

distant, but bad visibility prevented our definitely sighting it. With the utmost reluctance the party was obliged to return, so as to be back at Klaas Billen Bay in time for the ship. At one point during the return journey a typical Arctic blizzard detained us for 2 days in our tent. But loss of time was made good by a forced march of 25 hours back to Klaas Billen Bay.

That the glacier system referred to is a new discovery appears from reference to the results of the Russian Arc-measuring Expedition. That expedition mapped the region around Mount Svanberg to the S., and also that around Mounts Chydenins and Tchernychew to the N.W. of this glacier system, but the area occupied by the latter is left blank on their map. The party proposes naming this glacier the 'Oxford Glacier.' Sir Martin Conway and Professor Garwood's route towards Chydenins in 1897 lay altogether to the W. of ours.

One important result of the expedition was the disproving of the term 'High Inland Ice' applied to this part of Eastern Spitsbergen. Actually, the region is not so much an ice-sheet of the Greenland variety (although the finding of 'erratics' high up on Mount Terrier shows that at one period the ice-level was far higher than now) as a névé resting on an undulating floor, the latter breaking through on the E. to form low ranges separating the many glaciers.

A good many geological specimens were collected, which it is hoped may throw light on the structure of Eastern Spitsbergen, but priority was given to topographical work at the expense of the geology.

A TRAVERSE OF THE DENT BLANCHE AND FIRST ASCENT OF
THE ZINAL FACE OF THE OBERSCHALLIJOCH.

BY R. W. LLOYD.

[Read before the Alpine Club, May 3, 1921.]

IT has been suggested to me that before describing a new climb made last year, I should give a short account of an ascent made with Joseph Pollinger and Franz Imboden in 1910, a note of which appeared in 'A.J.' xxv. 452-3.

In 1910 I went direct to the Engadine, being joined by Joseph there. We were only two on the rope, as was our custom in that country, and had some very interesting climbing.



THE S.E. FACE OF THE DENT BLANCHE ON 27TH JULY, 1910, AS SEEN FROM THE SCHONBUL GLACIER

including several ascents from the Forno hut, with a new route up the Torrone Centrale. After some bad weather we climbed Piz Roseg, and on July 22 made the first ascent of the year of the Bernina by the Scharte, which was (as were most of the mountains that year) in bad condition. However, we had a delightful climb, and were well pleased with ourselves.

Joseph had for some time past been urging me to attempt a route on the Dent Blanche, which he feared someone else would try, as the Schönbühl hut had been built lately.

The proposal was to gain from the S. the eastern arête above the Col de Zinal.¹

We went by way of the Bernina Bahn, which had recently been opened, through to Milan, and thence by the Simplon to Zermatt.

After some bad weather we left on July 26 for the Schönbühl, arriving in the early afternoon in still doubtful weather, which turned in the evening to a snowstorm.

At 1 A.M. on the 27th the weather looked very bad, but at 3 o'clock it showed signs of clearing, and at 3.45 we started.²

We directed our steps towards the Col de Zinal, reaching the Kergschrund at its foot soon after 5, and crossing this struck up the steep snow and rocks on our left, bearing N.W. to the subsidiary rock arête leading to the main E. arête. The rocks were covered with two to three inches of fresh snow, with some ice. We had quite a difficult pitch through a cave blocked with snow at the far end, and Joseph had to stand on the porter's shoulder and clamber right over the large stone top. I found it somewhat difficult, owing to the new snow and ice benumbing one's fingers and to the very poor holds. We had a good deal of trouble here and lost some time. Soon afterwards we gained the crest of the subsidiary ridge, and climbed slabby ice and snow-covered rocks until we came to a badly iced chimney difficult to approach, on account of the new snow and ice. This chimney proved to be full of ice and new snow, and we had to proceed with great care. We again had slabby iced rocks up to the main E. arête, reached at 8.40. We had taken over three hours to do the new part of our projected climb.

We proceeded along the arête and came to a rather awkward gendarme, which I found, on trying to climb down,

¹ For a discussion on the name see *A.J.* xxv. 563-5, and Dr. Dübi's *Walliser Alpen*, vol. ii. p. 76 (1921).

² See *A.J.* xxv. 452-3. with illustration.

ended in an overhang, so I had to trust to the rope for the last few feet, while Joseph used the spare rope, which stuck and caused a good deal of trouble. We turned the big red gendarme on the S. side, and on rejoining the crest of the arête kept as much on the steep N. side as we dared. The cornice on the S. was bad, and the new snow made things much worse.

