ART. XXXI.—*On the Age of the Red Sandstone formation of Vermont; by E. BILLINGS.**

I HAVE lately been examining a tract of the Calciferous sand-rock which lies on the boundary line between Canada and Vermont on Missisquodi Bay. The rock is exposed here in long parallel ridges, over an area of eight or nine miles in length and from one to three in width. On the east side of the exposure there is a ridge of greyish sandstone which I traced south across the boundary line, after crossing which it soon becomes interstratified with thick beds of rock of a chocolate red or brown color. It is here the typical red sandrock formation of Prof. Adams. Hearing that Dr. G. M. Hall and Rev. J. D. Perry of Swanton had discovered trilobites near this place I called upon them and they kindly conducted me to the locality. It is above two miles south of the line and one mile or a little more east of the Highgate Springs. The individual fossils are abundant in the red sandstone but I could find only two species, a small *Theca* and a *Conocephalites*. Of the latter we found only the head but the specimens are very numerous and some of them well preserved. The species resembles Bradley's *C. minutus* but is a little larger and I think quite distinct therefrom. It is a true primordial type and if we are to be guided at all by Palæontology we cannot regard this rock as lying at the top of the Lower Silurian but at the very base of Barrande's Second Fauna if not indeed a little lower. It is therefore not the Medina Sandstone but a formation somewhere near the horizon of the Potsdam. This accords exactly with conclusion drawn from the evidence afforded by the fossils discovered by our survey at Quebec last year.

Museum of the Geological Commission, Montreal, Canada, July 22, 1861.

* In a letter to one of the Editors of this Journal.