

almost wholly of fishes (Figs. 351, 352). Among these the Pteraspis survived for a while from Upper Silurian times. With it there lived other forms (Scaphaspis, Holaspis) and genera of the allied family of the Cephalaspidæ. The ancient order of Dipnoi, which still survives in a few forms in some African and Australian rivers (Protopterus, Ceratodus), was represented in the lakes of the Lower Old Red Sandstone by the abundant Dipterus, and in those of the Upper by Phaneropleuron. But the ganoids were the most varied order in these waters, being represented by a number of



Fig. 352.  
*Pterichthys cornutus*, Ag.

families. Besides those which lingered on from the Upper Silurian period there now appeared the striking group of the Asterolepids of which *Asterolepis* and *Pterichthys* (Fig. 352), are characteristic genera. *Bothriolepis* appears to be confined to the Upper Old Red Sandstone, where it sometimes occurs with other genera crowded together on the surfaces of the layers of stone, as if the fishes had been killed suddenly and had been covered over with sediment where they died. The family of the Coccoosteids includes the type genus *Coccosteus* and the gigantic *Homosteus* (*Asterolepis*). This

latter form appears to have been the largest fish of the period in the European area, its massive cuirass-like head-shield sometimes measuring twenty inches in length by sixteen in breadth. The sub-order of Acanthodians, marked by their strong fin-spines, attained a great development in the waters of this period; among their genera are *Mesacanthus* (*Acanthodes*), *Cheiracanthus*, *Ischnacanthus* (*Diplacanthus*), *Rha-*