

which governs or determines the movements of the dune-masses is the east wind; so far as I was able to see, these masses are practically unmoved by winds from other quarters. But this is not true when applied to the loose dust deposited in the bajirs. By their very positions the bajirs are especially exposed to the winds from the north-east and south-west, and as a consequence of this their floors are subjected to a wind erosion that leaves the dunes otherwise untouched. Whereas a wind from either of these directions excavates the bottom of the bajir, a gentler wind, or even the calm which succeeds a tempest, may cause the dust which is floating in the air to settle on the floor of the same bajir. The resultant effect of these two agencies is that, as time goes on, the basin of the bajir becomes hollowed out deeper and deeper, just as in a similar way the ultimate result of the river's activity is to give it an excavated, but changeable, bed.

To gather to a head the threads of my argument, let me say here that, while, theoretically, the effect of the pressure of the dunes is to make the dune-valleys convex, that effect is *de facto* more than neutralized by the action of the wind, which makes them concave.

Nor is it difficult to give an actual proof of this wind erosion; the shape of the bajirs alone is enough to prove it. Each bajir is always deepest on its eastern side, that is to say on that side which lies at the leeward base of the advancing dune. This may in part be because that side of the bajir is the one most exposed to the dune-pressure, whereas the more gently rising dune on the opposite or western side, being for that reason smaller in mass, exercises a less amount of pressure. But the determining factor, the real power which effectually imparts to the bajirs the shape they



Fig. 217.

exhibit, is the wind. The annexed fig. (218) illustrates the way in which it acts. Let us suppose that the sectional line $a-a'-b'-c'-d'-e'-a''-a'''$ represents the leeward side of a dune, the windward side of the next dune, and the intervening clay floor of a bajir. After a certain period the superficial layer of the bajir will be carried away by the wind. During this period the dune-wall $a-a'$ advances, and those portions of the eastern side of the bajir which become buried under the advancing sand-slides become so far forth protected against wind-erosion, as well as pass beyond the reach of our

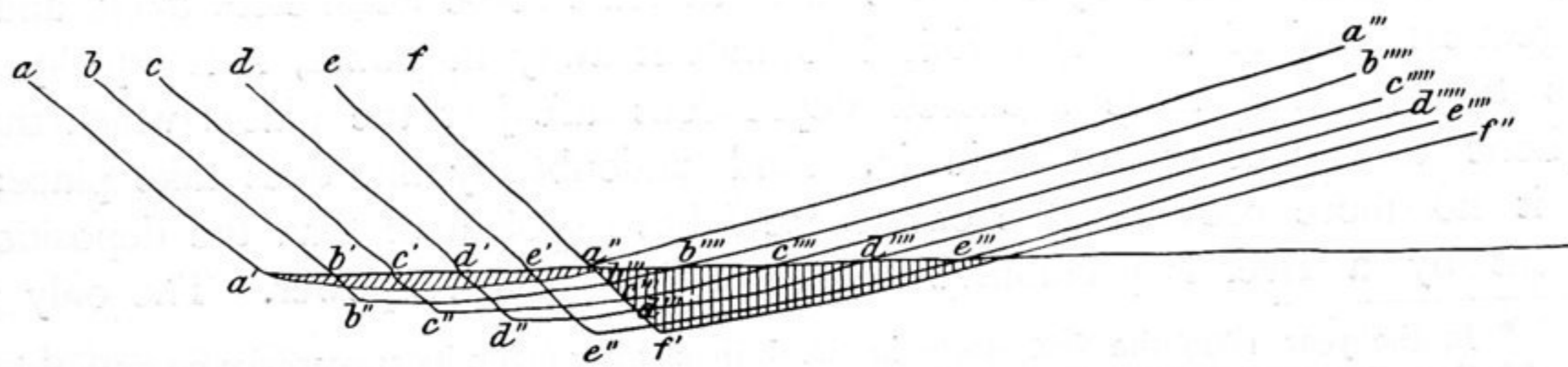


Fig. 218.