the party was not too good, and we had to be back at Camp I before night; the order was wisely given for retreat. All went well on the descent; the ice above the high camp was treated with due respect, and, rejoining our faithful porters there, we got down to Camp I at sunset, and to Base Camp next day, where Somervell just got over the snow-bridge before it fell in. 'Qualganga ka pahar' was undefeated; but it had treated us well, had dropped nothing hard and heavy of its abundant store on our heads, and had given us some glorious views.

The first stage of our journey was now completed; the time had come to move towards Tibet. We travelled down to Martoli again, and there regretfully bid good-bye to the Somervells,[5] whose holiday was over. Though suffering from an attack of jaundice, he refused to give in, and declared his ability to get back to Almora under his own steam. It must have been a trying journey. The rest of us crossed over to Ralam, and had an interesting climb over the pass of that name into the Darma valley. This has been fully described by Colonel Wilson.[6]

Climbing the Kashmir Matterhorn.

By C. R. COOKE.

FROM the valley of Kashmir the nearest and the most prominent peaks of the great Himalayan range are those of the Kolahoi group, and seen from Gulmarg they present a fine spectacle of two sharp rocky pinnacles rising 3000 ft. above the Great Icefield between them; they are surrounded on all sides by glaciers coming down from the bases of the two peaks, fed from avalanches descending from steep snow slopes and corniches above.

The northernmost peak is that of Kolahoi itself, and rises to a height of 17,799 ft. above the level of the sea; to the S. soar what have been termed the Twin Peaks, a height of 16,764 ft., their native name is Bur Dalau. The Twin Peaks

[5] 'We did but little climbing, we attained no summit, but we had and shall always have as a memory, a real friendship with one of the most glorious parts of this best of all possible worlds.' [Mr. Somervell's notes.]

[6] In a very interesting report which it is hoped to publish later.—Editor.

were both climbed by Dr. Neve and Lieut. Mason in 1910 after a number of determined attempts over a period of nine years. Dr. Neve has described some of his efforts in his book 'Beyond the Pir Panjal.' He was very much handicapped by caprices of the weather.

Lieut. Battye and I had decided at very short notice to make the attempt, and accordingly preparations were made to the best of our ability. They were necessarily hurried, because we feared the advent of bad weather with the monsoon, and my leave was short.

We camped at Pahlgam, some 11 miles as the crow flies from the summit of Kolahoi. We set off the first day walking 2 miles up the valley of the E. Liddar, where we branched off up a side valley and ascended to the Korapathar Pass (11,668 ft.). We had been walking all day in showers of rain, but a rift in the clouds gave us a view of our Twin Peaks. It was, I think, quite the most awe-inspiring sight I have ever seen, and was our first view of Kolahoi: its precipices rising from amongst glaciers covered in fresh snows, its summit just hidden in cloud, and the crags between swathed in a mist of blown snow. At the sight of it I admit I turned to Lieut. Battye and said, 'Small hopes of our ever getting up there.' From the pass we dropped down to our first camp near Naffron, on an island in the middle of the Naffron Nag.

The following turned out a perfect day. Coolies were despatched to collect firewood and brushwood, Battye and I made charcoal for the fuel to be used at the highest camp; meanwhile the remaining coolies had been despatched, with their loads, to the next stage. That afternoon the fuel supply party set off up the valley and ascended by a snow couloir to a pass of 12,729 ft., over to the frozen lake of Har Nag, pitching what was to be our base camp (12,300 ft.). Here the valley should normally have contained green pasture but, owing to the lateness of the season, it was covered entirely with snow, except for one small patch of grass upon which we encamped. The coolie loads were arranged as follows: 1 and 2, tents; 2, 3, and 4, clothes and bedding; 5 and 6, stores; 7, cooking utensils, etc.; 8, 9, and 10, firewood, charcoal, and brushwood.

