

ments of coprolitic matter. I have also observed in it a few scales having the peculiar one-sided form of those of *Archegosaurus* and *Dendrerpeton*; and which I may possibly describe and figure, among miscellaneous indications of unknown creatures, in the end of this memoir.

It is evident that the "Holing stone" indicates one of those periods in which the Albion coal area, or a large part of it, was under water, probably fresh or brackish, as there are no properly marine shells in this, or any of the other beds of this coal series. We may then imagine a large lake or lagune, loaded with trunks of trees and decaying vegetable matter, having in its shallow parts, and along its sides, dense brakes of *Calamites*, and forests of *Sigillaria*, *Lepidodendron*, and other trees of the period, extending far on every side as damp pestilential swamps. In such a habitat, uninviting to us, but no doubt suited to *Baphetes*, that creature crawled through swamps and thickets, wallowed in flats of black mud, or swam and dived in search of its finny prey. It was, in so far as we know, the monarch of these swamps, though there is evidence of the existence of similar creatures of this type quite as large in other parts of the Nova Scotia coal field; but my notice of these I defer for the present, in hope that additional facts may be discovered in respect to them. If this should not be the case they will be noticed among miscellaneous remains in the sequel.

EXPLANATION OF PLATE II.

Baphetes planiceps.

Fig. 1.—Skull seen from below, half natural size.

" 2.—Portion of bone of skull magnified, to show vascular canals and bone-cells.

" 3.—One of the largest teeth, natural size.

" 4.—Sculpturing of skull, and margin of orbit, natural size.

" 5.—Fragment of maxillary bone, with four teeth of the outer series, and one of the inner large teeth,—the points of the teeth restored from fragments in other specimens.

" 6 and 7.—Sections of a tooth magnified: 6, upper part; 7, lower part, with convoluted dentine.

" 8.—Section of bone in Fig. 2, more highly magnified.

" 9 and 10.—Sections of tooth represented in Figs. 6 and 7, natural size.

" 11.—Dermal scale found with remains of *Baphetes*.

" 12.—Scapular or sternal bone found with remains of *Baphetes*.

" 13.—Longitudinal section of the middle of the same, showing the manner in which it has been crushed.

(To be continued.)