

When we reluctantly turned back, the mists below us had developed into heavy clouds which were gradually veiling Mt. Foraker and creeping up the sides of Mt. McKinley, leaving the head of the Muldrow Glacier visible in the upper regions of that ice world. As we sped toward the little landing field of Savage River the curtain dropped over the monarch of North American mountains, and an hour after we reached the Camp a soft, drizzling rain was falling.

WILLIAM CROZIER.

MARY W. CROZIER.

[We are very much indebted to Major-General and Mrs. Crozier, brother-in-law and sister of Mr. William Williams, for the excellent note and illustrations. These latter possess peculiar interest as showing views of the Muldrow Glacier on which the disaster to Mr. Allen Carpe and his companion occurred.—*Editor, 'A.J.'*]

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#### JÄGI AND BIETSCHHOERNER.

##### (1) *The S.E. Ridge of the Baltschieder Jägihorn, 3416 m.*

THIS magnificent expedition, which Monsieur Paul Montandon justly considers to be one of the finest rock climbs in the Alps—an opinion that I can heartily endorse—deserves to be better known, for in itself it makes the eight to ten hours trudge from Visp to the comfortable little Baltschieder hut, situated on the southernmost spur of the Jägihörner between the two main tributaries of the Baltschieder Glacier, worth while. Suffice to say, it is a route comparable in interest, difficulty and soundness of rock with the best that the Chamonix Aiguilles can provide.

I am indebted to Monsieur Paul Montandon, the discoverer of the ridge, for the following details of its previous history, and thank him for permission to reproduce his interesting photographs.

On October 9, 1920, P. Montandon with Josef Knubel made an attempt to climb the ridge. This was before the Baltschieder hut had been built. They had previously prospected the route, and had climbed directly up the steep cliff rising immediately above the site of the present hut which has been built just below the old bivouac place.<sup>1</sup> Their route is well shown by a dotted line on the accompanying photograph. They also discovered an alternative way to the right, E., which avoids the steep initial cliff and follows a terrace sloping up in a north-westerly direction approximately parallel to the crest of the S.E. ridge. The crest of the ridge was gained in two hours by this easier variation. The party then traversed the crest, the gendarmes on which steadily increase in

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<sup>1</sup> This is still to be seen, and its protecting wall of stones has been preserved.





