

certainly difficult. But it is probably as interesting a finish as either of the others ; and the presence of adequate (if not ample) anchorage at each end of the traverse adds an element of safety. If the rocks are iced (as they were when we ascended) the route taken is the only justifiable one ; it is perhaps the best under *any* conditions.

We went on to the top of the arête where two rocks emerge and anchorage is possible. I belayed myself and took some photographs of the operations whilst Knubel played Graven out over the rock. The true couloir is a concave recess of very steep black ice, and Graven reached its near edge by cutting across under the base of the rampart or precipice. Then came a piece of step-cutting worthy of Knubel's feat on the lower arête. A large detached rock lies on the other side of the couloir ; Graven cut across to this and then down until he could pass below it, ascend a little, and find anchorage on its far side—there was still a little of our rope to spare. We now crossed in our turn and went on. During the ascent of the rib on the far side of the couloir there is a fine view of the main ridge cornice, seen across yet another gully. In a few minutes—at a minute or two after 11.30 A.M.—we reached the central summit of the Breithorn without further difficulty.

There we spent 45 minutes, and not only was our sojourn happy, but the descent also. We went along the summit-ridge to the E., descended to the S., came back over the Schwarzthor, and plunged down through deep snow. Then we reascended to Rotenboden—there to catch a train. I fancy we actually sang, for a fortnight of climbing weather had really been obtained !

NESTHORN AND FUSSHOERNER.

By H. BOOTH.

(Read before the Alpine Club, February 3, 1931.)

THE Ober Aletsch Glacier and the adjacent peaks have not received in recent times the same amount of attention as many other parts of the Alps. The Aletschhorn and the Beich Pass are the two expeditions made by most visitors to the Ober Aletsch hut. Consequently it provides an area where ordinary climbers can on occasion have the pleasure of not following in anyone else's footsteps.

Belalp, the natural starting point for any expedition in the Ober Aletsch, is not quite accessible enough to become a popular resort and many of its frequenters do not climb. The two local guides are perfectly competent to guide people up the Aletschhorn, but they are not of the type of their predecessor of thirty years ago, Clemenz Ruppen. When it comes to guides from other parts, they practically all suffer from the Aletschhorn complex. I have seen parties set out for the Ober Aletsch hut in unsettled weather rather than attempt any of the excellent climbs possible, after breakfast starting from the hotel, on fine days in a doubtful season.

Belalp from the climber's viewpoint has many advantages. If you wish to do nothing the view to be seen without any effort is one not easily surpassed. Even though there be no electric light in the hotel, the weak and flickering gaslight has the advantage of being a great incentive to early bed. Once there, the solid construction of the building saves you from disturbance by those who insist on sleeping in nailed boots.

There are many interesting expeditions to be made in the Ober Aletsch Glacier basin, and the shorter ones are, in many cases, very well worth doing. The nature of the climbing depends, to a large extent, on the type of rock of which the mountains are composed.

On my first visit to Belalp in July 1924, we were a party of members of the Oxford University Mountaineering Club. We crossed the Beich Pass from the Lötschental. In 1924 there was absolutely no difficulty in crossing that pass. Last summer I again crossed the same pass, and it presented considerable difficulty on the Lötschental side owing to the enormous amount of new snow.

Our first serious expedition was, of course, the Aletschhorn. We proposed to spend two nights at the Ober Aletsch hut, but grave disaster befell us on the ascent. While on the S. ridge, not far below the summit, we allowed a tin, containing our butter, to roll down the mountain side. This proved an excellent excuse for returning to Belalp next day instead of making another ascent.

On July 13, we made our first expedition to the Fusshörner.

The FUSSHOERNER¹ were the subject of an article in *Die Alpen* (1929, pp. 81-99), by Dr. Oskar Hug. Dr. Hug visited Belalp in 1927 and made several expeditions in that group. These

¹ See *A.J.* **19**, 316-21, for Mr. Yeld's history of the earlier ascents, with three excellent illustrations.—*Editor.*

included the ascent of the final peak, point 3106 m., the traverse of the northernmost peaks, and two visits to the central part of the group. He also examined them from the Zenbächen Glacier. From Belalp there are seven distinct peaks visible; these were all climbed in the 'nineties or earlier, as also the third peak from the S. which is out of sight until you reach the Ober Aletsch Glacier. In the Conway and Coolidge *Climbers' Guide*, these ascents are described and the peaks numbered from I (Gross Fusshorn) to VIII, point 3106 m. Dr. Hug as a result of his expeditions discovered five further peaks (four of which he climbed); as a result he renumbered them from I (Gross Fusshorn) to XIII, 3106 m., which system I propose to follow.

The ridge of the Fusshörner, though running generally from N. to S. is not a straight line. The ridge of Peak II

			IV					
I	II	III	V	VI	VII	VIII	IX	
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮



Photo, H. Booth.]

