

# PUBLIC HEALTH REPORTS

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VOL. 30

OCTOBER 8, 1915

No. 41

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## “PATENT” MEDICINES.

### CONVICTION FOR MISBRANDING AND FALSE STATEMENTS REGARDING CURATIVE PROPERTIES.

The United States District Court for the Eastern District of Pennsylvania (see p. 3037 of this issue of the Public Health Reports) has decided that the Sherley amendment to the United States food and drugs act is constitutional. This amendment makes it unlawful to print on the package or label of any drug false and fraudulent statements regarding its curative or therapeutic effects.

The defendant was charged with misbranding a proprietary medicine which was sold under the name of “Bad-Em Salz,” and with making false and fraudulent statements as to the curative properties of the remedy. The defense denied that the remedy was misbranded or that the label was calculated to mislead purchasers as to the composition or ingredients of the drug. It was also asserted that the statements relative to the curative properties of the drug were honestly made, that they were expressions of opinion, and that the defendant could not be convicted of crime merely because an opinion was expressed regarding the effects of the drug which differed from that of most physicians.

The court held that the two questions (1) whether the name and label were such as to mislead purchasers respecting the composition of the drug, and (2) whether the statements regarding the curative properties of the drug were false and fraudulent, were both questions of fact which it was the duty of the jury to decide. The jury having decided both questions in the affirmative the conviction of the defendant was sustained.

## HEIGHTS AND WEIGHTS OF CHILDREN.

**CLASSIFICATION, BY AGE AND BY SANITATION, OF 1,652 WHITE SCHOOL CHILDREN  
(771 BOYS, 881 GIRLS) IN THE CITY OF X.<sup>1</sup>**

By C. W. STILES, Professor of Zoology, and GEORGE A. WHEELER, Assistant Surgeon, United States Public Health Service.

Of the children here considered, the minority lived at homes provided with privies (Group P), the major portion at homes provided with sewers but not with privies (Group S).

In two former articles <sup>1</sup> it has been shown that if these children are classified into these sanitary groups and compared as to their unconscious coprophagia and their school-grade advancement, the comparisons are more favorable to Group S than to Group P.

The question arises whether these same children, when classified into the same groups (P and S) and compared as to their heights and weights, show any differences in the two sanitary groups, and if so, what these differences are.

This inquiry is one purely as to fact. The explanation of the facts is a very complicated matter, involving questions of sociology, physiology, pathology, heredity, etc.

Most of the studies on children have been conducted in localities other than the Southern States. On this account, when an author desires to study any given condition in southern children he is usually obliged to use standards based upon children studied in the North or in Europe. When comparing cases of infection, such comparison is likely to be misleading, and on this account an attempt is made here to add a short contribution to the standardization of southern children that may be used in future work.

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<sup>1</sup> For other articles on the city of X, see *Public Health Reports*, 1915, as follows: Difficulties in obtaining ages, v. 30 (5), Jan. 29, pp. 310-311; Zooparasitic intestinal infections, v. 30 (27), July 2, pp. 1991-2002; School grades, v. 30 (28), July 9, 2060-2067; Tobacco and snuff, v. — (—), —, pp. —.

TABLE 1.—*Average, minimum, and maximum heights and weights of 765 to 771 white boys, 6 to 17.75 years old, inclusive, of the city of X, summarized by total year periods and by sanitary groups.*

[P=children from homes provided with a privy; S=children from homes with sewer connection, but without a privy; U=home sanitation unknown; T=total of P, S, and U.]

| Age.      | Height, in inches.  |          |          |          |                    |          |          |          | Weight, in pounds. |          |          |          |
|-----------|---------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|           | Standing, 771 boys. |          |          |          | Sitting, 765 boys. |          |          |          | 768 boys.          |          |          |          |
|           | Number of pupils.   | Average. | Minimum. | Maximum. | Number of pupils.  | Average. | Minimum. | Maximum. | Number of pupils.  | Average. | Minimum. | Maximum. |
| 6 S.....  | 26                  | 44.20    | 35.75    | 56.00    | 24                 | 24.56    | 23.25    | 26.00    | 26                 | 43.43    | 30.25    | 58.25    |
| 6 P.....  | 7                   | 44.21    | 42.00    | 48.00    | 6                  | 25.00    | 21.00    | 26.50    | 6                  | 48.08    | 43.50    | 55.75    |
| 6 U.....  | 1                   | 48.50    | 48.50    | 48.50    | 1                  | 24.50    | 24.50    | 24.50    | 1                  | 50.25    | 50.25    | 50.25    |
| T.....    | 34                  | 44.33    | 35.75    | 56.00    | 31                 | 24.65    | 23.25    | 26.50    | 33                 | 44.50    | 30.25    | 58.25    |
| 7 S.....  | 58                  | 47.05    | 34.50    | 55.50    | 57                 | 25.65    | 23.00    | 29.25    | 57                 | 50.10    | 38.25    | 64.00    |
| 7 P.....  | 15                  | 47.13    | 43.50    | 56.25    | 15                 | 25.48    | 23.75    | 31.00    | 15                 | 50.03    | 42.50    | 61.50    |
| 7 U.....  | 3                   | 46.58    | 45.50    | 48.25    | 3                  | 25.42    | 25.00    | 26.00    | 3                  | 52.67    | 46.00    | 61.00    |
| T.....    | 76                  | 47.05    | 34.50    | 56.25    | 75                 | 25.61    | 23.00    | 31.00    | 75                 | 50.19    | 38.25    | 64.00    |
| 8 S.....  | 62                  | 48.40    | 43.00    | 53.50    | 62                 | 26.12    | 23.50    | 29.50    | 62                 | 54.42    | 38.25    | 74.00    |
| 8 P.....  | 15                  | 49.35    | 43.50    | 57.00    | 15                 | 26.47    | 24.00    | 28.50    | 15                 | 54.63    | 44.75    | 70.00    |
| 8 U.....  | 3                   | 46.92    | 43.50    | 52.25    | 3                  | 25.33    | 23.50    | 28.25    | 3                  | 50.67    | 40.00    | 62.00    |
| T.....    | 80                  | 48.52    | 43.00    | 57.00    | 80                 | 26.16    | 23.50    | 29.50    | 80                 | 54.32    | 38.25    | 74.00    |
| 9 S.....  | 76                  | 50.24    | 45.25    | 58.25    | 76                 | 26.87    | 23.75    | 30.25    | 76                 | 57.56    | 38.25    | 89.00    |
| 9 P.....  | 12                  | 49.52    | 47.00    | 52.00    | 12                 | 26.85    | 25.25    | 27.75    | 12                 | 57.95    | 52.50    | 63.00    |
| 9 U.....  | 5                   | 50.25    | 46.50    | 54.00    | 5                  | 27.30    | 24.50    | 29.00    | 5                  | 59.90    | 44.00    | 73.00    |
| T.....    | 93                  | 50.15    | 45.25    | 58.25    | 93                 | 26.89    | 23.75    | 30.25    | 93                 | 57.74    | 38.25    | 89.00    |
| 10 S..... | 80                  | 52.28    | 45.00    | 57.50    | 80                 | 27.93    | 22.50    | 38.50    | 79                 | 64.93    | 49.00    | 110.50   |
| 10 P..... | 13                  | 51.69    | 48.75    | 54.00    | 12                 | 27.65    | 24.75    | 29.25    | 12                 | 59.92    | 49.00    | 72.50    |
| 10 U..... | 9                   | 52.36    | 48.00    | 59.25    | 9                  | 27.44    | 25.00    | 31.00    | 9                  | 64.92    | 49.50    | 85.50    |
| T.....    | 102                 | 52.22    | 45.00    | 59.25    | 101                | 27.86    | 22.50    | 38.50    | 100                | 64.32    | 49.00    | 110.50   |
| 11 S..... | 58                  | 53.74    | 49.75    | 64.00    | 58                 | 27.98    | 24.00    | 33.50    | 59                 | 69.67    | 49.00    | 105.00   |
| 11 P..... | 20                  | 53.47    | 50.50    | 57.75    | 20                 | 28.21    | 27.00    | 30.50    | 20                 | 68.02    | 59.00    | 81.00    |
| 11 U..... | 5                   | 53.75    | 51.00    | 55.75    | 5                  | 27.90    | 26.00    | 29.25    | 5                  | 72.75    | 66.25    | 86.00    |
| T.....    | 83                  | 53.68    | 49.75    | 64.00    | 83                 | 28.04    | 24.00    | 33.50    | 84                 | 69.46    | 49.00    | 105.00   |
| 12 S..... | 53                  | 55.81    | 50.50    | 62.00    | 53                 | 28.86    | 26.00    | 32.50    | 53                 | 77.76    | 57.75    | 127.50   |
| 12 P..... | 14                  | 56.00    | 49.75    | 62.00    | 13                 | 29.10    | 25.75    | 33.25    | 13                 | 75.34    | 55.00    | 104.00   |
| 12 U..... | 9                   | 56.94    | 52.00    | 65.50    | 9                  | 30.22    | 27.00    | 34.50    | 9                  | 96.02    | 59.50    | 126.50   |
| T.....    | 76                  | 55.98    | 49.75    | 65.50    | 75                 | 29.06    | 25.75    | 34.50    | 75                 | 79.53    | 55.00    | 127.50   |
| 13 S..... | 57                  | 58.12    | 49.00    | 67.75    | 57                 | 30.46    | 27.50    | 34.50    | 57                 | 85.93    | 61.25    | 123.50   |
| 13 P..... | 9                   | 57.69    | 53.50    | 61.00    | 9                  | 30.92    | 29.00    | 33.00    | 9                  | 86.50    | 69.00    | 97.00    |
| 13 U..... | 3                   | 63.33    | 59.00    | 68.75    | 3                  | 32.67    | 29.25    | 35.75    | 3                  | 114.08   | 81.00    | 142.00   |
| T.....    | 69                  | 58.29    | 49.00    | 68.75    | 69                 | 30.62    | 27.50    | 35.75    | 69                 | 87.23    | 61.25    | 142.00   |
| 14 S..... | 38                  | 59.64    | 53.25    | 67.00    | 38                 | 31.12    | 27.50    | 34.00    | 38                 | 92.57    | 67.50    | 127.50   |
| 14 P..... | 4                   | 59.81    | 53.75    | 65.50    | 4                  | 31.25    | 28.00    | 34.00    | 4                  | 96.31    | 68.50    | 124.50   |
| 14 U..... | 8                   | 60.59    | 57.25    | 67.50    | 8                  | 31.22    | 29.00    | 36.00    | 8                  | 96.75    | 71.50    | 154.00   |
| T.....    | 50                  | 59.81    | 53.25    | 67.50    | 50                 | 31.15    | 27.50    | 36.00    | 50                 | 93.54    | 67.50    | 154.00   |
| 15 S..... | 41                  | 62.79    | 54.00    | 70.25    | 41                 | 32.70    | 27.50    | 36.00    | 41                 | 110.45   | 78.50    | 164.00   |
| 15 P..... | 4                   | 59.88    | 56.00    | 65.00    | 4                  | 31.50    | 28.25    | 34.25    | 4                  | 93.81    | 79.00    | 111.75   |
| 15 U..... | 10                  | 63.08    | 57.75    | 69.00    | 10                 | 32.25    | 30.00    | 35.75    | 10                 | 109.45   | 80.00    | 166.75   |
| T.....    | 55                  | 62.63    | 54.00    | 70.25    | 55                 | 32.53    | 27.50    | 36.00    | 55                 | 109.06   | 78.50    | 166.75   |
| 16 S..... | 31                  | 64.85    | 57.00    | 69.50    | 31                 | 33.80    | 29.50    | 43.50    | 32                 | 110.35   | 77.50    | 142.75   |
| 16 P..... | 2                   | 63.88    | 62.50    | 65.25    | 2                  | 33.00    | 32.00    | 34.00    | 2                  | 110.00   | 105.00   | 115.00   |
| 16 U..... | 3                   | 61.00    | 59.00    | 64.00    | 3                  | 31.50    | 30.25    | 33.25    | 3                  | 97.00    | 88.00    | 105.50   |
| T.....    | 36                  | 64.48    | 57.00    | 69.50    | 36                 | 33.56    | 29.50    | 43.50    | 37                 | 109.25   | 77.50    | 142.75   |
| 17 S..... | 13                  | 66.60    | 62.75    | 70.00    | 13                 | 34.75    | 32.00    | 39.50    | 13                 | 125.27   | 92.50    | 166.00   |
| 17 P..... | 2                   | 66.38    | 65.75    | 67.00    | 2                  | 35.00    | 34.50    | 35.50    | 2                  | 129.37   | 121.00   | 137.75   |
| 17 U..... | 2                   | 65.50    | 63.50    | 67.50    | 2                  | 34.88    | 34.00    | 35.75    | 2                  | 131.75   | 125.00   | 138.50   |
| T.....    | 17                  | 66.44    | 62.75    | 70.00    | 17                 | 34.79    | 32.00    | 39.50    | 17                 | 126.51   | 92.50    | 166.00   |

TABLE 2.—*Average, minimum, and maximum heights and weights of 877 to 881 white girls, 6 to 17.75 years old, inclusive, of the city of X, summarized by total year periods and by sanitary groups.*

P=children from homes provided with a privy; S=children from homes with sewer connection but without a privy; U=home sanitation unknown; T=total of P, S, and U.]

| Age.      | Height in inches.    |          |          |          |                     |          |          |          | Weight in pounds. |          |          |          |
|-----------|----------------------|----------|----------|----------|---------------------|----------|----------|----------|-------------------|----------|----------|----------|
|           | Standing, 881 girls. |          |          |          | Sitting, 879 girls. |          |          |          | 877 girls.        |          |          |          |
|           | Number of pupils.    | Average. | Minimum. | Maximum. | Number of pupils.   | Average. | Minimum. | Maximum. | Number of pupils. | Average. | Minimum. | Maximum. |
| 6 S.....  | 31                   | 45.22    | 42.00    | 58.50    | 31                  | 24.50    | 22.00    | 27.50    | 30                | 44.88    | 35.50    | 62.50    |
| 6 P.....  | 6                    | 45.50    | 42.00    | 49.00    | 5                   | 23.45    | 23.00    | 24.25    | 5                 | 45.35    | 39.25    | 48.75    |
| 6 U.....  | 1                    | 43.50    | 43.50    | 43.50    | 1                   | 24.00    | 24.00    | 24.00    | 1                 | 43.50    | 43.50    | 43.50    |
| T.....    | 38                   | 45.22    | 42.00    | 58.50    | 37                  | 24.34    | 22.00    | 27.50    | 36                | 44.90    | 35.50    | 62.50    |
| 7 S.....  | 44                   | 46.79    | 40.75    | 56.00    | 44                  | 25.35    | 22.25    | 28.00    | 44                | 48.85    | 38.00    | 70.75    |
| 7 P.....  | 15                   | 46.58    | 43.00    | 49.50    | 15                  | 25.40    | 22.25    | 29.25    | 15                | 51.30    | 43.25    | 65.00    |
| 7 U.....  | 4                    | 45.44    | 43.50    | 48.00    | 4                   | 24.57    | 23.25    | 26.25    | 4                 | 44.31    | 43.75    | 44.50    |
| T.....    | 63                   | 46.80    | 40.75    | 56.00    | 63                  | 25.31    | 22.25    | 29.25    | 63                | 49.15    | 38.00    | 70.75    |
| 8 S.....  | 50                   | 48.81    | 44.00    | 57.00    | 50                  | 26.00    | 22.50    | 29.25    | 49                | 53.34    | 40.25    | 78.25    |
| 8 P.....  | 13                   | 47.33    | 45.00    | 50.25    | 13                  | 25.35    | 24.00    | 27.00    | 13                | 49.51    | 44.25    | 57.00    |
| 8 U.....  | 2                    | 48.88    | 48.25    | 49.50    | 2                   | 27.00    | 26.50    | 27.50    | 2                 | 55.37    | 54.75    | 56.00    |
| T.....    | 65                   | 48.52    | 44.00    | 57.00    | 65                  | 25.90    | 22.50    | 29.25    | 64                | 52.62    | 40.25    | 78.25    |
| 9 S.....  | 54                   | 50.36    | 46.00    | 56.50    | 54                  | 26.67    | 24.00    | 29.00    | 54                | 58.47    | 43.00    | 79.50    |
| 9 P.....  | 25                   | 48.78    | 47.00    | 58.00    | 25                  | 26.90    | 25.00    | 30.00    | 25                | 57.04    | 42.00    | 79.50    |
| 9 U.....  | 4                    | 48.88    | 48.25    | 49.50    | 4                   | 25.50    | 25.00    | 26.25    | 4                 | 62.50    | 50.50    | 86.00    |
| T.....    | 83                   | 49.81    | 46.00    | 58.00    | 83                  | 26.68    | 24.00    | 30.00    | 83                | 58.23    | 42.00    | 86.00    |
| 10 S..... | 74                   | 52.05    | 48.00    | 59.25    | 73                  | 28.05    | 23.75    | 32.00    | 74                | 64.33    | 46.00    | 100.25   |
| 10 P..... | 21                   | 51.54    | 48.00    | 54.75    | 21                  | 27.64    | 26.00    | 29.50    | 21                | 62.78    | 45.50    | 92.25    |
| 10 U..... | 3                    | 51.92    | 49.50    | 55.00    | 3                   | 27.42    | 26.00    | 28.75    | 3                 | 64.08    | 55.00    | 69.25    |
| T.....    | 98                   | 51.93    | 48.00    | 59.25    | 97                  | 27.95    | 23.75    | 32.00    | 98                | 63.99    | 45.50    | 100.25   |
| 11 S..... | 63                   | 54.34    | 42.50    | 61.25    | 63                  | 28.61    | 23.50    | 32.50    | 62                | 70.60    | 49.50    | 113.00   |
| 11 P..... | 21                   | 52.75    | 48.25    | 58.75    | 21                  | 27.92    | 25.50    | 31.25    | 21                | 69.46    | 53.50    | 94.50    |
| 11 U..... | 3                    | 55.33    | 53.00    | 58.50    | 3                   | 29.17    | 28.00    | 30.50    | 3                 | 98.17    | 66.00    | 157.00   |
| T.....    | 87                   | 53.99    | 42.50    | 61.25    | 87                  | 28.46    | 23.50    | 32.50    | 86                | 71.28    | 49.50    | 157.00   |
| 12 S..... | 62                   | 56.67    | 50.75    | 62.75    | 62                  | 29.75    | 26.00    | 41.00    | 61                | 82.47    | 56.75    | 150.50   |
| 12 P..... | 17                   | 56.35    | 49.50    | 57.25    | 17                  | 29.82    | 26.25    | 32.00    | 18                | 89.94    | 49.00    | 156.00   |
| 12 U..... | 4                    | 56.56    | 53.50    | 58.25    | 4                   | 29.69    | 29.00    | 30.25    | 4                 | 83.87    | 66.50    | 103.00   |
| T.....    | 83                   | 56.60    | 49.50    | 62.75    | 83                  | 29.77    | 26.00    | 41.00    | 83                | 84.16    | 49.00    | 156.00   |
| 13 S..... | 74                   | 60.14    | 51.00    | 68.00    | 74                  | 31.74    | 28.25    | 35.75    | 74                | 96.50    | 60.50    | 154.00   |
| 13 P..... | 16                   | 59.09    | 54.75    | 62.00    | 16                  | 30.94    | 26.50    | 33.00    | 16                | 91.20    | 65.75    | 115.00   |
| 13 U..... | 2                    | 60.25    | 58.50    | 62.00    | 2                   | 31.13    | 30.25    | 32.00    | 2                 | 103.25   | 85.50    | 121.00   |
| T.....    | 92                   | 59.96    | 51.00    | 68.00    | 92                  | 31.62    | 26.50    | 35.75    | 92                | 95.72    | 60.50    | 154.00   |
| 14 S..... | 65                   | 60.12    | 53.75    | 66.00    | 65                  | 31.58    | 26.00    | 36.50    | 65                | 98.30    | 66.50    | 139.75   |
| 14 P..... | 20                   | 60.56    | 54.00    | 68.50    | 20                  | 31.88    | 30.00    | 34.25    | 20                | 95.39    | 67.50    | 130.00   |
| 14 U..... | 7                    | 61.21    | 57.50    | 65.75    | 7                   | 32.03    | 29.50    | 36.00    | 7                 | 111.75   | 77.50    | 192.25   |
| T.....    | 92                   | 60.29    | 53.75    | 68.50    | 92                  | 31.67    | 26.00    | 36.50    | 92                | 98.69    | 66.50    | 192.25   |
| 15 S..... | 58                   | 61.77    | 53.50    | 66.50    | 58                  | 32.66    | 27.25    | 35.00    | 58                | 108.64   | 83.00    | 146.00   |
| 15 P..... | 15                   | 61.15    | 56.00    | 63.50    | 15                  | 32.52    | 30.75    | 34.00    | 15                | 107.45   | 89.00    | 179.50   |
| 15 U..... | 1                    | 66.25    | 66.25    | 66.25    | 1                   | 35.00    | 35.00    | 35.00    | 1                 | 137.50   | 137.50   | 137.50   |
| T.....    | 74                   | 61.71    | 53.50    | 66.50    | 74                  | 32.81    | 27.25    | 35.00    | 74                | 108.79   | 83.00    | 179.50   |
| 16 S..... | 62                   | 62.50    | 56.75    | 68.50    | 62                  | 33.08    | 25.50    | 46.00    | 62                | 112.53   | 82.75    | 141.00   |
| 16 P..... | 6                    | 62.12    | 59.25    | 64.50    | 6                   | 32.50    | 29.00    | 33.75    | 6                 | 111.58   | 92.00    | 144.25   |
| 16 U..... | 5                    | 61.20    | 56.25    | 64.50    | 5                   | 33.20    | 31.50    | 35.00    | 5                 | 106.15   | 98.50    | 122.50   |
| T.....    | 73                   | 62.38    | 56.25    | 68.50    | 73                  | 33.04    | 25.50    | 46.00    | 73                | 112.01   | 82.75    | 144.25   |
| 17 S..... | 29                   | 62.81    | 56.75    | 69.50    | 29                  | 33.68    | 31.25    | 36.50    | 29                | 116.28   | 82.50    | 157.25   |
| 17 P..... | 2                    | 62.85    | 62.00    | 63.75    | 2                   | 33.00    | 33.00    | 33.00    | 2                 | 111.00   | 110.00   | 112.00   |
| 17 U..... | 2                    | 62.13    | 60.00    | 64.25    | 2                   | 33.25    | 32.50    | 34.00    | 2                 | 108.50   | 101.00   | 116.00   |
| T.....    | 33                   | 62.77    | 56.75    | 69.50    | 33                  | 33.62    | 31.25    | 36.50    | 33                | 115.49   | 82.50    | 157.25   |

*Age groups.*—The tests were begun on January 7 and continued every school day until April 6, inclusive. On January 7 all of the available white school children in the city whose birthday was January 7, April 7, July 7, or October 7 were brought to the high school assembly hall and were given certain mental and physical tests; on each succeeding day for three months the same plan was followed except that children whose birthday anniversary came on Saturday were tested on Friday and those whose birthday anniversary came on Sunday were tested on Monday; further, also, some slight irregularities of date were introduced because of school examination days, temporary absence from school, and unusually stormy weather. These variations, rarely, if ever, exceeded 72 hours. Accordingly, the children automatically fell into quarter-year groups, and all of the children of a given group were of the same age to a day. For instance, all 10-year-old children were 10 years flat, 10.25, 10.50, or 10.75 years old to the day, and the tests agree to the day or almost to the day. This plan naturally gave very exact groups, but in some instances it reduced the individuals of certain groups to small numbers.

A large number of the children had to be rejected from the final summaries because it was impossible to obtain their birthday<sup>1</sup> and birth year, hence it was impossible to determine their exact age group.

Heights were taken in stocking feet (without shoes) to the nearest  $\frac{1}{4}$  inch. Weights were taken with clothes, but without coats or shoes.

#### White Boys.

##### STANDING HEIGHT.

Of 1,189 white school boys, 6 years flat to 17.75 years old, inclusive, data in standing height are available for 771; 593 of these belong to Group S (from homes with sewers but without privies), 117 to Group P (from homes with privies), and 61 to Group U (sanitation unknown).

Taking the totals for each year age (as 6 flat to 6.75 = 6 years old, etc.) the minimum, maximum, and average heights may be seen from Table 1. If these results are plotted on a diagram (chart 1), it is seen that there is a fairly uniform increase in standing height, year by year, but there is a distinct decrease of the increase at 11, and a much less distinct decrease of the increase at 14.

In comparing Groups P and S the following results are obtained:

*Average standing height for total year periods.*—In 7 total year periods (9, 10, 11, 13, 15, 16, and 17 years) the boys of Group S

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<sup>1</sup> Difficulties in Obtaining Ages. Public Health Reports, vol. 30, No. 5, Jan. 29, 1915, pp. 310-311.

had an average height greater than that shown in the corresponding boys of Group P.

In 5 total year periods (6, 7, 8, 12, and 14 years) the boys of Group P had an average height greater than that shown in the corresponding boys of Group S.

*Average standing height for quarter-year periods.*—If the quarter-year periods are compared, the units are reduced to very small numbers in some groups, hence the element of chance is greatly increased, but the results are as follows:

In 24 quarter-year periods, the boys of Group S had an average height greater than that of the corresponding boys of Group P, while in 14 periods the boys of Group P had a greater average height than the corresponding boys of Group S; in one period they were equal for S and P; and in 9 periods no comparison could be made as there was no boy of Group P for these ages.

#### SITTING HEIGHT.

Sitting height was obtained for 765 boys, of whom 590 belonged to Group S, 114 to Group P, and 61 to Group U.

The curve (chart 1) for sitting heights shows a very marked decrease of the increase at 11, corresponding to, but more marked than, the decrease of the increase in the standing height for the same period. There is also a clear decrease of the increase at 14, corresponding to, but slightly more marked than, the decrease of the increase in the standing height for the same period. From 14 to 17 the increase is fairly uniform, and almost parallel to the standing height.

*Average sitting height for total year periods.*—In 5 total year periods (namely, 7, 9, 10, 15, and 16 years) the average sitting height of Group S excelled that of Group P, and in 7 total year periods (namely, 6, 8, 11, 12, 13, 14, and 17 years) the average in Group P excelled that of Group S.

In 4 total year periods (9, 10, 15, and 16 years) Group S excelled both in sitting height and in standing height, while in 4 other year periods (6, 8, 12, and 14 years) Group P excelled in both sitting and standing height.

*Average sitting height for quarter year periods.*—In 16 quarter year periods Group S excelled in average sitting height; in 22 quarter year periods Group P excelled; in 10 periods no comparison could be made.

#### WEIGHTS.

Weights were obtained for 768 boys, of whom 593 belonged in Group S, 114 in Group P, and 61 in Group U.

The curve (chart 1) in weights is less uniform from 6 to 9 than from 9 to 15; at 16 there is a sudden and very marked decrease of the

increase similar to the decrease of the increase in height and weight in girls at 14; at 15 and at 17 the increase is striking.

*Average weights for total year periods.*—In 6 total year periods (namely, 7, 10, 11, 12, 15, and 16 years), the average weight in Group S excelled that of Group P, and in 6 total year periods (namely, 6, 8, 9, 13, 14, and 17 years) the average in Group P excelled that of Group S. Some of the differences are very slight, and the conclusion appears to be that the boys of Groups P and S showed no essential differences in average weight.

*Average weights for quarter year periods.*—In 20 quarterly periods the average weight of Group S exceeded that of Group P; in 18 periods the average weight of Group P exceeded that of Group S; and in 10 periods no comparisons could be made.

#### White Girls.

##### STANDING HEIGHTS.

Of 1,259 girls, standing heights were obtained for 881, of whom 666 belonged to Group S, 177 to Group P, and 38 to Group U.

The increase is fairly uniform, year by year, up to the period at 14, when there is a very marked decrease of the increase; from 15 to 17 the increase is much less than prior to 13.

*Average standing height for total year periods.*—In 9 total year groups (namely, 7, 8, 9, 10, 11, 12, 13, 15, and 16 years) the average standing height of Group S excelled that of Group P, and in 3 total year periods (namely, 6, 14, and 17 years) the average standing height of Group P excelled that of Group S.

*Average standing height for quarter year periods.*—In 32 quarter year periods the average height of Group S exceeded that of Group P; in 12 periods the average height in Group P exceeded that of Group S; and in 4 periods no comparison could be made.

##### SITTING HEIGHTS.

Sitting heights were obtained for 879 girls, 665 of whom belong to Group S, 176 to Group P, and 38 to Group U.

