

tagh. The transverse glen strikes the main glen at S. 87° W. To the south-west there is a gap in the crest of the Kalta-alaghan, through which runs a pass that is said to be easy to negotiate, and with an abundance of water, grazing, and fuel. We however proceeded up the main glen towards the S. 65° E. The stream that courses down it is divided into several arms, and at that time carried a volume of at least 5 cub.m. in the second; its flow was a good deal swifter than that of the brook in the preceding latitudinal valley. But then the southern valley lies higher, and the two streams effect a junction. Just at the point where we struck up a side-glen running to the south-south-east there was, in the main glen, a patch of soft, white ice, perhaps 1 km. long and at the most 150 m. broad. This shows that in the autumn and winter the stream must freeze and form a huge sheet of ice, which thaws again in the spring and summer; and, end of July though it was, there was nevertheless this large patch still remaining.

Our side-glen too was broad and open, and surrounded by jajlaks, on which large troops of kulans were grazing. On the east of the glen were soft, low hills and to the south-west of it a huge mountain-massiv (F.) with snow, whence a couple of brooks came down to join our glen. After crossing the stream that flowed down our glen, we left its *baschi* on our right, that is the south-west, this likewise gathering off the massive F, its slopes and ramifications. Then, after surmounting a low ridge, we directed our steps towards the south, and crossed over a very deeply trenched and eroded glen with a couple of cub.m. of muddy water. This brook runs towards the N. 80° E., and joins a larger stream that flows between the two masses F and G. This last formation rose immediately east of our route and formed a rather low, furrowed talus slope, with snow at the top; a little farther east there was another similar mountain H. Along the northern side of both flows a large brook, which joins the main stream by the left or western bank of which we were ascending. From both sides this is joined by a number of minor rivulets. After all these small brooks have mingled their waters together, they form a pretty large stream, which flows towards the north and north-west between terraces of gravel-and-shingle. Eventually it enters the large river that flows down the latitudinal valley between the Ara-tagh and the Kalta-alaghan.

To the north we now commanded a view of the entire summit of the Ara-tagh; yet as compared with the neighbouring ranges it presented but an insignificant appearance. Its more rounded crest was overtopped even by the higher parts of the Tschimen-tagh.

The hard rock was visible at Ungur-tschap, namely a hard mica-schist, dipping 23° towards the N. 75° E.; higher up it dips 42° towards the N. 60° W. Ak-tschoka-aj-tuse is a rounded flattened pass of soft material, but on both east and west, more especially on the east, it is flanked by lower, sharper summits without snow. On the right side of the latitudinal valley between the Kalta-alaghan and the Ara-tagh there are knolls and hilly terraces of coarse grey granite. On the opposite side of the valley there is a very hard, dark, crystalline schist, dipping 83° towards the N. 50° W. and later 78° towards the S. 40° E. In the deeply trenched valley south of the little ridge or threshold the hard rock is nowhere visible, although big blocks of granite peep out from the soft material on the slopes. At Camp No.