

THE ICE-AXE IN TROLDHEIM.

By W. CECIL SLINGSBY.

THE district of Trolldheim—the home of the Trollds—has long been known by English salmon-fishers in Norway to possess high mountains and considerable snowfields and glaciers, though probably the name Trolldheim was unknown to them.

Early travellers in Norway, who almost invariably carried over the Dovrefjeld, and who followed for several miles the course of the merry and foaming river Driva, knew much more of this region than the luxurious deck-tied yachting tourist of to-day; but though Dr. Yngvar Nielsen and a few other mountain enthusiasts traversed its alpine valleys and wrote in high terms of praise about their grandeur and beauty some years ago, it is only quite recently that the tourist world of the neighbouring city of Trondhjem and towns of Christiansund and Molde have recognised that they possess, close at hand, in Trolldheim a romantic and—so far as mountaineering is concerned—almost an unknown land. The outcome of this recognition is the erection of a few tourist huts, some bridges, and the building of ‘varder,’ or cairns, to indicate the routes over the mountains. So far, but few Englishmen have availed themselves of these advantages.

Trolldheim must not be confounded with Jotunheim, the region which possesses the highest mountains in Scandinavia. Indeed, both names are of comparatively recent origin. The Trolldheim, with which alone I have now to deal, is in the northern part of the province of Romsdal, and is a portion of the ancient and historically interesting kingdom of Nordmøre. It lies S.W. from Trondhjem, N. of the Dovrefjeld, N.E. from the tourists’ Romsdal and Eikisdal, and due E. from Christiansund. Reducing its limits still further, it is bounded by the grand valley of Sundal, the picturesque Surendal and the woody Orkedal, whose rivers, the Driva, the Surna, and the Orkla, are well known to many fishermen.

A score of years ago I closely examined the Amt’s kart of this region and then felt the fascination of one corner, some of which had been painted green on the map by my old friend Emanuel Mohn. This colour indicated glaciers, and it was easy to see that within a few miles, as the crow flies, of Sundalsören, or the mouth of the river Driva, and the head of the Sundalsfjord, there existed an extremely interesting and complex glacier tract of country. I corresponded with Dr. Nielsen, who gave me much valuable information and from

whom I gathered that the glaciers were then untouched. I laid my plans and almost went there; but the claims of the Alps, Arctic Norway, and Söndmöre, and the genial companionship associated with campaigns in those regions and which was not available for Trolldheim, were too powerful to be resisted, and I left Nordmöre alone, with the exception of enjoying, at rare intervals, a distant view of the mountain from Christiansund.

Last year, 1906, my brother-in-law, William Farrer, renewed an invitation to me to pay him a visit to his fishing lodge in Sundal, where he has the lowest and best beat on the river Driva. This invitation, which was extended to a friend, I accepted. My companion, A. H. Ramsay, a Scotch-Canadian Cambridge undergraduate, had also graduated at Zermatt and more or less on Ben Nevis, and was a keen climber.

When steaming up the last reach of the Sundalsfjord late one Sunday evening, and seeing the snows on the heights blushing faintly in the clear June skies, we felt certain that the maps had at least not exaggerated the grandeur of the Sundal mountains.

At the head of the fjord are two most impressive gates of the hills, the gate of Sundal and the gate of Lilledal. The northern gatepost of Sundal, the Hofsnebb, a landmark well known to fishermen when in the open sea 50 miles away, rises shoreless out of deep waters, with huge precipices, and a jagged crest to a height of 5,000 ft. The central gatepost, the giant Kalken, which is common to both valleys, rises to the height of over 6,000 ft. out of a sandbank consisting of sand and pebbles brought down from Snehættan and many another distant mountain during many centuries. The third gatepost is less high, but what it lacks in height it gains in breadth and strength.

The warm English welcome, the dinner in the cosy quarters of Sjöland, and a glance at the river Driva flowing with all too clear water just below the house, have resolved themselves into happy memories which we shall long cherish.

