

on a long journey across the plains and down a river where very few white men have been; and which with regard to its fossil fauna and flora, is scarcely known. While waiting for a portion of our camp equipment, Mackenzie and I spent a day or so in examining the rocks about a mile from the C. P. R. depot and within a few feet of the Elbow River. This is our first exposure of the Laramie formation, a division of the great geological column which forms the upper part of the Cretaceous and the lower part of the Tertiary. The Laramie rocks we were about to examine are composed of fine and coarse sandstones, conglomerates, sands, silts, clays and lignite coals, detailed descriptions of which may be found in the reports of the Geological Survey of Canada. We find here, as I have said, our first exposure of the Laramie rocks, an escarpment called the "Hog's Back." It is a cliff of about 100 feet in height; the upper part is a coarse gravel and the lower portion a fine grained yellowish sandstone, which has been used in the construction of buildings. It is in this sandstone we find our first fossils, remarkably well preserved plants, characteristic forms of the Upper Laramie formation. The rocks here have acted beautifully as a botanical press, for some of the leaves are as perfect as when they fell from the trees untold ages ago. Sir J. W. Dawson says (Trans. Royal Soc. Can., Sec IV., 1889): "They belong to two species, *Populus Richardsonii*, and *Quercus platuma*." The latter species is represented by leaves of great size, one of which is twelve inches in length without the petiole. These leaves are not unlike the leaves of our largest species of poplar, and it is supposed that the climate at the time when they grew was similar to that of the present day. These rare examples of the fossil flora of our Laramie rocks may be seen in the cases of the Geological Museum, Ottawa. But we must leave Calgary with all its interesting associations of Indian and prairie life and start on our journey. We have 100 miles to make before reaching Mackenzie's farm on the banks of the Red Deer River, about eight miles below the Edmonton and Calgary crossing.

With a good stout wagon, two horses, provisions for two months, ammunition, guns and camp equipment, we leave Calgary at 2 p.m., June 10th, take the Edmonton trail and at 8 p.m. arrive at our first stopping place—McPherson's, which is situated