	3								
Lancaster, Pa.	51,437		4		1				1	
Lawrence, Kans.	13,477	3					2			
Lawrence, Mass.	102,923	37	1						4	2
Leavenworth, Kans.	[1] 19,363	10	1				1			
Lebanon, Pa.	20,947						1			
Lima, Ohio.	37,145	12	2				13			1
Lincoln, Nebr.	46,957	30	2							2
Little Rock, Ark.	58,716	35	1		4		1		2	2
Logansport, Ind.	21,338	6					1			1
Long Beach, Cal.	29,163	27					1			
Lorain, Ohio.	38,266						2			
Los Angeles, Cal.	535,485	415	15	2	1		3		34	21
Louisville, Ky.	240,808	97	6						6	7
Lowell, Mass.	114,366	26	10	1			2		4	
Lynchburg, Va.	33,497	15								1
Lynn, Mass.	104,534	28	6		2		1		1	2
McAlester, Okla.	19,398	3								
McKeesport, Pa.	48,290		3				3			
Madison, Wis.	31,315	11			1					
Malden, Mass.	52,243	10	1						3	
Manchester, Conn.	15,859	3								
Manchester, N. H.	79,607	25	1				2		8	2
Manistee, Mich.	[1] 12,381						1			
Manitowoc, Wis.	13,931	10								
Marinette, Wis.	[1] 14,610	8					2			
Marion, Ind.	19,923	4	4							
Marion, Ohio.	24,129	3					1			
Marshalltown, Iowa.	14,519		2				1			
Martins Ferry, Ohio.	10,135	2	1							
Medford, Mass.	26,081	12	2							
Melrose, Mass.	17,724	5			1				2	
Memphis, Tenn.	151,877	44	3	1					8	7
Methuen, Mass.	14,320	1							3	
Middletown, N. Y.	15,890				1					1
Middletown, Ohio.	16,584	4								
Milwaukee, Wis.	445,068	155	7	1	2		25		32	8
Minneapolis, Minn.	373,448		16	3					8	7
Missoula, Mont.	19,075	18								
Mobile, Ala.	59,251	26	4		1	1			1	3
Moline, Ill.	27,976	17	2							
Monessen, Pa.	23,070		3							
Montclair, N. J.	27,087	2							3	
Montgomery, Ala.	44,039	8	2						1	
Morgantown, W. Va.	14,444	6								
Morristown, N. J.	13,410	10	1							
Mount Vernon, N. Y.	37,991	11	1						1	1
Mount Vernon, Ohio.	10,877	11								
Muscatine, Iowa.	17,713		1							
Muskogee, Okla.	47,173						3			
Nanticoke, Pa.	23,811				2		1			
Nashua, N. H.	27,541	4								1
Nashville, Tenn.	118,136	45			5		3		2	7
Natick, Mass.	10,140	2								
New Albany, Ind.	23,629	7							1	
Newark, N. J.	418,789	179	23	1			6		25	9
Newark, Ohio.	30,317	10					4			
New Bedford, Mass.	121,622	44	1				1		6	5

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS Con.