During the next few days Farrer and his fishing companion, W. T. Smith, taught us much about the manner in which the fishing of a great river is conducted, and we were fortunate enough to see some sport. Unfortunately, though the net fishermen on the fjord had an exceptionally good season and sent tons of salmon to England, the river fishers throughout the whole 50 miles of salmon-fishing waters on the Driva had but a poor season last year.

One day Farrer took us into the wild Lilledal.* The precipices of Kalken, which rise to such an enormous height out of this grim cañon, are of a sort rarely seen in this planet. In Norway there are but few real mountain walls over a mile in vertical height; in the Alps there are none. About a couple of miles up the valley, there is an awful crack on the face of Kalken, a chimney nearly 6,000 ft. in height. Fired with the enthusiasm of youth, Ramsay proposed that we should try to climb it. The rest of us were not keen, but sat down instead in bright sunshine watching Ramsay climb up the fan of detritus to the actual foot of the chimney; in fact, he climbed some 30 or 40 ft. above this and then returned. Had we been able to divide the height by 20, it would still have been a remarkable chimney, and could we have reduced that terrible angle by 20 degrees, it would still have been steep and formidable. I only know one other gorge so wild as this, though it is more than 2,000 ft. lower, that on the W. side of Hermandalstind in the Lofotens, down which we thundered rocks into the Arctic Sea.†

I.—*A Vain Attempt to Climb Furuveiten. Ascent of
the Peaks of Hofsnébba.*

I am sorely tempted to let my pen linger over the description of the beauty and general interests of Sundal, as I lingered in the flesh, but must not forget that I sat down to write about mountain climbing, and, what is more, I say at the outset that the mountain sport proved to be first-rate and much exceeded my expectations.

One evening, before fishing time, when the four of us were having a walk, without any warning one of Ramsay's knees went 'click.' It was a tobogganing knee damaged on a toboggan run in Switzerland the previous winter. We all know excellent mountaineers who have 'football knees' which give trouble when climbing. Here, for the first time, I met a toboggan knee. Next, I must expect the 'housemaid's knee' to trouble some climber. Ramsay is a philosopher, and knew there was no more climbing for him that summer, but did not grumble.

* Apparently the name Lilledal is now generally recognised, though only a few years ago Norsemen have called and written of it in prose and verse as Liltaldal, Litldal, and Litledal. To wit, it is what we Yorkshiremen would call a lile dale, the littleness only having reference to its exceptional narrowness.

† *Alpine Journal*, vol. xxii. p. 5.

Farrer, who some years ago did some good climbing which is duly recorded in the pages of the 'Alpine Journal,' had found for me a local guide, by name Johann Sjölsvik Furu, a bright, cheery, strong-limbed young farmer, an excellent rock climber, fond of adventure, and one who does not know what fear is. His climbing for the most part, however, had been for strictly utilitarian purposes, rescuing his own and other farmers' crag-fast sheep from narrow and almost inaccessible ledges on Hofsnebbra and elsewhere.

Farrer's boatmen took almost as much interest in Johann's mountaineering equipment as he himself. His boots were soon armed with four-pointed screws and shielded with clinkers. Ramsay lent him his ice-axe and puttees; goggles and a rucksack completed his outfit.

The fishermen quite naturally wished us to climb Kalken first; but it failed to appeal to me, and I could not help feeling that it is a mountain which looks best from below, though I must say that the bird's-eye view of Lilledal from the brink of the mural precipice—over 6,000 ft. in height—cannot fail to be weirdly attractive and uncanny. From the first, however, I felt that the claims of the hidden glacier region on the N. side were irresistible. Hofsnebbra screens this mysterious corner of Trolldheim from the dalesmen of Sundal, but for all that it is felt to exist. Moreover, we could see, some 5,000 ft. above the river, the icy tongue of an unknown glacier, which coils serpent-like round the Furu-nebba. Where are the head and the body of which this tiny white serpent is merely the tongue? We must go and see. The tongue heads a terrific gorge deeply cut in the mountain-wall, and in which we see here and there snow patches which suggest an icy staircase to the heights above. This gorge is called Furuveiten or Furugjæl, i.e. the ghyll above the farm Furu.

