

proved by boring to be thick (or thin) at one point, it is necessarily so in others, as the horizontal strata may and probably do rest on an uneven floor of older rocks, and will be thick or thin, as the inequalities of the latter come near to or retire from the surface. The thickness may also, to some extent, be an accident of deposition or erosion.

EROSION.

In any consideration of the Carboniferous system of New Brunswick it is always important to recognize the fact that the representation of that system now revealed is but a fragment, relatively small of what it once was. Former greater extent of Carboniferous area.

In the first place, it is obvious that the great central basin, widening to the eastward, did not, in Carboniferous times, terminate with the present gulf coast. Everywhere that coast is low; everywhere the adjacent waters are shallow; and at no point in the Gulf of St. Lawrence east of New Brunswick are they deep. Prince Edward Island is separated from the mainland only by narrow straits, and the rocks of that island are largely, if not wholly of newer strata. About Baie Verte the Carboniferous rocks of New Brunswick become continuous with those of Nova Scotia, while rocks of Lower Carboniferous age crop at Smiths and the Magdalen islands and skirt the western coast of Newfoundland, part of the western shore of Cape Breton and the southern shores of the Gaspé peninsula.

Thus, all around the portion of the Gulf of St. Lawrence inclosed by the districts referred to, rocks belonging to or not widely separated from the Carboniferous system occur, and suggest the conclusion that they were at one time continuous over the intervening area. In other words, the portion of the widespread Acadian Carboniferous formation now above the sea-level is but a small fraction of its former extent, while much the thickest and deepest, and presumably the most productive portion, is now either submerged or worn away.

Nor is it only in this direction that there is evidence of loss. Carboniferous outliers. Around the other borders of the great central basin, where the older rocks come out from beneath those of the Carboniferous system, there is abundant evidence that these latter once spread more widely. Thus, along the western edge of the coal-field in York and Sunbury, in Cork settlement and about Oromocto lake, the edge of the Carboniferous peneplain is in the form of a long and steep escarpment, overlooking the valley of the Magaguadavic river, occupied by pre-Carboniferous rocks, while isolated patches of the first named system are found much