of a would conform to that average. But the number of shooters at each target being limited, never more than six, and sometimes not more than two or three (owing to our rejection of those scores where the arrows were not all delivered), the distribution of the hits on each results from the summation or superposition of several series of numbers graduated according to the values of so many different specified values of a as a modulus; the intermediate values being absent: and it by no means follows that such a series of sums will follow the law of gradation of either separately, or accommodate itself rigorously to an average modulus; any more than it would follow that a curve whose ordinate is the sum of the ordinates of (say), two concentric circles should itself be a circle. Suppose, for instance, we were to ground our calculation of an average *modulus* or value of a on a series of hits given by summing up each separate column of Table I. This would give the following series :—Gold, 862; Red, 1337; Blue, 1121; Black, 1042; White, 910, on a total number of 10,000 shots. And from this deducing five several values of a by the use of the formula of § (3), after the manner of those in Table III., we should obtain the series,

$$a = 2\cdot771,\ 3\cdot340,\ 3\cdot931,\ 4\cdot399,\ 4\cdot809,$$

which exhibits (only in a much more exaggerated form) precisely the sort of dilatation in question. This being then the tendency, in the case of each particular target, a similar tendency will of course be exhibited by the successive values resulting from a combination of any number.