City Reports for Week Ended Nov. 16, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New Britain, Conn.	55,385	.....	7	1	.....	.....	1	.....	.....	.....
Newburgh, N. Y.	29,893	14	2	.....	.....	.....	.....	.....	2	.....
Newburyport, Mass.	15,291	4	.....	.....	.....	.....	.....	.....	.....	.....
New Castle, Pa.	41,915	.....	1	.....	.....	.....	.....	.....	.....	.....
New Haven, Conn.	152,275	100	5	.....	.....	.....	4	.....	3	2
New London, Conn.	21,199	16	1	.....	.....	.....	.....	.....	2	.....
New Orleans, La.	377,010	198	2	.....	1	.....	1	.....	20	14
Newport, Ky.	32,133	19	1	1	.....	.....	.....	.....	1	1
Newport, R. I.	30,585	4	.....	.....	.....	.....	.....	.....	.....	1
Newton, Mass.	44,345	8	2	.....	1	.....	1	.....	.....	.....
New York, N. Y.	5,737,492	2,282	175	27	15	.....	58	.....	97	153
Niagara Falls, N. Y.	38,466	31	.....	.....	.....	.....	2	.....	.....	.....
North Adams, Mass.	[1] 22,019	24	.....	.....	.....	.....	.....	.....	1	1
Northampton, Mass.	20,006	12	2	.....	.....	.....	.....	.....	.....	.....
North Attleboro, Mass.	11,218	3	1	.....	.....	.....	.....	.....	1	1
North Braddock, Pa.	15,684	.....	.....	.....	.....	.....	1	.....	1	.....
Norwalk, Conn.	27,332	7	.....	.....	.....	.....	.....	.....	.....	.....
Norwood, Ohio.	23,269	5	.....	.....	.....	.....	.....	.....	.....	.....
Oakland, Cal.	206,405	121	.....	.....	.....	.....	2	.....	8	2
Oak Park, Ill.	27,816	15	1	.....	.....	.....	.....	.....	1	1
Ogden, Utah.	32,343	22	.....	.....	.....	.....	.....	.....	.....	.....
Oil City, Pa.	20,162	.....	1	.....	.....	.....	1	.....	.....	.....
Oklahoma City, Okla.	97,588	32	.....	.....	.....	.....	.....	.....	.....	1
Olean, N. Y.	16,927	4	.....	.....	.....	.....	.....	.....	.....	.....
Omaha, Nebr.	177,777	88	4	1	.....	.....	1	.....	.....	3
Orange, N. J.	33,636	14	2	.....	.....	.....	1	.....	2	.....
Palestine, Tex.	12,075	2	.....	.....	.....	.....	.....	.....	.....	.....
Parkersburg, W. Va.	21,059	7	.....	.....	.....	.....	.....	.....	.....	.....
Pasadena, Cal.	49,620	14	.....	.....	.....	.....	.....	.....	1	1
Passaic, N. J.	74,478	20	8	1	.....	.....	1	.....	.....	.....
Peabody, Mass.	18,785	12	1	1	1	.....	1	.....	.....	.....
Peekskill, N. Y.	19,034	9	.....	.....	.....	.....	.....	.....	.....	2
Perth Amboy, N. J.	42,646	14	1	.....	.....	.....	.....	.....	.....	.....
Philadelphia, Pa.	1,735,514	612	64	10	6	.....	10	.....	50	51
Piqua, Ohio.	14,275	8	.....	.....	.....	.....	.....	.....	.....	.....
Pittsburgh, Pa.	586,196	.....	20	.....	1	.....	4	.....	10	.....
Pittsfield, Mass.	39,678	8	.....	.....	.....	.....	.....	.....	.....	.....
Plainfield, N. J.	24,330	7	.....	.....	.....	.....	.....	.....	.....	.....
Plymouth, Mass.	14,001	5	.....	.....	.....	.....	.....	.....	.....	.....
Plymouth, Pa.	19,439	.....	.....	.....	.....	.....	1	.....	.....	.....
Pocatello, Idaho.	12,806	16	4	.....	.....	.....	.....	.....	.....	.....
Pontiac, Mich.	18,006	8	.....	.....	.....	.....	1	.....	.....	.....
Port Chester, N. Y.	16,727	5	.....	.....	.....	.....	.....	.....	.....	.....
Portland, Me.	64,720	26	.....	.....	.....	.....	.....	.....	.....	2
Portland, Oreg.	308,399	148	3	3	1	.....	.....	.....	1	6
Portsmouth, N. H.	11,730	.....	1	.....	.....	.....	.....	.....	.....	.....
Portsmouth, Ohio.	29,356	.....	3	.....	.....	.....	2	.....	.....	.....
Poughkeepsie, N. Y.	30,786	15	1	.....	.....	.....	1	.....	3	.....
Providence, R. I.	259,895	101	13	2	.....	.....	10	.....	.....	10
Quincy, Ill.	36,832	16	1	.....	.....	.....	1	.....	.....	1
Quincy, Mass.	39,022	13	2	.....	.....	.....	1	.....	1	2
Rahway, N. J.	10,361	5	.....	.....	.....	.....	2	.....	.....	.....
Raleigh, N. C.	20,274	21	.....	.....	.....	.....	.....	.....	.....	2
Reading, Pa.	111,607	.....	8	.....	3	.....	.....	.....	.....	.....
Redlands, Cal.	14,573	1	.....	.....	.....	.....	.....	.....	.....	.....
Richmond, Va.	158,702	70	6	1	.....	.....	3	.....	14	7
Riverside, Cal.	20,496	.....	1	.....	.....	.....	1	.....	.....	1
Roanoke, Va.	46,282	16	2	.....	.....	.....	4	.....	1	1
Rochester, N. Y.	264,714	104	1	.....	2	.....	1	.....	3	2
Rockford, Ill.	56,739	17	.....	.....	.....	.....	.....	.....	.....	1
Rock Island, Ill.	29,452	13	.....	.....	.....	.....	.....	.....	.....	.....
Rocky Mount, N. C.	12,673	3	.....	.....	.....	.....	.....	.....	.....	.....
Rome, N. Y.	24,259	.....	.....	.....	.....	.....	.....	.....	1	.....
Rutland, Vt.	15,038	8	1	.....	.....	.....	.....	.....	.....	1
Sacramento, Cal.	68,984	112	3	.....	1	.....	.....	.....	.....	2
Saginaw, Mich.	56,469	21	3	1	6	.....	.....	.....	.....	.....
St. Joseph, Mo.	86,498	48	6	.....	.....	.....	2	.....	1	1
St. Louis, Mo.	768,630	393	37	2	5	.....	12	1	38	20
St. Paul, Minn.	252,465	175	9	1	3	.....	5	3	11	8
Salt Lake City, Utah.	121,623	36	7	.....	.....	.....	4	.....	.....	.....
San Diego, Cal.	56,412	49	3	.....	.....	.....	.....	.....	7	7
San Francisco, Cal.	471,023	552	4	.....	3	.....	.....	.....	25	14

[1] Population Apr. 15, 1910.

