PART II.
CRITICAL ANALYSIS.

Art. I.—The Vital Statistics of Glasgow for 1843 and 1844. Drawn up by appointment and under the authority of the Lord Provost, Magistrates, and Town-Council. By Alexander Watt, LL. D., City Statist, Secretary of the Statistical Section of the Glasgow Philosophical Society, &c. &c. Glasgow, 1846. Pp. 128.

The importance of, and, we may say, the necessity for, statistical evidence to confirm the truth of every branch of knowledge is daily becoming more and more generally admitted. Theories and hypotheses, the premises of which do not stand the test of numerical analysis, are now, we think, received with much greater reserve than formerly, and conclusions and deductions are more cautiously drawn from the limited experience and speculations of individual observers.

The many important facts which the study of statistics has brought to light, and the numerous errors which have been corrected by means of it, demand for it a high place in the estimation of every one at all interested in the advancement of science. To the statesman and politician it is of the first consequence, as they must be guided almost entirely by the results which they obtain from this source. The truth of this remark has been well illustrated in the all-engrossing subjects which have so recently been engaging the attention of the country, where the whole matter may be said to have resolved itself into one of pure statistical inquiry; every argument, whether for or against the government measures, requiring to be supported by a mass of strong evidence of this nature in its favour.

The study of vital statistics has for its object the discovery of those laws which regulate the condition of the people; and its advantages in the political economy and hygienics of a nation have
been amply proved. Medicine, with which we have more immediately to do, has derived from the careful study of statistics more important services than perhaps any other branch to which statistical researches have been applied, and the facts elicited by their application to almost every department of the science, have contributed in a very great degree to its advancement. Our knowledge of the laws of mortality of different diseases has, in many instances, been greatly improved, and in some pretty accurately determined; while the study of physiology, pathology, and therapeutics has been much facilitated by being subjected to the scrutiny of the numerical method. Life assurance associations, and societies also, owe their existence entirely to the perfection to which this science has been brought; and the great accuracy with which their life-tables are constructed need not here be insisted upon.

We are, however, inclined to believe that much remains as yet undiscovered, which can be brought to light only by the careful and progressive improvement, which, it is hoped, will take place in the study of vital statistics. We are thus urgent in pressing this subject on the attention of our readers, in order to enlist on our side, all who at present, or who may at any future period, find themselves in situations where they may have opportunities of contributing to the advancement of this all-important subject, being fully convinced that it affords the only sure groundwork for correct deduction and generalization, and the only firm basis on which to establish the truth.

The vital statistics of a city of such dimensions and population as those of Glasgow, and whose inhabitants are subject to perhaps more vicissitudes than those of any other town in the empire, must be extremely interesting; and if carried on for a series of years they become of great value. The attention which has been paid to them, and the encouragement which those who have interested themselves in their advancement, have met with, are highly creditable to the citizens and municipal authorities of Glasgow; and among those who have distinguished themselves there, in this important branch of science, the names of Cleland, Watt, and Cowan, must ever be mentioned with honour.

Bills of mortality for the city and suburbs of Glasgow have been published since the year 1821, when they were commenced by Dr Cleland, who published one annually till the year 1835. After that period they were drawn up by Mr Henry Paul, and Dr Alexander Watt, the author of the present Report, both of whom paid great attention to the subject, and have, from time to time, added much very useful information to the science of vital statistics. The accuracy of the mortality bills for the last twenty-three years, which embraces a period during which the government census has been taken three times, may therefore be fully relied
on. Before that period, however, the registers were in such a defective state that little or no confidence can be placed in the returns, although records have been kept since the year 1694.

The work before us comprises the statistics of Glasgow for the years 1843 and 1844, drawn up by Dr Alexander Watt, whose labours in the cause of statistical research merit our highest approbation. Since the duty of compiling these important documents devolved upon him, he has contributed many important facts to our knowledge of this subject; and his untiring zeal and industry have added numerous interesting tables to those formerly published along with the Glasgow bills of mortality, justly entitling his treatise to be called the "Vital Statistics of Glasgow," containing, as it does, a mass of very important evidence on the sanatory condition of the inhabitants of that city and its suburbs.

Our observations on the first or tabular part of the work are necessarily confined to a mere statement of the arrangement adopted, as we must subsequently follow the author in his deductions. We therefore reserve our remarks until we have given a sketch of the tabular arrangement.