There is a decrease of the increase at 11, less marked than, but corresponding to, the decrease of the increase in the boys for the same period; there is a sudden and very marked decrease of the increase at 14, corresponding to and nearly paralleling the decrease of the increase in the standing height of the girls for the same period; from 14 to 17 the increase is less marked and less uniform than that of the boys for the same period and out of all proportion to the increase in standing height for the girls for the same period.

*Average sitting heights for total year periods.*—In 8 total year periods (namely, 6, 8, 10, 11, 13, 15, 16, and 17 years), the average sitting

height of Group S exceeded that of Group P and in 4 periods (namely, 7, 9, 12, and 14 years), the average sitting height for Group P exceeded that of Group S.

*Average sitting height for quarter-year periods.*—In 30 periods the average sitting height of Group S exceeded that of Group P; in 12 periods the average sitting height of Group P exceeded that of Group S; in one period the average sitting height was equal in both groups; and for 5 periods no comparison could be made.

#### WEIGHTS.

Weights were obtained for 877 girls, of whom 662 belonged to Group S, 177 in Group P, and 38 in Group U.

The most marked irregularity in the curve is the decrease of the increase at 14, corresponding to the decrease of the increase in sitting and standing height in girls for this same period; at 15 the increase is less marked, and at 16 more marked, than in the boys.

*Average weight for total year periods.*—In 9 total year periods (namely, 8, 9, 10, 11, 13, 14, 15, 16, and 17 years) the average weight in Group S excelled that of Group P and in 3 total year periods (6, 7, and 12 years) the average weight in Group P exceeded that of Group S. It would therefore appear that in the case of the girls the weight development at sewered homes was better than that at homes provided with a privy, although in some instances the differences were not very marked.

*Average weight for quarter-year periods.*—In 28 periods the average weight in Group S exceeded that of Group P; in 16 periods the average weight of Group P exceeded that of Group S; and in 4 periods no comparison could be made.

#### Comparison of Boys and Girls.

##### STANDING HEIGHT.

On chart 1 it is seen that the girls of 6 years averaged nearly an inch taller than the boys; at 7, 8, and 9 the boys and girls were practically equal, though there was a very slight difference in favor of the boys; at 10 the boys were distinctly taller; from 10 to 13, inclusive, the girls grew more rapidly and exceeded the boys in height for 11, 12, and especially for 13; from 13 to 17, and especially from 14 to 17, the growth of the boys exceeded that of the girls.

*Sudden irregularities in curves.*—The most striking irregularity in the curves is found in the girls at 14; there is a corresponding but less pronounced irregularity in the boys at 14.

There is a perceptible irregularity in the boys' curve at 11, which does not show in the girls.

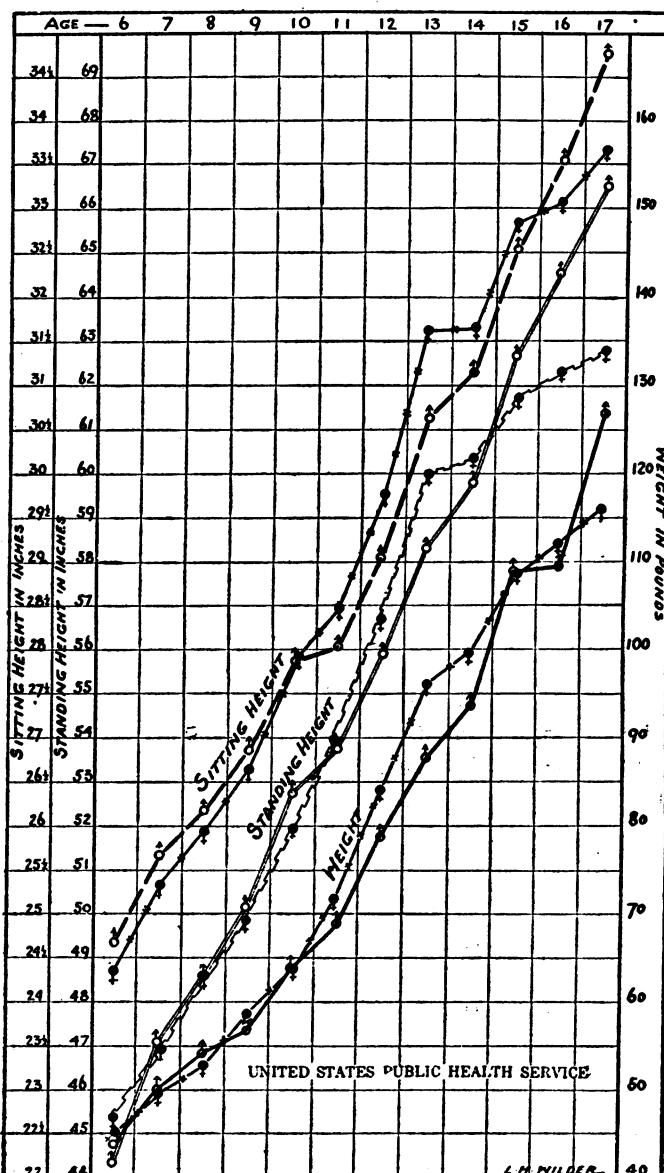


CHART 1.—Average height (standing and sitting) and weight of 1,642 to 1,652 white school children (765 to 771 boys, ♂, 877 to 881 girls, ♀) plotted by total year periods 6 to 17, inclusive. The scale for sitting height is double that for standing height. Height is given in inches, weight in pounds. Prepared from Tables 1 and 2.

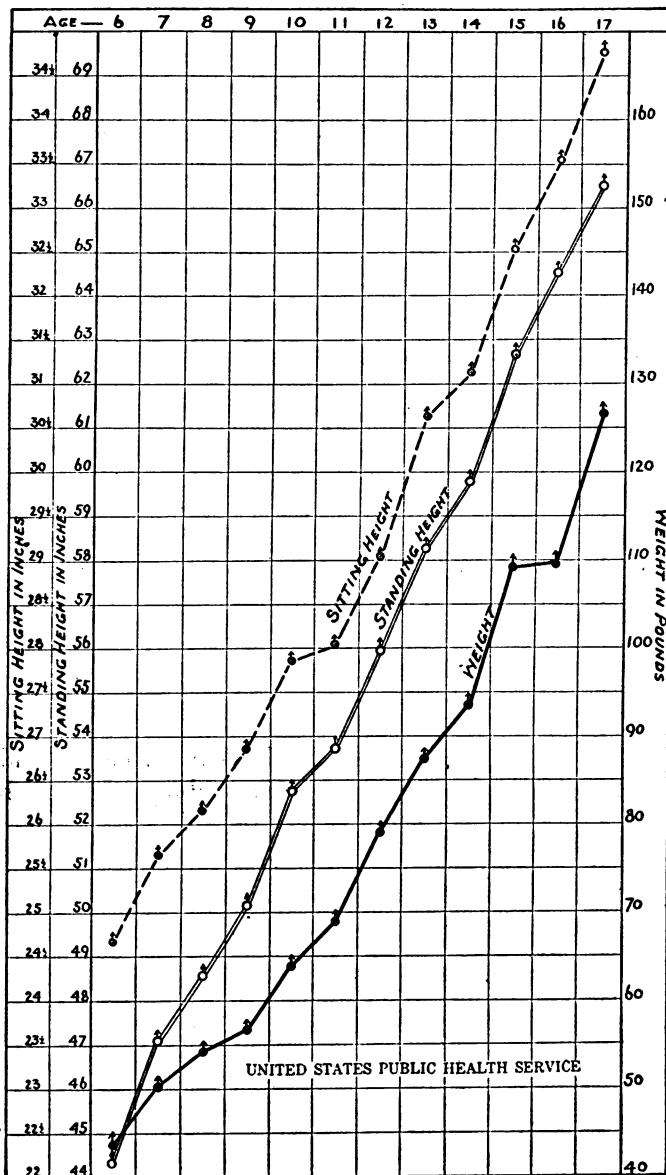


CHART 2.—Average height (standing and sitting) and weight of 765 to 771 white boys plotted by total year periods 6 to 17, inclusive. The scale for sitting height is double that for standing height. Height is given in inches, weight in pounds. Prepared from Table 1.

## SITTING HEIGHT.

In sitting height the boys excelled the girls from 6 to 9 inclusive; at 10 the boys and girls were practically equal, but there was a very slight difference in favor of the girls; following this point, the growth in sitting height of girls was distinctly greater than among boys for 11, 12, and 13, and the girls show a greater sitting height than the boys for these periods; beginning with 13, the boys grew more rapidly and while the girls still had a greater sitting height at 14 and 15, the boys excelled at 16 and 17.

*Sudden irregularities in curves.*—The most pronounced irregularity in curve is shown in girls at 14, when there was almost a total cessation of growth in sitting height; this corresponded to the decrease of the increase in standing height of girls; there was a corresponding but less pronounced decrease of the increase in boys at 14.

At 11 there was a pronounced decrease of the increase in boys, corresponding to the decrease of the increase in standing height of the same boys.

## WEIGHT.

The difference between the boys and girls from 6 to 10 is slight and irregular; from 11 to 14 the girls are heavier than the boys; at 15 they are practically equal; at 16 the girls are heavier, and at 17 the boys are heavier.

*Sudden irregularities in curves.*—There is a marked irregularity in the curve at 14 in the girls, corresponding to the decrease of the increase in sitting and standing height.

There is a perceptible irregularity for boys at 11 corresponding to the decrease of the increase in sitting and standing heights in boys.

The most marked irregularity is in boys at 16, when the increase in weight was almost insignificant.

## Cases of Intestinal Infections.

## STANDING HEIGHTS.

*Necator*.—In 30 cases (23 boys, 7 girls), pupils showing hookworm infection were shorter than the average for their respective groups, and in 21 cases (16 boys, 5 girls), they were above the average.

*Ascaris*.—In 19 cases (16 boys, 3 girls), pupils showing *Ascaris* infection were shorter than the average for their respective groups and in 20 cases (16 boys, 4 girls) they were above the average.

*Trichuris*.—In 11 cases (10 boys, 1 girl), pupils showing whip-worm infection, were below the average for their respective groups, and in 4 cases (boys) they were above the average.

*Lamblia*.—In 32 cases (26 boys, 6 girls), pupils showing *Lamblia* infection were below the average for their respective groups, and in 37 cases (30 boys, 7 girls) they were above the average.

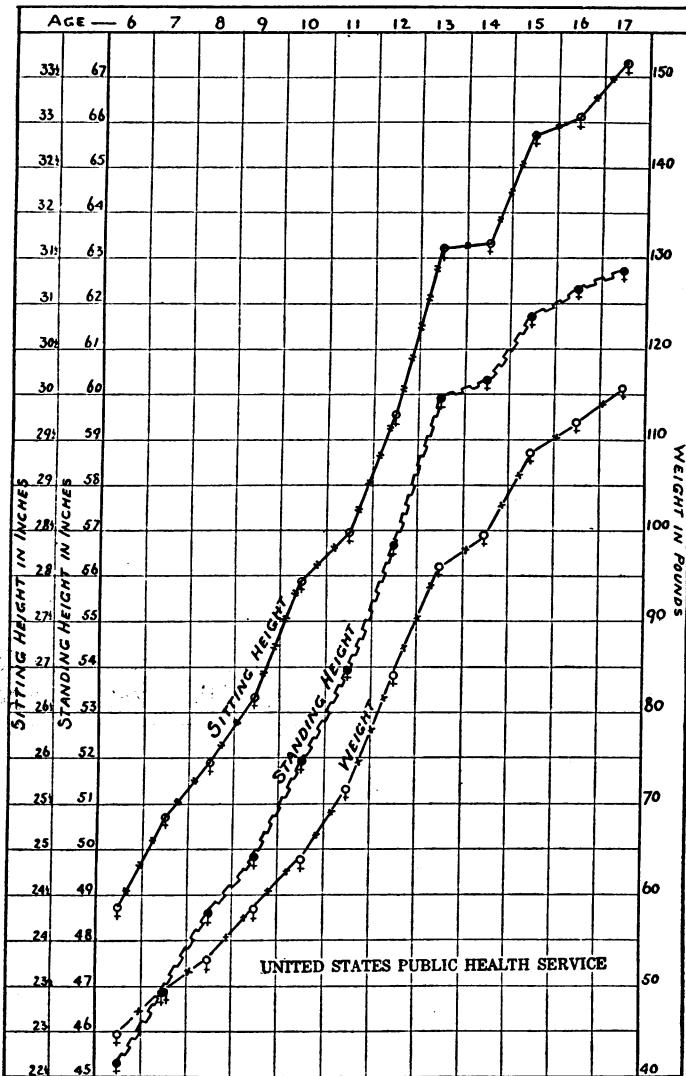


CHART 3.—Average height (standing and sitting) and weight of 877 to 881 white girls, plotted by total year periods 6 to 17 inclusive. The scale for sitting height is double that for standing height. Height is given in inches, weight in pounds. Prepared from Table 2.

*Endamæba coli*.—In 20 cases (17 boys, 3 girls) pupils were below the average for their respective groups, and in 32 cases (22 boys, 10 girls) they were above the average.

*Conclusion*.—It seems apparent that in the case of *Ascaris*, *Lamblia*, and *Endamæba coli* these figures do not present any evidence of a general retardation in growth.

The figures presented for hookworms, when taken into consideration with general experience with this infection, seem to indicate that even the relatively light infections with which we were dealing may account for a portion of the undersize.

The figures for whipworms are a distinct surprise, for it is difficult to believe that these parasites, especially in such light infections as were present, could be held accountable for the preponderance of subaverage size in so high a percentage of cases.

#### SITTING HEIGHT.

*Necator*: In 35 cases (21 boys, 14 girls), children showing hookworm infection were shorter than the average of their respective groups, and in 25 cases (19 boys, 6 girls) they were above the average.

*Ascaris*: In 20 cases (16 boys, 4 girls), children showing infection with *Ascaris* were shorter than the average of their respective groups, and in 26 cases (22 boys, 4 girls) they were above the average.

*Trichuris*: In 5 cases (4 boys, 1 girl), pupils showing infection with whipworms were shorter than the average of their respective groups, and in 3 cases (boys) they were above the average.

*Lamblia*: In 35 cases (23 boys, 12 girls), pupils showing infection with *Lamblia* were shorter than the average of their respective groups, and in 37 cases (30 boys, 7 girls) they were above the average.

*Endamæba coli*: In 29 cases (22 boys, 7 girls), pupils showing infection with *E. coli* were shorter than the average of their respective groups, and in 28 cases (18 boys, 10 girls) they were above the average.

*Conclusion*.—In the case of *Ascaris*, *Lamblia*, and *Endamæba coli*, no evidence was obtained that these parasites cause a decrease in sitting height in the average case. In hookworm infection, the evidence points to a decrease in sitting height. In whipworm infection the figures are too small to be trustworthy.

#### WEIGHTS.

*Necator*: In 26 cases (18 boys, 8 girls), pupils infected with hookworms weighed less than the average of their respective groups, and in 22 cases (15 boys, 7 girls) they weighed more than the average.

*Ascaris*: In 17 cases (13 boys, 4 girls), pupils infected with *Ascaris* weighed less than the average of their respective groups, and in 25 cases (21 boys, 4 girls) they weighed more than the average.

*Trichuris*: In 5 cases (boys), pupils infected with whipworms weighed less than the average of their respective groups, and in 2 cases (boys) they weighed more than the average.

*Lamblia*: In 33 cases (25 boys, 8 girls) pupils infected with *Lamblia* weighed less than the average of their respective groups, and in 39 cases (28 boys, 11 girls) they weighed more than the average.

*Endamæba coli*: In 27 cases (19 boys, 8 girls), pupils infected with *E. coli* weighed less than the average for their respective groups, and in 29 cases (20 boys, 9 girls) they weighed more than the average.

*Conclusion*.—The evidence available from these data indicates that *Ascaris*, *Endamæba coli*, and *Lamblia* apparently did not act detrimentally upon the weights of the children.

Hookworms may perhaps have been a detrimental factor in weights, but the infections were light and the average detrimental effect was apparently not great.

The whipworm infections are rather few in number to be used as basis for conclusions.

#### General Conclusions and Summary.

The children included in these studies are white school children, nearly all American and southern born, and all attending school in the southern city of X, which is situated in the sandy coastal plain. The results obtained are not to be used as standards for the clay lands or the mountains, nor should they be used as standards for farm children in the sand areas.

The heights and weights were taken for quarter-year periods, and all children of a given quarterly group (as 6.00, 6.25, 6.50, and 6.75) are of the same age *to the day*. There is a slight variation of the date on which these measurements were taken, in some instances, but this rarely, if ever, exceeded 72 hours and therefore may safely be ignored.

All quarter-year groups are summarized into total year groups; for instance, the children of 6.00, 6.25, 6.50, and 6.75 years are summarized into the 6-year group. A comparison between 6 and 7 includes, therefore, all the children from 6.00 to 6.75, inclusive, as compared with all the children from 7.00 to 7.75, inclusive.

Heights (standing and sitting) and weights were taken for 1,642 to 1,652 pupils (765 to 771 boys, 877 to 881 girls) from 6.00 to 17.75, inclusive. In addition to age groups these children are compared by sanitary groups (P, from homes with privy; S, from homes with sewers, but without privies; U, from homes of unknown sanitation).

*Proportion of sitting and standing height*.—In general the sitting height is a little more than one-half of the standing height, but in girls from 13 to 17, inclusive, it is considerably more than one-half of the standing height.

*Interruptions in growth*.—The children showed two rather striking interruptions in growth. At 11 there is a rather striking decrease

of the increase in the standing height, sitting height, and weight of boys and a less marked decrease of the increase in the sitting height of the girls.

At 14 there is a sudden and very pronounced decrease of the increase in the standing height, sitting height, and weight of girls. In this connection it is rather suggestive that these girls average their first menstruation at 13.2 years of age.

The change in growth of boys at this age is much less striking. At 16 there is a marked interruption in the increase of weight among the boys.

*Comparison of boys and girls.*—In the total year periods 6 to 13 there is no constant and uniform difference in growth between boys and girls; in some of these periods the boys excel and in others the girls excel; but from 13 to 17 the growth of the boys is in general far in excess of that of the girls; this difference is especially marked at 17 years.

*Sanitary groups.*—Of 24 total year periods (12 of boys, 12 of girls) Group S excelled in standing height in 16 periods, Group P in 8 periods; in sitting height, Group S excelled in 13 periods, Group P in 11 periods; in weight, Group S excelled in 15 periods, Group P in 9 periods.

Accordingly, the children from homes with better sanitation excelled in a total of 44 averages, while children from homes with poorer sanitation excelled in 28 averages. In general, therefore, the children who came from the homes with better sanitation excelled those who came from homes with poorer sanitation. It is, however, self-understood that the sanitation, with its results, is only one of the many elements involved in explaining the differences.

*Intestinal infections.*—The figures for whipworm infection are too small to warrant conclusions.

No evidence was found that infection with *Ascaris*, *Lamblia*, or *Endamoeba coli* had any material effect in retarding growth, but it should be recalled that the *Ascaris* infections were light.

In children showing infection (light or rather light cases) with hookworms, the evidence is not striking, but it summarizes as follows:

|                      | Below average. | Above average. |
|----------------------|----------------|----------------|
| Standing height..... | 30             | 21             |
| Sitting height.....  | 35             | 25             |
| Weight.....          | 26             | 22             |
| Total .....          | 91             | 68             |

Thus, in final score, the hookworm cases were below average in 91 markings and above the average in 68 markings. The conclusion appears, therefore, to be justified that, even in the light cases with which we were dealing, the infection had an appreciable effect on heights and weights.

## AN EFFICIENT LIQUID DISINFECTANT.

### A FORMULA BY WHICH ONE CAN BE READILY PREPARED.

By ALBERT F. STEVENSON, Sanitary Chemist, Hygienic Laboratory, United States Public Health Service.

The modern health officer and sanitarian, in his war upon contagious disease, is becoming convinced of the advisability of the free use of liquid disinfectants. He not only finds it desirable to disinfect articles which have come into intimate contact with infectious material but frequently recommends the rather free use of disinfectants in the household and in the schoolroom and other public places.

Of the various disinfecting substances that might be used for such purposes, emulsified organic compounds, and especially the coal-tar products, have come into most general use. They are noncorrosive, are relatively nontoxic, and, by reason of their soapy nature, are admirably fitted for general cleansing purposes. A large number of these products have been put upon the market in recent years as proprietary articles with trade names that give but little clue to their nature or efficiency. The better ones have a guaranteed "phenol coefficient," thus placing a definite legal responsibility upon the manufacturer. Many manufacturers avoid this liability, either through ignorance of its importance or unwillingness to state the true facts. The public health official and the householder are often at a loss, therefore, to select a disinfectant which will be at the same time efficient and economical. This doubt has prompted many inquiries addressed to the United States Public Health Service as to the merits of various market preparations and the selection of the most efficient one upon the basis of cost. The matter has become one of sufficient importance to justify an investigation on the part of the Public Health Service looking toward the preparation of a disinfectant that should be efficient, cheap, and readily compounded of materials obtainable upon the market.

The report<sup>1</sup> of Anderson and McClintic which showed the worthless character of many of the so-called disinfectants upon the market at that time, is of little value for present purposes since new preparations are constantly appearing and there is no assurance of the constancy of any particular trade material.

A number of substances have been investigated and a full report of the investigation will be issued shortly as a bulletin of the Hygienic Laboratory. The final results of these studies are given in the present report.

The preparation which is recommended is made from "pine oil," manufactured by the "steam or solvent" process, and emulsified

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<sup>1</sup> United States Public Health Service, Hygienic Laboratory Bulletin No. 82, 1912.

with saponified rosin, according to a definite procedure. It has a hygienic laboratory phenol coefficient of between 4 and 6. The method of preparation is simple and can be carried out without special apparatus.

#### Description of Ingredients Used.

*Pine oil.*—Pine oil is a general term given to certain fractions from both the "destructive distillation" and the "steam or solvent" process, for the recovery of turpentine from waste wood of the long-leaf southern pine. For the purpose of compounding this disinfectant, pine oils from these two processes must not be confused. It is only the oil from the "steam or solvent" process which can be used.

Pine oil is probably a mixture of many essential oils of the terpinol family. It is a by-product from the manufacture of wood turpentine, and probably is the substance which prevents the decay of "pitch pine" stumps. It is an amber-colored liquid, having the characteristic odor of pine wood, and should be perfectly clear, transparent, and free from any considerable sediment.

The commercial product contains from 3 to 4 per cent of dissolved water. When freed from this water, the oil should commence to distill at not less than 207° C., and approximately 85 per cent of it should distill between 207° C. and 230° C.

The pine oil should be freshly distilled when purchased. This is very important. It has been found that its germicidal power deteriorates on standing. The germicidal power of an old oil may be brought back to its original degree by redistilling.

Pine oil, as described here, can be purchased from concerns manufacturing wood turpentine by the "steam or solvent" process.

*Rosin.*—The rosin used in the emulsification is "Good, strained North Carolina, Grade E." This rosin is rather dark in color and is sold in lumps. It is not wholly free from dirt and other foreign matter. The dirt settles out quickly and does not interfere in any way with the finished product. The rosin should be broken into small pieces to hasten the solution in the oil.

*Sodium hydroxid solution (NaOH).*—This solution is used to form a soap with the rosin. It has been found that 25 per cent of sodium hydroxid (NaOH), by weight, is the most efficient concentration for use in this work. The solution is made from commercial "lye" or sodium hydroxid. The manufacturers assay, or the per cent NaOH in the alkali, may be correct, but it is safe to assume a strength 2 per cent less than the statement on the label. An alkali solution slightly in excess of 25 per cent makes no material difference in the finished disinfectant, but too little active alkali is fatal to the emulsion.

When sodium hydroxid is dissolved in water, considerable heat is generated, and the solution is corrosive and violently attacks the

hands and clothing. The lye should be weighed quickly to avoid the absorption of moisture, placed either in a wooden or an enameled iron pail, and the necessary water added. After stirring, cover the pail to prevent evaporation during cooling. When cold, the solution can be stored in glass containers and stoppered with tightly fitting rubber stoppers.

The following table will be of use in the computation of the crude alkali necessary to make the desired solution:

| Assay of alkali, per cent NaOH. | Metric units. |        | Avoirdupois. |                    |
|---------------------------------|---------------|--------|--------------|--------------------|
|                                 | Alkali.       | Water. | Alkali.      | Water (by weight). |
| 85                              | 294           | 706    | 10.4         | 24.9               |
| 86                              | 291           | 703    | 10.3         | 25.0               |
| 87                              | 287           | 713    | 10.2         | 25.1               |
| 88                              | 284           | 716    | 10.1         | 25.2               |
| 89                              | 281           | 719    | 9.9          | 25.4               |
| 90                              | 278           | 722    | 9.8          | 25.5               |
| 91                              | 275           | 725    | 9.7          | 25.6               |
| 92                              | 272           | 728    | 9.6          | 25.7               |
| 93                              | 269           | 731    | 9.5          | 25.8               |
| 94                              | 266           | 734    | 9.4          | 25.9               |
| 95                              | 263           | 737    | 9.3          | 26.0               |
| 96                              | 260           | 740    | 9.2          | 26.1               |
| 97                              | 258           | 742    | 9.1          | 26.2               |
| 98                              | 255           | 745    | 9.0          | 26.3               |
| 99                              | 252           | 748    | 8.9          | 26.4               |
| 100                             | 250           | 750    | 8.8          | 26.5               |

#### Proportions and Manner of Mixing the Ingredients.

The best results are obtained when the oil, rosin, and alkali solution are mixed in the following proportions and according to the following directions:

|                                | Metric. | Avoirdupois (by weight). |
|--------------------------------|---------|--------------------------|
|                                | Grams.  | Ounces.                  |
| Pine oil.....                  | 1,000   | 35.3                     |
| Rosin.....                     | 400     | 14.2                     |
| 25 per cent NaOH solution..... | 200     | 7.1                      |

This will make approximately 1,500 cubic centimeters or 1.6 quarts of disinfectant.

The pine oil and rosin are heated together in a covered "enameled ware" pail until the rosin is all dissolved. The mixture is cooled to 80° C., the sodium hydroxid solution added, and the liquid violently stirred or "beaten" for at least 10 minutes with a rotary "Dover" egg beater. Sufficient water is added to make mixture to the original weight. The preparation is then cooled quickly by placing the pail in cold water. It is stored in glass or metal containers till used.

*The finished disinfectant.*—The finished disinfectant is a dark reddish-brown liquid, rather thick and oily in appearance and free from turbidity or cloudiness. It makes a perfectly white emulsion, much resembling milk when added to water. If the dilution water is at a temperature of less than 30° C. the emulsion will last for weeks. If hot water is used, a layer of oil eventually forms on the surface. The germicidal power of the disinfectant remains practically constant for about two months. After that, a noticeable deterioration occurs. Samples four months' old show a phenol coefficient of about 3.5. The pine oil itself is more stable than the emulsified product. It is well to buy only a few months' supply of the oil at a time, and to make up only enough disinfectant for a month's use.

*Uses.*—This disinfectant may be used wherever the ordinary coal-tar compounds are used. It has a much more pleasing odor than the coal-tar compounds, and can be used where these products, on account of their odor, are not practical. It will not attack fabrics or metals and is recommended for the disinfection of all articles used in the care of contagious diseases. It has not a displeasing taste, and has been used with success as an antiseptic throat spray and tooth and mouth wash.

It can be used in any dilution up to 1:500. The most economic strength depends wholly on the length of time it is allowed to act.

*Cost.*—The market quotation on pine oil is approximately 35 cents per gallon. Two of the manufacturers of the oil have quoted prices on this special fraction at from 40 to 50 cents per gallon.

“Good, strained, North Carolina, grade E” rosin is quoted at 2½ cents per pound.

Ninety-five per cent sodium hydroxid can be bought in 10-pound drums, at 3½ cents per pound.

One gallon of pine oil weighs approximately 3,560 grams. Upon this basis 1 gallon of disinfectant can be made with the following amounts of the ingredients and at the prices stated:

|  | Cents.   |
|--|----------|
| Pine oil, 2,500 grams, or 5.5 pounds.....                          | 35       |
| Rosin, 1,000 grams, or 2.2 pounds.....                             | 5.5      |
| 25 per cent NaOH solution by weight, 500 grams, or 1.1 pounds..... | 1        |
| <br>Total, 1 gallon.....   | <br>41.5 |

This price does not include cost for heat or labor, but the compounding is so simple and takes so little heat that the total cost will not exceed 50 cents per gallon.

