destroying or augmenting each other. The repeated measurement of a physical quantity, of the position of a fixed star; the arrangement of the bullet marks on a target; the grouping of the impressions made on the sand by a stone let fall vertically from the same point at a considerable height; even the countings by a large number of skilled persons of the same number or the estimates of the same distance or height of an object, of the weight of a heap of materials: all these statements will show a certain regularity around the mean number which we consider to be the most probable or correct one. Small errors will be more frequent than large ones; very large ones will be practically absent; and the mean will be the result of a mutual destruction or compensation of many small sources of error acting both ways. Mathematicians, from the time of Lagrange and Bernoulli, have tried to put into a mathematical formula this regularity in the distribution of error; and, since Laplace and Gauss approached the subject from different points of view, they have arrived at a definite analytical expression[1] for the distribution of errors of increasing magnitude around a fictitious centre or mean which is considered in every instance to be the most probable quantity. Practical trials on a very large scale have been made by Bessel, Encke, Quetelet, Faye, and others, and they have in every case yielded a satisfactory approximation to the figure given by the theoretical formula; so that at present little doubt as to its usefulness exists in the minds of those who employ it for the purposes of

[1] This is the well-known "curve of Error."