

with the plants and crustaceans previously described; an assemblage of fossils indicating a lacustrine or estuary formation. Similar teeth have been found in the cannel-coal of Fifeshire (*Ly.* II. p. 110.).

In the Devonian strata the remains of several large sauroid fishes occur. Of these, one of the most remarkable is the genus *Holoptychus*, distinguished by the peculiar structure of the scales; the enamelled surface of which is covered by undulated furrows. The whole body is covered by thick enamelled scales of this kind. A splendid specimen, twenty-eight inches long, and twelve wide, is figured *Murch. Sil. Syst.* pl. 2^{bis}. Scales have been found exceeding three inches in length, by two and a half in width; which must have belonged to a fish of great magnitude (*Ly.* II. p. 149, fig. 331.).

DENDRODUS. Pl. VI. fig. 8.—In the Old Red sandstone of Elgin, at a quarry at Scat-cray, some teeth have been found with a very remarkable structure; they are referred by Professor Owen to a genus of sauroid fishes, which, from the dendritical or arborescent disposition of the calcigerous tubes, he has named *Dendrodus*. The teeth are of a conical form, slightly curved, and solid throughout. They are finely striated longitudinally, on the external surface, and have two opposite vertical ridges; the base is rough, and its margin rounded, as if for attachment to a shallow socket. The largest specimen is one and a half inch in length. In thin sections, viewed microscopically by transmitted light, there