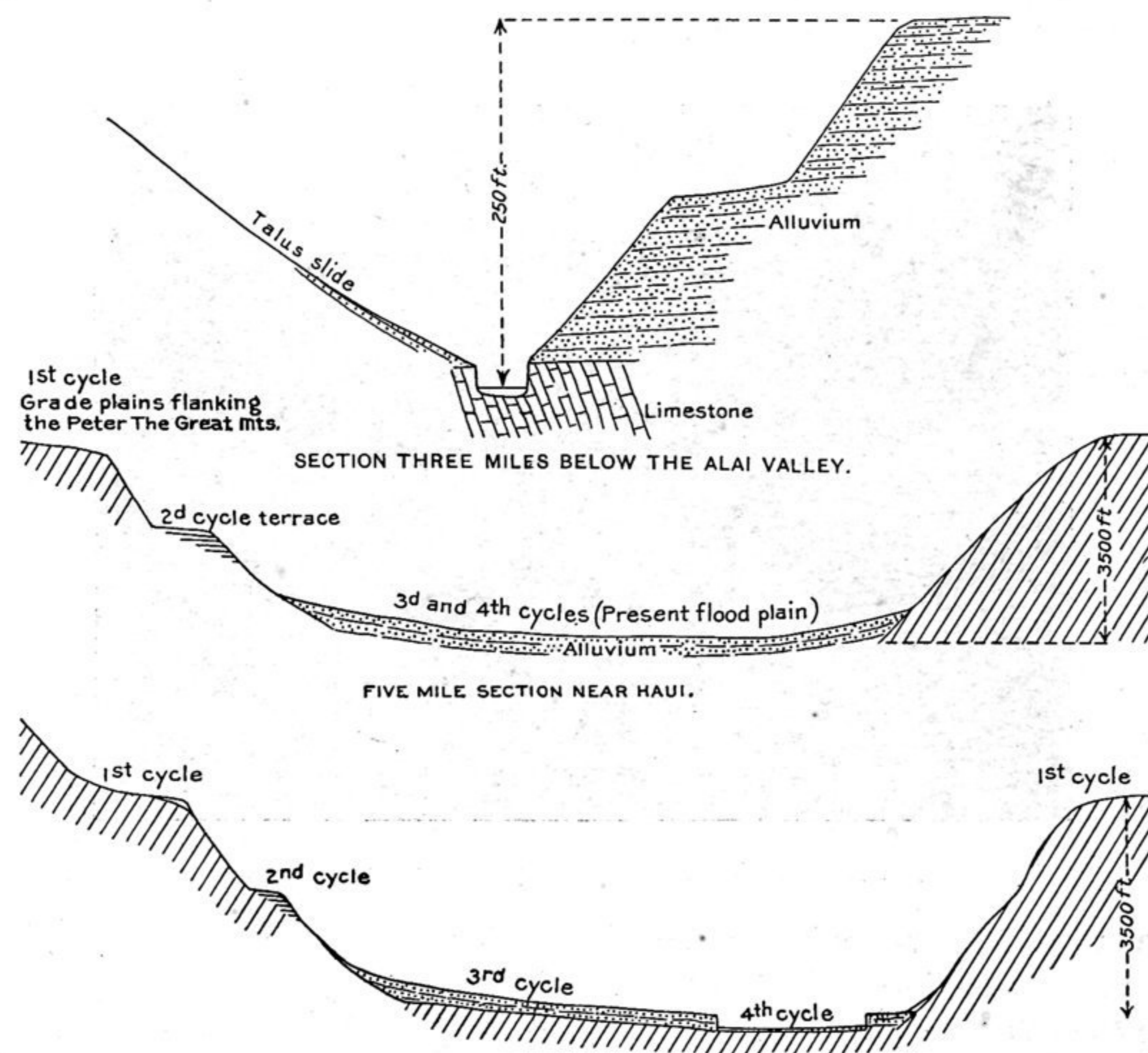


Physiographically, the great features of this spacious valley arise from its ancient terraces and grade-plains. In general, there are three past erosion stages represented and these with the present river channel make four erosion cycles. But for over 30 miles, midway between Obu-garm and Katta Kara Muk, the third and fourth stages merge into one; or rather the third-cycle flood-plain warps under present alluviation and the river spreads out with no channel. Often the second-stage terrace is found obliterated and the valley becomes a simple wide gorge with tributaries cut into the old topography of its first stage, the peneplain stage of these regions.



TYPE FIVE MILE SECTION WHERE THIRD CYCLE FLOOD-PLAIN IS NOT WARPED UNDER THE PRESENT FLOOD-PLAIN.

Fig. 444.—Terraces of the Kizil Su in Karategin.

As the first-stage topography has been uplifted and dissected by this great gorge and all its tributary systems to a depth of from 3,000 to 4,000 feet, only limited areas of its original slopes now remain. It is to be inferred from a conformity of grade-plains and flat-topped spurs flanking the Peter-the-Great Range and dissected remnants of a one-time half-peneplained belt of the Alai Mountains north. When uplift began, it was by no means a peneplain, but rather a mature topography grading into the wide, shallow valley of the Kizil Su and peaked here