*Efficiency.*—The germicidal efficiency of the preparation depends in part upon the character of the pine oil used and in part upon the minor details of compounding. These latter can not be discussed fully in this brief report. They do not affect the practical result.

Two sample batches made up by these specifications gave the following hygienic laboratory phenol coefficient, when tested by the official method without organic matter:

*Hygienic Laboratory phenol coefficient.*

B. TYPHOSUS 20°.

| Dilution.              | Time of exposure, minutes. |   |     |    |      |    | Phenol coefficient.                 |
|------------------------|----------------------------|---|-----|----|------|----|-------------------------------------|
|                        | 2.5                        | 5 | 7.5 | 10 | 12.5 | 15 |                                     |
| Phenol:                |                            |   |     |    |      |    |                                     |
| 80.....                | —                          | — | —   | —  | —    | —  |                                     |
| 90.....                | +                          | — | —   | —  | —    | —  |                                     |
| 100.....               | +                          | + | +   | —  | —    | —  |                                     |
| 110.....               | +                          | + | +   | +  | +    | +  |                                     |
| 120.....               | +                          | + | +   | +  | +    | +  |                                     |
| Pine-oil disinfectant: |                            |   |     |    |      |    |                                     |
| 375.....               | —                          | — | —   | —  | —    | —  |                                     |
| 400.....               | —                          | — | —   | —  | —    | —  |                                     |
| 450.....               | +                          | + | +   | —  | —    | —  |                                     |
| 500.....               | +                          | + | +   | +  | +    | +  |                                     |
| 550.....               | +                          | + | +   | +  | +    | +  | $\frac{400 + 450}{80 + 100} = 4.75$ |
| Pine-oil disinfectant: |                            |   |     |    |      |    |                                     |
| 350.....               | —                          | — | —   | —  | —    | —  |                                     |
| 375.....               | +                          | — | —   | —  | —    | —  |                                     |
| 400.....               | +                          | — | —   | —  | —    | —  |                                     |
| 450.....               | +                          | + | +   | +  | +    | +  |                                     |
| 500.....               | +                          | + | +   | +  | +    | +  |                                     |
| 550.....               | +                          | + | +   | +  | +    | +  | $\frac{350 + 450}{80 + 100} = 4.44$ |

*Designation.*—It is suggested that this preparation be referred to in specifications and elsewhere as the "Hygienic Laboratory pine-oil disinfectant."

## PLAQUE-PREVENTION WORK.

### CALIFORNIA.

The following reports of plague-prevention work in California were received from Senior Surg. Pierce, of the United States Public Health Service, in charge of the work:

WEEK ENDED SEPT. 4, 1915.

| SAN FRANCISCO, CAL.                                  | RAT PROOFING. | SAN FRANCISCO, CAL.—Continued.                                  | RAT PROOFING—continued. |
|--|---------------|---|-------------------------|
| New buildings:                                       |               | Old buildings:  |                         |
| Inspections of work under construction..             | 85            | Inspections made.....   | 248                     |
| Basements concreted (8,575 square feet).....         | 20            | Wooden floors removed.....                                      | 23                      |
| Floors concreted (10,207 square feet).....           | 4             | Yards and passageways, planking removed.....                    | 13                      |
| Yards, passageways, etc., (4,383 square feet).....   | 14            | Cubic feet new foundation walls installed .....                 | 2,370                   |
| Total area of concrete laid (square feet). 23,165    |               | Concrete floors installed (24,022 square feet).....             | 15                      |
| Class A, B, and C (fire proof) buildings:            |               | Basements concreted (45,190 square feet).....                   | 19                      |
| Inspections made.....                                | 195           | Yards and passageways, etc., concreted (6,219 square feet)..... | 15                      |
| Roof and basement ventilators, etc., screened.....   | 4,115         | Total area concrete laid (square feet).... 75,431               |                         |
| Wire screening used (square feet).....               | 22,600        | Floors rat proofed with wire cloth (8,500 square feet).....     | 8                       |
| Openings around pipes, etc., closed with cement..... | 2,761         | Buildings razed.....  | 8                       |
| Sidewalk lens lights replaced.....                   | 1,100         |   |                         |

## SAN FRANCISCO, CAL.—Continued.

## RAT PROOFING—continued.

New garbage cans stamped approved.....  
Nuisances abated.....

## OPERATIONS ON THE WATER FRONT.

Vessels inspected for rat guards.....  
Reinspections made on vessels.....  
New rat guards procured.....  
Defective rat guards repaired.....  
Rats trapped on wharves and water front....  
Rats trapped on vessels.....  
Traps set on wharves and water front.....  
Traps set on vessels.....  
Vessels trapped on.....  
Poisons placed on water front (pieces).....  
Poisons placed within Panama Pacific International Exposition grounds (pieces).....

740  
238  
32  
28  
12  
8  
36  
30  
175  
78  
14  
3,600  
7,200

Bait used on water front and vessels, bacon (pounds).....  
Amount of bread used in poisoning water front (loaves).....  
Pounds of poison used on water front.....

OPERATIONS ON THE WATER FRONT—continued.

RATS COLLECTED AND EXAMINED FOR PLAGUE.

Collected.....  
Examined.....  
Found infected.....

RATS IDENTIFIED.

Mus norvegicus.....  
Mus alexandrinus.....  
Mus musculus.....  
Mus rattus.....

6

12

6

0

160

86

57

83

*Squirrels collected and examined for plague.*

| Counties.         | Shot.      | Examined.  | Found infected. |
|-------------------|------------|------------|-----------------|
| Contra Costa..... | 650        | 246        | 5               |
| San Benito.....   | 165        | 50         | .....           |
| Monterey.....     | 127        | 85         | .....           |
| Alameda.....      | 9          | 4          | .....           |
| Stanislaus.....   | 6          | 6          | .....           |
| <b>Total.....</b> | <b>957</b> | <b>391</b> | <b>5</b>        |

## OTHER ANIMALS COLLECTED AND EXAMINED FOR PLAGUE.

Contra Costa County..... 1 rat.  
Found infected..... None.

## RANCHES INSPECTED AND HUNTED OVER.

Contra Costa County..... 40  
San Benito County..... 23  
Monterey County..... 10  
Alameda County..... 2  
Stanislaus County..... 1

**Total..... 76**

## PLAQUE-INFECTED SQUIRRELS.

## Contra Costa County:

Shot Aug. 12, 1915. J. Domingo Ranch, 7 miles southwest of Lafayette, sec. 14, T. 1 S., R. 3 W ..... 1  
Shot Aug. 16, 1915. Root Ranch, 1 mile northwest of Lafayette ..... 1  
Shot Aug. 17, 1915. J. Mulholland Ranch (Moraga Co.),  $\frac{1}{2}$  miles south of Lafayette ..... 1  
Shot Aug. 17, 1915. M. Durata Ranch, 3 miles north of Concord ..... 1  
Shot Aug. 23, 1915. Adams Ranch (Peoples Water Co.), 3 miles southeast of San Pablo ..... 1

The work is being carried on in the following named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, and Monterey.

## WEEK ENDED SEPTEMBER 11, 1915.

## SAN FRANCISCO, CAL.

## RAT PROOFING.

New buildings:  
Inspections of work under construction..... 64  
Basements concreted (53,855 square feet)..... 41  
Floors concreted (6,650 square feet)..... 3  
Yards, passageways, etc. (8,369 square feet)..... 37  
Total area of concrete laid (square feet)..... 68,874

Class A, B, and C (fireproof) buildings:  
Inspections made..... 127  
Roof and basement ventilators, etc., screened..... 3,810

## SAN FRANCISCO, CAL.—Continued.

## RAT PROOFING—continued.

Class A, B, and C (fireproof) buildings—contd.  
Wire screening used (square feet)..... 18,970  
Openings around pipes, etc., closed with cement ..... 2,903  
Sidewalk lens lights replaced ..... 1,000

Old buildings:  
Inspections made..... 311  
Wooden floors removed..... 24  
Yards and passageways, planking removed..... 5

## SAN FRANCISCO, CAL.—Continued.

## RAT PROOFING—continued.

## Old buildings—Continued.

|   |        |
|---|--------|
| Cubic feet new foundation walls installed.....                  | 885    |
| Concrete floors installed (4,900 square feet).....              | 4      |
| Basements concreted (12,400 square feet).....                   | 13     |
| Yards and passageways, etc., concreted (4,220 square feet)..... | 19     |
| Total area concrete laid (square feet)....                      | 21,520 |
| Buildings razed.....  | 9      |

## SAN FRANCISCO, CAL.—Continued.

## RAT PROOFING—continued.

|   |     |
|---|-----|
| New garbage cans stamped approved.....    | 287 |
| Nuisances abated.....                     | 170 |
| OPERATIONS ON THE WATER FRONT.            |     |
| Vessels inspected for rat guards.....     | 19  |
| Reinspections made on vessels.....        | 20  |
| New rat guards procured.....              | 11  |
| Defective rat guards repaired.....        | 6   |
| Vessels on which cargo was inspected..... | 1   |

| Amount and description of cargo.               | Condition. | Rat evidence. |
|--|------------|---------------|
| <b>Steamer Admiral Dewey from Seattle:</b>     |            |               |
| 132 cases milk, lard, and household goods..... | O. K.....  | None.         |
| 360 sacks flour, meal, and bran.....           | O. K.....  | None.         |
| 20 tubs lard.....                              | O. K.....  | None.         |

| Rats trapped on wharves and water front.....              | 28  | RATS COLLECTED AND EXAMINED FOR PLAGUE. |     |
|---|-----|---|-----|
| Rats trapped on vessels.....                              | 24  | Collected.....                          | 270 |
| Traps set on wharves and water front.....                 | 179 | Examined.....                           | 237 |
| Traps set on vessels.....                                 | 74  | Found infected.....                     | 0   |
| Vessels trapped on.....                                   | 12  |   |     |
|   |     | RATS IDENTIFIED.                        |     |
| Bait used on water front and vessels, bacon (pounds)..... | 5   | Mus norvegicus.....                     | 117 |
|   |     | Mus alexandrinus.....                   | 62  |
|   |     | Mus musculus.....                       | 45  |
|   |     | Mus rattus.....                         | 46  |

*Squirrels collected and examined for plague.*

| Counties.         | Shot. | Examined. | Found infected. |
|-------------------|-------|-----------|-----------------|
| Contra Costa..... | 407   | 148       | None.           |
| San Benito.....   | 111   | 43        | Do.             |
| Monterey.....     | 44    | 28        | Do.             |
| Alameda.....      | 33    | 16        | Do.             |
| Total.....        | 595   | 235       |                 |

*Ranches inspected and hunted over.*

|                          |    |
|--------------------------|----|
| Contra Costa County..... | 35 |
| San Benito County.....   | 13 |
| Monterey County.....     | 7  |
| Alameda County.....      | 3  |
| Total.....               | 58 |

## Record of plague infection.

| Places in California.                             | Date of last case of human plague. | Date of last case of rat plague. | Date of last case of squirrel plague. | Total number rodents found infected since May, 1907. |
|---|------------------------------------|----------------------------------|---------------------------------------|--|
| Cities:   |                                    |                                  |                                       |  |
| San Francisco.....                                | Jan. 30, 1908                      | Oct. 23, 1908                    | (1)                                   | 398 rats.  |
| Oakland.....                                      | Aug. 9, 1911                       | Dec. 1, 1908                     | (1)                                   | 126 rats.  |
| Berkeley.....                                     | Aug. 28, 1907                      | (1)                              | (1)                                   | None.  |
| Los Angeles.....                                  | Aug. 11, 1908                      | (1)                              | Aug. 21, 1908                         | 1 squirrel.  |
| Counties:   |                                    |                                  |                                       |  |
| Alameda (exclusive of Oakland and Berkeley) ..... | Sept. 24, 1909                     | Oct. 17, 1909 <sup>2</sup>       | July 12, 1915                         | 287 squirrels; 1 wood rat.                           |
| Contra Costa.....                                 | July 13, 1915                      | (1)                              | Aug. 23, 1915                         | 1,588 squirrels.                                     |
| Fresno.....                                       | (1)                                | (1)                              | Oct. 27, 1911                         | 1 squirrel.  |
| Merced.....                                       | (1)                                | (1)                              | July 12, 1911                         | 5 squirrels.   |
| Monterey.....                                     | (1)                                | (1)                              | Apr. 10, 1914                         | 6 squirrels.   |
| San Benito.....                                   | June 4, 1913                       | (1)                              | Aug. 14, 1915                         | 50 squirrels.  |
| San Joaquin.....                                  | Sept. 18, 1911                     | (1)                              | Aug. 26, 1911                         | 18 squirrels.  |
| San Luis Obispo.....                              | (1)                                | (1)                              | Jan. 29, 1910                         | 1 squirrel.  |
| Santa Clara.....                                  | Aug. 31, 1910                      | (1)                              | July 23, 1913                         | 25 squirrels.  |
| Santa Cruz.....                                   | (1)                                | (1)                              | May 17, 1910                          | 3 squirrels.   |
| Stanislaus.....                                   | (1)                                | (1)                              | June 2, 1911                          | 13 squirrels.  |

<sup>1</sup> None.<sup>2</sup> Wood rat.

The work is being carried on in the following named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, and Monterey.

## WASHINGTON—SEATTLE—PLAQUE ERADICATION.

The following reports of plague-eradication work at Seattle were received from Surg. Lloyd, of the United States Public Health Service in charge of the work:

WEEK ENDED SEPT. 11, 1915.

| RAT PROOFING.   |        | LABORATORY AND RODENT OPERATIONS—contd.  |     |
|---|--------|--|-----|
| New buildings inspected.....                                    | 19     | Rodents examined for plague infection.....   | 160 |
| New buildings reinspected.....                                  | 37     | Rodents proven plague infected.....  | 0   |
| Basements concreted, new buildings (16,960 square feet).....    | 16     | Poison distributed (pounds).....   | 24  |
| Floors concreted, new buildings (25,785 square feet).....       | 18     | Bodies examined for plague infection.....  | 4   |
| Yards, etc., concreted, new structures (2,475 square feet)..... | 7      | Bodies found plague infected.....  | 0   |
| Sidewalks concreted (square feet).....                          | 9,285  | CLASSIFICATION OF RODENTS.   |     |
| Total concrete laid, new structures (square feet).....          | 54,505 | Mus rattus.....  | 19  |
| New buildings elevated.....                                     | 7      | Mus alexandrinus.....  | 47  |
| New premises rat proofed, concrete.....                         | 34     | Mus norvegicus.....  | 114 |
| Old buildings inspected.....                                    | 5      | Mus musculus.....  | 57  |
| Premises otherwise rat proofed, old buildings.....              | 5      | WATER FRONT.   |     |
| Openings screened, old buildings.....                           | 17     | Vessels inspected and histories recorded.....                                      | 15  |
| Rat holes cemented, old buildings.....                          | 24     | Vessels fumigated.....   | 0   |
| Wooden floors removed, old buildings.....                       | 5      | New rat guards installed.....  | 18  |
| Wire screening used (square feet).....                          | 650    | Defective rat guards repaired.....   | 12  |
| Buildings razed.....  | 3      | Port sanitary statements issued.....   | 58  |
| LABORATORY AND RODENT OPERATIONS.                               |        | The usual day and night patrol was maintained to enforce rat guarding and fending. |     |
| Dead rodents received.....                                      | 17     | MISCELLANEOUS WORK.  |     |
| Rodents trapped and killed.....                                 | 220    | Rat-proofing notices sent to contractors, new buildings.....                       |     |
| Total.....  | 237    | Letters sent in re rat complaints.....   |     |

19

| RODENTS EXAMINED IN EVERETT.               |    | RAT-PROOFING OPERATIONS IN EVERETT—CON.                     |   |
|--|----|---|---|
| Mus norvegicus trapped.....                | 43 | New buildings elevated 18 inches.....                       | 8 |
| Mus norvegicus found dead.....             | 1  | New buildings, basements concreted (1,620 square feet)..... | 3 |
| Mus musculus trapped.....                  | 2  | New buildings, floors concreted (480 square feet).....      | 1 |
| Total.....                                 | 46 | New buildings, yards concreted (528 square feet).....       | 4 |
| Rodents examined for plague infection..... | 41 | Total concrete laid, new buildings (2,628 square feet)..... |   |
| Rodents proven plague infected.....        | 0  |   |   |
| RAT-PROOFING OPERATIONS IN EVERETT.        |    |   |   |
| New buildings inspected.....               | 14 |   |   |
| New buildings, concrete foundations.....   | 6  |   |   |

## WEEK ENDED SEPT. 18, 1915.

| RAT PROOFING.   |     | CLASSIFICATION OF RODENTS.                                   |     |
|---|-----|--|-----|
| New buildings inspected.....                                    | 28  | Mus rattus.....  | 28  |
| New buildings reinspected.....                                  | 42  | Mus alexandrinus.....  | 70  |
| Basements concreted, new buildings (13,530 square feet).....    | 15  | Mus norvegicus.....  | 107 |
| Floors concreted, new buildings (45,650 square feet).....       | 18  | Mus musculus.....  | 39  |
| Yards, etc., concreted, new structures (3,750 square feet)..... | 7   |  |     |
| Sidewalks concreted (4,950 square feet).....                    |     |  |     |
| Total concrete laid, new structures (67,880 square feet).....   |     |  |     |
| New buildings elevated.....                                     | 4   |  |     |
| New premises rat proofed, concrete.....                         | 33  |  |     |
| Old buildings inspected.....                                    | 3   |  |     |
| Premises rat proofed, concrete, old buildings.....              |     |  |     |
| Floors concreted, old buildings.....                            | 1   |  |     |
| Premises otherwise rat proofed, old buildings.....              | 1   |  |     |
| Wooden floors removed, old buildings.....                       | 2   |  |     |
| Wire screening used (575 square feet).....                      | 1   |  |     |
| Buildings razed.....  | 2   |  |     |
| LABORATORY AND RODENT OPERATIONS.                               |     | MISCELLANEOUS WORK.  |     |
| Dead rodents received.....                                      | 28  | Rat-proofing notices sent to contractors, new buildings..... | 17  |
| Rodents trapped and killed.....                                 | 216 | Letters sent in re rat complaints.....                       | 5   |
| Total.....  | 244 |  |     |
| Rodents examined for plague infection.....                      | 172 |  |     |
| Rodents proven plague infected.....                             | 0   |  |     |
| Poison distributed, pounds.....                                 | 22  |  |     |
| Bodies examined for plague infection.....                       | 1   |  |     |
| Bodies found plague infected.....                               | 0   |  |     |
|   |     | RODENTS EXAMINED IN EVERETT.                                 |     |
|   |     | Mus norvegicus trapped.....                                  | 46  |
|   |     | Mus norvegicus found dead.....                               | 1   |
|   |     | Mus musculus trapped.....                                    | 4   |
|   |     | Total.....   | 51  |
|   |     | Rodents examined for plague infection.....                   | 48  |
|   |     | Rodents proven plague infected.....                          | 0   |
|   |     | RAT-PROOFING OPERATIONS IN EVERETT.                          |     |
|   |     | New buildings inspected.....                                 | 4   |
|   |     | New buildings, concrete foundations.....                     | 2   |
|   |     | New buildings elevated 18 inches.....                        | 2   |

## HAWAII—HONOLULU—PLAQUE PREVENTION.

The following reports of plague-prevention work at Honolulu were received from Surg. Trotter, of the United States Public Health Service:

## WEEK ENDED SEPT. 4, 1915.

|                                    |     |   |     |
|------------------------------------|-----|---|-----|
| Total rats and mongoose taken..... | 345 | Classification of rats trapped—Continued. |     |
| Rats trapped.....                  | 310 | Mus norvegicus.....                       | 59  |
| Mongoose trapped.....              | 7   | Mus rattus.....                           | 19  |
| Rats shot from trees.....          | 23  | Classification of rats shot from trees:   |     |
| Examined microscopically.....      | 295 | Mus alexandrinus.....                     | 26  |
| Showing plague infection.....      | 0   | Mus rattus.....                           | 2   |
| Classification of rats trapped:    |     | Average number of traps set daily.....    | 984 |
| Mus alexandrinus.....              | 136 | Cost per rat destroyed..... cents..       | 22½ |
| Mus musculus.....                  | 96  |   |     |

WEEK ENDED SEPT. 11, 1915.

|                                    |     |   |     |
|------------------------------------|-----|---|-----|
| Total rats and mongoose taken..... | 292 | Classification of rats shot from trees:                                 |     |
| Rats trapped.....                  | 252 | Mus alexandrinus.....   | 35  |
| Mongoose trapped.....              | 3   | Mus ratus.....  | 2   |
| Rats shot from trees.....          | 37  | Average number of traps set daily.....                                  | 984 |
| Examined microscopically.....      | 265 | Cost per rat destroyed.....cents..                                      | 26} |
| Showing plague infection.....      | 0   | Last case rat plague, Aiea, 9 miles from Honolulu,<br>Apr. 12, 1910.    |     |
| Classification of rats trapped:    |     | Last case human plague, Honolulu, July 12, 1910.                        |     |
| Mus alexandrinus.....              | 126 | Last case rat plague, Kalopa stable, Paauhau,<br>Hawaii, Aug. 29, 1914. |     |
| Mus musculus.....                  | 74  | Last case human plague, Paauhau Landing,<br>Hawaii, Aug. 16, 1914.      |     |
| Mus norvegicus.....                | 43  |   |     |
| Mus ratus.....                     | 9   |   |     |

## PORTO RICO—PLAQUE PREVENTION.

The following table shows the number of rats, mice, and mongoose examined in Porto Rico for plague infection during the three weeks ended September 10, 1915. No plague infection was found:

| Place.                | Rats. | Mice. | Mon-<br>goose. |
|-----------------------|-------|-------|----------------|
| San Juan.....         | 359   | 26    | .....          |
| Puerta de Tierra..... | 176   | 28    | 1              |
| Santurce.....         | 335   | 23    | .....          |

# 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.*

## IN CERTAIN STATES AND CITIES.

### CEREBROSPINAL MENINGITIS.

State Reports for August, 1915.

| Place.                 | New cases reported. | Place.                     | New cases reported. |
|------------------------|---------------------|----------------------------|---------------------|
| <b>Mississippi:</b>    |                     | <b>New York—Continued.</b> |                     |
| Bolivar County.....    | 1                   | St. Lawrence County.....   | 2                   |
| Lawrence County.....   | 1                   | Schedectady County.....    | 1                   |
| Total.....             | 2                   | New York City.....         | 6                   |
|                        |                     | Total.....                 | 17                  |
| <b>New York:</b>       |                     | <b>Wisconsin:</b>          |                     |
| Albany County.....     | 1                   | Dane County.....           | 1                   |
| Chautauqua County..... | 2                   | Sheboygan County.....      | 1                   |
| Chemung County.....    | 1                   | Total.....                 | 2                   |
| Erie County.....       | 1                   |                            |                     |
| Monroe County.....     | 2                   |                            |                     |
| Rockland County.....   | 1                   |                            |                     |

### City Reports for Week Ended Sept. 18, 1915.

| Place.               | Cases. | Deaths. | Place.                  | Cases. | Deaths. |
|----------------------|--------|---------|-------------------------|--------|---------|
| Buffalo, N. Y.....   | 2      | 1       | New York, N. Y.....     | 5      | 6       |
| Chicago, Ill.....    | 2      | 1       | Providence, R. I.....   | 1      | 1       |
| Cleveland, Ohio..... | 2      | 1       | Superior, Wis.....      | 1      | 1       |
| Lawrence, Mass.....  | 1      | 1       | West Hoboken, N. J..... |        | 1       |
| Medford, Mass.....   |        | 1       |                         |        |         |

### DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3022.

### ERYSIPelas.

### City Reports for Week Ended Sept. 18, 1915.

| Place.                | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-----------------------|--------|---------|-----------------------|--------|---------|
| Berkeley, Cal.....    | 1      |         | Erie, Pa.....         | 1      |         |
| Buffalo, N. Y.....    | 2      | 1       | Los Angeles, Cal..... | 1      |         |
| Chicago, Ill.....     | 5      | 1       | New York, N. Y.....   | 2      |         |
| Cincinnati, Ohio..... | 1      |         | Philadelphia, Pa..... | 2      |         |
| Cleveland, Ohio.....  | 2      |         | Pittsburgh, Pa.....   | 3      |         |
| Dayton, Ohio.....     | 1      |         | St. Louis, Mo.....    | 2      |         |
| Detroit, Mich.....    | 1      |         | Seattle, Wash.....    | 1      |         |
| Duluth, Minn.....     | 1      |         |                       |        |         |

## GONORRHEA.

## Wisconsin Report for August, 1915.

The State Board of Health of Wisconsin reported that during the month of August, 1915, 12 cases of gonorrhea were notified in that State.

