Mr Galton found ready, or instituted himself, various countings of large numbers, which formed valuable material for his mathematical schemes, and which confirmed them in a surprising degree. Some very elaborate series of measurements of the varying dimensions of individual members in large crowds of animals were published by Prof. Weldon, whose monograph on Crabs will always remain an historical document.[1] It was noticed about the same time that the attempt to bring the measured deviations from the average into a symmetrical arrangement on the sides of more or less was impossible, and the fact had to be realised and mathematically expressed that special influences tending towards change on the intermixing of different varieties produced an asymmetrical distribution or frequency:[2] in fact, nature works with loaded dice, producing a bias in certain directions; this is the favour which, according to Darwin, Wallace, and Lamarck's ideas, must meet the better fitted individuals and exact from them a smaller tribute in the inevitable process of destruction and removal.

45. Prof. Pearson. The mathematical problem.

We owe it to Prof. Karl Pearson to have first grasped clearly and comprehensively the mathematical problem involved, and to have solved it in a manner useful for

[1] See the 'Proceedings of the Royal Society' since 1890, notably vol. lvii., 1895, p. 360 *sqq*.

[2] "An asymmetrical frequency curve may arise from two quite distinct classes of causes. In the first place the material measured may be heterogeneous, and may consist of a mixture of two or more homogeneous materials. . . . The second class of frequency curves arises in the case of homogeneous material when the tendency to deviation on one side of the mean is unequal to the tendency to deviation on the other side" (Karl Pearson, "On the Mathematical Theory of Evolution," 'Trans. Roy. Soc.,' 1895, p. 344).