

down it we crossed over to the right bank just above the small and still deserted Braekken *saeter*. Immediately below us lay the final course of the stream, and after passing through some picturesque woodland we reached the small hamlet of Jorddal on the banks of the fjord. After a short rest and something to eat at one of the houses here, we took a row-boat and pulled a steady, if not pretty, oar over the 7 miles or so between Jorddal and Fjaerland, which latter we reached at 4.30 that afternoon after an interesting day.

The next morning was very wet, and as the midget steamer ploughed its way down the fjord I took a last view of what little the clouds and mist would allow of Skejdesnipa and the other heights round about the Suphelle valley, the Gretten and the Mundal valley and, lower down, the Jorddals. Here during the past few days many pleasant hours had been spent among the rocks and forests, the snows and glaciers of this part of Norway, among its strong, hard-working, honest peasants in whom one can still often see a marked likeness to the Viking heroes of old.

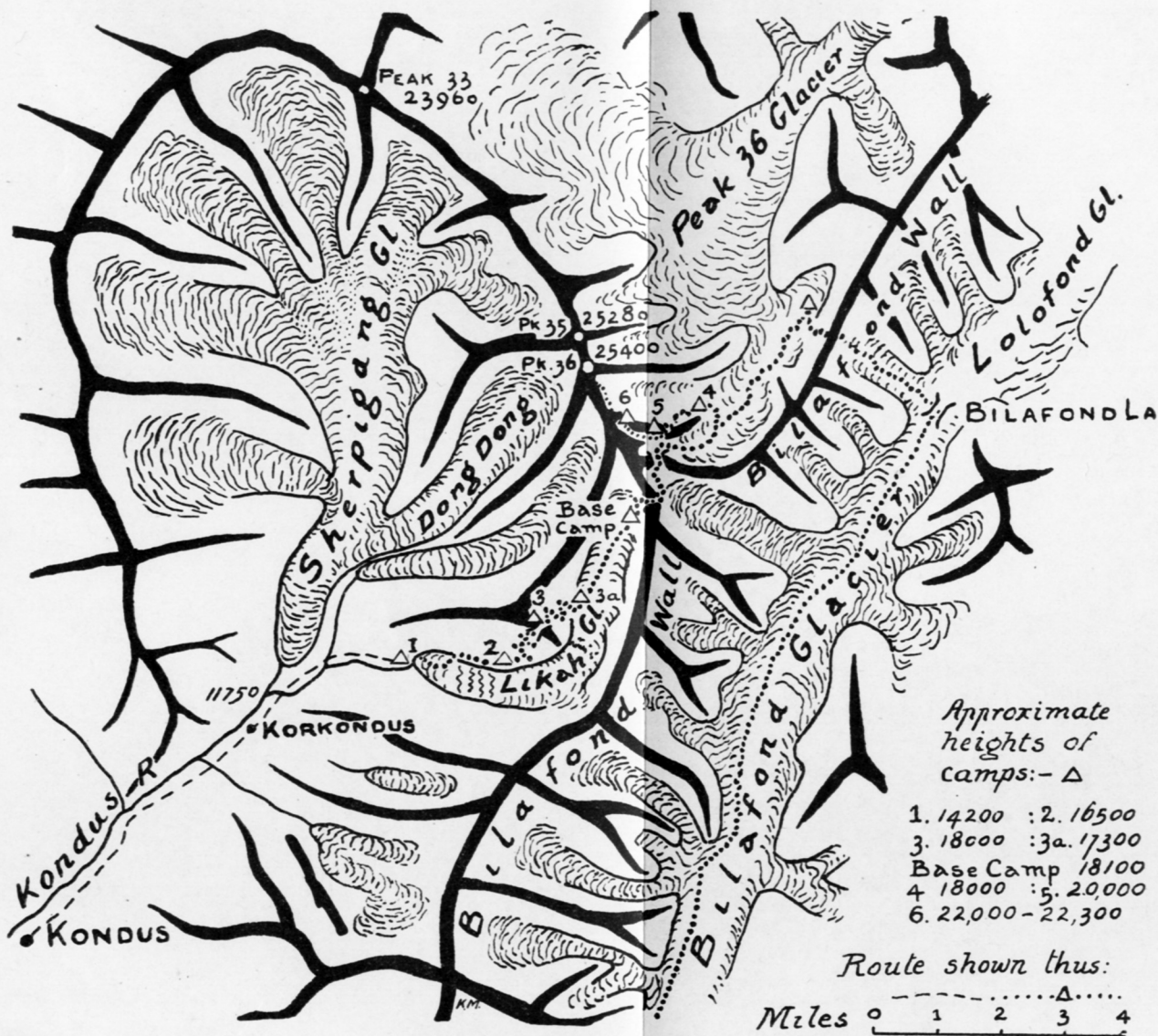
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THE EXPEDITION TO PEAK 'K<sub>36</sub>,' 1935.

