

ASCENT OF THE BHAYAKARA LA, BALTISTAN.

BY DR. WILLIAM HUNTER WORKMAN.

EARLY in the afternoon of August 20, 1902, our party, consisting of Mrs. Fanny Bullock Workman, the writer, Mattia Zurbriggen, guide, and Giuseppe Muller, porter, having finished the exploration and first ascent of the upper N.E. branch of the Chogo Lungma glacier, reached the base of the cirque of high mountains which give it birth, the highest of which is the fixed peak measured by the Indian Trigonometrical Survey at 24,470 ft., and known on its records as 'Indus Nagar Watershed Peak No. 2.'

The day had been oppressively hot. The high walls enclosing the glacier shut off all breezes, and the sun burned with fiery fervour through a film of cirrho-stratus clouds. The heat reflected from the dazzling white covering of recently fallen snow struck us like the radiation from a blast furnace, blistering our faces, already burned to a deep copper colour, from the chin to the forehead under our sola topis. The temperature in the sun at 1 P.M., even through the thin clouds, as registered by the solar thermometer was 183° F. For the last three hours of the ascent the gradient of the glacier was steep and its surface much crevassed.

At 2 P.M. we pitched our camp on a small snow-covered section of glacier surrounded on three sides by wide crevasses at a height of 17,500 ft. (determined by hypsometric readings compared with simultaneous ones of the Government mercurial barometer at Skardo). This camp we named Crevasse Camp. It was safe from avalanches, but we could not have moved many yards from our tents after dark with safety. The mountains rose around us in tremendous unscalable precipices. There was only one point which gave promise of a peep at the beyond, and that after an ascent of a steep avalanche-scored snow wall of 1,760 ft., leading to two cols, one on either side of a perpendicular rock ridge rising a thousand feet or more above them.

As we wished to learn what lay beyond that ridge we determined to accept the gauntlet which this wall threw down to us and attempt its conquest. The night of the 20th was clear and cold. The minimum temperature was 12° F., which was favourable, as it hardened the snow. On account of the crevasses we waited till daylight of the 21st to start.

Our path at first lay over the steeply ascending crevassed glacier, then up the still steeper débris of an avalanche that

