

the yellow shores of which appeared to point to the presence of grass. In the same direction the peak  $\hat{A}$  was visible, with several other conspicuous peaks around it.

Our new camp was situated at an altitude of 5213 m., or only 124 m. lower than the pass which we had just crossed over. On the southern face of the culminating mass the snow had almost entirely disappeared; the greater part of this snow-field lies on the north side of the crest, where the sun has less power. At this pass I estimated that the snow-line runs at 5450 m.; but on the southern versant of the range it will lie about 100 m. higher. In this part of Tibet the snow-line will of course vary considerably according to the local circumstances. The great snowy mass under consideration is isolated, and consequently in a high degree exposed to the wind and to insolation. When in a greater and more continuous mass the snow possesses an enhanced power of resistance; and when a range is concave towards the north the snow-line lies lower than when it is convex in the same direction.

During the last few stages the weather had been exceptionally favourable. True, the westerly or south-westerly wind blew as usual, but it was warm. Summer was just beginning to visit these regions, though at the same time we were also approaching warmer districts. For two days past we had neither snow nor hail. It is to this that the rapid thawing of the snow on the great mountain-mass was attributable. When the sky is clouded and the wind blows hard, with hail and snow, the rate of thawing is of course greatly retarded. It must not therefore be supposed, that in July and August, the two true summer months, the snow-field becomes so seriously diminished as to push back the limit of the snow-line above the altitude I have given. For during those two months also there are frequent showers of snow or hail, this being the form that the precipitation always assumes in these high altitudes, at all events it does so upon this great snowy mass. The snow-cap, which covered the summit of the mass on 1st July, never disappears; its lower margin also moves up and down in an oscillating sort of way. After a spell of bright, warm weather it moves higher up; but no sooner does the sky cloud over, and the downfall begin again, than it descends lower.

I have already stated, that hard rocks are in general very rare in this part of Tibet. It is indeed only what might naturally be expected, when the highlands are looked at as a whole, that the hard rock should crop out more generally in those districts which form relative swellings and where the mountainous backbones have resisted denudation down to our own time, rather than in the relatively low regions, that is to say, the flat, hollow depressions which are already in great part filled up with crumbling disintegrated material. And during the course of the stage last described we had opportunity to observe the truth of this, for the hard rock showed itself much more frequently than during the preceding stages. In the meridional glen I observed successively the following rocks — a dark-blue, close-grained schist dipping  $57^\circ$  towards the S.  $30^\circ$  E.; then crystallised gypsum in big pieces or knobs on the terraced escarpment; then an extremely hard black rock, traversed in every direction by white mineral veins; further a fine black schist dipping  $65^\circ$  towards the N.  $10^\circ$  W., and split into a great number of small thin, fine flakes and sheets. Moreover there was conglomerate, and finally gypsum again. Dark schists cropped out everywhere at the bends where the erosion has been most energetic. On the whole