

dency, and that the increasingly higher dunes in the west affect the wind, influencing to some extent its force and its regularity. The more uneven the surface, the greater the friction of the atmospheric current against the earth; and the more its velocity is retarded, the greater is the quantity of sand that settles. In proportion as the dunes in the west increase in consequence of the continuous supply of fresh sand, the eastern edge of the desert ought to shoot out more and more to the east, and the first row of rudimentary dunes ought to progress increasingly farther in the same direction. On the other hand, if the western dunes were to be entirely removed, or the supply of drift-sand were to be either diminished or entirely cut off, the eastern edge of the sandy desert ought to recede towards the west. As a matter of fact it is the former process that really takes place, the reason being that the predominant east-north-east wind is less constant in the region west of the Desert of Tschertschen, so that the sand accumulates there to exceptional dimensions, and its retro-active effect upon the wind is intensified.

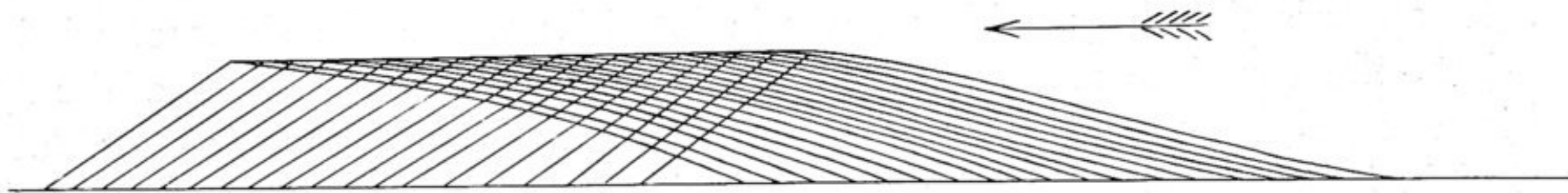


Fig. 194. A DUNE ADVANCING WITH THE SAME SPEED BECAUSE THE MASS REMAINS THE SAME ALL THE WAY.

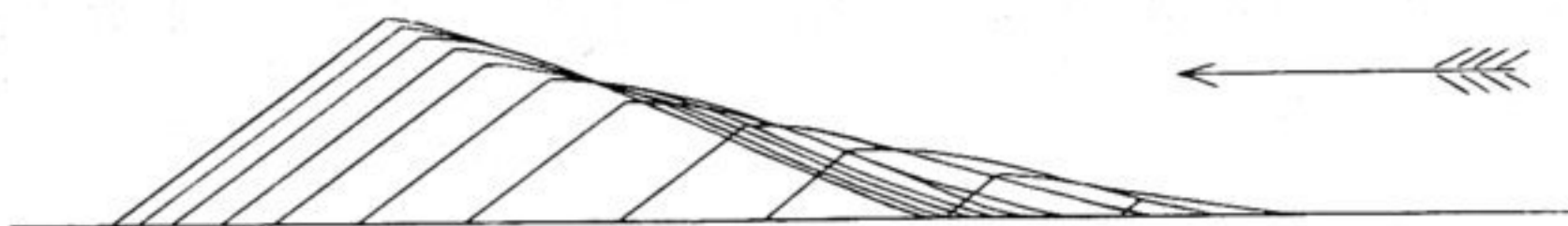


Fig. 195. A DUNE ADVANCING SLOWER AS THE MASS INCREASES.

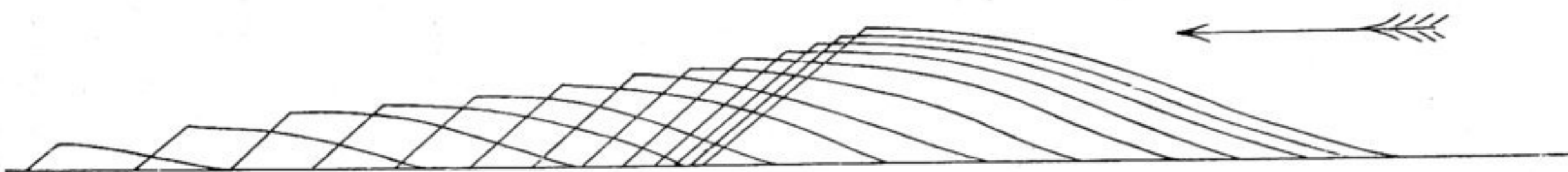


Fig. 196. A DUNE ADVANCING QUICKLY AS ITS MASS DECREASES.

If the clay under-surface of the Tarim basin were to be closely covered over with dunes one to two meters high and only linked together horizontally, though not in two storeys, then the line, for instance, from Jangi-köl to Tatan would for a certain time be crossed by even greater masses of sand than it is now, other circumstances remaining of course the same. The individual dunes I have supposed would gradually associate themselves together vertically also, and so form accumulations, and their rate of progress would decrease in proportion to the augmentation of mass. In this way increasingly greater quantities of sand would, during the same period, be held together, and so contribute to augment the size of the dunes. The same thing would also hold good for other meridional lines, situated east of that just named; and here again it would be possible to discern a retro-active effect upon the growth of the dunes, that is in the direction opposite to that of the prevailing