Next day five of the coolies were dismissed (at a rate of 10 annas per day each), the bearer was left in the camp to cook further supplies and look after the camp, while we (with the small servant's tent) set out *en route*. The rest of the party spent a tiring day following our route towards the

icefall. At about 5 o'clock in the evening we found that the route had been missed; we were then high up on a snow slope—the icefall somewhere above us. There was, of course, no shelter anywhere, so we pressed on until we came to a small patch of rock projecting from the snow, upon which our third camp was pitched at an altitude of 14,700 ft. Actually, we think, that possibly this route is more direct than the other. The brushwood proved invaluable for preparing a soft place upon which to lay the sleeping-bags. We had difficulty in obtaining water, as it got dark soon after our arrival, and the only available trickle of water froze hard. This meant melting snow over a fire that refused to burn, much less give any heat! Feeding under such circumstances is always a problem, the only pot of jam being found to have emptied itself into the bottom of someone's haversack, and tin-openers left behind. A pair of pliers of mine did excellent work instead; however, our wasting strength was retrieved by large quantities of lukewarm stew eaten out of a Brooke Bond's tea tin. That night can hardly be described as a comfortable one; it was very cold, the rocks underneath were working their way through, and worst of all, it became so cold that we were obliged to let the coolies come in out of the wind; nor did they forget to bring any of their pets!

In the morning I became the victim of an attack of mountain sickness, and on our way up the snow the glare of the sun made matters worse in spite of two pairs of snow goggles. The way we chose led in zigzags up the slope to the foot of the fall; its appearance was distinctly disappointing, as it was covered in snow. This fact, however, saved us a great deal of step-cutting (a slow and laborious task on hard ice). Presently we arrived out on to the top of the fall and found ourselves on the edge of the snowfield, the view of the snow-covered giants of the great Himalayan range became more and more magnificent as we came up on to the snowfield. Two hours' trudge brought the little party to a small rocky ridge, upon which the site for our highest bivouac was selected. A rough platform was made of rocks and stones, and the tent pitched as soundly as possible. Battye did all this work himself as I was still unwell.

The coolies were sent back to the base camp with instructions to return on the fourth day. We devoted most of the following day to straightening up the camp, padding our hats against the rays of the sun, and in making general preparations for the attempt on the morrow. We also examined our mountain

through glasses. It was looking quite inviting as compared with its forbidding aspect of two days ago. A trip was made across the snowfield above which soared the summit of Kolahoi a couple of miles off, the positions of the various crevasses were noted, bearings were taken by compass across the snow, and a general plan of attack framed.

Early next morning, by the faint light of oncoming dawn, two tiny black specks might have been seen steadily moving in a straight line across the snow. Actually we made excellent progress over this part; the hard crisp snow carried our weight, and an hour's fast walking brought us to the foot of a long couloir amongst the blocks of snow that had been brought down in an avalanche. By 6 A.M. we had ascended to a boss of rock upon which, after a light breakfast, we left a hurricane lamp and spare blanket. As we were doing this, the sun rose, amidst the most beautiful colouring, on the tops of the mountains on all sides.

Here we roped up and started on the rest of the climb. The first part consisted of a steep ridge of snow with occasional rocks jutting out; to the left ascended the long couloir over half-way to the summit, and a smaller couloir on our right. After 200 ft. of climbing the couloir on the right was crossed, one man only moving at a time, the other belaying the rope with his ice-axe.

We now found ourselves on living rock, up which we climbed to the extreme edge of the arête. The rocks here had been much broken by the action of the weather and we were able to find a greater variety of foot and handholds, also numerous good projections of rock for belaying. We paused for refreshment, consisting of dried prunes and ginger nuts, though neither of us felt the least inclined to eat. The sun even at this hour was very strong, and in spite of our extra head protection was starting my old headache; yet curiously enough it was not at all hot, presumably due to the coldness of the air.