## MALARIA.

## Mississippi Report for August, 1915.

| Place.                      | New cases reported. | Place.                   | New cases reported. |
|-----------------------------|---------------------|--------------------------|---------------------|
| <b>Mississippi:</b>         |                     |                          |                     |
| Adams County.....           | 116                 | Mississippi—Continued.   |                     |
| Alcorn County.....          | 163                 | Lincoln County.....      | 121                 |
| Amite County.....           | 164                 | Lowndes County.....      | 347                 |
| Attala County.....          | 398                 | Madison County.....      | 466                 |
| Benton County.....          | 91                  | Marion County.....       | 257                 |
| Bolivar County.....         | 1,536               | Marshall County.....     | 187                 |
| Cahoum County.....          | 637                 | Monroe County.....       | 188                 |
| Carroll County.....         | 473                 | Montgomery County.....   | 493                 |
| Chickasaw County.....       | 215                 | Neshoba County.....      | 284                 |
| Choctaw County.....         | 416                 | Newton County.....       | 126                 |
| Claiborne County.....       | 210                 | Noxubee County.....      | 169                 |
| Clarke County.....          | 141                 | Oktibbeha County.....    | 548                 |
| Clay County.....            | 149                 | Panola County.....       | 444                 |
| Coahoma County.....         | 1,144               | Pearl River County.....  | 43                  |
| Copiah County.....          | 334                 | Perry County.....        | 228                 |
| Covington County.....       | 148                 | Pike County.....         | 130                 |
| De Soto County.....         | 163                 | Pontotoc County.....     | 95                  |
| Forrest County.....         | 255                 | Prentiss County.....     | 251                 |
| Franklin County.....        | 212                 | Quitman County.....      | 110                 |
| George County.....          | 40                  | Rankin County.....       | 87                  |
| Greene County.....          | 238                 | Scott County.....        | 309                 |
| Grenada County.....         | 56                  | Sharkey County.....      | 296                 |
| Hancock County.....         | 82                  | Simpson County.....      | 134                 |
| Harrison County.....        | 245                 | Smith County.....        | 213                 |
| Hinds County.....           | 602                 | Sunflower County.....    | 1,004               |
| Holmes County.....          | 1,047               | Tallahatchie County..... | 666                 |
| Issaquena County.....       | 184                 | Tate County.....         | 365                 |
| Itawamba County.....        | 188                 | Tippah County.....       | 118                 |
| Jackson County.....         | 37                  | Tishomingo County.....   | 136                 |
| Jasper County.....          | 135                 | Tunica County.....       | 349                 |
| Jefferson County.....       | 346                 | Union County.....        | 202                 |
| Jefferson Davis County..... | 81                  | Walthall County.....     | 20                  |
| Jones County.....           | 339                 | Warren County.....       | 616                 |
| Kemper County.....          | 113                 | Washington County.....   | 1,374               |
| Lafayette County.....       | 264                 | Wayne County.....        | 79                  |
| Lamar County.....           | 70                  | Wilkinson County.....    | 100                 |
| Lauderdale County.....      | 237                 | Winston County.....      | 485                 |
| Lawrence County.....        | 181                 | Yalobusha County.....    | 322                 |
| Leake County.....           | 253                 | Yazoo County.....        | 1,277               |
| Lee County.....             | 515                 | Total.....               | 25,998              |
| Leflore County.....         | 1,141               |                          |                     |

## City Reports for Week Ended Sept. 18, 1915.

| Place.                 | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|------------------------|--------|---------|-----------------------|--------|---------|
| Cairo, Ill.....        |        | 1       | Passaic, N. J.....    | 1      | .....   |
| Charleston, S. C.....  |        | 1       | Philadelphia, Pa..... | 1      | .....   |
| East Orange, N. J..... | 1      | .....   | Richmond, Va.....     | 3      | .....   |
| Jersey City, N. J..... | 1      | .....   | Sacramento, Cal.....  | 2      | .....   |
| Mobile, Ala.....       |        | 2       | Stockton, Cal.....    | 1      | .....   |
| Newark, N. J.....      | 1      | 1       | Wilmington, N. C..... | 6      | .....   |
| New Orleans, La.....   |        |         |                       |        |         |

## MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3022.

## PELLAGRA.

## Mississippi Report for August, 1915.

| Place.                      | New cases reported. | Place.                   | New cases reported. |
|-----------------------------|---------------------|--------------------------|---------------------|
| <b>Mississippi:</b>         |                     |                          |                     |
| Adams County.....           | 9                   | Lincoln County.....      | 33                  |
| Alcorn County.....          | 6                   | Lowndes County.....      | 11                  |
| Amita County.....           | 3                   | Madison County.....      | 11                  |
| Attala County.....          | 4                   | Marion County.....       | 24                  |
| Bolivar County.....         | 233                 | Marshall County.....     | 4                   |
| Calhoun County.....         | 15                  | Monroe County.....       | 50                  |
| Carroll County.....         | 6                   | Montgomery County.....   | 3                   |
| Chickasaw County.....       | 13                  | Neshoba County.....      | 21                  |
| Choctaw County.....         | 5                   | Newton County.....       | 9                   |
| Claiborne County.....       | 4                   | Noxubee County.....      | 20                  |
| Clarke County.....          | 6                   | Oktibbeha County.....    | 3                   |
| Clay County.....            | 8                   | Penola County.....       | 11                  |
| Coahoma County.....         | 116                 | Pearl River County.....  | 11                  |
| Copiah County.....          | 73                  | Perry County.....        | 16                  |
| Covington County.....       | 31                  | Pike County.....         | 15                  |
| De Soto County.....         | 21                  | Pontotoc County.....     | 7                   |
| Forrest County.....         | 5                   | Prentiss County.....     | 6                   |
| Franklin County.....        | 54                  | Quitman County.....      | 35                  |
| George County.....          | 2                   | Rankin County.....       | 7                   |
| Greene County.....          | 5                   | Scott County.....        | 7                   |
| Grenada County.....         | 7                   | Sharkey County.....      | 6                   |
| Hancock County.....         | 2                   | Simpson County.....      | 16                  |
| Harrison County.....        | 37                  | Smith County.....        | 3                   |
| Hinds County.....           | 74                  | Sunflower County.....    | 87                  |
| Holmes County.....          | 42                  | Tallahatchie County..... | 49                  |
| Itawamba County.....        | 18                  | Tate County.....         | 13                  |
| Jasper County.....          | 8                   | Tippah County.....       | 8                   |
| Jefferson County.....       | 8                   | Tishomingo County.....   | 22                  |
| Jefferson Davis County..... | 4                   | Tunica County.....       | 31                  |
| Jones County.....           | 85                  | Union County.....        | 8                   |
| Kemper County.....          | 4                   | Warren County.....       | 11                  |
| Lafayette County.....       | 2                   | Washington County.....   | 98                  |
| Lamar County.....           | 18                  | Wayne County.....        | 17                  |
| Lauderdale County.....      | 9                   | Winston County.....      | 8                   |
| Lawrence County.....        | 9                   | Yalobusha County.....    | 18                  |
| Leake County.....           | 6                   | Yazoo County.....        | 58                  |
| Lee County.....             | 35                  | Total.....               | 1,787               |
| Leflore County.....         | 43                  |                          |                     |

## City Reports for Week Ended Sept. 18, 1915.

| Place.                | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-----------------------|--------|---------|-----------------------|--------|---------|
| Bayonne, N. J.....    |        | 1       | Nashville, Tenn.....  | 1      | 1       |
| Charleston, S. C..... |        | 3       | New Orleans, La.....  | 3      | 3       |
| Che'sea, Mass.....    | 1      |         | Richmond, Va.....     |        | 1       |
| Lexington, Ky.....    |        | 1       | Wilmington, N. C..... |        | 1       |
| Los Angeles, Cal..... | 2      |         | Worcester, Mass.....  | 1      |         |
| Mobile, Ala.....      | 1      |         |                       |        |         |

## PNEUMONIA.

## City Reports for Week Ended Sept. 18, 1915.

| Place.                | Cases. | Deaths. | Place.                  | Cases. | Deaths. |
|-----------------------|--------|---------|-------------------------|--------|---------|
| Binghamton, N. Y..... | 1      | 1       | New Castle, Pa.....     | 1      |         |
| Chicago, Ill.....     | 78     | 39      | Newport, Ky.....        | 1      | 1       |
| Cleveland, Ohio.....  | 11     | 5       | Philadelphia, Pa.....   | 7      | 7       |
| Detroit, Mich.....    | 1      | 7       | Pittsburgh, Pa.....     | 12     | 7       |
| Duluth, Minn.....     | 3      | 3       | San Francisco, Cal..... | 6      | 5       |
| Erie, Pa.....         | 1      |         | Stockton, Cal.....      | 3      | 2       |
| Lorain, Ohio.....     | 1      |         | Toledo, Ohio.....       | 1      | 1       |
| Los Angeles, Cal..... | 5      | 3       | Trenton, N. J.....      | 1      |         |
| Manchester, N. H..... | 1      | 1       |                         |        |         |

**POLIOMYELITIS (INFANTILE PARALYSIS).****California—San Diego.**

Surgeon Carrington reported by telegraph that during the week ended October 2, 1915, 1 case of poliomyelitis was notified in San Diego, Cal. The patient was an adult.

**State Reports for August, 1915.**

| Place.                  | New cases reported. | Places.               | New cases reported. |
|-------------------------|---------------------|-----------------------|---------------------|
| New York:               |                     | Mississippi:          |                     |
| Cattaraugus County..... | 2                   | Bolivar County.....   | 1                   |
| Chemung County.....     | 4                   | Sunflower County..... | 2                   |
| Eric County.....        | 5                   | Walthall County.....  | 1                   |
| Genesee County.....     | 1                   |                       |                     |
| Monroe County.....      | 17                  | Total.....            | 4                   |
| Montgomery County.....  | 2                   |                       |                     |
| Ontario County.....     | 1                   | Wisconsin:            |                     |
| Orange County.....      | 1                   | Dodge County.....     | 1                   |
| Saratoga County.....    | 1                   |                       |                     |
| Ulster County.....      | 1                   |                       |                     |
| New York City.....      | 11                  |                       |                     |
| Total.....              | 46                  |                       |                     |

**City Reports for Week Ended Sept. 18, 1915.**

| Place.                | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-----------------------|--------|---------|-----------------------|--------|---------|
| Akron, Ohio.....      | 6      | 1       | Los Angeles, Cal..... | 1      |         |
| Baltimore, Md.....    | 1      |         | Lowell, Mass.....     | 1      |         |
| Boston, Mass.....     | 2      | 1       | New York, N. Y.....   | 2      | 1       |
| Buffalo, N. Y.....    | 4      |         | Oakland, Cal.....     | 1      |         |
| Canton, Ohio.....     | 1      |         | Philadelphia, Pa..... | 1      | 1       |
| Chicago, Ill.....     | 4      | 2       | Pittsburgh, Pa.....   | 2      |         |
| Cincinnati, Ohio..... | 2      |         | Pittsfield, Mass..... | 1      |         |
| Cleveland, Ohio.....  | 10     | 1       | Reading, Pa.....      | 1      |         |
| Erie, Pa.....         | 4      |         |                       |        |         |

**RABIES.****City Reports for Week Ended Sept. 18, 1915.**

During the week ended September 18, 1915, cases of rabies in man were notified in cities, as follows: Cleveland, Ohio, 1 case, 1 death; Pasadena, Cal., 1 case.

**SCARLET FEVER.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3022.

**SMALLPOX.****Kansas.**

Collaborating Epidemiologist Crumbine reported that during the two weeks ended September 25, 1915, cases of smallpox were notified in counties of Kansas as follows: Allen, 1; Anderson, 4; Crawford, 1; Labette, 2; Marshall, 2; Montgomery, 1; Morris, 1; Nemaha, 1; Sedgwick, 1; Sumner, 3; Washington, 2; Wyandotte, 3.

## Minnesota.

Collaborating Epidemiologist Bracken reported by telegraph that during the week ended October 2, 1915, cases of smallpox were notified in counties of Minnesota, as follows: Freeborn County, Albert Lee City, 4; Jackson County, West Heron Lake township, 1; Steele County, Ellendale, 1; Wadena County, Verndale, 1.

## Wisconsin Report for August, 1915.

| Place.                | New cases reported. | Deaths. | Vaccination history of cases.                      |  |                                       |  |
|-----------------------|---------------------|---------|--|--|---------------------------------------|--|
|                       |                     |         | Number vaccinated within 7 years preceding attack. | Number last vaccinated more than 7 years preceding attack. | Number never successfully vaccinated. | Vaccination history not obtained or uncertain. |
| Wisconsin:            |                     |         |  |  |                                       |  |
| Adams County.....     | 1                   |         |  |  |                                       | 1  |
| Barron County.....    | 5                   |         |  |  | 5                                     |  |
| Dodge County.....     | 6                   |         |  |  | 6                                     |  |
| Douglas County.....   | 4                   |         |  |  |                                       | 4  |
| Jefferson County..... | 1                   |         |  | 1  |                                       |  |
| Manitowoc County..... | 30                  |         |  |  | 29                                    | 1  |
| Milwaukee County..... | 5                   |         |  |  |                                       | 5  |
| Monroe County.....    | 1                   |         |  |  |                                       | 1  |
| Outagamie County..... | 1                   |         |  |  | 1                                     |  |
| Ozaukee County.....   | 1                   |         |  |  | 1                                     |  |
| Portage County.....   | 6                   |         |  |  | 6                                     | 2  |
| Price County.....     | 1                   |         |  |  |                                       | 1  |
| Racine County.....    | 5                   |         | 5  |  | 4                                     | 3  |
| Sheboygan County..... | 7                   |         |  |  |                                       |  |
| Vernon County.....    | 6                   |         | 1  |  | 5                                     |  |
| Washburn County.....  | 6                   |         | 5  |  | 1                                     |  |
| Waukesha County.....  | 1                   |         |  |  |                                       | 1  |
| Waushara County.....  | 3                   |         |  |  |                                       | 3  |
| Winnebago County..... | 1                   |         |  |  | 1                                     |  |
| Total.....            | 91                  |         |  | 11   | 1                                     | 54   |
|                       |                     |         |  |  |                                       | 25   |

## Miscellaneous State Reports.

| Place.                                       | Cases. | Deaths. | Place.   | Cases. | Deaths. |
|--|--------|---------|--|--------|---------|
| Colorado (August 1-31):<br>Delta County..... | 2      |         | New York (August 1-31):<br>Niagara County..... | 1      |         |
| Mississippi (August 1-31):<br>Counties—      |        |         | North Dakota (August 1-31):<br>Counties—       |        |         |
| Bolivar.....                                 | 5      |         | Burleigh.....                                  | 2      |         |
| Carroll.....                                 | 20     |         | Cass.....                                      | 2      |         |
| Clarke.....                                  | 2      |         | Emmons.....                                    | 1      |         |
| Coahoma.....                                 | 7      |         | McLean.....                                    | 1      |         |
| Copiah.....                                  | 3      |         | Sargent.....                                   | 5      |         |
| De Soto.....                                 | 35     |         | Sheridan.....                                  | 6      |         |
| Hinds.....                                   | 3      |         | Ward.....                                      | 2      |         |
| Lafayette.....                               | 1      |         | Total.....                                     | 19     |         |
| Yazoo.....                                   | 2      |         |  |        |         |
| Total.....                                   | 78     |         |  |        |         |

## City Reports for Week Ended Sept. 18, 1915.

| Place.               | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|----------------------|--------|---------|-----------------------|--------|---------|
| Braddock, Pa.....    | 1      |         | New Orleans, La.....  | 1      |         |
| Butte, Mont.....     | 4      |         | Portland, Oreg.....   | 3      |         |
| Davenport, Iowa..... | 5      |         | Racine, Wis.....      | 1      |         |
| Detroit, Mich.....   | 1      |         | Rock Island, Ill..... | 2      |         |
| Lincoln, Nebr.....   | 2      |         | Toledo, Ohio.....     | 1      |         |
| Milwaukee, Wis.....  | 1      |         |                       |        |         |

## SYPHILIS.

## Wisconsin Report for August, 1915.

The State Board of Health of Wisconsin reported that during the month of August, 1915, 3 cases of syphilis were notified in that State.

## TETANUS.

## City Reports for Week Ended Sept. 18, 1915.

| Place.          | Cases. | Deaths. | Place.            | Cases. | Deaths. |
|-----------------|--------|---------|-------------------|--------|---------|
| Baltimore, Md.  |        |         | Los Angeles, Cal. |        |         |
| Chicago, Ill.   | 1      | 1       | Lynchburg, Va.    |        | 1       |
| Cleveland, Ohio | 1      |         | New York, N. Y.   | 3      | 1       |
| Panville, Ill.  | 1      | 1       | Philadelphia, Pa. | 2      |         |
| Galveston, Tex. |        | 1       | Richmond, Va.     |        | 1       |

## TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3022.

## TYPHOID FEVER.

## State Reports for August, 1915.

| Place.                 | New cases reported. | Place.                 | New cases reported. |
|------------------------|---------------------|------------------------|---------------------|
| Mississippi:           |                     | Mississippi—Continued. |                     |
| Adams County           | 11                  | Marshall County        | 12                  |
| Alcorn County          | 16                  | Monroe County          | 11                  |
| Amite County           | 8                   | Montgomery County      | 1                   |
| Attala County          | 19                  | Neshoba County         | 22                  |
| Bolivar County         | 73                  | Newton County          | 17                  |
| Calhoun County         | 16                  | Noxubee County         | 57                  |
| Carroll County         | 19                  | Oktibbeha County       | 3                   |
| Chickasaw County       | 9                   | Panola County          | 14                  |
| Choctaw County         | 8                   | Pearl River County     | 6                   |
| Claiborne County       | 4                   | Perry County           | 3                   |
| Clarke County          | 8                   | Pike County            | 9                   |
| Clay County            | 4                   | Pontotoc County        | 12                  |
| Coahoma County         | 30                  | Prentiss County        | 9                   |
| Copiah County          | 35                  | Quitman County         | 2                   |
| Covington County       | 22                  | Rankin County          | 3                   |
| De Soto County         | 19                  | Scott County           | 40                  |
| Forrest County         | 12                  | Sharkey County         | 3                   |
| Franklin County        | 5                   | Simpson County         | 5                   |
| George County          | 3                   | Sinisth County         | 10                  |
| Greene County          | 9                   | Sunflower County       | 22                  |
| Hancock County         | 16                  | Tallahatchie County    | 38                  |
| Harrison County        | 26                  | Tate County            | 25                  |
| Hinds County           | 30                  | Tippah County          | 16                  |
| Holmes County          | 17                  | Tishomingo County      | 39                  |
| Issaquena County       | 1                   | Tunica County          | 5                   |
| Itawamba County        | 4                   | Union County           | 7                   |
| Jackson County         | 2                   | Warren County          | 1                   |
| Jasper County          | 9                   | Washington County      | 34                  |
| Jefferson County       | 1                   | Wayne County           | 2                   |
| Jefferson Davis County | 7                   | Winston County         | 6                   |
| Jones County           | 26                  | Yalobusha County       | 35                  |
| Kemper County          | 9                   | Yazoo County           | 23                  |
| Lafayette County       | 7                   | Walthall County        | 2                   |
| Lamar County           | 2                   | Total                  | 1,106               |
| Lauderdale County      | 16                  |                        |                     |
| Lawrence County        | 3                   | New York:              |                     |
| Leake County           | 14                  | Albany County          | 17                  |
| Lee County             | 21                  | Allegany County        | 7                   |
| Leflore County         | 4                   | Broome County          | 6                   |
| Lincoln County         | 24                  | Cattaraugus County     | 5                   |
| Lowndes County         | 6                   | Cayuga County          | 23                  |
| Madison County         | 21                  | Chautauqua County      | 12                  |
| Marion County          | 16                  |                        |                     |

## TYPHOID FEVER—Continued.

## State Reports for August, 1915—Continued.

| Place.                    | New cases reported. | Place.                    | New cases reported. |
|---------------------------|---------------------|---------------------------|---------------------|
| New York—Continued.       |                     | New York—Continued.       |                     |
| Chemung County.....       | 4                   | Tioga County.....         | 1                   |
| Chenango County.....      | 1                   | Tompkins County.....      | 3                   |
| Clinton County.....       | 4                   | Ulster County.....        | 2                   |
| Columbia County.....      | 2                   | Warren County.....        | 4                   |
| Cortland County.....      | 1                   | Washington County.....    | 5                   |
| Delaware County.....      | 7                   | Wayne County.....         | 3                   |
| Dutchess County.....      | 7                   | Westchester County.....   | 26                  |
| Erie County.....          | 68                  | New York City.....        | 509                 |
| Essex County.....         | 2                   |                           |                     |
| Franklin County.....      | 1                   | Total.....                | 877                 |
| Fulton County.....        | 1                   |                           |                     |
| Genesee County.....       | 3                   | North Dakota:             |                     |
| Herkimer County.....      | 6                   | Adams County.....         | 1                   |
| Jefferson County.....     | 14                  | Bowman County.....        | 4                   |
| Lewis County.....         | 1                   | Cass County.....          | 2                   |
| Livingston County.....    | 2                   | Golden Valley County..... | 1                   |
| Madison County.....       | 2                   | Mercer County.....        | 1                   |
| Monroe County.....        | 21                  | Morton County.....        | 9                   |
| Montgomery County.....    | 4                   | Mountrail County.....     | 1                   |
| Niagara County.....       | 12                  | Pembina County.....       | 2                   |
| Oneida County.....        | 6                   | Ramsey County.....        | 1                   |
| Onondaga County.....      | 14                  | Slope County.....         | 1                   |
| Ontario County.....       | 2                   | Stutsman County.....      | 1                   |
| Orange County.....        | 6                   |                           |                     |
| Orleans County.....       | 1                   | Total.....                | 24                  |
| Oswego County.....        | 3                   |                           |                     |
| Otsego County.....        | 4                   | Wisconsin:                |                     |
| Putnam County.....        | 4                   | Fond du Lac County.....   | 2                   |
| Rensselaer County.....    | 6                   | Jefferson County.....     | 2                   |
| St. Lawrence County.....  | 7                   | Kenosha County.....       | 1                   |
| Saratoga County.....      | 4                   | La Crosse County.....     | 2                   |
| Schenectady County.....   | 6                   | Manitowoc County.....     | 3                   |
| Schoharie County.....     | 3                   | Milwaukee County.....     | 10                  |
| Schuylerville County..... | 1                   | Sheboygan County.....     | 1                   |
| Seneca County.....        | 5                   | Waupaca County.....       | 1                   |
| Steuben County.....       | 10                  | Winnebago County.....     | 3                   |
| Suffolk County.....       | 3                   |                           |                     |
| Sullivan County.....      | 6                   | Total.....                | 25                  |

## City Reports for Week Ended Sept. 18, 1915.

| Place.                   | Cases. | Deaths. | Place.                  | Cases. | Deaths. |
|--------------------------|--------|---------|-------------------------|--------|---------|
| Akron, Ohio.....         | 5      | 1       | Galesburg, Ill.....     | 3      |         |
| Altoona, Pa.....         | 1      |         | Galveston, Tex.....     | 3      |         |
| Atlantic City, N. J..... | 1      |         | Grand Rapids, Mich..... | 5      |         |
| Baltimore, Md.....       | 52     | 2       | Harrisburg, Pa.....     | 2      |         |
| Bayonne, N. J.....       | 2      |         | Hartford, Conn.....     | 7      | 1       |
| Binghamton, N. Y.....    | 2      |         | Haileyville, Mass.....  | 3      |         |
| Boston, Mass.....        | 18     | 1       | Jersey City, N. J.....  | 9      | 1       |
| Braddock, Pa.....        | 1      |         | Johnstown, Pa.....      | 2      |         |
| Bridgeport, Conn.....    | 2      |         | Kalamazoo, Mich.....    | 2      |         |
| Brockton, Mass.....      | 2      |         | Kansas City, Kans.....  | 1      |         |
| Buffalo, N. Y.....       | 13     | 3       | Kearny, N. J.....       | 1      |         |
| Cambridge, Mass.....     | 1      |         | Lancaster, Pa.....      | 2      |         |
| Camden, N. J.....        | 8      |         | Lawrence, Mass.....     | 1      |         |
| Charleston, S. C.....    | 9      | 2       | Lexington, Ky.....      | 7      | 2       |
| Chelsea, Mass.....       | 4      |         | Lima, Ohio.....         | 1      |         |
| Chicago, Ill.....        | 20     | 1       | Little Rock, Ark.....   | 1      |         |
| Chicopee, Mass.....      | 3      |         | Lorain, Ohio.....       | 2      |         |
| Cincinnati, Ohio.....    | 7      |         | Los Angeles, Cal.....   | 6      |         |
| Cleveland, Ohio.....     | 11     | 1       | Lowell, Mass.....       | 7      | 1       |
| Columbus, Ohio.....      | 12     |         | Lynchburg, Va.....      | 2      |         |
| Cumberland, Md.....      | 4      |         | Lynn, Mass.....         | 1      |         |
| Danville, Ill.....       | 3      |         | Malden, Mass.....       | 2      |         |
| Dayton, Ohio.....        | 4      |         | Manchester, N. H.....   | 1      |         |
| Detroit, Mich.....       | 17     | 1       | Marinette, Wis.....     | 1      |         |
| Dubuque, Iowa.....       | 1      |         | Medford, Mass.....      | 3      |         |
| Elgin, Ill.....          | 1      |         | Milwaukee, Wis.....     | 3      | 1       |
| Evansville, Ind.....     | 4      | 1       | Mobile, Ala.....        | 3      |         |
| Everett Mass.....        | 1      |         | Montclair, N. J.....    | 1      |         |
| Fitchburg, Mass.....     | 1      |         | Morristown, N. J.....   | 1      |         |

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Sept. 18, 1915—Continued.

| Place.             | Cases. | Deaths. | Place.                  | Cases. | Deaths. |
|--------------------|--------|---------|-------------------------|--------|---------|
| Nashville, Tenn.   | 20     | 3       | Saginaw, Mich.          | 3      |         |
| Newark, N. J.      | 2      |         | St. Louis, Mo.          | 12     | 2       |
| New Bedford, Mass. | 9      |         | Salt Lake City, Utah    | 6      |         |
| New Britain, Conn. | 1      | 1       | San Francisco, Cal.     | 8      | 1       |
| New Castle, Pa.    | 1      |         | Saratoga Springs, N. Y. | 2      |         |
| New Haven, Conn.   | 1      |         | Seattle, Wash.          | 1      |         |
| New London, Conn.  | 5      | 2       | South Bend, Ind.        | 2      |         |
| New Orleans, La.   | 2      |         | Springfield, Ill.       | 3      |         |
| Newport, R. I.     |        |         | Springfield, Mass.      | 1      |         |
| New York, N. Y.    | 128    | 13      | Steubenville, Ohio      | 2      |         |
| Norristown, Pa.    | 1      |         | Stockton, Cal.          | 1      |         |
| Oakland, Cal.      | 2      |         | Tacoma, Wash.           | 1      |         |
| Passaic, N. J.     | 1      | 1       | Taunton, Mass.          | 1      |         |
| Philadelphia, Pa.  | 41     | 2       | Toledo, Ohio.           | 17     | 3       |
| Pittsburgh, Pa.    | 14     | 3       | Trenton, N. J.          | 3      | 1       |
| Portland, Oreg.    | 1      |         | Waltham, Mass.          | 1      |         |
| Portsmouth, Va.    | 2      |         | Washington, D. C.       | 13     | 1       |
| Providence, R. I.  | 13     | 1       | Wilkes-Barre, Pa.       | 3      |         |
| Reading, Pa.       | 7      | 1       | Williamsport, Pa.       | 1      |         |
| Richmond, Va.      | 8      |         | Wilmington, N. C.       | 2      |         |
| Roanoke, Va.       | 5      |         | Worcester, Mass.        | 10     |         |
| Rockford, Ill.     | 1      |         | York, Pa.               | 4      |         |
| Sacramento, Cal.   | 2      | 1       |                         |        |         |

## TYPHUS FEVER.

## New York Report for August, 1915.

The State department of health of New York reported that during the month of August, 1915, 3 cases of typhus fever were notified in that State.

## City Reports for Week Ended Sept. 18, 1915.

During the week ended September 18, 1915, cases of typhus fever were reported in cities, as follows: Baltimore, Md., 1; New York, N. Y., 1.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

## State Reports for August, 1915.

| State.       | Cases reported.  |          |                   |
|--------------|------------------|----------|-------------------|
|              | Diph-<br>theria. | Measles. | Scarlet<br>fever. |
| Mississippi  | 74               | 48       | 22                |
| New York     | 1,012            | 1,240    | 338               |
| North Dakota | 42               | 9        | 9                 |
| Wisconsin    | 66               | 73       | 53                |

