and well rounded, but seldom show striæ. Their present position is evidently due to recent ice action. Similar phenomena have been noted on the principal lakes in northern Ontario.

An interesting feature in the pleistocene geology was observed in connexion with the open muskegs, particularly as to their mode of formation. In some cases they seem to be the remains of shallow lakes. Originally the water occupied the whole space now covered by the muskeg, but heath plants and moss began to encroach on the water, beginning at the outer rim and working toward the centre. The margin kept on slowly widening as each dry season caused the water to recede, until in time only the deepest parts remained open water, and finally the whole lake was filled. In many of these muskegs small ponds of clear water may still be seen, which have to be approached with care as the moss is easily penetrated. In some ponds I examined I could not reach the bottom with any poles I could secure. On the second lake on the route into Natagagan lake this process of filling up is well seen, as it is now actually in progress. The small lake at the south end has a rim of quaking vegetable matter several chains wide, which occupies more than half the original size of the lake. Besides the moss, *Kalmia glauca, Ledum latifolium*, and *Cassandra calyculata* grow abundantly on the rim. At the point where the canoes are put into the water it is necessary to lay poles and brush on the trail, as there are only a few feet of vegetable material floating on the water. When this mass was penetrated there seemed no further obstruction to sinking a pole as far as it would reach. The outline and general shape of many muskegs at once suggest the form of a lake, the margins having bay-like indentations and points corresponding to those seen on lakes. It is probable, however, that lakes filled up in this way are such as have little or no outlet.

## RAILWAY LEVELS.

The following levels on the line of the National Transcontinental railway were obtained from Mr. K. Weatherbee, assistant engineer of District C, and are above mean sea-level at Quebec:—

| | Feet. | Bed. |
|---|---|---|
| Lake Abitibi, high water level | 870 | |
| Whitefish river, water level | 870 | |
| Lois river | 915 | |
| Kakameonan river, water level | 994 | 982 |