

these bivalves are exceedingly rare throughout this formaton. In last year's report this exposure was erroneously referred to the calciferous formation.

THE TRENTON FORMATION.—A fine section of the lower measures of this formation was observed and paced. It was some sixteen hundred feet in length, situated on the western extension of the Canadian Pacific Railway, a short distance from the Union Station, where a denuded anticlinal is exhibited. The dips in different parts of the section were ascertained and noted, as also the strike and the fossils observed. The dips were found to vary from  $8^{\circ}$  to  $48^{\circ}$  on the eastern side of the section.

THE UTICA FORMATION.—On the right bank of the Rideau River, opposite the Rifle Range, an exposure of this formation, worthy of note on account of its lithological character, was observed. Besides the ordinary bituminous shales there occur, interstratified in a section some 12 feet in thickness, ten or more bands of impure limestone, in some parts assuming a nodular character, in others very compact, varying from 2 or 3 to 10 inches in thickness. These hold a large number of fossils, as a rule very different from those in the overlying and underlying shales. Whilst the shales hold numerous specimens of *Asaphus Canadensis* (Chapman), associated with *Triarthrus Becki* (Green) and orthids, the bands of limestone teem with *Conularia Trentonensis*, *Zygospira Headi?* (Bill.), *Calymene senaria* (Conrad), and other forms of life. It was in one of these bands of impure limestone, or one belonging to this series that *Siphonotreta Scotica* (Davidson), a prettily fringed Brachiopod, was found by Mr. J. W. H. Watts, R.C.A., its occurrence for the first time on this continent having but recently been made known to science by Mr. J. F. Whiteaves in a paper read before the American Association for the Advancement of Science in August 1882.

The whole respectfully submitted,

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