

circumstances which we only happened to discover when we came to examine the tariff for our ascents.

The tariff, by the way, would need revision if much mountaineering work were done in the district, as all high peaks are classed the same, irrespective of difficulties.

We found out in conversation that he gained nothing by climbing mountains, as the tariff went to the Government, and beyond his salary as Government guide he did not receive a percentage on the ascents made. This being so, it would almost have been excusable if he had never climbed at all, instead of being able to claim, as he can, most of the important first ascents (important from a climbing point of view) which have been done in the Mt. Cook district.

HOW TO CLIMB KANGCHENJUNGA: A TOPOGRAPHICAL NOTE.

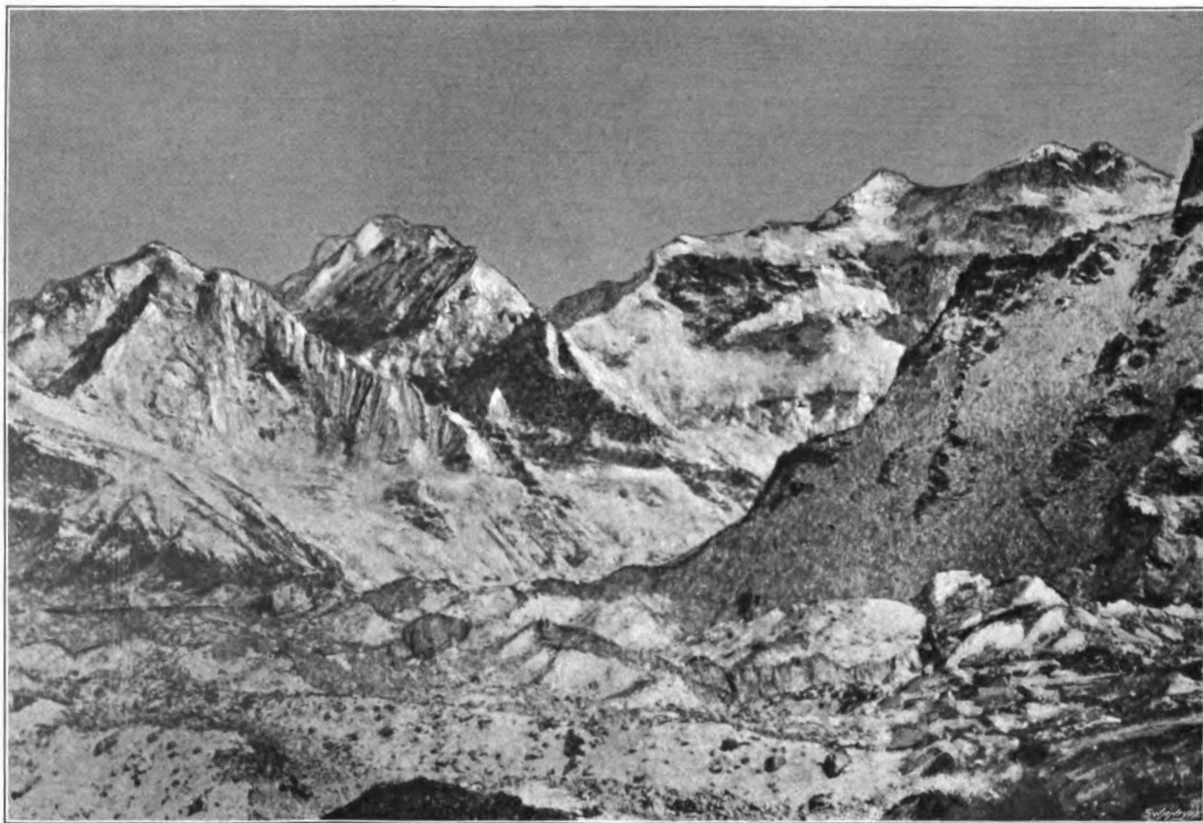
By DOUGLAS W. FRESHFIELD.

IN my recent volume 'Round Kangchenjunga' I referred in somewhat discouraging terms (pp. 171-2) to the possibility of a way to climb the mountain being found on its N.W., Nepalese, flank by the cirque at the head of the Kangchen Glacier. The problem to be faced in any attack on Kangchenjunga from the north is how to reach the gap between it and the peak (23,350 ft.) I have called 'The Twins.' On the Zemu side, unfortunately, this gap is defended by apparently impracticable and avalanche-swept precipices, while the singular buttress which, starting from the northern ridge halfway between the gap and the peak, falls into the upper basin of the Zemu glacier, is of the most repulsive aspect.*

But on the western, or Kangchen Glacier, side it is not impossible that a fairly safe line of ascent to the before-mentioned gap may be discovered. It is true that the centre of the cirque under Kangchenjunga at the head of this glacier consists of a series of rocky cliffs and icy shelves, which, even if practicable, must be too much exposed to avalanches to offer a reasonable or legitimate route to mountaineers. But at the back of 'The Twins,' † and to the left (as one looks into it) of the cirque, lies a recess which deserves a close

* See the illustration opposite p. 114 of my book.

