

TRISUL, 1933.

By P. R. OLIVER.

THE party consisted of myself, Kesar Singh of Bompa (who acted as sirdar to the coolies), Kalu of Bompa (who acted as rough cook), five Bhotias clothed and equipped for high camps, twelve other Bhotias with no extra equipment for establishing a base, and Kanchen Singh as guide and to shoot burrhel for the men. We carried twenty days' provisions for all, besides tents and equipment.

Our march (or rather scramble) up the Rishi from Tolma, successful attempt on Trisul, and march back to Lata took seventeen days.

10th June. From Tolma to Utni, a beautiful grassy alp surrounded by dense woods high up above Tolma.

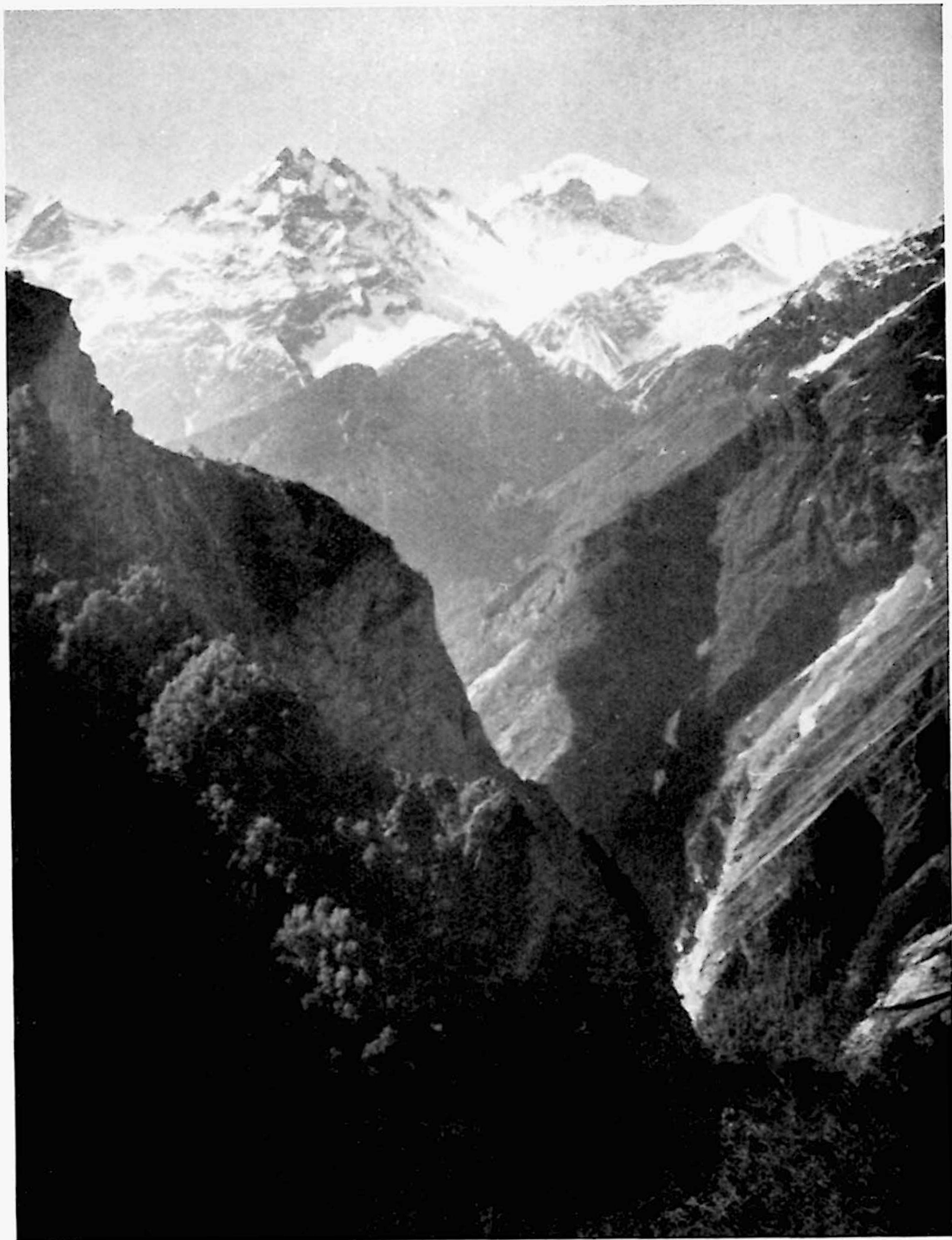
11th. We crossed the Tolma ridge (near Lata Kharak) and took a very difficult and precipitous route (for loaded men) along the slopes above the Rishi Ganga. 1000 ft. above us lay the easier upper route, which was not taken owing to there being much snow on it, according to our guide, and thus being at present unsuitable for men not properly shod, as half ours were. A very poor camping