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

## City Reports for Week Ended Sept. 18, 1915.

| Cities.                                     | Population as of July 1, 1915<br>(estimated by U. S. Census Bureau). | Total deaths from all causes. | Diphtheria. |         | Measles. |         | Scarlet fever. |         | Tuber-cu-losis. |         |
|---|--|-------------------------------|-------------|---------|----------|---------|----------------|---------|-----------------|---------|
|   |  |                               | Cases.      | Deaths. | Cases.   | Deaths. | Cases.         | Deaths. | Cases.          | Deaths. |
|   |  |                               |             |         |          |         |                |         |                 |         |
| <b>Over 500,000 inhabitants:</b>            |  |                               |             |         |          |         |                |         |                 |         |
| Baltimore, Md.                              | 584,605  | 164                           | 23          | 1       | 3        | .....   | 13             | 1       | 33              | 15      |
| Boston, Mass.                               | 745,139  | 234                           | 50          | 4       | 10       | .....   | 25             | .....   | 58              | 22      |
| Chicago, Ill.                               | 2,447,045  | 660                           | 83          | 12      | 32       | 1       | 25             | .....   | 252             | 74      |
| Cleveland, Ohio.                            | 656,975  | 184                           | 21          | 5       | 8        | 1       | 7              | 2       | 30              | 15      |
| Detroit, Mich.                              | 554,717  | 167                           | 22          | 2       | 3        | .....   | 5              | .....   | 45              | 17      |
| New York, N. Y.                             | 5,468,190  | 1,291                         | 179         | 16      | 64       | 3       | 30             | .....   | 498             | 131     |
| Philadelphia, Pa.                           | 1,683,664  | 523                           | 33          | 6       | 7        | 2       | 8              | .....   | 81              | 47      |
| Pittsburgh, Pa.                             | 571,984  | 158                           | 32          | 2       | 35       | 1       | 10             | 1       | 25              | 10      |
| St. Louis, Mo.                              | 745,988  | 198                           | 52          | 3       | 2        | .....   | 3              | .....   | 29              | 19      |
| <b>From 300,000 to 500,000 inhabitants:</b> |  |                               |             |         |          |         |                |         |                 |         |
| Buffalo, N. Y.                              | 461,335  | 105                           | 8           | 1       | 49       | 1       | 3              | .....   | 22              | 5       |
| Cincinnati, Ohio.                           | 406,706  | 102                           | 18          | .....   | 2        | 1       | 3              | .....   | 28              | 9       |
| Jersey City, N. J.                          | 300,133  | 64                            | 12          | 1       | 9        | 1       | 4              | .....   | 26              | 6       |
| Los Angeles, Cal.                           | 465,367  | 87                            | 8           | 2       | 1        | .....   | 8              | .....   | 42              | 15      |
| Milwaukee, Wis.                             | 428,062  | 70                            | 13          | .....   | 2        | .....   | 1              | .....   | 7               | 9       |
| Newark, N. J.                               | 399,000  | 90                            | 9           | .....   | 9        | .....   | 3              | .....   | 25              | 9       |
| New Orleans, La.                            | 366,484  | 150                           | 72          | 5       | 2        | .....   | 4              | .....   | 26              | 15      |
| San Francisco, Cal.                         | 1,416,912  | .....                         | 4           | .....   | 1        | .....   | 9              | .....   | 38              | 14      |
| Seattle, Wash.                              | 330,834  | 40                            | .....       | .....   | .....    | .....   | .....          | .....   | 16              | 1       |
| Washington, D. C.                           | 358,679  | 132                           | 6           | 1       | 4        | .....   | 1              | .....   | 14              | 13      |
| <b>From 200,000 to 300,000 inhabitants:</b> |  |                               |             |         |          |         |                |         |                 |         |
| Columbus, Ohio.                             | 209,722  | 71                            | 5           | 1       | .....    | .....   | 9              | .....   | 7               | 5       |
| Portland, Oreg.                             | 272,833  | 44                            | 6           | .....   | .....    | .....   | 6              | .....   | 9               | 10      |
| Providence, R. I.                           | 250,025  | 65                            | 10          | 1       | .....    | .....   | .....          | .....   | .....           | .....   |
| <b>From 100,000 to 200,000 inhabitants:</b> |  |                               |             |         |          |         |                |         |                 |         |
| Bridgeport, Conn.                           | 118,434  | 18                            | 4           | .....   | .....    | .....   | 4              | .....   | 5               | 1       |
| Cambridge, Mass.                            | 111,669  | 31                            | 9           | .....   | .....    | .....   | 2              | .....   | 2               | 6       |
| Camden, N. J.                               | 104,349  | .....                         | 2           | .....   | .....    | .....   | 3              | .....   | .....           | .....   |
| Dayton, Ohio.                               | 125,509  | 35                            | 3           | .....   | .....    | .....   | 2              | .....   | 3               | 7       |
| Fall River, Mass.                           | 126,901  | 36                            | 3           | .....   | .....    | .....   | 2              | .....   | 3               | 5       |
| Grand Rapids, Mich.                         | 125,739  | 28                            | 3           | 1       | .....    | .....   | 1              | .....   | 5               | 2       |
| Hartford, Conn.                             | 108,969  | .....                         | 3           | .....   | 1        | .....   | .....          | .....   | 6               | 1       |
| Lowell, Mass.                               | 112,124  | 40                            | 8           | 3       | .....    | .....   | 1              | .....   | 4               | 1       |
| Lynn, Mass.                                 | 100,316  | 28                            | 5           | 1       | .....    | .....   | 1              | .....   | 1               | 3       |
| Nashville, Tenn.                            | 115,978  | 41                            | .....       | .....   | .....    | .....   | 1              | .....   | 6               | 8       |
| New Bedford, Mass.                          | 114,694  | 33                            | 1           | 1       | 3        | .....   | 1              | .....   | 8               | .....   |
| New Haven, Conn.                            | 147,095  | .....                         | 2           | .....   | .....    | .....   | 1              | .....   | 3               | 1       |
| Oakland, Cal.                               | 190,803  | .....                         | 3           | .....   | .....    | .....   | 1              | .....   | 3               | 3       |
| Reading, Pa.                                | 103,091  | 28                            | 1           | .....   | 4        | .....   | 1              | .....   | 10              | 1       |
| Richmond, Va.                               | 154,671  | 55                            | 12          | .....   | .....    | .....   | 3              | .....   | 1               | 6       |
| Salt Lake City, Utah.                       | 113,567  | 20                            | 1           | .....   | .....    | .....   | .....          | .....   | 4               | 4       |
| Springfield, Mass.                          | 103,216  | 38                            | 1           | .....   | .....    | .....   | 1              | .....   | 2               | .....   |
| Tacoma, Wash.                               | 108,094  | .....                         | 1           | .....   | .....    | .....   | 1              | .....   | 2               | 7       |
| Toledo, Ohio.                               | 187,840  | 65                            | 6           | .....   | 3        | .....   | 1              | .....   | 4               | 1       |
| Trenton, N. J.                              | 109,212  | 59                            | 6           | 1       | 10       | 1       | .....          | .....   | 6               | 3       |
| Worcester, Mass.                            | 160,523  | 44                            | 5           | .....   | .....    | .....   | .....          | .....   | .....           | .....   |
| <b>From 50,000 to 100,000 inhabitants:</b>  |  |                               |             |         |          |         |                |         |                 |         |
| Akron, Ohio.                                | 82,958   | 23                            | 4           | .....   | .....    | .....   | 2              | .....   | 1               | .....   |
| Altoona, Pa.                                | 57,606   | 10                            | 2           | .....   | 1        | .....   | 1              | .....   | 2               | .....   |
| Atlantic City, N. J.                        | 55,806   | 15                            | 2           | .....   | 2        | .....   | 2              | .....   | 2               | .....   |
| Bayonne, N. J.                              | 67,582   | 14                            | 4           | .....   | 4        | .....   | 2              | .....   | 6               | 2       |
| Berkeley, Cal.                              | 54,879   | 9                             | 1           | .....   | 1        | .....   | 1              | .....   | 2               | .....   |
| Binghamton, N. Y.                           | 53,082   | 22                            | 5           | 1       | .....    | .....   | 2              | .....   | 2               | .....   |
| Brockton, Mass.                             | 65,746   | 19                            | 11          | .....   | .....    | .....   | 3              | .....   | 1               | .....   |
| Canton, Ohio.                               | 59,139   | 17                            | .....       | .....   | .....    | .....   | 1              | .....   | 5               | 2       |
| Charleston, S. C.                           | 60,427   | 37                            | 6           | .....   | .....    | .....   | 1              | .....   | 1               | .....   |
| Duluth, Minn.                               | 91,913   | .....                         | 1           | .....   | .....    | .....   | 1              | .....   | 2               | .....   |
| Erie, Pa.                                   | 73,798   | 23                            | 2           | .....   | 1        | .....   | 1              | 1       | 1               | 1       |
| Evansville, Ind.                            | 72,125   | 21                            | 6           | .....   | .....    | .....   | 1              | 1       | 1               | 1       |
| Harrisburg, Pa.                             | 70,754   | 20                            | .....       | .....   | .....    | .....   | 1              | .....   | 4               | 2       |
| Johnstown, Pa.                              | 66,585   | 24                            | 1           | .....   | .....    | .....   | 1              | .....   | 4               | .....   |
| Kansas City, Kans.                          | 96,854   | .....                         | 7           | .....   | 1        | .....   | 1              | .....   | 5               | 3       |
| Lancaster, Pa.                              | 50,269   | .....                         | 2           | .....   | .....    | .....   | 1              | .....   | 1               | .....   |
| Lawrence, Mass.                             | 98,197   | 30                            | 5           | .....   | .....    | .....   | 4              | 5       | 1               | .....   |
| Little Rock, Ark.                           | 55,158   | 25                            | 1           | .....   | .....    | .....   | .....          | .....   | .....           | .....   |

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

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

## City Reports for Week Ended Sept. 18, 1915—Continued.

| Cities.                                       | Population as of July 1, 1915 (estimated by U. S. Census Bureau). | Total deaths from all causes. | Diphtheria. |         | Measles. |         | Scarlet fever. |         | Tuberculosis. |         |
|---|---|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
|   |   |                               | Cases.      | Deaths. | Cases.   | Deaths. | Cases.         | Deaths. | Cases.        | Deaths. |
| From 50,000 to 100,000 inhabitants—Continued. |   |                               |             |         |          |         |                |         |               |         |
| Malden, Mass.                                 | 50,067  | 11                            | 5           | 1       |          |         | 2              |         | 1             |         |
| Manchester, N. H.                             | 76,859  | 16                            | 2           |         |          |         |                |         | 2             | 5       |
| Mobile, Ala.                                  | 56,536  | 17                            | 4           |         |          |         |                |         | 1             | 1       |
| New Britain, Conn.                            | 52,203  |                               |             |         |          |         |                |         |               |         |
| Passaic, N. J.                                | 69,010  | 24                            | 2           |         | 2        |         | 7              |         | 2             |         |
| Pawtucket, R. I.                              | 58,156  | 21                            | 1           |         |          |         | 1              |         |               |         |
| Rockford, Ill.                                | 53,761  | 12                            | 1           |         |          |         |                |         | 2             |         |
| Sacramento, Cal.                              | 64,806  | 15                            |             |         |          |         |                |         | 1             |         |
| Saginaw, Mich.                                | 54,815  | 12                            |             |         |          |         |                |         | 2             |         |
| San Diego, Cal.                               | 51,115  | 17                            | 4           |         |          |         | 2              |         |               |         |
| Somerville, Mass.                             | 85,460  | 20                            | 1           |         |          |         | 2              |         | 4             | 1       |
| South Bend, Ind.                              | 67,030  | 11                            | 10          |         | 1        |         |                |         |               |         |
| Springfield, Ill.                             | 59,168  |                               | 10          |         |          |         | 1              |         |               | 1       |
| Wilkes-Barre, Pa.                             | 75,218  | 31                            |             |         | 1        |         | 1              |         | 8             | 1       |
| York, Pa.                                     | 50,543  |                               | 1           |         |          |         |                |         | 4             |         |
| From 25,000 to 50,000 inhabitants:            |   |                               |             |         |          |         |                |         |               |         |
| Alameda, Cal.                                 | 27,031  | 4                             |             |         |          |         | 1              |         | 2             |         |
| Auburn, N. Y.                                 | 36,947  | 24                            |             |         | 1        |         |                |         |               | 1       |
| Brookline, Mass.                              | 31,934  | 6                             |             |         |          |         |                |         | 1             |         |
| Butler, Pa.                                   | 26,587  | 3                             | 1           |         |          |         | 1              |         |               | 1       |
| Butte, Mont.                                  | 42,918  | 19                            | 1           |         |          |         |                |         |               |         |
| Chelsea, Mass.                                | 32,452  | 5                             |             |         | 2        |         | 2              |         | 4             |         |
| Chicopee, Mass.                               | 28,688  | 16                            |             |         |          |         |                |         | 2             | 1       |
| Cumberland, Md.                               | 25,564  | 7                             |             |         |          |         | 2              |         | 1             | 1       |
| Danville, Ill.                                | 31,554  | 12                            |             |         |          |         |                |         |               |         |
| Davenport, Iowa                               | 47,127  |                               | 1           |         |          |         | 2              |         |               |         |
| East Orange, N. J.                            | 41,155  | 1                             | 3           |         |          |         | 1              |         | 2             |         |
| Elgin, Ill.                                   | 27,844  | 7                             | 2           |         |          |         |                |         |               |         |
| Everett, Mass.                                | 38,307  | 7                             | 3           |         |          |         |                |         | 4             |         |
| Fitchburg, Mass.                              | 41,144  | 9                             | 9           |         |          |         | 1              |         | 1             |         |
| Galveston, Tex.                               | 41,076  | 19                            |             |         |          |         |                |         | 2             | 1       |
| Haverhill, Mass.                              | 47,774  | 7                             | 1           |         |          |         | 9              |         | 1             |         |
| Kalamazoo, Mich.                              | 47,364  | 14                            | 2           |         |          |         |                |         | 5             |         |
| Kenosha, Wis.                                 | 30,319  | 2                             |             |         |          |         |                |         | 1             | 1       |
| Lexington, Ky.                                | 39,703  | 20                            |             |         |          |         |                |         | 5             | 1       |
| Lima, Ohio                                    | 34,644  | 4                             |             |         |          |         |                |         |               |         |
| Lincoln, Nebr.                                | 46,028  | 14                            | 2           |         | 2        |         | 1              |         |               |         |
| Lorain, Ohio                                  | 35,662  | 8                             |             |         | 3        |         | 2              |         |               |         |
| Lynchburg, Va.                                | 32,385  | 11                            | 1           |         | 1        |         |                |         | 7             |         |
| Madison, Wis.                                 | 30,084  |                               | 3           |         | 10       |         |                |         |               | 1       |
| Medford, Mass.                                | 25,737  | 6                             |             |         |          |         |                |         | 2             |         |
| Montclair, N. J.                              | 25,550  | 4                             |             |         |          |         |                |         | 2             | 1       |
| New Castle, Pa.                               | 40,351  |                               | 2           |         |          |         | 2              |         |               |         |
| Newport, Ky.                                  | 31,722  | 10                            | 1           |         |          |         |                |         | 1             | 1       |
| Newport, R. I.                                | 29,631  | 7                             |             |         |          |         |                |         | 2             | 1       |
| Newton, Mass.                                 | 43,085  | 8                             | 2           |         |          |         |                |         |               |         |
| Niagara Falls, N. Y.                          | 36,249  | 10                            |             |         | 3        |         |                |         |               |         |
| Norristown, Pa.                               | 30,833  | 5                             |             |         |          |         |                |         |               |         |
| Ogden, Utah                                   | 30,466  | 6                             |             |         |          |         |                |         |               |         |
| Orange, N. J.                                 | 32,524  | 7                             |             |         | 3        |         |                |         | 2             | 1       |
| Pasadena, Cal.                                | 43,859  | 8                             | 1           |         |          |         |                |         |               |         |
| Perth Amboy, N. J.                            | 39,725  |                               | 5           |         |          |         |                |         |               |         |
| Pittsfield, Mass.                             | 37,580  | 14                            |             |         |          |         | 1              |         | 4             |         |
| Portsmouth, Va.                               | 38,610  | 8                             |             |         |          |         |                |         |               | 1       |
| Racine, Wis.                                  | 45,507  | 14                            | 2           | 1       | 2        |         |                |         |               |         |
| Roanoke, Va.                                  | 41,929  |                               | 22          |         |          |         | 4              |         |               | 1       |
| Rock Island, Ill.                             | 27,961  | 5                             |             |         |          |         |                |         |               |         |
| Steubenville, Ohio                            | 26,631  | 13                            |             |         |          |         | 1              |         |               |         |
| Stockton, Cal.                                | 34,508  | 10                            | 1           |         |          |         | 1              |         | 1             | 1       |
| Superior, Wis.                                | 45,285  | 12                            | 2           |         |          |         | 1              |         |               | 1       |
| Taunton, Mass.                                | 35,957  |                               | 2           |         |          |         |                |         |               |         |
| Waltham, Mass.                                | 30,129  | 10                            | 3           |         | 5        |         | 1              |         |               | 1       |
| West Hoboken, N. J.                           | 41,893  | 2                             | 1           | 1       |          |         |                |         |               |         |
| Wheeling, W. Va.                              | 43,097  | 18                            |             |         | 3        |         |                |         |               | 2       |
| Williamsport, Pa.                             | 33,495  | 11                            | 3           |         | 1        |         | 1              |         |               |         |
| Wilmington, N. C.                             | 28,264  | 8                             | 1           |         |          |         |                |         | 1             | 1       |

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

## City Reports for Week Ended Sept. 18, 1915—Continued.

| Cities.                                 | Popula-<br>tion as of<br>July 1, 1915<br>(estimated<br>by U. S.<br>Census<br>Bureau). | Total<br>deaths<br>from<br>all<br>causes. | Diphtheria. |         | Measles. |         | Scarlet<br>fever. |         | Tuber-<br>culosis. |         |
|---|---|---|-------------|---------|----------|---------|-------------------|---------|--------------------|---------|
|   |   |   | Cases.      | Deaths. | Cases.   | Deaths. | Cases.            | Deaths. | Cases.             | Deaths. |
| From 10,000 to 25,000 inhabi-<br>tants: |   |   |             |         |          |         |                   |         |                    |         |
| Ann Arbor, Mich.                        | 14,979  | 5   | 1           |         |          |         |                   |         |                    |         |
| Braddock, Pa.                           | 21,310  |   | 1           |         |          |         |                   |         |                    |         |
| Cairo, Ill.                             | 15,593  | 10  | 1           |         |          |         |                   |         |                    | 2       |
| Clinton, Mass.                          | 13,075  | 2   |             |         |          |         |                   |         |                    | 1       |
| Coffeyville, Kans.                      | 16,765  |   | 1           |         |          |         |                   |         |                    |         |
| Concord, N. H.                          | 22,480  | 8   |             |         |          |         |                   |         |                    |         |
| Galesburg, Ill.                         | 23,923  | 4   |             |         |          |         |                   |         |                    |         |
| Kearny, N. J.                           | 22,753  | 7   |             |         |          |         |                   |         |                    |         |
| Key West, Fla.                          | 21,437  | 5   |             |         |          |         |                   |         |                    | 1       |
| Marinette, Wis.                         | 14,610  | 4   |             |         |          |         |                   |         |                    |         |
| Morristown, N. J.                       | 13,158  | 6   |             |         |          |         |                   |         |                    |         |
| Muscatine, Iowa                         | 17,287  | 6   |             |         |          |         |                   |         |                    |         |
| Nanticoke, Pa.                          | 22,441  | 3   |             |         |          |         |                   |         |                    |         |
| New London, Conn.                       | 20,771  | 8   |             |         |          |         |                   |         | 3                  |         |
| North Adams, Mass.                      | 22,019  | 7   |             |         |          |         |                   |         |                    |         |
| Northampton, Mass.                      | 16,846  |   |             |         | 1        |         |                   |         | 5                  | 1       |
| Phoenix, Ariz.                          | 17,798  | 5   |             |         |          |         |                   |         |                    | 2       |
| Plainfield, N. J.                       | 23,280  | 8   |             |         |          |         |                   |         |                    | 1       |
| Rutland, Vt.                            | 14,624  | 5   | 1           |         |          |         |                   |         |                    |         |
| Saratoga Springs, N. Y.                 | 12,842  | 13  |             |         |          |         |                   |         |                    |         |
| Steelton, Pa.                           | 15,337  | 3   | 1           |         |          |         |                   |         | 2                  | 1       |
| Wilkinsburg, Pa.                        | 22,361  | 3   |             |         |          |         |                   |         |                    |         |
| Woburn, Mass.                           | 15,862  | 6   |             | 1       |          |         |                   |         |                    |         |

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

# FOREIGN REPORTS.

## AUSTRIA-HUNGARY.

### Cholera.

Cholera has been notified in Austria-Hungary as follows:

*Austria*.—July 18-24, 1915, 2,040 cases with 956 deaths. Of these 1,718 cases with 884 deaths occurred in the civil population, 320 cases with 72 deaths among prisoners of war, and 2 cases among troops.

*Croatia-Slavonia*.—July 25-August 2, 1915, 160 cases with 70 deaths.

*Hungary*.—July 12-18, 1915, 366 cases with 178 deaths.

### Typhus Fever.

During the week ended August 7, 1915, 260 cases of typhus fever were notified in Austria.

## BERMUDA.

### Dengue Epidemic.<sup>1</sup>

During the week ended September 11, 1915, dengue was reported still present in epidemic form in Bermuda.

## CHINA.

### Examination of Rats—Shanghai.

During the week ended August 21, 1915, 195 rats were examined at Shanghai. No plague infection was found.

## GERMANY.

### Cholera.

During the week ended August 21, 1915, 236 cases of cholera with 73 deaths were notified in Germany. Of these, 3 cases with 1 death occurred among the civil population, 7 cases with 2 deaths among German soldiers, and 226 cases with 70 deaths among prisoners of war.

## GIBRALTAR.

### Quarantine Measures Against Ports in Morocco.

By order of the board of health of Gibraltar arrivals from ports in Morocco have been made subject to medical inspection as follows: From September 1, 1915, arrivals from Tetuan; from September 3, 1915, arrivals from Ceuta.

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<sup>1</sup> Public Health Reports, Sept. 17, 1915, p. 2821, and Sept. 24, 1915, p. 2893.

## PERU.

## Plague, January-June, 1915.

During the six months ended June 30, 1915, 278 cases of plague with 140 deaths were notified in Peru. The cases were distributed in the provinces of Ancachs, Arequipa, Junin, Lambayeque, Libertad, Lima (including Callao), and Piura, all of these being maritime provinces with the exception of Junin. The greatest incidence of the disease was in Lambayeque during the month of January, with 36 cases, of which 12 were fatal.

## TURKEY IN ASIA.

## Dengue—Beirut.

During the week ended August 7, 1915, dengue was reported prevalent at Beirut.

## Quarantine Measures.

By decision of the superior board of health at Constantinople quarantine measures have been put in force as follows: August 22, 1915, arrivals from Zante, Greece, were made subject to medical inspection at the first Turkish port provided with a medical officer. This requirement was supplemented August 24, 1915, by disinfection and deratization on board, these measures to be carried out within a period of 24 hours at a Turkish lazaretto or sanitary station. August 28, 1915, measures against arrivals from Debay and Bahrein were suspended.

## TYPHUS FEVER.

Reports Received During Week Ended Oct. 8, 1915.<sup>1</sup>

| Place.              | Date.           | Cases.   | Deaths. | Remarks.  |
|---------------------|-----------------|----------|---------|---|
| Austria-Hungary:    |                 |          |         |   |
| Austria.....        | Aug. 1-7.....   | 206..... |         |   |
| Hungary—            |                 |          |         |   |
| Budapest.....       | Aug. 1-14.....  | 5.....   |         |   |
| Dutch East Indies:  |                 |          |         |   |
| Java.....           | Aug. 8-14.....  | 21.....  | 1.....  |   |
| Batavia.....        | do.....         |          | 1.....  |   |
| Germany.....        |                 |          |         | Aug. 15-21, 1915: 1 case in a soldier, 3 cases among prisoners; total, 4. |
| Breslau.....        | Aug. 1-15.....  | 1.....   |         |   |
| Greece:             |                 |          |         |   |
| Saloniki.....       | Aug. 22-28..... |          | 16..... |   |
| Mexico:             |                 |          |         |   |
| Aguascalientes..... | Sept. 6-12..... |          | 1.....  |   |
| Russia:             |                 |          |         |   |
| Moscow.....         | Aug. 8-14.....  | 6.....   |         |   |
| Petrograd.....      | do.....         | 1.....   |         |   |
| Turkey in Asia:     |                 |          |         |   |
| Jalisa.....         | Aug. 1-7.....   |          | 1.....  |   |

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

## TYPHUS FEVER—Continued.

## Reports Received from June 26 to Oct. 1, 1915.

| Place.                       | Date.                | Cases. | Deaths. | Remarks.   |
|------------------------------|----------------------|--------|---------|--|
| Austria-Hungary:             |                      |        |         |  |
| Austria.....                 | Apr. 25-May 22.....  | 1,212  | .....   | Mainly among soldiers, prisoners of war, and persons from Galicia; 6 among the civil population, of which 1 in Vienna. |
| Do.....                      | June 6-July 31.....  | 3,400  | .....   | Mainly among military.   |
| Bosnia-Herzegovina.....      | May 2-15.....        | 64     | .....   |  |
| Hungary:                     |                      |        |         |  |
| Budapest.....                | May 16-July 31.....  | 21     | 6       |  |
| Azores:                      |                      |        |         |  |
| Terceira.....                | May 23-29.....       | 1      | .....   | July 24, 1915; present.  |
| Canada:                      |                      |        |         |  |
| Ontario—                     |                      |        |         |  |
| Kingston.....                | Aug. 22-28.....      | 1      | 1       |  |
| Canary Islands:              |                      |        |         |  |
| Santa Cruz de Teneriffe..... | May 16-June 19.....  | .....  | 2       |  |
| China:                       |                      |        |         |  |
| Antung.....                  | June 28-July 4.....  | 1      | .....   |  |
| Hankow.....                  | July 4-10.....       | .....  | 1       |  |
| Harbin.....                  | July 5-11.....       | 1      | .....   |  |
| Hungtaohotze Station.....    | Apr. 19-25.....      | 1      | .....   |  |
| Mukden.....                  | June 6-July 3.....   | .....  |         | On Eastern Chinese Ry.<br>Present.   |
| Tientsin.....                | do.....              | .....  | 1       |  |
| Cuba:                        |                      |        |         |  |
| Santiago.....                | July 4-10.....       | 2      | 2       |  |
| Curaçao.....                 | Aug. 8-14.....       | 4      | 1       |  |
| Dominican Republic:          |                      |        |         |  |
| Santo Domingo.....           | July 19-Aug. 31..... | .....  | 2       |  |
| Dutch East Indies:           |                      |        |         |  |
| Java.....                    | Apr. 25-July 31..... | 69     | 10      |  |
| Batavia.....                 | June 6-July 31.....  | 52     | 9       |  |
| Egypt:                       |                      |        |         |  |
| Alexandria.....              | May 21-Aug. 12.....  | 142    | 42      |  |
| Cairo.....                   | May 7-July 15.....   | 251    | 259     |  |
| Port Said.....               | do.....              | 10     | 8       |  |
| France:                      |                      |        |         |  |
| La Rochelle.....             | July 11-17.....      | 1      | 1       |  |
| Germany.....                 | May 16-22.....       | 12     | .....   | In German soldiers and 1 prison-camp employee; among prisoners of war in 14 districts and in Saxony and Hesse.         |
| Do.....                      | June 6-26.....       | 33     | .....   | Among military; Present in prison camps.   |
| Do.....                      | June 27-Aug. 14..... | 123    | .....   |  |
| Aix la Chapelle.....         | May 30-June 5.....   | .....  | 1       |  |
| Bavaria.....                 | July 11-Aug. 7.....  | 3      | .....   |  |
| Bremen.....                  | May 30-June 12.....  | 1      | 1       |  |
| Breslau.....                 | May 30-Aug. 7.....   | 6      | .....   |  |
| Bromberg—                    |                      |        |         |  |
| Government district.....     | July 18-24.....      | 1      | .....   |  |
| Cassel—                      |                      |        |         |  |
| Government district.....     | do.....              | 1      | .....   |  |
| Erfurt—                      |                      |        |         |  |
| Government district.....     | July 11-17.....      | 1      | .....   |  |
| Frankfort—                   |                      |        |         |  |
| Government district.....     | July 18-24.....      | 1      | .....   |  |
| Hamburg.....                 | July 25-31.....      | 1      | 1       |  |
| Konigsberg.....              | June 6-12.....       | 3      | .....   |  |
| Leipzig.....                 | do.....              | .....  | 1       |  |
| Merseburg—                   |                      |        |         |  |
| Government district.....     | July 25-31.....      | 1      | .....   |  |
| Saxe-Weimar.....             | July 11-17.....      | 10     | .....   | At Jena.   |
| Saxony.....                  | July 18-24.....      | 27     | .....   |  |
| Stettin—                     |                      |        |         |  |
| Government district.....     | July 25-31.....      | 1      | .....   |  |
| Great Britain and Ireland:   |                      |        |         |  |
| Cork.....                    | Aug. 22-28.....      | 1      | .....   |  |
| Dublin.....                  | May 23-July 31.....  | 7      | .....   |  |
| Glasgow.....                 | May 29-Aug. 21.....  | 3      | .....   |  |
| Newcastle.....               | June 27-July 3.....  | 1      | .....   |  |
| Greece:                      |                      |        |         |  |
| Athens.....                  | June 14-July 19..... | .....  | 4       |  |
| Saloniki.....                | May 30-Aug. 21.....  | .....  | 45      |  |
| Italy:                       |                      |        |         |  |
| Florence.....                | May 1-31.....        | 5      | 1       |  |
| Turin.....                   | May 17-23.....       | 1      | .....   |  |
| Japan:                       |                      |        |         |  |
| Tokyo.....                   | June 7-13.....       | 2      | .....   |  |
| Mexico:                      |                      |        |         |  |
| Aguascalientes.....          | June 21-27.....      | .....  | 1       |  |
| Mexico City.....             | Aug. 28.....         | 1      | 1       |  |

## TYPHUS FEVER—Continued.

## Reports Received from June 26 to Oct. 1, 1915—Continued.

| Place.           | Date.                | Cases. | Deaths. | Remarks.   |
|------------------|----------------------|--------|---------|--|
| Russia:          |                      |        |         |  |
| Moscow.....      | May 2-Aug. 7.....    | 311    | 61      |  |
| Petrograd.....   | May 9-Aug. 7.....    | 18     | 4       |  |
| Riga.....        | Mar. 1-31.....       | 1      | 1       |  |
| Do.....          | June 6-12.....       | 1      |         |  |
| Vladivostok..... | June 15-July 14..... | 2      | 1       |  |
| Warsaw.....      |                      |        |         | Sept. 27-Oct. 31, 1914: Cases, 31; Nov. 1-28, 1914: Cases, 31; deaths, 1. Maximum incidence, Nov. 22-28: Cases, 20; deaths, 1. |
| Serbia.....      | Apr. 27.....         |        |         | Prevalent.   |
| Spain:           |                      |        |         |  |
| Madrid.....      | June 1-30.....       |        | 1       |  |
| Switzerland:     |                      |        |         |  |
| St. Gall.....    | July 25-31.....      | 1      |         |  |
| Zurich.....      | May 30-July 10.....  | 2      |         |  |
| Turkey in Asia:  |                      |        |         |  |
| Adana.....       | May 9-July 10.....   |        |         | Present.   |
| Beirut.....      | May 27-Aug. 14.....  | 4      | 1       |  |
| Harput.....      | Apr. 1-30.....       |        |         | Do.  |
| Jaffa.....       | Apr. 25-July 17..... | 17     | 9       | July 31, present in vicinity.  |
| Mersina.....     | May 9-29.....        |        | 2       |  |
| Tarsus.....      | May 9-July 10.....   |        |         | Present.   |
| Trebizond.....   |                      |        |         | Oct., 1914-May 22, 1915: 6,000 fatal cases (estimated).  |
| Tripoli.....     | May 9-15.....        | 1      | 1       |  |

