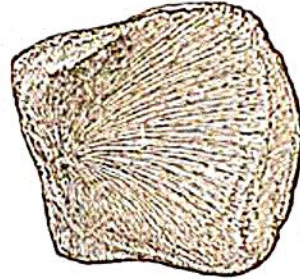


resents the fragment found by Mr. Dick. The intermaxillary bones, like the dermal plates of the lower jaw, were studded by star-like tubercles, and bristled thickly along their lower edges with the ichthyic teeth, flanked by teeth of the reptilian character. The opercles of the animal consisted, as in the sturgeon, of single plates (fig. 35) of great massiveness and size, thickly tubercled outside, without trace of joint or suture, and marked on their under surface by channelled lines, that radiate, as in the other plates, from the centre of ossification. That space along the nape which intervened between the opercles, was occupied, as in the *Dipterus* and *Diplopterus*, by three plates, which covered rather the anterior portion of the body than the posterior portion of the head, and which, in the restoration of *Osteolepis*, (fig. 13,) appear as the plates, 9, 9, 9. I can say scarce any thing regarding the lateral plates which lay between the intermaxillaries and the cranial buckler, and which exist in the *Osteolepis*, fig. 13, as the plates 2, 4, 5, 6, and 7; nor do I know how the snout terminated, save that in a very imperfect specimen it exhibits, as in the *Diplopterus* and *Osteolepis*, a rounded outline, and was set with teeth.

Fig. 35.



INNER SURFACE OF OPER-
CULUM OF ASTEROLEPIS.
(One fifth nat. size, linear.)

That space comprised within the arch of the lower jaws, in which the hyoid bone and branchiostegous rays of the osseous fishes occur, was filled by a single plate of great size and strength, and of singular form, (fig. 36;) and to this plate, existing as a steep ridge running along the centre of the interior surface, and thickening into a massy knob at the anterior termination, that nail-shaped organism, which I have described