



yet the arrest of the circulation in the limb below the point ligatured by the cord would have been so great as to have certainly materially diminished the growth of the leg and the lower part of the thigh, and would in all probability have given rise to sloughing off of the limb, and the child would have been born with a stump as nicely rounded up at the point of separation as if the amputation had been performed by a most expert and skilful surgeon.

The accompanying figure is an accurate copy of a photograph of the foetus, taken within twenty-four hours after its expulsion from the uterus.

The foetus, judging from its altered condition and the statement of Mrs. S. in regard to the interruption of the catamenia, had been dead for at least two weeks before it was cast off.

1867. Feb. 6. *Report on Meteorology and Epidemics.*—Dr. W. LEHMAN WELLS read the following:—

In making a report on Meteorology and Epidemics, it is necessary to acknowledge my inability to establish any connection between the state of the atmosphere or the temperature, and the more severe epidemics, other

than what is already known; as that vegetable or animal decomposition and a certain degree of moisture are essential in many cases, and that cold is destructive to some epidemics and renders others inoperative for the time. Whether, however, the decomposing substance, the moisture, and the heat, produce the causes of epidemics, are themselves those causes, give rise to conditions requisite for, or at least favourable to, their development, or may not be in some instances entirely independent of them, is often not definitely known. The statistics will, therefore, be presented, and the prominent peculiarities and coincidences noted, in the hope that the exact relation in which they stand to each other may be discovered at some future time.

The statistics of the Board of Health of Philadelphia, although collected and arranged by that body with a great deal of care, are not as useful as they otherwise would be in consequence of the inaccuracy of the returns made by physicians, and of course more especially by so-called physicians, between whom and regular practitioners, unfortunately, no distinction is recognized by the law. To illustrate this inaccuracy, I shall take the month of January of the past year, where there are reported 57 deaths from debility; 32 from convulsions; 29 from inanition; 29 unknown; 24 from marasmus; 4 from sore throat, and 2 from tumours. There are also 3 cases simply reported hemorrhage to 13 in which the seat of the hemorrhage is mentioned, and 8 of cancer to 15 in which the seat of that disease is indicated.

Besides these, 43 deaths are reported from old age; 15 from casualties;

1 from murder; 1 from wounds; 8 from gunshot wounds, and 1 run over on railroad.

There are here 277 cases reported (out of a total of 1402 in the month of January) where the cause of death is more or less uncertain.

After making allowance for these inaccuracies, and for others which are not manifest, but which the presence of these would naturally lead us to suppose must exist in no small amount, there will still remain a groundwork of valuable facts; valuable especially for the purposes of comparison with the death reports of other cities under similar regulations, and where the medical profession is similarly taught and organized, and with those of former years in the same city.

It is important also to remark that the reports of the Board of Health are based, not upon the deaths, but upon the interments, and that a small number must be deducted on that account, if we would arrive at accuracy.

From the meteorological observations kindly furnished by J. A. Kirkpatrick, A. M., Professor in the High School, Philadelphia, and which are entirely reliable, it appears that the year 1866 was remarkable for extremes, both of heat and of cold. Its hottest day, July 17th, was also the hottest for fifteen years, and although the mean temperature of its coldest day, Jan. 8th, was not as low as that of Jan. 9th, 1856, yet the thermometer at one period of the twenty-four hours was at -9° Fahr., or below the lowest point reached in 1856.

The mean temperature for the year was 54.90° , or about half a degree above the mean for the past fifteen years.

The mean pressure of the atmosphere, as indicated by the barometer, was 29.837, the same as that for 1865, and only $\frac{2}{1000}$ less than the mean for the past fifteen years.

The amount of rain and melted snow in the year was 43.573; ten inches less than in 1865, but only a fraction of an inch less than the mean of fifteen years.

Some of the more prominent peculiarities of the summer months (during which cholera made its appearance) were as follows: the mean temperature of the three summer months was 75.63° , or only one-fifth of a degree above that of the mean for fifteen years, which was 75.47° . Mean elevation of barometer in 1866, 29.747, or .072 less than the mean of fifteen years.¹

Inches of rain in summer of 1866, 8.470, or 3.196 less than the mean of fifteen years, which was 11.666; mean relative humidity in 1866, 66.6; mean do. of fifteen years 66.

