of the exceptions to them. On the windward slope of the dune-accumulation we have established the presence of a system of leeward faces looking towards the south. These are occasioned by northerly winds, are steep and short, and exercise no influenec upon the contours of the dune-accumulation as a whole. But how are we to explain the presence of the two terraces between *f* and *g* and *g* and *h* on fig. 238? Only a short

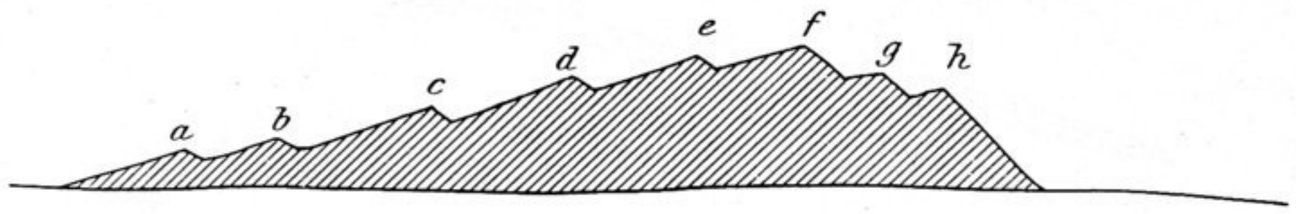

Fig. 238.

distance to the north of where the section was taken there is but one terrace, and still farther north none at all, but the leeward flank descends as usual, at an angle of 33°, straight into the depressions of the Toghraklik-köl. In the first place it is essential to remember, that each of the sharp crests *a* to *h* in fig. 238 may be regarded as belonging to as many separate individual dunes, all moving in common towards the west and, so to speak, climbing up upon one another's shoulders. Consider the situation as depicted in the fig. The dune crest *f* is the highest, forming as

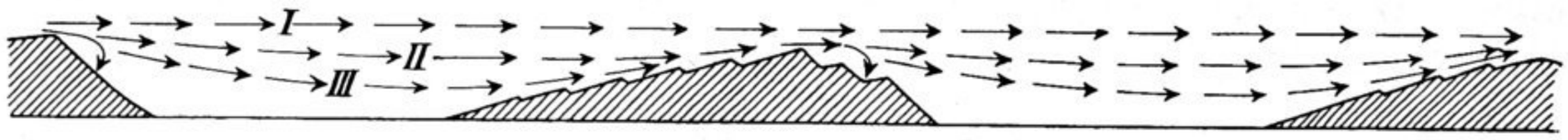

Fig. 239.

it were the culminating-point of the whole of this particular accumulation of sand. If we assume that the maximum vertical altitude of each of these masses of sand is in general 90 m., then the culminating-point *f* is situated in the atmospheric stratum (I in fig. 239) which has experienced the least resistance from the chains of dunes situated to the east of it. This is precisely the point therefore throughout the whole of this dune-accumulation which is most exposed to the effect of the wind; and the very gentle slope of 3° to 4° on its summit proves also, that this particular part of the dune-ridge has suffered most from the frictional power of the wind. This individual dune must therefore move at the swiftest rate, at all events swifter than *g* and *h*, which are both of them sheltered from the wind. If then it travels faster than *g* and *h*, it must eventually overtake them, and melt and fuse with them, a stage which is represented in fig. 240. At the moment it fuses with them (fig. 241) its

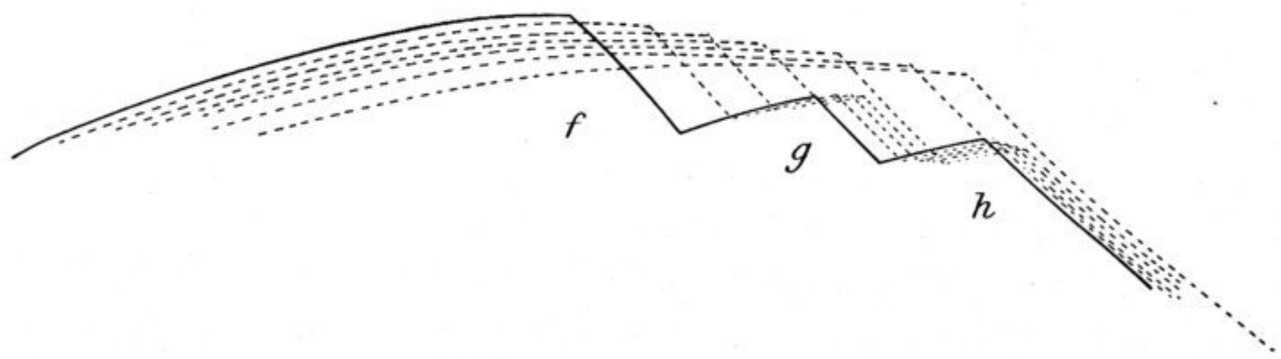

Fig. 240.