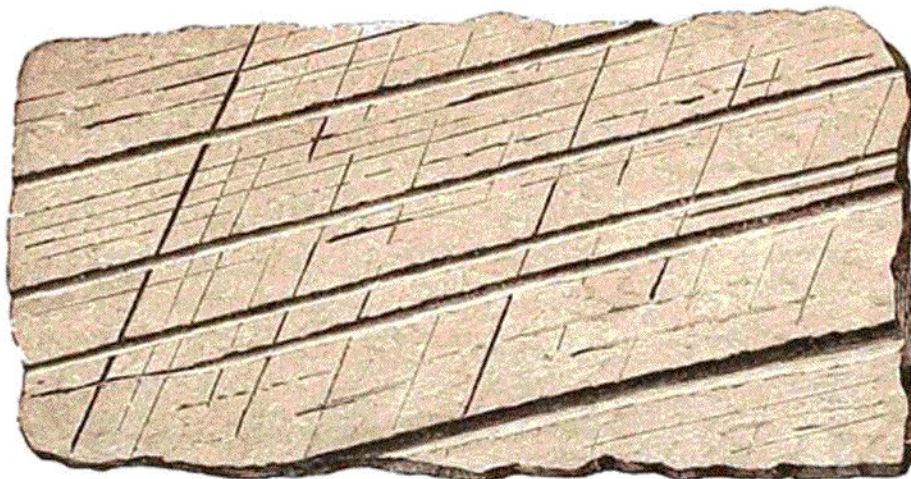


A remarkable example of the carrying of stones up an under-glacier slope is afforded by the region of the "Nunataks" of Greenland (map, page 241). The dotted belts on the following figure ( $m'$ ,  $m''$ ,  $m'''$ ,  $m^{iv}$ ) represent belts of moraine made by this process; and the nunataks  $g$ ,  $h$ ,  $i$ ,  $k$ ,  $l$ ,  $m$ , are emerging peaks of the covered ridges. The moraine  $m'''$  was made by a submerged peak. The stones are not like those from the nunataks. They came up from varying depths in the ice. Some of them are 20 feet across. The stones of the nunatak moraines disappear down crevasses after 200 to 300 yards of sunlit travel, or bury themselves in the ice.

In a similar way, where a glacier crosses marine channels, shells gathered into the ice might be carried along to the tops of the elevations over the land; or possibly, loose sea-border material beneath might be pushed up by the glacier.

The abrasion carried on by the stones in the sides of the glacier planes off, polishes, grooves, and often profoundly channels, the rocks either side or below; and these scorings are *evidence of the direction of movement*. An example of the grooves or scratches is represented in Fig. 215. Crossing lines, which are not unfrequently observed, are produced when glaciers spread widely over a broad region, and, owing to change in the thickness of the ice or some other cause, there is a change of direction in the movement.

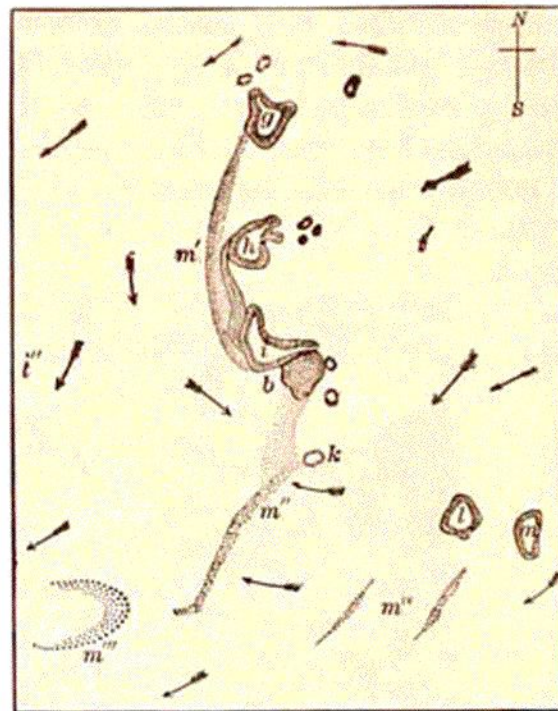
215.



Glacier groovings or scratches.

Moreover, the stones or rock-masses that do this work of abrasion become smoothed and scratched or grooved; and thereby may show their glacier

214.



Nunataks, or isolated peaks,  $g$ ,  $h$ ,  $i$ ,  $k$ ,  $l$ ,  $m$ , situated like islands in the Greenland ice. Jensen.