

“We cannot expect that the Coal formation, with its land-derived materials and its abundant land plants—far more abundant in the east than in the west—will prove an exception to this general rule; and when we find that these strata have a thickness of more than fourteen thousand feet in Nova Scotia, according to the measurements of Sir W. E. Logan; that the productive coal measures in Cape Breton are estimated by Mr. Brown to exceed ten thousand feet; and that in Pennsylvania, the coal measures, including the conglomerate, may be about eight thousand feet, and in the Mississippi valley one thousand feet,—we are forced to the conclusion already suggested of the ultimate disappearance of the coal measures in that direction.

“It would therefore appear, that from the earliest Silurian times, the Great West, or the region of the Rocky Mountains, has been an ocean, which successively received the finer sediments derived from eastern lands, or which produced within its own area the calcareous deposits, but ever an ocean, not only to the close of the Carboniferous period, but still later through the Permian, Jurassic and Cretaceous periods; showing apparently no evidences of dry land till about the beginning of the Cretaceous era, or perhaps a little earlier; while in later Tertiary periods, the continental fauna and flora have been remarkably developed over the same area.

“Thus while the older Palæozoic formations have been largely accumulated in the east, in successive beds, having altogether a thickness of several times the height of our highest mountains, they have greatly diminished in the west. At the same time, while the Post-palæozoic formations are very thin or often absent in the east, they have accumulated in vast amount along the line of the Rocky Mountains, from one end of the continent to the other.”

These are hints of great general truths, of profound significance in geology: but a much larger induction of facts than we at present possess, is required to give them certainty; and they will be found to be liable to many local exceptions, even if fully established for the continent at large.

*Canadian Geology.*—Prof. Chapman introduces to us two new species of the genus *Asaphus*, found in the lower Silurian rocks of Upper Canada, and which he names *A. Canadensis* and *A. Halli*. (Canadian Journal, May.)

We are also indebted to Prof. Chapman for a very valuable