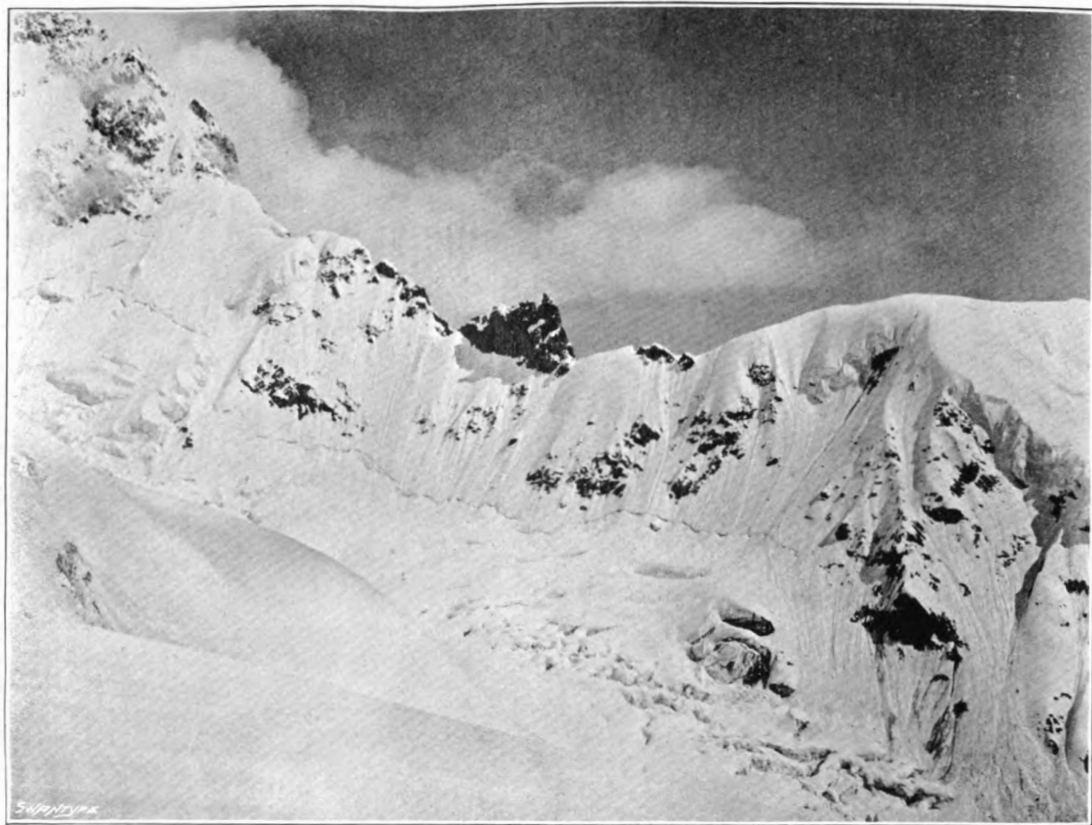


Photo by Dr. and Mrs. Bullock Workman.

[Swan Electric Engraving Co.]

THE BHAYAKARA LA, 19,260 FEET.

had fallen two days before. Above this came a wide bergschrund, over which we found but a single insecure snow bridge. This passed in safety we had before us the ice wall, which gave us all the work we cared to do for the remainder of the day. This wall was steep from first to last, varying in different parts a few degrees either way from 60°. On the ascent every step had to be cut from bottom to top, as the wall being on the E. side of the valley did not feel the force of the sun's rays till about 11 o'clock, and its surface remained hard till noon.

A series of rocks projected through the ice at intervals of a few hundred feet, and we laid our course from one to another of these. After 2½ hrs. we reached the last rock, and then had before us only the blank ice slope, which stretched several hundred feet upward to the foot of the perpendicular rock ridge above. We had intended to strike directly from the last projecting rock to the right-hand col, which, though not so high as the other, was much nearer our route, but on leaving the rock we found the slant at this part to be of solid smooth ice of 60° incline thinly covered with fresh snow and too dangerous to attempt.

We therefore decided to turn to the left, where the snow was deeper and the foothold better, gain the base of the rock ridge as soon as possible, and with what hand-holds it might afford traverse the top edge of the ice slant where it joined the rock face, and thus reach the left-hand col.

After another 1½ hr. of laborious step-cutting we got to the base of the rock ridge, which was found to consist of rotten and crumbling sandstone, so weathered away as to afford but few hand-holds, and what few there were had to be used with the greatest caution, lest they should scale off.

The upper sharp edge of the ice slant did not lie close against the rock, but was separated from it by an interval or schrund, varying from 6 in. to 2 ft. or more in width and of unknown depth. The steps cut along this edge made a more precarious foothold even than those on the steep slant, and in the absence of hand-holds progress was necessarily very slow. To add to the difficulty transverse crevasses existed at intervals, some of them covered with snow, into which we were in danger of falling. It was a most uncanny path over which we cautiously pursued our way for more than 2 hrs. At last at 1 o'clock we reached the col, a sharp edge with a slant on the further side steeper than that by which we had ascended, ending in a precipice which overhung a large glacial icefall.

It overlooked a vast trefoil glacial basin surrounded by

massive ragged mountains, which cut off all view beyond, and sent down a complex of glaciers and icefalls to form a large glacial branch of the Chogo Lungma, which we afterwards explored almost to the top of its highest icefall. There was barely standing room, and no opportunity to take hypsometric readings, so we had to rely on the readings of our Watkin aneroids, which had been checked the previous afternoon at the camp by the boiling-point thermometers. One of the aneroids differed from the last by only $+0.1$ in. The corrected readings compared with those at the same hour at Skardo made the height of this col or point 19,260 ft., 1,760 ft. above our camp. The difficulty of the ascent can be judged somewhat by the fact that only 251 ft. of altitude per hour were made.

For the last 2 hours the midday sun had shone upon us, and, crowded as we were against the rock wall, the heat was almost unendurable. The temperature in the shade could not be obtained, as there was no shade except that cast by our bodies. In our shadow the temperature was 80° , but the sun burned from a cloudless sky with greater power than on the previous day.

Its rays struck with savage energy perpendicularly upon the ice slant, and by this time had softened its covering of snow. We did not remain long at the col, partly because there was no comfortable standing place, and partly because we were anxious about the descent. It was evident that, owing to the softened snow, the latter would be more dangerous than the ascent. The steps cut with so much care no longer afforded a firm foothold; our feet sank through them from a few inches to 2 ft. till stopped by the solid ice beneath.