As we advanced we found the rock work steadily getting more difficult, causing us much delay, until about 10.30 A.M. a big gendarme loomed above us. Almost the first thing that I noticed the day before when I looked at the ridge through glasses was the obvious difficulty of this bit. We rested and held a council of war. The arête all the way up had been very steep, and rock-climbing up it, though presenting no very great difficulties, called for a certain amount of nerve, for on its near side the rocks fell away at an average angle of over 50 degrees, with steep patches of snow scattered about, while on

the other side we looked down as we climbed over an almost vertical precipice of hundreds of feet of rock, too steep for snow to rest; below this steep rock slopes descended to the Kolahoi Glacier itself.

The weather was perfect, and around us on all sides, as far as the eye could see, stretched range after range of the Himalayas. To the N., over a hundred miles away, stood the giants of the Karakorums, Nanga-Purbat, K2, etc., 26,669 and 28,250 ft. respectively. Eastwards the eye was confused by a jumble of not merely snow peaks, but of snow ranges leading up to the peaks of Nun Kun (23,490 ft.).

Having settled on a plan, Battye took the lead, while I paid out carefully 60 ft. of rope round a sound belay until he had skilfully negotiated the first difficulty, then I followed while he belayed. In this manner our obstacle was finally passed; it took us altogether three hours to get over it and back on to the arête above. It involved a stomach traverse and a short hand traverse, during which I got mixed up in the two ice-axes and nearly fell; I should have been severely bruised as the rope at that point was out at right angles.

Once on the ridge the pace improved, small détours had to be made to avoid corniches, until we arrived at a point where the only course was to cross the top of a small couloir where the snow lay at a great angle; on the other side of this we halted.

It was now getting on for 3 o'clock in the afternoon. It had taken us nine hours to ascend 1500 ft., and the summit lay still nearly a thousand feet above us. Furthermore, we could see no immediate means of getting past a formidable looking rock before us, and were in no mood for more strenuous exercise at this altitude, so reluctantly defeat was admitted.

Coming down it was decided to avoid the gendarme altogether, and we were fortunate in finding a much better route down the rocks on the W. side of the long couloir. Moreover, when the sun left us we were able to save time by glissading down what in the daytime was the track of an avalanche, and at 6 o'clock reached the lamp, blanket, and extra clothes dumped in the morning, and so back across the tiring snowfield to camp and bed.

The following day was spent in eating and reviewing our luck; our failure was largely my fault, because my headache and sickness had made my going very slow, and we determined that another attempt should be made. We had followed the

route taken by Dr. Neve in 1911.[1] He had very kindly sent us an outlined description of his route, which we followed as nearly as possible right to the base of the peak; but from there we had decided not to risk the long couloir up which he went, as there appeared to be considerable danger from avalanches. However, it was borne upon us that if the mountain were to be climbed the couloir would have to be risked at the safest time of day, *i.e.* in the early hours before dawn when the snow is frozen and least likely to avalanche, thus so as to save time up the first half of the climb.

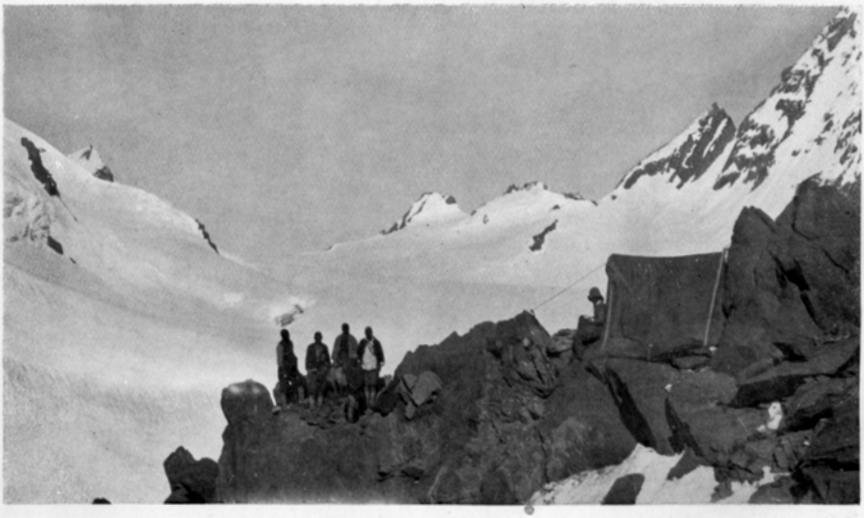
Accordingly, when the coolies arrived next day the situation was explained, and they departed with instructions to return in two days. The rest of the day was spent in preparation. I took some photos of the snows. There was considerable anxiety about the weather; the valley of Kashmir was seen to be filled with clouds which were moving rapidly towards us, pouring over passes and filling up the valleys below us, and we feared that we might be done out of our last attempt.