After nearly three hours of continuous and difficult climbing over gendarme, arête, and cornice, we sat down about noon by a big tower for our first rest and meal. We had, however, a long way to go, and after 35 minutes we were again on the move. We could not turn the tower on the S., or traverse it, owing to the conditions, so turned it on the precipitous N. side, quite an exciting business.

Then for some hours followed a succession of great cornices, along which we had, not infrequently, to make our way, owing to the excessive steepness of the slope. At length we reached a tall, thin, red pinnacle, the look of which had been a source of anxiety for some hours. It was much too steep to traverse, the cornice connecting it to the arête being so thin that one could see light through. We had a good look at the couloir on the S. side, the snow in which had had the sun on it for many hours, while the inclination was very great. However, time was passing, and after a general warning that each man must see to himself, we faced the traverse of the couloir, and with some little difficulty and anxiety got safely back to the arête, our only worry being that the day was drawing on.

From here the climb involved a succession of steep snow arêtes and cornices, which at times we were compelled to risk.

Shortly before we reached the final snow slopes, Joseph complained of feeling unwell. He had led all day, and it was now a little after five in the afternoon, and he had had only one halt of thirty-five minutes. The work had been most arduous and difficult. However, he recovered with a little help from my flask and a Brand's jelly, and manfully retained the lead.

We were much relieved when, after a halt of nine minutes, we gained the top at 5.42, after 14 hours of almost continuous going. It was an immense effort, and a great performance on Joseph's part.

We only stayed four minutes, owing to the lateness of the hour, and literally ran down the ordinary way, which, in comparison, seemed very easy.

We reached the foot of the Wandfluh just after dark, the last half-hour being very disagreeable. Crossing a bergschrund in the dark on a steep slope is not a pleasing experience. We missed the hut in the dark and walked into the lake. However, we soon climbed up the steep side of the glacier and gained the hut at 11.15 P.M., not particularly fresh.

We were much disgusted at being awakened by the arrival of a rescue party. It appeared that Dr. Seiler had heard there were some people on the top of the Dent Blanche at about 6 P.M., so sent out to look for them. When we got back to Zermatt next day he said to me, 'Of course, had I known it was you I should not have troubled.' I have since wondered whether to regard this as a compliment or not!

Neither Joseph nor myself had ever seen such an arête, with its recurring cornices, large and small, and although we have since had many a hard day together, we still consider it the greatest climb we have accomplished. The new snow following the almost continuous bad weather made matters difficult and dangerous. Still, our route, in good condition, must be one of the finest in the Alps.

Chamonix was again my headquarters for 1920, and I reached Couttet's hospitable hotel early in July. Shortly afterwards I had a letter from my friend Sir Edward Davidson, suggesting that I should try to cross from Zinal to Zermatt by way of the so-called Oberschallijoch, the first and only passage of the pass having been made from Zermatt to Zinal on September 18, 1902, by himself, with Ulrich Almer and Joseph Pollinger. Needless to say, I was delighted with the suggestion, and Joseph Pollinger and I decided to make this the chief item in our programme.

After a few training walks (which I found considerably less irksome than last year) we went to the Pavillon de Trélatête, and next day had a very easy walk up Mont Tondu, a pleasant little mountain and a magnificent view-point.

The following day we ascended the Aiguille de Béranger, merely a rather long walk, and followed the very sharp and longish snow arête to the Dôme de Miage, from which we had a magnificent view.

We descended by a very sharp snow arête to the nameless col between the Dôme and the small rocky point on the arête leading to the Col de Miage. We had to go sideways for some distance with one hand over the arête, kicking steps as we went along. The snow was good, but it would not have been

safe later in the day. A sharp descent from the arête took us on to the greatly crevassed upper part of the Trélatête Glacier, from which, after some little trouble, we gained the main glacier. The crevasses were fairly covered, and we had to be very careful. I did slip partly through one snow roof just at the edge of an enormous crevasse, and when I had a glimpse of its size and depth I was thankful that I only went in with one leg. The glacier was also very rough and tiring, and we were glad to reach the path at about 12.30 p.m., whence it was an easy twenty-five minutes to the Pavillon. In turning round to speak to Joseph about five minutes from home on an easy path, I unfortunately twisted my ankle.

I was confined to Couttet's garden for the next fortnight—most of the time in very fine weather! Another week passed in walks of gradually extending length.

On August 3 we set off for the Tête Rousse Cabane, with the intention of going along the arête of the Glacier de Bionnassay Français, to look at our last year's climb and the Aiguille de Bionnassay itself from this direction. Unfortunately, the weather was bad, and on the way to the Cabane we got wet through. For the next three days the weather was impossible, and eventually we returned to Chamonix on the 6th. The next day, of course, was brilliant, and we were anything but pleased with ourselves for having left the Cabane. However, on Sunday the 8th we walked up to the Grands Mulets in six and a half hours, and had a pleasant walk up Mt. Blanc on Monday morning, returning to Chamonix in the evening.

