afforded Newberry nine species of Eurylepis, three of Cælacanthus, and a Palæoniscus, besides some Selachian remains.

A Selachian tooth from Illinois, related to the *Petalodus* from the Subcarboniferous, is represented of reduced size in Fig. 1102. Part of the



GANOIDS. — Fig. 1100, Eurylepis tuberculata; 1101, Cœlacanthus elegans. SELACHIANS. — Fig. 1102, Petalodus destructor; 1103, fin-spine; 1104 a, b, dermal tubercles of Petrodus occidentalis. Figs. 1100-1102, Newberry; 1103, F. H. Bradley.

lower jaw of a Cestraciont Shark, named by Newberry and Worthen after Agassiz, is represented of reduced size in Fig. 1105; the actual length of the specimen was nearly 24 inches, and the estimated length of the Shark



CESTRACIONT SHARK. - Agassizodus variabilis (X3). Newberry and Worthen.

15 to 20 feet. The teeth of the species have been found in the Upper Coalmeasures of Kansas, Illinois, and Iowa. A mouth so paved was a most effective crushing organ.

Fin-spines of Sharks occur of many kinds and sizes. A portion of a small one is represented in Fig. 1103. The bony tubercles, Figs. 1104 a, b, were found with the spine, and are supposed to be from the surface of the body of the same Fish.

Large spines of species of *Edestus*, having one edge armed with great teeth, as in Figs. 1106, 1107, have been found in the Coal-measures of Indiana, Illinois, and Arkansas. In *E. minor* of Newberry, Fig. 1107, the teeth are nearly two inches long, and in *E. giganteus* Newberry, Fig. 1106,