Photo, P. R. Oliver.]

EASTERN FACE OF TRISUL FROM ABOUT 16,500 FT.

[To face p. 142.]



Photo, P. R. Oliver.]

VIEW ACROSS THE MIDDLE RISHI NALA FROM NEAR LATA KHARAK.
Trisul hidden by peak 20,840.

place, with no room for tents, in the bed of a steep nala that night. We went back by the easier upper route.

12th. Over steep and difficult ground again to Durashi, the wide summer grazing grounds for Lata village.

13th. Down brown 'burrhel slopes' to Dibrugheta, the loveliest camping ground I have ever seen.

14th. Over a wooded shoulder and then down and along steep slopes to Dutti. There were signs of a fairly recent camp there, not more than two or three years old. Also a tree trunk forming part of a former bridge was left across between our bank and the huge mid-stream boulder. We made a fairly substantial bridge over the torrent.

15th. Crossed the Rishi, up and round the spur dividing the Rishi and Trisuli Nalas. Camped at a spot just below the Betatoli Glacier.

16th. Crossed the Betatoli Glacier and moraines and went up the W. bank of the Trisuli Glacier to a suitable place for a Base Camp—perhaps 14,500 to 15,000 ft. in height.

17th. Rest.

18th. To a Camp I at about 16,500 to 17,000 ft. on a spur coming down Trisul to the Trisuli Glacier, and just to the S. of a big subsidiary glacier which we had to cross.

19th. To a Camp II which I guessed as between 18,500 and 19,000 ft. when comparing our height with known altitude. We followed up our easy flat-topped spur, zigzagging between crevasses and a few ice cliffs. To the right was always the subsidiary glacier, snow-covered and fairly broken up. To the left, steep slopes dropped to the Trisuli Glacier, which curved round to the big dip in the ridge between Trisul and the high wall of mountains leading towards Nanda Kot. This was hard work, as the snow was soft and crusted inadequately. This was the last day of good visibility we had, and the view was magnificent. Right round the whole ring—Dunagiri, Nanda Devi, East Trisul and Trisul—there appeared not another easy mountain except Trisul, which we were on. We had failed on Dunagiri, and the new angle of view made it seem harder if anything. Changabang looked very difficult. I wonder how Graham climbed it. One imagines by the glacier shelf to the S.E. The Bagini Pass region looked rather confusing. I could not exactly make out where the pass was. Over the mountain ridge to the E. of the Trisuli Glacier Nanda Devi showed a good deal of its upper parts. We appeared to be well over the height of the pass between Trisul and the main ridge leading to Nanda Kot.

We could see Kamet, a huge sturdy pyramid far away to the N.W. Kesar tried to point out the route up it, which was mostly invisible, and all the porters were able to recognize where Bompa was in the Dhauli Valley. All but one with me were Bompa men.

Our camp we placed on a fairly level place near where our spur abutted on the rather steeper slopes leading up to the main N. ridge of the mountain.