'Johannes, have you been up that ghyll?'

'Furuveiten? No.'

'Would you like to try to go up?'

'Yes, if you like; but no one has been there, and it is impossible to get through.'

'How do you know?'

'The rocks and snow are too steep. I've looked down into the ghyll from both sides.'

'From there?'

'Yes, from that overhanging rock.'

'Have you been into the ghyll?'

'Only at the bottom; but I can take you up to the gap by two routes.'

Looking up at Hofsnebbå from Sjøland it is difficult to realise that its rugged crest is 5,000 ft. above you, so foreshortened is the view. Still more difficult is it to believe that those two hardly distinguishable and roughly parallel marks, running gently and diagonally upwards from right to left, are terraces or ledges which lead to green pasturage some 3,000 ft. above the valley, where sheep are grazing happily and put on flesh daily. From this pasturage there is another terrace, above and below huge rock escarpments, which inclines gently in the contrary direction, viz. from left to right, and so on to the gap at the head of the ghyll. A few hundred feet above the valley there is yet another irregular terrace, two miles long, which sheep use frequently and human beings as little as possible. The lower of the two parallel terraces is called the Kjgvsti or Tyvsti—the Thieves' Path—because in the days of long ago a party of raiders who had looted some of the farms in Sundal escaped by means of this wild ledge to safer regions. In one place on this route the danger from falling stones is very considerable, and there are several places where it is by no means easy to follow and where a slip must not be thought of. The other terrace has no name and is but rarely used. I have traversed all of these terraces and like not one of them. The rock escarpments on this face of the Hofsnebbå are grand and clean-cut. Stones, and ice too, may frequently be seen falling over them. It is true, however, that this magnificent rock-face has a strange fascination for all who have traversed and ascended it.

Even on the 68rd parallel, the approximate latitude of Sundal, there is but little difference between day and night in the middle of summer; but still, as there is no sunshine between the hours of 10 p.m. and 2.30 a.m., that intervening time was precious to the salmon-fishers, and a supper at 2 or 2.30 a.m. often proved to be a jolly and a welcome meal. This did not conduce to early breakfasts. But what of that? If fishing in the daytime was a dead letter, that could hardly be said of mountaineering by night, as I will endeavour to prove.

After being provided by my host with a liberal supply of ordinary provisions, crystallised fruits, and other delicacies to last us for two or three days, Johann and I set off on July 5, at 12 noon in broiling sunshine, for the great Furugjæl. Thirsting for adventure, Farrer accompanied us to the first snow. It was a wild place. On the W. side were comparatively easy rocks, but on the E. a rock wall rose out of the snow to a height

of several hundred feet. The coping of this wall rose quickly towards the main mountain mass, and at the same time overhung the ghyll by at least 150 ft. This we could see from the water-drops which fell on the snow. Ahead, the ghyll looked magnificent—a Cumberland ghyll multiplied by 10.

After parting with much regret from Farrer, Johann and I started up the snow, where, for several hundred feet, we made quick progress. Narrower and narrower, steeper and steeper grew the ghyll. Higher and more savage were the rocks on each side as we advanced, but good was our snow highway. Ahead, we saw a high rock pitch where the snow connection failed. An icy tunnel helped us, and a series of rock ledges, very narrow and very steep, took us unexpectedly above the pitch and on to snow once more. Here was the opportunity longed for by Johann—need for the axe. He was very soon initiated into the science of step-cutting, and proved to be an apt and a willing pupil. The ghyll divided into two—the eastern arm was apparently a *cul de sac*; the other narrowed to small dimensions, and the snow probably hid many rock pitches. We had plenty of fun, and of real hard work too. We swarmed up steep edges, cut our way down into holes and out again on the other side. We needed care to avoid falling through the snow roof into water-formed tunnels below us. It was most enjoyable. There was hardly a trace of falling stones; but it would never be safe to ascend a place like this in the Alps.

