

together, not like slates on a modern roof, but like hewn stones on an ancient one. There ran on the upper surface of each, along the anterior side and higher end, a groove of a depth equal to half the thickness of the scale; and along the posterior side and lower end, on the under surface, a sort of bevelled chamfer, which, fitting into the grooves of the scales immediately behind and beneath it, brought their surfaces to the same line, and rendered the shining coverings of these strongly armed ganoids as smooth and even as those of the most delicately coated fishes of the present day. In the scales of the *Celacanth* family the arrangement was different. Though exceedingly massive in some of the genera, they were imbricated, like those of the *Pangolins*; and were chiefly remarkable for the combination of contrivances which they exhibited for securing the greatest possible amount of strength from the least possible amount of thickness. The

Fig. 99.



SCALE OF *HOLOPTYCHIVS GIGANTEUS*.  
(Nat. size.)  
(*Old Red Sandstone.*)