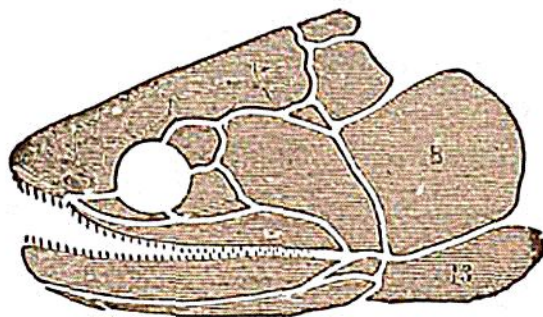


been also present in the *Diplopterus*, though my specimens fail to show them. The general arrangement was of much elegance, — an elegance, however, which, in the accompanying restorations, the dislocation of the free plates, drawn apart to indicate their detached character, somewhat tends to obscure. But the position of the eyes must have imparted to the animal a sinister reptile-like aspect. The profile, (fig. 15,) the

Fig. 15.



HEAD OF OSTEOLEPIS, SEEN IN PROFILE.

result, not of a chance-drawn outline, arbitrarily filled up, but produced by the careful arrangement in their proper places of actually existing plates, serves to show how perfectly the dermo-skeletal parts of the creature were developed. Some of the animals with which we are best acquainted, if represented by but their cuticular skeleton, would appear simply as sets of hoofs and horns. Even the tortoise or pangolin would present about the head and limbs their gaps and missing portions; but the dermo-skeleton of the *Osteolepis*, composed of solid bone, and burnished with enamel, exhibited the outline of the fish entire, and, with the exception of the eye, the filling up of all its external parts. Pre-

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their narrow under-edges, and have nearly fallen into the line of the sub-opercular plates, (13, 13.)