For a long time we had seen ahead of us a high rock pitch, from the top of which, as is so often the case in Norway, and notably in that terrible central gully between E. and W. Rulten in Lofoten, there arose a vertical wall of snow, the termination of an exceptionally steep and deep snow slope. Johann was sure that we were beaten; but though I did not like the look of things, I thought there was a remote possibility of climbing the rocks on the left hand to a crevice between the rock wall above the pitch and the snow slope, a gap formed by melting and shrinkage of the snow. The ghyll here reminded me of the Sham Rock gully on the Pillar Rock above the bridge, but was broader and steeper. We climbed fairly easily up to a wide crack in the pitch, on the top of which was a large chock stone which formed the usual cave. Here was a wall, some 16 ft. high, fortunately dry, from the top of which a little ledge apparently led behind the chock stone to the crevice above. The middle part of the wall bulged outwards a few inches beyond the lower portion. There was one poor foothold about 7 ft. from the bottom, but

no handholds for some 12 ft. Johann had no faith in success here, but, like his Viking ancestors, was ready to try anything.

We built a more or less insecure platform, about 2 ft. high, on sloping scree. I got on to the perch. Then Johann, with many apologies, stood in turn on my knee, my shoulder, and lastly on my well-capped head. He could nicely reach the wall of the crack behind him with one foot, but did not like the sort of locomotion which was suggested by that manœuvre, so turned his attention to the more legitimate form of wall-face climbing. The one foothold was outwards. He reached it, and I held him in by my axe. For the next few feet his elbows did him good service, and after some brilliant and careful climbing he reached the crevice. Here, as luck would have it, he found an excellent hitch, and thus secured our safe retreat in case of need. Now came my turn. How I wished that I was a gymnast! How I mentally reproached myself for not having turned an all too great amount of adipose into muscular tissue! Well, there was the work before me, and it must be done. The first 6 or 8 ft. were the worst, then I managed to stride across the crack, and wished for longer legs. Still, I made several feet in this manner, and all the time Johann was pulling like a derrick crane, and I got up. Other mountaineers have been in similar places before and will again, and they generally succeed in their task, little though they may have enjoyed it at the time. I must confess, however, that Johann and I felt mightily proud of ourselves, as it certainly was difficult and my companion had never before climbed such a place.

We were now in the crevice between the rock and the snow wall. After roping together, Johann cut up this wall, and we found ourselves on hard snow, the steepness of which rivals that of the upper portion of the snow gullies on the N. face of Ben Nevis. Though Johann had never been in so nerve-trying a place before, he went excellently, and, at my suggestion, made large steps. Now and then we made holes for safe anchorage, and only one moved at a time. We scored several hundred feet in this manner, and noticed that the ghyll was widening out—a hopeful sign. Then we arrived at a broad cross-road, so to speak. In the main ghyll was a waterfall ahead, only some 30 ft. high, but with unclimbable rocks on each side. Above the fall the snow continued, as far as we could see, very steep; but still no steeper than where we had been. There was a long lateral tongue of snow which went to a point as high as the top of the waterfall. Could a traverse be made from that point to the

upper snow slope? We cut our way up the snow tongue. Neither of us liked the look of it. A huge crag of the Furunebba rose, without making any apologies for so doing, straight out of what we had faintly imagined might be a feasible and flat traverse. It was my first day out, and possibly I might have looked more kindly upon the place a few days later; but it is true enough that I was very glad when Johann told me he did not like the place. 'Like,' did I say? I hated it. We examined an intermediate alternative: bosses of rock, loose and friable. We believed this route to be possible; we were sure that it was dangerous. Of course we turned tail, descended the snow tongue with careful anchorages, and re-examined the waterfall. Without water we could have climbed it, and so have ascended the whole of this mighty ghyll. It is quite within the limits of probability too, that in its then state we might have forced our way up, though the stream coming down seemed formidable. We were cold enough as it was, and more or less tired, and, though the weather was superb, we had been out of the sun for hours.