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

City Reports for Week Ended Nov. 16, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Santa Ana, Cal.	10,981	10	.....	.....	.....	.....	.....	.....	1	1
Santa Cruz, Cal.	15,150	5	.....	.....	.....	.....	.....	.....	.....	.....
Saratoga Springs, N. Y.	13,839	6	.....	.....	.....	.....	.....	.....	.....	.....
Sault Ste. Marie, Mich.	14,130	12	1	.....	.....	.....	.....	.....	1	.....
Schenectady, N. Y.	103,774	27	3	.....	.....	.....	.....	.....	4	1
Seattle, Wash.	366,445	.....	4	.....	.....	.....	.....	.....	.....	.....
Shamokin, Pa.	21,274	.....	4	.....	.....	.....	.....	.....	.....	.....
Sharon, Pa.	19,156	.....	2	.....	.....	.....	2	.....	.....	.....
Shenandoah, Pa.	29,753	.....	2	.....	.....	.....	.....	.....	.....	.....
Sioux City, Iowa.	58,568	1	3	.....	.....	.....	.....	.....	.....	.....
Sioux Falls, S. Dak.	16,887	17	.....	.....	.....	.....	.....	.....	.....	.....
Somerville, Mass.	88,618	9	15	.....	.....	.....	.....	.....	.....	1
South Bend, Ind.	70,967	38	.....	.....	2	.....	.....	.....	.....	.....
Southbridge, Mass.	14,465	5	3	.....	.....	.....	.....	.....	1	1
Spartanburg, S. C.	21,985	14	.....	.....	1	.....	.....	.....	2	2
Spokane, Wash.	157,656	.....	3	.....	.....	.....	.....	.....	2	.....
Springfield, Ill.	62,623	37	1	2	.....	.....	.....	.....	.....	1
Springfield, Mass.	108,668	64	2	1	.....	.....	.....	.....	2	1
Springfield, Mo.	41,169	6	.....	.....	.....	.....	.....	.....	.....	2
Springfield, Ohio.	52,296	19	.....	.....	3	1	1	.....	.....	1
Staunton, Va.	11,823	3	.....	.....	.....	.....	.....	.....	.....	.....
Steubenville, Ohio.	28,259	22	1	.....	.....	.....	.....	.....	1	.....
Superior, Wis.	47,167	32	2	.....	.....	.....	.....	.....	.....	.....
Syracuse, N. Y.	158,559	.....	11	1	1	.....	9	.....	3	4
Tacoma, Wash.	117,446	.....	2	.....	.....	.....	3	.....	.....	.....
Taunton, Mass.	36,610	20	.....	.....	.....	.....	1	.....	4	2
Tiffin, Ohio.	12,962	10	.....	.....	.....	.....	.....	.....	.....	.....
Toledo, Ohio.	202,010	107	3	.....	1	.....	7	1	24	4
Topeka, Kans.	49,528	19	5	1	.....	.....	.....	.....	1	.....
Trenton, N. J.	113,974	44	3	.....	2	.....	.....	.....	2	1
Trinidad, Colo.	14,413	.....	.....	.....	2	.....	.....	.....	.....	.....
Troy, N. Y.	78,094	39	1	.....	2	.....	.....	.....	.....	3
Tuscaloosa, Ala.	10,824	7	1	.....	.....	.....	.....	.....	.....	.....
Urbana, Ill.	10,146	.....	1	.....	.....	.....	.....	.....	2	.....
Utica, N. Y.	89,272	33	2	.....	1	.....	2	.....	.....	2
Vallejo, Cal.	13,803	10	.....	.....	.....	.....	.....	.....	.....	.....
Vancouver, Wash.	13,805	.....	7	.....	.....	.....	.....	.....	.....	.....
Waco, Tex.	34,015	23	2	.....	.....	.....	.....	.....	2	2
Walla Walla, Wash.	26,067	.....	.....	.....	.....	.....	2	.....	.....	.....
Waltham, Mass.	31,011	9	.....	.....	.....	.....	.....	.....	.....	2
Warren, Pa.	15,083	.....	1	.....	.....	.....	.....	.....	.....	.....
Washington, D. C.	369,282	141	16	1	4	.....	4	.....	18	14
Waterloo, Iowa.	36,987	13	2	1	.....	.....	1	.....	.....	.....
Wausau, Wis.	19,666	9	.....	.....	.....	.....	.....	.....	.....	.....
Westfield, Mass.	18,769	14	.....	.....	.....	.....	1	.....	2	.....
West Hoboken, N. J.	44,386	8	1	.....	.....	.....	.....	.....	2	1
West New York, N. J.	19,613	.....	1	.....	.....	.....	.....	.....	.....	.....
Wheeling, W. Va.	43,657	55	1	.....	.....	.....	1	.....	1	2
White Plains, N. Y.	23,331	5	.....	.....	.....	.....	.....	.....	.....	.....
Wichita, Kans.	73,597	.....	.....	.....	.....	.....	.....	.....	1	.....
Wilkes-Barre, Pa.	78,334	.....	5	.....	.....	.....	2	.....	.....	.....
Wilmington, Del.	95,369	39	6	.....	.....	.....	.....	.....	.....	2
Wilmington, N. C.	30,400	15	1	.....	.....	.....	.....	.....	6	1
Winchester, Mass.	10,812	5	.....	.....	.....	.....	.....	.....	.....	.....
Winona, Minn.	[1] 18,583	7	2	.....	.....	.....	.....	.....	.....	.....
Winston-Salem, N. C.	33,136	18	1	.....	.....	.....	.....	.....	3	3
Woburn, Mass.	16,076	5	.....	.....	.....	.....	1	.....	.....	.....
Worcester, Mass.	166,106	46	5	.....	1	.....	2	.....	3	6
Yonkers, N. Y.	103,066	27	3	.....	.....	.....	1	.....	7	2
Zanesville, Ohio.	31,320	15	.....	.....	.....	.....	1	.....	.....	.....

[1] Population Apr. 15, 1910.

FOREIGN.

CHINA.

Examination of Rats—Hongkong.

During the two weeks ended September 28, 1918, 3,759 rats were examined at Hongkong. No plague infection was found.

Plague-Infected Rats—Hongkong.

During the three weeks ended October 19, 1918, out of 7,125 rats examined at Hongkong, 4 were found plague infected.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Oct. 21–31, 1918.		Remaining under treatment Oct. 31, 1918.
	New cases.	Deaths.	
Diphtheria	2		4
Leprosy			17
Malaria	28		[1] 55
Measles			3
Paratyphoid fever			3
Scarlet fever	1		2
Typhoid fever	22	5	[2] 116

[1] From the interior, 49. [2] From the interior, 65.