Next morning we were off early again, though not as early as we should have liked, making good pace over the snow-field, complete with haversacks, water-bottles, a 60-ft. rope, ice-axes, wearing our wind-proof clothing, underneath which were all the sweaters that we could raise—I, with two pairs of gloves on, carrying the lantern. Our total equipment weighed a good deal, as it included my camera, compass, spare rope, brandy flask, maps, etc. Kit not required on the actual climb was dumped at a rock at the foot of the long couloir; our new route took us up it, kicking and cutting steps in the hard snow. The improvement in pace was encouraging, and not until the sun rose when a third of the couloir had been climbed were we obliged to take to the rocks: even then we managed to save time in avoiding difficult rocks by going up the side of our couloir. Such was our progress that at 10 A.M. we had reached the highest point of our previous effort and halted to rest and eat a few prunes and chocolate, though I was still feeling disinclined for food. We had, of course, been halting at frequent intervals all the time, for at these altitudes we found breathing hard work, in spite of the fact that we took care not to make any violent sudden exertion. The big rock fortunately proved to be much easier than was expected, and with a little delay was safely passed, from whence the going was almost entirely along the knife-edge of the main arête

[1] *A.J.* **25**, 679–83.

Phot. C. R. Cooke.

ABOVE THE GREAT ICEFALL.

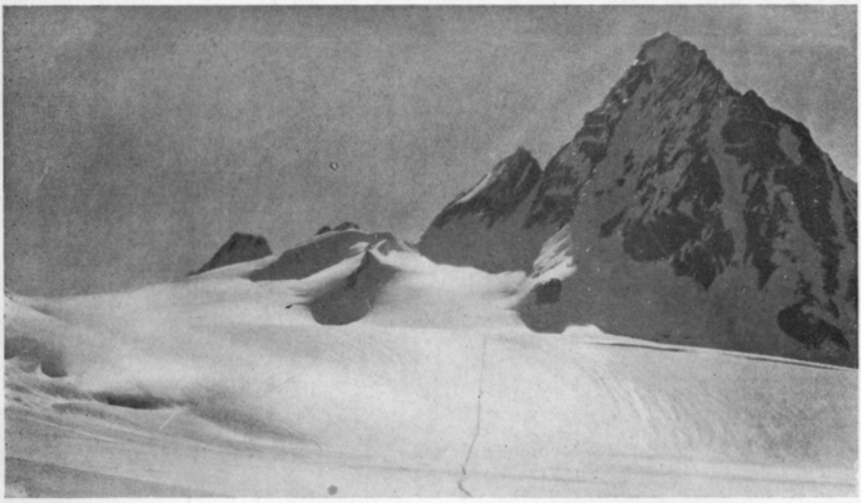


Phot. C. R. Cooke.

KOLAHOI
snow field and high camp.

Phot. C. R. Cooke.

BUR DALAU
from the High Camp.



Phot. C. R. Cooke.