BY JOHN HUNT.

AT the end of April of this year, James Waller had assembled at Srinagar an expedition having as object the ascent of Peak K<sub>36</sub> (25,400 ft.), in the Saltoro range of the Karakorams. The party consisted of the following: James Waller, leader; Dr. J. S. Carslaw, as medical officer; Rowland Brotherhood of the R.A.F. and myself. There were in addition the two Darjeeling porters, Palden and Dawa Thondup, both of whom had made names for themselves on the 1933 Everest, and on the 1934 (German) expeditions to Nanga Parbat. It was one of the several theories to be experimented by Waller, that the climbing party should carry for itself on the assault and, for this purpose, in addition to a very careful choice of light equipment and food, the party should consist of six members. Two of these fell out through sickness at the last moment, and, for this reason, the Darjeeling men were included in the climbing party to make up the numbers.

Khapalu, on the Shyok and above the junction of the former river with the Indus, was reached in fourteen days, *via* the Zoji La and the Indus valley. Owing to the late arrival of some of our tents and sleeping-bags from England, we moved out in two parties, Waller and I going ahead to avoid delay in starting a reconnaissance of the approaches to the peak. It should be stated here that the area in



Neighbourhood of Peak 36, Saltoro Karakoram

HIGHEST POINT REACHED

K 36  
| 25,400'

K 35  
| 25,700'

VI

*Expedition photo.]*

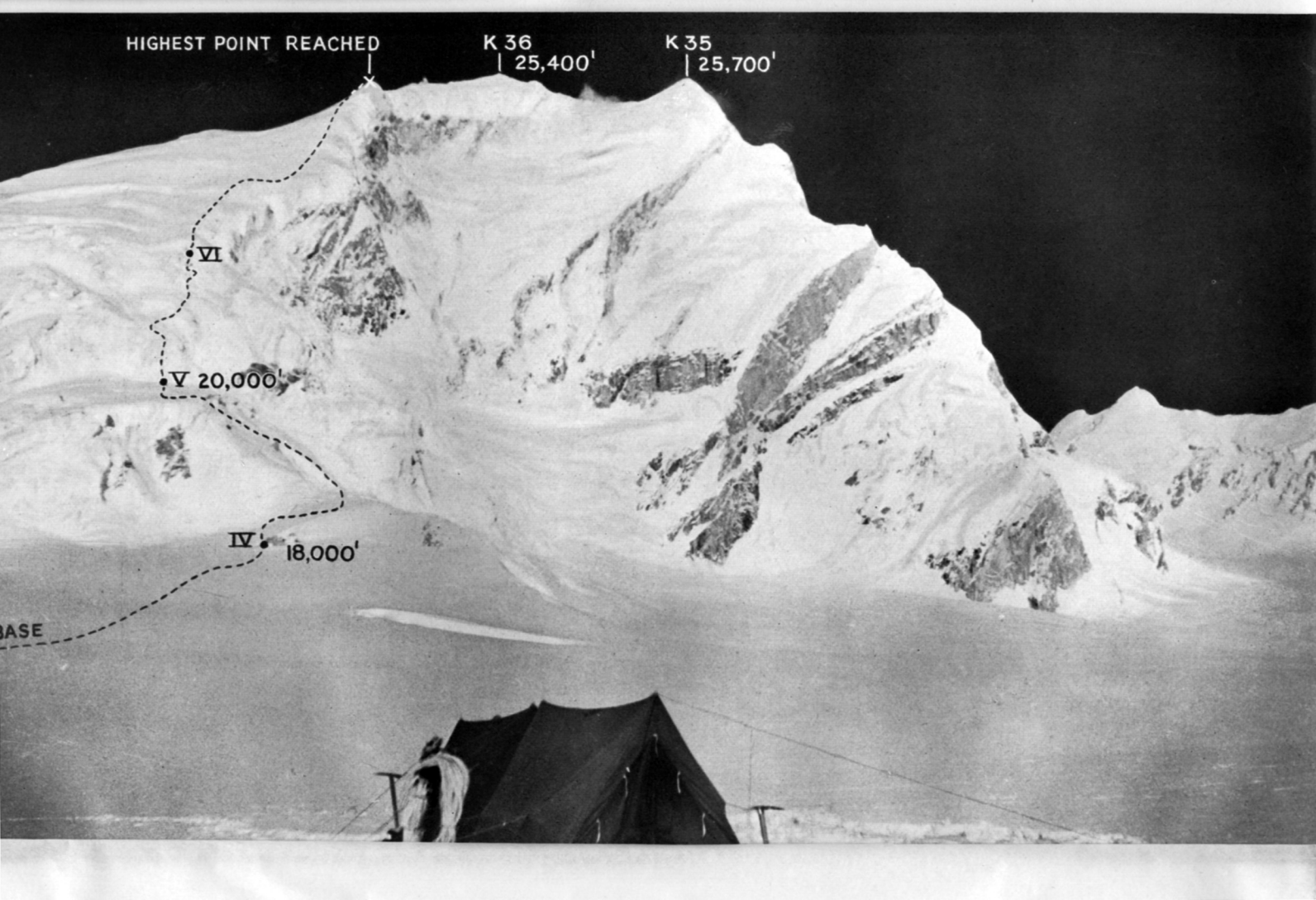
THE E. FACE OF K<sub>36</sub>, FROM A RECONNAISSANCE CAMP AT ABOUT 18,000 FT. ON THE PEAK 36 GLACIER, SOME 2½ MILES AWAY.

