

## CHAPTER XXXVII.

### THE SOURCE OF THE BRAHMAPUTRA.

On July 6th, 1907, I camped on the right or southern bank of the Martsang-tsangpo or upper Brahmaputra at a place called Chärok, the same that is called Chiru on Ryder's map. The number of the camp was 195, the absolute height 4,657m. (15,275 feet). Early in the afternoon I measured the volume of water in the river, which here flows in a narrow, well-defined bed. The breadth of the river was 47.45 m.; the depth was measured at 11 points at equal distances from each other, the deepest being 1.52 m., and the average depth 0.996m. The velocity of the current was measured at the surface, in the middle and at the bottom at every point where the depth was sounded, which makes in all 33 readings of velocity. The average of all these readings makes 0.930m. a second. The volume of the river was therefore 43.95 cub.m. a second. It seems surprising that this river carried only one and a half times as much water as the volume which every second reaches the Manasarovar, or 28.65 cub.m. Both values are so far comparable, as the measurements were undertaken during the same dry summer. But it should be remembered that the Tsangpo at Chärok, which is not very far from the source, rises very considerably towards evening and night, when the water which during the sunny hours of the day has been melted on the glaciers, has had time to flow down so far. The above value of 43.95 cub.m. therefore probably signifies the lowest ebb of the pulsations within the 24 hours. Proceeding, day by day, upwards to the source the high-water will of course be met earlier in the day, until, finally, at the very source, there will not be any delay at all, and the ebb or low-water will enter during the latter hours of the night and the early morning. This should be borne in mind when we consider the following measurements.

At Chärok a little rock stands at the right bank of the river; the road follows the left bank to the N. N. W. A now dry summer-bed is crossed. Tabuk is a tributary valley entering from the west. The river is here divided in several branches and can be crossed on horseback. In the rainy season it is so swollen that even yaks cannot swim through the strong current. A ridge of hills reaches the very left