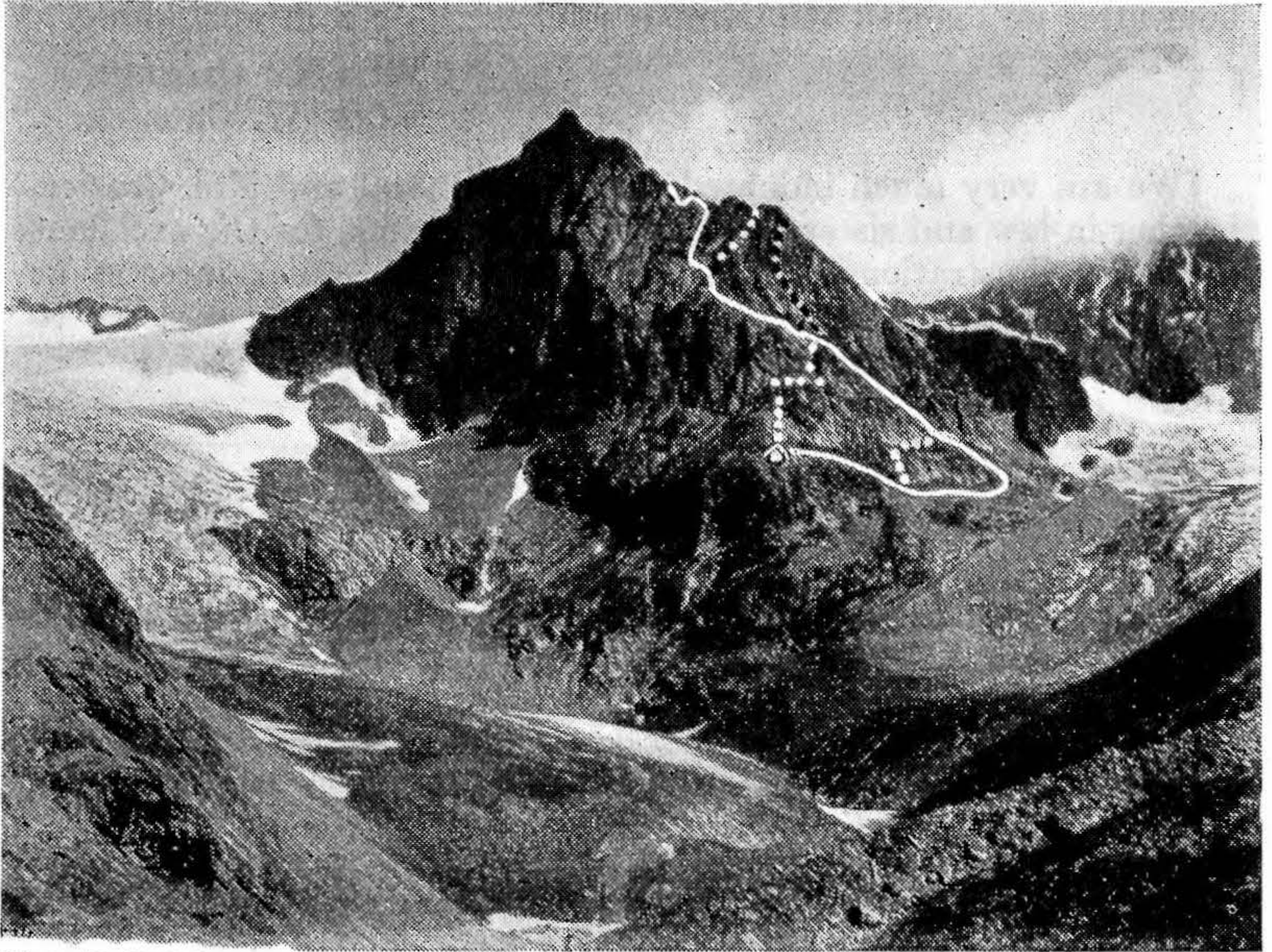
*Photo, P. Montandon.]*

SUMMIT OF S. PEAK OF JÄGIHORN FROM N.N.W. ARÊTE.

*[To face p. 277.]*



height and difficulty. After having traversed a difficult gendarme 50 ft. high, which M. Montandon terms the 'Grey Gendarme,' they found themselves confronted by the 'Grosse Abbruch' (great step), the rock of which is curiously grooved. The lower portion of this was climbed to the foot of an overhang well seen in the accompany-



*Photo, F. Fankhauser.]*

VORDERER JÄGIHORN FROM S.

(Showing different routes to S.E. arête.)

ing photograph, but the party proceeded no further and retreated from this point.

On August 12, 1923, Montandon returned to the attack with Herren Otto Fahrni and F. Oesch. The southern peak of the Jägihorn, 3416 m., was climbed from the N.W. in 4 hours from the Baltschieder hut (it was on this route that the solitary climber P. Dubied lost his life 16 days later), and the S.E. ridge descended. The 'Yellow Wall,' which is perpendicular, was roped down, though M. Montandon thought that it might be turned. The 'Great Step' was also descended on ropes (two *rappels* of 13 and 22 m. respectively). The 'Grey Gendarme' which Knubel had climbed direct in 1920 was also descended on the doubled rope. The descent took 8-9 hours from the summit to the hut.

The first ascent of this ridge was made on June 10, 1924, by the late Willy Richardet and D. Chervet of the A.A.C.B. in the very fast time of 4 hours 25 minutes. The 'Grey Gendarme,' which was



led direct by Knubel in 1920, was turned on its eastern flank. The 'Great Step' was also turned on its eastern slope by a shallow couloir, then up a crack for a few metres, then by slabs between the crack and the couloir, and finally up the couloir to the ridge. The 'Yellow Wall' was climbed on the left, W., of the ridge by a difficult overhanging crack, though they thought (as we subsequently proved) that there was an easier route still farther to the left. In turning the 'Grey Gendarme' and the 'Great Step' they did not experience extraordinary difficulties, but the 'Yellow Wall' they found exceptionally hard.

