

TRANSACTIONS

OF THE

Nova Scotian Institute of Natural Science.

ART. I.—NOTES ON A POLARISCOPIC EXAMINATION OF CRYSTALLINE ROCKS OF THE YARMOUTH GOLD-BEARING SERIES.—By PROF. HONEYMAN, D.C.L., &c. *Curator of the Provincial Museum.*

(Read Nov. 13, 1882.)

THE problematical character of those rocks, and their unexpected appearance in the gold bearing series—no similar rocks appearing elsewhere in the band, as far as observed,—led me to have sections prepared by A. A. JULIEN, New York, for microscopic and polariscopic examination.

1, 2. The rock at *Jebogue Point* has suggested a number of queries. (*Vide* Paper on “Geology of Digby and Yarmouth Counties.” *Trans.* 1880.) Its appearance and relations suggested a comparison with the Igneous rocks of the Blomidon series. I had also a section made of Blomidon Basalt. The two examined by the polariscope are so much alike as to be regarded identical. The dark material of both is evidently Augite, and the clear crystals a triclinic feldspar. The latter polarized shew three parallel lines. Between two parallels the colour is a beautiful blue-white, the colour between the other two is dusky. Turning the polarizer the colours change place,—the dusky becoming blue, and the blue dusky. This seems to furnish a reply to my queries, and to refer the eruption at *Jebogue Point* to the *Paulo-post Triassic Period*.

3. Sunday Point Porphyrite.—A macroscopic examination

of this rock shows the existence of Biotite, Hornblende and crystals of a white feldspar. The polariscope shows the feldspar to be trichroic. The colours run in parallels, and the crystals shew beautiful striation.

4. Cranberry Point Diorite.—Macroscopically examined this rock shows abundance of Biotite and Hornblende. The Polariscope shews triclinic feldspar. This and the Porphyrite of Sandy Point seem to be closely related, but different from the Jebogue Point Dolerite. These two seem to be intrusive, but of a Lower Silurian age.

In considering the subject of the age of the gold-bearing rocks, it is evident that these crystalline rocks must be eliminated.

5. Yarmouth Harbour Rock.—This singular rock furnishes a very interesting section. It is composed of a glassy, undetermined mineral and hornblende. I have not been able to ascertain the nature of the former by the polariscope; portions of it seem to be a glass. One of the green hornblendic patches has a singularly pretty inclusion. In a small glassy area, bounded by two straight sides and two curved, is a perfectly round glassy inclusion. Turning the polarizer the inclusion darkens, until space and inclusion become altogether black.

Sections of other crystalline rocks are under examination. They will be the subjects of future notes.

ART. II.—CHEBUCTO NULLIPORES, WITH ATTACHES.—By PROF. D. HONEYMAN, D. C. L., &c. *Curator of the Provincial Museum.*

(Read December 11, 1882.)

OUR specimens appear to differ in their mode of growth. There is seemingly a vertical and a horizontal growth. Specimen No. 1 exhibits both. The upward growth developes into branches, the horizontal increases the body by layers, forming a *limestone*, having a concretionary and amorphous aspect.