We returned slowly and painfully along the treacherous edge in the pitiless heat of the sun, finding neither hand-holds nor satisfactory axe-holds. Every now and again some one would slip on an insecure place. After going a short distance Zurbruggen said, 'Es ist sehr gefährlich. Wir kommen heute nicht hinunter.' This was the first time we had known him to lose courage. We replied, 'If we do not get down to-day we shall not get down alive.' Whatever might be in store for us on the descent, to remain where we were would be certain death. No shelter of any kind was to be found on that ice slant. There was not even a place where one could sit down to rest. We should be obliged to stand in the narrow steps on which our feet rested till we dropped with fatigue, which would mean a slide of some

2,000 ft. down the avalanche-gullied ice flank into eternity. Could we manage to stand there we should be frozen stiff in our tracks before morning, as the temperature would drop to zero. With such a prospect before us nothing remained but to go on and take our chances.

It was now 2 o'clock, and having eaten nothing since 8 A.M. we were becoming faint. There had been and was no opportunity to take a comfortable lunch. We stopped in our tracks, took out what kola biscuit and chocolate happened to be accessible from our pockets, as well as a stray tin of jam, off which we made a hurried meal, and then crept forward again.

Shortly after this the porter, who was between Mrs. Bullock Workman and myself, lost his footing and slid down eight or ten feet. Zurbriggen, who was last on the rope, happened to have his ice axe fixed in a narrow crevasse, and the rope around it, so he was able to hold firmly. I, who was leading, although I had only one foot secure on a narrow ice step, had a fairly good hold with the blade of my axe on the edge of the ice, which enabled me to keep my balance. The porter being thus supported at both ends quickly regained his feet. Had the whole strain come upon me I should undoubtedly have been pulled off.

When we came to the spot where our upward track left the rock face, and led diagonally down over the snow-covered ice slope, prudence suggested that we should not follow it further for fear of starting an avalanche. We decided to go straight down backwards, in order to avoid this mishap, and also to obtain a better foothold.

Zurbriggen fixed his axe firmly and secured the rope to it to hold us in case of accident. The porter went down first to the length of rope between himself and myself. When he had placed himself as safely as possible I followed, treading exactly in his steps. In the same manner Mrs. Bullock Workman followed me, and last of all Zurbriggen descended and braced himself anew.

In this manner we made a tedious descent to some rocks below, from which we were able to regain the line of ascent. It was now 5 o'clock, and the sun having sunk behind the opposite mountains, the snow soon stiffened sufficiently to permit of our resuming the forward position. Although we sank into the snow above our knees at every step we reached the bergschrund without accident. Here the snow bridge was found to be so soft that we did not venture to use it, but jumped the schrund into the soft snow below and reached

camp after 6 o'clock, having had 12 hours of continuous mental and physical tension. We did not sit down to rest once during the day, and there was no place after the ice slope was reached where we could have rested had we been so disposed.

Zurbriggen called this the most difficult col he had ever made. The effect of altitude was added to the difficulties of a purely alpinistic character. Above 17,000 ft. the resistance of most persons to fatigue is distinctly lessened, and a march or climb of 6 hrs. is felt as much as one of the same character of double that length at lower altitudes.

We named the col the Bhayakara La from the Sanskrit word for 'perilous.'

THE MEIENTHAL.

By LEGH S. POWELL.

IN the following narrative the reader will find no account of thrilling mountain exploits. He will merely have his attention drawn to an easily accessible, but comparatively neglected valley, of considerable beauty, which, though it boasts no great mountains, is notwithstanding full of interest to the lover of unfrequented districts. The probability that a carriage road will be constructed over the Susten Pass in the near future means, of course, that the innkeeper will be attracted, and will be followed by the general public in greater numbers than hitherto. Then will the present order of pristine simplicity and charm pass away. As things are now, a very small proportion of the pedestrians who cross the Susten Pass ever turn aside to ascend a peak, or cross the mountains to an adjoining valley. Until last summer there was but one place in the Meienthal where an intending visitor could stay with any degree of comfort—the inn at the village of Meien, and even here fresh meat is a luxury, only to be obtained occasionally by ordering beforehand. The postman, moreover, is seen but three times a week. But rumours of a road, and something more than rumours (for, although not yet actually sanctioned, it has been marked out with red paint, figures, and posts) have already commenced to disturb a somnolence that has evidently continued for many years. A new, clean, and passably good inn at Färnigen has this year supplemented the dirty hovel which has hitherto supplied the traveller with milk and other drinks; whilst