

dinacanthus. The sub-order Crossopterygidæ, so remarkable for the central scaly lobe of their fins, and represented at the present time by Polypterus, swarmed in the waters, some of the most characteristic genera being Tristichopterus, Gyroptichius, Glyptolepis, Osteolepis, Thursius, and Diplopterus which are found in the Lower Old Red Sandstone of Scotland, and Holoptychius which is a characteristic fish of the Upper division of the system. Of the sturgeon tribe there were some small representatives belonging to the genus Cheirolepis.<sup>161</sup> The Dinichthys, already referred to as occurring in the Devonian rocks of North America, was probably one of the largest and most formidable of these early fishes. Its head alone incased in strong plates attained a length of 3 feet, and was armed with a powerful apparatus of teeth.

A few eurypterids occur, especially of the genera Euryp-terus and Pterygotus (Fig. 348). The species of the former are small, but one of the latter, *P. anglicus*, is found in Scotland, which must have had a length of five or six feet.

## § 2. Local Development

**Britain.**—Murchison, who strongly advocated the opinion that the Old Red Sandstone and Devonian rocks represent different geographical conditions of the same period, and who had with satisfaction seen the adoption of the Devonian classification by Continental geologists, endeavored to trace in the Old Red Sandstone of Britain a threefold division, like that which had been accepted for the Devonian system. He accordingly arranged the formations as in the subjoined table:

---

<sup>161</sup> Traquair, *Geol. Mag.* 1888, p. 507. M. Lohest, *Ann. Soc. Geol. Belg.* xv. 1888, p. 112. Whiteaves, *Canad. Nat.* x. Nos. 1, 2, 1881.