20th. Rested at Camp II. Quite a lot of snow fell. Expected three more porters to arrive with a tent and equipment to remain as a backing-up party at Camp II when we pushed on. These did not arrive.

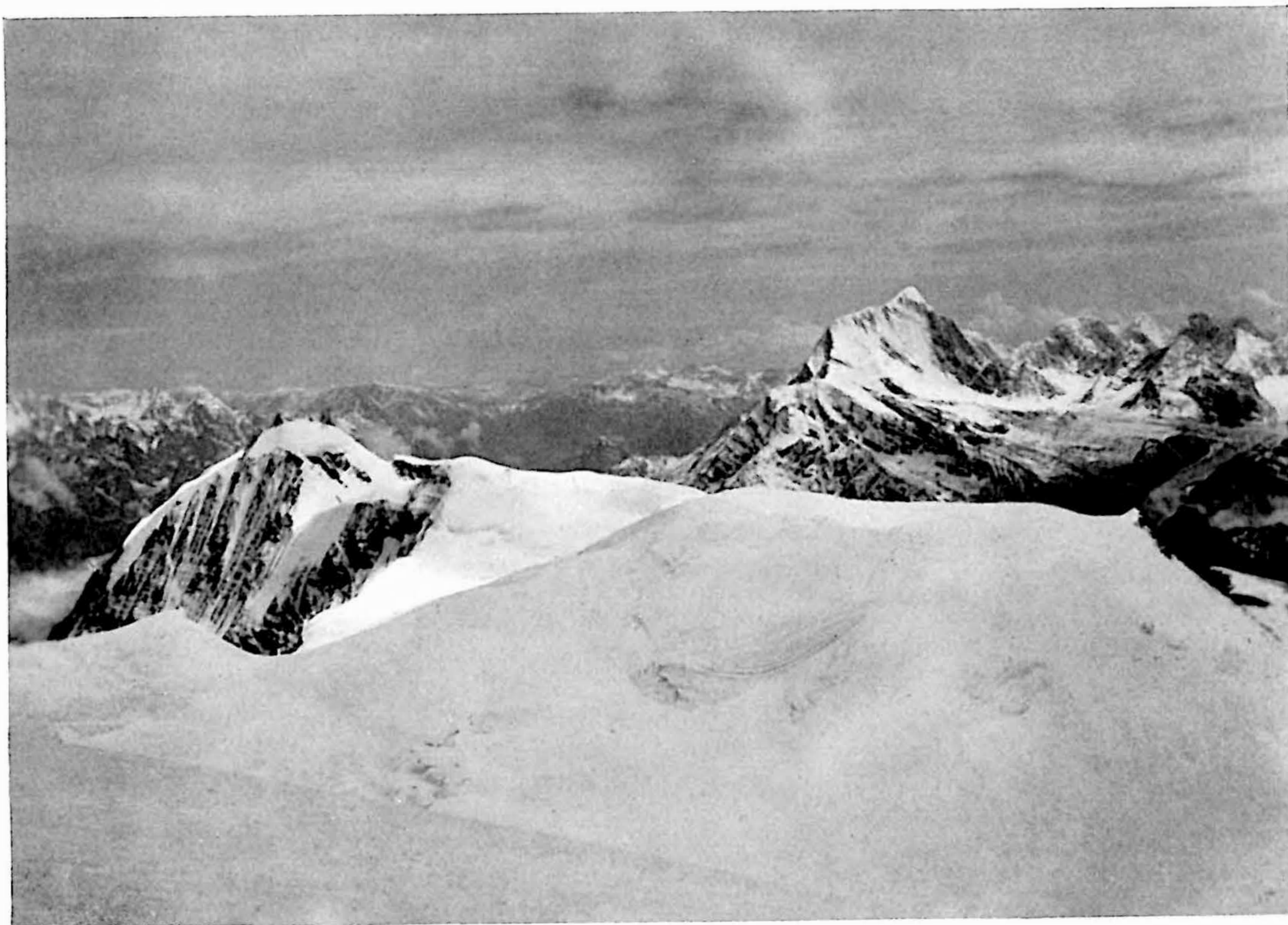
21st. We started off with the intention of setting up a Camp III at about 21,000 ft. As we slowly ground up the steepening slopes all the route between Camps I and II came into view and disclosed no backing-up party. These established at Camp II were essential to my plan. As soon as we realized that they had definitely failed us I decided on a dash for the top, on Kesar's suggestion. It must have been about 21,000 ft. where we downed loads on a little sloping shelf on the snow slopes.