(Note : height of K<sub>35</sub> is given as 25,280 ft. on the map.)

IV 18,000'

TO BASE

[To face p. 283.



HIGHEST POINT REACHED

K 36  
| 25,400'

K 35  
| 25,700'

VI

V 20,000'

IV 18,000'

BASE

question had not been visited since 1912 (by the Bullock-Workmans), that the accuracy of the map<sup>1</sup> was in doubt, and the only information obtainable about the mountain itself was derived from some very indifferent photographs in the Bullock-Workmans' book. It was thus that on reassembling at Dansam in the Saltoro valley, we divided into three parties to reconnoitre the possible approaches. Each party was out for five days, and all reached a height of about 18,000 ft. in their reconnaissances. The wisdom of this preliminary inspection was at once evident, for Waller, who had been in the area of the Sherpigang Glacier, had discovered a glacier—locally known as the Likah—which, in a series of unexpected bends, provided an approach to the foot of the S.E. ridge. As it was by this ridge that we then intended to attempt the climb, and as the other reconnaissances had shown no feasible route, this unexpected discovery, not shown on the map, was a very fortunate one.

It was therefore by this glacier, with fifty coolies' loads, that we started from Korkondus, the last village below the Sherpigang snout, on May 24. Local men had been obtained with difficulty and soon confirmed appearances by giving trouble at Camp 1, at the snout of the new glacier (Likah), where we were held up for a day. On the 26th, when we moved up the glacier to Camp 2, we had to exercise considerable pressure to persuade them to bring the loads as far as the camp, which was pitched above the second icefall on a platform of moraine boulders on the true right bank of the glacier.

On the 27th we were able to move up to a pass (Likah Col) some 1500 ft. higher, by way of which the upper stretch of the glacier was to be attained. Owing to the helpless condition of half our coolies, this required two shifts and, as in addition the weather had suddenly changed, the descent from the col could not be made that day. Camp 3 was therefore pitched on the col at about 18,000 ft., and the local coolies were then sent down under the escort of Palden and Dawa. A blizzard set in and continued till dark.

Unaware as yet of the local weather conditions, we started on the 28th to lower our loads through the cornice and down the 800-ft. slope to the upper Likah Glacier, despite heavy snowfall. Another blizzard soon started and, after an unforgettable day, we succeeded by evening in getting three tents, our bedding and a little cold food, to the bottom of the slope. An emergency camp (3a) was pitched with great difficulty in the howling gale, and we settled down to an uncomfortable night. One cook, half the coolies and all the stores were on the col; while other loads were rapidly being buried at various stages on the slope.

