

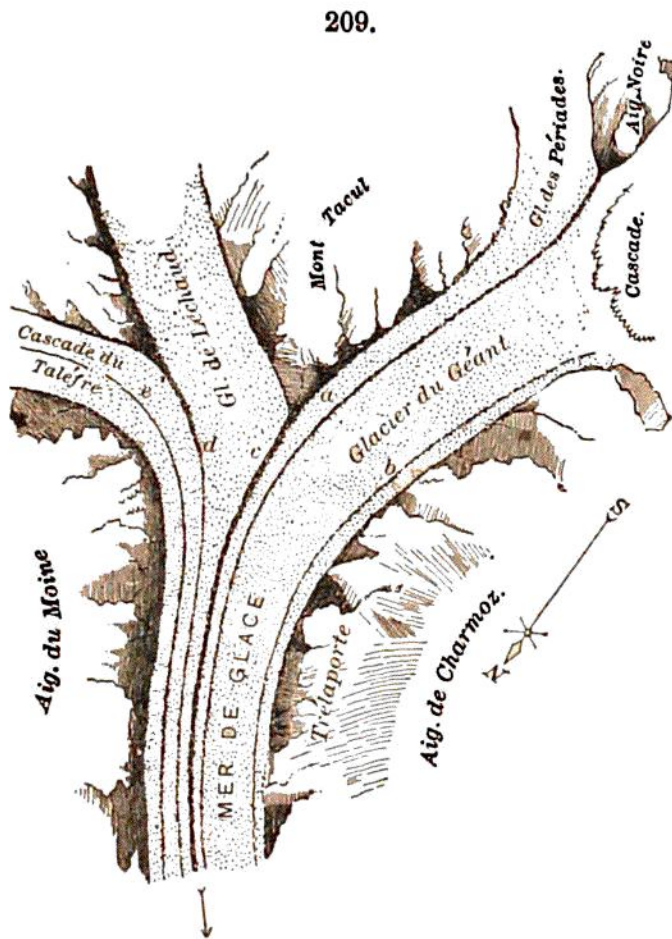
Wherever the mass of the *névé* is sufficient to overcome the resistance to motion, *the true glacier begins*. The ice is porous, because made of more or less closely united grains. The grains, which are at first small, enlarge as the stream descends, and in the Aletsch glacier some become two to three inches in diameter. (Forel, 1880, 1890.) Moreover, the grains have a crystalline texture, as has been proved by examinations with polarized light.

The porosity of glacier ice is made manifest by pouring on it aniline purple or indigo sulphate; the liquid penetrates it and gives it a marbled appearance. The specific gravity of the iceberg ice off the west-Greenland coast has been found to be only 0.866, owing to its abundant linear cells (Helland, 1877).

2. *Glacier regions*. — In further illustration of the general characters of glaciers, reference is first made to the Alps, the best known of glacial regions. The Swiss Alps are divided into northern and southern ranges by the east-and-west part of the valley of the Rhone, and the continuation of the depression westward along the Trient and Chamouni. In the southern range are two glacier regions, the western, of Mont Blanc, and the much

larger eastern, of Monte Rosa, besides some much smaller areas. Mont Blanc has a height of 15,784 feet, and Monte Rosa of 15,163. In the northern range, there is the glacier region of the Bernese Alps (so-named from the Canton of Berne), in which stand the Jungfrau, 13,671 feet high; Eiger, 13,045; Finsteraarhorn, 14,026; and the Aletschhorn, 13,800 feet.

The map on page 235 represents the larger part of the glacier region about Mont Blanc, with 30 to 40 of its 50 glaciers. On the northwest side is the valley of Chamouni, or that of the river Arve; on the southwest, Allée Blanche and Val Ferret, in Savoy. The summit of Mont Blanc is at B. As just stated, each valley in the ice-covered



Union of the glaciers. Tyndall.

area has its glacier. The largest extends from Mont Blanc, northeastward to *g*, where it receives, and for the larger part is, the Glacier du Géant (*G* being the Col du Géant). At *m*, where it is the Mer de Glace, it receives