

He well describes the peculiarities of this protuberance; he attended also to the effects of the modified shape of the brain on the intellect of these birds, and disputes Pallas' statement that they are stupid. He then expressly remarks that he never observed this protuberance in male fowls. Hence there can be no doubt that this extraordinary character in the skulls of Polish fowls was formerly in Germany confined to the female sex, but has now been transferred to the males, and has thus become common to both sexes.

External Differences, not connected with the Sexes, between the Breeds and between individual Birds.

The size of the body differs greatly. Mr. Tegetmeier has known a Brahma to weigh 17 pounds; a fine Malay cock 10 pounds; whilst a first-rate Sebright Bantam weighs hardly more than 1 pound. During the last 20 years the size of some of our breeds has been largely increased by methodical selection, whilst that of other breeds has been much diminished. We have already seen how greatly colour varies even within the same breed; we know that the wild *G. bankiva* varies slightly in colour; we know that colour is variable in all our domestic animals; nevertheless some eminent fanciers have so little faith in variability, that they have actually argued that the chief Game sub-breeds, which differ from each other in nothing but colour, are descended from distinct wild species! Crossing often causes strange modification of colour. Mr. Tegetmeier informs me that when buff and white Cochins are crossed, some of the chickens are almost invariably black. According to Mr. Brent, black and white Cochins occasionally produce chickens of a slaty-blue tint; and this same tint results, as Mr. Tegetmeier tells me, from crossing white Cochins with black Spanish fowls, or white Dorkings with black Minorcas.⁵⁹ A good observer⁶⁰ states that a first-rate silver-spangled Hamburgh hen gradually lost the most characteristic qualities of the breed, for the black lacing to her feathers disappeared, and her legs changed from leaden-blue to white: but what makes the case remarkable is, that this tendency ran in the blood for her sister changed in a similar but less strongly marked manner; and chickens produced from this latter hen were at first almost pure white, "but on moulting acquired black colours and some spangled feathers with almost obliterated markings;" so that a new variety arose in this singular manner. The skin in the different breeds differs much in colour, being white in common kinds, yellow in Malays and Cochins, and black in Silk fowls; thus mocking,

⁵⁹ 'Cottage Gardener,' Jan. 3rd, 1860, p. 218.

⁶⁰ Mr. Williams, in a paper read

before the Dublin Nat. Hist. Soc., quoted in 'Cottage Gardener,' 1856, p. 161.