Mountaineering in Norway in 1896.

By Prof. W. GRYLLS ADAMS.

ON the morning of August 27, in company with Mr. S. A. F. White and my son, with Mikkel Mundal as guide, I started from Fjærland for a few days' walking on the Justedal Glacier. We crossed the glacier by the usual route from the Böium valley to Lunde,* but could see little, as the upper part of the snow-field was shrouded in fog. We rowed down the Lunde fiord to Skej, and on the way had a heavy storm of wind and rain from the S.W. After being well taken care of at Skej we started next day for Aamot, in Stardal, crossed the Olden Skar to Briksdal, and had a lovely day. From Briksdal, where the beds were good but the food by no means satisfactory, we started next morning at 6 A.M., intending to cross the Justedalsbræ by the Austerdal to Hveitestranden, but the weather threatened and became so bad that after 2 hrs. climb we turned back and went straight down the valley to Olden in search of food.

Our guide had spoken of crossing the glacier by night, and was of opinion that on the snow-field even at the end of August the light would be quite sufficient all night long. Accordingly as soon as the storm had quite passed, and there seemed promise of fine weather, we took food with us for two days and started from Olden for Briksdal. Before we reached Briksdal at 1 P.M. we decided not to stop there, but to go on at once for a glacier route, and, if the weather held up, to attempt a night journey along the central plateau of the Justedal Glacier from Oldendal to Fjærland.

Starting up the valley of Briksdal, and crossing the stream, we reached the foot of the Briksdal Glacier, and went up the rocks and through a wood on our right below a hanging glacier —the southern branch of the Briksdal Glacier—and in about 2 hrs. from Briksdal had reached the foot of the central ridge of Kattenakken, the mountain between the Mælkevoldsbræ and Briksdal. From this point we looked straight down on the Mælkevoldsbræ, some 2,000 ft. below us. We ascended rapidly along the steep ridge or arête of the mountain, with a precipice on either side, and made our way sometimes on the left and sometimes on the right of the arête, where we were exposed to a very high wind from the S.W. on the precipitous face of the mountain above the Mælkevoldsbræ.† We climbed over

* *N. T. F. Aarbog* for 1881, p. 89. † Lars Næbba.

the top of this mountain and continued southwards along the ridge to the point where it is lost in the glacier between the Mælkevolds- and the Briksdalsbræ. We reached this point at 4.30 P.M., having rested half an hour for food by the way. Immediately in front of us were numerous awkward crevasses running east and west and too wide to cross, and behind them a snow basin from which the glaciers of Mælkevold and Briksdal were fed, enclosed by a grand 'cirque' of ice and snow rising like the inner surface of a bowl, with horizontal crevasses which were wide at either end, but narrower in the middle towards the S.E. On the right the rim of the bowl, here greatly crevassed, abutted on rocks forming an island in the glacier about 1,000 ft. above us to the S., or immediately above the Mælkevoldsbræ.* We turned the crevasses immediately in front of us by going eastward towards an island of rock above the Briksdalsbræ. Then we gradually turned southwards towards the middle of the 'cirque,' where the ice was pressed together from the fall from all sides. In this hollow bowl we found the surface snow and ice very soft and slushy, with streams running very freely on the surface, and we had an unpleasant half-hour. As we climbed the 'cirque' the snow improved, and keeping somewhat to the E. we crossed the upper crevasses without much difficulty. Above the rim of the bowl we still ascended, but more gently, towards the S.E., over a vast undulating snow-field, until at about 6 P.M. we found ourselves on the central plateau, or backbone, of the Justedalsbræ, with clear weather and magnificent views in all directions.

On the west, like a shoulder of the main glacier, was a vast snow-field stretching away and sloping down towards the pass from the Aamotdal over the Olden Skar, which might probably be reached from the glacier. Behind us to the N.W. and N. were the mountains, with their hanging glaciers, enclosing the sides of the Oldendal, and some lofty mountains above the Loenvand, flanked on the N.E. by the plateau of the Justedalsbræ. Towards the east lay the Austerdalsbræ,† and in the distance we could distinguish the glorious peaks of the Jotunheim mountains, which we now saw for the first time. Towards the S.E., away in the distance, we had a clear view of mountains over the Langedal, and to the east of the Suphelle valley and further south were three grand mountains near together, standing up above the snow-field, which our

* Onsdags Næbba; vide *N. T. F. Aarbog* for 1884, p. 99.

