

duration of an attack of sickness be assumed to be $36\frac{1}{2}$ days, or the tenth part of a year, then 30 per cent. of this population are yearly attacked by sickness. In the *British Medical Almanac* for 1836, Mr. Farr has shown the above number of days to represent very nearly the usual duration of an attack of sickness in the hospitals of England. Out of 30 cases of sickness, there will then be $1\frac{1}{2}$ deaths, being 5 per cent., or 1 out of 20. In the hospitals of London the deaths to cases commonly amount to 12 per cent. among the in-patients, in the physicians' wards 24 per cent., and the surgeons' wards 8 per cent. If the out-patients had been included, the proportion of deaths to the total cases would probably not have materially differed from the above-mentioned proportion of one case in twenty.

"In order to determine the sanitary state of any population for one year, the elements to be observed are,—the number living, the number dying, the number attacked by sickness, and the mean number constantly sick, *all distinguished according to age*. When the third and fourth numbers have been observed, the mean duration of an attack of sickness at each age is known. A definite result cannot be obtained, unless two, at least, of the above four elements be simultaneously observed. It is not, however, indispensably necessary that *more* than two of these elements should be observed at one time. If, for example, from one observation we obtain the relation between the living and the dying,—from another, the relation between the dying and attacks of sickness,—and from a third observation, the relation between the numbers attacked and the numbers constantly sick, we shall then have all that is required to determine the mutual relation of all the four elements.

It appears from the investigations of Mr. E. that the deaths out of a given number living, increase at the rate of 34 per cent. every ten years between the ages of 15 and 55 years.

Mr. E. endeavours to prove that the mortality from cases of sickness is subject to a simple mathematical law, coincident with a similar law regulating mortality independent of sickness. "This theory of mortality consists in the assertion that the variations in the mortality from birth to the end of life are regulated by three constants respectively presiding over three well marked periods of human life,—before, during, and after the existence of the procreative power. According to this theory, when the deaths out of a given number living are known at any one age, the mortality at every age is also known. In all the ordinary tables of mortality there is represented a rate of mortality for every year of age, each rate having no specific connexion with the rate at any other age. Such tables will, therefore, consist of *one hundred* independent constants, one for each year of age. My theoretical tables are deduced from *one* constant, (determined by observation,) each of the other 99 numbers having a determined relation to this single constant. This theory will satisfactorily represent all well observed facts on human mortality; in many cases the accuracy of coincidence is astonishing, when the variable circumstances of the population observed are taken into consideration."

43. *Mortality in England*.—At the late meeting of the British Association at Bristol it was stated that the annual mortality in London was 1 in 40; and in all England, 1 in 59. Mr. EDMONDS, in a communication in the *Lancet*, (10 Sept.; 1836,) impugns this statement, and asserts the mortality in London to be 1 in 35, and in all England, 1 in 47.2.

MISCELLANEOUS.

44. *British Association for the Advancement of Science. Meeting at Bristol*.—This association has attracted much attention in this country, and the account of its annual meeting is looked for, by the cultivators of all the sciences, with much interest. The following account of the proceedings of the Medical Section of this Association will, therefore, we are confident, prove acceptable to our readers. For this account, we are indebted to our esteemed contemporary the *British and Foreign Medical Review*. It was prepared, the editors inform us, by two of their professional friends who had access to all the documents presented to the Section, and reliance may be given to its accuracy.

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