ALETSCHHORN, FUSSHOERNER I-IX, FROM SPARRHORN.

runs roughly from N.W. to S.E., while the ridge of Peak VI runs from N.E. to S.W. On the crest between them lie three definite peaks, only one of which is seen from Belalp. These belong to Dr. Hug's classification. The other two lie between Peaks VII and X; from Belalp they appear insignificant, but from the Zenbächen Glacier are quite distinct summits.

The Fusshörner are composed of 'Central Aar' granite (see Dr. Hug, *loc. cit.*), a rock ideal for climbing on. Yet between 1900 and 1924 there is no record of any new scramble in the Fusshörner, and one gets the impression that, apart from ascents of the Gross Fusshorn, the rest of the chain was probably unvisited during this period. From Belalp, the Fusshörner are one of the main items in the view and should attract every climber who comes there. They so clearly offer interesting climbing, while the lower peaks are within very easy reach. The scientific explanation for their neglect is to be found in the amount of climbing involved in any ascent. The difference in height between the Ober Aletsch Glacier and the crest of the ridge varies between 700 and 1100 m. ; the difficulties begin at about the half-way level S. of Peak VI, so that there is from 1000 to 2000 ft. of serious scrambling involved in any ascent on the S. end of the ridge. This distance is somewhat greater than that on many well-known rock peaks of similar nature. For instance, on the Ago di Sciora, in the Bregaglia, the final tower, on which the climbing is difficult, is about 500 ft. high, while the easy rocks leading to the foot of the tower are approximately of similar height.² As the Fusshörner had, until recently, received little publicity, a large number of climbers did not consider it worth while making the effort necessary to climb them owing to the ascent involved.

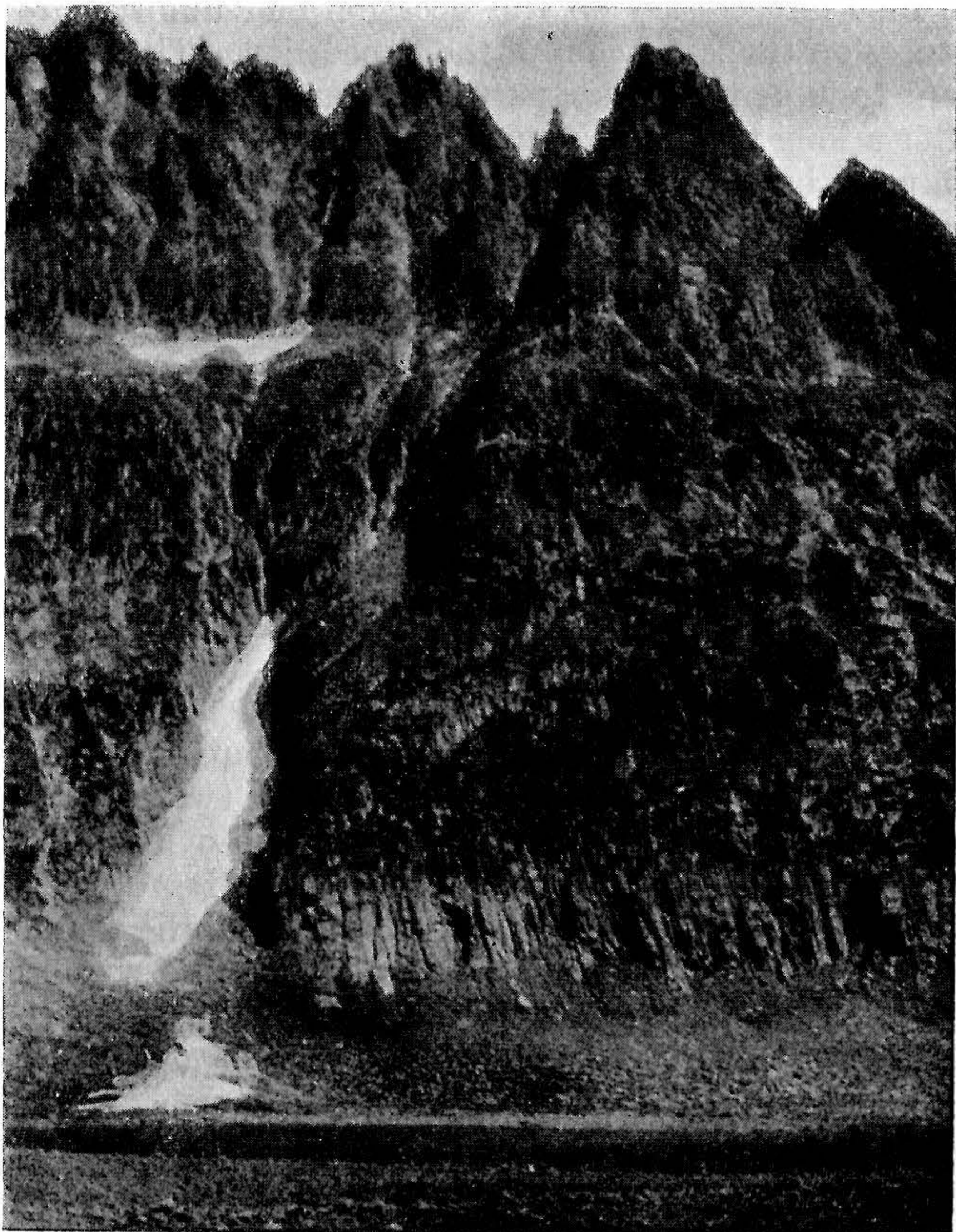
In 1924 we decided to ascend the gully running up between Peaks XII and XIII ; this was followed by Mr. G. W. Young³ on his ascent of Peak XII, and we hoped also to be able to climb Peak XIII from the top of it. To reach the Ober Aletsch Glacier from Belalp, you have first to descend some way, a small matter at the start, but very annoying on the return. In those days to attain the actual glacier was a choice between two evils ; you could either follow a path to the top of the moraine by the side of the glacier, and then descend very loose stones and avalanche snow on to it, or else traverse across very steep moraine, so as to get on to the glacier without any unnecessary ascent. To the lower Fusshörner, the latter course was the quickest, and we accordingly followed it. In connexion with the building of the new Ober Aletsch hut, a path has now been cut along the moraine so that the traverse can be done with ease, but as no one seems to be particularly interested in