H. B. Thompson and I had been unable to procure a guide-book to the district when driven out of Zermatt in July 1932 by continuously bad weather. We knew nothing of the Jägihorn or its history. Owing to mist the Baltschieder hut was not left until 6 A.M. on July 18. The weather was then very good. The initial rock cliff immediately above the hut was turned by a traverse across broken rocks and slabs to the terrace sloping up in a N.W. direction. The terrace was followed to the foot of a conspicuous pinnacle abutting against the S.W. slope of the S.E. ridge. A crevice to the E. of the pinnacle and some slabs brought us to the foot of a chimney which continued for about 250 ft. This chimney afforded some fine climbing, including one section resembling the *Râteau de Chèvre* on the Grépon, where at the chimney's termination a holdless rib had to be climbed. It should be noted that the routes of former parties to the ridge start farther up the terrace, are shorter and probably easier, and lead up to the S.E. ridge some distance nearer to the summit than the point on the ridge gained by us. This difference of route explains to some extent the discrepancy in time<sup>2</sup> between us and the Richardet-Chervet party. Having no idea of the length and difficulty of the S.E. ridge, we deliberately chose a difficult route to its crest!

The chimney led up into a small amphitheatre above which easier rocks brought us to the crest of the ridge. The arête, very broken in its lower section, does not fall very steeply on either side. Gendarme succeeds gendarme, all of perfect red granite, with only an occasional loose block. Were a few parties to climb this ridge, it would rival the Grépon for soundness of rock. Half an hour was spent in a second breakfast on a flat slab. Beyond this point the gendarmes are higher and more difficult, whilst the precipices on either hand are sheer. The 'Grey Gendarme' was turned on its eastern flank up steep but not very difficult rocks; Knubel's lead of this gendarme direct was a fine piece of climbing. The weather now became misty and visibility was limited. No rock step in a ridge that I have seen is more forbidding at first sight than the 'Great Step.' Being ignorant of its previous history, we sought first of all to avoid it, as did the Richardet-Chervet party, by turning

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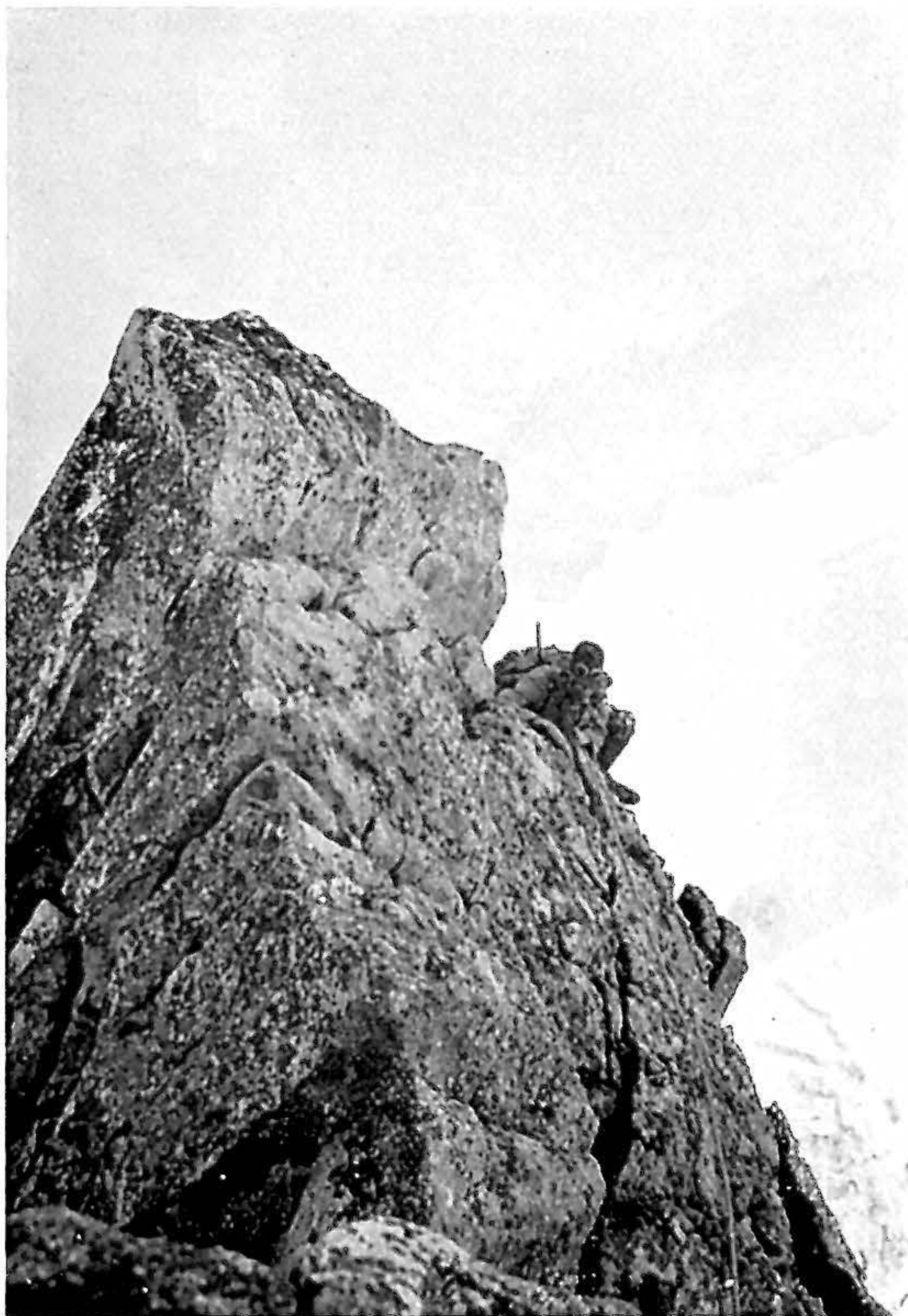
<sup>2</sup> Not more than 1½-2 hours.