Influenza—Habana—Regla.

During the period from October 21–31, 1918, 1,746 cases of influenza were reported at Habana and 42 cases from Regla, a suburb of Habana.

FRANCE.

Influenza—St. Etienne. [1]

During the period from October 16 to 31, 1918, 67 fatal cases of influenza and 243 fatal cases of broncho-pneumonia were reported at St. Etienne, France.

MOROCCO.

Influenza—Tangier.

On September 30, 1918, an outbreak of influenza, occurring chiefly among the native population, was reported at Tangier, Morocco. From October 5 to 19, 1918, the disease was reported to be increasing in virulence and number of cases.

[1] Public Health Reports, Nov. 29, 1918, p. 2142.

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

Reports Received During Week Ended Dec. 6, 1918.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
West Java				Sept. 12–18, 1918: Cases, 31; deaths, 20.
Batavia	Sept. 12–18	14	12	
Philippine Islands:				
Manila	Oct. 13–19	13	9	
Provinces				Oct. 13–19, 1918: Cases, 175; deaths, 94.
Batangas	Oct. 13–19	76	34	
Bohol	do	3	3	
Bulacan	do	8	5	
Cavite	do	8	7	
Iloilo	do	22	12	
Misamis	do	10	4	
Oriental Negros	do	3	1	
Pangasinan	do	16	13	
Rizal	do	26	13	Including 23 cases and 13 deaths not previously reported.
Union	do	3	2	

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

PLAGUE.

Ecuador:				
Guayaquil	Oct. 1–15	1	1	
India:				
Rangoon	Aug. 11–17	18	18	

SMALLPOX.

Canada:				
Montreal	Oct. 28–Nov. 9	6		
China:				
Foochow	Sept. 1–Oct. 5			Present.
Nanking	Oct. 13–19			Do.
Italy:				
Milan	Aug. 1–31	3		
Java:				
West Java				Sept. 12–18, 1918: Cases, 116; deaths, 33.
Batavia	Sept. 12–18	23	16	
Mexico:				
Vera Cruz	Sept. 23–Oct. 27	1	2	
Newfoundland:				
Bell Island	Nov. 9–15	1		
Bonne Bay	do	1		
Colliers	do	2		
Conche	do	2		
Newton	do	1		
Templeman	do	1		
Portugal:				
Lisbon	Oct. 13–19	25		

TYPHUS FEVER.

China:				
Antung	Oct. 7–13	1	1	

YELLOW FEVER.

Brazil:				
Pernambuco	Aug. 1–15		1	
Ecuador:				
Guayaquil	Oct. 1–15	29	17	
Guatemala				Nov. 17, 1918: 11 cases present.
Escuintla	Nov. 3	5		

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

Reports Received from June 29 to Nov. 29, 1918.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Albania				Aug. 7, 1918: Present.
Austria-Hungary:				
Hungary				July 26, 1918: Present.
India:				
Bombay	Mar. 17–June 29	12	8	
Do	June 30–Aug. 17	4	2	
Calcutta	Apr. 14–June 29		453	May 19–June 1, 1918: Deaths, 74.
Do	June 30–Sept. 7		80	
Madras	Mar. 24–June 1	7	4	
Do	July 6–Sept. 7	53	32	
Mandalay	May 5–June 15		8	
Mergui	May 19–25		1	
Pegu	May 25–June 1		1	
Rangoon	Mar. 30–May 18	25	19	
Do	June 29–Aug. 31	4	2	
Indo-China				Jan. 1–Apr. 30, 1918: Cases, 437; deaths, 302.
Anam	Mar. 1–Apr. 30	7	5	
Cambodia	Jan. 1–Apr. 30	248	186	
Cochin-China	do	165	111	May 20–June 16, 1918: Cases, 66; deaths, 55.
Cholon	May 20–June 16	4		
Saigon	Apr. 20–Sept. 15	101	27	
Tonkin	Jan. 1–Apr. 30	7	43	
Java:				
East Java—				
Surabaya	June 6–12	13	3	Present July 24.
Do	June 25–Sept. 2	715	551	
Mid-Java				Apr. 18–June 26, 1918: Cases, 864; deaths, 653. June 27–Sept. 4, 1918: Cases, 1,276; deaths, 2,098.
Samarang	July 24			Present.
West Java				Feb. 22–June 27, 1918: Cases, 1,432; deaths, 869; June 28–Sept. 4, 1918: Cases, 1,019; deaths, 623.
Batavia	Feb. 22–June 27	231	103	
Do	June 28–Sept. 4	145	89	
Cheribon	June 7–27	146	111	
Mesopotamia:				
Bagdad	Aug. 24–30	3		
Persia				June 16–23, 1918: Deaths, 191.
Provinces—				
Chiraz	June 27			Present, especially among tribes of Gashgaye and in the city of Darab.
Kazovine	June 12–15			Present.
Kars Province—				
Kazaroun				December 1917: 3 or 4 deaths reported daily
Mahour-Milati				Present in December, 1917, with about 300 fatal cases reported.
Kerman Province—				
Kerman				Outbreak, Feb. 5, 1918.
Khorosan				Oct. 2–Nov. 16, 1917: Cases, 78; deaths, 56. In 7 localities.
Seistan				Nov. 4, 1917: Cases, 6. A part of this Province or region extends into Afghanistan.
Philippine Islands:				
Manila	Sept. 22–28	5	4	
Provinces				Apr. 23–June 29, 1918: Cases, 677; deaths, 428. June 30–Oct. 12, 1918: Cases, 1,939; deaths, 848.
Bohol	Apr. 23–June 29	65	53	
Do	July 7–Oct. 12	597	399	
Bulacan	Sept. 29–Oct. 5	3	2	
Capiz	Apr. 28–May 4	1	1	
Cavite	Sept. 22–Oct. 12	77	52	
Cebu	May 5–June 22	35	10	
Do	June 30–Oct. 12	488	283	
Iloilo	Oct. 6–12	3		
Lanao	do	10	6	
Leyte	Apr. 23–June 29	108	39	
Do	June 30–Sept. 7	38	36	
Misamis	Apr. 23–June 22	294	163	
Do	June 30–Oct. 12	319	108	
Oriental Negros	June 3–29	42	23	
Do	June 30–Oct. 12	138	68	
Pangasinan	Sept. 29–Oct. 12	11	7	
Rizal	do	28	20	
Sorsogon	June 2–29	112	100	
Do	July 14–Oct. 12	177	77	
Surigao	Apr. 23–June 22	92	89	
Do	June 30–Aug. 17	17	17	
Union	Oct. 6–12	1	1	