On the W. side of the ghyll a comparatively easy traverse to a sunny grass slope lured us to abandon our enterprise and to take our ease. It was then 4.15, and we had climbed some 3,500 ft. in the grandest ghyll it has ever been my good fortune to enter, but it was hard luck to suffer defeat and to be beaten by so small a foe.

We soon reached the grass slopes, and Johann recognised the place, having once found some sheep there on some shepherding search. After a hearty meal, we traversed nearly the whole face of Hofsnébba along ledges broad and narrow. As rest was of greater importance to me than time, I tried to get to sleep for nearly an hour, and would have done so but for a few most persistent and really impertinent flies.

A second traverse, a good mile in length, brought us to the brink of the ghyll once more, where we saw above the waterfall the steep snow which should have been our highway either to the serpent glacier tongue issuing out of the Vinnubræ, or to the gap between Hofsnébba and Furunébba, a pass which, for want of a better name, may be designated 'Faar Skaret'—the sheep's pass—as, oddly enough, the mountain sheep cross this pass over to Sandvikdal north.

At 8.30 we reached the latter pass, and, though the view was very wild, the grand mass of the Vinnufjeld blocked out the large glacier region, the representation of which on the map had so keenly interested me.



W. C. Slingsby, photo.

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HOFNAEBBA FROM THE VINNUFJELD.

However, we had no cause to grumble, as the peaks of the Hofsnébba, close at hand, were infinitely grander than we had expected to find them. They rose out of the snows of Sandvikdal with magnificent precipices to a jagged crest and several distinct peaklets. That which in our ignorance we took to be the highest overhung on two sides, and, of course, invited a close investigation.

No weariness now on my part, nor yet idleness. There was something to win, and well worth the winning too.

Off we went, up steep snow, then along a merry and a narrow rock ridge of the sort beloved by so many of us. Yes, the top overhung; but was there not a romantic winding staircase up it, like that on the highest peak of the Aiguilles Rouges d'Arolla? Of course there was. But there was something else, too—a higher peak a little further on. We erected a cairn on our first new peak, and set off once again. This time the climb was eminently sensational, the precipices on both sides and at the back being very grand. The holds were excellent, and we soon stood on an ideal rock summit, very small, consisting of two slabs of rock standing end upwards, like several of the tops of the Fusshörner, near Belalp. We were now on the top peak—not, however, the highest peak of the Hofsnébba, as we had fondly imagined, but only on the top of the eastern group of the range. We made our second cairn, and then enjoyed to the full the glorious view of fjord and fjeld. The snows of the Eikisdal mountains glistened in sunshine, though it was 10.5 when we reached the summit. Sundal and the river Driva, the music of whose blue waters, over 5,000 ft. below us, was distinctly heard, fascinated us. Sjöland and its green meadows, little more than a stone's-throw away, yet nearly a mile of vertical height below us, seemed the very embodiment of peace and content. Johann pointed out his own house and farm with pardonable pride.

On the W., or further side of our peak, there was a square-cut precipice rising out of a steeply inclined rock slab, which ended in a high rock escarpment. This rock slab also was continued to the top of the main ridge beyond. It was covered with thin, hard snow in a very dangerous condition. We could have got on to it; indeed, we climbed down to a gap a few feet above it, and Johann proposed that we should try to pass this Rubicon. I examined it most carefully, and had we been a party of three men, as of course we ought to have been, and had we possessed a long spare rope, instead of being only two in company with one rope which, though

80 ft. in length, was all too short for the purpose, we would have gone on, and would have won too. In our case the risk was too great to be incurred, so we turned back to the Faar Skar.