By this time I was fairly fit, and although my ankle resented too much work, especially down hill, still, it would 'go.' We decided to have a day's rest and then start for Zinal, which we did in lovely, although somewhat uncertain, weather.

THE OBERSCHALLIJOCH OR HOHLICHTPASS.

We arrived at Zinal in the rain, but hoped for better things in the morning. Unfortunately, the weather next day was not at all inviting, so we arranged to start from Zinal at midnight if any improvement justified our doing so.

At about 9 o'clock the weather looked a little better, and we made up our minds to leave at midnight. We started punctually in fairly decent weather, but at about 1 o'clock the clouds came over and the night became very dark. About 5.30 a.m. the weather, which had been gradually getting worse,



R. W. Lloyd, photo.

THE FRENCH SIDE OF THE COL DE BIONNASSAY

TAKEN IN AUGUST, 1920, FROM JUST BELOW THE TETE ROUSSE CABANE

THE GLACIER HAD GREATLY CHANGED SINCE OUR ASCENT IN 1919 WHEN THERE WAS A HUGE BERGSCHRUND (NOW CLOSED), WHICH, AS WILL BE SEEN FROM THE ROUTE TRACED, WE HAD GREAT DIFFICULTY IN CROSSING

turned to rain, so being by this time well up on the Arpitetta Alp, we sought a large stone and lay down until 8.30, when the rain cleared off. Starting again, we reached the glacier at about 10.45, and an hour later were close to the base of the rocks by which we proposed to ascend to the pass.

By this time it was snowing hard, and the glacier was very slippery. The stones were obviously on the move, and the weather looked dreadful. Adolph wanted to push on, but Joseph and I knew the Hohlicht Glacier on the other side, and with the conditions as they were we informed him that we did not (as Joseph put it) intend to be killed. We exercised a wise discretion, as soon afterwards we got the full force of the storm, and eventually got back, wet to the skin, to Zinal, where, having no spare clothes, I had to go to bed. Next day the weather looked hopeless, so we left for Zermatt.

On Tuesday the 17th the weather cleared, so we went to the Trift Inn, and next day crossed the Triftjoch to Mountet. It was eighteen years since I had crossed this pass, and I was interested to do it a second time, but it was not very safe. We had a nasty fall of stones from the Wellenkuppe just as we were negotiating the bergschrund, but we moved so quickly that they all went over our heads, except one little one which hit Joseph's sack as he jumped. We arrived at Mountet at 8.10 A.M. in ideal weather, and looked forward to a bivouac next day. We got to Zinal in the afternoon, but, alas! the weather by evening was as bad as ever.

Thursday and Friday were very stormy, but Saturday was better, and we decided to start and to sleep out. Joseph arranged for a baggage mule, but it could not start with us, having another job on hand down in the valley. The man had promised to be back in time to arrive at the gîte at 6 P.M. I fortunately insisted that Adolph should wait and see he did come. Joseph and I started at 1.35 and walked quietly up to the alp, arriving at the Weisshorn gîte at 5 o'clock. The weather looked uncertain, great masses of mist driving along the range from the Rothorn to the Weisshorn. The effect was often magnificent, sometimes a glimpse of a peak through the mist, looking like a patch of snow suspended in the air. It was extremely interesting and a very beautiful sight.

About 7.30 Adolph and the mule arrived. It turned out that, as I had expected, the hotel mule had not turned up by 4 P.M., and but for Adolph, who succeeded in getting the post-mule and post-boy conditionally on his early return the next morning, we should have been without provisions or blankets.

I may remark that I was much dissatisfied with the conduct of the hotel-keeper at Zinal.

We had supper in the dark, and turned in soon after. The weather was very cold but promised well for the next day.

We left our bivouac at 3.15, after having tipped the post-boy and pointed out to him that the 40 frs. we had paid for the mule would now be his, and that he must recover this amount from the hotel. He was rather surprised at the sum we had been charged.

We had a beautiful starlight night, and with the aid of a candle made our way down and over the hillside on to and over the moraine, reaching the Moming Glacier at 5 A.M., when we roped.

We were in good time, and at the foot of the rocks by 6 o'clock, on which we found the loose débris frozen hard all the way up. In fact, this route, except early in the morning, would be unsafe. The rocks are very broken and full of frozen fragments, and their condition quite justified our decision of the previous week not to attempt them late in the day.