† *A. J.* vol. xvii. p. 351.

guide could only suppose must be Kaldekari, Suphellenipa, and Almenipa, near the head of the Böium Glacier. He had crossed portions of the glacier, but had never seen it free from fog, and could not, therefore, know how these mountains appeared when looked at from the north at a distance of eight or ten miles away. From the point we had reached opposite the head of the Austerdalsbræ, the central plateau of the Justedalsbræ slopes very gradually away towards the S.W. as a vast snow-field, which becomes quite narrow as the head of the Langedal is approached. Along this central plateau we walked at a good, steady pace, with the snow in fair condition. On our left was a wide snow-field between the Austerdal and the Langedal, which had been twice crossed by Mr. Slingsby, and again by Herr Bing, in bad weather, when the party were benighted. We went first toward the south, with the Optagsbræ rising in front of us as a lofty snow-field on the other side of the Langedal.* After about half an hour we turned to the S.W. along the watershed and looking down on the Langedal on our left. Towards the west the mountains and snow-fields were brilliantly lit up by the setting sun, and the scene was one which could not easily be described or forgotten.

The Justedal Glacier becomes very narrow, and is almost cut in two by the Langedal, so that the watershed almost touches the precipices on its western side overlooking the Fonsdal, a little to the south of Aamot, and then turns again to the eastward over the Optagsbræ. At the head of the Langedal, near these precipices, which we reached about 8 P.M., we came on the edge of a trough or valley in the glacier, some 150 ft. deep, crossed by numerous crevasses, with an almost precipitous wall of snow on its northern side. Before us on the other side of the valley was a huge chasm in the glacier, not like any ordinary bergschrund, but more resembling in form the mouth of a huge cavern or pothole in the side of the valley. The chasm reminded me of Gordale Scar, in Yorkshire. It seemed as if there must be some outlet for snow and ice at the bottom of this chasm through the precipices overhanging the Fonsdal, some 2,000 ft. below. Our way lay across the narrow valley to the left of the chasm and up to a considerably higher snow-field on the opposite side. The snow was in such excellent condition that we descended the snow wall rapidly, crossed the valley, and ascended the steep slope on the opposite side

* *N. T. F. Aarbog* for 1890, p. 29, and map, p. 233; also *A. J.* vol. xiv. p. 506.

in the line of the crevasses and between them without difficulty or mishap, making for an island of rock which we had seen ahead of us for some time and where we intended to rest for supper. These rocks near the western margin of the great Justedal Glacier were reached at 9 P.M.; they formed a ridge, running north and south and overlooking the Fonsdal and the mountains of Björga, with a magnificent view towards the west and south-west in the direction of Skej and Lunde.

Here, as we sat looking toward the W. in the evening light, the snow-field sloping down in front of us was clothed with that wonderful deep pink or ruddy glow, more intense as well as more lasting than we had ever seen it on the mountains of Switzerland. Behind us, on the opposite side of a broad upland valley, was the Optagsbræ, an extensive snow-field. After supper and an hour's rest on this rocky ridge we started again at 10 P.M., looking carefully for and crossing crevasses which ran E. and W. across our path. We now went almost due S. in the direction of the Almenipa, over a fairly level part of the Justedal Glacier, skirting on our left the Optags Glacier, which rose like a flat dome to a considerable height towards the E. We had a clear, starlight night, and about 11 P.M. the moon rose and cast our shadows on the snow, and we had abundant light; the snow also was in fairly good condition and improving as the night advanced; it would have been still better for our walking if the air had been a little colder. On three several occasions, far apart from one another, we crossed the tracks of a bear going from E. to W. across the glacier; the last time the tracks were quite fresh, and there were two in company going from the Suphellenipa towards Björga, the land of the bears.

For a long time we were approaching the Suphellenipa on our left hand, and seemed never able to get past it. We crossed the head of the valley leading down to the Great Suphelle ice-fall, and made for the eastern slopes of Almenipa and the heights of the Böium Glacier, which were directly S. of us.

These heights we left on our right hand, and went nearly horizontally across the slope, with the Suphelle Glacier on our left, crossing crevasses which for the most part were fairly covered with fresh snow, but which under different conditions might have been difficult to pass.

Here above us on our right the steep glacier was much crevassed, and we met with another huge chasm, or cavern, in the glacier, similar to the one we had seen above Aamot.