² The most tricky portion of the entire ascent is to be found on these 'easy' rocks, soon after leaving the Ago Glacier.—*Editor.*

³ *A.J.* 20, 45.

keeping this path in good order, in a few years time our exciting traverse of 1924 may be again necessary. The line of ascent to the foot of the couloir is obvious from below, it being clearly possible to follow stony, grassy slopes all the way to its foot. In practice, however, the tendency is to bear too much to the right and become entangled in an outcrop of rocks only accessible by climbing too hard to be enjoyable when unroped. On this occasion, being guideless, on coming to the difficulty, we descended a little way, bore to the left, and avoided it entirely. The couloir is generally free from snow; the rocks are slabby, of moderate difficulty, and afford a very excellent grip to the nails. In due course we arrived at the gap at the

VII VIII IX X XI XII XIII
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Photo, H. Booth.]

FUSSHOERNER (VII-XIII) FROM OBER ALETSCHE GLACIER.

top of the couloir where we examined our surroundings. It looked perfectly possible to climb Peak XIII from this point, as the rocks, although very steep, were well broken up immediately above the gap. Our leader on this expedition was M. de Selincourt, then Secretary of the Oxford University Mountaineering Club, a very good rock climber. He had no great difficulty in climbing a considerable way above the gap. The rest of the party, however, found the scramble of that sort where the moral support of the rope is of very great advantage. After the one difficult part we were able to bear upwards to the right without much trouble, and so reached the fairly level plateau forming the summit. For the descent we had brought a spare rope, but as de Selincourt decided he could descend without, we made no use of it. The fact that we found the spare rope unnecessary on this occasion had unfortunate consequences on the latter half of the expedition. The ascent and descent took us the better part of 2 hours.

After a long halt in the gap, de Selincourt persuaded me to accompany him on the ascent of Peak XII. The rest of the party decided to descend. From Peak XIII, Peak XII appears to be composed of three towers of more or less equal height, of which the nearest is obviously the lowest. Assuming rather unwisely that the middle tower was the highest, we set out to climb it. Mr. Young, on the first ascent of Peak XII, had not actually reached the gap, but had traversed snow-covered slabs some way below. This would have involved some descent, and it looked possible to climb straight up above the gap. This we did, gaining a certain amount of height without undue difficulty, though the ledges tended to bear to the left. Then the said ledges and cracks by which we had been progressing petered out, and the only possible line of progress was upwards. The climb looked difficult, but on making the attempt, we found it possible, by means of two chimneys, to ascend direct upwards. This brought us to a broad terrace, which we followed without difficulty to the left, to the foot of the chimney leading up between the two southernmost pinnacles. This chimney we ascended ; it contained a number of loose stones, but otherwise went well. When I reached the gap between the two pinnacles, de Selincourt did not see how we were going to progress much further. However, as the first few feet were obviously climbable, we decided to proceed. We had in mind that it would be easy to descend on the other side of the pinnacle, assumed to be the highest point. The first bit of the ridge gave us no trouble, but the next section was

very difficult. It was necessary to take a long stride across a small gully on to a steep slab with but one slight hand-hold ; by crossing the slab we gained a shallow groove in which certain excrescences just enabled us to ascend and regain the crest of the ridge. A hand-traverse across the S. face brought us to a semi-detached flake of rock, in the solidity of which we had to place unbounded, but not misplaced, confidence. Standing on the top of the flake, de Selincourt, with a great effort, was able to climb back to the ridge. A few feet of merely difficult climbing brought us to the summit. Here we had the disappointment of finding that we had not climbed the highest pinnacle, but that the one farthest to the N. was a foot or two higher. The question now arose as to how we were to descend. Having carefully left our spare rope behind, and being very doubtful whether it would be possible to descend on the other side to where an obviously easy ledge led round the northernmost pinnacle, we decided to return by the way we had come. As is always the case, the descent turned out far easier than anticipated. On reaching the broad terrace we followed it round to the E., where we discovered a series of easy ledges which brought us down, without any very difficult climbing, to the gap. We had taken over 2 hours and it was a hot day.

