

fossil remains of *Caithness* referred to this family are those of an extinct family of Fishes.¹ The oldest deposits in which true Trionychidæ have been observed are the green sands of New Jersey, according to Dr. Leidy.² Professor Owen describes and illustrates very fully a number of tertiary species, which are the oldest he has seen.³

I. *AMYDA*, *Schw.* (Ag.)

The head is long, low, narrow and pointed in front, and the angle of the front part with the brain-box comparatively small. The nasal region is compressed sidewise, and drawn out long and narrow. The nostrils are cut in a peculiar way, and are not subdivided on each side by an internal ridge, as is the case in *Aspidonectes* and *Platypeltis* (Pl. 6, fig. 2a, 3a, 4a, and 7); they lie rather under than at the tip of the proboscis, are widely apart, broader below, and converge and taper upwards. The outer surface of the maxillaries curve inward under the eyes and nose, so that the mouth is small and the nasal region rounded. On account of the compression spoken of above, the sides of the mouth are concave outward from the hind to the front end, and that part of it which is under the nose is narrow and long. The alveolar edge of the upper jaw is turned down farthest at the front end, and less and less backward, fading out before reaching the hind end of the maxillaries; it is sharp in front, and toothed near the hind end; but the teeth, though quite prominent in the bill, are hardly perceptible in the jaw itself. The horizontal alveolar surface is narrow; it is widest near the hind end, curves down under the eye, and up again under the nose. There is in this genus a large opening in the skull between the maxillaries and the vomer. The lower jaw is also compressed sidewise and drawn out long and narrow under the nose, and its sides are concave outward. Its lower edges meet from the two sides where the compression begins, and the narrowed part lies at the sides of the symphysis, and the latter is carried far forward in rising from the lower to the upper edge of the jaw. The long, narrow alveolar surface thus formed at the symphysis descends inward from the outer edge, slightly at the front end, more and more backward, and from the symphysis to the angle of the jaw that surface is very narrow and almost vertical. The alveolar edges are sharp all round. Thus we have in this genus a small

¹ See Part II., Chap. 1, Sect. 17, p. 303.

² Proc. Ac. Nat. Sc. Phil. vol. 5, 1851, p. 329, and vol. 8, 1856, p. 73.

³ R. Owen and T. Bell, Fossil Reptilia of the London Clay, in Trans. of the Palæont. Society, London, 1849, p. 46.