

One type or variety consists of long-backed ridges or swellings, elongated east and west, with rounded, often quite steep, slopes on every side. They possess no sharp edges anywhere, and have no distinctly marked leeward flank, but on every hand display softly rounded and beautiful outlines, and gently melt together with their neighbours. The other type or variety is the usual one, regularly formed and linked together, crescentic in shape, with a steep leeward flank on the west and a long gentle slope on the east. These dunes stand relatively isolated, or rather as it were piled up on the main body of the dune-mass, where they are more directly exposed to the prevailing wind, and thus their leeward slope forms a concave, curving front; but where several such dunes grow, as it were, together, and become welded into one continuous dune, in that case their leeward flanks form a straight uninterrupted wall, where it is quite easy to see the slight festooning of the line of their bases. The smaller the dunes and the less intimately they are linked together, the more plainly this festoon arrangement is shown; and the closer they are fused together, as for instance at the western edge of the dune-mass, the straighter is the line of their bases. Another characteristic feature is the steep leeward flank which is turned towards the south, pointing to the presence of northerly winds. Strangely enough, this particular feature is more especially developed in those localities in which the dune-mass is lowest, that is to say in the parts which lie nearest to the lakes. As my topographic sketch shows, the first traverse of my rough survey was made along one of these steep leeward faces, where the angles of inclination were 32° , 39° , and 37° . The middle of these was the steepest angle I measured anywhere in this desert. The long-backed dunes have an angle of inclination of 25° and 26° ; but as a rule the slope up the dunes is generally 15° , except at the apex of the dune-accumulation where the angle flattens out to $3^\circ.6$. Beyond this over on the other side the surface droops sometimes one or two degrees towards the brink of the sharp edge whence the sand plunges over on the leeward slope. The total length of my line of traverse was 693 m., or making allowance for my deviations south, the length of the windward slope was 558 m. The mean angle of elevation from the foot of the dune-accumulation to its crest was $9^\circ.20'$.

The most characteristic features, not only of this particular dune-mass, but also of all the others in this great desert, are the up-towering leeward faces, extending from north-north-east to south-south-west, and consequently fronting west-north-west. The accompanying section shows this in the most conspicuous way; it is taken from the point where in the extreme west the dune goes down to the bajirs of the Toghraklik-köl. If the slope were taken straight from the summit to the base, its horizontal projection would measure 145 m., but in point of actual fact the slope is interrupted in two places, and descends by two gently inclined terraces, so that the actual projection measures 185 m. My sketch is however only a transverse section of the dune-accumulation as a whole; but the topographical sketch shows that there are five other places, lying east of the accumulation, at which the dunes turn their steep leeward slopes towards the west. Hence the general outline of the front of the dune-mass is that shown in the accompanying sketch (fig. 238) that is to say, it resembles a curving saw-blade. The architectural laws which prevail everywhere throughout the dunes are not difficult to recognise, but it is not always easy to say what are the causes