After this we soon came to rocks on the eastern side of and overlooking the great Böium ice-fall, which we reached about 1.30 A.M.

On these rocks we rested for an hour and tried to sleep, without fear of cold, as the night was so mild. We waited for the dawn, so as to have better light for some troublesome rock-climbing which still awaited us. An Alpine or Norwegian hut at this spot, where there is shelter from the N. and E., and with something softer than a rock to sleep on, would have been welcome, and would have enabled us next day to round the head of the Böium Glacier, ascend Almenipa, and continue our walk down the Justedal Glacier to the S.W., as we wished to do, to the side valley which opens out at Mundal. This and other interesting excursions may conveniently be made from Fjærland. We had traversed the distance from Briksdal to the Böium Glacier in 12½ hrs., and had rested 1½ hr. on the way, and we had had about 8 hrs. actual walking on the glacier.

The rocks on which we rested overlooked the upper part of the Böium ice-fall towards the W., and between them and the Skjeidesnipa to the S. was a branch of the Böium Glacier some 200 or 300 ft. below us. To reach this branch of the glacier we climbed down a couloir between precipitous rocks and the edge of a small hanging glacier sloping down at a very steep angle towards the E. Finding the rocks very troublesome, and that the small glacier, although very steep, was covered with a coating of snow in good condition, we left the rocks and went well out on the glacier, so as to be quite clear of jutting points of rock and yawning crevasses below, and then turned straight down the small glacier, on which we had no further difficulty. We now proceeded to climb the Skjeidesnipa, first up a steep ice-slope where some step-cutting was necessary; when the ice became too steep we took to the arête and climbed very steep rocks on the western face of the mountain, and then crossed the arête and went along narrow ledges on the eastern face, overlooking the Suphelle Glacier, and so reached the highest point of the Skjeidesnipa. We had a very fine view of the Great Suphelle Glacier and the surrounding mountains.* From this point we turned to the S.E., but were too early to see the sunrise on the peaks and

* This view was sketched in 1870 by Professor Heim, of Zürich, and was published in the Swiss Journal, vol. ix. It has, a few weeks ago, been admirably reproduced in the *Aars-Oversyn for* 1896 of the Bergen's Fjellmannalag.

snow-fields of the Jotunheim. We descended rapidly over a rough waste of rocks and by easy glacier-walking down to the top of the great ice-fall of the Suphelle Glacier,* and then by the usual steep and long descent down to the Suphelle farm, where, after considerable delay in catching ponies, &c., we got two stolkjærre and drove to Fjærland in time for breakfast.

The Fluchthorn and its Neighbours.

By W. A. B. COOLIDGE.

SOME years ago, on the publication of one of my 'Climbers' Guides,' a foreign friend is reported to have exclaimed: 'Now I see that M. Coolidge really climbs in accordance with some fixed plan: he seems to be always darting about from one part of the Alps to another, but really he is filling up gaps in our knowledge of the Alps, and his apparently aimless wanderings are governed by a carefully thought out plan.' Now it is certainly true that, for more years than I care to count, I have wandered through the Alps with a very definite plan, or set of plans, but it is scarcely necessary to add that the best arranged plans are apt to be completely wrecked by the weather. This I found, much to my vexation, was the case in the late summer of 1894. I had then meant to carry on the description of the Raetian Alps from the Splügen Pass (where my 'Adula Alps.' issued in 1893, had stopped) towards the E. and N.E., and to obtain detailed information as to the ranges N. and N.W. of the Val Bregaglia and the Engadine. I did indeed succeed very well at first, pushing on from the Splügen by the Surettahorn group to the Avers valley, exploring the peaks around that delightful and secluded glen, reaching Molins (Mühlen), on the Julier road, and even (on August 31) ascending the highest point (the Piz dellas Calderas, 11,132 ft.) of the Err range, to the E. of that village. Almer and I then meant to proceed towards the Piz Michel, and the other peaks near it, but pitiless rain set in. We spent a wretched wet week at Molins, then retreated first to Bergün (three wet days), then *viâ* Davos (where we were nearly frozen) to Klosters, in the Prättigau. Here the weather was slightly better, but such vast masses of snow lay even on grassy hills that nothing could be done, so that on September

* Professor Forbes's *Norway and its Glaciers*, p. 150.