In June the mean temperature was 73.68° , or $.62^{\circ}$ above the mean of fifteen years, which was 73.06° . The barometer was 29.781 inches, or .058 below the mean for fifteen years, which was 29.789. Inches of rain in June, 1866, 3.390, to 4.322, the mean of June in former years.

In July, 1866, the mean temperature was 80.72° , or 2.72° above the mean of July in former years, 78° ; 2.513 inches rain fell, to 3.622 the mean of former years.

During the hot weather in July, there were more deaths from heat fever or sunstroke than had occurred for many years. There were also five deaths in August. In all there were 131; 104 males and 27 females. This disparity is always found to at least this extent, and is of course to be accounted for by the greater exposure of men to the sun, and to ex-

¹ For complete tables, see the Journal of the Franklin Institute, Philadelphia.

hausting labours. 6 cases were boys, 1 girl; 26 between 20 and 30; 38 between 30 and 40; 35 between 40 and 50; 16 between 50 and 60; 8 between 60 and 70; and 1 over 70.

The number of deaths from this cause would have been greater had it not been for the employment of ice externally as a remedy, by means of which lives were undoubtedly saved which would have been lost before this remedy was brought into notice.

The total interments in Philadelphia, for 1866, was 16,803, which, estimating the population at 750,000, would give a proportion of 1 to 44.63, or 2.24 per cent.

Of these, 8851 were males and 7952 females; 4235 were males over 20 years of age; 4616 were male children; 3766 were females over 20 years of age; 4186 were female children, making 8001 adults and 8802 children. 931 were people of colour.

By deducting those buried in the city, but who died in the country, 643 in number, and the still-born, 798, we shall have 15,362, one death in 48.92, or 2.04 per cent.

The number of interments in 1865 was 17,169; in 1864, 17,582; in 1863, 15,788; in 1862, 15,097; in 1861, 14,468.

The greatest mortality in any one month of 1866 was in August, when 2401 deaths were reported, next in July, 2047, next in October, 1828. December was the healthiest month, only 982 dying.

The disease most fatal to children was cholera infantum, the mortality from which was 1090; next, convulsions, 663; marasmus, 552. Inflammation of the lungs caused 537 deaths; scarlet fever, 487; inflammation of the brain, 312; congestion of the brain 272; consumption of the lungs, 243; croup, 239.

The diseases which proved fatal to the greatest number of children, next to those above noticed, were, measles, 218; diphtheria, 187; dropsy of brain, 181; inanition, 176; inflammation of stomach and bowels, 153; diarrhoea, 139; typhoid fever, 136; cholera, 124; dysentery, 121; variola, 104; pertussis, 79; and cholera morbus, 54 = 1672.

Of all the deaths among children, 2232, or a little more than one-fourth, were from disease of the alimentary canal.

Cholera infantum, as already stated, caused 1090 deaths; in 1865 it caused only 884; in 1864, 641; in 1863, 930; in 1862, 629; in 1861, 618.

The deaths from diphtheria in 1866 were 192; 5 of them adults. In 1865 it was 260; 1864, 357; 1863, 434; 1862, 325; 1861, 489; 1860, 306.

Before 1860, no deaths from this cause were reported. This singular circumstance is owing to their being considered as modified cases of scarlatina, and so classified by the Board of Health before that time. They now report the deaths according to physicians' certificates, not only in this, but in all cases.

The total number of still-born was 798.

The mortality from the principal diseases of the respiratory apparatus was greater in 1866 than in 1865 or 1863; but not quite equal to the mortality in 1864. The deaths from congestion of the lungs, and catarrhal fever were, however, greater in number than even in 1864; this being principally owing to the first three months in the year, when influenza prevailed to a considerable extent, it being much more probable that a case of pneumonia originating in influenza would be designated catarr-

rhral fever than that this somewhat vague term would be given to one of ordinary pneumonia.

In 1866 there were 1944 deaths from consumption, 1 to 8.64 of the total mortality, 994 males and 950 females. In 1865 there were 2026 deaths, 1020 males, 1006 females, 1 to 8.47.

| | Deaths. | Males. | Females. | |
|--------------|---------|-------------------|----------------|---------------------------------------|
| 1864 | 2089 | 1087 | 1002—1 to 8.42 | } Average of 7 years, 1 to 7.6. |
| 1863 | 1955 | 966 | 989 | |
| 1862 | 1949 | 961 | 988 | |
| 1861 | 1817 | 910 | 907 | |
| 1860 | 1622 | 785 | 837 | |
| 1859 | 1505 | 780 | 725—1 to 6.03 | |
| 1858 | 1659 | 806 | 853 | |
| | | 8309 ¹ | 8257 | |

In former years the relative mortality from this disease was greater, as from 1840 to 1849 inclusive, when it amounted to 1 in about 6.76 from all causes.