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

Reports Received During Week Ended Oct. 8, 1915.<sup>1</sup>

## CHOLERA.

| Place.                                 | Date.               | Cases. | Deaths. | Remarks.  |
|--|---------------------|--------|---------|---|
| Austria-Hungary:                       |                     |        |         |   |
| Austria.....                           | July 18-24.....     | 2,040  | 956     | Civilians: Cases, 1,718; deaths, 881. Military: Cases, 2. Prisoners of war: Cases, 320; deaths, 72. |
| Croatia-Slavonia.....                  | July 25-Aug. 2..... | 160    | 70      |   |
| Hungary.....                           | July 12-18.....     | 266    | 178     |   |
| Germany.....                           |                     |        |         | Aug. 15-21, 1915: Cases, 236; deaths, 73.   |
| Civilian population—                   |                     |        |         |   |
| Frankfort, Government district.....    | Aug. 15-21.....     | 1      |         |   |
| Liegnitz, Government district.....     | do.....             | 1      |         |   |
| Potsdam, Government district.....      | do.....             | 1      | 1       |   |
|  |                     | 3      | 1       |   |
| Military—                              |                     |        |         |   |
| Frankfort on Oder.....                 | do.....             | 1      |         |   |
| Köslin, Government district.....       | do.....             | 3      | 2       |   |
| Oppeln, Government district.....       | do.....             | 1      |         |   |
| Saxony.....                            | do.....             | 1      |         |   |
| Stettin, Government district.....      | do.....             | 1      |         |   |
|  |                     | 7      | 2       |   |
| Prisoners of war—                      |                     |        |         |   |
| Danzig-Troyl.....                      | do.....             | 7      | 5       |   |
| Königsberg, Government district.....   | do.....             | 2      | 1       |   |
| Köslin, Government district.....       | do.....             | 117    | 32      |   |
| Marienwerder, Government district..... | do.....             | 91     | 31      |   |
| Oppeln, Government district.....       | do.....             | 9      | 1       |   |
|  |                     | 226    | 70      |   |

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

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

## Reports Received During Week Ended Oct. 8, 1915—Continued.

## PLAGUE.

| Place.                | Date.                | Cases. | Deaths. | Remarks.   |
|-----------------------|----------------------|--------|---------|--|
| Brazil:               |                      |        |         |  |
| Bahia.....            | Aug. 8-14.....       | 1      | 1       |  |
| China:                |                      |        |         |  |
| Amoy.....             | Aug. 8-14.....       |        |         | Present.   |
| Dutch East Indies:    |                      |        |         |  |
| Java—                 |                      |        |         |  |
| Surabaya.....         | Aug. 1-7.....        | 1      | 1       |  |
| Egypt:                |                      |        |         |  |
| Alexandria.....       | Aug. 6-19.....       | 1      | .....   |  |
| Fayoum, province..... | Aug. 28.....         | 1      | 1       |  |
| Port Said.....        | Aug. 24.....         | 1      | 1       |  |
| Peru.....             |                      |        |         | Year 1914: Cases, 760; deaths, 385. Jan. 1-June 30, 1915: Cases, 278; deaths, 140. |
| Provinces—            |                      |        |         |  |
| Ancaehs.....          | Jan. 1-Dec. 31, 1914 | 34     | 20      |  |
| Arequipa.....         | do.....              | 54     | 24      |  |
| Cajamarcas.....       | do.....              | 16     | 7       |  |
| Callao.....           | do.....              | 14     | 8       |  |
| Lambayeque.....       | do.....              | 107    | 47      |  |
| Libertad.....         | do.....              | 335    | 176     |  |
| Lima.....             | do.....              | 106    | 48      |  |
| Piura.....            | do.....              | 94     | 55      |  |
| Provinces—            |                      |        |         |  |
| Ancaehs.....          | Jan. 1-June 30, 1915 | 6      | 4       |  |
| Arequipa.....         | do.....              | 19     | 11      |  |
| Callao.....           | do.....              | 22     | 8       |  |
| Junin.....            | do.....              | 1      | 1       |  |
| Lambayeque.....       | do.....              | 68     | 24      |  |
| Libertad.....         | do.....              | 67     | 42      |  |
| Lima.....             | do.....              | 51     | 33      |  |
| Piura.....            | do.....              | 44     | 27      |  |

## SMALLPOX.

|                     |                      |     |       |          |
|---------------------|----------------------|-----|-------|----------|
| Australia:          |                      |     |       |          |
| New South Wales—    |                      |     |       |          |
| New Castle.....     | Aug. 20-26.....      | 1   | ..... |          |
| Austria-Hungary:    |                      |     |       |          |
| Austria.....        | July 25-31.....      | 260 | ..... |          |
| Vienna.....         | Aug. 15-21.....      | 1   | 1     |          |
| Hungary—            |                      |     |       |          |
| Budapest.....       | Aug. 1-21.....       | 15  | ..... |          |
| Canada:             |                      |     |       |          |
| Quebec—             |                      |     |       |          |
| Montreal.....       | Sept. 19-25.....     | 2   | ..... |          |
| China:              |                      |     |       |          |
| Amoy.....           | Aug. 8-14.....       |     |       | Present. |
| Mexico:             |                      |     |       |          |
| Aguascalientes..... | Sept. 6-12.....      |     | 1     |          |
| Vera Cruz.....      | Aug. 23-Sept. 5..... | 14  | 6     |          |
| Russia:             |                      |     |       |          |
| Petrograd.....      | Aug. 8-14.....       | 12  | 6     |          |

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

## Reports Received from June 26 to Oct. 1, 1915.

## CHOLERA.

| Place.                        | Date.                | Cases. | Deaths. | Remarks.                                 |
|-------------------------------|----------------------|--------|---------|--|
| Austria-Hungary:              |                      |        |         |  |
| Austria.....                  | May 2-July 17.....   | 3,433  | 1,141   | July 3-17, 1915: 5 cases in Galicia.     |
| Vienna.....                   | May 9-15.....        | 9      | 3       | Among soldiers and prisoners.            |
| Trieste.....                  | June 27-Aug. 7.....  | 12     | 5       | 4 carriers.                              |
| Bosnia-Herzegovina.....       | Apr. 25-July 3.....  | 216    | 71      | 202 cholera carriers.                    |
| Croatia-Slavonia.....         | May 3-July 19.....   | 558    | 207     | 14 among soldiers.                       |
| Hungary.....                  | Apr. 26-July 11..... | 1,179  | 518     | May 16-23: 5 additional cases notified.  |
| Budapest.....                 | June 28-July 10..... | 2      | .....   |  |
| Borneo:                       |                      |        |         |  |
| Sandakan.....                 | July 18-31.....      | 7      | 5       | Within jail limits.                      |
| Ceylon:                       |                      |        |         |  |
| Colombo.....                  | Apr. 25-May 22.....  | 8      | 1       |  |
| China:                        |                      |        |         |  |
| Hongkong.....                 | May 2-8.....         | 1      | 1       |  |
| Dutch East Indies:            |                      |        |         |  |
| Java—                         |                      |        |         |  |
| Batavia.....                  | Apr. 25-July 31..... | 65     | 57      | Sept. 3, 1915: Epidemic.                 |
| Germany:                      |                      |        |         |  |
| Berlin.....                   | July 24-Aug. 14..... | 392    | 54      |  |
| Berlitz.....                  | July 18-Aug. 7.....  | 3      | 2       | Among soldiers.                          |
| Brandenburg on the Oder.....  | July 18-24.....      | 1      | .....   | Do.                                      |
| Breslau.....                  | Aug. 15-21.....      | 2      | 1       |  |
| Bromberg.....                 | July 18-Aug. 7.....  | 4      | .....   | 3 military.                              |
| Cannstatt.....                | July 25-31.....      | 1      | .....   | Among soldiers.                          |
| Danzig.....                   | do.....              | 1      | .....   | Do.                                      |
| Frankfort on Oder.....        | July 18-Aug. 14..... | 6      | 4       |  |
| Furstenwalde and Klotsch..... | Aug. 22-28.....      | 2      | .....   | Aug. 15-21, 1915; 1 case, at Klotsch.    |
| Hamburg.....                  | Aug. 8-14.....       | 4      | 4       |  |
| Hanover.....                  | Aug. 1-14.....       | 4      | .....   |  |
| Jagerndorf.....               | July 25-31.....      | 1      | .....   | Among soldiers.                          |
| Landsberg.....                | June 13-July 2.....  | 1      | .....   |  |
| Leipzig.....                  | July 25-31.....      | 1      | .....   |  |
| Patschkau.....                | do.....              | 1      | .....   |  |
| Posen.....                    | July 18-24.....      | 1      | .....   |  |
| Rosenberg.....                | July 25-31.....      | 1      | .....   |  |
| Sachsenhausen.....            | June 13-July 2.....  | 1      | 1       |  |
| Schnaidermuhl.....            | do.....              | 1      | .....   |  |
| Silesia.....                  | July 25-31.....      | 1      | .....   |  |
| Slaventzitz.....              | July 3-17.....       | 5      | .....   |  |
| Sommerfeld.....               | June 13-July 2.....  | 1      | .....   |  |
| Spandau.....                  | July 18-24.....      | 1      | .....   |  |
| Striegan.....                 | July 25-31.....      | 1      | .....   |  |
| Governorment districts—       |                      |        |         |  |
| Arnsberg.....                 | Aug. 2-14.....       | 3      | 1       |  |
| Breslau.....                  | June 13-Aug. 14..... | 6      | .....   |  |
| Frankfort.....                | Aug. 8-14.....       | 1      | 1       |  |
| Gumbinnen.....                | June 13-July 21..... | 1      | .....   |  |
| Konigsberg.....               | do.....              | 2      | .....   |  |
| Koestlin.....                 | Aug. 8-14.....       | 1      | 1       |  |
| Liegritz.....                 | June 13-Aug. 14..... | 9      | 3       |  |
| Luneburg.....                 | Aug. 1-7.....        | 1      | 1       |  |
| Magdeburg.....                | do.....              | 1      | .....   |  |
| Marienwerder.....             | June 13-Aug. 14..... | 273    | 52      |  |
| Merseburg.....                | Aug. 8-14.....       | 12     | .....   |  |
| Minlen.....                   | Aug. 1-7.....        | 2      | 1       |  |
| Oppeln.....                   | June 13-Aug. 14..... | 20     | 1       |  |
| Potsdam.....                  | do.....              | 3      | .....   |  |
| Stade.....                    | Aug. 1-7.....        | 2      | .....   |  |
| Stettin.....                  | Aug. 1-14.....       | 3      | 1       |  |
| Wiesbaden.....                | June 13-Aug. 7.....  | 1      | .....   |  |
| India:                        |                      |        |         |  |
| Akyab.....                    | May 16-July 24.....  | 6      | .....   |  |
| Bassein.....                  | Apr. 18-July 31..... | 34     | .....   |  |
| Bombay.....                   | June 6-Aug. 7.....   | 6      | 5       |  |
| Calcutta.....                 | Apr. 25-July 10..... | 187    | .....   |  |
| Karachi.....                  | Aug. 1-7.....        | 1      | 1       |  |
| Madras.....                   | May 2-Aug. 14.....   | 11     | 9       |  |
| Pegu.....                     | July 4-10.....       | 1      | .....   |  |
| Rangoon.....                  | Apr. 24-July 31..... | 15     | 14      |  |
| Indo-China.....               |                      |        |         | Jan. 1-31 1915: Cases, 284; deaths, 178. |
| Provinces—                    |                      |        |         |  |
| Anam.....                     | Jan. 1-Feb. 28.....  | 9      | 5       |  |
| Cochin China.....             | do.....              | 621    | 297     |  |
| Laos.....                     | Feb. 1-28.....       | 46     | 21      |  |
| Tonkin.....                   | Jan. 1-Feb. 28.....  | 84     | 39      |  |
| Saigon.....                   | May 2-Aug. 8.....    | 1,314  | 826     |  |

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

## Reports Received from June 26 to Oct. 1, 1915—Continued.

## CHOLERA—Continued.

| Place.                                 | Date.                | Cases.   | Deaths.  | Remarks. |
|--|----------------------|----------|----------|----------|
| Italy:                                 |                      |          |          |          |
| Leghorn.....                           | Aug. 11.....         | 1.....   |          |          |
| Venice.....                            | do.....              | 3.....   |          |          |
| Russia:                                |                      |          |          |          |
| Moscow.....                            | June 6-12.....       | 75.....  | 14.....  |          |
| Serbia.....                            | June 25-July 2.....  | 2.....   |          |          |
| Sam:                                   |                      |          |          |          |
| Bangkok.....                           | Apr. 19-July 10..... |          | 6.....   |          |
| Straits Settlements:                   |                      |          |          |          |
| Singapore.....                         | May 9-July 31.....   | 4.....   | 3.....   |          |
| Sumatra, island—<br>Toba district..... | Apr. 12-June 26..... | 159..... | 110..... |          |

## YELLOW FEVER.

|            |                 |        |        |  |
|------------|-----------------|--------|--------|--|
| Brazil:    |                 |        |        |  |
| Bahia..... | July 11-17..... | 1..... | 1..... |  |

## PLAGUE.

|                           |                      |            |            |   |
|---------------------------|----------------------|------------|------------|---|
| Azores:                   |                      |            |            |   |
| Terceira, island.....     | July 25.....         |            |            | Present.                                    |
| Bahrein, island.....      | Apr. 1-30.....       |            |            | Do.   |
| Brazil:                   |                      |            |            |   |
| Bahia.....                | June 20-Aug. 7.....  | 5.....     | 4.....     |   |
| Ceylon:                   |                      |            |            |   |
| Colombo.....              | May 9-Aug. 7.....    | 10.....    | 9.....     |   |
| China:                    |                      |            |            |   |
| Amoy.....                 | May 2-June 5.....    |            |            |   |
| Do.....                   | June 13-19.....      |            |            |   |
| Do.....                   | June 20-26.....      |            |            |   |
| Do.....                   | June 27-Aug. 7.....  |            |            |   |
| Hongkong.....             | May 9-July 17.....   | 57.....    | 51.....    |   |
| Cuba:                     |                      |            |            |   |
| Habana.....               | Aug. 15.....         | 1.....     |            |   |
| Dutch East Indies:        |                      |            |            |   |
| Java:                     |                      |            |            |   |
| Do.....                   | Mar. 12-July 24..... | 2,158..... | 1,044..... |   |
| Kediri residency.....     | Mar. 12-July 15..... | 62.....    | 55.....    |   |
| Madioen residency.....    | do.....              | 5.....     | .5.....    |   |
| Pasoeroean residency..... | do.....              | 36.....    | 31.....    |   |
| Surabaya residency.....   | do.....              | 23.....    | 23.....    |   |
| Surakarta residency.....  | do.....              | 4.....     | 4.....     |   |
| Surabaya.....             | Apr. 18-July 17..... | 24.....    | 23.....    |   |
| Ecuador:                  |                      |            |            |   |
| Guayaquil.....            | May 1-31.....        | 1.....     |            |   |
| Egypt:                    |                      |            |            |   |
| Alexandria.....           | May 21-27.....       |            | 1.....     |   |
| Assiout, province.....    | May 14-June 3.....   | 7.....     | 2.....     |   |
| Fayoum, province.....     | May 14-Aug. 12.....  | 52.....    | 9.....     |   |
| Galioubéh, province.....  | May 14-27.....       | 1.....     |            |   |
| Minieh, province.....     | May 14-July 15.....  | 14.....    | 5.....     |   |
| Port Said.....            | May 28-Aug. 19.....  | 11.....    | 4.....     |   |
| Greece:                   |                      |            |            |   |
| Zante.....                | Aug. 1-11.....       | 12.....    | 13.....    |   |
| India:                    |                      |            |            |   |
| Bassein.....              | Apr. 18-July 31..... |            | 67.....    |   |
| Bombay.....               | May 2-Aug. 14.....   | 177.....   | 156.....   |   |
| Calcutta.....             | Apr. 25-July 3.....  |            | 59.....    |   |
| Henzada.....              | May 2-8.....         | 1.....     |            |   |
| Karachi.....              | May 2-Aug. 14.....   | 620.....   | 535.....   |   |
| Mandalay.....             | Apr. 25-July 31..... |            | 17.....    |   |
| Moulmein.....             | May 23-July 21.....  |            | 9.....     |   |
| Myingyan.....             | Apr. 5-17.....       |            | 1.....     |   |
| Pegu.....                 | Apr. 18-May 1.....   |            | 5.....     |   |
| Rangoon.....              | Apr. 18-Aug. 7.....  | 223.....   | 160.....   | Apr. 1-May 31, 1915: Cases, 91; deaths, 92. |
| Toungoo.....              | Apr. 25-May 1.....   |            | 38.....    |   |

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

## Reports Received from June 26 to Oct. 1, 1915—Continued.

## PLAGUE—Continued.

| Place.                   | Date.               | Cases. | Deaths. | Remarks.                                |
|--------------------------|---------------------|--------|---------|---|
| Indo-China:              |                     |        |         |   |
| Saigon.....              | May 9-July 17.....  | 12     | 8       | Jan. 1-31, 1915: Cases, 73; deaths, 58. |
| Provinces—               |                     |        |         |   |
| Anam.....                | Jan. 1-Feb. 28..... | 62     | 54      |   |
| Cambodia.....            | do.....             | 37     | 34      |   |
| Cochin China.....        | do.....             | 40     | 19      |   |
| Laos.....                | Feb. 1-28.....      | 20     | 20      |   |
| Japan:                   |                     |        |         |   |
| Taiwan Island—           |                     |        |         |   |
| Kagi.....                | May 30-July 3.....  | 7      | 7       |   |
| Tokyo.....               | May 31-Aug. 8.....  | 9      | 5       |   |
| Mauritius.....           | June 14.....        | 1      | .....   |   |
| Persia:                  |                     |        |         |   |
| Mohammerah.....          | Apr. 10-June 1..... | 3      | .....   |   |
| Peru:                    |                     |        |         |   |
| Callao.....              | May 3-9.....        | 1      | .....   |   |
| Lima (city).....         | do.....             | 1      | .....   |   |
| Mollendo.....            | May 3-July 25.....  | 2      | .....   |   |
| Salaverry.....           | Apr. 26-May 27..... | 2      | .....   |   |
| Trujillo.....            | May 3-9.....        | 2      | .....   |   |
| Siam:                    |                     |        |         |   |
| Bangkok.....             | July 4-10.....      | 1      | .....   |   |
| Straits Settlements:     |                     |        |         |   |
| Singapore.....           | Apr. 25-June 5..... | 4      | 1       |   |
| Turkey in Asia:          |                     |        |         |   |
| Bagdad.....              | May 2-July 26.....  | 768    | 574     |   |
| Chios, island.....       | Aug. 6.....         | .....  | .....   | Present.                                |
| Union of South Africa:   |                     |        |         |   |
| Cape Province—           |                     |        |         |   |
| Tarka, district.....     | June 2-16.....      | 2      | 1       |   |
| Wodehouse, district..... | June 5.....         | 2      | 2       | At Dordrecht.                           |
| Zanzibar:                |                     |        |         |   |
| Zanzibar.....            | Mar. 1-31.....      | .....  | 1       |   |

## SMALLPOX.

|                          |                      |       |       |  |
|--------------------------|----------------------|-------|-------|--|
| Australia:               |                      |       |       |  |
| New South Wales—         |                      |       |       |  |
| New Castle District..... |                      |       |       | June 10-Aug. 5: Cases, 17.   |
| Cessnock.....            | June 10-Aug. 2.....  | 5     | ..... |  |
| Hamilton.....            | July 16-22.....      | 1     | ..... |  |
| Islington.....           | Aug. 3-19.....       | 1     | ..... |  |
| Kurri Kurri.....         | May 26-July 22.....  | 8     | ..... |  |
| Moreweather.....         | Aug. 3-19.....       | 1     | ..... |  |
| Plattsburg.....          | July 16-22.....      | 1     | ..... |  |
| Standford Mortyr.....    | June 25-July 24..... | 1     | ..... |  |
| Wickham.....             | Aug. 3-19.....       | 1     | ..... |  |
| Victoria—                |                      |       |       |  |
| Melbourne.....           | Apr. 20.....         | 1     | ..... | At Point Nepean quarantine station, from S. S. Lord Derby from Rangoon.                        |
| Western Australia—       |                      |       |       |  |
| Freemantle.....          | Apr. 27.....         | 1     | ..... | At Woodmans Point quarantine station, from S. S. City of Baroda from Calcutta via Colombo.     |
| Austria-Hungary:         |                      |       |       |  |
| Austria.....             | May 2-July 24.....   | 4,273 | ..... |  |
| Dalmatia, Province.....  | May 2-8.....         | 1     | ..... |  |
| Vienna.....              | May 2-Aug. 14.....   | 37    | 9     | August, 1914-May 8, 1915: Cases, 1,487; deaths, 316. May 9-15, 1915: Cases, 28. June 6-12: 13. |
| Hungary—                 |                      |       |       |  |
| Budapest.....            | do.....              | 291   | 1     |  |
| Prague.....              | Aug. 1-21.....       | 5     | ..... |  |
| Brazil:                  |                      |       |       |  |
| Rio de Janeiro.....      | Apr. 18-Aug. 7.....  | 166   | 63    |  |
| Rio Grande do Sul.....   | Sept. 2.....         | ..... | ..... | Epidemic.  |
| Canada:                  |                      |       |       |  |
| Alberta—                 |                      |       |       |  |
| Edmonton.....            | .....                | ..... | ..... | Epidemic 30 miles south closed Aug. 14, 1915: Cases, 100 (estimated).                          |

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

## Reports Received from June 26 to Oct. 1, 1915—Continued.

## SMALLPOX—Continued.

| Place.                       | Date.                | Cases. | Deaths. | Remarks.   |
|------------------------------|----------------------|--------|---------|--|
| Canada—Continued.            |                      |        |         |  |
| Ontario—                     |                      |        |         |  |
| Hamilton.....                | June 1-30.....       | 2      | 4       |  |
| Peterborough.....            | July 10-17.....      |        | 1       |  |
| Sarnia.....                  | June 13-19.....      | 1      | .....   |  |
| Toronto.....                 | June 6-Aug. 7.....   | 7      | .....   |  |
| Quebec—                      |                      |        |         |  |
| Montreal.....                | June 13-Aug. 7.....  | 11     | .....   |  |
| Sherbrooke.....              | June 1-30.....       |        | 1       |  |
| Canary Islands:              |                      |        |         |  |
| Santa Cruz de Teneriffe..... | July 18-24.....      |        | 1       |  |
| Ceylon:                      |                      |        |         |  |
| Colombo.....                 | May 2-Aug. 7.....    | 108    | 17      |  |
| China:                       |                      |        |         |  |
| Amoy.....                    | July 4-Aug. 7.....   |        |         | Present.   |
| Chungking.....               | May 23-June 19.....  |        |         | Do.  |
| Foochow.....                 | May 9-22.....        |        |         | Do.  |
| Harbin.....                  | May 3-9.....         | 1      | .....   |  |
| Hongkong.....                | May 9-Aug. 7.....    | 9      | 6       |  |
| Manchuria Station.....       | June 21-27.....      | 2      | .....   |  |
| Nanking.....                 | June 20-Aug. 14..... |        |         | Eastern Chinese Railway                            |
| Shanghai.....                | May 9-July 3.....    | 5      | 5       | Present.   |
| Tientsin.....                | May 16-22.....       |        | 1       | Natives.   |
| Dutch East Indies:           |                      |        |         |  |
| Java.....                    | Apr. 18-July 31..... | 682    | 164     |  |
| Batavia.....                 | Apr. 25-July 17..... |        | 30      | Do.  |
| Egypt:                       |                      |        |         |  |
| Alexandria.....              | May 21-July 15.....  | 41     | 14      |  |
| Cairo.....                   | Apr. 30-July 13..... | 18     | 8       |  |
| Germany:                     |                      |        |         | Total, May 16-July 3, 1915: 9 cases.               |
| Hamburg.....                 | June 6-12.....       | 1      | .....   |  |
| Government districts—        |                      |        |         |  |
| Allenstein.....              | June 13-19.....      | 1      | .....   |  |
| Arn-berg.....                | .....do.....         | 1      | .....   |  |
| Breslau.....                 | June 20-July 3.....  | 1      | .....   |  |
| Danzig.....                  | June 13-July 31..... | 3      | .....   |  |
| Gumbinnen.....               | May 23-29.....       | 2      | .....   |  |
| Marienwerder.....            | May 23-July 31.....  | 3      | .....   |  |
| Merseburg.....               | June 20-July 3.....  | 1      | .....   |  |
| Oppeln.....                  | May 16-July 31.....  | 9      | .....   |  |
| Posen.....                   | May 30-June 5.....   | 3      | .....   |  |
| Potsdam.....                 | June 13-Aug. 14..... | 4      | .....   |  |
| Great Britain:               |                      |        |         |  |
| Bristol.....                 | Mar. 21-May 22.....  | 29     | 7       | 1 vessel from Bombay. Maximum incidence, Apr. 4-17 |
| London.....                  | May 30-June 12.....  | 3      | .....   | Cases, 22; deaths, 2.                              |
| Greece:                      |                      |        |         |  |
| Saloniki.....                | May 23-29.....       |        | 1       |  |
| India:                       |                      |        |         |  |
| Bassein.....                 | May 2-8.....         |        | 1       |  |
| Bombay.....                  | May 2-Aug. 14.....   | 230    | 124     |  |
| Calcutta.....                | Apr. 25-July 10..... |        | 255     |  |
| Karachi.....                 | May 2-July 31.....   | 25     | 4       |  |
| Madras.....                  | May 2-Aug. 14.....   | 31     | 18      |  |
| Moulmein.....                | May 24-29.....       |        | 1       |  |
| Pegu.....                    | Apr. 18-June 12..... | 1      | 1       |  |
| Rangoon.....                 | Apr. 18-Aug. 7.....  | 129    | 55      | May 1-31, 1915: Cases, 37; deaths, 14.             |
| Indo-China:                  |                      |        |         |  |
| Provinces—                   |                      |        |         |  |
| Annam.....                   | Jan. 1-31.....       |        |         | Present.   |
| Cambodia.....                | Jan. 1-Feb. 28.....  | 32     | 5       |  |
| Cochin China.....            | Jan. 1-31.....       | 12     | .....   |  |
| Lao.....                     | Feb. 1-28.....       | 6      | .....   |  |
| Tonkin.....                  | Jan. 1-Feb. 28.....  | 66     | 12      |  |
| Saigon.....                  | May 23-July 10.....  | 2      | 2       |  |
| Italy:                       |                      |        |         |  |
| Milan.....                   | May 1-31.....        | 1      | .....   |  |
| Turin.....                   | Aug. 16-29.....      | 3      | .....   |  |
| Japan:                       |                      |        |         |  |
| Taiwan, island .....         | May 23-29.....       | 1      | .....   |  |
| Mexico:                      |                      |        |         |  |
| Acapulco.....                | July 14-Sept. 5..... |        | 3       |  |
| Aguascalientes.....          | June 7-Aug. 29.....  |        | 16      |  |
| Columbia.....                | Sept. 15.....        | 2      | .....   |  |
| Frontera.....                | May 23-Aug. 14.....  | 129    | 51      |  |
| Mazatlan.....                | June 23-July 13..... |        | 3       |  |

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

## Reports Received from June 26 to Oct. 1, 1915—Continued.

## SMALLPOX—Continued.

| Place.                 | Date.              | Cases. | Deaths. | Remarks.   |
|------------------------|--------------------|--------|---------|--|
| Mexico—Continued.      |                    |        |         |  |
| Monterey.              | June 14-Sept. 5... | 9      | .....   |  |
| Nuevo Laredo.          | Sept. 11...        | 2      | .....   | In persons from San Luis Potosi.   |
| Progreso.              | June 6-July 24...  | 7      | 1       |  |
| Salina Cruz.           | June 1-30...       | 4      | 1       | Soldier from San Geronimo.   |
| Tampico.               | Aug. 11-20...      | .....  | 1       |  |
| Vera Cruz.             | June 7-Aug. 22...  | 95     | 49      |  |
| Portugal:              |                    |        |         |  |
| Lisbon.                | May 23-Aug. 28...  | 27     | .....   |  |
| Russia:                |                    |        |         |  |
| Moscow.                | May 2-15...        | 19     | 5       |  |
| Petrograd.             | May 8-Aug. 2...    | 347    | 140     |  |
| Riga.                  | May 9-July 17...   | 61     | .....   | Mar. 1-31, 1915; Cases, 89; deaths, 22.  |
| Vladivostok.           | May 29-June 4...   | 1      | .....   | Sept. 27-Oct. 31, 1914: Cases, 51; deaths, 16. Nov. 1-28, 1914: Cases, 70; deaths, 23. |
| Warsaw.                |                    |        |         |  |
| Serbia.                | Apr. 21-May 3...   | 356    | .....   |  |
| Spain:                 |                    |        |         |  |
| Madrid.                | June 1-July 31...  | .....  | 7       |  |
| Seville.               | May 1-June 30...   | .....  | 7       |  |
| Valencia.              | May 30-Sept. 4...  | 90     | 11      |  |
| Straits Settlements:   |                    |        |         |  |
| Penang.                | Apr. 25-May 15...  | 6      | 2       |  |
| Singapore.             | May 23-29...       | 1      | .....   |  |
| Switzerland:           |                    |        |         |  |
| Basel.                 | May 16-July 3...   | 18     | .....   |  |
| Turkey in Asia:        |                    |        |         |  |
| Bagdad.                | May 2-8...         | .....  |         | Present.   |
| Beirut.                | May 10-Aug. 14...  | 84     | 35      |  |
| Haifa.                 | May 3-July 25...   | 9      | 1       |  |
| Jaffa.                 | May 9-29...        | 2      | .....   |  |
| Mersina.               | May 30-June 5...   | 1      | .....   |  |
| Tripoli.               | May 2-8...         | .....  |         | Do.  |
| Union of South Africa: |                    |        |         |  |
| Cape Town.             | June 24-July 30... | 3      | .....   |  |

# SANITARY LEGISLATION.

## COURT DECISIONS.

### UNITED STATES DISTRICT COURT—EASTERN DISTRICT OF PENNSYLVANIA.

#### Drugs—False Statements Regarding Curative Properties—Misbranding.

UNITED STATES *v.* AMERICAN LABORATORIES, 222 Fed. Rep., 104. (Apr. 27, 1915.)