it on its eastern flank. But the smooth slabs looked unpromising, and deteriorating weather made us look for the quickest way. This is direct up it by the route attempted by Montandon's party and down which they roped in 1923. About 70 ft. of steep but not excessively difficult climbing brought us to the foot of the overhanging section which cuts partly across it, well seen in the accompanying photograph. Here we found the piton of the descending party.

The face above this is practically if not actually vertical and is curiously grooved. So difficult did it appear that I took off my boots and left my rucksack behind. The ascent of the grooved face provided a most exposed piece of climbing of some 45 ft. Progress was made by wedging the stockinged feet in the grooves, while grasping the thin edges of the flutings between the grooves and leaning well outwards to prevent the feet from slipping in the said grooves. In the upper part small holds manifested themselves, but it was with a certain feeling of relief that the sharp crest of the ridge above was grasped. Thompson, although burdened with my boots and carrying two rucksacks, made light of it in nailed boots, so that it is undoubtedly possible to lead it otherwise than in stockings. In its exposure and steepness I should class it with the variation to the right of the 'Winkler Riss' on the Winkler Thurm and the exit from the 'Zdardansky Kamin' on the Langkofeleck. A very sharp section of the ridge led us to the foot of the 'Yellow Wall,' the crux of the climb. Here a heavy hail and snowstorm commenced, and in a minute the rocks were streaming with slush. Two overhanging cracks were attempted, one of which was probably that climbed by the Richardet-Chervet party, but neither proved possible. The storm increased, and soon the holds were concealed. An attempted traverse to the W. proved also impossible. Traversing back to the ridge, we were greeted by unpleasant electrical tension where hissing axes caused us to descend a short distance on its western side. The storm, which lasted nearly an hour, then eased and the rocks quickly began to dry. A crack on the western flank of the wall was the sole remaining possibility. To reach it it was necessary to descend diagonally some 50 ft. from the ridge below the *impasse*. The crack was of the typical granite type, and took us quickly up the western flank of the 'Yellow Wall' to the ridge above. The arête here is again extraordinarily narrow and progress *à cheval* was painful. Another gendarme, turned by the previous parties on the E., was traversed direct, but descent on the far side necessitated a short *rappel*. (There are, however, undercut holds invisible from above.) The summit was reached at 2.30 p.m. Descent was made by the N.W. face to the Baltschieder Glacier. The way marked in the *Climbers' Guide* is *via* a couloir under the S.W. face of the northern peak, 3510 m., of the Jägihorn. We descended broken rocks and steep snow from the depression between the N. and S. peaks. Below these rocks, unclimbable slabs necessitated a





*Photo, F. S. Smythe.]*



*Photo, F. S. Smythe.]*

ON S.E. RIDGE OF JÄGHORN.

