

it issues from glaciers, it ought to have been charged with fine detritus, i. e. glacial mud. At that date therefore the river consisted almost entirely of spring-water, together with water from the melting of the ice in the glen. The extremely slight admixture of sediment which the water did carry with it proved that a small proportion of it did originate from the glaciers. It was of course the weather that was responsible for the insignificant yield of these glacier-streams, height of summer though it was. The dense masses of cloud in which the *firn* and glacier region were then enveloped completely neutralised the effects of the sun and prevented all thawing, while such precipitation as they did discharge over that area took exclusively the shape of hail and snow.

In a sense this glen-ice might almost be regarded as a regenerated glacier, though with an intervening stage in which it assumes the form of running thaw-water. Like the glaciers of the *firn* region, it preserves year after year approximately the same dimensions, the oscillations being but slight. A permanently increasing accumulation of ice in the glen cannot take place owing to its mass being modified by the summer thaws, when the water, which has been arrested and held up during the winter, is again able to continue its course unchecked down to the salt lake in which it finally empties. We found an exactly similar phenomenon of regenerated ice on the northern side of this same range, in the vicinity of Camps XL and XXXIX, though the ice-sheets there were infinitesimally small as compared with those on the southern side of the range. Yet on neither side of the range was I able to observe any traces of a former wider extension of the existing glaciers: neither moraines nor erratic blocks were to be discovered, and there could not of course be glacial scratches in a country where hard rock is a rarity.

However, we turned back, as I have said, up the glen and proceeded as far as the point where the glen with the pass unites with the main stream, and from there we made our way up a minor side-glen towards the south-west. It was now quite evident that we were not to get out of this highland basin except at the cost of crossing over yet another pass. The surface was for the most part barren; although at Camp XLII, at an altitude of 5268 m., we did find a few scattered blades of grass growing.

During this day's march we observed hard rock at four places, namely varieties of hard, fine-grained, crystalline schists, dipping  $10^{\circ}$  towards the N.  $57^{\circ}$  W.,  $60^{\circ}$  towards the S.  $70^{\circ}$  W.,  $20^{\circ}$  towards the N.  $60^{\circ}$  W., and  $15^{\circ}$  towards the N.  $20^{\circ}$  W. Generally however these species of rock were pretty severely weathered on the surface.

Thus Camp XLII was situated in the great broad gathering-basin, in which all the rain-water and thaw-water are collected that find their way down into the ice-filled transverse glen. Three converging streams in particular are to be noted — that which flows due south from the main pass, on the left bank of which we marched; a middle one, the biggest of the three, coming from the west, where it probably gathers up a whole series of smaller brooks that stream down off the glaciers south-west of the pass; and a third, which comes from the south-south-west, that is to

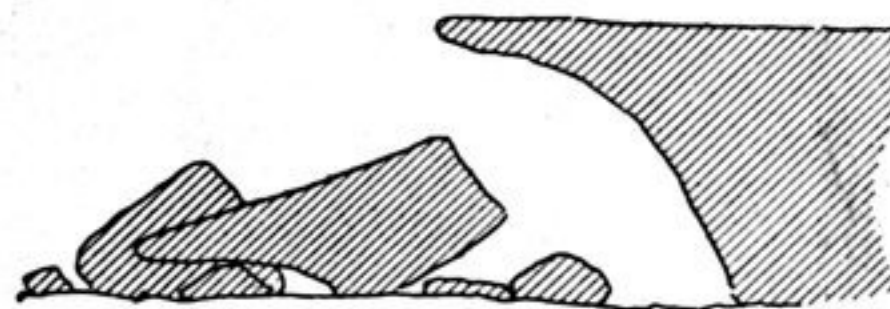


Fig. 377. VERTICAL SECTION OF ICE-EDGE.