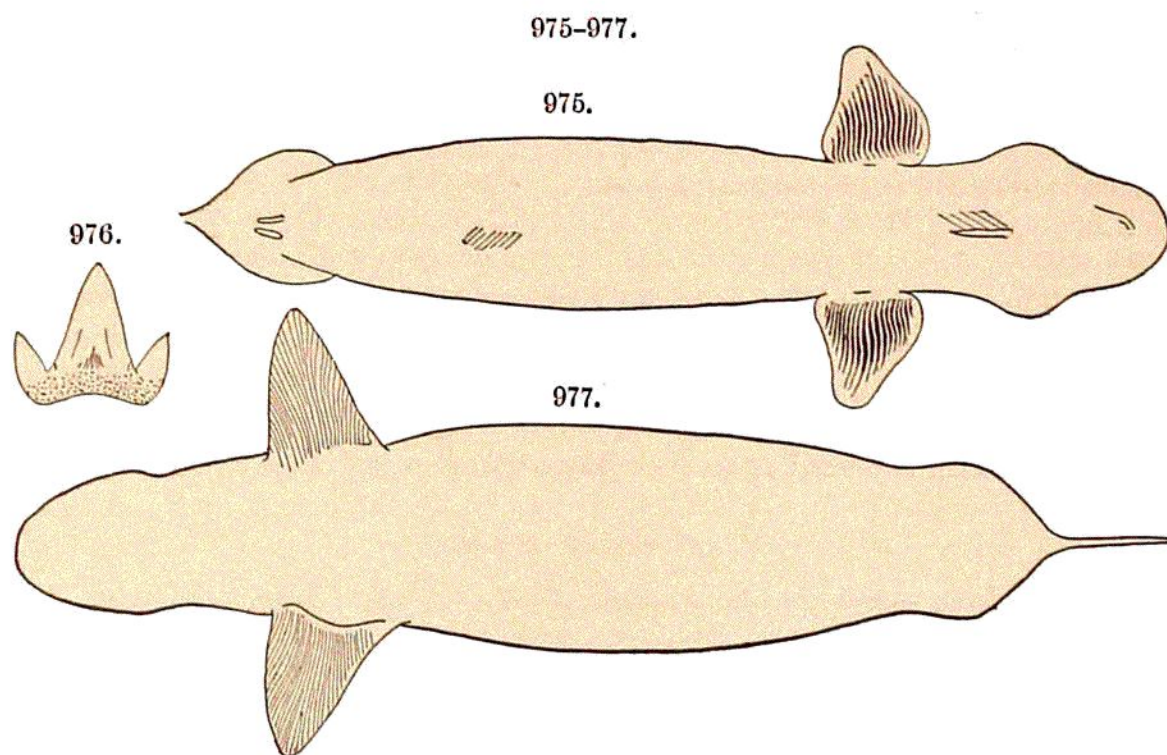


pertain, were described from specimens found in the Cleveland shale of Ohio. Fig. 965 shows the form of the upper and lower jaws in natural position of *Dinichthys Hertzeri*. To represent the natural size, the figure should have a breadth of 45 inches. Fig. 966 is the ventral shield. It resembles that of *Coccosteus*, and also that of *Bothriolepis*. A still larger species is the *Titanichthys Clarki* of Newberry, in which the head was four feet or more broad, the lower jaw a yard long. This jaw was shaped posteriorly like an oar blade, and anteriorly was turned upward like a sled-runner. *Dinichthys Gouldi* of Newberry had enormous eyes surrounded by sclerotic plates. The *Phaneropleuron* of Whiteaves (Fig. 969) is a smaller Dipnoan from the Upper Devonian at Scaumenac Bay, New Brunswick. Figs. 967, 968 represent the palate teeth of two Dipnoans; such teeth, and the brachiate pectoral and ventral fins are special Dipnoan characteristics.



SELACHIANS. — 975, *Cladodus sinuatus* ( $\times \frac{1}{2}$ ); 976, tooth of *C. Clarki*; 977, *C. Fylei* ( $\times \frac{1}{2}$ ). Figs. 975, 976, Claypole; 977, Newberry.

Fig. 970 represents a Ganoid of Crossopterygian type — as indicated in this figure by the thickened finger-like medial portion of the pectoral fin — a structure better exemplified in Fig. 969. A scale of a related genus, *Holoptychius*, is represented, of natural size, in Fig. 972, and a tooth, referred to the same genus by Leidy, in Fig. 973. (See also page 625 for a figure of a nearly complete specimen of another species.) The genus *Eusthenopteron* of Whiteaves (Fig. 971) has special interest on account (as the name implies) of the supports with which the fins are provided, answering to the pectoral and pelvic arches of higher Vertebrates — *a*, the pectoral, and *b*, the pelvic (only two bones of which are preserved); and also the similar and even larger supports for the anal fin at *c* and for the posterior dorsal at *d*, with a