

Lower Cretaceous."¹ There is, however, in this section at least 3,000 feet, and probably a much greater thickness, of beds underlying the horizon from which these plants were taken. This year two specimens of Ammonites and several specimens of a Belemnite were discovered in these lower beds. They have not yet been determined, however. The rocks of the upper part of the section probably extend in to the upper division of the Cretaceous representing the Dakota group or even higher members. No fossils have yet been found in these beds.

Without the assistance of a map, it is difficult to give a clearly intelligible description of the outcrop and attitude of the coal seams, but by omitting detailed statements of distances and elevations, something further may be said. Along the front of the escarpment facing the Elk river, the coal seams begin to outcrop at elevations of 1,500 to 2,000 feet above the river. The dips are uniformly to the east at angles of 20° to 40°. Going eastward up Coal creek, these dips are seen to flatten out, until at a distance of about five miles from the Elk the beds are almost horizontal. They continue thus with slight undulations nearly to the summit between Coal creek and Marten creek, where the dips begin to be reversed. A short distance beyond, to the northeast of the summit, these dips are greatly increased and the successive beds are rapidly brought to the surface until the coal measures again appear at the crossing of Marten creek.

Marten creek is one of the sources of the south branch of Michel creek, which occupies a wide low valley running northward to the "loop" on the railway. The erosion of this valley has carried away the coal measures from a wide strip of country. The valley follows the line of what was, at one time, probably a broken anticline caused by the uplifting of the limestone floor of the basin. Two faults resulting from this movement are to be seen running parallel to the valley, one on each side. The uplift was greatest to the north where there is a protruding hummock of the limestone near the junction of the west branch. Toward the south, evidence of this movement gradually dies out, extending only a few miles to the southeast of the mouth of Marten creek.

¹Trans. Royal Soc. Canada, Vol. X, Sec. IV.