the opposite movement began; and during the steady fall of drink since 1900 pauperism has been rising again. The only exception to this regular inverse movement is the very depressed period 1884- 1888, when pauperism was stationary. The conclusion to be drawn is that while drink is a chief cause of poverty in many cases and the sole cause in some, it is swamped in the aggregate by the larger influence of work and wages. Mr Charles Booth’s statistical investigation in East London resulted in the following estimates of the percentage of poverty caused by drink: “ great poverty ” (the two lowest classes) —drink, 9 per cent., drunken or thriftless wife, 5 per cent. ; “ poverty ” (the two next classes) the figures were— drink, 7 per cent., drunken or thriftless wife, 6 per cent. These results can hardly be said to confirm the opinion that drink is the chief cause of poverty; they rather agree with the conclusions drawn from the movement of pauperism. Mr Rowntree’s investi­gation of poverty in York did not enable him to make any numerical estimate; drink was not among the chief causes of ‘‘primary” poverty (the lowest class), but he thought it the “ predominant factor ” in producing “ secondary ” poverty. Alderman McDougall's inquiry in Manchester (1883) resulted in the following proportions of drink-pauperism:—Male drunkenness, 24∙32 per cent.; female, 4∙40 per cent.; widows and children of drunkards, 21∙84 per cent. An inquiry conducted in 1894-95 by the Massachusetts Bureau of Statistics of Labour found that 39·44 per cent. of paupers attributed their position to their own intemperance and about 5 per cent. to that of their parents. All these inquiries are on a very small basis, and the last is particularly deceptive. Drink is commonly confessed by criminals and paupers, as a venial offence to serve as a plausible excuse for a condition really due to dislike of work. When poverty is examined by local distribution it is found to have very little connexion with drink. In 1901 the average proportion of pauperism to population in England was 5∙3 per cent. The exceptionally drunken districts of Northumberland and Durham were all below it, the sober eastern counties all above it (Blue-book on Public Health and Social Conditions, Col. 4671).

*Insanity.―*Dr Robert Jones finds that 16 per cent. of all the persons (7182 out of 43,694) admitted into the London asylums during the twelve years 1893-1905 “ were definitely ascertained to owe their insanity to drink or intemperance.” The proportion in Claybury Asylum during the same period was 17 per cent., being 22 per cent. of the men and 12 per cent. of the women. Dr R. H. Crowley says:—“ One may safely assert that from 20 to 25 per cent. of all cases of insanity under the poor law are directly due to intemperance.” Dr T. B. Hyslop says:—“ With regard to insanity there is some difference in experience as to the relative frequency of alcohol in its causation. This difference ranges from between 10 and 30 per cent. . . . My own experience leads me to believe that alcohol is either a direct or an indirect factor in the causation of at least 50 per cent. of the cases of insanity.” Dr T. S. Clouston estimates that alcoholic excess is the cause of about 20 per cent. of all the insanity in Great Britain and Ireland. These are the opinions of experienced medical men in charge of the insane. On the other hand, those in charge of inebriates are inclined to attribute inebriety to a great extent to mental deficiency of some kind. Dr Branthwaite, government inspector under the Inebriates Acts, observes in his Report for 1908, published in 1910, “ There is no doubt whatever in detaining and treating persons sent to us under the Inebriates Acts that we are dealing to a large extent with a class known as ‘ feeble-minded.’ . . . It would be difficult to find many more than about a third of all persons under detention capable of passing muster as of average mental capacity.” In support of this statement he gives the following classification of 3032 cases:—

Classification. Number. Percentage.

(1) Insane; persons since admission certified

and sent to asylums 63 J

(2) Very defective; persons more or less con- > 14∙51

genitally imbecile, degenerate,or epileptic 377 J

(3) Defective; eccentric, silly, dull, senile, or

subject to periodical paroxysms of un­governable temper 1487 49'θ4

(4) Of average mental capacity, on admission or

after six months' detention 1105 30'45

Insanity is therefore a cause as well as a consequence of excessive drinking, and the estimates given about it must be qualified accord­ingly. The following are given for foreign countries. In Italy a report from 26 asylums returned 18∙6 per cent. as directly or in­directly (by heredity) due to alcoholism. Professor Seppili reports from the Brescia asylum the following: 1894-98, 15∙7 per cent.; 1899-1903, 19∙8 per cent.; 1904-08., 27∙6 per cent. Experts in such statistics will recognize at once in this enormous rise a change in the method of classification. In Switzerland, of the admissions in 1900-04, 21∙1 per cent. among males and 4∙37 per cent. among females were alcoholics. In Denmark, of the admissions in 1899- 1903, 21∙37 per cent. were alcoholics. In Austria, of the admissions in 1903, 14·0 per cent. were alcoholics. In France the proportion of all persons in asylums in 1907 with an alcoholic history was 12∙5 per cent.

