

good palaeontological evidence: since these leaves are quite as easily recognized by one familiar with their forms and structures, as any other kinds of fossils.

I shall only premise further that, in referring plants to particular genera and families, I have not been influenced in the least degree by any preconceived ideas as to the probable order of succession of vegetable forms. No one has a right to affirm that, in the case of dicotyledonous plants for example, those families having monocious or dioecious flowers should have appeared earlier or later than those having bisexual flowers. Long experience in palaeontology has convinced me, that the earlier forms of any group of plants or animals may be precisely those which certain framers of hypotheses would least have expected, and that here, as in other departments of the study of nature, we must be prepared to take facts as we find them, in whatever way they may affect our *a priori* opinions.

L.—KOOTANIE SERIES.

1. *Filices*.

DICKSONIA, Sp.

Pinnate, pinnae linear, two centimetres long, with rounded sessile pinnules united at their bases. Venation obscure, but apparently of the type of *D. conifera*, Heer, from the Jurassic of Eastern Siberia. The specimens are not quite so distinct as to warrant referring them to Heer's species, yet are so near to it that I hesitate to separate them. They are decidedly of the same type.

Collected by Dr. George M. Dawson at Martin Brook.¹

ASPLENIUM MARTINIANUM, S. N. (Plate I. Fig. 1.)

Bipinnate, pinnae long, with somewhat stout petiole. Pinnules contiguous, broad, curved upward, obliquely rounded at their extremities, attached by their whole bases. Midrib delicate, evanescent at distal end, veins very fine, oblique, forking twice. In the specimens studied the pinnae are 2 centimetres long, and at right angles to the rachis, and the pinnules are 15 millimetres long and 7 broad.

This is a fine luxuriant species, of the general type of the widely distributed Jurassic species, *A. Whithyanum*, and of its companion, *A. spectabile*.

Collected by G. M. D. at Martin Creek and North Fork, Old Man River.

ASPLENIUM DICKSONIANUM, Heer. (Plate III. Fig. 1.)

Heer, Kreide Flora der Arctischen Zone, 1874, p. 31, Tab. I.

This species, which, according to Heer, is very abundant in the Lower Cretaceous of Greenland, is found at Crow's Nest Pass, near Canmore, and at Coal Brook; and is very plentiful in beds a little higher and belonging to the Intermediate series on the North Fork of Old Man River.

Collected by G. M. D.

ASPLENIUM DISTANS, Heer. (Plate III. Fig. 7.)

Heer, Jura Flora Ost-sibiriens. *Pecopteris recentior*, Phillips. *Neuropteris recentior*, Lindley and Hutton.

¹ In subsequent descriptions only the initials, G. M. D., will be given in the case of specimens so collected.