

Mr. Dietzsch, a mining engineer of twenty years' practice in South America, and Mr. Hübel, another mining engineer, many years at work in the Andes, have all estimated the height of Demâvend to be near 20,000 feet. It is a pity that the *five* gentlemen who ascended Demâvend this last summer did not take any observations, and that the others who took the trouble to get to the top and observed, did not arrange for simultaneous observations to be taken at Teherân.

Work of the Native Explorer M—H in Tibet and Nepal in 1885–86.

In April 1885 one of the explorers of the Indian Survey Department was directed to ascend the Dudhkosi river through Nepal, and thence to reach Dingri; he was thence to turn westwards, and find his way by Jonkhajong to Kirong, whence he was to travel further westwards till he reached Nubri, near the head-waters of the Buri Gunduk, and, following the course of the river, to return to India by Tirbenighat. This programme he succeeded in carrying out with a few unavoidable exceptions; but the want of hypsometrical observations (owing to an accident *en route* to the boiling-point thermometer) deprives his work of a place in the first rank of transfrontier explorations. His route, however, traverses more than 420 miles of new ground, and besides tracing the Dudhkosi to its source, it fills the gap between Dingri, Jonkhajong, and Kirong. Having received orders on the 12th April 1885 to arrange for his trip, the explorer went to Kumaun to engage companions and servants for the journey, and succeeded in engaging a Kumaun native and three Nepalese. He travelled in the disguise of a *baid* (physician), and having laid in a stock of European and native medicines, besides other articles suitable for presents to officials, he began his survey work at Dagmara thana in the Bhagalpur district. The first post was at Bhagalpur thana, and here after making presents, a passport was obtained, after which the party proceeded northward, crossing the Mahabharat range, and thence ascending the Dudhkosi still higher to Khumbujong, the residence of the governor of the Khumbu district, situated about 18 miles west of Mount Everest. This functionary absolutely refused the party permission to proceed northwards, alleging that the route had never been traversed by either Hindustani or Gurkha. The explorer made a lengthened stay here, treating the sick, among whom the commonest complaint was goitre. He succeeded in curing the governor's daughter-in-law of this disease, and thus secured the co-operation and company of her husband, Sunnam Durje, who, as luck would have it, was starting on a trading expedition to the north. The watershed of the Himalaya Mountains was passed a little distance north of a village called Pangji, beyond which the road leading up the gorge to the crest of the pass was extremely contracted, and took five or six

hours' toilsome marching to cross. Large masses of rock, brought down by snow action from the heights on either side, are to be met with in the valley, poised like capitals on pillars of frozen snow, about 30 or 40 feet in circumference, and 20 to 30 feet in height. The pass itself, called Pangula, is formidable, and estimated by him at 20,000 feet in height. The ridge or water-parting forms the boundary between Nepal and Tibet, and beyond, at the village of Deprak, more obstruction was experienced, till permission to advance was obtained from the Daibung, or governor of Dingri. The Dingri maidan or plain is where the pitched battle was fought between the Tibetans and Gurkhas in 1792. Dingri itself consists of 250 stone-built houses, inhabited chiefly by Tibetans. The altitude (13,860 feet) is excessive, and accounts for the rheumatism prevalent among the inhabitants. On an adjacent hill stands the stone-built fort occupied by the Daibung or governor, and forty Chinese military officers, who are in command of about 500 Tibetan soldiers. The authority of the governor extends from Shakra to the westernmost limits of Tibet, and he exercises both civil and military jurisdiction short of capital punishment within his territory. He has a monopoly of the trade in tea and salt, which the inhabitants are compelled to take over and pay for in barley and coin. The soldiers are armed with a sword, matchlock, and bow and arrows. The sword is the usual straight weapon, in wooden scabbard, met with all over Tibet; the matchlocks come from Lhasa, and the bows are made of bamboo brought from Nepal. The chief articles exported from India into Tibet by the Dingri route are tobacco leaf, cotton cloth, broadcloth, iron, brass and copper vessels, corals, and rupees, which are used for making jewelry. For these the men of Khumbu go annually in parties to India, some even as far as Calcutta, taking with them musk-pods, yak-tails, antelope horns, blankets, and stuffed *munál* and argus pheasants. At Dingri further trouble was experienced in inducing the governor to believe that the explorer was really an inhabitant of Jumla, and to allow him to go home by the shortest way, viâ Jongkhajong and Nubri. The Daibung declared that this route was absolutely closed to all but officials, traders going westwards, and others being compelled either to take the southerly route viâ Nilam, or the northerly one across the Brahmaputra, through Dokthol (traversed by the Pundit Nain Singh in 1865-66). For a distance of about 25 miles beyond Chamda the valley shows abundant signs of having been once very largely populated, but it is said that in the last great war between the Nepalese and Tibetans, most of the inhabitants were killed, and the place now lies almost deserted. Having crossed the Lungola pass and traversed the Digurthanka plain beyond, the party reached the Palgucho lake, which is about nine miles by four in extent. The explorer was informed by his escort that this lake has no outlet; it appeared completely embayed by mountains, and the water was clear and sweet. Jonkhajong, a mud and stone fortress about 400 yards square,

was the extreme north-western point reached by the party; from hence roads lead north-west to Tadum, and west viâ the Satu Changbo to Nubri. Here the explorer bade farewell to his friend Sunnam Durje, to whose friendly offices he was indebted for having been enabled to proceed, and travelled southwards to Kirong. Beyond this village, near the Nepalese frontier, the road runs along a gallery of planks laid upon thick iron bolts driven into the face of the rock. The course of the Tirsuli river was followed to Naiakot whence M—H diverged westward and crossed the watershed between the Tirsuli and the Buri Gandak, the valley of which he ascended as far as Birjam or Nubri, after which he retraced his steps southwards to Arughat. Here he replied to official inquiries that he had gone all the way to Nubri, in search of one of his dependants who had run away from the explorer's house in Jumla with a large sum of money, but whom he (M—H) had not succeeded in finding. He said, having failed in his object, he was anxious to return home viâ Tirbeni, where he intended going through the customary religious observances. He was then allowed to proceed, but warned that owing to the disturbed state of the country consequent on the insurrection in Khatmandu he was liable to detention in several places. At the junction of the Tirsuli and the Buri Gandak rivers the explorer estimated that the body of water of the former was somewhat in excess of the latter and the current more rapid. The route then lay south-westerly, viâ Deoghat to Tirbenighat on the British frontier, which was reached on the 13th January, 1886.

GEOGRAPHICAL NOTES.

The proposed Antarctic Expedition.—An answer has been received to the letter,* addressed by our President to the Secretary of State for the Colonies, in support of the Australian request for a grant in aid of the proposed pioneer expedition to the Antarctic regions. As will be seen, Her Majesty's Treasury declines to promote the views of the Australian colonists, at least in their present form. The answer is conveyed in the following correspondence, a copy of which has been sent to the Society by the Colonial Office:—

COLONIAL OFFICE, DOWNING STREET, 12th December, 1887.

I am directed by the Secretary of State for the Colonies to transmit to you, to be laid before the Lords Commissioners of the Treasury, a copy of a letter from the Agent-General for Victoria, inquiring whether Her Majesty's Government will contribute the sum of 5000*l.*, in the event of the Australian Colonies making a like contribution, towards the cost of an Antarctic Exploration. Copies

* 'Proceedings,' 1887, p. 757.