This reduction, which is shown more than ever in the reports of the past two years, is probably owing (as was first suggested by Dr. Geo. B. Wood) to the general employment of cod-liver oil as a remedial agent.

On comparing the past nine years, we find (contrary to the rules usually laid down) that more males than females died of consumption in 1859, '61, '64, '65, and '66, and although in the other four years it is otherwise, yet the total mortality of the nine years shows a slight preponderance of deaths among males.

As usual, there are more deaths from consumption than from any other cause. The greatest number in any one month was 217 in January; the next, 185 in October; in July the smallest number died, only 116. There appears, however, to be no rule in reference to this, as sometimes the fewest deaths occur in October, or the other months of autumn. In summer, however, we seldom or never find a greater mortality than in the other seasons.

Between the ages of 20 and 30, deaths from consumption of the lungs are most frequent.

The progress and decline of the epidemic of petechial and other low forms of fever, are represented in the following table, where it will be seen that the epidemic culminated in 1864, when from typhus, petechial or spotted, and malignant fevers, and cerebro-spinal meningitis, there were reported 815 deaths, to 39 and 196 in the two preceding years, and 546 and 193 in the two following.

Smallpox caused 144 deaths; less than one-third of the deaths in 1865, when it was more fatal than for many years. Measles, on the other hand, caused more than twice as many deaths in 1866 as in any one of the four years preceding.

Three cases of yellow fever appear on the report of interments, but they all died elsewhere, the bodies being brought here for burial.

The table of deaths from miasmatic fevers shows a slight falling off in the mortality from that cause.

The deaths from pyæmia and erysipelas are in each case almost equal in number to those in 1865, but less than half those in 1864.

¹ Including 1865 and 1866.

Deaths from various Epidemic Diseases.

| | Jan. | Feb. | March. | April. | May. | June. | July. | August. | Sept. | Oct. | Nov. | Dec. | TOTAL FOR | | | | |
|----------------------------|------|------|--------|--------|------|-------|-------|---------|-------|------|------|------|-----------|-------|-------|-------|-------|
| | | | | | | | | | | | | | 1866. | 1865. | 1864. | 1863. | 1862. |
| Cerebro-spinal meningitis | 5 | 6 | 8 | 6 | 10 | 9 | 8 | 7 | 6 | 5 | 2 | 5 | 75 | 130 | 144 | — | — |
| Petechial or spotted fever | 5 | 2 | 2 | 2 | 2 | 2 | 1 | — | 1 | — | — | 1 | 18 | 65 | 263 | 53 | — |
| Typhus fever | 8 | 9 | 8 | 11 | 9 | 12 | 5 | 5 | 6 | 12 | 9 | 2 | 96 | 334 | 335 | 131 | 37 |
| Malignant fever | — | — | 1 | — | — | — | — | 1 | 1 | 1 | — | — | 4 | 17 | 76 | 12 | 2 |
| Typhoid | 34 | 29 | 32 | 22 | 15 | 21 | 22 | 58 | 42 | 52 | 29 | 25 | 381 | 773 | 648 | 486 | 654 |
| Scarlet | 61 | 52 | 23 | 38 | 39 | 46 | 30 | 27 | 19 | 32 | 47 | 77 | 491 | 624 | 349 | 275 | 461 |
| Smallpox | 18 | 25 | 15 | 14 | 16 | 16 | 9 | 5 | 5 | 6 | 10 | 5 | 144 | 524 | 260 | 171 | 264 |
| Measles | 14 | 2 | 9 | 21 | 34 | 53 | 44 | 25 | 3 | 5 | 4 | 7 | 221 | 54 | 90 | 82 | 109 |