First is given an abstract of the Glasgow mortality bills for the years already specified; showing the number of burials, arranged according to the districts and burying places; also an abstract of the number of births and baptisms, as recorded in the registers; these being still farther analyzed so as to exhibit the monthly returns. A similar arrangement and tabular view is then given of the marriages which occurred during the years 1843 and 1844.

Next follow the monthly tables of mortality, showing the number of deaths that have occurred at each age, from under one year to above a hundred, divided into eighteen periods of life; the diseases, &c. by which the deaths were occasioned being arranged as follows:

**CLASSIFICATION OF DISEASES.**

| Classes          | Species                     | Synonymes                                      |
|------------------|-----------------------------|-----------------------------------------------|
| Accidents.       | Decline above 60 years and without any particular disease. | Fractures, wounds, burns, bruises, drowning. |
| Aged.            |                             | Shortness of breath.                          |
| Asthma.          | Dysentery.                  | Flux, bloody flux.                            |
|                  | Bowel hives.                | Inflammation of bowels in children.           |
|                  | Looseless.                  | Diarrhoea.                                    |
|                  | Teething.                   |                                               |
| Bowel complaints | Colic.                      | Iliac passion.                                |
|                  | Cholera.                    |                                               |
| Catarrh.         | Consumption                 | Cold, influenza.                              |
| Child-birth.     |                             | Puerperal fever.                              |
| Croup.           |                             | Stopping.                                     |
| Decline.         | Tabes mesenterica.          | Pulmonary phthisis, wasting.                  |
|                  |                             | Consumption of young from diseased glands.    |
We here give the classification as it appears in the Appendix to the work before us, (page 128) to which is added the following note by the author, which we think sufficiently explains itself.

The classification of diseases used in our mortality tables is far from being so complete as would be attainable were a legislative measure obtained for the improvement of the registers of deaths in Scotland. The above arrangement, though by no means so complete as could be wished, is possibly as much so as it can be made in the present state of our registers. This arrangement was first adopted for the mortality bill of 1835. In 1836 some slight alterations were introduced, at the suggestion of the late Dr Corkindale, who added the following note in reference to it; and the same plan has been uniformly followed in our Glasgow mortality bills since that date, and also in the tables contained in the ‘Report on the Vital Statistics of Large Towns in Scotland,’ published in the volume of the Transactions of the British Association for 1842.

| Classes            | Species                     | Synonymes                                      |
|--------------------|-----------------------------|------------------------------------------------|
| Dropsy             | Dropsy, general.            | Typhus, continued fever, or nervous or putrid.|
|                    | — of chest.                 | Rupture of vesel in, or overflow of blood to head.|
| Fever              | Apoplexy.                   | Paralysis.                                     |
| Head, diseases of  | Palsy.                      | Hydrocephalus.                                 |
| Hooping cough.     | Water in the head.          | Head or brain fever.                           |
| Heart, diseases of | Inflammation of head.       | Chineough.                                     |
| Inflammation.      | General, or                 | Aneurism, ossification.                        |
|                    | — of chest.                 | Not specified.                                 |
|                    | — bowels.                   | Convulsions, fits, lock-jaw, epilepsy.         |
|                    | — liver.                    | Suppuration of the joints.                    |
|                    | — throat.                   | Of breast, of lips, of bowels ; schirrus.      |
| Measles.           |                             | Stomach complaints.                           |
| Scarlet Fever.     |                             | Rose.                                          |
| Small-pox.         | Abscess lumbar.             | White swelling, diseased hip-joint.            |
|                    | Cancer.                     |                                                |
|                    | Carbuncle.                  |                                                |
|                    | Diabetes.                   |                                                |
|                    | Dyspepsia.                  |                                                |
|                    | Erysipelas.                 |                                                |
|                    | Flooding.                   |                                                |
|                    | Jaundice.                   |                                                |
|                    | Joints, diseased.           |                                                |
|                    | Rheumatism.                 |                                                |
|                    | Rupture.                    |                                                |
|                    | Spine diseased.             |                                                |
|                    | Spitting of blood.          |                                                |
|                    | Stone in bladder.           |                                                |

CLASSIFICATION OF DISEASES.

VOL. LXVI. NO. 169.
Dr Watt on the Vital Statistics of Glasgow.