The blizzard continued for three days, during which great discomfort was experienced, through snow-blindness and lack of any drink or hot food. After 36 hours Waller reached the col, down which we had fortunately left a fixed line, and brought down

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<sup>1</sup> The map at the end of the volume we owe to the courtesy of the Editor of *H.J.* It is drawn by Lt.-Colonel Kenneth Mason himself.—*Editor.*

some stoves and more food. Best of all, our little porters came down with him. It was not however till the end of the fourth day that all the party was reassembled with stores at Camp 3a. Some valuable kit, including an ice axe and a pair of skis, remained buried and not to be found under 3 ft. of fresh snow.

An attempt was then made on June 2 to change our line of communications. The trouble of lowering and throwing loads, including live sheep, down the steep slope from the Likah Col had left us with an exaggerated idea of its difficulties. Brotherhood and a local coolie left on this day to close this line of communications, intending to rejoin us at our proposed Base Camp, *via* the Bilafond Glacier and Pass.

The following week of variable weather was spent, on the part of our seven local coolies, in shifting stores up 3 miles of glacier to Base Camp, at the head of the Likah Glacier at the foot of the S.E. ridge of the peak. We ourselves made a close inspection of the peak itself. The first discovery was that the S.E. ridge on which we had pinned our hopes was not, to say the least of it, a hopeful route. About 1000 ft. above the Base Camp, whence a small icy gap was attainable, the continuity of the ridge was broken by immense cliffs of ice, parts of which broke off daily in huge avalanches on either slope of the col. The second discovery was that no likely route existed from Base Camp to the Bilafond Pass and that Brotherhood's efforts were therefore vain. This was sadly confirmed on June 7, when he, with twelve coolies from Goma carrying some much-needed wood fuel, arrived at the top of a small depression high above the Peak 36 Glacier. Anticipating his arrival, Waller and I had pitched a camp on this glacier, and I, in climbing with Palden the steep 1000-ft. ice slope to get in touch with Brotherhood, was able to confirm that no feasible route of descent could be found for the coolies. An attempt by Brotherhood to throw down the loads of wood failed, each load in turn being swallowed by the bergschrund at the foot. Brotherhood and his party had therefore to return by the way they had come, leaving us in a precarious situation with regard to our rapidly dwindling supply of petrol fuel. It was not till June 13 that he rejoined us.

The third and happier discovery was that of a route on to the Peak 36 Glacier, including a hopeful take-off on to the E. face. An advanced base was then selected at the foot of this face, after which Waller and I returned to Base Camp.

