

Professor Bell, of the Geological Survey, has repeatedly noticed the occurrence of dykes in the regions explored by him north of Lakes Superior and Huron, and states that in some parts of the country they form a conspicuous feature in the geology, and have probably played an important part in producing the present geographical features. One described by him as a diorite in the report of the Survey for 1875-76 (p. 314) is said to be from 300 to 400 feet in width. Its course is N. 12° W., and it cuts a thinly bedded micaceous gneiss nearly at right angles to the strike of the latter.

Mr. G. M. Dawson has also given us a number of facts concerning dykes at the Lake of the Woods, where they are said to be both granitic and dioritic. Some of the latter, which are coarse-grained and apparently have general east and west courses, "may very probably be among the oldest of the intrusions." There are others, however, which are very hard and compact, and have a general bearing of north-east and south-west. These cut not only the intrusive granites of the region, but also the altered Laurentian strata.*

The late Mr. Walter McOuat has mentioned the occurrence of dykes of "diorite" from fifty to one hundred feet thick at several localities between lakes Temiscamung and Abbitibbe, and states that the apparent direction of two large ones on Lac des Quinze (on the Upper Ottawa) is north by-east and south-by-west. †

It is therefore evident that in almost all parts of the country where the Laurentian rocks have been examined, they have been found to be cut by dykes of various intrusive rocks, few of which have, however, been critically studied as yet.

The intrusive rocks of the Grenville region are of special interest, inasmuch as most of them were shown by Sir William Logan to belong to a date anterior to the deposition of the Lower Silurian. According to the descriptions given in the *Geology of Canada*, they consist of dolerite, syenite and felsite porphyry. Of these the oldest "are a set of dykes of a rather fine-grained dark greenish-grey greenstone or dolerite, which weathers greyish white." * * * "Their width varies from a few feet to

* See Report on the Geology and Resources of the Region in the vicinity of the Forty-ninth Parallel. 1875. pp. 25, 53.

† Report of Progress, Geol. Survey, 1872-73, pp. 120, 122 and 130.

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