

grounds for expecting that true coal measures may be met with below, though at an unknown depth. If, on the other hand, I am right in classing our Southern marine formations with the lower marine beds of New South Wales, the probability is that no coal will be found underneath them, and I am inclined to think that their thickness is to be measured by thousands rather than hundreds of feet.

The Minister of Lands (the Hon. N. J. Brown) has kindly promised to present to the Museum a complete series of specimens obtained from the borings at Tarleton, and the Cascades, when the whole question can be more fully discussed.

DESCRIPTION OF A NEW SPECIES OF VITRINA FROM THE TRAVERTIN BEDS, GEILSTON.

BY ROBT. M. JOHNSTON, F.L.S., ETC.

[Read June 9, 1884.]

VITRINA BARNARDII (*n. s.*).

Shell minute, depressed, auriform; whorls $2\frac{1}{4}$, rapidly increasing; surface irregularly rugosely striate towards peristome; peristome simple, right margin slightly dilated forward; columella concealed, but, evidently, resembles the living *V. Verreauxi* in this as in other general characteristics. Greatest dia., 8mil.; least, $5\frac{1}{2}$ mil.; depth, 3mil. Travertin Beds, Geilston (one specimen).

The above fossil shell differs from *V. Verreauxi* in being much smaller and in being more depressed. The whorls, relatively, increase more rapidly, and the surface markings are more rugose. It is associated with *Helix Tasmaniensis*, *H. Huxleyana*, *H. Geilstonensis*, *H. Sinclairi*, and *Bulimus Gunnii* in the lower beds of the Travertin.

I have named this shell in honour of our worthy vice-president, Mr. Barnard, who, for many long years, has taken a most active interest in all matters relating to the progress of the natural history of this island.

It is somewhat singular that remains of freshwater shells should not have been discovered hitherto in these freshwater deposits. It would seem that the waters, during the time the lower Travertin beds were being formed, were unfavourable to animal life*; and that the remains of land animals, found hitherto in such abundance, were carried to their present position by a stream draining the land slopes in the immediate neighbourhood.

*See "Discovery of Entomostraca in the upper members," in following paper, as proof that the upper members of the deposit were at least favourable to the life of a species of cypris. R. M. J.