"Note by Dr Corkindale.—' The species in the above form contain a list of diseases tolerably complete for the construction of mortality bills. There are, however, many affections omitted that are often the causes of death; for no list could be at all workable in any ordinary way, if it attempted to comprehend and specify every variety of disease. In the present circumstances of the preparation of these bills, this list is rendered still less complete by the necessity of using a classification called miscellaneous diseases, many of which, though having nothing in common, are grouped together, because they are not comprehended under the other classes.'"

There is next a very important table for each year, exhibiting the number of deaths monthly under five years of age, with the proportions these bear to the whole amount of deaths ascertained monthly under that age, and also to the whole population. The two succeeding tables shew the ascertained diseases which caused death in children under five years of age.

Tables 35, 36, 37 and 38 exhibit the number of burials and fatal cases of disease registered and occurring in the city and suburbs of Glasgow during 1843 and 1844, classified according to eighteen periods of life at which they took place; with calculations shewing the number of deaths and burials at each period, and the proportions which the whole burials and deaths from the several diseases bear to the total number of deaths and burials, and also to the estimated population.

Lastly, we have a most comprehensive and extremely interesting table, exhibiting the number of fatal cases of disease that occurred in the city and suburbs of Glasgow during the years 1838, 1839, 1840, 1841, 1842, 1843, and 1844, classified according to eighteen periods of life at which they took place; with calculations showing the total annual average number of deaths at each period, and the proportions which these, and the number of deaths from the several diseases, bear to the total average annual number of deaths, and also to the mean population for these years.

The indefatigable industry and application which must have been devoted to the construction of these tables, can be fully appreciated only by those engaged in similar pursuits; and though we have thus hastily sketched the outline of our author's compilations, we are fully alive to the careless manner in which many pass over tabular representations, without appreciating or recollecting the vast amount of labour, trouble, and calculation that has been bestowed upon them. Such persons forget the true object of a well constructed table, which is, to present at one view, by means of figures, results which cannot so well, or it may be, cannot at all, be expressed in words.

The author's remarks on the tables and their results form the second part of the treatise, and these may be advantageously considered under two heads; the first referring to the vitality, and
Dr Watt on the Vital Statistics of Glasgow.

the second to the mortality of the population, both subjects being illustrated by numerous additional tables.

It appears from the results of the second and fifth tables, that with regard to births and baptisms for the years 1843 and 1844, as engrossed in the registers, a decrease of 137, as compared with the year 1842, had taken place in 1843, and an increase of 217 over that year had occurred in 1844. These are the numbers engrossed; but the present mode of registering births in the city, the author observes, is utterly insufficient, and this prevails equally in other parts of Scotland, and for which there appears to be no remedy but the introduction of a government measure to insure accurate registration upon uniform and systematic principles. The increase of twin births in 1844 is remarkable; the number in 1842 being 36, in 1843, 42, and in 1844, 78.

Having shortly noticed the births and baptisms, Dr Watt proceeds to take up the subject of marriages registered for the years specified, and from his calculations it appears that an increase of 144 resident marriages had taken place in 1843 above the number in 1842, and of 377 in 1844 above 1843. He then goes on to show by a comparison of the marriages during the five preceding years, that their amount has fallen with the depression, and again risen with the prosperity of commerce in the city. He at the same time states that from an accumulation of facts obtained from various towns, it appears, that where there is the greatest amount of poverty and destitution, and where the mortality is greatest, the annual amount of marriages is highest; and that during years in which there was no scarcity of food, it being cheap, of good quality, and in abundant supply, but in which there was severe commercial distress, attended by a very limited demand for labour, there was a diminution in the proportionate amount of marriages both among the richer and poorer classes, showing that prudential motives, to a considerable extent, act as a check to the increase of marriages, and consequently of population. His results, he says, further prove, in accordance with Dr Alison's views, that this prudential check is much stronger in communities consisting of the better classes of society, than in those where there is the greatest amount of the wretchedly poor; and in illustration he gives a series of tables, showing the marriages for the five years from 1839 to 1843, in the three great divisions of the city and suburbs, namely, the city or parish of Glasgow, the parish of Barony, and the parish of Gorbals.

From these tables it appears, that on the average of five years, including those of the greatest commercial distress immediately preceding 1844, decidedly fewer marriages took place in the Barony,—the parish in which the largest proportion of the most wealthy reside,—than in the city. It is also observed that in 1842, the year of greatest commercial distress, though the pro-
portion of marriages was considerably less in all the parishes of Glasgow, the decrease in the Barony was much greater than in the city.

