CHAP. V.

and small-sized breeds, and in all the scapula is proportionally shorter (taking the same standard as before) than in the wild rockpigeon. The reduction in length on an average is very nearly onefifth of an inch, or about one-ninth of the length of the scapula in the rock-pigeon.

The arms of the furcula in all the specimens which I compared, diverged less, proportionally with the size of body, than in the rockpigeon; and the whole furculum was proportionally shorter. Thus in a Runt, which measured from tip to tip of wings $38\frac{1}{2}$ inches, the furculum was only a very little longer (with the arms hardly more divergent) than in a rock-pigeon which measured from tip to tip $26\frac{1}{2}$ inches. In a Barb, which in all its measurements was a little larger than the same rock-pigeon, the furculum was a quarter of an inch shorter. In a Pouter, the furculum had not been lengthened proportionally with the increased length of the body. In a Shortfaced Tumbler, which measured from tip to tip of wings 24 inches, therefore only $2\frac{1}{2}$ inches less than the rock-pigeon, the furculum was barely two-thirds of the length of that of the rock-pigeon.

We thus clearly see that the sternum, scapulæ, and furculum are all reduced in proportional length; but when we turn to the wings we find what at first appears a wholly different and unexpected result. I may here remark that I have not picked out specimens, but have used every measurement made by me. Taking the length from the base of beak to the end of the tail as the standard of comparison, I find that, out of thirty-five birds of various breeds, twenty-five have wings of greater, and ten have them of less proportional length, than in the rock-pigeon. But from the frequently correlated length of the tail and wing-feathers, it is better to take as the standard of comparison the length from the base of the beak to the oil-gland; and by this standard, out of twentysix of the same birds which had been thus measured, twentyone had wings too long, and only five had them too short. In the twenty-one birds the wings exceeded in length those of the rock-pigeon, on an average, by 13 inch; whilst in the five birds they were less in length by only 8 of an inch. As I was much surprised that the wings of closely confined birds should thus so frequently have been increased in length, it occurred to me that it might be solely due to the greater length of the wing-feathers; for this certainly is the case with the Jacobin, which has wings of unusual length. As in almost every case I had measured the folded wings, I subtracted the length of