

fication, considered in Chaps. I.-IV., is too crude: if the values are merely classified as  $A$ 's or  $a$ 's according as they exceed or fall short of some fixed value, a large part of the information given by the original record is lost. A manifold classification, however (*cf.* Chap. V.), avoids the crudity of the dichotomous form, since the classes may be made as numerous as we please, and numerical measurements lend themselves with peculiar readiness to a manifold classification, for the class limits can be conveniently and precisely defined by assigned values of the variable. For convenience, the values of the variable chosen to define the successive classes should be equidistant, so that the numbers of observations in the different classes (the class-frequencies) may be comparable. Thus for measurements of stature the interval chosen for classifying (the class-interval, as it may be termed) might be 1 inch, or 2 centimetres, the numbers of individuals being counted whose statures fall within each successive inch, or each successive 2 centimetres, of the scale; returns of birth- or death-rates might be grouped to the nearest unit per thousand of the population; returns of wages might be classified to the nearest shilling, or, if desired to obtain a more condensed table, by intervals of five shillings or ten shillings, and so on. When the variation is discontinuous, as for example in enumerations of numbers of children in families or of petals on flowers, the unit is naturally taken as the class-interval unless the range of variation is very great. The manner in which the observations are distributed over the successive equal intervals of the scale is spoken of as the frequency-distribution of the variable.

3. A few illustrations will make clearer the nature of such frequency-distributions, and the service which they render in summarising a long and complex record:—

(a) Table I. In this illustration the mean annual death-rates, expressed as proportions per thousand of the population per annum, of the 632 registration districts of England and Wales, for the decade 1881-90, have been classified to the nearest unit; *i.e.* the numbers of districts have been counted in which the death-rate was over 12.5 but under 13.5, over 13.5 but under 14.5, and so on. The frequency-distribution is shown by the following table.

[TABLE I.