

new cut, so as to force the water of the Jarkent-darja into the bed of the Kona-darja. The dam, which is built of toghrak-trunks, branches, brushwood, and clay, is said to require 1000 men for its construction. It is however never strong enough to withstand the force of the river when in full flood, but always gives way before it and is broken. Hence, as the cultivation of Maral-baschi is entirely dependent upon artificial irrigation, the dam has to be reconstructed every spring. But no dam is required in the Kona-darja, for the canal which leads off from it on the left, and which has gradually developed into a regular arm of the river, lies at a lower level than the Kona-darja itself, so that the water naturally gravitates that way of its own accord. After some distance it enters a lake, and thence proceeds by several branches to Maral-baschi.

The new arm I have spoken of is called Kötäklik, because it is filled with driftwood (*kötäk*). The space between the two river-arms is occupied by a *kamisch* (reed) steppe. Forest is thin and rare. In the Kötäklik-darja the current was active, as it generally is in newly formed branches, owing to the fact that it has not yet begun to wind about and does not yet dissipate its energy over a long course.

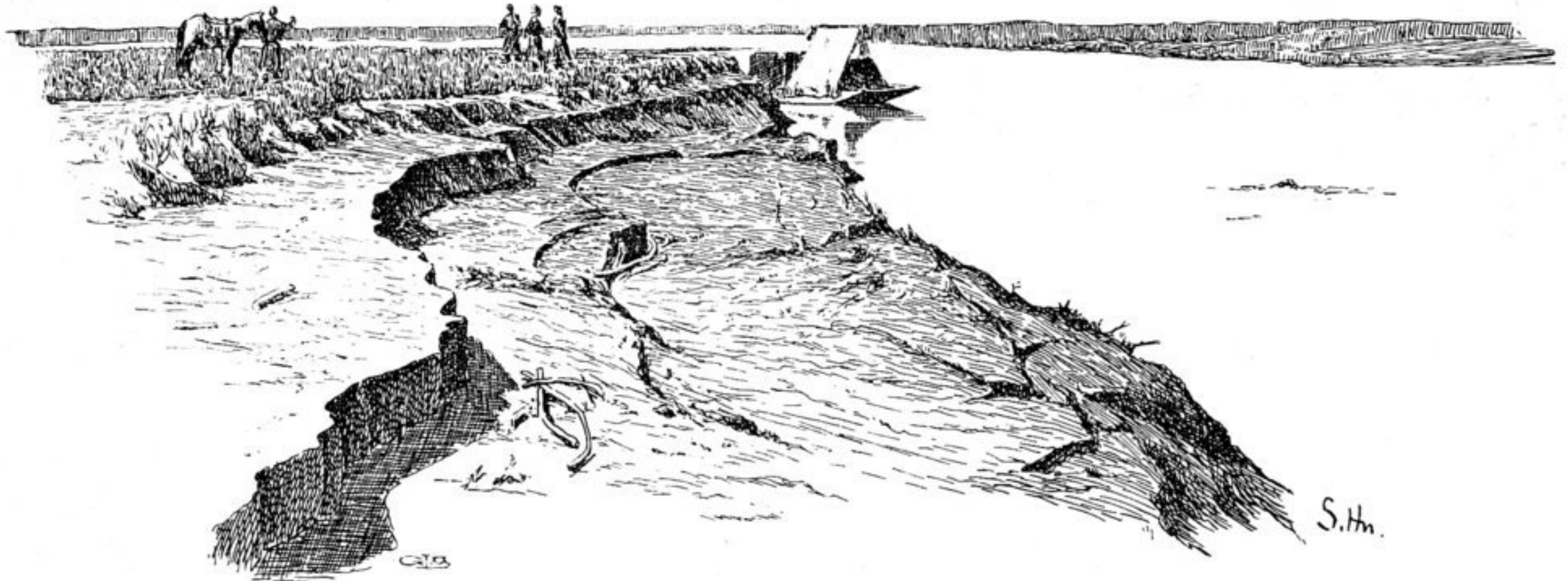
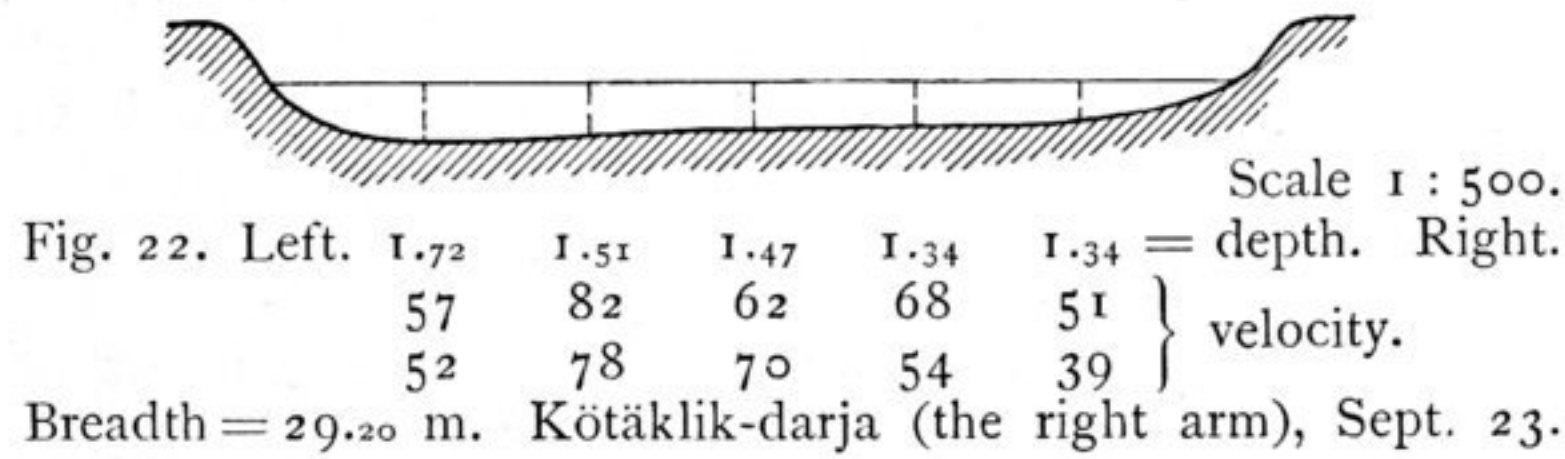


Fig. 21. KÖTÄKLIK-DARJA ABOVE THE ISLAND.

In the upper part of the Kötäklik-darja there is an island, consisting, not of silt, but of firm ground, lifted tolerably high above the surface of the stream and covered with vegetation. From its upper end we measured the volume of the divided current which flowed on each side of it.



The branch on the right was 29.20 m. broad, and had a mean depth of 1.230 m., a mean velocity of 0.5715 m., and a volume of 20.53 cub. m., in the second; while the measurement of the left branch gave the following results, breadth, 34.20 m.; mean depth, 0.613 m.; mean velocity, 0.5177 m. in the second; volume, 10.86 cub. m. in the second. Thus the total volume