As a result of this unsuccessful attempt to climb Peak XII, I resolved to return and complete the expedition as it ought to have been accomplished. In 1928 I was again at Belalp with Mr. R. A. Fanshawe and the guide, Theodor Biner of Zermatt. On July 18 we set out for this expedition. We reached the gap, and, following exactly the line of our previous ascent, reached the notch between the two southernmost pinnacles. In spite of all the loose stones, removed on our previous visit, the chimney leading up to this was still choked with them. On reaching the notch it was clear that a large bit of the ridge had fallen away since my last visit. The first section of ridge had given us no trouble in 1924, but now it was necessary to climb a holdless slab starting from a large and loose flake of rock, which had to be kept in place by one member of the party. After several attempts we decided that it was impossible to ascend, so descended on the far side of the gap to where the easy ledge, mentioned earlier, could be reached. This ledge is covered by an incredible quantity of loose stones ; the slightest movement disturbed quantities, which in falling, upset more, sending a succession of enormous stone avalanches down into the couloir on the north. Amidst sulphurous smoke, rising

from below, we reached the gap between the highest pinnacle and the next. Just beyond this a crack looked climbable, and was ascended. It was a little awkward at the start, but higher up gave us no difficulty, apart from a number of loose stones. Our only trouble was that our rope was insufficiently long to enable the leader to reach the top before the second man had to follow. We arrived on the crest of the pinnacle a few feet below the top; this appears most insecure and, as described by Mr. Young, 'was singly and cautiously surmounted.'

We descended by Mr. Young's route until able to traverse across, and slightly upwards, on to the terrace above the gap. From there we followed the same line of descent as in 1924.

To return to 1924: we had noticed at the foot of the N. ridge of the Nesthorn, a rocky peak, point 3468 m., of the Siegfried map. This looked well worth climbing and might be possible as a combination with the Nesthorn by the N. ridge. On July 14 we went to the Ober Aletsch hut, but it was not until 4.30 A.M. of the following day that de Selincourt and I set out, the rest of the party staying behind to ascend the Gross Fusshorn. In those days the descent from the hut direct to the Beichfirn was a very exciting one, especially in the dark. The descent lay mainly over steep, smooth slabs, covered with loose stones. On this occasion it was just daylight, and we had also inspected the descent the night before. During the building of the new hut a number of steps were cut in the rock, while a slightly better path was made, enabling salvage from the Torberg hut, destroyed by an avalanche in 1926, to be brought up.

Our objective was the most southerly of the three ridges descending from point 3468 m. to the Beichfirn as it appeared to be the easiest of the three when examined with glasses from the Ober Aletsch hut. In an hour we reached the snow patch to the N. of the ridge, and, after ascending it for a little way, found an easy way up to the ridge. The rocks were generally easy and very similar to those on the Fusshörner. At the start the ridge was not very well defined, so we kept a little on the north side of the crest till the latter narrowed. At this point we found a slight ledge along the slope of the ridge caused by a large mass having broken away from the mountain. This ledge ran upwards to the crest of the ridge some way further on, providing a convenient route to a point where it continued on a higher level. De Selincourt got up without difficulty, but when it came to my turn I found it at first impossible as all the holds sloped downwards; at the second attempt, however,

I succeeded. The ledge finished with a similar but easy ascent. The ridge was now broad and fairly level, and we advanced rapidly.



Photo, H. Booth.]

POINT 3468 M. FROM BELGRAT.

About two-thirds of the way up there is a gap, the descent of which was awkward. The direct ascent from the gap was very difficult, but by getting on to the S. face, a series of easier chimneys enabled us to turn the difficulty.

In time we reached the foot of the final tower ; this looked at first sight, impossible. De Selincourt left his sack behind and, in a surprisingly short space of time, reached the top—the holds being very small but numerous. We built a small cairn on the top and then roped down the far side of the tower. We then followed the ridge towards the Nesthorn, finding easy going on the E. slope, till we reached the gap between the point 3468 m., and the former. Having been brought up to believe it quite wrong for two climbers to go alone on snow-covered glacier, I suggested that the proper descent lay on the N. side under the hanging glacier on the Nesthorn. De Selincourt thought otherwise, so we roped down a loose chimney ending just above the glacier. To reduce the grave danger from hidden crevasses we tied ourselves together with both our ropes in which we put numerous loops. These gave us enormous trouble during the descent. We regained Belalp soon after 4 P.M.