Laws intended to protect the purity of drugs and to prevent untrue statements regarding their curative properties should be administered in such a way that honest and well-intentioned business may not be hampered, but the detection of frauds and cheats will be made sure and their conviction and punishment rendered certain.

The amendment to the United States pure food and drugs act providing that a drug shall be deemed to be misbranded if the package or label bears any false and fraudulent statement regarding its curative effects, is constitutional and valid.

Under the United States pure food and drugs act it is not necessary to show that the statement regarding the drug is flatly and boldly false. A conviction will be sustained if the jury find that the statement is such as to create or lead to a false impression in the mind of the reader as to the ingredients or the composition of the drug.

A man should not be convicted of fraud merely because he advocates a theory of medicine which at the time had not received the indorsement of the medical profession; but a fraud or a fakir can not escape the consequences of his fraud by the mere fact that some one may honestly believe in the theory which he fraudulently and dishonestly exploits.

A man who has made false and fraudulent statements as to the curative properties of the drug which he is selling can not, when pursued by justice, take refuge in the statement that he was expressing his opinion or in finding others who honestly believe the statements made.

The defendant was charged with misbranding a medicine sold under the trade name of "Bad-Em Salz," and with making false statements concerning its curative properties. The defense claimed that the statements were honestly made, that they related to matters of opinion which were incapable of proof, and that the defendant could not be convicted merely because an opinion was expressed which differed from that of other persons. The court held that the questions whether the medicine was misbranded and whether the statements of its curative properties were false, fraudulent, or misleading were for the jury to decide as questions of fact.

DICKINSON, District Judge. The prosecution in this case began with an information filed under the food and drugs act and the amendment thereto. The first three counts of the indictment are under the original act, and charge different acts of misbranding or false and misleading statements respecting the composition of a medicine put out by the defendant under the trade name of "Bad-Em Salz." The fourth count is under the Sherley amendment to the original act, and charges the offense of making false and fraudulent statements as to the curative properties of the salts manufactured by the defendant.

The case was fully and exhaustively tried and defended, resulting on April 7, 1915, in a verdict of guilty. The motions may be treated as one and are planted upon four propositions:

The first is an attack upon the constitutionality of the Sherley amendment. The position is taken that it is beyond the power of Congress to make a crime of the act of a defendant in proclaiming his belief in the curative properties of a medicine. The argument upon which this is based is so fully met by the opinions accompanying the

ruling in U. S. v. Johnson (221 U. S., 488, 31 Sup. Ct. 627; 55 L. Ed. 823) that we do not feel called upon to give it further discussion.

The second ground of complaint is that the defendant has not received the notice required by the fourth section of the food and drugs act. This complaint is disposed of by the case of United States v. Morgan et al. (222 U. S., 274; 32 Sup. Ct., 81; 56 L. Ed., 198).

The third complaint is that the indictment was found and tried and a conviction thereunder had, without other authority for the institution of the prosecution than an information emanating from the office of the United States district attorney, without affidavits in support of it appearing. The facts are that an information with supporting affidavits was filed September 3, 1914. This involved two counts. Another information was filed March 17, 1915. This was the basis of the four counts involved in the indictment upon which the defendant was convicted. The information was based upon the affidavits previously on file. No affidavits were physically attached to the second information. The discussion of the legal consequences flowing from this is for the moment reserved.

The fourth complaint is that the whole trend of the charge was toward conviction, in that it kept the attention of the jury faced in the direction of the guilt and not the innocence of defendant. It must be conceded that a reading of the charge affords some ground for this complaint. It is, however, more seeming than real. The circumstances which gave the framing to the charge brought this about. Before the charge was delivered the attention of the court was called to the fact of certain newspaper publications and discussion of the case. The best method of dealing with the situation was made the subject of a conference between counsel and the trial judge. It was not known whether any of the jury had seen the publication referred to. If they had not seen it, a direct reference to it might do more harm than good. It was thought that the condition could be best met by instructing the jury as to the presumption of innocence and bringing before their minds the responsibility resting upon them to find the facts from the evidence in the case and to acquit unless the proofs brought home to them a conviction of defendant's guilt beyond all reasonable doubt. The trial judge complied with the suggestion made and charged the jury at length, and if anything at undue length, in emphasizing the defendant's rights of trial. This was done with such fullness at the commencement of the charge that we can not find that the effect of it was lost upon the jury by anything subsequently said, nor that the defendant was prejudiced by the later features of the charge.

Over and beyond these specific grounds of complaint lies the broader one that there was no evidence in the case to justify the defendant's conviction of a crime. The situation in this view of it may be voiced in the phrase that the defendant, if punished, will have been punished for the crime of medical heterodoxy and not for any offense against the law. In other words, the president of the defendant company, who is himself a physician, advanced a theory, advocated by others as well as by himself, for the treatment of cases commonly known as "gallstone cases." In opposition are eminent physicians and surgeons and, as the argument might concede, the weight of scientific medical opinion is against him. Inasmuch, however, as the treatment is the subject of controversy and its efficacy within the domain of opinion, the minority can not be convicted of crime merely because they are outnumbered.

It is certainly true that a man should not be convicted of fraud merely because he advocates a theory of medicine which at the time had not received the sanction of the indorsement of the medical profession. It is equally true that a fraud or a fakir can not escape the consequences of his fraud by the mere fact that some one may honestly believe in the theory which he fraudulently and dishonestly exploits. The broad distinction between things which are frauds and things which are not frauds is clear. It would be difficult, and indeed seems to be impossible, to give a definition of such

frauds in words. Supposititious cases illustrating the distinction could be multiplied beyond number. The essential difference is a fact, and in the administration of the criminal law is a fact to be found by a jury. As applied to the evidence in this case, the statement is easily credible that a man believes in and honestly advocates a course of taking the waters of certain springs as a specific for the prevention of gallstones, in the sense of ameliorating the conditions to which the formation of gallstones are due; it is conceivable that a man may give a like advocacy to the theory that gallstones, when once formed, may be dissolved, and there may be other persons of like opinions with himself.

The views thus expressed and the treatment advocated may be groundless in fact and unsupported by respectable professional opinion, and yet the holder of them would not be the proper subject of criminal prosecution. By the very same token, however, another man might advocate a remedy and put out a medicine to be purchased by the sufferers from ailments or diseases, real or imaginary, and the act itself be so clearly false and fraudulent that the mind would not hesitate to reach a conviction of his criminal guilt. The fact that there was a widely spread disposition among people to give credence to the statement because of a superstitious belief in its efficacy, or indeed such a reputation for the remedy itself as to make people prejudiced in its favor, would not diminish, but would increase, the guilt of him who sought to make money by false statements and fraudulent devices. It is difficult, and indeed practically impossible, to draw a line in the abstract other than a broad line between these two things. There would seem to be no other way of dealing with the subject than to submit to the common-sense judgment of a jury to find whether in a given case the acts of a defendant have been honest, however mistaken, or whether they have been false and fraudulent.

The present case may well be considered a test case. There is a widespread belief, whether well or ill founded, in the curative properties of the waters of many of the springs which issue out of the earth. The predisposition to believe in their efficacy may have its foundation in the search for the fountain of youth. Certain words have become polarized with this meaning, and excite a feeling of hope or expectation in the minds of sufferers, particularly those who suffer from certain ailments. The word "Spa" and the word "Bad" are of this kind. The result of the use of such words is very much akin to the thoughts which, from the principle of the association of ideas, are called up by the use of certain widely advertised proprietary words.

In order to determine what basis of merit lies at the bottom of the fame of certain springs the knowledge and skill of the chemist have been called into exercise, and the waters have been analyzed, and the ingredients which are believed to have contributed chiefly to their efficacy have been determined. It is a short step from this knowledge to the expedient of artificially reproducing the waters, or to the more direct method of bottling and transporting the waters themselves, or to facilitating the transportation by the process of evaporation and then reproducing a water from the residuum salts. Starting with this widely spread belief in the efficacy of certain natural waters and following this with the thought of reproduction, either in fact or in equivalents, the defendant put on the market the medicine which it widely sells. Indeed, the president of the company in his testimony gave this history of the evolution of the idea of putting these salts on the market. The idea began with the recommendation of patients suffering from certain ailments to go to Carlsbad, or to Ems, or to certain other springs, and there take the waters.

The next development of the idea was that a treatment would be given which is the medicinal equivalent of what could be had at the springs themselves. The standard formula for effervescent artificial Carlsbad salts given in the National Formulary was not believed to be the best combination of salts for the purpose. To vary from this and yet put out the substitute as artificial Carlsbad salts was thought to be inimical

to the provision of the statute. The fully developed thought was to put out another combination of salts, believed to be a reproduction, and in that sense a representation, and in another sense an equivalent, of the medicinal properties of the Carlsbad waters. The embodied thought was therefore put into this product under the name of "Bad-Em Salz." This put behind this proprietary medicine the wide-spread belief of people in the efficacy of these natural spring waters, and the thought that they could get the same benefit from a treatment in their own homes which they would receive directly from the Carlsbad or Bad-Ems waters. The further thought was to give the sale of these salts the additional boost of a statement of their curative or therapeutical properties. Had this been fairly done, it could not be said that there was involved in it any infraction of any criminal statute.

The charge against this defendant, however, was that the medicine was misbranded in the respect that it was put out under certain false and misleading statements, the essence of which was that the impression was conveyed to the users of the medicine that they were getting the benefit of the very salts which are contained in the natural waters of the springs which had acquired a world-wide fame, and that false and fraudulent statements were made as to the curative effects or results which would flow from the use of this medicine. Right here is the fulcrum on which the lever for the argument on behalf of the defendant is sought to be placed.

As to the misbranding features of the indictment, the defensive position is taken upon the fact that the statements put out by the defendant were neither false nor misleading and, with respect to the curative features, that inasmuch as the result claimed to follow from the use of the medicine was a matter of opinion there was no basis for a finding of guilt.

The answer made to these propositions by counsel for the United States is the only answer to which they are open, and that is that the statement of fact upon which the first proposition turns is one to be determined by a jury. It is not a necessary condition of a finding of guilt that the statement of what the drug is should be a statement flatly and baldly false, but that the word "misleading," in the act, has its function, which is to bring the statement within the inhibition of the statute if it is such as to create or lead to a false impression in the mind of the reader as to what the ingredients or the composition of the drug are. This is the charge made in the first three counts of the indictment, and this is the fact which the jury has found against the defendant.

With respect to the charge under the Sherley amendment the answer of the United States is that a man who has in fact made false and fraudulent statements as to the curative properties of the drug which he is selling can not, when pursued by justice, take refuge in the statement that he was expressing his opinion or in being able to find others who honestly believed in the statements made. Here again the question of guilt or innocence turns upon the fact, and here again the fact is one which must be determined by the jury, and here again the jury has determined the fact against the defendant.

The charge of the court in this feature or aspect of the case was heard by the jury, and therefore must be read in the light of the argument which had been addressed to them. The president of the company, when upon the witness stand, testified to the honesty of the statements made and to the truth of the claims made for the results of the treatment advocated. This was impressively supported by counsel for the defendant in his argument that the defendant was not to be convicted because the statements made were not believed in by the witnesses called for the United States and that a defendant could not be convicted because he entertained an opinion, even if that opinion was a mistaken one, and that the fact that the claims made were within the domain of opinion entitled the defendant to a verdict of acquittal.

These propositions were all affirmed by the court, unless the jury had been convinced by the evidence in the case that the statements as to what the drug was were

in fact false and misleading, and unless the statements of what it would do were both false in fact and were fraudulently made.

The feature of the charge complained of, that the illustrations "were all illustrations of guilt, and none of innocence," could not have prejudiced the defendant, for the reason that following the course of the argument made by counsel for the defendant, they enforced his argument and reenforced his position by impressing upon the jury that there could be no conviction unless the defendant had been guilty of an arrant fraud, such as those embodied in the illustrations given.

This brings us back to the only undiscussed complaint now made. That no one can be called upon to defend to a criminal charge which is not based upon reasonable grounds appearing from statements of fact authoritatively made and sanctioned by the oath of some one who has a knowledge of the facts, or its legal equivalent in solemnity and responsibility, is a proposition having behind it the highest sanction of the law. The forms of practice in making criminal accusations which have grown out of this are the outer protections which are thrown around every citizen, and there can be no departure from them.

We have not had the opportunity to examine the record in this case with respect to the fulfillment of these conditions preliminary to a trial. We understand the fact to be, however, and it is stated without denial, that the action of counsel for the United States in bringing this prosecution was based upon affidavits made by those having a knowledge of the facts and upon the probable cause which was disclosed by the affidavits. These affidavits are of record. The first information brought home to the defendant charges which would have taken the form of two counts in an indictment. Counsel for the United States subsequently amplified the form of the charges by putting them into the shape of the four counts of the present indictment. The information in the present prosecution was based upon the affidavits which were of record. The complaint now made, as we further understand it, is merely to the feature that the affidavits upon which the information was based are not physically attached to the information itself. We do not think this to afford any legal reason for interfering with the verdict, although we have no wish to lessen the protection thrown around defendant. *U. S. v. Gruver (D. C.)* (35 Fed., 59), and *U. S. v. Baumert (D. C.)* (179 Fed., 735), dispose of this phase of the case.

The motive and policy of the law which lies behind legislation of this general kind is highly promotive of public good. The evils sought to be removed and prevented spring out of conditions requiring tactful, and even delicate, treatment. Such laws, if arbitrarily enforced, may easily take the form of an unwise dictatorial interference with the pursuits of others. There is a natural temptation to overdo by trenching upon the domain which properly belongs to the ethics of the medical profession. There is danger, also, that the public will come to rely upon the protection promised by such laws, and therefore relax individual watchfulness. Such laws, therefore, should be administered in such a way as that honest and well-intentioned business may not be hampered, but the detection of frauds and cheats will be made sure, and their conviction and punishment rendered certain. The temptation even to those who can not fairly be termed unscrupulous is to yield to the suggestions of greed and come as close to the forbidden line as they safely can. The only sure course in the administration of laws of this kind is to leave the determination of guilt or innocence in a given case to the sound judgment of a jury, supervised by the wisest scrutiny which the trial judge can give to make sure that no one is convicted without guilt. As has already been stated, this case discloses acts that are not far over the line of what the defendant might lawfully have done. The jury found, however, that it has transgressed that line, and we are not able to convict the jury of having misjudged the real facts in the case.

The motion in arrest of judgment, and that for a new trial, are therefore both denied.

**NEW YORK SUPREME COURT, APPELLATE DIVISION, FIRST DEPARTMENT.****Cold Storage—Law Limiting the Time for the Storage of Foodstuffs Held Valid.****PEOPLE v. FINKELSTEIN, 152 N. Y. Supp., 875. (Apr. 23, 1915.)**

The New York act limiting the time during which foodstuffs can be kept in cold storage held valid. The legislature has power to prohibit the indefinite cold storage of food products, and it is for the legislature, not the courts, to determine how long such storage may continue.

The New York act provided that the person placing food in a cold-storage warehouse should not keep it in storage longer than ten months. The owner of six casks of salmon placed them in cold storage in July, 1913. The salmon were sold, and in May, 1914, the purchaser removed the salmon to another warehouse, where they were kept until September, 1914. The court decided that the law should be construed to prohibit the storage of foodstuffs for more than ten months in the aggregate, and the purchaser was convicted of violating the law.

SCOTT, J.: The defendant appeals from three judgments of conviction in the Court of Special Sessions, two for the violation of chapter 49, laws 1909, as amended by chapter 335, laws 1911, and as further amended by chapter 414, laws 1914, and one for the violation of rules 3 and 12 adopted by the State commissioner of health on September 6, 1913. The statute referred to was designed to prevent the keeping of food products in cold storage for a longer period than the legislature deemed to be safe or desirable. The rules are designed to prevent the obliteration of marks upon packages of foodstuffs so stored.

It appears from the evidence that a firm known as Jed Freys & Co., on July 28, 1913, placed in a cold-storage warehouse belonging to the Terminal Warehouse Co. six casks of salmon. On May 27, 1914, defendant caused four of these casks, and on May 28th two of the casks, to be transferred to the cold storage warehouse of the F. C. Linde Co., where they remained until September 22, 1914, when they were discovered by the inspector of the State board of health, whereupon this prosecution was set on foot.

The statute under which defendant was convicted is section 337 of the public health law, and was added to that law by chapter 335, laws 1911, and amended by chapter 414, laws 1914, which went into effect on April 17, 1914, and as so amended, and as it was in force when defendant removed the salmon from the Terminal warehouse to that of F. C. Linde Co. the section read as follows:

SEC. 337. Time that cold storage foods may be kept. It shall hereafter be unlawful for any person, corporation, or corporations engaged in the business of cold-storage warehousemen or refrigerating, or for any person placing food in cold storage warehouse, to keep in storage for preservation or otherwise any kind of food or any article used for food a longer period than ten calendar months, excepting butter products which may be kept in said cold storage or refrigeration twelve calendar months.

The italicized words, "or for any person placing food in cold-storage warehouse," constitute the amendment of 1914. Prior to that amendment it was only the warehouseman who was affected by the section, and the purpose of the amendment of 1914 was to extend the inhibition of the statute to those placing foodstuffs in storage, as well as to the warehouseman who received and kept it.

The defendant raises two legal objections to his conviction: First he says that the whole section is unconstitutional and void, whether applied to warehousemen or to those who place goods in cold storage; and secondly he says that, if the act be valid, still he should not be convicted under it, because he did not keep the goods in cold storage for 10 months, and that said goods were not kept in cold storage by any one for 10 months after April 17, 1914, the date on which the amendatory act of 1914 took effect.

As to the validity of the act, we think that there can be no doubt on constitutional grounds. Every intendment and presumption is in favor of its validity. *People ex rel. Simon v. Bradley* (207 N. Y.; 592, 101 N. E., 766). The statute is one adopted

under the police power of the State, and is designed to protect the health of the community. Consequently, unless we can clearly see that the particular section under review has no probable relation to the general purpose for which the public health law is designed, we may not hold that in adopting it the legislature has exceeded its constitutional power. If it can have such relation, the subject becomes one for legislative, and not judicial, consideration. We certainly can not say, as a matter of judicial cognizance, that indefinite cold storage of food products may not result in deterioration which will be detrimental to health. If it may so result, it is for the legislature to determine for how long such cold storage may be presumed to be harmless. The section does not prohibit the cold storage of food products, and therefore does not tend to destroy either the traffic in foods or the business of refrigeration. It merely aims at regulation, and there is nothing before us from which we can say that the attempted regulation is unreasonable.

The question whether or not the facts justified the defendant's conviction rests upon somewhat different considerations. It does not appear precisely when he acquired ownership and control of the salmon, but he must have done so at least as early as May 27, 1914, when he removed the first lot from the Terminal warehouse and placed it in the Linde warehouse. The salmon had then been in storage for the full 10 months allowed by the statute, and we think that he is chargeable with knowledge of that fact, for he could easily have ascertained it if he had made inquiry. He is also chargeable with knowledge of the law limiting the allowable term of storage. He was certainly the person who "placed" the goods on storage in the Linde warehouse.

The obvious purpose of the act (sec. 337, public health law, as amended) is to prevent the keeping of food products in cold storage for more than the prescribed period, and it evidences the judgment of the legislature that to keep such products longer in such storage would tend to produce dangerous deterioration.

To so construe the act that such products may be received by successive warehousemen and kept for a period of 10 months by each, or placed by the owner in several warehouses in succession and allowed to remain for 10 months in each, would be to destroy the act through opening an easy way for its evasion. We may not so construe an act as to completely defeat its purpose, and so nullify it, if any other reasonable construction is possible. Section 336 of the public health law, as amended in 1914, requires that all articles of food placed in cold storage, or the packages in which they are contained, shall be plainly marked with the date of receipt and with the date of removal, and by the rules of the State board of health it is forbidden to obliterate any of such marks. A warehouseman to whom such goods are offered for storage, or a person who purchases such goods while in storage, has therefore ready means for ascertaining how long the goods offered for storage or for purchase have already lain in cold storage.

The true construction of the act is, as we think, and the only construction which will give it any efficacy, that such food products may not be kept in cold storage in the aggregate longer than the time prescribed by the statute, whether that time shall be spent in one or in more than one warehouse, or shall have been placed in storage by one or more than one owner, and that the warehouseman who keeps the goods in storage after the expiration of the prescribed period from the date of the first storage, and the person who shall have placed the goods in storage after the limit has been exhausted, or having placed them in storage before the expiration of such time limit shall keep them beyond it, is guilty of a violation of the statute. Such a construction will serve to carry out the obvious purpose of the act, and will work no hardship on any warehouseman or purchaser, for, as already pointed out, means are provided by which each warehouseman or person to whom the goods are offered for storage or purchase is afforded means of ascertaining how long the goods have already been in storage and how long they may be lawfully kept therein. Thus in the present case

the defendant was chargeable with actual or imputed knowledge that the goods had been in the terminal warehouse for the full term permitted by law, and by placing them in another warehouse, and keeping them there for some months, he was guilty of a violation of the statute, instead of a successful evasion of it.

We think that no error was committed in admitting in evidence the written reports of the inspectors. They are expressly permitted by statute to be used as presumptive evidence (sec. 21b, public health law; chap. 559, laws 1913). The inspectors themselves were produced as witnesses, and defendant was afforded every opportunity to question the accuracy of the reports or to controvert the statements contained therein. *Howard v. Moot* (64 N. Y., 262-265).

As to the conviction for violating rules 3 and 12 of the State commissioner of health in erasing or causing to be erased certain marks on the packages of salmon, we are of opinion that, while the circumstances might create a strong suspicion of defendant's guilt, because he had control of the goods and was the person to be benefited by the erasure, yet there was not sufficient legal evidence to warrant his conviction for a crime in this regard.

The result is that the two convictions for violation of the statute are affirmed, the judgment of conviction for violation of the rule of the State commissioner of health is reversed and the information dismissed. Settle order on notice. All concur.

## STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

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### MICHIGAN.

#### Communicable Diseases—Notification of Cases—Quarantine—Placarding—School Attendance. (Reg. Bd. of H., Sept. 1, 1915.)

I. *Actinomycosis (lumpy jaw)*.—An infectious disease common to cattle and other domestic animals and often transmitted to man.

1. Cases must be reported.
2. Instruct patient to cover all open ulcers, burn cloths and other articles contaminated with discharges from affected part.
3. Avoid intimate contact with person suffering from disease.
4. Disinfection of room and all exposed articles after death or recovery of patient.

II. *Anthrax (wool sorters' disease; malignant pustule)*.—A dangerous and fatal infectious disease affecting cattle and man.

1. Cases must be reported.
2. Destroy all contaminated cloths or other articles by burning.
3. Disinfection of room and all articles exposed, after death of patient.

III. *Chicken-pox*.—1. Cases must be reported.  
2. Conspicuous placard on the house.  
3. Isolation of patient until desquamation is complete. Keep patient from school 10 days after desquamation is complete. Other children in the household who have had chicken-pox may continue in school.  
4. Fumigation not required.

IV. *Cholera (Asiatic)*.—1. Cases must be reported.  
2. Isolation of patient.  
3. Most rigid disinfection of all discharges.  
4. Quarantine must be strictly enforced.  
5. Terminal disinfection required if foregoing instruction relative to discharges is not complied with.

V. *Diphtheria and membranous croup*.—1. Cases must be reported.  
2. Conspicuous placard on the house.  
3. Quarantine minimum 21 days, or until two negative cultures are secured on successive days, after the fourteenth day. When possible to do so, consult State laboratory for final examination. Head of family may be disinfected, immunized, and released. Children not ill may be disinfected, immunized, and kept in quarantine elsewhere 10 days, after which they may attend school, if throat swabs are negative.  
4. Complete disinfection of rooms and clothing after death or recovery of patient.

VI. *Dysentery (amebic and bacillary)*.—1. Cases must be reported.  
2. Isolation of patient.  
3. Disinfection of all discharges from bowels; destruction, by burning, of all contaminated articles of no special value; complete disinfection of articles that can not be burned.  
4. Terminal disinfection of room and contents after death or recovery of patient.

VII. *Epidemic or streptococcal (septic) sore throat*.—1. Cases must be reported.  
2. Isolation of patient.

3. Disinfection of all discharges from mouth, nose, and throat.
4. Terminal disinfection of room and contents after death or recovery of patient.

VIII. *Erysipelas*.—1. Cases must be reported.

2. Isolation of patient.

3. Disinfection of all materials coming into contact with erysipelatous areas required.

IX. *Impetigo contagiosa*.—1. Cases must be reported.

2. Isolation of patient. (The disease is contagious and spreads by scratching, as well as by common towels and other articles.)

3. Children having the disease must not attend school until all sores are healed and skin is smooth.

4. Disinfection of all contaminated articles.

X. *Leprosy*.—1. Cases must be reported.

2. Isolation of patient and enforcement of personal hygiene, care of the discharges, and sanitary surroundings.

3. Leprosy is communicable by long and intimate contact with a diseased person. Lepers should be humanely treated.

XI. *Measles*.—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Isolation of patient two weeks. Exclude from school children in the household who have not had measles. No restriction on heads of families. Period of invasion and eruption most dangerous, hence necessity of early recognition and isolation.

4. Fumigation not required. •

XII. *Mumps*.—1. Cases must be reported. Is an epidemic affection and is transmitted almost exclusively by direct contact from person to person, but cases have been traced to indirect infection through third persons or objects, hence the person afflicted should be isolated and kept out of school until entirely free from the disease or its complications or sequela. Contagious before symptoms appear.

2. The duration of the contagiousness is from two to six weeks, but, by fumigation of clothing, by disinfecting baths, and antiseptic gargles and mouth washes, return to school might be permitted sooner, upon the advice of the attending physician.

XIII. *Paratyphoid fever*.—1. Cases must be reported.

2. Disinfect all discharges and use same preventative measures as indicated for typhoid fever.

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XV. *Plague (bubonic; pneumonic; septicemic)*.—1. All forms must be promptly reported.

2. Patient must be completely isolated in a properly screened room.

3. Fabrics and other objects which become contaminated with the discharges must be burned or thoroughly disinfected.

4. The pneumonic type is highly "contagious" in the ordinary sense of the term, and the sputum is loaded with the plague bacilli. Physicians and others in attendance should be immunized, and individual protection against droplet infection by wearing a mask should be exercised. The bubonic type is characterized by appearance of "buboës" in the groins, arm pits, or neck. This and the septicemic form are not so "contagious" and the rules under typhoid fever will apply to them. The infection is carried long distances by ships from over the seas, through the medium of rats infected with the disease, hence a war on rats is necessary. Complete disinfection of room and contents, with sulphur dioxide, which not only kills the "bacillus pestis," but destroys all insects, is required after death or recovery of patient.