We clambered into the bergschrund and out on to the rocks on the other side, climbing easily and rapidly. It was quite good going, everything being frozen hard. When we arrived at the big snow patch we crossed it at the lower end, and after negotiating somewhat steep rocks on the right (where we had a short halt and left a bottle containing a card with the date) arrived at the last rocks under the great snow arête. Here the obvious route was to have crossed over more to the right on to what would have been quite easy rocks had they been dry, but they were unfortunately covered with verglas, so we took to the rather nasty steep slabs on our left, and then found the only really difficult place of the climb. However, Joseph, by standing on Adolph's shoulders while I got into as safe a place as I could with the rope, overcame the chief difficulty, which was caused more by the thin coating of ice on the slabs. We both followed, and in a few minutes were at the foot of the last part of the climb. Here for the first time we ran into Sir Edward Davidson's route, and joined the peculiar snow rib which runs straight up to the col and which his party descended when making, in 1902, the first passage of the col. This, to our disgust, we found was all ice at the lower end and Adolph had to cut steps rather carefully. About a third of the way up we got snow, sometimes on the left and sometimes on the right of the rib, and made good progress, arriving at the col at 9.12, much pleased with our morning's work.

After a rest we (at 10.10) attacked the Schallihorn, and with



H Priestman, photo.

THE WEISSHORN AND SCHALLIHORN

SHOWING PART OF ARETE ON THE OBER SCHALLIJOCH ON RIGHT OF PICTURE, X

WEST OR ZINAL FACE



R. W. Lloyd, photo.

THE OBER SCHALLIJOCH

MARKED X

EAST FACE

Joseph making steps very rapidly we easily reached the summit by 10.50, and were back on the col by 11.12, having been some sixty-two minutes over the climb.

At 11.30 we proceeded over the Momingspitze, descending by an obvious rock arête to the upper slopes of the Hohlicht Glacier. This glacier, when I ascended it in 1906, was simply a somewhat steep walk, but like most glaciers this year it had changed very much, and to our disgust, as we had had to do a good bit of step-cutting in ice to get to it from the arête, we found it had formed itself into a great cliff of ice, which it was impossible to descend. There was nothing for it but to cut our way back to the lower end of the arête and try the glacier on its other side, which Joseph cheerfully informed me he had never known possible on account of the bergschrund. However, the bergschrund, though bad, proved, when we had cut our way down to it, feasible, and after a little difficulty we were soon descending the easy snow slopes, passing at a safe distance underneath the ice-fall. From here it is an easy though somewhat steep walk of some 600 ft. up to the arête near Pt. 3672, followed by a simple descent by the rocks to the Rothhorn Glacier, where we joined the Rothhorn route and arrived at the Trift Inn at 6 o'clock, tired, but well pleased with our expedition. The inn was more than full, and we congratulated ourselves that we were going on to Zermatt, which we reached in time for dinner.

The climb is a delightful one, and presents no serious difficulty if the party is early. We had intended to ascend by Sir Edward Davidson's line of descent, when making, in 1902, (by way of the Moming Glacier) the first crossing of the pass, but after a very careful survey with the glass we decided that it was unlikely we should be able to get through, as it was in very bad condition, and the ice-fall looked impracticable. For this reason we decided on the route by the rocks, feeling sure that we should be safe if we started early enough in the morning.

I am very greatly indebted to Sir Edward Davidson for suggesting the expedition, and for his kindness in reading over the paper itself, also to Mr. Priestman and Mr. Spencer for the use of their slides. Mr. Priestman very kindly went to a good deal of trouble over his slides for me.

[The peaks and passes of the ridge between the summits of the Zinal Rothhorn and the Weisshorn merit a short historical note which has been drawn up in consultation with Sir Edward Davidson.

(1) Zinal Rothhorn (4223 m.) was first ascended on August 22,

1864, by Leslie Stephen and F. Craufurd Grove, with M. and J. Anderegg, by the N. or Zinal arête.

(2) Le Blanc (3682 m.) was probably ascended on the same occasion.

(3) Ober Mominghorn (3968 m.—Dr. Dübi proposes the name S. Momingspitze, cf. *Clubführer durch die Walliser Alpen* (1921), vol. ii, 157 seq.) was first ascended on August 6, 1886, by Mr. (now Sir) H. Seymour King, with Ambros Supersaxo and Alois Anthamatten by the N. arête.

The first traverse from the Trift to Zinal was made on August 17, 1898, by Sir Edward Davidson with C. Klucker and Julius Lochmatter. The party, having ascended by Sir H. Seymour King's route, followed a long steep snow arête heavily corniced, and descended some difficult rocks to the upper plateau of the Moming Glacier, and thence crossed the Le Blanc ridge to Zinal.