From the top of point 3468 m. we had discussed the possibility of ascending the N. ridge of the Nesthorn. This was first climbed in 1874 by Messrs. R. Durnford and T. Hamond⁴ and, according to the *Climbers' Guide*, 'does not appear to have been repeated.' Owing to the lateness of the hour, 10 A.M., and because we thought the snow on the ridge looked very soft—subsequently we discovered this 'snow' was ice—we decided to return by the shortest way. It was clear, however, that the N. ridge would be perfectly feasible. Whether or not this is the case depends on the state of the hanging glacier on the ridge. If there is an ice cliff actually *on* the ridge, as there is in some years, the ascent might be impossible.

On July 18, accompanied by the guide Theodor Biner, de Selincourt and I set out for the Ober Aletsch hut to try this

⁴ With Alois Pollinger and Anton Ritz—*A.J.* 7, 326–7 ; 23, illustration facing 471.

On August 9, 1911, Herren A. and W. Scabell and E. Häberli ascended the glacier lying E. of the Nesthorn, between points 2687 m. and 2804 m. (*S. map*) to a height of *ca.* 3050 m. Climbing a difficult rock step, the arête plunging down from point 3648 m. towards point 2687 m. was reached and followed in $2\frac{3}{4}$ hrs. to the top of point 3648 m. A traverse of 40 mins. on the S.E. slope led to the gap between that point and the Nesthorn. The very dangerous séracs were turned on their right, cutting steps up a very steep ice crest which eases off continuously towards the top (2 hrs. 35 mins. from the gap to the summit).—*Jahresbericht*, A.A.C.B., 1911, p. 16.

This appears to be a variation of the 1874 route.—*H. L.*

ascent. We left the hut a little before 2 A.M., and reached the foot of the chimney, descended four days before, at 4.30. We climbed this and followed the W. slope of the N. ridge till we had to take to the ice. Here we put on crampons, and mounted the ice, cutting a few steps, till the ridge was again composed of rocks. On this second occasion we bore to the right, got on to gentler snow slopes above the hanging glacier, and followed them to the summit (7 A.M.).

The ascent of the N. ridge under the conditions in 1924 presents no difficulties, beyond the ascent of two relatively short and not particularly steep ice slopes. Under such conditions this is much the shortest route from the Ober Aletsch hut to the summit of the Nesthorn.

We decided that our descent should be by the S.E. ridge. This is composed of a series of steep pinnacles, and as the rocks on the N. side appeared easier we commenced the descent in that direction. A series of cracks and ledges made it easy to descend what was a sort of wide open gully between the ridge and a buttress of rock running down the E. face. The rock was excellent, and we had the day before us. We gradually got further away from the S.E. ridge, and it was not until we were nearly on a level with point 3533 m. where the ridge begins to rise towards the first point of the Unterbächhorn, that we found it convenient to traverse back on to the true ridge, some 2 hours from the summit. The ridge from here to point 3617 m. is crowned with a series of small towers; consequently we traversed steep and somewhat loose rocks on the N. slope, finally ascending direct to point 3617 m. From here to point 3576 m., usually regarded as the summit of the Unterbächhorn, we followed the crest of the ridge without undue difficulty. Being now tired of keeping to the crest, especially as this involved a considerable amount of ascent, we traversed along its S. slope. The climbing was easy, but the somewhat loose and sharp rocks had a most detrimental effect on our clothing. It is very doubtful whether we really saved any time or ascent by this traverse. We crossed the ridge running S. from point 3517 m. just a little S. of this point, where an easy couloir appeared to lead down to the Unterbächen Glacier below. We descended it for a considerable way, but found that it ended in a vertical wall above the glacier. We had assumed that the Unterbächhorn once reached there was no further difficulty, and so had taken no trouble to be sure we were following the best route. However, this did not matter much as we found it possible to rope down

the whole of the distance, as a most convenient hitch existed half-way down the wall, 75 ft. above the level of the glacier and just half the length of our spare rope. The remainder of the descent to Belalp, where we arrived at 4.20 P.M., was without incident.

The S.E. ridge of the Nesthorn is a very long climb ; if you keep to the crest it is even longer and harder, although the rock is sounder. The best of the climb is the Nesthorn itself where the rock is excellent granite ; after point 3533 m. the rock is less satisfactory, and, as a scramble, is to be recommended far more for historical⁵ than enjoyable reasons. It is too long for the latter.

In 1926 I was again at Belalp. On this occasion we were a guideless and not particularly expert party. The weather was never very fine, and consequently we did little.

We considered the question of crossing into the Gredetschtal by some other route than the Gisig Pass followed by Mr. Young, finding that wherever you reached the crest between the Gisighorn and the Unterbächhorn there was a long descent over loose rocks on the other side, and no better way appeared.

We also tried to climb one of the summits on this ridge by its N. ridge, but found the rock so loose that we gave it up.

