

it was equally thick on the southern side of the actual crest. On the same side, but lower down, it was crusted over, so that you could without difficulty have ski'ed down it; and as the afternoon wore on, the hardness of the surface increased. Along the southern faces the snow which lay next to the surface of the sand had evidently thawed, for the sand itself was frozen to the depth of 2 to 3 cm., and when the camels slid down these steep slopes, patches of the hard, frozen sand, as much as 20 square meters in extent, used to descend with them, carrying along at the same time their coverlets of snow as they glided down over the loose, unmoistened surface; the snowy edges of the crests thus exposed to the noonday sun were frozen so hard that they did not break even under the weight of the camels. And so slippery

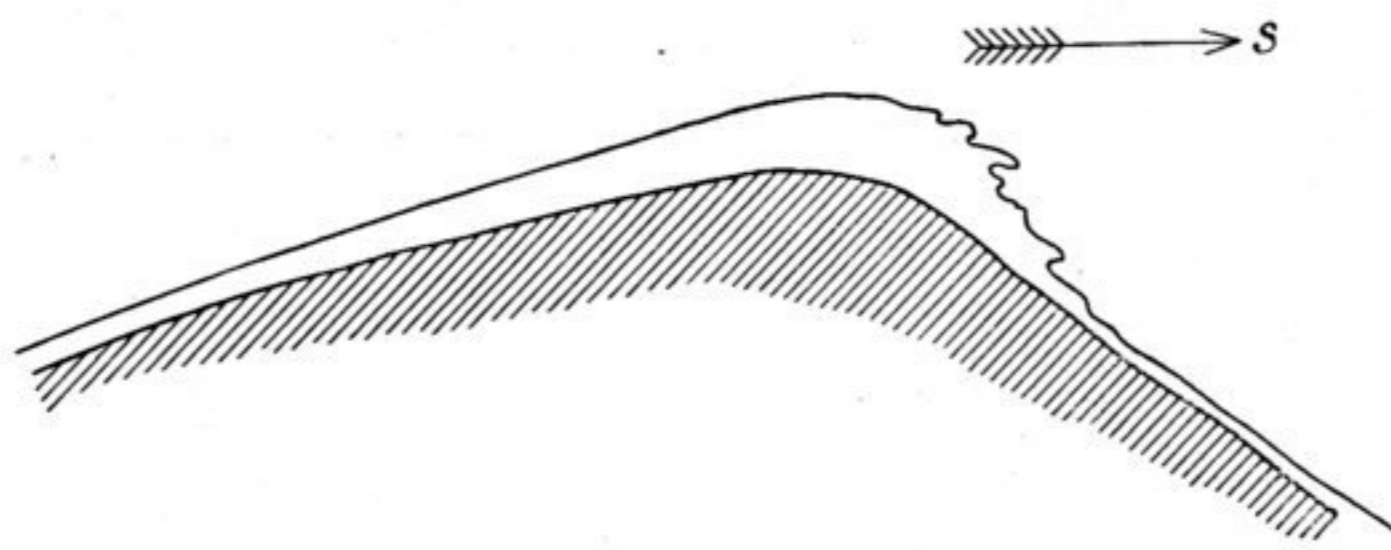


Fig. 286. FROZEN SNOW ON THE CREST OF A DUNE.

were they that the camels, until they learned not to tread on them, used frequently to fall. On the other hand the frozen leeward face, looking towards the south or the west, would not bear, but broke under their footsteps. It is just this saturation of the sand — it was now 2 to 3 cm. deep — by the thawed snow which produces

the harder laminæ of which I have been speaking. The same effect is of course produced by a spring rain, though the lamina so originated is not indeed so thick. On the other hand none of these changes occasioned by thawing and regelation were to be observed on the slopes that look towards the north. There the sand was as usual loose, and in the holes left by the camels' feet, the dry snow used to mingle with it. And before any thaw can set in there, as a consequence of the general rise in the temperature of the air in spring, the snow has evaporated so that the retarding effect, which it may possibly have upon the movement of the sand when the first storms of spring come, cannot be very great. On the other hand, the moist layer of sand on the southern slopes becomes all the thicker when the snow begins to thaw from underneath. The 2 to 3 cm. spoken of above were



Fig. 287. SNOW-COVERED DUNES.