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

Reports Received from June 29 to Nov. 29, 1918—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Astara	Jan. 9–Feb. 27	58	48	In vicinity, Feb. 11–23, 1918: Cases, 17; deaths, 14. Province of Transcaucasia.
Petrograd	July 7			Present.
Sweden:				
Stockholm	July 15	5	1	From S. S. Angermanland from Petrograd, Russia.
Switzerland				July 26, 1918: Present.
On vessel:				
S. S. Angermanland	July 14	8	1	At Stockholm; from Petrograd.

PLAGUE.

Algeria:				
Algiers	Sept. 1–30	1		
Arabia:				
Aden	May 22–28		1	
Argentina:				
Buenos Aires	Apr. 20–May 22	16	2	
Tucuman				In March, 1918: 3 cases in an institution.
Brazil:				
Bahia	June 16–22	1	1	
Ceylon:				
Colombo	Mar. 23–June 29	22	21	
Do	June 30–Aug. 24	2	1	
China:				
Amoy	July 22–Sept. 30			Present.
Hongkong	Apr. 14–June 29	124	94	
Do	June 30–Sept. 28	131	105	
Ecuador:				
Duran	Apr. 1–30	2		
Guayaquil	May 1–June 15	28	10	
Do	July 11–Sept. 30	2	2	Feb. 1–28, 1918; Cases, 22; deaths, 8.
Egypt				Jan. 1–July 4, 1918: Cases, 438; deaths, 228.
Alexandria	Sept. 24–30	1		
Port Said	May 19–21	2	1	1 pneumonic.
Do	July 4	1	1	
Provinces—				
Assiout	July 27–29	2	1	
Beni-Souef	Apr. 26–30	2	1	
Fayoum	Apr. 21–June 27	10	4	
Gizeh	June 30	1		
Keneh	May 16	1	1	
Minieh	Apr. 23–June 10	33	14	5 septicemic.
Do	June 27–July 4	17	4	1 pneumonic.
Great Britain:				
Erwarton	June 19	1	1	Rural district, Samford, East Suffolk.
London, Port	Aug. 17	5		On vessel from Calcutta.
Rochester	June 2	1	1	From S. S. Somali at Gravesend from Bombay.
India				Mar. 31–June 29, 1918; Cases, 163,977; deaths, 132,917. June 30–Aug. 24, 1918; Cases, 12,111; deaths, 8,727.
Bassein	Mar. 25–June 15		149	
Do	July 7–27		9	
Bombay	Mar. 24–June 29	992	804	
Do	June 30–Aug. 17	75	61	
Calcutta	Apr. 14–June 29		110	May 19–June 1, 1918; Deaths, 30.
Do	June 30–July 20		10	
Henzada	Mar. 24–June 29		23	
Karachi	Apr. 21–June 29	879	807	
Do	June 30–Aug. 17	26	24	
Madras	Sept. 1–7	1	1	
Madras Presidency	Mar. 24–June 15	493	362	Mar. 17–May 4, 1918: Cases, 1,133; deaths, 820.
Do	July 14–Aug. 10	716	521	
Mandalay	Mar. 17–Apr. 20		52	
Moulmein	Mar. 24–June 29		144	
Do	July 7–27		16	
Myingyan	Mar. 17–Apr. 14		10	
Pegu	Apr. 14–June 29		14	
Do	July 7–20		3	
Prome	Mar. 24–June 15		34	
Do	July 7–27		38	
Rangoon	Mar. 30–June 22	433	418	
Do	June 30–Aug. 31	222	207	
Toungoo	Mar. 24–Apr. 27		59	

