

A series may be formed commencing with the black-boned Silk fowl, which has a very small crest with the skull beneath penetrated only by a few minute orifices, but with no other change in its structure; and from this first stage we may proceed to fowls with a moderately large crest, which rests, according to Bechstein, on a fleshy mass, but without any protuberance in the skull. I may add that I have seen a similar fleshy or fibrous mass beneath the tuft of feathers on the head of the Tufted duck; and in this case there was no actual protuberance in the skull, but it had become a little more globular. Lastly, when we come to fowls with a largely developed crest, the skull becomes largely protuberant and is perforated by a multitude of irregular open spaces. The close relation between the crest and the size of the bony protuberance is shown in another way; for Mr. Tegetmeier informs me that if chickens lately hatched be selected with a large bony protuberance, when adult

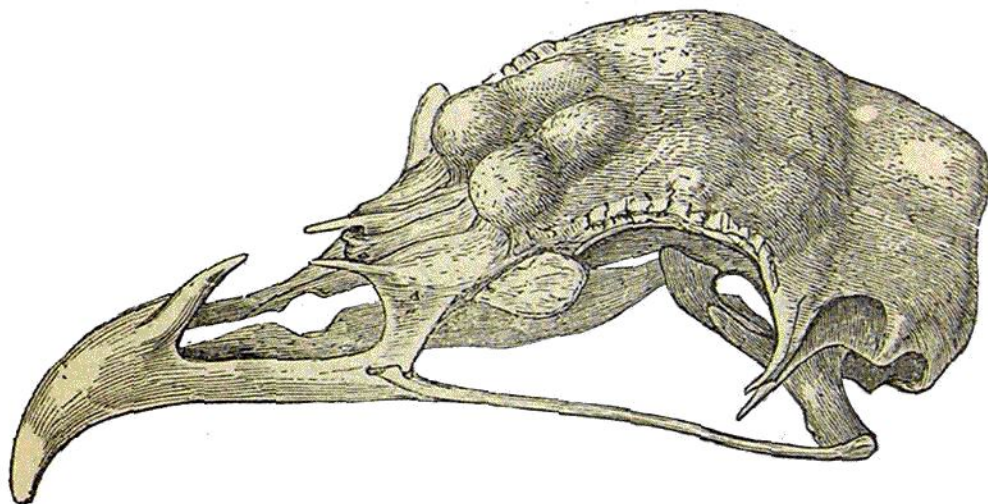


Fig. 36.—Skull of Horned Fowl, of natural size, viewed from above, a little obliquely. (In the possession of Tegetmeier.)

they will have a large crest. There can be no doubt that in former times the breeder of Polish fowls attended solely to the crest, and not to the skull; nevertheless, by increasing the crest, in which he has been wonderfully successful, he has unintentionally made the skull protuberant to an astonishing degree; and through correlation of growth, he has at the same time affected the form and relative connexion of the premaxillary and nasal bones, the shape of the orifice of the nose, the breadth of the frontal bones, the shape of the post-lateral processes of the frontal and squamosal bones, the direction of the axis of the bony cavity of the ear, and lastly the internal configuration of the whole skull together with the shape of the brain.

*Vertebrae*.—In *G. bankiva* there are fourteen cervical, seven dorsal with ribs, apparently fifteen lumbar and sacral, and six caudal