From these statements, we conceive the author's opinion of this much disputed question to be, that it is during seasons of bad trade and commercial distress, accompanied by a very much diminished demand for labour, that the smallest amount of marriages will be found to be contracted; and, that it is not till the poverty and destitution which follow as a consequence of long continued depression, have set in, that they will be found to increase; the sufferers then becoming quite reckless and careless as to consequences, thinking only of the present, without any regard for the future, and considering themselves, as Dr Watt remarks, "entitled to marry as soon as they can earn 'men's wages,' without being first trained to husband their means for necessary purposes."

He draws a marked line of distinction with regard to improvident marriages, between the wretchedly poor who are sunk to the lowest depths of poverty, and the more respectable portion of the mechanics and artisans of towns. In still further confirmation of the truth of this opinion, he goes on to notice the occupations of parties married, which, though not stated in the Gorbals register, are recorded in those of the City and Barony parish. A series of interesting tables is given, the results of which tend to show that the amount of marriages of bakers, boot and shoemakers, labourers, porters, messengers, masons, builders, tailors, weavers, joiners, and other artisans is directly influenced by the state of trade and commerce, being observed gradually to increase from 1842 to 1844; and that the greatest proportion of marriages takes place among the poorest classes of these in Glasgow, namely, the weavers and labourers, good and bad times seeming to have a more immediate effect on the amount of their marriages, than on those of any other class of workmen stated in the tables.

The marriages among clergymen, students of divinity, writers, attorneys, and law students, are, as might be expected, in nowise influenced by the state of trade and commerce; neither are those of physicians, surgeons, apothecaries, and medical students affected by their vicissitudes, although the following is stated respecting them.

"It so happens, however, that in the city the greatest proportion of marriages among them was during 1843, the year in which there was the greatest amount of sickness and mortality: their marriages amounting to 5.47 per cent. In 1842, the most healthy of the three years, the marriages among them amounted to only 2.73 per cent. On examining the table for the Barony parish, it will be found that the smallest proportion of marriages among physicians, surgeons, &c., is for the year 1842, and during the other two years they are equal in amount."
The last point connected with the vitality of the population which Dr Watt takes up, is a very important one; namely, the increase of the population. His remarks are chiefly confined to the discussion of Mr Doubleday's theory, "that increase and decrease are in the inverse ratio with the quantity and quality of aliment;—that plenty produces sterility, and scarcity, fecundity." Into the merits of this question we do not propose at present to enter; but we cannot quit the subject of population, without devoting a single paragraph to the simple consideration of its very rapid increase in Glasgow.

If we look back to the statistics of population in this city for the last fifty or sixty years, we shall find that it has increased in the following proportions:—The average annual increase from 1791 to 1801 was 1719; from 1801 to 1811, 2669; from 1811 to 1821, 3658; from 1821 to 1831, 5538; from 1831 to 1841, 7970; and Dr Watt estimates the population in the city and suburbs in June 1843 at 301,000; and in 1844 at 311,600; the increase between these two years being not less than 10,600. Thus, we observe, the annual increase of population is double what it was five-and-twenty years ago, and it still advances in a rapidly increasing ratio. Dr Watt considers that the greatest increase of population takes place from immigration, as there is a greater excess of deaths over births in Glasgow than in other towns with which comparisons have been made. Of the truth of this we entertain little doubt; but we would ask, what becomes of the eight or ten thousand individuals annually added to the population? Where are they lodged? To what class of the community do they belong? And if to the poorer, is there employment for them? How do they exist or gain a living? We are inclined to think that it will be readily admitted that by far the greater number belong to the poorer classes of society. Much has been said, and much been written, about the crowding together of men, women, children, and families, in the lodging houses and cellars of the wynds and closes of Glasgow; and if any doubt of the fact were entertained, we have the proofs before us, as detailed above. It is true, Glasgow is rapidly extending; in every direction houses are being built; but for whose accommodation? Certainly not for the class of the community in most need of it, that class who cannot afford to pay a rent sufficient to insure them a comfortable lodging, and consequently are obliged to betake themselves to those over-crowded hovels, the receptacles of poverty, disease, and in many instances, of crime, in the densely populated parts of the city and suburbs. In this way year after year adds to the numbers that are nightly packed in these obnoxious abodes, and in many cases where extreme destitution and poverty were the causes which induced the unhappy sufferers first to take refuge there, there is too much reason to fear that the evil lessons
and pernicious examples which they see before them, sink them to a state of moral degradation and recklessness, from which they never afterwards recover. We need not wonder then, such being the state of hundreds, that when an epidemic disease, typhus fever, for example, breaks out among such a living mass of "material" ready for its ravages, it should spread with fearful rapidity, carrying death and destruction along with it. It is anxiously to be hoped, that the enactments of the recent poor law for Scotland, and the power given to those who have the charge of enforcing it, will enable them soon to apply the proper remedies to these daily increasing evils.