*[To face p. 280.]*

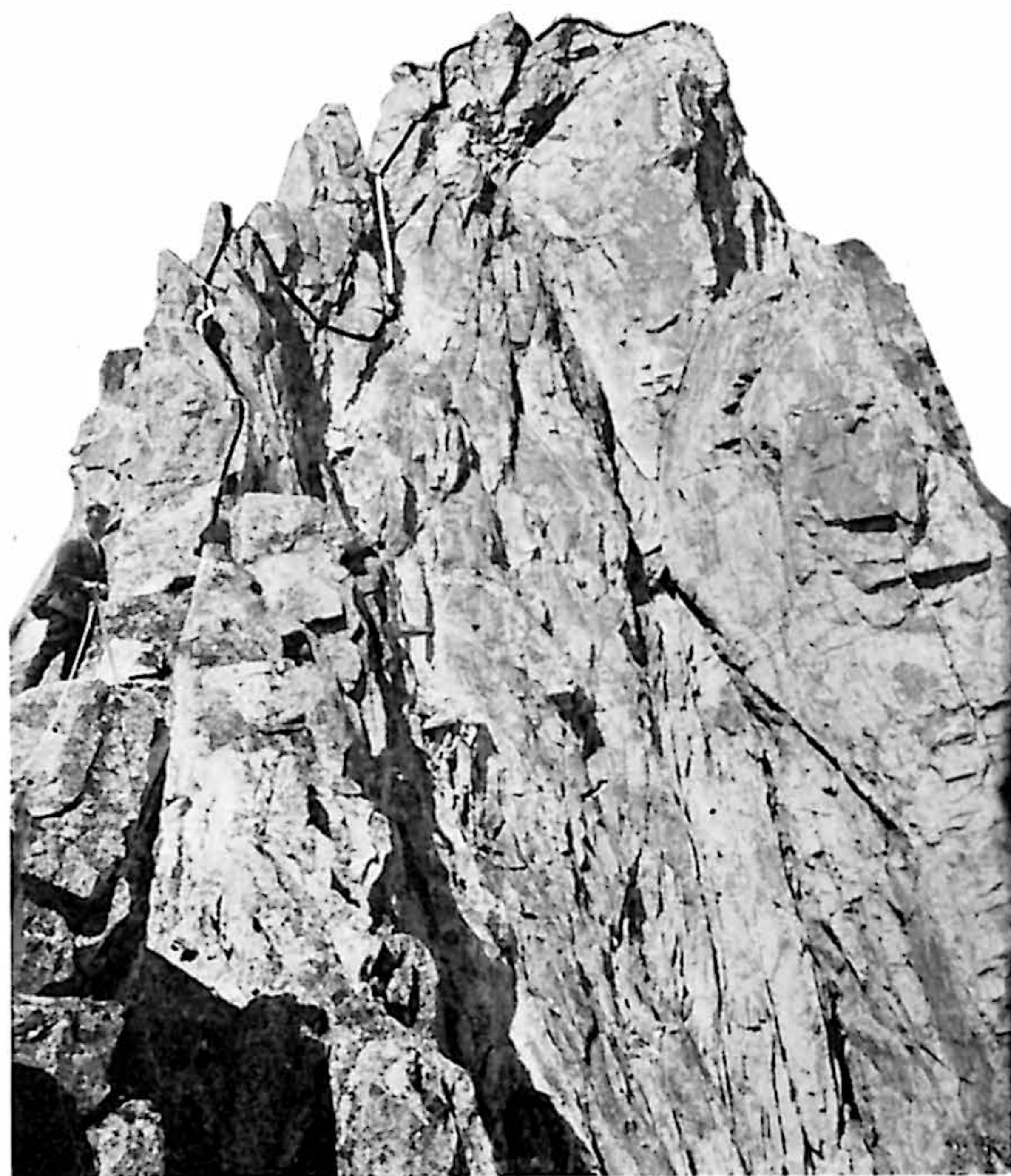




Photo, P. Montandon.]

GREAT STEP ON S.E. RIDGE.

(Arrowhead indicates Montandon's *rappel*; dotted line Richardet route. Our route is directly upwards.)



Photo, P. Montandon.]

HIGHEST SUMMIT OF VORDERER, S. JÄGIHORN, 3,406 M.  
EAST FACE.

(Really much steeper and thinner, as the camera had to be inclined towards above.)



traverse to the S. Another heavy snowstorm supervened, but we found it possible to force a way down slabs to the bergschrund, which was crossed without difficulty, though the snow bridge was in a dangerous state. The hut was regained at 7 P.M.

I have been unable to find any mention of any party climbing this ridge between the years 1924–1932.

(2) *The E. face of the Bietschhorn.*

In his admirable monograph on the Bietschhorn, Dr. Hans Lauper describes in detail the two routes that had been made up the E. face prior to 1930.<sup>3</sup> These are the E. Spur and the E. Ridge. Oskar Supersaxo, who with Mr. James Alexander first ascended the E. ridge on September 2, 1927, stated that he thought that the more northerly ribs were possible but would most certainly be no improvement on the existing routes.

