

ART. XI.—*On the probable occurrence of the Great Welsh Paradoxides, P. Davidis, in America*; by GEO. F. MATTHEW.

THIS, the largest and most remarkable species of *Paradoxides* occurring in the Primordial fauna of Europe, has not, so far as the writer is aware, been hitherto found in America. It

was discovered by Dr. Henry Hicks near St. Davids in Wales about twenty years ago, and was subsequently found (by Professor O. Torell?) in Sweden in 1869.

Through the kindness of Mr. J. P. Howley, Director of the Geological Survey of Newfoundland, the writer received, a few months ago a box of Cambrian fossils from that Island and among them fragments which appear to belong to this species. Its most important characters are well represented by the posterior half of the center piece of the buckler, by the free cheeks, the long cylindrical genal spines and the peculiar hypostome. The outlines and aspect of the parts preserved agree exactly with those of specimens from the Swedish beds figured by G. Linnarsson.* The Newfoundland fossil sent me is not *P. Bennetti* of Salter, nor is it Green's *P. Harlani*; from both it is distinct by the outlines and furrows of the glabella, by the short eyelobe and by the great extension of the facial suture behind the eyelobes.

A large species of *Paradoxides* is also found in the Cambrian slates at Saint John, New Brunswick, but the fragments recovered are not sufficiently large or perfect to make it clear that it is the species above referred to. This crustacean of the Saint John Group was nearly a foot and a half long (supposing it to have had extended spines next the pygidium like *P. Davidis*).

The American examples of *P. Davidis* occur in a hard black silico-calcareous shale at Highland's Cove, Trinity Bay, Newfoundland, in company with species of *Agnostus*—*A. punctuosus* Ang., *A. laevigatus* Dalm., *A. Acadicus* Hartt (var. *declivis* mihi.) These fossils indicate a new horizon in the *Paradoxides* beds of America somewhat above that of Braintree, or the known horizons of Newfoundland and New Brunswick.