We next proceed to the second division of the author's subject, viz. that of the mortality during the two years he has analysed, which, in a medical point of view, is perhaps the most important part of the treatise.

In estimating the comparative value of male and female life in Glasgow for the seven years preceding 1845, Dr Watt states that the latter is better than the former by 0.356 per cent. "The proportionate improvement of the male to the female life," he thinks, "on the average of these seven years, arises chiefly from the epidemic which prevailed during 1843, having, contrary to the usual course of epidemic fever in Glasgow, cut off a much larger proportion of females than of males, causing the total amount of female deaths for that year to exceed the male deaths by 3.72 per cent." The following, taken from table forty-seventh, exhibits the amount of mortality to the population for the seven years preceding 1845.

| Year | Per cent. |
|------|-----------|
| 1838 | 36.84 or 2.71 |
| 1839 | 35.60 or 2.85 |
| 1840 | 30.93 or 3.23 |
| 1841 | 31.75 or 3.14 |
| 1842 | 30.62 or 2.52 |
| 1843 | 31.32 or 3.14 |
| 1844 | 42.29 or 2.36 |

Dr Watt has devoted great attention to the mortality at the several ages for different diseases, and his observations tend to show that there are specific laws which appear to regulate its amount at different ages for each disease; and he thinks, "that were our data sufficiently complete to allow of the law of mortality at different ages being accurately ascertained for all diseases, then the total amount of deaths by each disease being given, they would enable us to calculate with precision the ages at which the total deaths in that locality had taken place."

The great mortality of children in Glasgow is a fact well worthy of attention. Dr Watt states the proportion of deaths to the
living under one year as 18.90 per cent. in Glasgow, as 17.18 per cent. in Edinburgh, and as 15.69 per cent. in Perth; and this large amount of infantile death, he thinks, might be remedied were the children properly attended to, and supplied with plenty of nourishing food, comfortable clothing, air, and exercise. That this is the case is apparent from the fact that the greatest proportion of infant mortality occurs among the working classes. In proof of this he brings forward the evidence of the Rev. J. Clay, who states, that the infant mortality in Preston among the working classes is 55.5 per cent., while the gentry lose only 17.5 per cent., and that if better attention had been bestowed on the former "during the last six years, 3034 children would have reached five years of age, who, as it is, have been prematurely swept away by disease." The months most fatal to children under five years of age in Glasgow are, according to our author, August and September, and the month most favourable to the health of children, compared with the higher ages, appears to be April, yet the month in which the fewest deaths among children occur is June. August and September appear from the tables to be the most favourable months for adults from twenty to sixty, and June and October for the aged population. January is the most fatal month for adults of all ages.

In prosecution of this important subject, Dr Watt goes on to notice the physical laws which appear to govern the amount of deaths at different ages by the several diseases. He gives a series of well constructed tables, exhibiting the amount of deaths by measles, scarlatina, small-pox, hooping cough, croup, and fever, under different ages, in London during 1842, and in twenty-four town districts in England during 1840, with their proportions per cent. to the whole deaths in the metropolis, and in these twenty-four districts respectively. It is extremely interesting to compare these per centages, and to remark how very closely they coincide, and we cannot help thinking that the prosecution of this subject will eventually lead to the most important results, and enable us in future to form a much more correct estimate of the public health than we have hitherto been able to arrive at.

Table fifty-eighth exhibits the number of fatal cases of the eruptive diseases, hooping cough, and fever, occurring in Glasgow and suburbs during 1843 and 1844, with the proportions which the number of these deaths at different ages bear to the whole deaths by each disease respectively, and is so instructive that we present it without abridgment.
### Table Fifty-eighth.