| | 1863. | 1864. | 1865. | 1866. | QUARTERS. | | | |
|-----------------|-------|-------|-------|-------|-----------|-----|-----|------|
| | | | | | 1st. | 2d. | 3d. | 4th. |
| Pyæmia | 44 | 78 | 41 | 38 | 7 | 15 | 8 | 8 |
| Erysipelas | 74 | 148 | 79 | 73 | 23 | 25 | 10 | 15 |
| Puerperal fever | 29 | 43 | 27 | 12 | 3 | — | 4 | 5 |
| “ convulsions | 11 | 18 | 19 | 27 | 9 | 5 | 3 | 10 |
| Fever, bilious | 8 | 9 | 11 | 15 | 2 | 1 | 9 | 3 |
| “ remittent | 18 | 43 | 44 | 24 | 7 | 4 | 9 | 5 |
| “ intermittent | 7 | 12 | 12 | 8 | 2 | 2 | 2 | 2 |
| “ congestive | 43 | 77 | 37 | 17 | 1 | 3 | 10 | 3 |
| “ pernicious | 1 | 4 | 1 | 2 | — | — | 1 | 1 |

The deaths from puerperal fever were less than those in 1865, and little more than a fourth of those in 1864.

Cholera first made its appearance in Philadelphia in the latter part of June, by a few cases scattered about in various distant parts of the city, of whom two died. One case of undoubted cholera occurring at this time (which did not however prove fatal) was seen by Dr. Wilson Jewell, Chief of the Sanitary Committee of the Board of Health. There had been no cholera at the Quarantine.

Great exertions were made by the Board of Health to preserve the cleanliness of the city. Physicians were requested to report the nature of the premises where they saw a case of the disease, and if it were confined, crowded or dirty, measures were taken the same day to have the neighbourhood purified by chloride of lime, soap and water, and whitewash; and by closing entirely cellars and other very badly ventilated apartments. A corps of inspectors was also employed for the purpose of discovering and reporting such unhealthy places. It is undoubtedly in great measure owing to these well-timed exertions that we owe the comparative exemption of our city from what threatened to be a fearful scourge.

The greatest mortality in any one week was 127, for the week ending Oct. 13th. The disease then declined with much greater rapidity than it had advanced. Next to October, the greatest number of deaths occurred in August.

The total mortality was 910.

As regards age, the greatest number, 199, died between 30 and 40; next, 177, between 40 and 50; none under one year.

As regards location, by far the greatest mortality was in the 17th, 18th, and 19th wards, comprising the old districts of Kensington and Richmond. This circumstance is accounted for by the fact that water is there employed drawn from the river Delaware, and consequently contaminated with the impurities carried into that stream by the sewers, and washed up and down by every tide.

The mortality in these three wards was 301, or almost a third of the total mortality from cholera in the city, in one-seventh of the population.

The number of births registered during 1866 was 17,437, an increase over the previous year of 2,009 or 12.37 per cent.

There were 18 more twin births and 39 more coloured births than in 1865.

There were more births in October than in any other month; then in August, September, and July. In April, the number was least; then in the three summer months.

Several tables which we had prepared to show the mortality of all diseases, at various ages, and for each month in the year, are unavoidably omitted from want of space.

ART. XV.—*Summary of the Proceedings of the Pathological Society of Philadelphia.*

1866. Sept. 26. *Tuberculous Disease of Testis.*—Dr. PACKARD exhibited a tuberculous testis of the right side, removed by him in the morning from a man about 30 years of age, a patient at the Episcopal Hospital. Previous to removal, the diagnosis had been somewhat doubtful from the stony hardness and weight of the tumour, and its slightly nodulated shape. The man had had venereal disease, probably syphilis, twelve years ago. The operation was done in the usual way, except that the cord was compressed by the pin and wire loop, as in Simpson's third method of acupressure. On section after removal, the tumour was obviously tuberculous, breaking down into an abscess in its more central portion.

(This case did well so far as concerned the local disease, but after the wound had healed typhoid symptoms declared themselves, the patient's strength failed entirely, and he died of phthisis, as shown by the post-mortem examination, on the 28th of October.)

Oct. 10. *Cystic Disease of the Testicle from Injury.*—Dr. PACKARD exhibited a testicle affected with cystic disease, of singular origin, removed by him from a patient at the Episcopal Hospital; and gave the following account of the case:—

Robert Sims, an Englishman, æt. 28, employed on the Reading R. R., was struck, twenty-one months ago, on the left testicle, and on the sternum, by a plank which flew up against him. Necrosis of the sternum ensued, and part of the bone exfoliated. The testicle became much enlarged and swollen, and subsequently an abscess formed and pointed. The same thing happened five times afterwards.

Oct. 6, 1866. On his admission into the Episcopal Hospital, the left