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

Reports Received from June 29 to Nov. 29, 1918—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indo-China				Jan. 1–Feb. 28, 1918: Cases, 722; deaths, 534.
Anam	Jan. 1–Apr. 30	127	76	
Cambodia	do	290	278	
Cochin-China	do	227	121	May 29–June 8, 1918: Cases, 66; deaths, 30.
Cholon	May 30–June 8	12	6	
Saigon	Apr. 29, Sept. 15	73	42	
Kwang-Chow-Wan	Mar. 1–Apr. 30	63	38	
Laos	Feb. 1–28	4	2	
Tonkin	Mar. 1–Apr. 30	21	19	
Java:				
East Java				Jan. 15–Apr. 22, 1918: Cases, 328; deaths, 226.
Residences—				
Djocjakarta	Jan. 15–Apr. 8	3	34	
Kediri	do	13	10	
Madioen	do	30	30	
Samarang	do	82	81	
Surabaya	do	97	97	June 11–21, 1918; Cases, 21; deaths, 21. June 25–Sept. 4, 1918: Cases, 60; deaths, 60.
Do	Aug. 27–Sept. 9	29	29	
Surakarta	Jan. 15–Apr. 8	12	12	
Mid-Java	July 11–Sept. 4	39	39	
Samarang	Aug. 15–21	19	19	
West Java				Aug. 17–28, 1918: Cases, 73; deaths, 46.
Batavia	Aug. 17–28	49	28	
Mesopotamia:				
Amara	May 21–27			Present.
Bagdad	July 27–Aug. 2	4	2	
Bassora	May 21–27			Do.
Peru				Jan. 1–June 30, 1917: Cases, 245; deaths, 122. July 1–Dec. 31, 1917: Cases, 169; deaths, 80. For distribution according to departments, see Public Health Reports, July 26, 1918, p. 1261. Apr. 1–May 31, 1918: Cases, 71.
Departments—				
Ancachs	Apr. 1–15	1		
Cajamarca	Apr. 16–May 31	7		
Lambayeque	do	8		
Libertad	Apr. 1–May 31	40		
Lima	do	6		
Piura	do	9		
Rhodesia	May 1–9		56	Present in Luangwa Valley, Jan., 1917, with 93 fatal cases.
Siam:				
Bangkok	May 10–June 20	82	62	
Do	July 2–Aug. 31	43	35	
Straits Settlements:				
Penang	June 2–29	6	6	
Do	June 30–Aug. 17	8	7	
Singapore	Apr. 2–June 22	61	53	
Do	June 20–Aug. 17	9	6	
Venezuela				Jan.–Sept., 1918: Cases, 64; deaths, 21. One case septicemic.
On vessel:				Vicinity of Charallave.
S. S. Hector	Aug. 10–21			At Gravesend, port of London, 6 members of crew.
S. S. Mora	Aug. 31	3	2	At Dundee, Scotland, from Calcutta. One of cases pneumonic.
S. S. Somali	May 19	3	1	At Gravesend, England, from Bombay. Further case developed June 2 in member of crew at Rochester, England.
S. S. Sunning			1	Local steamer at Shanghai; reported Aug. 14, 1918.

SMALLPOX.

Algeria:				
Algiers	May 1–June 30	121	34	
Do	July 1–31	1		
Brazil:				
Bahia	May 5–June 22	2		
Rio de Janeiro	May 5–June 29	30	4	
Do	June 20–Aug. 24	155	33	
Santos	Apr. 22–28		1	
British East Africa:				
Mombassa	Jan. 1–June 30		5	
Canada:				
British Columbia—				
Victoria	June 23–29	4		
Do	July 7–Aug. 3	2		

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

Reports Received from June 29 to Nov. 29, 1918—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Manitoba—				
Winnipeg	June 9-22	5		
Do	July 7-26	4		
New Brunswick—				
Moncton	June 16-22	2		
Do	July 7-13	4		
Saint John	Nov. 3-16	2		
Nova Scotia—				
Halifax	June 22-28	10		
Do	June 30-Nov. 3	116		
Sydney	June 30-Nov. 16	5		
Ontario				June 1-30, 1918: Cases, 15. July 1-31, 1918: Cases, 38.
Gloucester	Aug. 1-31	1		
Nipissing district	do	5	1	In Indian settlement.
Ottawa	do	8		
Wallaceburg	do	2		
Windsor	July 21-27	1		
Prince Edward Island—				
Summerside	July 9-15	1		
Quebec—				
Montreal	July 7-13	1		
Canal Zone:				
Colon	Sept. 22-28	1		
Panama	Aug. 12-Sept. 28	80		
Ceylon:				
Colombo	Mar. 22-June 29	30	2	
Do	June 30-July 27	8	2	
China:				
Amoy	Apr. 1-June 29			Present.
Do	June 30-Sept. 30			Do.
Antung	May 20-Aug. 4	7	1	
Chungking	May 12-June 29			Do.
Do	July 21-Oct. 5			Do.
Dairen	May 7-July 1	51	10	
Do	July 2-15	6	1	
Foochow	Aug. 18-24			Do.
Hailar Station	Feb. 12-18	2		Chinese Eastern Ry.
Harbin	Mar. 20-June 3	4		Do.
Do	July 1-7	2		Do.
Manchuria Station	Feb. 19-June 9	5		Do.
Hongkong	Apr. 6-June 8	19	2	
Do	July 28-Aug. 3	1	1	
Nanking	June 16-22			Present.
Do	June 30-Sept. 24			Do.
Shanghai	Apr. 21-June 2	3		
Tientsin	May 19-June 15	10		
Tsingtau	May 6-June 30	28	1	
Do	July 1-14	4		
Chosen (Korea):				
Chemulpo	July 1-31	2	1	
Colombia:				
Barranquilla	July 14-Oct. 19	4	1	
Cartagena	May 21-July 1		2	
Do	July 8-Aug. 19		2	
Cuba:				
Cienfuegos	Oct. 20-26	2	2	
Denmark:				
Copenhagen	June 16-22	13		
Do	July 29-Sept. 28	14		
Ecuador:				
Guayaquil	Apr. 1-30	2		
Egypt:				
Alexandria	May 7-13	1		
France:				
La Rochelle	June 2-8	1	1	
Paris	Apr. 21-June 29	14	3	
Do	June 30-Sept. 7	19	5	
Rouen	May 12-June 15	6		Including varioloid.
Germany				Mar. 24-June 1, 1918: Cases, 29.
Great Britain:				
Liverpool	June 9-15	1		From vessel.
Greece:				
Kalamata	June 26			Present.
India:				
Bombay	Mar. 24-June 29	1,167	574	
Do	June 30-Aug. 17	43	19	
Calcutta	Apr. 14-June 29		246	
Do	June 30-Sept. 7		57	