#### CASES OF MEASLES.

| Ages                  | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. |
|-----------------------|---------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|
|                       | M. | F  | Tot. |                          | M. | F  | Tot. |                          |
| Under 2 years,        | 55 | 48 | 103  | 50:49                      | 78 | 74 | 152  | 45:92                      |
| Under 5 years,        | 88 | 81 | 169  | 62:84                      | 142| 147| 289  | 87:31                      |
| Under 20 years,       | 104| 100| 204  | 100:00                     | 156| 175| 331  | 100:00                     |
| 20 and upwards,       |    |    |      |                            |    |    |      |                            |
| Total,                | 104| 100| 204  | 100:00                     | 156| 175| 331  | 100:00                     |

#### CASES OF SCARLET FEVER.

| Ages                  | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. |
|-----------------------|---------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|
|                       | M. | F  | Tot. |                          | M. | F  | Tot. |                          |
| Under 2 years,        | 30 | 26 | 56   | 22:40                      | 58 | 59 | 117  | 22:50                      |
| Under 5 years,        | 75 | 74 | 149  | 59:60                      | 157| 170| 327  | 62:88                      |
| Under 20 years,       | 129| 114| 243  | 97:20                      | 252| 261| 513  | 98:65                      |
| 20 and upwards,       | 4  | 6  | 7    | 2:80                       | 2  | 5  | 7    | 1:34                       |
| Total,                | 130| 120| 250  | 100:00                     | 254| 266| 520  | 100:00                     |

#### CASES OF SMALL-POX.

| Ages                  | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. |
|-----------------------|---------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|
|                       | M. | F  | Tot. |                          | M. | F  | Tot. |                          |
| Under 2 years,        | 39 | 38 | 77   | 50:99                      | 18 | 21 | 39   | 39:39                      |
| Under 5 years,        | 60 | 56 | 116  | 76:82                      | 38 | 43 | 81   | 81:81                      |
| Under 20 years,       | 79 | 68 | 147  | 97:35                      | 44 | 53 | 97   | 97:97                      |
| 20 and upwards,       | 4  |    | 6    | 2:64                       | 1  | 2  | 2    | 2:02                       |
| Total,                | 83 | 68 | 151  | 100:00                     | 45 | 54 | 99   | 100:00                     |

#### CASES OF HOOPING-COUGH.

| Ages                  | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. |
|-----------------------|---------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|
|                       | M. | F  | Tot. |                          | M. | F  | Tot. |                          |
| Under 2 years,        | 128| 179| 307  | 61:77                      | 91 | 99 | 190  | 63:12                      |
| Under 5 years,        | 193| 256| 449  | 90:34                      | 133| 147| 280  | 93:02                      |
| Under 20 years,       | 218| 278| 496  | 99:79                      | 143| 158| 301  | 100:00                     |
| 20 and upwards,       | 1  | 1  | 1    | 0:20                       |    |    |      |                            |
| Total,                | 218| 279| 497  | 100:00                     | 143| 158| 301  | 100:00                     |

#### CASES OF FEVER.

| Ages                  | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. | Deaths by various diseases under these ages. | Propr. to whole deaths by each dis. respectively. |
|-----------------------|---------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|
|                       | M. | F  | Tot. |                          | M. | F  | Tot. |                          |
| Under 2 years,        | 100| 92 | 192  | 18:73                      | 25 | 23 | 48   | 7:33                       |
| Under 5 years,        | 142| 129| 271  | 19:38                      | 39 | 47 | 86   | 13:14                      |
| Under 20 years,       | 215| 199| 414  | 29:61                      | 75 | 90 | 174  | 26:60                      |
| 20 and upwards,       | 466| 528| 994  | 70:37                      | 260| 220| 480  | 73:39                      |
| Total,                | 671| 727|1398  |100:00                      |335|319|654  |100:00                      |

The last points taken up by Dr Watt are the causes of excessive mortality. He here repeats his opinion expressed in his former publications, and confirmed by the experience and observations of Dr Alison and others, that destitution may be considered as the principal of these causes; and he, in particular, alludes to the year 1837 as a year of "great commercial distress, and of excessive mortality," when "about two-thirds of the increased number of deaths occurred exclusively among those who were so poor
as to be buried at the public expense." The high mortality of 1843 he accounts for in the same way, showing that though there were between 30,000 and 40,000 affected with the epidemic of that year, and each of them for weeks at a time, still more offered themselves for employment than could obtain it. Another circumstance strongly corroborative of the influence of this cause is the fact, that, from evidence lately brought forward, "there is perhaps no town of a more healthy character than this city (Glasgow) for the wealthy, and those in comfortable circumstances."

