

feet too short, on an average by a little above the tenth of an inch (viz.  $\cdot 107$ ); and five specimens have their feet on an average a very little too long, namely, by  $\cdot 07$  of an inch. But some of these latter cases can be explained; for instance, with Pouters the legs and feet are selected for length, and thus any natural tendency to a diminution in the length of the feet will have been counteracted. In the Swallow and Barb, when the calculation was made on any standard of comparison besides the one used (viz. length of body from base of beak to oil-gland), the feet were found to be too small.

In the second table we have eight birds, with their beaks much longer than in the rock-pigeon, both actually and proportionally with the size of body, and their feet are in an equally marked manner longer, namely, in proportion, on an average by  $\cdot 29$  of an inch. I should here state that in Table I. there are a few partial exceptions to the beak being proportionally shorter than in the rock-pigeon: thus the beak of the English Frill-back is just perceptibly longer, and that of the Bussorah Carrier of the same length or slightly longer, than in the rock-pigeon. The beaks of Spots, Swallows, and Laughters are only a very little shorter, or of the same proportional length, but slenderer. Nevertheless, these two tables, taken conjointly, indicate pretty plainly some kind of correlation between the length of the beak and the size of the feet. Breeders of cattle and horses believe that there is an analogous connection between the length of the limbs and head; they assert that a race-horse with the head of a dray-horse, or a grey-hound with the head of a bulldog, would be a monstrous production. As fancy pigeons are generally kept in small aviaries, and are abundantly supplied with food, they must walk about much less than the wild rock-pigeon; and it may be admitted as highly probable that the reduction in the size of the feet in the twenty-two birds in the first table has been caused by disuse,<sup>38</sup> and that this reduction has acted by correlation on the beaks of the great majority of the birds in Table I. When, on the other hand, the beak has been much elongated by the continued selection of successive slight increments of length, the feet by correlation have likewise become much elongated in comparison with those of the wild rock-pigeon, notwithstanding their lessened use.

As I had taken measures from the end of the middle toe to the heel of the tarsus in the rock-pigeon and in the above thirty-six birds, I have made calculations analogous with those above given, and the result is the same.—namely, that in the short-beaked breeds, with equally few exceptions as in the former case, the middle toe conjointly with the tarsus has decreased in length; whereas in the long-beaked breeds it has increased in length, though not quite so uniformly as in the former case, for the leg in some varieties of the Runt varies much in length.

<sup>38</sup> In an analogous, but converse, manner, certain natural groups of the Columbidae, from being more terrestrial in their habits than other

allied groups, have larger feet. See Prince Bonaparte's 'Coup-d'œil sur l'Order des Pigeons.'