(4) Moming Pass. This pass consists of two distinct gaps in the ridge, either of which can be crossed. The S. gap (3793 m.) is that originally crossed on July 18, 1864, by Moore, Walker, and Whympfer, with M. Croz and Chr. Almer, and is approached on the Zinal side by the famous ice wall. The N. gap, which is reached from the Zinal side by a mixed rock and ice slope, is immediately at the foot of the ridge leading to the

(5) Momingspitze (3687 m.—or N. Momingspitze of Dr. Dübi's *Clubführer* cited above) which was probably first ascended by Herren Pfann and Christa on August 21, 1901. Sir Edward Davidson, when traversing the peak on September 18, 1892, found no traces of a previous visit.

(6) Oberschallijoch, or preferably Hohlichtpass (3745 m.), was first crossed on September 18, 1902, from Zermatt to Zinal by Sir Edward Davidson with Ulrich Almer and Joseph Pollinger. Mr. Lloyd's passage now described is the first in the reverse direction. It is stated in Studer's 'Ueber Eis und Schnee' that the first crossing of the Oberschallijoch was made on July 8, 1872, by the late Émile Javelle with Jean Martin and Elie Peter, but it is quite clear from a perusal of Javelle's account in his own 'Souvenirs d'un Alpiniste,' that he crossed the Moming Pass and subsequently turned the Momingspitze by the rocks of its S.W. rib, and then went up to the so-called Oberschallijoch with a view to ascending the Schallihorn. He thence descended, without completing the ascent, to Randa by the Hohlicht Glacier, instead of passing over the rock buttress of the Rothhorn, which divides the Hohlicht from the Rothhorn Glacier, and then descending the Trift route and valley to Zermatt, as Whympfer's party did in 1864. This was the only novel part of Javelle's expedition. Jean Martin repeated the expedition on August 27, 1872, with the Misses Pigeon, Johann Schaller of Randa replacing Elie Peter, and 'A.J.' vi. 145 states that the line of descent had previously been taken on July 8 with Monsieur Javelle of Lausanne. The weather was very bad and the guides being un-

acquainted with the way to Zermatt by the Hohlicht and Rothhorn Glaciers kept to the left from the pass and descended to Randa by the buttress of the Schallihorn, between the Hohlicht and Schalliberg Glaciers, partly by an ice couloir much exposed to avalanches. The chapter 'Huit Jours dans le Val d'Anniviers,' 219 seq. in Javelle's 'Souvenirs' is quite clear as to the route followed, and there can be no doubt that Javelle did not cross between the Momingspitze and the Schallihorn, and that he did in fact cross the ordinary Moming pass.

(7) Schallihorn (3978 m.) was first ascended on July 20, 1873, by Mr. T. Middlemore, with Johann Jaun and Christian Lauener. They left Zinal 2.10 A.M., reached the top of the Moming Pass by the usual route, and then coasted round the Momingspitze to the Oberschallijoch and thence ascended the Schallihorn. Mr. Middlemore speaks of the Schallihorn as being well worth climbing, since from the Moming Pass the eastern view is spoiled by the Schallihorn and the western by the Rothhorn range ('A.J.' vi. 294-5). The Schallihorn was first traversed from the Oberschallijoch to the Schallijoch by the Hon. Gerald FitzGerald, with U. Almer and F. Boss and Sir Edward Davidson with C. Klucker and Jos. Imisch on August 14, 1900. They found on the summit a huge stone man probably built by Mr. Middlemore and Jaun on the first ascent. The late E. A. Broome with Alois Pollinger and another guide repeated in 1903 ('A.J.' xxxiii. 406) the ascent from the Schallijoch, and it is probable that Herren Christa and Pfann also made the traverse in the course of their 'Gratwanderung,' in 1901.

(8) Schallijoch (3715 m.) was first crossed on August 10, 1864, by J. J. Hornby and T. H. Philpott, with C. Almer and C. Lauener, from Zinal to Zermatt.

(9) Weisshorn (4512 m.). The upper portion of the S. or so-called Schalligrat was first followed on September 6, 1877, by Messrs. W. E. Davidson, J. W. Hartley and Seymour Hoare, with J. Jaun, Alois Pollinger, and P. Rubi; the lower portion on September 2, 1895, by the late E. A. Broome, with J. M. Biner and Ambros Imboden.

A traverse of the whole ridge from the Rothhorn to the Weisshorn was made (with a bivouac on the Schallijoch) on August 21 and 22, 1901, by Herren Hans Pfann and E. Christa (*Zeitschrift des D. und Ö. A.V.* 1907.]