

ART. XLI.—*The great Acadian Paradoxides*; by G. F. MATTHEW.

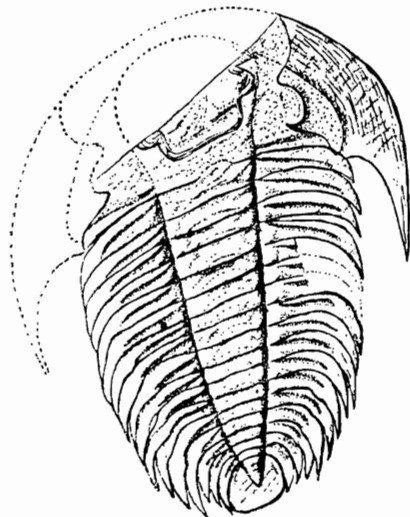
IN this Journal (vol. xxx, p. 73), the writer, in speaking of the occurrence of the great Welsh Paradoxides (*P. Davidis*) in the Cambrian rocks of Newfoundland, alluded to the fact that another gigantic species of this genus was present in the Cambrian basin at St. John. At the time when that communication was written, the St. John species was known only by fragments of the glabella, pleuræ and pygidium. An

almost complete example has lately been found, from which it appears that the species differs from any hitherto described. Its nearest allies are *P. Bennettii* of Newfoundland and *P. Harlani* of Massachusetts, but it has not the "pendent ears" and abortive spine of the former, nor the long (sometimes extravagantly long) spine and round pygidium of the latter. It has a rather smooth test, and the eye-lobes are shortened and placed as in the two species named. It differs from *P. Bennettii* in being brachypleural in the adult stage, and from *P. Harlani* in having only seventeen segments in the thorax. It may be described as follows:—

PARADOXIDES REGINA.

A species of the largest size and having a very wide body.

Head shield greatly expanded, and having the genal angles produced into short spines; glabella broad and possessing two



complete furrows; eyes rather short, situated opposite these furrows. *Thorax* with seventeen joints; having the axis very broad, and the ends of the pleura leaf-like, curved, but scarcely reflected, and having the three last joints shorter than the others. *Pygidium* subquadrate behind, with a small axis and with the lateral lobes expanded backward. *Hypostome* subquadrate behind, but having the posterior angles truncated, anterior lobe widely expanded laterally, and having the anterior margin expanded and widely extended.

The specimen is defective where the two anterior glabellar furrows would come, and so it is not known whether these are present or absent. The horizon is Band 1c of the St. John group. This species appears to be the largest trilobite which has so far been found in any country, being fifteen inches long and twelve inches across the cephalic shield. Professor W. C. Brögger calculated the length of an example of *Megalaspis acuticauda* found in Norway as sixteen inches (403^{mm}), and the late M. Barrande gave the length of *Asaphus Barrandei*, found in France, as fifteen and a half inches (400^{mm}), but these larger *Asaphi* are narrower in proportion than the Acadian trilobite.

Among Paradoxides the Acadian species is the largest known to the writer. With *P. Harlani* and *P. Bennettii* it constitutes a group of gigantic forms with more or less foliaceous, and curved rather than reflexed pleuræ, which the writer believes will be found to characterize elsewhere, as it does in Acadia, the Lower Paradoxides beds. From our present knowledge of these forms we indicate the two above named and *P. Regina* as independent species; but if connecting forms should be found, the Acadian and Newfoundland trilobites will stand as varieties of *Paradoxides Harlani*.