

the hills and have sometimes, because of the action of water, assumed phantastic forms. Grottos are often seen.

Leaving *Pas-rabat* we have first to our left or south three right tributaries, *Kichik-oljeke*, *Shagil-unkur* and *Chong-oljeke* with 5 or 6 tents and all with *yeilaks*. From the north come *Ak-taldu* and *Yam-bulak*. The latter, with a hut at its mouth, is considerable. A short distance from the junction the *Yam-bulak* is formed by two valleys. The left or southern one of these is the *Yam-bulak-jilga* proper which leads to *Yangi-davan* and *Tuge-boyun-davan*, beyond which a valley again joins the main valley. On this road one may also continue to *Chichiklik-davan*. This roundabout road, which is one day's march in length and probably very difficult, is used, even by caravans, in the winter when the *Tengi-tar* valley is impossible on account of ice and snow. By the right or northern valley is a road to *Little Kara-kul* and *Su-bashi* crossing *Tur-bulung-davan* and leaving the above-mentioned *Kara-tash-davan* to its right. In the entire region of *Yam-bulak* there are very good summer-grazings and 80 or 90 tents.

From the junction with the *Yam-bulak* valley the main valley is called *Tengi-tar*, and here begins the extremely narrow and difficult gorge which is filled with foaming water amongst heaps of large round blocks, where it sometimes looks hopeless for loaded ponies. The rock is here granite or syenite and the forms of the ridges and crests more cupola-shaped, not sharp-edged and wild as in the schist region. The volume of water is small, only 2 or 3 cub. m. per second, but still the wild rapids amongst the blocks are a great hindrance as it is impossible to see the holes between the big blocks. Nearly the whole way one has to ride in the water. At dry places there is always vegetation, amongst other plants wild *Rosa*-bushes and birches.

From the south enters *Gör-* or *Gur-jilga*, wild and narrow but leading to *yeilaks* where people occupying two or three tents now were said to pass the summer. A little higher up *Kara-jilga* comes from the same side; in its background we see a range with eternal snow.

*Isik-bulak* is a hot spring which in three small jets comes out from below a large block in the erosion terrace at the right or southern side of the *Tengi-tar* valley. The water is sulphurous and has coloured the stones around in yellow and brownish tints. Clouds of steam are surrounding the spring, which has a temperature of  $52.8^{\circ}$ . The spring is situated 7 m. from the bank of the brook; 10 m. below the place where the spring water enters the brook the latter has a temperature of  $19.0^{\circ}$ , and 10 m. above the same place  $12.5^{\circ}$ . Two minutes higher up we pass a second spring of exactly the same character and with a temperature of  $51.7^{\circ}$ ; above it the brook had a temperature of  $12.2^{\circ}$ . From the springs and down to *Yam-bulak* the brook never freezes; above them it freezes only at comparatively quiet stretches.