Our principal expedition was the ascent of the Sattelhorn. We had intended to climb the Aletschhorn, still believing that this was the correct thing to do, but as the weather was unsettled, ended in ascending the Sattelhorn. On the ascent we followed a large snowy couloir, which turned out to be ice, and after ascending rotten rocks on the S. bank of this, found some steep, firm rocks on the N. side by which we gained the N. ridge, which we followed to the summit. On the descent we followed very easy scree slopes which led us too far down towards the Lötschental, and we had to cross a very awkward place where every hold was loose, to regain an easy ledge leading back to the Sattellücke. I would not recommend anyone to ascend the Sattelhorn purely for the sake of the climbing. The rocks, similar to those on the Aletschhorn, are not intended by nature to be climbed.

Our final climb was the Höhstock, which we ascended by the

⁵ Taken in the *descent* in 1895, by Messrs. J., C., and E. Hopkinson, W. Cecil Slingsby and G. T. Lowe with a porter.—*A.J.* **17**, 588. The first *ascent* was in 1909, by Messrs. G. W. Young, G. L. Mallory and C. D. Robertson.—*A.J.* **24**, 683-4.

ridge from the Sparrhorn—an excellent climb along a narrow crest—and descended by the S. buttress, much the shortest and easiest way.

In 1928, as mentioned earlier, we were again at Belalp. After the climb on the Fusshörner described above, we considered the possibility of trying a more ambitious ascent. This was the year in which the new Ober Aletsch hut was being built, and consequently there was no hut available. We decided to start for the Nesthorn by the S. ridge. After taking a very long time to the Gisig Pass, the sight of the long and unpleasant descent into the Gredetschtal and the great distance between us and the Nesthorn, caused us to try the Gisighorn by its N. ridge. This is an expedition which cannot be recommended. The ridge is very long, and, until it is regularly climbed, will always contain too many loose holds on all the more difficult parts. Last summer on one of the few fine days in July, we climbed the S. ridge, by far the best short climb in the neighbourhood. It is never very difficult, yet always sufficiently so to be interesting, while the rock is excellent.

In 1929 I had as guide Felix Julen of Zermatt. Dr. Hug's article on the Fusshörner had just appeared and Felix was quite keen to visit them, so on July 10 we set out from Belalp just before 5 A.M. We gained the Ober Aletsch Glacier and, in due course, reached the foot of the great couloir running up between Peaks VI and VII. This was the route followed on the first ascents of both peaks. The lower part of the couloir was filled with snow and it was generally possible to avoid cutting steps by following the crevice between the snow and the wall of the couloir on the N. side; consequently, progress was rapid. After a while, getting tired of this method of ascent, we found it possible to mount grassy slopes on the N. side of the couloir; this we could have done some way lower down with advantage. At about the point where the rocks begin to steepen we had again to take to the couloir. We had just got well into it when, with no possibility of escape on either side and no cover in the actual couloir, an incident occurred. We heard a noise of falling stones, and shortly afterwards a number of small ones came down, avoiding us with great care. I was looking in vain for any possible shelter when I saw in the distance above us the chamois responsible for the fall of these stones crossing the ridge between us and the next couloir.

A little higher up the gully became more difficult. It was now free from snow, and the rocks, as in all couloirs of the

Fusshörner, were slabby. A fairly large stream of water flowed down it ; at one point there was an alternative between following an easy line up a waterfall, or following what was obviously a more difficult but dryer line. We followed the latter and, after making some height, Felix informed me that he did not think he could possibly climb the next piece with his sack, consequently I found it necessary to carry both sacks up the next few feet, and was very much impressed with their difficulty.

After that we bore a little to the left up a subsidiary couloir, and arrived on the crest of the ridge between Peaks VI and VII. After some discussion we decided to ascend the former, as I had been bored by the length of the ascent and preferred a shorter and less toilsome way down. By a series of steep chimneys on the E. side of the ridge we were able to reach the foot of a large slab conspicuous from below and clearly the crux of the ascent. This slab appeared impossible, and we first examined the possibility of turning it on the E. side. As this looked extremely difficult, Felix then set out to see whether it could be turned on the W. side. It proved possible to traverse the slab horizontally to its western edge, and with a little difficulty he got round the corner and disappeared. After a while there were sounds of scratching and scraping on the rock, and shortly afterwards Felix appeared at the top of the slab. I then followed and found that once round the corner of the slab there was a steep gully leading up behind it with an excellent ledge for foothold. The ascent from this ledge to the top of the gully simply involved pulling oneself up without any footholds by some handholds above the level of one's head, after which there was no further difficulty. This slab is very near the summit of Peak VI, which we reached at about 10 A.M. We descended on the other side without undue difficulty. From the description of the first ascent, by Messrs. C. Pilkington, Cecil Slingsby, Ellis Carr and G. A. Solly,⁶ in 1896, given in the *Climbers' Guide*, there is no doubt that the same peak was ascended, but we did not find any of the loose rocks and unstable towers that are mentioned.

