resulted, in several instances, in the preservation, though always in a greatly compressed state, of the cranium itself, and the consequent exhibition of two very important cranial cavities, the brain-pan proper, and the passage through which the spinal cord passed into the brain. In the sturgeon the brain occupies nearly the middle of the head; and there is a considerable part of the occipital region traversed by the spine in a curved channel, which, seen in profile, appears wide at the nape, but considerably narrower where it enters the brain-pan, and altogether very much resembling the interior of a miniature hunting-horn. And such exactly was the arrangement of the greater cavities in the head of the Dipterus. The portion of the cranium which was overlaid by what may be regarded as the occipital plate was traversed by a cavity shaped like a Lilliputian bugle-horn; while the hollow in which the brain was lodged lay under the two parietal plates, and the little elliptical plate in the centre. The accompanying print, (fig. 22,) though of but slight show, may be regarded by the



LONGITUDINAL SECTION OF HEAD OF DIPTERUS

reader with some little interest, as a not inadequate representation of the most ancient brain-pan on which human eye has yet looked, — as, in short, the type of cell in which, myriads of ages ago, in at least one genus, that mysterious substance was lodged, on whose place and development so very much in the scheme of creation was destined to depend. The specimen from which the figure is taken was laid open laterally by chance exposure to the waves on the shores of Thurso;