

of basaltic lava which solidified in the pipe of a volcano at that place. The basalt core has remained, while the loose fragmentary material of which the volcano was mainly composed has been swept away from around it, leaving this tower-like object standing 800 feet above the Ridge. The basalt of the Tusk shows a well-marked columnar structure. The Ridge is mainly composed of greenish grey andesite, which readily breaks up into slabs, and through which the basalt has been forced from beneath. The lower portion of the Ridge shows an extensive zone of agglomerate at a height of about 600 feet above the Meadows. The specimen of rhyolite porphyry already mentioned came from below the agglomerate. The relations of these different rocks are not easy to make out, as a heavy talus obscures the contacts. Panorama Ridge appears to be a continuation of Black Tusk Ridge.

The Table is another neck, which has not been dissected out so completely as the Black Tusk.

Standing on the summit of Garibaldi, it is easy to recognize a succession of volcanic peaks, which trend in a N.N.W. direction and extend towards the head-waters of the Lillooet River. These are all unexplored.

Andesite and andesite porphyry appear to constitute the major portion of the volcanic rocks in the Garibaldi district. No indications of mineral wealth have been noticed to draw the hardy prospector into these mountain wilds; so their study seems likely to be left to geologists who possess the qualifications of mountaineers.

#### GLACIAL PHENOMENA.

Reference has been made already to the altitude of the coast district, which made it possible for the streams to cut their channels deeply into the land surface. The altitude was still considerable when the glacial period set in. We knew this from the great depth of alluvium which has been disclosed by borings in the valley of the Fraser. A river cannot excavate to more than a few feet below sea level under any circumstances. The fact that the original channel of the Fraser in the rock is buried under many feet of alluvium shows that the river must have been flowing at a much higher level at one time.

During the glacial period the land underwent a depression of several hundred feet below its present altitude. Although it rose again as the ice-sheet vanished, it never recovered its former height. The coast-line of the province is deeply indented in consequence with the fjords which always result when narrow valleys are drowned, producing high, bold shores leading down to comparatively deep water.