

Article XXXVIII. — NOTE ON SOME WORM (?) BUR-
ROWS IN ROCKS OF THE CHEMUNG GROUP
OF NEW YORK.

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Arenicolites chemungensis, sp. nov.

PLATE XIV, FIGS. 1 AND 2.

While working up the fossils of the Potsdam sandstone for the Wisconsin Report, in 1876 and 1877, there came into my hands a number of specimens representing the so-called *Scolithus*, which I described as *Arenicolites woodi* in Volume IV of Prof. T. C. Chamberlain's Report of 1882. One block of that series showed the original surface of the mud-covered sandstone with the burrows of the worm (?) which made the perforations, together with the little hillocks surrounding the outlet of the burrows, just as the animal built them up by its castings during life; proving pretty conclusively that it must have been a marine worm-like animal which caused the perforations.

Among the geological specimens of the Chemung Group in the Museum, from near Bath, Steuben Co., New York, I find an example so nearly resembling that figured in the Wisconsin Report above referred to, that there can be no question as to the similarity of its origin.

On this Chemung specimen the hillocks are somewhat larger and the funnels more distinct, being generally 5 or 6 mm. in diameter, and the walls surrounding them about 2 mm. thick, while some of the hillocks are much larger and higher and appear to have collapsed from the semifluidity of the sand, closing up the top of the burrow so as to show a mere slit in its place. In a vertical section of the rock the burrows are mostly flattened and often curved as if the sand below prevented, by its compactness, the penetration of the animal below a given depth. Or it may have been that the animal was allied to the recent *Chaetopterus* of our southern coasts, which builds a parchment-like tube, with two openings of a

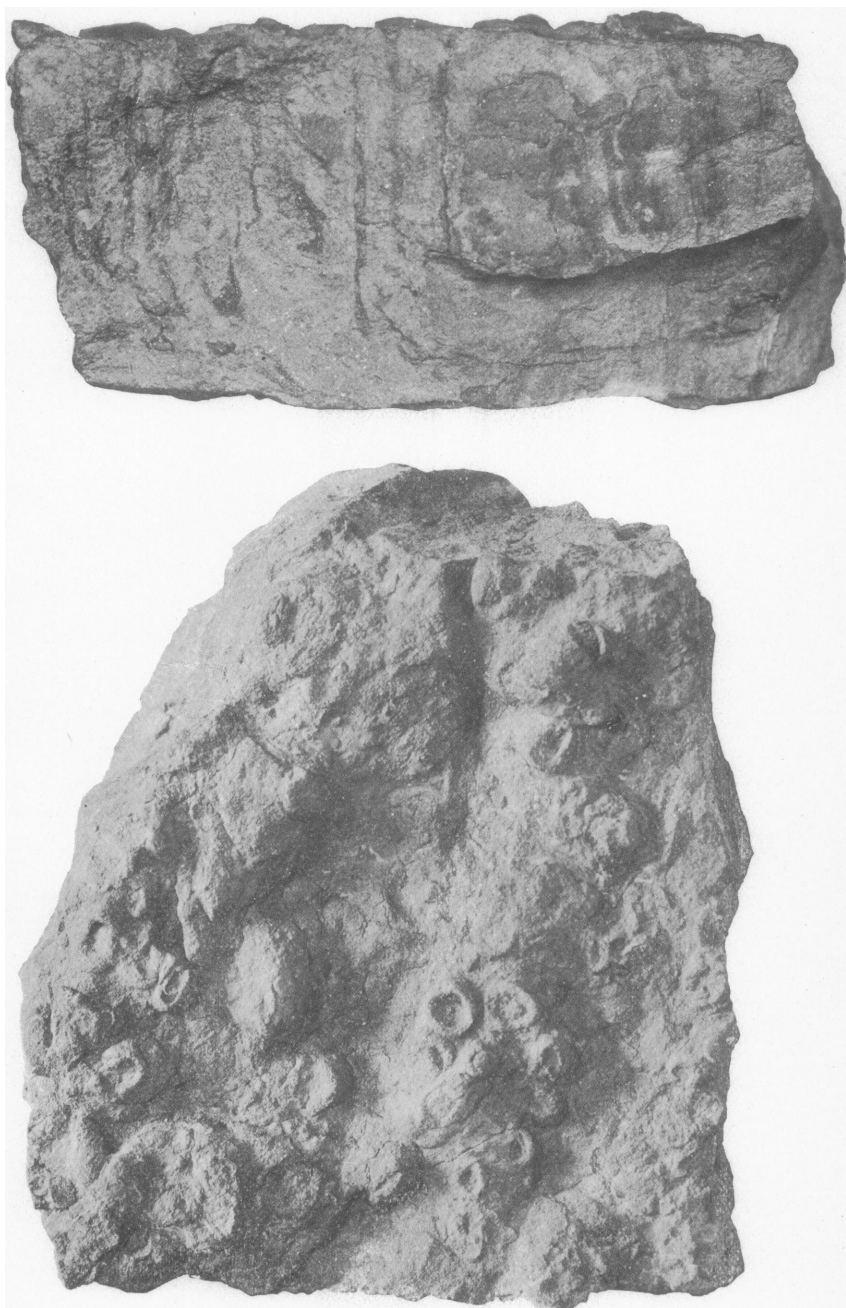
calcareous structure at some inches apart, with the chitinous tube passing from one to the other some distance below the surface in the sand. This Chemung form I propose to distinguish by the name *Arenicolites chemungensis*.

If this latter view of these curved burrows should be correct, may it not also be true of the curved cast of a burrow figured by Professor James Hall in Pal. N. Y., Vol. II, pl. 31, fig. 7, and referred to as a "fragment of the rib of some vertebrate animal" in the description of the plate and on p. 105, as it occurs in the gray sandstones of the Clinton Group of Central New York?

Geological position, in the Chemung Group, Steuben Co., New York.

EXPLANATION OF PLATE XIV.

- FIG. 1. — Shows the surface of the specimen of *Arenicolites chemungensis* described on page 473.
- FIG. 2. — View of the edge of the block, showing the vertical burrows and the recurving of them in the rock below the surface.



WORM BURROWS.

