infinity of minute striæ. The bed of pebbles and mud, interposed between the glacier and the subjacent rock, here represents the emery. The rock is the metallic surface, and the mass of the glacier which presses on and displaces the mud in its descent towards the plain, represents the hand of the polisher. These striæ always follow the direction of the glacier; but as it is sometimes subject to small lateral deviations, the striæ sometimes cross, forming very small angles with one another. If we examine the rocks by the side of a glacier, we find similar striæ engraved on them where they have been in contact with the frozen mass. I have often broken the ice where it thus pressed upon the rock, and have found under it polished surfaces, covered with striations. The pebbles and grains of sand which had engraved them were still encased in the ice, fixed like the diamond of the glazier at the end of the instrument with which he marks his glass.

"The sharpness and depth of the striæ or scratches depend on many circumstances: if the rock acted upon is calcareous, and the emery is represented by pebbles and sand derived from harder rocks, such as gneiss, granite, or protogine, the scratches are very marked. This we can verify at the foot of the glaciers of Rosenlaui, and of the Grindenwald in the Canton of Berne. On the contrary, if the rock is gneissic, granitic, or serpentinous, that is to say, very hard, the scratches will be less deep and less marked, as may be seen in the glaciers of the Aar, of Zermatt, and Chamounix. The polish will be the same in both cases, and it is often as perfect as in marble polished for architectural purposes.

"The scratches engraved upon the rocks which confine these glaciers are generally horizontal or parallel to the surface. Sometimes, owing to the contractions of the valley, these striæ are nearly vertical. This, however, need not surprise us. Forced onwards by the superincumbent weight, the glacier squeezes itself through the narrow part, its bulk expanding upwards, in which case the flanks of the mountain which barred its passage are marked vertically. This is admirably seen near the Châlets of Stieregg, a narrow defile which the lower glacier of the Grindenwald has to clear before it discharges itself into the valley of the same name. Upon the right bank of the glacier the scratches are inclined at an angle of 45° to the horizon. Upon the left bank the glacier rises sometimes quite up to the neighbouring forest, carrying with it great clods of earth charged with rhododendrons and clumps of alder, birches, and firs. The more tender or foliated rocks were broken up and demolished by the prodigious force of the glacier; the harder rocks offered more