The angle of the ridge is much gentler from this point to the Gross Fushorn, and it was perfectly simple to find easy ledges a little below the crest of the ridge. In due course we arrived at the foot of the double tower, Peak V, climbed by Dr. Hug for the first time in 1927. The northernmost

⁶ *A.J.* 18, 408 ; 19, illustration facing 316.

tooth is just a little higher than the other, and from the gap between them a series of steep chimneys provide a pleasant route to the top. Descending we continued along the ridge over Peaks III and IV, affording interesting climbing on excellent rock, but of no very great difficulty. These two were also first climbed by Dr. Hug in 1927. In due course we reached Peak II, ascended by Messrs. G. A. Solly and J. M. Mackay, in 1899.⁷ This as seen from Belalp or from the Sparrhorn appears to be a ridge quite as long as that between Peak VI and the end of Peak II. Owing to the fact that it lies at a different angle to the rest of the ridge, the actual length of this crest is, however, unexpectedly short, and at about 3 P.M. we reached the highest point at the N. end.

From here we followed the ridge leading to the Gross Fusshorn. This is a little more difficult than the previous section, but at the same time provides very pleasant climbing. On reaching the lowest gap between Peak II and the Gross Fusshorn we turned down the snow couloir descending thence. We had only one ice axe, and there seemed a certain risk of falling stones in the couloir owing to its dry state and loose rocks. Therefore, as soon as possible, we took to the rocks between this couloir and the next snowy gully to the north. When near the foot of these rocks where they steepen, we found a hole in the rocks on the N. side leading to an easy terrace which we descended to the foot of the gully, just to the north. We then glissaded down snow slopes and ran down scree and grass to the edge of the glacier. Now there is only one point whence easy access is possible on to the glacier, and this is somewhat difficult to find from above unless you know where to look. We found it however, and reached Belalp at 6 P.M.

Last summer I had planned to make an expedition to that part of the Fusshörner which I had not hitherto visited. When a fine day at last arrived, Felix Julen and I set out; we followed the same route as that to Peaks XII and XIII, but on reaching the foot of the couloir descending between them, bore along the base of Peak XII, where a series of grassy ledges provide an excellent route to the foot of Peaks VII to XI. When we arrived at the base of the couloir descending from between Peaks XI and XII we decided that there might be ice on the more difficult peaks and that, owing to the recent snow falls, it would be better to ascend Peak XI; I regret to state that

⁷ *A.J.* 19, 598.

had any unbiassed observer been with us, he would have found it hard to detect any ice or snow about. Our only justification for this self-deception was that we were out to enjoy ourselves and to enjoy the Fusshörner properly you must not go and attempt the most difficult peaks without suitable preparation. The couloir reached was full of hard snow, and we climbed it without difficulty for some way. About halfway up we bore to the left by a gully which led us on to the ridge of Peak XI.

XI XII XIII
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Photo, H. Booth.]

FUSSHOERNER XI, XII, XIII FROM SPARRHORN.

We traversed this on to some easy rocks leading to the gap on its N. side. This point was reached on the first ascent by some Genevese students who climbed the gully plunging to the W. from there. They are supposed to have also climbed Peak XI direct from this spot, but this is impossible. We found, however, an easy ledge which brought us without difficulty back to the crest of the ridge just to the W. of the final tower. This is very similar to that of Peak V, a series of vertical chimneys and cracks, all fairly difficult. These we climbed, finding the top to be an enormous flat slab with room for thirty or forty people. From here we looked at Peak XII and discussed the possibility of making the ascent from the gap between it and Peak XI. We saw that a series

of cracks and ledges appeared to provide a route up some slabs to the other end of the stone-strewn ledge attained by us in 1928. We then descended the final tower of Peak XI; the first section was absolutely vertical and as the handholds were somewhat far apart it was rather hard to descend, though I found, after one awkward movement, that it was less difficult than at first sight. Felix Julen, however, did not like to make the awkward movement when his turn came, and proceeded to demonstrate the possibility of descending, with perfect ease, another place where the rock was less steep, but quite holdless. The descent to the notch between Peaks XI and XII was easy and we then prospected the ascent of the latter. We had not gone far when a large and reasonably firm-looking rock, between Felix and myself, decided to fall down. I managed to avoid it, but we were very much discouraged by this event, especially in view of the number of loose stones above us, and the apparent lack of any hitch to which we could secure the rope. We decided, therefore, that it was better to climb the Fusshörner where the rocks were sound, rather than waste time trying to ascend the one unreliable place. We accordingly descended, following the gully down to where we had entered it earlier in the morning.

While making some lantern slides during the winter of 1928, I noticed how much easier it was to descend from the Gredetsch Joch to the foot of the S. ridge of the Nesthorn compared to reaching it by any other route. With this end in view Felix Julen and I set out on July 21, 1929, for the Ober Aletsch hut. As a thunderstorm was obviously coming on we reached the hut in 1 hour 50 minutes. Our haste was rewarded, the storm holding off till after our arrival. During the middle of the storm Mr. and Mrs. I. A. Richards with Joseph Georges arrived, well soaked, from the Riederalp, also with intentions on the Nesthorn.