At 10.40 we watched the sun set, and the scene reminded me of midnight mountaineering near Lyngenfjord, in the Arctic Circle. Shall I describe the view? No; not I. Go and see it yourself.

How we romped along the ridge and glissaded helter-skelter down the snow to the pass! How we ran along the ledges on the highest sheep's traverse! How I slackened my pace when we came to the steep snows! And how we cheered when, after a little exciting rock climb, we found ourselves on the main ridge once more, nearly 3 hrs. after leaving that lovely peak, now above, but behind, us! Ah! it was indeed a jolly climb.

After making a new ascent on one of the western, and slightly higher, series, we see a two-headed peak close to us. One of the two heads is undoubtedly the highest of the range. Which is it? We cut across a hard frozen snow gully; very steep it is, but Johann is quite at home now, and is proud of his work and of his axe too. Whilst making the traverse we see the sun rise, and greet it with uncovered heads. It is 2.20 A.M. The final climb is good and interesting; but, alas! we note that its jagged summit has already been desecrated by human hands. We are, at any rate, saved the necessity of making ourselves into stonemasons. We reach the top at 2.50—a grand point of view—and we can readily understand its being the great landmark to seamen off the coast near Christiansund.

After a few minutes we left for lower regions, and at first followed a grand northern ridge. Then Johann turned down some steep snow to a small glacier, and we went on merrily. The first 3,000 of the 5,000 ft. was very enjoyable; but when we reached the tree zone it was another matter. Much practice in descending steep hill-sides, where trees, beaten down by winter snows, grow out horizontally from the mountain-side, does not tend to make one like such places, but rather the reverse; and I fear that my friend Johann must have thought me to be—at least a grumbler. He told me that he could take me by the squirrel-like process of locomotion, which was necessary, down to Sundalsören itself. Then it was about 1,500 ft. below us. I sat down, wiped the sweat off my brow, pulled the moss and lichen from my neck and arms, and then counted the fishing-boats being rowed out to the estuary. I

questioned Johann, and found that there was a cleaner, or a less brushwoody, sheep route, which would take us longer, but might be less tiring.

Off we started, and soon reached this terrace. Up and down, round crags, under and over them, now ducking under a hazel branch, now stepping over a bramble. A mile and a half of this, and after descending a stone shoot worthy of Tofana or Popena, we reached the green meadows, and lastly the haven of Sjöland, which we entered at 8 A.M., or exactly 20 hrs. after leaving it. Fortunately, we found the maids in the kitchen.

Who shall say which was the most delightful restorative—the bottle of delicious beer the moment of my arrival, the tea and toast a few minutes later, or the cosy bed? I, for one, cannot decide; but I do know that I cherish very happy memories of all the three, as well as of the hearty welcome given to me when I came down to a late lunch.

What a jolly, idle day we had! Were there not fishing and shooting yarns galore? Were there not also mountaineers' tales told too? Did not the two boatmen—who, by the way, speak excellent English—add many a tale of adventure connected with Sundal, of bears, of reindeer, of avalanches, of storms? Of course, all contributed to the fun and jollity. Meanwhile, where was Johann? Hard at work, haymaking in his best meadow—and making it when the sun shone, too!

II.—*Ascent of Dronningen's Krone and Passage of Sandvikbræen's Skar to Indredal.*

The grand day on Hofsnabba whetted our appetite for more mountain adventure, and I determined to get to the real glacier region, so near as the crow flies, but yet so far off in point of time. Johann suggested that we should take the Tyvsti ledge and Faar Skar route over to the upper Sandvikdal. For me, the memory of the grilling, stewing, and roasting which had been my fate so recently when traversing and re-traversing the face of Hofsnabba was much too real and fresh to require so soon a repetition of the process. No, the natural course undoubtedly was by boat to Sandvik, a night at a sæter, and a fair start up the valley in the dewy morning, aiming straight for a glacier pass which Ramsay and I had noticed from the deck of the steamer which took us to Sundal.

