found to present somewhat the appearance of the outer side of the deep-sea cockle, with its strongly marked ribs and cha iels, the point in which the posterior point terminates representing the hinge. (See Plate VI., fig. 2.) The bones of the head, enamelled like the scales, are carved into jagged inequalities, somewhat resembling those on the skin of the shark, but more irregular. The sculpturings seem intended evidently for effect. To produce harmony of appearance between the scaly coat and the enamelled occipital plates of bone, the surfaces of the latter are relieved, where they border on the shoulders, into what seem scales, just as the dead walls of a building are sometimes, for the sake of uniformity wrought into blind windows. The enamelled rays of the fins are finished, if I may so speak, after the same style. They lie thick upon one another as the fibres of a quill, and like these, too, they are imbricated on the sides, so that the edge of each seems jagged into a row of prickles. (See Plate VI., fig. 3.) The jaws of the Cheirolepis were armed with thick'yset sharp teeth, like those of its contemporaries, the Osteolepis and Diplopterus.*

^{*} There have been five species of Cheirolepis enumerated — C. Cummingia, C. splendens, C. Traillii, C. unilateralis and C. Urague. The Cheirolepis splendens and C. unilateralis Agassiz regards doubtfu.