It was perfectly fine when we started next day at 2.15 A.M. The level section of the Beichfirn which must be crossed to reach the steep glacier leading up to the Gredetsch Joch is, in July, always a snare and a delusion. The water from melting snow cannot escape, and your feet are continually going through apparently hard snow into watery pools. Although the moon was full this particular part of the glacier was in shadow, and, as the snow had not frozen at all, we both got our boots full of icy water on several occasions.

In due course we reached the foot of the steeper part of the glacier. From the Fusshörner we had seen that it was perfectly

easy to ascend the next bay of glacier but one to the Lonza-hörner, and although the bay to the left looked easier to start with, we were not deceived into ascending it. The Richards however spent a great deal of time in the upper and much crevassed part. Only once did we have to return—where a somewhat unsafe-looking snowbridge had to be crossed and, being two on the rope, decided it was better not to risk crossing it.

At 6.15 we reached the Gredetsch Joch, where we spent our time examining the W. ridge of the Nesthorn, then largely composed of ice. We next descended some steep but easy rocks a little to the E. of the col, attaining the snow-covered Gredetsch Glacier. This we descended till we could, turning point 3263 m., arrive in the bay between that point and the S. ridge of the mountain. This involved finding a way through a few crevasses and cutting some steps. On arrival in the bay we examined the possibility of access to the mountain. The entire S. face of the Nesthorn ends in a very steep rock-rampart immediately above the glacier; the difficulty appeared to be where to get off the glacier on to the mountain. Mr. G. W. Young, when he ascended the S. ridge⁸ found a snow-filled gully at the N.E. corner enabling him to attain the true S. ridge a little way above its foot. This, however, appeared impossible in 1929 and, as a little way above point 3263 m. the rocks looked broken and promising, we turned our attention in that direction.

We reached the rocks at the most likely point, and first tried ascending some slabs leading straight up the subsidiary ridge descending to point 3263 m. Felix climbed up some way, though the work was obviously growing more difficult. Retreat became obligatory, so lowering his sack, Felix followed and proceeded to demonstrate that the descent was not nearly as difficult as appearances had suggested.

We now tried lower down where there was a flattish snow-covered slab, apparently cut off from the mountain by a vertical wall on the right, N. This slab can be recognised by its termination in a vertical step some 6 ft. high, the base of which is about level with the glacier's surface. We ascended it without difficulty, and above the patch of snow found an easy cleft in the wall on the right-hand side. The rest of the climb to the top was unexpectedly easy; it consisted first of excellent granite rocks, followed by the good snow of the large and perpetual patch lying on the S. face of the Nesthorn;

⁸ *A.J.* 21, 267.



Photo, H. Booth.

BREITLAUTHORN, BREITHORN, GREDETSCHHOERNLI, NESTHORN, UNTERBAECHHORN,
from Gisighorn.



Photo, H. Booth.

Point 3468m., NESTHORN, GREDETSCHJOCH and GREDETSCHHOERNLI.
From Beich Pass.

finally, of a rib of rock separated from the true S. ridge by a shallow snow gully. It was very pleasant and rapid climbing—the actual ascent of the face, once we got started, taking only about $1\frac{1}{2}$ hours, and we reached the W. ridge of the Nesthorn a little below the top just before 9.30 A.M. There we were surprised to find no sign of the Richards who were tackling the W. ridge.

At 10.30, there being still no sign of the Richards, we decided to descend. We followed the W. ridge to the point where it begins to rise to point 3720 m. Beyond this point the ridge became icy. I had planned to keep on the S. slope of the ridge where, with the help of rocks, it seemed possible to avoid most of the ice. Felix, however, had observed that on the extreme N. flank of point 3720 m. there was a steep but obvious snow slope. From the top he had noticed the possibility of reaching this same spot by descending the glacier between point 3720 m. and the Nesthorn, so accordingly on reaching the gap between these two points we turned to our right and, after skirting several crevasses, were able to traverse the steep snow slopes round point 3720 m. As we turned the corner we discovered the Richards party cutting steps straight up the iciest part! The snow was getting soft, but in $1\frac{1}{4}$ hours we reached the level Beichfirn, regaining Belalp in excellent time for tea.

Most of the expeditions I have described are variations, to some extent, of older climbs. Had they been accomplished in many other parts of the Alps they would certainly have been in the category of those variations rendered necessary solely through the party's ignorance of the proper way. Among the peaks of the Ober Aletsch Glacier basin the best routes have, in many cases, still to be found; this is my justification for describing their possibilities.

In the Fusshörner the routes followed to date have been up numerous gullies furrowing their flanks. Should these peaks become more frequented, the man who may discover new variants avoiding the gullies, will be a future and public benefactor.

In the *Climbers' Guide* it is stated that the panorama from the summit of the Nesthorn is one of the finest in all the Alps, but the glacier on the ordinary route is often extremely, sometimes impossibly, difficult. The fact that it is feasible to ascend the Nesthorn from the S. without any difficulty may induce others to repeat this ascent.

I wish also it had been possible to have collected more authoritative information for some of the statements I have made.