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

Reports Received from June 29 to Nov. 29, 1918—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Karachi	Apr. 6–June 29	206	149	
Do	June 30–July 20	22	3	
Madras	Mar. 21–June 15	77	27	June 16–22, 1918: Cases, 9; deaths, 6.
Do	June 30–Sept. 7	102	27	Mar. 17–May 4, 1918: Cases, 77; deaths, 33.
Rangoon	Mar. 31–June 22	81	35	
Do	June 30–Aug. 31	11	8	
Indo-China				Jan. 1–Apr. 30, 1918: Cases, 4,043; deaths, 888.
Anam	Jan. 1–Apr. 30	1,253	149	
Cambodia	do	173	48	
Cochin-China	do	1,967	697	May 20–June 16, 1918: Cases, 67; deaths, 24.
Cholon	May 29–June 16	1		
Saigon	July 30–Aug. 25	31	4	
Kwang-Chow-Wan	Feb. 1–Apr. 30	122	68	
Laos	Jan. 1–Feb. 28	8	1	
Tonkin	Jan. 1–Apr. 30	514	55	
Italy:				
Genoa	June 14–30	19	5	
Do	July 2–Aug. 15	30	7	
Mezzojuso	May 29			Many cases. Province of Palermo, Sicily.
Milan	July 1–31	24		In April, 1918: Cases, 2. May 1–31, 1918: Cases, 54.
Palermo	May 30–June 5	1		
Turin	Apr. 15–June 9	16	1	
Japan:				
Kobe	Aug. 18–31	2	2	
Nagasaki	May 2–June 30	14	2	
Do	July 3–21	1	1	
Taihoku	May 21–July 1	18	9	Island of Formosa.
Do	July 2–Sept. 16	9	3	
Tokyo	May 5–June 23	24	3	Feb. 14–Mar. 13, 1918: Cases, 15.
Java:				
East Java—				
Surabaya	Feb. 26–June 24	10	3	
Do	June 25–Sept. 9	76		
Mid-Java				Feb. 14–June 26, 1918: Cases, 114; deaths, 3. June 27–Sept. 4, 1918: Cases, 140; deaths, 5.
West Java				Feb. 22–June 27, 1918: Cases, 403; deaths, 148. June 28–Sept. 11, 1918: Cases, 583; deaths, 247.
Batavia	Feb. 2–June 27	108	50	
Do	June 28–Aug. 7	118	90	
Mesopotamia:				
Bagdad	Mar. 6–June 28	47	7	
Do	June 30–July 12	3		
Mexico:				
Aguascalientes	June 10–16		1	
Guadalajara	June 1–30	3		
Do	July 1–Sept. 30	2	1	
Mazatlan	June 5–25		2	
Do	July 3–Aug. 6		3	
Mexico City	May 19–June 22	78		
Do	June 30–Sept. 21	32		
Vera Cruz	Sept. 16–22	3		
Newfoundland:				
Arnolds Cove	Oct. 12–18	1		
Bay Roberts	Aug. 23–Sept. 13	8		
Bell Island	Sept. 21	1		
Blaketown	Nov. 3–9	1		
Carmanville	Aug. 31–Sept. 6	2		
Colliers	Aug. 31–Oct. 11	12		
East Wabana	Aug. 23–30	1		
Greenspond	Sept. 21	2		
Harbor Grace	Oct. 25–Nov. 1	1		
Keels	Oct. 5–11	4		
Marystown	Oct. 25–Nov. 9	11		
Musgrave Harbor	Sept. 21	1		
Rencontre	Oct. 19–25	5		
Saint Johns	Sept. 28–Oct. 25	3		
Shearstown	Sept. 21	2		
Spaniards Bay	Oct. 5–11	1		
Trout River	Sept. 21	2		
Wabana	Aug. 31–Sept. 6	18		Bell Island.
Wadhams	Sept. 7–13	7		
Philippine Islands:				
Manila	Apr. 8–June 29	884	616	Varioloid: Cases, 178; 1 death.
Do	June 30–Oct. 5	131	97	Variolois: Cases, 14; 1 death.

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

Reports Received from June 29 to Nov. 29, 1918—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Portugal:				
Lisbon	Feb. 24-June 29	97		
Do	June 30-Oct. 26	396		
Russia:				
Archangel (government)	June 1-30	60		
Lithuania	Mar. 3-May 4	88	3	
Siam:				
Bangkok	May 11-June 29	9	3	
Do	July 14-Aug. 17	2	3	
Siberia:				
Vladivostok	May 1-June 30	33	7	
Do	July 1-Aug. 31	5	1	
Spain:				
Coruna	Apr. 28-June 30	1	1	
Do	July 15-Aug. 11		2	
Malaga	Dec. 1-31		29	
Do	Jan. 1-31		16	
Seville	Apr. 1-May 31		2	
Do	July 1-31		4	
Valencia	Aug 11-31	5		
Straits Settlements:				
Penang	May 5-11	2		
Sweden:				
Stockholm	June 9-15	10		
Tunisia:				
Tunis	July 20-Sept. 27		7	
Union of South Africa:				
Cape Town	July 20-Aug. 2	1		From overseas, in a Nigerian soldier.
Johannesburg	Feb. 1-Apr. 30	37		
On vessel				1 case. At Liverpool, England.