At 11.30 Kesar and I started for the top. We had been $3\frac{3}{4}$ hrs. *en route* at that time. The other three porters set up the tents to protect themselves from the strong wind, and started preparations for hot drinks for our return. Expecting Kesar to go better than myself, I told him to lead. But he soon appeared rather 'done,' and very naturally, as he had already carried a 40-lb. load for about 2500 ft. So I had to take on the task of stamping the arduous trail, and I led up to the summit, whereas I had hoped to follow in Kesar's footsteps. The slopes were never steep, but the surface consisted almost entirely of great soup-plates of wind-crusted snow. This seldom held one's weight, and the work entailed in climbing—sometimes plunging deep, at others gingerly balancing along the crust for a step or two expecting the next jarring descent to the soft snow—was most demoralizing. I had to stimulate some sort of rhythm and determination by counting my steps. Usually I could not take more than thirty to forty steps before a rest for breath, bent over my axe. But in the worst snow ten steps were enough, and as a contrast on the best patch I could go as far as a hundred without a stop. We very seldom took a rest sitting, in order to save time, and Kesar said that our pace was a good deal faster than that of the second Kamet party on the day of their ascent. But they were 2000 ft. higher and their snow surface was worse than that which we experienced on Trisul.

During our ascent, and more so during our descent, a hard gusty wind was blowing from the col between Trisul and the mountain wall leading towards Nanda Kot. This whipped up clouds of powder snow which hurt our faces, which were 'in hospital' for about a week afterwards.

For about an hour after we left the others we could see below us, but then entered the clouds, where we could see very little, usually about 50 ft. ahead.

At about 1 o'clock, as far as I remember, our wide easy buttress merged with a narrower ridge and we turned slightly left ascending this. One or two 'bright intervals' came and we could dimly see a great, rather steep, buttress coming up from the left and joining our ridge dishearteningly far away. I never thought we would get there, but we kept on.



Photo, P. R. Oliver.]

DUNAGIRI FROM ABOUT 21,000 FT. ON TRISUL.

[To face p. 144.]



Photo, P. R. Oliver.]

DUNAGIRI (LEFT) FROM ABOUT 19,000 FT. ON NORTHERN SLOPES OF TRISUL.

At about 2.30 P.M. I thought for a moment we had got to the top. We flopped down and shook hands on a little flattish bit with a few rocks to be seen, and apparently steep slopes on either side, especially to the right (W.). But then we saw that there was another hump ahead with a big ridge buttressing it up from the Trisuli Glacier (left) side and with some rocks to the right.

It looked farther away in the mist than it actually was. At 2.45 we got there and it was the top, unless there was some other point separated by a big gap and more than a hundred yards away. I don't think that there is such a summit to Trisul from what I remember of Dr. Longstaff's account, which mentions no gap before the top, and describes it as a small plateau such as we found. Also at about 600 ft. an hour, which must have been our pace I think for 6 hours' actual moving (about 1 hour or a little less must have been spent in total rests), we should have found ourselves about at the top, starting from Camp II, *i.e.* from about 19,000 ft.

We only rested for 7 minutes on top, for the mist seemed thicker, our tracks were becoming hidden by the blown snow, and the time was fairly late (2.45-2.52).