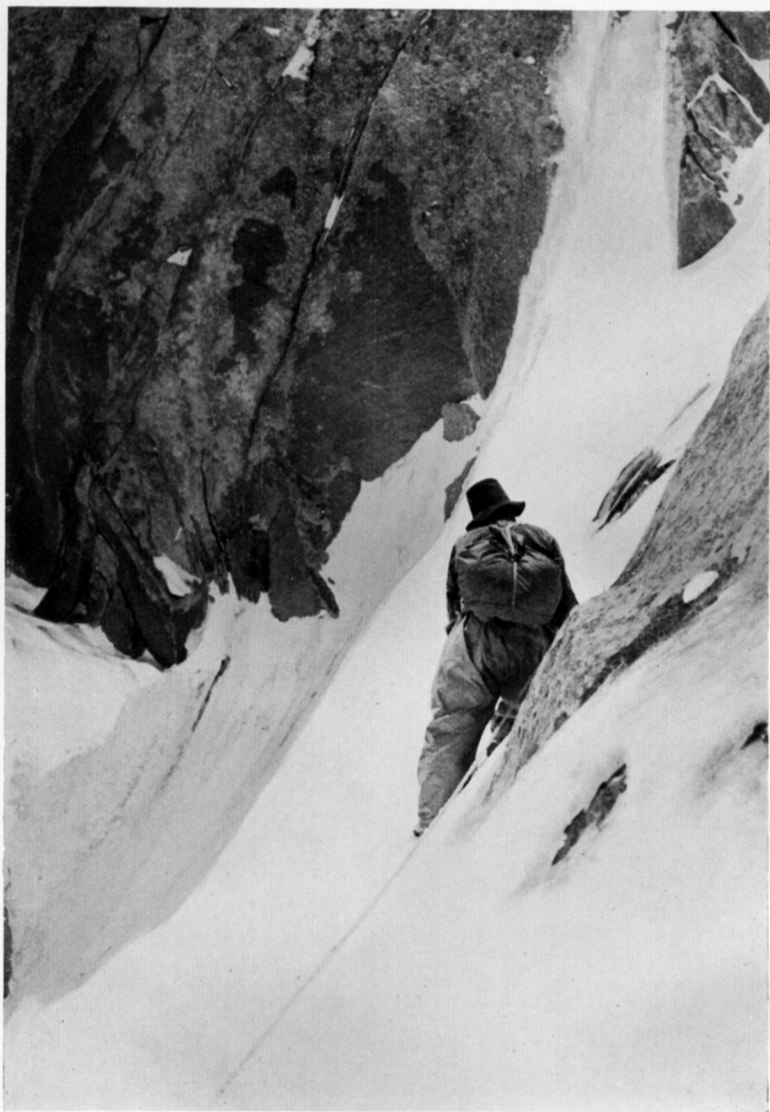
It should be said that very indifferent weather attended us during this period. Every day a snow-storm blew up about midday, and from the 9th to the 13th we were confined to our tents by a continual blizzard. By the time Brotherhood had rejoined on June 13, the rest of us were beginning to deteriorate in condition—we had now spent eighteen days at or over 18,000 ft.—fresh stores were running short and a certain mental depression, understandable as a result of days on end spent in our sleeping-bags, was making itself felt. We therefore, on June 14, seized the first hopeful signs



*Expedition photo.*]

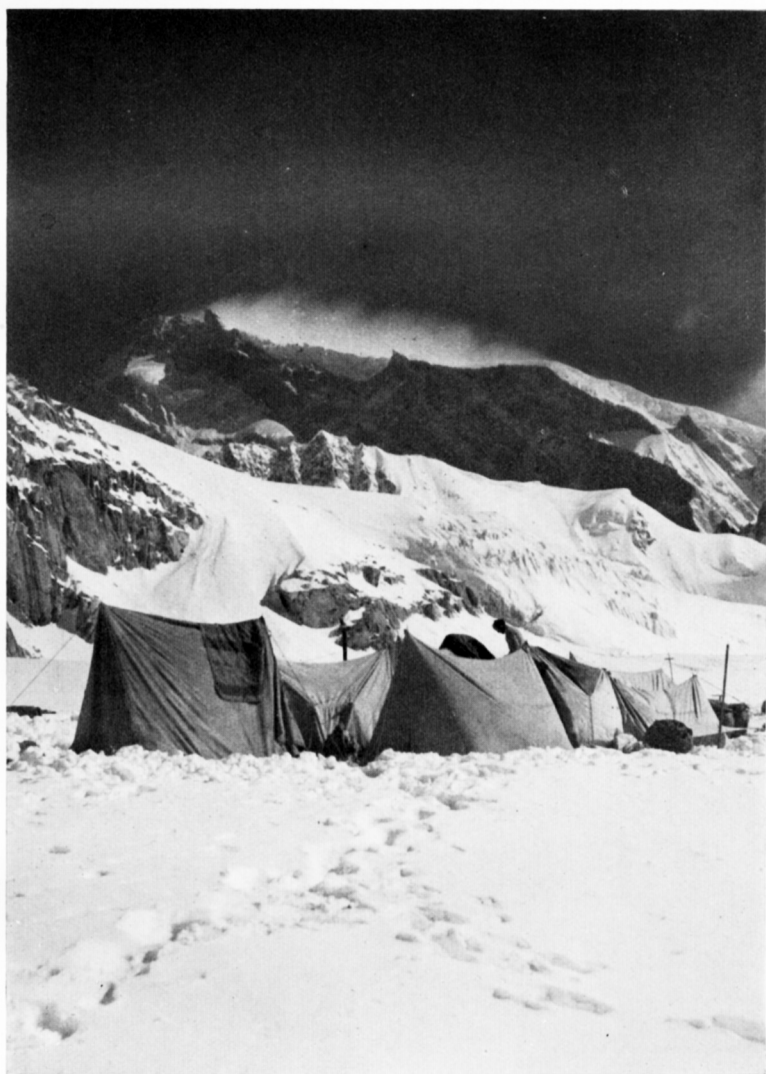
BASE CAMP, BELOW THE S.S.E. BUTTRESS.

