

of fowls, by attending to the form of the comb, or to the plume of feathers on the head. By attending to the external form of the pouter-pigeon, he has enormously increased the size of the œsophagus, and has added to the number of the ribs, and given them greater breadth. With the carrier-pigeon, by increasing through steady selection the wattles on the upper mandible, he has greatly modified the form of the lower mandible; and so in many other cases. Natural species, on the other hand, have been modified exclusively for their own good, to fit them for infinitely diversified conditions of life, to avoid enemies of all kinds, and to struggle against a host of competitors. Hence, under such complex conditions, it would often happen that modifications of the most varied kinds, in important as well as in unimportant parts, would be advantageous or even necessary; and they would slowly but surely be acquired through the survival of the fittest. Still more important is the fact that various indirect modifications would likewise arise through the law of correlated variation.

Domestic breeds often have an abnormal or semi-monstrous character, as amongst dogs, the Italian greyhound, bulldog, Blenheim spaniel, and bloodhound,—some breeds of cattle and pigs,—several breeds of the fowl,—and the chief breeds of the pigeon. In such abnormal breeds, parts which differ but slightly or not at all in the allied natural species, have been greatly modified. This may be accounted for by man's often selecting, especially at first, conspicuous and semi-monstrous deviations of structure. We should, however, be cautious in deciding what deviations ought to be called monstrous: there can hardly be a doubt that, if the brush of horse-like hair on the breast of the turkey-cock had first appeared in the domesticated bird, it would have been considered as a monstrosity; the great plume of feathers on the head of the Polish cock has been thus designated, though plumes are common on the heads of many kinds of birds; we might call the wattle or corrugated skin round the base of the beak of the English carrier-pigeon a monstrosity, but we do not thus speak of the globular fleshy excrescence at the base of the beak of the *Carpophaga oceanica*.

Some authors have drawn a wide distinction between