

the Alpine glacier is, according to Professor Tyndall, not more than thirty-seven inches per day, or a little over a third of a mile per year.

An examination of the terminal moraine of one of these glaciers reveals the fact that the stones and boulders of its mass have under-



BEGINNING OF A GLACIER.

gone rough treatment, compared with which the polishing and grinding of the lapidary are merely atomic processes. Rolled over and over in their course, with the ever-shifting relations imposed by the alternate freezing and melting, the tumbling and breaking and reuniting of the enormous fragments of the glacier, these stones have been fractured and ground and chiseled in their journey until they may be as finely polished as marble, and covered over their surface with grooves from those that can be seen only with a lens to the larger and coarser that are measured in inches.

Stones and other debris which periodically fall down the mountains make a line along each edge of all glaciers. It is always considerably higher than the rest, because it preserves that ice under it from melting away. Isolated boulders, which have rolled far upon the glacier, always, unless their arrival be very recent, stand, for the same reason, on pillars of ice.

One of the best known glaciers in Switzerland is the famous

MER DE GLACE,

near Chamounix. After a climb of 3,000 feet, to the Mont au Vert, there bursts upon the sight a magnificent view of the motionless billows of the Sea of Ice, sweeping in a gigantic cataract down a lateral valley. One may trace its upward course for six miles—like a stormy sea frozen instantaneously into glittering ice. In its resistless onward glide it is rent into a thousand deep crevasses, descending to unknown depths. Just beyond this ice sea is a group of gigantic granite needles, one—the Aiguille Verte—piercing the sky to the height of 13,540 feet. No snow can rest upon their splintered



ON THE MER DE GLACE.

pinnacles. Thunder-scarred and blasted, and riven by a thousand tempests, they seem, like Prometheus, to defy the very heavens; and in their awful and forever inaccessible desolation were, I think,