XVI. *Pneumonia (croupous or lobar)*.—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Isolation of patients and disinfection of the sputum and excretions from nose and throat absolutely necessary. Every case is a focus for the spread of infection. (See pamphlet.)

XVII. *Poliomyelitis—acute anterior (infantile paralysis)*.—1. Cases must be reported.  
2. Conspicuous placard on house.

3. Quarantine of household four weeks, minimum. Head of family and other adults may be released from quarantine after antiseptic bath and in disinfected clothing.

4. Complete disinfection of rooms and clothing after death or recovery of patient.

XVIII. *Rabies (hydrophobia)*.—1. Cases must be reported.

2. Isolation of patient and proper restraint.

3. Patient should be given Pasteur treatment as soon as possible after diagnosis has been made or if rabies is suspected.

XIX. *Rubella (German measles)*.—1. Cases must be reported.

2. Conspicuous placard on the house. Persons having this disease must be isolated until fully recovered. Children who have not had the disease, but are living in the same family or in the same house, if not exposed, may attend school. It has no relation to other measles or scarlet fever, and protects only against after attacks of the same infection.

XX. *Scarlet fever (scarlet rash; scarlatina)*.—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Quarantine minimum 35 days or longer, until desquamation is complete. Head of family may be disinfected and released. Children not ill in the household may be disinfected and quarantined elsewhere for 10 days and then allowed to go to school. Patient may enter school and other public assemblies two weeks after release from quarantine.

4. Complete disinfection of rooms and clothing after death or recovery of patient. Milk from a dairy or farm where disease exists can not be sold.

XXI. *Smallpox*.—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Absolute quarantine. Wage earners who have been successfully vaccinated may, upon revaccination, be disinfected and allowed to reside elsewhere, but should be under observation of health officer for 16 days. Other exposed persons, who have been successfully vaccinated, may be revaccinated, disinfected, and kept under observation 16 days. Exposed persons who have not been successfully vaccinated should be vaccinated and quarantined 16 days. Children from infected households should be barred from school until two weeks after release from quarantine. Smallpox may be acquired any time during progress of the disease.

4. Complete disinfection of rooms and clothing after death or recovery of the patient required.

XXII. *Spinal meningitis (acute cerebro)*.—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Isolation of patient and attendant.

4. Complete disinfection of rooms and clothing after death or recovery of patient required.

XXIII. *Trachoma (contagious granular conjunctivitis; granular lids)*.—1. All cases must be reported.

2. Patient should use individual towels and washbasins. Discharges from eyes should be collected on cloths or paper napkins and burned. The infection is acquired by using roller towels, handkerchiefs, and other articles contaminated with infectious matter.

3. Intimate contact with others should be prohibited; personal hygiene should be insisted upon.

**XXIV. *Tuberculosis*.**—1. Cases must be reported.

2. Careful instructions regarding disinfection of sputum must be given.

3. Complete disinfection of room and clothing after death, recovery, or removal of patient required. (See tuberculosis law.)

**XXV. *Typhoid fever*.**—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Isolation of patient. No restriction on other members of family. Excreta from patient must be thoroughly disinfected. Marketing of dairy products is forbidden by law.

4. Complete disinfection of rooms and clothing, after death or recovery of patient, required.

**XXVI. *Typhus fever*.**—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Inasmuch as this disease is spread by body lice, clothes should be removed, burned, or disinfected by immersing in a 1-500 bichloride of mercury solution, or by boiling.

4. Thorough disinfection of rooms and contents, room should be kept closed for from 12 to 24 hours, with the object of destroying the lice.

**XXVII. *Venereal diseases*.**—1. Cases must be reported, but report may be made by number or initials, rather than by patient's name.

**XXVIII. *Whooping cough*.**—1. Cases must be reported.

2. Conspicuous placard on the house.

3. Isolation of patient until after whooping stage. Exclude from school children in the household who have not had whooping cough.

4. Children should be permitted to go out every day, but must not come in contact with others who have not had the disease. If possible, an attendant should always accompany them. Fresh air, but not vigorous exercise, is necessary in the treatment of whooping cough.

**Pellagra—Notification of Cases—Control of. (Reg. Bd. of H., Sept. 1, 1915.)**

**XIV. *Pellagra* ("rough skin," "corn-bread fever," "corn sickness").**—1. Cases must be reported.

2. History of the patient's diet and former residence should be carefully investigated.

3. Patient should be under observance of a physician. Proper diet, sanitary and personal hygiene should be insisted upon.

4. In view of the fact that the communicability of this disease is questioned by good authority, quarantine or isolation will not be arbitrarily insisted upon.

## **MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.**

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### **ALBANY, N. Y.**

#### **Diphtheria—Positive Cultures to be Reported. (Order 30, Bd. of H., Sept. 1, 1915.)**

ORDER 30. Any culture from any person made by any laboratory or individual in the city of Albany proving to be, bacteriologically, diphtheria shall be immediately reported to the bureau of health together with the name, age, and address of any such person.

#### **Scarlet Fever and Diphtheria—School Attendance When Released from Quarantine. (Order 29, Bd. of H., Sept. 1, 1915.)**

ORDER 29. No child released from quarantine for scarlet fever or diphtheria shall be permitted to attend school without a certificate from the health officer.

#### **Bakery Products, Fruit, and Confectionery—Protection of. (Order 6, Bd. of H., Sept. 1, 1915.)**

ORDER 6. No breadstuffs, cake, pastry, dried or preserved or crushed fruit, candies, or confectionery, or shelled nuts shall be kept, sold, or offered for sale in the city or in any street or public place, or delivered, unless they be kept properly covered so they shall be protected from dust, dirt, flies, and other contamination.

#### **Meat and Fish—Protection of, by Screening Required. (Order 7, Bd. of H., Sept. 1, 1915.)**

ORDER 7. No meat, fish, nor fowl shall be displayed for sale on any counter, show case, or stand in any place unless same is protected from handling (by others than employees) by a suitable screen satisfactory to the health officer.

#### **Garbage, Refuse, Manure, and Nightsoil—Transportation of—Vehicles. (Order 18, Bd. of H., Sept. 1, 1915.)**

ORDER 18. No vehicle for carrying offal, swill, garbage, rubbish, ashes, street dirt, or sweepings the contents of any cesspool or sink, or any manure or other nauseous substances, except when actually engaged in collecting such materials, shall stand before any residence, building, or place of business; nor shall any such vehicle occupy an unreasonable length of time in loading or unloading or in passing along any street or inhabited place. When not in use, all such vehicles and all implements used in connection therewith shall be stored or kept in some place where no needless offense shall be given the public, and said offal, swill, garbage, rubbish, ashes, street dirt, or sweepings the contents of any cesspool or sink, or any manure or other nauseous substances must be transported in tight vehicles, and said vehicles must be provided with proper tight-fitting metallic, canvas, or other suitable covers approved by the bureau of health, so as to prevent dust and dirt from being blown therefrom and creating a nuisance.

**Garbage—Dumping of, on Public or Private Dumps Prohibited. (Order 21, Bd. of H., Sept. 1, 1915.)**

ORDER 21. No person or persons shall dump garbage on any public or private dump within the limits of the city of Albany.

**Manure—Care and Disposal. (Order 19, Bd. of H., Sept. 1, 1915.)**

ORDER 19. Every stall, stable, or other place in which horses, cows, or other like animals are kept shall be provided with a properly constructed manure vault or box, which shall be built water-tight, properly covered, and every vault shall be properly drained, and said manure vault or box shall not be nearer than 10 feet of [sic] the doors or windows of any building occupied by human beings, whether for business or dwelling purposes, and not nearer than 10 feet of [sic] the line of any adjoining lot, street, alley, or public place without a permit from this bureau, and all manure shall be removed at least once in each week.

**Street Cars and Other Public Conveyances—Sanitary Regulation. (Order 28, Bd. of H., Sept. 1, 1915.)**

ORDER 28. Each car of each surface railroad, bus, or other public conveyance in the city of Albany shall at least once in every 24 hours be thoroughly cleansed and kept in a sanitary condition.

**Vacant, Sunken, and Excavated Lots—Sanitary Regulation. (Order 20, Bd. of H., Sept. 1, 1915.)**

ORDER 20. It shall be the duty of every owner, agent, lessee, or tenant of any vacant, sunken, or excavated lot in the city of Albany to keep the same at all times clean and inoffensive.

**Water—Turning Off of, in Multiple Dwelling Houses Prohibited Except When Necessary. (Order 24, Bd. of H., Sept. 1, 1915.)**

ORDER 24. No owner or occupant of a multiple dwelling house shall cut or turn off the water therefrom, except in case of necessity arising from a serious leak or bursting of pipes.

Whenever the water is from any such cause turned off such fact must be immediately reported to the bureau of health.

**ASHEVILLE, N. C.****Washerwomen and Laundresses—Registration of—Inspection of Premises and Utensils. (Ord. July 26, 1915.)**

SECTION 1. It shall be the duty of every washerwoman, laundress, or other person, except operators and employees of regularly licensed steam or hand laundries, who wash or launder clothing or wearing apparel for hire or pay, whether said laundress, launderer, or washerwoman live inside or outside said city or whether to wash at the home of the patron or at the home of said party doing said laundering and washing or otherwise, to report to and register his or her name and address in the office of the health officer of said city.

SEC. 2. The health officer of the city of Asheville will cause a register to be kept in his office in which shall be recorded the names and addresses of all such persons as shall report to his department under the provisions of section 1 of this ordinance, and that upon such name being registered it shall be the duty of said health officer to issue a certificate of registration, without cost, to each person so registering, and to make or

cause to be made such investigation and inspection of the premises and paraphernalia (tubs, scrubbing boards, pots, ironing boards, etc., said tubs to be of galvanized iron) of such persons as will enable said health officer or inspector to determine whether or not said person shall be permitted to engage in such occupation.

SEC. 3. It shall be the duty of the holder of the permit or certificate provided for in section 2 of this ordinance to notify the office of the health department in person of any change in the address of such person, which notice shall be given within 36 hours after such change or other preexisting conditions [sic].

SEC. 4. Inspections provided for under section 2 hereof shall be made at any reasonable hour in the daytime and as often as said health officer shall determine. The person making such investigation or inspection shall, as soon thereafter as practicable, return to the office of the health officer a written report (on blanks provided by said department) of the conditions found to exist at the time of said inspection.

SEC. 5. Any person may, upon application to the office of the said health officer, be furnished with a copy of the report of such inspection, and said copy shall be furnished free of cost to the applicant.

SEC. 6. Any person who engages in the occupation of a laundress or washerwoman, or who washes clothes or wearing apparel for pay (except regularly licensed steam and hand laundries) without having first obtained a certificate of registration or permit as provided for in this ordinance shall be guilty of a misdemeanor and shall be subject to a penalty of \$25.

#### ATHENS, GA.

#### Stables and Manure—Prevention of Breeding of Flies. (Reg. Ed. of H., July 7, 1915.)

That all persons, firms, and corporations owning or having the control or possession of horses, mules, and cows within the corporate limits of the said city of Athens shall thoroughly treat the stalls and stables of said animals with pulverized borax not less than once every two weeks between March 1 and November 1 of each year.

That it shall be unlawful for any person, firm, or corporation in the city of Athens to permit any accumulation of manure to remain on the premises of such person, firm, or corporation longer than one week, unless the same has been treated with pulverized borax as required by section 1 of this ordinance and is properly screened according to specifications furnished by the board of health.

#### AURORA, ILL.

#### Weeds—Cutting and Removal Required. (Ord. 1559, July 23, 1915.)

SECTION 1. That jimpson, burdock, rag weeds, htistles, cockle-burs, and other weeds of like kind, of a height of more than 1 foot, or any vegetable growth which exhales unpleasant or noxious odors or any high or rank vegetable growth which may conceal filthy or decaying deposits growing upon any lot, block, piece, or parcel of land, within the limits of the city of Aurora is hereby declared a nuisance.

SEC. 2. It is the duty of the owner, occupant, or person in charge of any lot, block, piece, or parcel of land in said city of Aurora to cut down and remove any such weeds or vegetable growth, as above specified, upon notice so to do from the health officer of the said city of Aurora, and any owner, occupant, or person in charge of any lot, block, piece, or parcel of land, who shall fail to comply with the provisions of this ordinance, within five days after being notified so to do by the said health officer, shall be deemed guilty of maintaining a nuisance and shall be subject to a fine of not less than \$5 nor more than \$50 for each offense.

**BRIDGEPORT, CONN.****Foodstuffs—Protection of Certain Kinds. (Reg. Bd. of H., July 13, 1915.)**

No bakery products, fruits, berries, confectionery, or any article to be eaten unpeeled or uncooked, shall be exposed outside of any building, or in any window or doorway, or in any alley, street, sidewalk, or thoroughfare, except it be protected from insects, dust, or other foreign material, in a manner satisfactory to the sanitary inspectors of the health department.

**BROOKLINE, MASS.****Foodstuffs—Care of Premises and Utensils. (Reg. Bd. of H., June 14, 1915.)**

Repeal section 5 of article 4 and substitute the following:

ART. 4. SEC. 5. Premises, compartments, receptacles, utensils, or ice chests used for the storage, manufacture, or sale of foodstuffs, shall be kept cleansed in a manner satisfactory to, and shall be opened at all times for inspection by the board of health. Premises used in the manufacture of foodstuffs, confectionery, or ice cream, and premises wherein cooked foods, ice cream, or soda water are served, shall be properly screened and shall be provided with a convenient and abundant supply of running hot water. Rooms or compartments used for the manufacture of foodstuffs, confectionery, or ice cream, shall not contain a water-closet or urinal, nor shall such room be used for the storage of articles not employed in their manufacture.

**Milk and Cream—Production, Care, and Sale. (Reg. Bd. of H., June 14, 1915.)**

Repeal article 5 and substitute the following:

ART. 5. SECTION 1. No person, firm, or corporation shall engage in the production, sale, or distribution of milk in the town of Brookline, except in accordance with the provisions of the Revised Laws of Massachusetts, and of the acts of the legislature additional thereto, or in amendment thereof, and in compliance with the rules and regulations which are, or may hereafter be, adopted by the board of health of said town.

SEC. 2. All persons, firms, or corporations engaged in the sale, delivery, or distribution of milk in the town of Brookline shall furnish the board of health, upon blanks provided for the purpose, a list of the names and locations of the dairy farms from which the milk so distributed is obtained, and shall, before making any changes in their supply, notify the board of health of such intended changes. Any person neglecting to comply with this regulation or dispensing milk from any dairy whose milk has been excluded from the town shall have his [sic] licenses revoked.

SEC. 3. All animals producing milk for sale, distribution, or use in the town of Brookline shall at all times be kept in a clean condition; the animals shall not be bedded with sand or other unsanitary materials, and horse manure shall not be used in or about the cow run. The cows shall be milked with clean, dry hands, their teats wiped with a clean, damp cloth before milking, and they shall not be fed upon garbage or fermented brewery grains.

SEC. 4. No milk shall be produced for sale, distribution, or use in the town of Brookline from any animal afflicted with tuberculosis or other disease, or from any animal which has not within one year been examined by a registered veterinary and certified to as being free from all diseases dangerous to the public health, or from any animal within 15 days before or 5 days after parturition.

SEC. 5. No milk shall be produced for sale, distribution, or use in the town of Brookline unless it has been strained, mixed, and cooled immediately after it has been drawn from the cow, in a room or compartment approved by the board of health. Said milk shall not be strained, mixed, or cooled in any room which is not provided with tight walls and floors of such construction as will allow easy and thorough cleaning, or which is not kept constantly clean, or which is occupied in any part by animals, or in any room which is used for domestic or sleeping purposes, or in any room or location which is exposed to flies, dust, or other contaminating agencies.

SEC. 6. No person or corporation shall use any building as a stable for cows producing milk for sale, distribution, or use in the town of Brookline unless such building is kept clean and is properly ventilated; has at least 1 square foot of unobstructed window glass properly distributed for each 500 cubic feet of air space, and not less than 1,000 cubic feet of air space for each animal; has a tight floor; good drainage, connecting wherever practicable with the public sewer, and a supply of pure water. Neither privy vaults, water-closets, nor horses shall be allowed in any such building where cows are kept, unless separated by partitions satisfactory to the board of health. No swine shall be kept in cellars of such buildings except by special permit of the board of health.

SEC. 7. All dealers, except licensed storekeepers, engaged in the sale and distribution of milk or cream in the town of Brookline shall provide a separate room, well lighted, ventilated, and properly screened in such location as is approved by the board of health, in which the bottling, handling, and storing of milk is carried on. All such milk rooms or plants shall be properly equipped for handling milk in a sanitary manner. Said rooms or plants shall have a smooth, tight floor with sewer connections wherever possible, smooth, tight walls and ceilings, a tank supplying running hot and cold water, approved facilities and methods for washing and sterilizing milk bottles and all utensils, a bottle filler, and facilities for storing milk at a temperature below 50° F. The entire room and all appliances shall at all times be kept clean and must not be used for other purposes. In no case shall milk or cream bottles be filled at any place other than in a properly equipped milk room. Covering used for milk in transit must be kept clean at all times and used for no other purposes.

SEC. 8. No person, by himself or by his servant or agent, or as the servant or agent of any other person, firm, or corporation, shall in the town of Brookline sell, exchange, or deliver or have in his custody or possession with intent to sell, exchange, or deliver, any milk, skimmed milk, or cream which contains more than 300,000 bacteria per cubic centimeter, or any milk, skimmed milk, or cream which has a temperature higher than 50° F.

SEC. 9. Any person having any infectious disease, or recently having been in contact with any such person, shall not be allowed to milk cows or handle cans, measures, or other vessels used for milk intended for sale, distribution, or use in the town of Brookline, or in any way take part or assist in the sale of the same, until the board of health is satisfied that all danger of communicating such disease is passed.

SEC. 10. No person by himself, or by his servant or agent, or as the servant or agent of any other person, firm, or corporation, shall in the town of Brookline sell, exchange, or deliver milk, skimmed milk, or cream produced upon premises where there is a case of contagious disease without the written consent of the board of health.

SEC. 11. Milk cans or jars of milk dealers shall not be left at any house in which there is a case of diphtheria, scarlet fever, typhoid fever, or smallpox, but the milk shall be poured into receptacles furnished by the customers.

SEC. 12. All utensils used in the handling and selling of milk shall be washed and sterilized with steam or boiling water each day before being used, and all milk vessels (bottles and cans) which are to be returned shall be cleansed as soon as emptied by the person who pours out the milk.

SEC. 13. All milk sold in the town of Brookline other than from wagons shall be delivered to the purchaser in original sealed jars or from a milk cooler which has been approved by the board of health.

SEC. 14. All premises, compartments, conveyances, receptacles, or ice chests used for the production, handling, transporting, or storing of milk or cream which is intended for sale, distribution, or use in the town of Brookline shall be kept cleansed in a manner satisfactory to and shall be opened at all times for inspection by the board of health.

## BRUNSWICK, GA.

**Milk and Milk Products—Production, Care, and Sale. (Ord. 142, Sept. 28, 1905, as Amended by Ord. 319, May 24, 1915.)**

SECTION 1. That all milk dealers or others engaged in the business of selling milk or other dairy products in the city of Brunswick, Ga., either from a place of business located in the corporate limits of the said city or making delivery to customers living in said city, are hereby required to register as such dealers at the office of the health officer of said city within 30 days after the passage of this ordinance, and it shall be unlawful for any person to sell, offer for sale, or deliver milk or other dairy products to any person in said city after the period of 30 days after the passage of this ordinance without registering as aforesaid.

SEC. 2. That it shall be unlawful for any person to sell or offer for sale, or to deliver within the limits of this city, any impure, adulterated, sophisticated, or unwholesome milk or other dairy products, or to sell or offer for sale or to deliver as pure milk any milk to which water or any other substance has been added which in effect injures the quality or lessens the value thereof, or to sell or offer for sale or to deliver the milk or other dairy products of any cow that may be sick, diseased, or suffering from any bodily condition or disorder liable to render her milk unfit or unsafe to be used as food, or the milk or other dairy products obtained from a cow kept in a filthy or unventilated stable or building, or in an offensively filthy lot, pen, or shed, or that may be fed upon food or allowed to drink any liquid that may affect the milk so that consumers shall be exposed to risk of sickness or disease therefrom.

SEC. 3. That no milk or other dairy products shall be sold, kept, offered for sale, stored, transported, exchanged, carried, delivered, or in any manner disposed of within the limits of said city drawn from any cow or cows within 15 days before and 10 days after parturition, nor shall said milk or other dairy products so drawn be mixed with any other milk or dairy products for such purposes.

SEC. 4. That it shall be the duty of the health officer of said city, or of such other person as may from time to time be designated for such purpose by the mayor and council of said city, to see that all venders of milk who sell or offer for sale skimmed milk within the limits of said city shall have attached to the can or vessel containing such milk the words "skimmed milk" in plain, distinct letters not smaller than 1 by 2 inches.

SEC. 5. That if milk or cream offered for sale or sold within the limits of said city shall be transported or carried in wagons or other vehicles the latter shall have painted thereon on both sides thereof, in conspicuous and legible letters not less than 4 inches in height, the name and location of the dairy or place whence the milk or cream was obtained.

SEC. 6. That no milk shall be kept, sold or offered for sale, stored, exchanged, conveyed, carried or delivered in care, custody, control, or possession of anyone, if it contain more than 88 per centum of water fluids or less than 12 per centum of milk solids, of which totals solids 3 per centum shall be butter fats.

SEC. 7. That the health officer or inspector of said city shall have the right to enter and shall have full access, egress, and ingress to all places where milk or cream is stored or kept for sale, to all wagons or other vehicles, railroad cars, or conveyance, transportation or delivery of milk, and to all places where any cow or cows may be kept, the milk or other dairy products from which are sold or delivered or intended to be sold or delivered within the limits of said city; and to take samples of milk and cream therefrom, not exceeding one quart, for the purpose of inspecting, testing, or analyzing the same.

SEC. 8. That all samples of milk or cream taken or brought to the office of the health officer under the provisions of this ordinance by said health officer or by any other person shall, by the said health officer or by any other person that may from time to time be designated for this purpose by the mayor and council of said city, be analyzed or otherwise satisfactorily tested, and whenever the said milk or cream so tested or analyzed shall be found violative of the provisions of this ordinance the necessary steps shall be taken through the health officer or other person so designated for due prosecution of the offender thereof. The analysis or test herein required may be made with such instruments, apparatus, chemicals or otherwise, and to such extent, as may by the health officer or other person so designated, be deemed necessary.

SEC. 9. That all dealers or others, after registering as provided in section 1<sup>1</sup> of this ordinance, shall secure from said health officer, whose duty it shall be to issue, a certificate permit; the same to be issued to said registering person, who shall be the bona fide person thus proposing to engage in said business; said person being designated in said permit, and also the location of said dairy or milk depot; said permit to expire with the end of the calendar year in which the same issued; and said persons shall annually thus register; such permit shall be conditional upon the compliance by said person with all of the ordinances and regulations of said city applicable to such persons; and it shall be the duty of such health officer to annul and revoke such permit at any time when such person in the operation of said business fails to comply with any of the terms of this amending or original ordinance; and upon the annulment of said permit, then it shall be unlawful for such person to do or operate said business, until, after correction of the condition causing such annulment, and the issuance of another permit as hereinbefore provided.

SEC. 10. That the word "person" in this ordinance shall include individual, firm, or corporation.

SEC. 11. That any person who shall violate any provision of this ordinance, or who shall disobey any of the rules and regulations of the health officer as hereinbefore provided for, shall be punished, upon conviction thereof in the police court of said city, as provided in section 16 of the act of the General Assembly of the State of Georgia of 1889 amending the charter of the city of Brunswick.

SEC. 12. That no hog pens, hog wallows, cesspools, mud holes, surface closets, or other sources of contamination shall be permitted within 100 feet of any barn or stable where any cows used in said business are housed or kept.

**Stables and Disposal of Manure. (Ord. 320, May 24, 1915.)**

SECTION 1. That all livery and other stables and buildings, yards, lots, and inclosures within the corporate limits of the said city of Brunswick in which horses, mules, cows, and other live stock are housed or kept shall at all times be kept and maintained in a proper, cleanly, and sanitary condition; that all of the droppings from said live stock shall be removed therefrom at least once in every four days, or if kept at such stables or said inclosures then the same shall at all times be kept in such bins or other receptacles as are thoroughly fly proof—that is to say, that such bins and other receptacles shall be so constructed with screens or otherwise as to prevent the ingress or egress of flies; and should said droppings be removed as herein provided, then the same shall be removed beyond the limits of said city or be immediately used as fertilizer.

SEC. 2. That all persons violating any of the provisions of this ordinance, upon conviction thereof in the police court of said city, shall be punished as prescribed in section 71 of Johnson's Code of said city.

## CANTON, OHIO.

## Milk and Milk Products—Sale of. (Ord. 1331, May 24, 1915.)

SECTION 1. No person, firm, or corporation, except such as may sell for consumption on the premises where sold, shall, in quantities of less than 1 gallon, sell, offer for sale, expose for sale, or keep with the intention of selling any milk, cream, skimmed milk, or buttermilk in the city of Canton, Ohio, unless such milk, cream, skimmed milk, or buttermilk is kept, offered for sale, exposed for sale, or sold in sanitary bottles tightly closed and capped, or receptacles of similar character which may be approved by the board of health of said city; and owners and operators of dairies and all drivers of wagons who sell milk, cream, skimmed milk, or buttermilk at retail, or deliver the same from wagons, shall carry, sell, and deliver such milk, cream, skimmed milk, or buttermilk only in bottles or other approved receptacles as aforesaid. All milk, cream, skimmed milk, or buttermilk so sold in bottles or other receptacles not to be consumed on the premises where sold shall be taken and carried to the residence of the purchaser or place where intended for use in said bottles or receptacles and not otherwise.

SEC. 2. It shall be unlawful for any person, firm, or corporation to keep, offer for sale, expose for sale, or sell milk, cream, skimmed milk, or buttermilk as provided for in section 1 hereof, unless upon the cap of the bottle or receptacle in which the same is sold there shall be indelibly indicated by printing, stamping, or otherwise in a legible and conspicuous manner, the name of the person, firm, or corporation bottling such milk, cream, skimmed milk, or buttermilk in such bottle or receptacle, and upon which bottle or receptacle there shall be indelibly stamped or blown some mark of identification by which the name of the person distributing said milk, cream, skimmed milk, or buttermilk may be identified.

SEC. 3. No person or persons shall transfer any milk intended for sale from one can, bottle, or receptacle into another can, bottle, or receptacle, upon any street, alley, or thoroughfare, or upon a delivery wagon or other vehicle, or in any exposed place within the limits of the city of Canton. This section shall not be construed as to prevent the use of carrying cans, provided the milk is transferred into the carrying cans by means of a dipper.

SEC. 4. Any person, firm, or corporation who violates any of the provisions of the foregoing ordinance shall, upon conviction, be fined in any sum of not less than \$25 nor more than \$100 and the costs of prosecution.

SEC. 5. This ordinance shall be in force and effect from and after the 1st day of July, 1915.

## Stables—Maintenance of. Manure—Disposal and Transportation. (Ord. 1379, July 19, 1915.)

SECTION 1. It shall be unlawful for any person, whether as owner, tenant, or employee, to permit any pen, lot, stable, or place where horses, mules, cattle, live stock, or fowls are kept to become foul, nauseous, or offensive so as to be detrimental to the health of citizens of the city of Canton.

SEC. 2. That every person, firm, or corporation, whether as owner, lessee, employee, or agent, operating or being in charge of any stable, barn, or other place where horses, mules, cows, or other live stock is kept within the limits of the city of Canton shall at all times keep and maintain in or adjacent to said stable, barn, or place a receptacle or box of sufficient dimensions to hold and contain all manure from said live stock; said receptacle or box shall be so constructed as to be sufficiently tight to prevent any of the contents from filtering through the bottom or sides of same, and shall be covered with a fly-tight lid, which lid shall be kept closed at all times except

when it is necessary to open same to deposit or remove the manure from said receptacle or box.

The provisions of this section shall not apply to stables or places from which the manure is removed each day.

SEC. 3. It shall be unlawful for any person to haul, cart, or transport in, over, or across any street, avenue, alley, or public place within the limits of the city of Canton any manure in any receptacle unless the same be covered and so constructed that the manure in the process of removal or transportation may not be dropped upon any street, avenue, alley, or public place in said city.

SEC. 4. Any person violating any of the provisions of the foregoing sections shall be deemed guilty of a misdemeanor and shall, upon conviction, be fined in any sum of not less than \$5 nor more than \$25 and costs of prosecution.

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