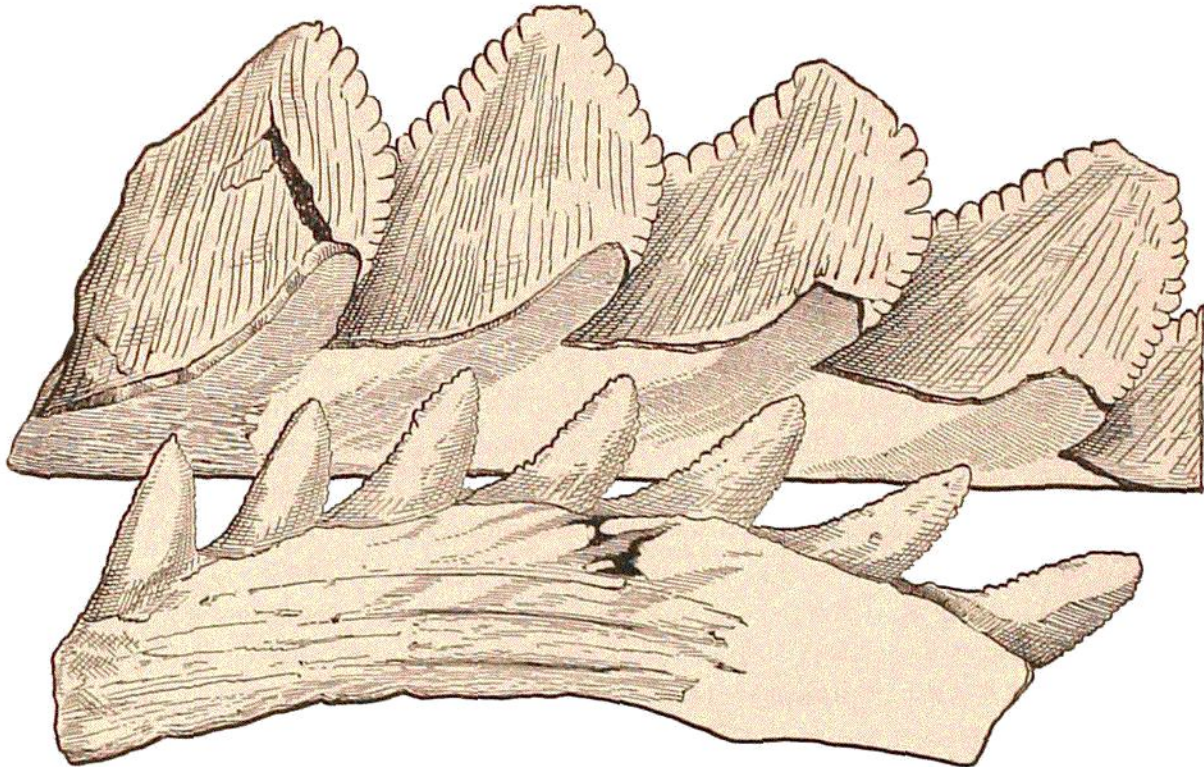


nearly three long and two broad. The figure of the latter represents, reduced, only a small portion of the specimen; as figured by Newberry the spine has five teeth; when entire it was probably 18 inches in length, and occupied, along the body of the Shark, according to Newberry, the place of the posterior dorsal fin. It could thus rip open its prey when swimming underneath it, and slash effectually in defense.

Amphibians. — Besides footprints, which thus far are the only evidence of Amphibians in the Subcarboniferous, the Coal-measures have afforded

1106-1107.



FIN-SPINES OF SHARKS. — Fig. 1106, *Edestus giganteus*; 1107, *E. minor* (each $\times \frac{1}{2}$). Newberry.

remains of skeletons. They show that many of the earlier kinds were much like their predecessors, the higher Ganoid and Dipnoan Fishes, in having a bony cranium instead of one with large open spaces and little bone, like the modern Frog; and in allusion to the *well-roofed* head, they are called *Stegocephs* by Cope. Among modern Amphibians only some snake-like kinds have a similar cranium. They are also like the Fishes in their teeth, the most of them having the enamel inflexed along the surface grooves, producing the Labyrinthine texture which suggested for the species the name of *Labyrinthodonts*. Further, they generally have biconcave vertebræ, like Fishes. Moreover, the Amphibians occur of all grades from (1) Snake-like forms without limbs, to (2) those with feeble swimming organs; and thence to (3) the four-limbed species of various sizes, up to kinds as large and formidable as Alligators. It is interesting to note also that the feet have five toes (or less), and the fingers the modern number of bones.

The Coal-measures of Ohio, at Linton, afforded Newberry numerous