*[To face p. 284.*



*Expedition photo.]*

WALLER ON RECONNAISSANCE OF THE S.E. RIDGE.



*Expedition photo.]*

K<sub>36</sub> AND CAMP IIIA, 17,500 FT., ON THE LIKAH GLACIER.



*Expedition photo.]*

CAMP V, AND THE N.E. BUTTRESS.

*[To face p. 285.*

of a spell of fine weather as the opportunity to commence the assault.

Waller's plan was for a seven-day programme from Base to Base, including the establishment of four assault camps above Base as well as two successive attempts on the summit. The weather, however, decided otherwise. Camp 4 was established on a pre-selected site at the foot of the E. face on *Zero* day (June 14). A blizzard at once set in and confined us throughout the 15th and part of the 16th—thus eliminating *Zero + 1* and *Zero + 2*. In addition it threw out our calculation of high altitude rations. To make matters worse, it was found that the three coolies selected to carry as far as Camp 5 would be unable to carry all the necessary stores in one day; two shifts would be required and an extra fine day added to the programme. Plans had been changed daily since leaving Camp 3, and the fateful decision was now made to eliminate Camp 7 (the highest) and attempt the summit from a Camp 6 to be pitched as high as possible.

It need hardly be said that conditions were bad when Carslaw and I with half the loads moved on the 17th, over difficult ground, to establish Camp 5 on a sort of plateau in the E. face at about 20,000 ft. The leader sank continually up to his waist and, on one particular slope the angle of which was over 60° and some 220 ft. high, over an hour was spent making a track.

In fine weather on the 18th, while Waller and Brotherhood brought up the remaining loads (the coolies and porters having been sent down to Camp 4 on the 17th), Carslaw and I made our way over very steep broken terrain for some 2000 ft. up the E. face. Great difficulty was experienced in obtaining foothold in the deep, loose snow overlying several ice slopes, a difficulty enhanced by the excessive gradients, including one gradient of about 65°. By the time of our return Waller and Brotherhood had arrived, and we settled down for the night more hopeful of success than we had had reason to feel at any previous stage.

We set out in perfect weather on the 19th to establish Camp 6. In view of the unlikelihood of continued fine weather it had already been decided further to modify our plan by limiting ourselves to one assault. With us we took the two porters and one local coolie, we ourselves carrying about 20 lbs. apiece. A mischance, one of several on that day, occurred early: Carslaw, who had been sick in the night, being unable to continue, was obliged to return. He descended later in the day to Camp 4.

Progress was firmer than on the previous day and we advanced well till at about 1000 ft. higher we found our tracks of yesterday swept by a huge fall of séracs for a distance of some 400 yards. Just above this it became clear that the slopes, safe on the 18th, were now rendered dangerous by the night wind. On one of them I dislodged a wind-slab which swept Brotherhood off his feet. Being near the fracture I was safe, and held him, but it was a foretaste of further trouble, for the terrain was continuously steep. A little higher up, another wind-slab, fully anticipated but unavoidable, was started,

involving both Brotherhood and myself. After travelling some yards with the blocks, we and the whole mass came providentially to rest on a slightly rising hump, assisted by a frantic thrust of my axe—but it had been a near thing. We were now higher than the point reached by Carslaw and myself on the 18th, and Waller took the lead on new ground. Below Camp 6 a huge crevasse delayed us for an hour and, once on its upper edge, we decided that it was unwise to go further, as the porters must descend. A fixed rope-line was placed over this difficult passage.

It was 3 P.M.; the ground ahead seemed easy and, though the summit was not yet visible, we thought ourselves to be at nearly 24,000 ft.—an important mistake.<sup>2</sup>

After an intensely cold night—probably over 50° of frost—we three started for the summit at 7 A.M. on June 20. Progress was steady, although now much retarded by altitude, but snow conditions were still far from good. No serious difficulties were met, but, as midday approached and we had not yet reached the crest of the S.E. ridge, with still no view of the summit, we began to realize the truth about the heights of our various camps.

