THE HAMILTON-ASSOCIATION.

objections regarding the animal nature of *Eozoon* was that no other well defined fossils have ever been found in Archæan rocks, and Sir W. Dawson must be highly pleased at this recent discovery. How can his opponents, with any show of reason, explain away the additional evidence now forthcoming? They can hardly accept Salter's sponge and reject Matthews'. Hitherto no unquestioned or well defined organic remains have been found so low down in the earth's crust ; yet indications of such have been remarked by several. I forwarded to an English friend, some years ago, fragments of Drift Laurentian and Huronian boulders from Hamilton. He mentioned that prepared sections of some of the specimens under the microscope revealed, as he considered, organic matter. The chief Palaeontologist of the United States, C. D. Walcott, found in the Laurentians fragments of what he supposed to be a Trilobite and a phosphatic shell. We can hardly expect to find many organic remains in rocks which have been crystallized Quartzites or Granites, although research or accident may yet reveal such in the limestones of the formation.

"In truth," remarks the Director of the Geological Survey of Great Britain and Ireland, "we are profoundly ignorant as to the conditions under which these Archæan rocks arose. Is their apparent bedding original or the result of after disturbance? The question cannot be answered." One thing seems clear. If, as the late Sterry Hunt contends, the Archæan rocks are probably altered sedimentary deposits, they must have been derived from still older ones than any known to us, which disappeared completely in some far off revolutionary change the world has undergone.

We are indebted already to Professor G. Matthews for the discovery of the Arcadian or St. John's Group (2,000 feet Lower Cambrian). When the Potsdam sandstone was found resting on Archæan rocks, it was natural to suppose it was the base of the system, but it represented merely the rim of the depression or basin (the New Brünswick beds underlying).

A ceftain unwillingness may be noticed, both on this continent and in Europe, among a few of the older Geologists to recognize the Cambrians of Sedgwick as separable from the Lower Silurians. Now, C. D. Walcott, chief Palaeontologist of the United States Survey, who has closely studied the Cambrians all over the conti-

AND

the St. ry has Brunsicules, ef is a e wavy ied to adense. rs ago h was uch a s State of the re any

ofessor believe m, not bicules bed " s diffie late epted. " "the wick," auren-*Photo*bted ; ncipal