The first part of the descent was like one of the lesser species of nightmare. We were terribly weak when I had expected things to be much easier. The snow sometimes gave under our weight and sometimes did not, and we staggered like a couple of drunks. Kesar also had something wrong with his eyes and said he could not see properly. He dropped his axe twice and kept on sitting down and rubbing his goggles. I was very frightened, as I thought he had lost his nerve, and so was as severe as I dared be, and kept him moving. Very soon we lost our coming-up tracks as it was so difficult to see anything. The wind and driven snow seemed fiercer. I guessed at the direction, helped by the wind, which I assumed was constant. (At least in the stress of those moments did I? I remember on one occasion lower down when really doubtful of our position that for a little while we were going in exactly the wrong direction as indicated both by wind and a bright patch in the mist where the sun was.) Poor semi-blind Kesar went on a short rope ahead of me to commands of 'Dhane jao' (Go right) or 'Bayen jao' (Go left), or whatever it might be.

We got to steeper snow and a few rocks, a part of the mountain we had not ascended, just as we were to our great relief getting below the belt of cloud.

This was rather an anxious time. At first I could not recognize the glimpses of mountains we had seen through mist and thought we might have come the wrong way. But at last, a little below us in height, I saw the squared block of ice which is the top of Peak 20,842, which I knew rose above the Betatoli Glacier. We were only very slightly out of our direction, and taking a diagonal line to the right down the snow slopes were soon in sight of the tents. Kesar could not see these until we were quite near.

We arrived at 4.30 at the tents and after hot drinks soon recovered our strength. Also Kesar's eyesight became normal again.

At 7.30 we arrived down at Camp I, evacuated everything to the Base Camp on 22nd, and on 27th arrived at Tapoban.

PACHMARHI, INDIA, C.P.
2-10-33.

DEAR DOCTOR LONGSTAFF,—The mistake about times was due to my carelessness in the account I sent you. I suppose I did not look it through with thoroughness. The actual times were these :

Left Camp II (<i>ca.</i> 19,000 ft.)	7.45 A.M.
At the site we meant to have Camp III (about 21,000 ft.)	{ 11.15 „ 11.30 „
Summit	{ 2.45 P.M. 2.52 „
'Camp III' (<i>ca.</i> 21,000 ft.)	{ 4.30 „ 5.00 „
Camp II	6.00 „
Camp I (<i>ca.</i> 17,000 ft.)	7.30 „

This gives my times :

Up : 4500 ft. in 7 hrs.

650 ft. per hour.

Down : 6500 ft. in $4\frac{1}{2}$ hrs.

1440 ft. per hour.

These times are including rests.

Cf. [T. G. L.] 'A.J.' 24, 120 :

6000 ft. in 10 hrs.

600 ft. per hr.

7000 ft. in 3 hrs.

2333 ft. per hr.

Ditto.

P. R. OLIVER.

[Lieut. Oliver followed our 1907 route except perhaps at the commencement. There is no doubt at all that he attained the summit, which is the first (N.) small flattish dome: the very slightly lower and corniced S. top, across a small gap, would have been invisible in such weather. The snow conditions were identical with those of June 12, 1907: Alexis Brocherel wore *raquettes* up to 21,000 ft. Oliver's 'rush tactics' have my cordial admiration, and alone made success possible.—T. G. L.]

THE ALPINE MAPS OF AEGIDIUS TSCHUDI.

By J. MONROE THORINGTON.

THE publication of the second and concluding part of Leo Bagrow's *A. Ortelii Catalogus Cartographorum*¹ has recalled attention to the collection of manuscript maps by the Swiss cartographer and historian, Aegidius Tschudi, at the library of St. Gallen.

¹ L. Bagrow, *A. Ortelii Catalogus Cartographorum* (Petermanns Mitteilungen, Ergänzungsheften 199, 210) (Gotha, 1928-30). Tschudi's maps of the British Isles are described in *G.J.* lxxxi, 39.