ARTICLE II.

ON THE OCCURRENCE OF SPONGES IN LAURENTIAN ROCKS AT ST. JOHN, N. B.

BY G. F. MATTHEW, M.A., F.R.S.C.

(Read 3rd November, 1890.)

A year ago when visiting Drury's cove, an indentation of the Kennebecasis river, in company with members of this society, my attention was attracted by certain smooth surfaces in the layers of the quartzites at that place. These, by their appearance, recalled the shining surfaces of flags of the St. John group over which spicules of hexactinellid sponges are scattered. Fragments of this rock were submitted to the microscope and found to carry solitary spicules, and also fragments of the network of a sponge. The arrangement of the bars in these fragments of sponge skeleton would indicate a species resembling Cyathospongia. The following is a description of its character:

CYATHOSPONGIA (?) EOZOICA. n. sp.

Skeleton of parallel and some forked spicules, crossed by other spicules at right angles, or nearly so. The spicules are of two sets of different sizes — one larger, forming a fenestral framework to the sponge; the other smaller, producing a minute network in the interspaces of the larger spicules. Spaces between the bars of the framework about one fourhundredth of an inch, the finer spicules are made visible by a one-fourth inch objective. As a known, In the may be hexactin basal (E brian re of the that of ter, of t also sma of the S *Hori* upper se The

> force at which a these lin exhibite remains induced found in rocks no beds proplentifu rock, the

I did graphiti spicules; of spicul So fi sponge, tinellid Wm. Da *Hori* upper di

42