TYPHUS FEVER.

Argentina:				
Rosario	Apr. 1-May 31		2	
Austria-Hungary:				
Hungary				Feb. 25-Apr. 28, 1918: Cases, 299; deaths, 9.
Budapest	Feb. 25-Apr. 28	51	1	
Brazil:				
Rio de Janeiro	May 26-June 8	2		
Do	July 7-13	1		
Canada:				
Ontario—				
Toronto	Sept. 1-7	1		
China:				
Antung	May 20-June 9	4		
Do	July 8-Sept. 15	9	4	
Changsha	May 11-17	2	1	
Harbin	Jan. 1-June 16	37		On Chinese Eastern Ry.
Do	July 1-7	1		
Manchuria Station	Jan. 15-June 30	41		Do.
Do	July 1-14	3		
Pogranitchnaya	May 20-June 16	4		
Shanghai	May 5-11		1	
Do	July 14-20	1		
Tsingtau	Sept. 16-22	2		
Chosen (Korea):				
Seoul	June 1-30	17	4	
Do	July 1-Aug. 31	5	2	
Colombia:				
Barranquilla	Aug. 25-Oct. 26		3	
Egypt:				
Alexandria	Aug. 5-July 1	1,362	321	
Do	July 2-Sept. 30	471	130	
Germany				Apr. 14-May 11, 1919: Cases, 54; deaths, 4. In addition, 101 cases among prisoners of war, of which 99 in Königsberg and 1 in Oppeln, and 3 cases among the repatriated from Volhynia, Russia.
Great Britain:				
Belfast	May 26-June 1	1		
Edinburgh	June 9-15		1	
Glasgow	May 19-June 29	13	5	
Do	July 21-Aug. 3	3		
Greece:				
Athens	Apr. 14-June 30	2	5	
Janina	Aug. 29	15		And in vicinity.
Saloniki	Apr. 28-June 29		36	
Do	June 30-Sept. 28		93	

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

Reports Received from June 29 to Nov. 29, 1918—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Italy:				
Corato	May 6-June 2	4		Province of Bari.
Do	Aug. 18-24	2		
Moneta	May 6-June 9	25		Do.
Naples	Apr. 20-May 5	1		
Japan:				
Kobe	July 7-Aug. 3	10	5	
Nagasaki	May 27-June 23	1	1	
Do	July 3-Oct. 13	28	6	
Tokyo	June 24-July 7	1		
Java:				
East Java				Feb. 12-Apr. 8, 1918: Cases, 29; deaths, 8.
Surabaya	Feb. 12-Apr. 8	22	6	
Mid-Java				Feb. 14-May 22, 1918: Cases, 32; deaths, 4.
Samarang	Feb. 21-May 22	10	2	
West Java				Feb. 28-June 6, 1918: Cases, 89; deaths, 18.
Batavia	Feb. 28-June 6	61	15	
Mesopotamia:				
Bagdad	Mar. 29-June 7	101		
Do	June 30-July 12	5		
Mexico:				
Aguascalientes	July 8-14		1	
Chihuahua State—Parral	July 10			Epidemic: Reported present from about June 15, 1918.
Guadalajara	June 1-30	5	2	
Do	July 1-Sept. 30	7	3	
Mexico City	May 19-June 22	186		
Do	June 30-Sept. 21	406		
Portugal:				
Lisbon	Feb. 24-May 25	5		
Russia:				
Lithuania				Mar. 3-May 4, 1918: Cases, 2,514; deaths, 100.
Poland				Mar. 10-May 18, 1918: Cases, 8,593; deaths, 766.
Lodz	Mar. 10-May 18	470	79	
Warsaw	Mar. 10-Apr. 27	2,428	376	
Siberia:				
Irkutsk	Nov. 1-17	600		
Vladivostok	May 1-June 15	16	2	
Do	Aug. 1-31	5		
Spain:				
Cadiz	do		1	
Almeria	Apr. 1-30	1		
Sweden:				
Stockholm	Aug. 11-17	1		
Tunisia:				
Tunis	May 18-June 28	10	3	
Do	June 29-Oct. 4	5	3	
Union of South Africa:				
Cape of Good Hope, State				Sept. 10, 1914-Apr. 21, 1918: Cases, 4,587 (European, 34); deaths, 939 (European, 25). June 2-15, 1918: Present in interior towns among natives.
Do				July 8-Aug. 3, 1918: Present in interior towns, Port Elizabeth district.
Port Elizabeth	Aug. 11-17	1		Present in district among natives, Aug. 11-Sept. 14, 1918.
Natal				Dec. 1, 1917-Apr. 21, 1918: Cases, 50; deaths, 11.

YELLOW FEVER.

Brazil:				
Bahia	Apr. 27-June 29	27	9	
Do	June 30-July 6	4	2	
Pernambuco	June 1-15		1	
Do	Oct. 17			Present.
Ecuador:				
Guayaquil	Apr. 1-June 30	74	39	
Do	July 1-Sept. 30	92	48	And vicinity. Feb. 16-28, 1918: Cases, 2.
Naranjal	Apr. 1-June 30	2	1	
Do	Aug. 1-31	1	1	
Punta de piedra	do	1		
Vinces	Aug. 1-Sept. 30	6	2	
Guatemala:				
Escuintla	To Nov. 1	40		Nov. 4, 1918: Three cases present.
San Jose	To Sept. 27		14	
Do	Sept. 29-Oct. 5	3	1	Nov. 4, 1918: One case present.

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