*Mortality.—*The influence of drink on mortality is an unascertainable quantity, because it may be associated with other causes to an extent which varies in an infinite series of gradations. All attempts to estimate it are more or less plausible guesses. We have, however, some positive data. The Registrar-General’s Returns contain the heading "alcoholism, delirium tremens," as a cause *of* death. The following are the rates per million recorded in quinquennial periods from 1870 to 1905: 37∙6, 42∙4, 48·2, 56·0, 67∙8, 85∙8, 78∙2. This is unsatisfactory for two reasons: the first is, that alcoholism does not nearly cover all the mortality directly caused by drink; and the second is that, being a very vague term, its use in certifying the cause of death depends largely on the views of the practitioner and current opinion in the medical profession. The attention paid to the subject has led to a growing recognition of alcoholism, which, indeed, does not appear at all in the older text­books. This accounts for the steady increase of deaths ascribed to it, which is otherwise inexplicable, being quite at variance with the consumption of drink during the same period. The Seventy-first Annual Report of the Registrar-General states that the mortality from alcoholism in the years 1900 and 1901 was materially increased by the transference of deaths that had been originally certified as from neuritis. It is now usual to classify alcoholism and cirrhosis of the liver together, since the latter is most frequently caused by intemperance. The following are the crude death-rates for twenty years :—

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Death-Rates to a Million Living—England and Wales.* | | | | | | |
| Alcoholism. | | | | Cirrhosis. | | |
| Year. | Male. | Female. | Persons. | Male. | Female. | Persons. |
| 1889 | 72 | 39 | 55 | 140 | 103 | I2I |
| 1890 | 94 | 50 | 70 | •44 | 105 | •24 |
| 1891 | 94 | 49 | 71 | 148 | 104 | 125 |
| 1892 | 86 | 49 | 67 | •42 | 104 | 122 |
| 1893 | 93 | 55 | 73 | •39 | 103 | 120 |
| 1894 | 76 | 47 | 61 | 136 | 96 | ∙∙5 |
| 1895 | 84 | 51 | 67 | •33 | 104 | 118 |
| 1896 | 91 | 52 | 71 | 140 | 106 | 122 |
| 1897 | 97 | 58 | 77 | ∙5∙ | • 15 | 133 |
| 1898 | 98 | 59 | 78 | • 52 | 112 | •32 |
| 1899 | ∙∙3 | 69 | 90 | 167 | 119 | 142 |
| 1900 | 132 | 95 | ∙>3 | 162 | •27 | •44 |
| 1901 | 113 | 80 | 96 | ∙51 | ∙∙5 | • 32 |
| 1902 | 105 | 65 | 84 | •44 | 104 | • 23 |
| 1903 | 91 | 62 | 76 | 136 | 100 | ∙∙7 |
| 1904 | 85 | 55 | 70 | •35 | IOI | ∙∙7 |
| 1905 | 79 | 52 | 65 | ∙3∙ | 104 | ι∙7 |
| 1906 | 80 | 53 | 66 | 127 | 98 | II2 |
| 1907 | 79 | 48 | 63 | •23 | IOI | II2 |
| 1908 | 65 | 45 | 55 | I2O | 88 | IO4 |

These figures dispose of the current belief in an enormous increase of female intemperance based on the progressive rise of the death­rates. Discussing this question some years ago the present writer pointed out the defects of the statistics and said that the returns of the next few years might upset the whole argument. They have done so.

The statistics of alcoholism and cirrhosis, however, are very far from covering all the mortality due to drink. Dr Newsholme calculates by inference from the returns of Denmark and Switzerland that the deaths directly attributed to alcohol in England and Wales should be some six times higher than they appear in the returns, and that they would then amount to 5 per cent. of the total deaths of adults instead of about 0∙8 per cent. He adds: “ This percentage probably greatly understates the real facts.” It may be so, but the calculation is based on too many assumptions to be accepted with confidence. In addition to the direct mortality there is an unknown score against alcohol in predisposing to other diseases and in accelerating death. Consumption is one of the diseases thought to be particularly associated with alcohol, but there are several others. The following table shows the comparative mor­tality of males aged 25 to 65 from certain classes of disease in different groups of occupations. They include those with the highest and those with the lowest mortality. The heading “ diseases of the circulatory system ” includes heart disease and aneurism; diseases of respiratory system include bronchitis, pneumonia and pleurisy, but not phthisis, which is separately given; diseases of urinary system include Bright’s disease. The table is compiled from the supplement to the Sixty-fifth Annual Report of the Registrar- General, published 1908. No other country has similar statistics. There are some partial ones for Switzerland, which attribute 2·47 per cent. of the deaths of males over 20 years directly or indirectly to alcohol, and for Denmark, where the corresponding figure is 42 per cent.

The association of a high degree of alcoholic mortality with weakness of all the organs is clearly shown by the figures for unoc­cupied males, general labourers, dockers, costermongers, innkeepers and inn-servants. Potters and file-makers, with a comparatively low degree of alcoholic mortality, alone show a similar condition,