KOLAHOI AT SUNSET
(showing tracks).

which led us right up to the summit. Détours were made past occasional dangerous-looking corniches—one small but decidedly uninviting little snow slope had to be crossed, until finally we found ourselves under the snow cap which covered the summit. From this point the giant corniche could be seen to advantage, with its icicles hanging down like the fingers of a huge claw. Walking on 30 yards up snow, we arrived panting to the top ; we paused and looked down, saw masses of cloud gathering and rising round the base of our peak. We photographed one another and set off downwards at once. There was no time to appreciate the wonder of the situation, and my head was troubling me.

At 1.45 P.M., having rested well on a slab of rock just below the snow cap, the descent began. We set about the task, wasting no time, even for rests ; very little conversation passed, except for the usual shouts of ' Come on,' after the rope was belayed and the warning ' 2 ft.' from the belayer when he had nearly paid out all his rope. Our rope gave us great assistance in coming down, as the leader was able to swing on it instead of waiting to find foot and hand holds. 4.15 P.M. saw us at the top of the long couloir, and from this place the descent was made in the same manner as that of our first attempt. The sun left the snow at 5.20 P.M. and allowed us to glissade, in three-quarters of an hour, right to the bottom. Battye stopped at the dump to change his socks as his feet were suffering from the cold, so I collected my share of the load and went on to prepare a fire in camp. As usual the snow-field seemed absolutely interminable, the softness of it made it seem as if I was walking up a steep slope all the time ; looking back, we could see clouds piling up round the mountain, the summit was completely enveloped, and I realized that it was the beginning of a spell of bad weather, which in all probability would last many days. We were lucky to have snatched that last opportunity.

That night we feared that our tent complete with its contents might be blown away. A certain amount of sleet began to fall, and we were thankful that we were leaving next morning. We sent the men with their loads down to the base by the route we had come. Battye was very keen to have a look at the glacier, so we followed the direction shown on the map, keeping to one side of it. Lunch consisted of tinned ham eaten on a moraine. Below the glacier we struck the Har Nag Valley, up which we turned, leaving the huge mass of séracs and crevasses up on our right.

After a night at the base the weather broke. However, we felt no fears for mountains, and crossed the pass of Dunderan Gulu (14,120 ft.) in rain and cloud. We descended on the other side into the valley of the E. Liddar river, and camped at a place called Tanin, 5000 ft. below our pass. It poured with rain all night ; we woke up in the morning with water dripping on us through the tents. The task of striking tents that morning was a decidedly wet and muddy one—not that we minded what happened. Three hours' marching in drenching rain saw us wet, smiling, and bearded, back in Pahlgam.

Two days later a rift in the clouds afforded us a glimpse of Kolahoi, and we could see that everything above 14,200 ft. was covered with deep fresh snow.

A word about expense ; on this occasion my total expenses, including everything for the three weeks' holiday, were under Rs. 250 = £17. There are, of course, no guides in the Himalaya, which makes the sport all the more satisfactory and, incidentally, cheaper.

Mount Olympus.

By W. T. ELMSLIE.

(This ascent was described in a paper read before the Alpine Club, March 1, 1927, by C. M. Sleeman.)

IN the early afternoon of September 1, 1926, we found ourselves at the station of Litokhoron, after a journey of five hours from Salonika. Our party, which consisted of C. M. Sleeman, A. E. Storr, L. A. Ellwood, and myself, had reached that city from Sofia by way of the summit of Musalla (2984 m., the highest summit in the Balkan Peninsula), the interesting monastery of Rila, and the valley of the Struma.[1] Our next objective was the summit of Mount Olympus, now hidden in dense white clouds.

From the station, which is situated on the very shores of the Aegean Sea, we had expected a trying walk in the heat of the day to the village of Litokhoron ; for we had learnt from Marcel Kurz's excellent monograph on Olympus that a mule track only led to the miserable village, and that no mules

[1] The railway marked in the ' Times Atlas ' between the Petrich line and Vetrèn does not exist.