

Having been myself mixed up with the farther questions that have arisen as to the animal nature of Eozoon, and the vegetable origin of the abundant graphite of the Middle Laurentian, I shall say nothing of these farther than this, that if our Canadian conclusions should be substantiated, we shall stand here also in advance of the rest of the world.

In like manner I abstain here from entering into the question of the validity of the Montalban, Tacónian and Keweenawian of our colleague, Dr. Hunt, which are now subjects of earnest discussion, but I believe are in great part, at least, based on natural facts perceived by Logan in his original examinations of the Pre-Cambrian formations of the west, but more distinctly defined by Hunt, and which may eventually give a new triumph to Canadian geology. I may say here that my own observations have convinced me of the reality of the succession of (1) a Lower Laurentian series, the Trembling Mountain gneiss of Logan; (2) a Middle Laurentian, the Grenville series of Hunt; (3) an Upper Laurentian, the Labradorian or Norian series; (4) the Huronian series; (5) the Animikie series; (6) the Keweenawian series. All these, except, perhaps, the last, are Pre-Cambrian, and belong to the Eozoic period. Of the Montalban I cannot speak so certainly. There is such a series, and this of great importance; but I do not know from my own observations its precise geological position.

I need scarcely say that the researches of Dr. Hunt in the chemical and dynamical geology of these ancient rocks and their relations to the origin of continents and mountain chains stand unsurpassed, and of themselves give to Canada a clear title to preëminence in this department.

Before leaving this subject, I may mention an attack which has been made on Sir W. Logan by an American writer, on the ground that the name "Laurentian" had been preoccupied by Desor. It seems that the latter had used the word "Lawrentian" to express the Pleistocene deposits of the St. Lawrence valley. But the name never gained any currency, and Logan's use of the term, "Laurentian," for the old crystalline series was only a little later,—Logan having applied the name in 1854, while Desor's use of the similar name "Lawrentian," had occurred in 1851. Logan and Hunt, who coöperated in the matter, based the name, not on the St. Lawrence River, but on the old name *Laurentides*, applied by Garneau to the mountain range composed of these rocks. In point of fact, the name "Laurentian" was based on the mountains composed of these rocks, and the name "Lawrentian" on the river itself; and the latter fell to the ground as useless and inappropriate.

The discovery of the rich Cambrian Fauna of St. John, New Brunswick, and in connection with this, that of the fossil plants of the neighboring Devonian beds, belong to the late Prof. C. F. Hartt, and to our colleagues, Mr. G. F. Matthew and Prof. Bailey. Of these discoveries I have remarked: "The collection and determination of the Cambrian fossils of what is now known as the Acadian group, and the excavation of the numerous Devonian plants of the same district, constitute in my judgment two of the most important advances ever made in the paleontology of Eastern America." Hartt published his first report on these fossils in 1865, and they were more fully described and illustrated in the second edition of my "Acadian Geology" in 1868. It is true that long before this time the *Paradoxides Hartmani* of the Massachusetts shales had been discovered, and Emmons had endeavoured to illustrate the fossils of the Taconic system. But little attention had been given