Such, then, being the natural character of Glasgow for salubrity and healthfulness, we cannot resist the conclusion, that, when its mortality becomes excessive, and when we see this mortality uniformly in connection with depression in trade, and falling on the most destitute part of the population, it is to this depression, and the destitution which accompanies it, that we must look for an explanation, and consequently to their amelioration for a remedy.

We have already shown the rapidity with which the population is yearly increasing; and with this increase the crowding and packing of human beings into the dwellings and lodging-houses of the poor is annually as steadily advancing; and thus, whatever advantages as to climate, situation, and salubrity the city may possess, these are as effectually as possible done away with to this class of the community. Until, then, the state of the destitute poor be improved and placed on a better footing; until they have the advantages of drainage, ventilation, cleanliness, &c.; and until their habitations be made more like what the abodes of human beings should be, we may expect to have not only the same amount of misery and mortality which have at different seasons prevailed in Glasgow, but we must also be prepared to see it annually assume a much more aggravated and wretched character.

We, therefore, cordially join with Dr Watt in urging upon the public authorities of Glasgow (and we also add, those of our own town) to press forward the sanatory improvements of their city, and to avail themselves as fully as they can of the powers with which the new poor-law has invested them.

As the subject of the health of towns is one to which the attention of government is specially to be called, it is with no little anxiety that we look forward to its deliberations; and we cherish the hope, that some decisive steps shall be taken to meet permanently the growing evils which we have just been considering. On this account, it is well for Glasgow that it possesses such a body of evidence on vital statistics, from which the true condition of its people can readily be arrived at, and the necessary conclusions drawn from them. It was with much pleasure and satisfaction that we observed that the Town Council of Edinburgh resolved to get tables of the mortality of the city and of Leith
drawn up, the want of them having been long felt and complain-
ed of. We have regularly published these bills since their com-
mencement, and we think it both a fortunate and a wise arrange-
ment, that they are compiled on the same principle as the classi-
fied nosology of the Registrar-General for England, which, in a 
recent number of this Journal, we took an opportunity of ex-
amining. It would be highly desirable that those of Glasgow 
were published on a uniform plan with this nosology; and we 
take this opportunity of urging upon our author Dr Watt, the 
consideration of the possibility of effecting this object. Could 
this be accomplished we would, as far as possible, be assisting 
in making up for the want of a legislative enactment for Scotland, 
similar to that for England, which, it is to be hoped, will one 
day be extended to this country, where it would be hailed by 
many as a national benefit.

Without presuming to dictate, we cannot conclude without ex-
pressing an earnest wish, that the authorities of Edinburgh will 
urge their Statistical Registrar Dr Stark, to publish an annual 
compilation, showing the results of his labours for each year, in 
addition to the usual monthly returns; as, by this means, a more 
condensed view of the sanitary condition of the inhabitants will 
be given, and it will materially increase the value of the vital sta-
tistics for the purposes of comparison.

Art. II.—Clinical Illustrations of the Diseases of India, as ex-
hibited in the Medical History of a body of European Soldiers 
for a series of years from their arrival in that country. By 
William Geddes, M. D., Member of the Royal Medical 
Society, Edinburgh, and late Surgeon of the Madras European 
Regiment. London, 1846. 8vo, pp. 492.

Among the European forces employed by the Honourable 
East India Company, there are at each of the three presidencies 
of Bengal, Madras, and Bombay, one European regiment of 
infantry, and a certain proportion of horse and foot artillery. 
These are recruited from time to time, as occasion, and the urgency 
of the service demands, by supplies from the British dominions. 
The European regiment of infantry on the Madras establish-
ment has existed as an embodied corps since the year 1748; and 
has now for a century formed a very important part of the mili-
tary force of the colonial government. The corps had been ac-
tively engaged, and had lost many men by disease and in action 
during the Burmese war; and the survivors had returned from 
Ava, and disembarked at Masulipatam, on the sea coast of the 
Bay of Bengal, in July 1826. During the ensuing two years