There was much dead tape-like grass on the shore, but as there seemed to be none fresh, it may have been washed out of the gray clays deposited at a higher level, which are well matted with a similar grass (p. 139).

Most of the streams rising in the melting snows of the inclosing mountains disappear in broad, stony fans extending from their base. The whole zone bordering the mountains is thus characterized by a topography of interlocking fans, while the foot-hill rock-masses are largely buried in their own talus. For this reason the desert surface consists, for the most part, of bare steppes of small angular or sand-polished stones. In places there are flying sands, and certain areas bordering the mountains are covered with moraine with a surface somewhat modified by the deflation which naturally occurs in this atmosphere of 13,000 feet altitude, where there is so marked a fluctuation of temperature from night to day and between shade and sun. While we were there it went below freezing at night, but during the day our faces were blistered by the dazzling sunlight. Figures 90 to 94 give an idea of the striking forms of desert weathering.

Fig. 94.—Common type of weathered bowlders. The light fragments strewn about it are parts of the former mass.

Except for a few deeply-rooted flowers in bloom and rare clumps of grass on the dry beds of streams, the Kara Kul desert is void of vegetation. No man lives on it, and those who cross it with their caravans have difficulty in finding feed for their animals. The only wild animals seen on the plains were a rabbit, a few ducks and gulls about the lake, and some vultures devouring the carcass of a camel on the trail.

On the slopes of the bordering mountains there was more water and more life. A few marmots burrowed where the grass was thickest, but the characteristic beast was the Marco Polo sheep (*Ovis poli*), the largest of all wild sheep. Of them we saw two or three flocks, one of which numbered over fifty sheep.

After spending four days on the Pamir we recrossed Kizil-Art pass, and returning by our outward route, reached Osh again on July 17.

DETAILED OBSERVATIONS.

From the lowland plains of Fergana we had studied the Alai Mountains through our field-glasses, and recognized in them glacial forms of erosion, such as amphitheaters inclosed by sharp crescent ridges, and above them groups of cirques, and we thought we saw glaciers beneath the higher masses. Unfortunately, the old caravan route led us over a lower part of the range and did not bring us in contact with any records of glacial action until we reached the Alai Valley. It can, however, be stated that the famous Zerafshan glacier lies in a high longitudinal valley of the western extension of the Alai range, and that there are several other glaciers in the high mountains around it. Nowhere did we find any indication of a former regional ice-cap. Glacial remains with which we actually came in contact were confined to the Alai Valley, Trans-Alai Mountains, and Pamir.