

good of dogs. The "points" or peculiarities which constitute a dog a prize-winner are frequently transmitted to its offspring, and this causes such animals to be highly valued for stud purposes. One other illustration will suffice. The breed of cattle known as "short-horns" was developed by taking advantage of this law. Stockbreeders noticed that certain animals, presenting certain peculiarities, possessed certain advantages over their fellows which were valuable for market purposes. They selected male and female animals presenting the coveted peculiarities in the most marked degree procurable, and bred from them. From the progeny of those they again selected animals in which the prized peculiarities were most strongly marked, and bred from them. By repeating the operation sufficiently often a new breed of cattle was obtained, differing unmistakably from any previously known. Let us read the facts of nature in the light of this law.

For the sake of simplicity, let us imagine ourselves back at the first generation of living animal organisms. If the individuals composing it were allowed to breed indiscriminately, the second generation would, in all probability, be an exact reproduction of the first. But they were not allowed so to breed. The weakly, the malformed, the unfit, were killed off by the struggle for existence. The fit only were allowed to survive, and were thus, as it were, selected by nature for breeding purposes. It will now be seen that the second generation was not exactly a reproduction of the first, but, instead, was a reproduction of a selected portion of the first. The peculiarities which constituted fitness in the progenitors were reproduced in the offspring. The second generation was, therefore, an improvement on the first.

IMMENSE POWERS OF REPRODUCTION

Among the individuals of the second generation the struggle for existence was as keen as among those of the first. This was the result of the immense powers of reproduction possessed by those creatures. Few persons are aware of the extent of those powers even to-day. The common rabbit, if allowed to breed unchecked, would, in five years, eat up every blade of grass, and, in fact, every green thing in Britain, including the bark of trees. Without inflicting a scratch it would destroy all other land animals, man included, by starving them out. A single pair of rabbits will easily produce one hundred offspring within a year, and have been known to produce one hundred and sixty within that time. There is no more harmless animal than the sheep, but if allowed to breed unchecked, it would in a few years cover the whole land with its progeny. Among animals in a lower stage of evolution the reproductive power sometimes passes all understanding. The female cod will lay 9,000,000 eggs in a season, and experiments made in Trinity Bay, Newfoundland, prove that practically all those may be hatched out successfully. During five years the hatchery men placed in certain bays of that island the almost inconceivable number of 2,500,000,000 young lobsters, all the produce of a small quantity of spawn. The reproductive powers of the salmon are so great that it has been calculated that six couples would readily produce annually as many