† See panorama opposite p. 173 of my book. On p. 181 of volume xx. of this Journal I expressed myself unfavourably to this route, which commended itself from the first to Garwood.



E. Garwood, photo.

Swan Electric Engraving Co.

KANGCHENJUNGA FROM THE KANGCHEN GLACIER.

inspection. From the site of our Pangperma camp it is not visible, but comes into view for a few minutes as the traveller descends further beside the great trunk glacier. I consequently only had a passing glimpse into it at the time, but none of Signor Sella's photographs show it completely. But by putting together two little photographs of Garwood's I have succeeded in securing an accurate and almost complete representation of this interesting corner—which I offer here for the benefit of future explorers, who can form their own judgment as to its capabilities. The height of the gap must, at a rough estimate, be about 22,000 feet. It is therefore about halfway in vertical height between Pangperma and the top of Kangchenjunga.

There seems little doubt that the climb up the northern ridge above the gap, though stiff at first, would not be impracticable, and towards the summit would grow relatively easy. Those who look at this ridge from Gantok are naturally led to think that it is the obvious route to the top. The difficulties, as I have already shown, lie lower down. Should they prove insuperable, are there no other assailable places on the great mountain? I am not prepared, and it would be rash with our as yet imperfect knowledge, to give any positive answer to this question.

The very long and lofty western ridge of Kangchenjunga might certainly be traversed on or near its crest. The traverse would lie between 25,000 and 28,000 feet and be about three miles and a half in extent. The preliminary climb from the head of the Ramthang Glacier would be steep. As far as we saw the slope is protected by formidable hanging glaciers ending in ice-cliffs. But we failed to obtain any complete view in this quarter.

There remains one other possibility. It is conceivable that the rockwall at the head of the Yalung Glacier might be overcome by the help of a shelf conspicuous to the right of a horseshoe cliff in the plate opposite p. 234 of 'Round Kangchenjunga.' This would be a very direct route up the sun-warmed face of the mountain, but a prodigious climb. Careful study of the face with regard to exposure to rockfalls would be essential. The western ridge would be gained close to the foot of the final peak and not far below it.

Let me add that for explorers not prepared for any such daring adventure as this climb there is no part of the range that offers a more desirable field for exploration than the head of the Yalung valley and its glacier. It is, I think, unlikely that any Nepalese officials would be found to interfere with a

party who confined themselves to this district, which is easily accessible from Darjiling over the Kang La; while a certain amount of provisions might be procured at the chalets of Tseram.

For the conquest of the great peaks of the Kangchenjunga Group I remain convinced that climbers must, like the Swiss conquerors of the southern peak of Ushba, be prepared to carry their own wraps and provisions for their nights out. If they cannot do this, their best chance lies in securing the services of Gurkha soldiers who have been trained by Major Bruce or some equally efficient soldier and mountaineer. With ordinary coolies they can hardly hope to attain a camp of over 20,000 feet.

In conclusion, I should like to use this occasion to repeat an enquiry often made by English mountaineers. When shall we hear of the founding of an Himalayan Club in India, which will encourage and direct mountain exploration and research, and will be in a position to assist climbers coming out from Europe? Why is it only in India that our countrymen, as a body, show little or no interest in mountains except as a background for sport? It is not altogether, as is sometimes alleged, lack of leisure or means, for Himalayan sport requires both. From the Cape we receive the Journal of a flourishing mountain club. New Zealanders have done much towards the conquest of their Southern Alps. I cannot but hope that the improvement in access to one portion of the snowy range consequent on the Tibetan expedition may help to give an impulse towards its exploration, and that some of the Englishmen who have spent a winter at the foot of Chumabhari may be so far infected with mountain fever as to make them qualify themselves to be the founders of an Himalayan Club.

THE MYSIAN OLYMPUS.

By G. PERCIVAL BAKER.

THE ascent of Mt. Olympus of Mysia, Asia Minor, offers a most interesting excursion to anyone who may happen to be in the neighbourhood of Constantinople and to have five or six days at his disposal to devote to the trip. It is reached by Turkish steamer from the capital, the place of disembarkation being Mudania, on the S.W. shore of the Sea of Marmora, whence by rail over the outer barrier of hills which fringe this end of the Marmora the traveller crosses a fertile