When, in July 1932, H. B. Thompson and I were staying at the Baltschieder hut, we found a copy of Dr. Lauper's monograph in the hut, and this, coupled with the fact that in 1925 J. V. Hazard and I descended the E. Spur, decided us to attempt the E. face between the E. and N. ridges.

Of all the ribs that descend the E. face from the summit ridge one only extends as far as the bergschrund, the others petering out in steep ice slopes some hundreds of feet higher. This rib is not, however, continuous and loses its individuality in the upper slopes of the E. face. It would be necessary to leave it and traverse a couloir to a well-defined rib to the S. of it. Examination disclosed the fact that at the point where the initial rib loses its individuality it bends southwards, and at this point not only is the couloir less than 100 ft. broad but is sheltered for half of its width by the rocks of the initial rib.

The Baltschieder hut was left in bright moonlight at 3 A.M. on July 22, 1932. Owing to the dangerous condition of the Baltschieder Glacier and very bad snow, the bergschrund was not reached until 6 A.M. The latter was crossed without difficulty and the rocks of the initial rib gained. These proved easy, and progress to the point where it was necessary to traverse the couloir was rapid. Owing to the snowy conditions nothing was falling down the couloir, which, set at 60°, necessitated step-cutting in ice for half of its width. It was only after a difficult climb, owing to snow and *verglas* covering the sunless rocks of the northern side of the rib, that the crest of the latter was gained. On the crest of the rib the rocks were dry. As height was gained the climbing became progressively more difficult. The rock on the whole is sound, but detached blocks require care where they are poised on the sharp crest of the rib. A vertical step curiously cleft by an overhanging chimney was turned by a steep

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<sup>3</sup> *A.J.* 42, 236–41.



crack on its southern side. Higher up, another step proved impossible to climb direct and had to be turned on its northern slope. Over an hour was spent here climbing 100 ft., as every hold in the nearly vertical face had to be cleared of snow and sheets of *verglas*. The crest of the rib above this step is extraordinarily sharp. The upper rocks were in bad condition, and much time was spent in climbing them. The summit ridge was gained near the point of junction with the W. ridge. Few rocks were to be seen, and the red tower on the W. ridge was coated in snow and ice. The summit was gained at 2 P.M.<sup>4</sup> Even under normal conditions this route would be more difficult than the E. Spur, but subsequent parties—climbing under better conditions—should halve our time.

Descent was begun at 2.30 P.M. by the N. ridge. This proved to be in the worst possible condition<sup>5</sup>—I have, in fact, never seen a snow ridge in such a dangerous condition. Two feet of loose powdery snow resting on hard snow, ice, or ice-glazed slabs, was bevelled into a knife-edge. The corniches, of a most formidable nature, decorated the ridge on *both sides*, so that it was sometimes necessary to traverse below the crest—a proceeding necessitating the utmost precautions. Throughout almost its entire length above Point 3712 m. it was necessary to move one at a time. At Point 3712 m. a snowstorm supervened accompanied by wind, reducing visibility to a yard. Where the N. ridge bends north-eastwards we were unable to find the route, and it was only regained after a long bout of step-cutting in ice. The ordinary route to the Baltschiederjoch and the rock rib utilized by some parties to the S. of it were alike impossible, the rocks being plastered up. The only remaining alternative was a direct descent of the E. face to the S. of the rock rib. The face here consisted of sodden snow well crusted by the wind but ready, nevertheless, to avalanche.<sup>6</sup> It was found possible to descend safely by causing a snowslide and descending in the track of the resulting avalanche. This is the only occasion that I have seen wet snow in the Alps *well* crusted but in an avalanchy condition; in the Himalaya the contrary often prevails. It can only result from exceptional weather conditions, and the conditions in July 1932 *were* exceptional, the Föhn having blown almost continuously for the past two weeks. The avalanche thus detached was a huge one and covered an area of at least 100 yds. square, with *débris* piled 6 to 8 ft. deep.

The bergschrund was crossed as darkness was falling, and the Baltschieder Glacier descended by compass. The Baltschieder hut was regained at 8.30 P.M.

F. S. SMYTHE.

<sup>4</sup> This was incidentally, I believe, the first ascent of the season!

<sup>5</sup> See the *Climbers' Guide*.

<sup>6</sup> See Dr. Wilson's remarks in the discussion on dangers (*A.J.* 44, 29 *et seq.*), and my own description of an avalanche of wet crusted snow on the 22,000-ft. peak in the Badrinath Himalaya (*Ibid.* 43, 305).