The crest of the ridge was reached, Waller leading, at 1 P.M. and, at last, away to the N., we saw the peak with the prominent gendarme in front of it. With this came the immediate recognition of defeat. We had determined that 2 P.M. would be the latest safe time to turn—given good weather. But, before reaching the ridge, the wind had changed to the S., bringing snow and heavy brown mists over the crest and all around us. Moreover, having climbed some 2500 ft., we were nearing the end of our strength. Waller sat down, while Brotherhood and I continued along the ridge for  $\frac{1}{4}$  mile and saw the peak more clearly through the mists. The extra effort was great and we found ourselves flopping down in the snow every few yards. On turning down to rejoin Waller, Brotherhood nearly collapsed, and it was only with some assistance and an immense effort of will on his part that he reached Camp 6 on his feet.

Food and 2 hours' rest revived us, but it was a somewhat weary party which packed up the sleeping-bags, food and Burns tents at 5 P.M., preparatory to descending to Camp 5. The decision to descend to Camp 5 that night had been made in view of the now threatening signs of a blizzard. Although we were each carrying 25 to 30 lbs., were moving over difficult ground and only reached Camp 5 in darkness, this was a wise and indeed a fateful decision. The blizzard came on in the night. By morning there were already 1½ ft. of new snow; the return on the 21st with two porters and two coolies to Camp 4 and on to Base was a terrible experience. It was noticed by Waller, who between Camps 4 and Base was about 200 yards behind me, that no sign remained of my tracks. Poorness of visibility added to our difficulties, even on ground as well known

<sup>2</sup> Owing to the failure of our aneroid, which had not been tested above 14,000 ft., and to the omission of a centigrade thermometer for our hypsometer.



*Expedition Photo.*]

PANORAMA TO THE E., FROM ABOUT 24,000 FEET, ON JUNE 25.

*[To face p. 287.*

to us as the passage of the Peak 36 col. All were in an exhausted condition on arrival at Base and, on examination, were found to have slightly dilated hearts.

The blizzard continued till the 25th, rendering the mountain out of condition for days to come, even had high altitude rations and stores been sufficient for a second assault. We returned to Camp 1 on the 23rd, and to Dansam on the 24th.

Though the attempt had failed, it had in extremely adverse circumstances come very near to success. The height reached was certainly in the neighbourhood of, and probably a little higher than, 24,500 ft. Brotherhood and I had been able to see that the way to the summit along the S.E. ridge was devoid of difficulties. It will be noticed that, throughout, the deciding factor had been the weather. Waller's plan of seven consecutive fine days from and to Base Camp was in all respects sound. During the thirty days above Camp 1 it had snowed nearly all day on the 23rd, and at no time did we have more than three consecutive fine days. The inevitable omission of a Camp 7 made a very great effort necessary for the final climb, although, owing to the overestimation of heights, this was not appreciated at the time. In spite of Carslaw falling sick, we still had sufficient personnel for two attacks as in the plan. The weather proved the deciding factor.

As for the mountain itself, we set out with little or no information as to its general character and no certainty that a feasible route existed. In choosing and making for the S.E. ridge we had been deceived by indifferent photographs. It was indeed a lucky chance that we discovered the Likah Glacier, and the fact that this glacier gave access to the Peak 36 Glacier, whence a feasible route could be found up the E. face.

Several of his own theories were put to the test by Waller. One, a sledge, to be used by ourselves after dispensing with local coolies, was tried between Camp 3a and Base: it proved unsatisfactory. I imagine that transport of this type is used on Polar expeditions on a hard crust. Another idea was a special harness designed to carry loads on the assault (food, sleeping-bags, Burns tents, spare clothing, etc.). This invention of Waller's, properly fitted and well made, would probably be a success; except in one case, however, it proved to be not very satisfactory. A specially light high altitude diet was used, which by its results was very satisfactory; we relied as far as Base Camp almost entirely on fresh food, taking with us—with some trouble and difficulty—live sheep and goats. The quality of this food, however, was very poor after a fortnight and the few tinned provisions available were most welcome.

With regard to the carrying of loads by the climbing party throughout the assault, our general feeling is that it unduly reduced the strength required for the final day. I suggest that, for a party of this size and financial resources, the enlistment of six Darjeeling 'tigers' would prove a very good investment.