Johann agreed that this plan was good, so that all that was needed now was to put it into effect. After waiting for letters, we stepped into our boat at Sundalsören at 9.30 on

Monday evening, July 9; and during the half-hour's row to Sandvik we passed eight salmon nets, some where streams entered the fjord, others where, failing the white water foam, rocks on the shore had been painted white to deceive the unwary salmon into the belief that they had already reached the mouth of the Driva. A couple of days later we counted thirteen nets during an hour's row. Needless to say, this does not help the rod-fishers on the river.

The walk up the cattle-path to Øvresæter was very lovely. We found a woman in charge of ten cows. A board which just held Johann and me, and a sheepskin, were placed at our service, but in vain we tried to woo sleep. About 2 a.m. we were disturbed. It appeared that at a lower sæter a cow had got one foot jammed fast between two rocks and could not extricate itself. Word had been sent to the owner many miles away. He came with a strong lad and a girl, and with considerable difficulty to themselves and damage to the cow they had liberated it, bound up the lacerated foot, and then had come up to the higher sæter for coffee and much talk. When they left, we got up and had coffee, but went to our board once more.

At 7 o'clock we bade adieu to our hostess, and in an hour and a half stepped upon the snows which led us imperceptibly to the Sandvikbræ, the glacier which we had seen from the fjord. The snow was in excellent order, and as it was fairly steep we made height rapidly and easily. On the S. side there was a grand castellated ridge which, if followed conscientiously, would prove to be a very sporting rock climb. I had noticed the other side of this ridge in the distance from the Faar Skar a few days before.

At 11.55 we crossed the bergschrund to a belt of rocks, only some 40 yards in width, which forms the top of the pass and separates the Sandvikbræ from a portion of the eastern Grasdalsbræ. An arm of the latter glacier in reality overlaps the pass and runs up to the top of the peak for which we were making. This we reached at 12.30. It is marked 5,626 Norsk feet on the map. This is equivalent to some 5,800 English feet. Finding no cairns on the top we concluded that we had made the first ascent. As apparently there was no distinctive name* to this really fine mountain, we called it Dronningen's Krone—the

* In the *Nor. Tur. For. Aarbog* for 1880, p. 58, the peak is spoken of as 'Sandvikshoug, sydlige top' (a family name). This, of course, is indefinite, and wholly unsuitable.



W. C. Stingsby, photo.

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DRONNINGEN'S KRONE AND SUNDAL'S FJORD

Queen's crown—in partial recognition of the recent coronation at Trondhjem. A beautiful dome of pure glistening snow crystals on the very summit suggested the name to us.

The glacier land of Trolldheim, the Grasdalsbræ and its several icy tributaries, lay outspread before, or rather below, us like a map, and its grandeur much exceeded my expectations. The ice scenery was as wild and savagely crevassed on the eastern side of our mountain as it was tame, or of an ordinary type, on the W. or Sandvikdal side. Down and across a tempestuous sea of ice rose up in savage precipices to an aiguille-like crest the mountain Trolla, the grandest and almost the highest rock peak in Trolldheim.* On the S. was a fine massive snow-capped mountain, the Vinnufjeld, from whose mighty shoulders streamed icefalls of the Grasdalsbræ. As it was higher than our peak, it hid the Vinnubræ from our view. This latter glacier flows S. and terminates not far from the brink of an enormous mural precipice which walls in several miles of Sundal on the N. side. I determined to explore the latter as soon as I could. Just below us, on the S., there were grand precipices and a fine amphitheatre bounded on one side by our friend the Hofsnebbæ. The views of the Eikisdal mountains and of the blue fjords were very fine.

Our intended destination was the little mountain inn at Indredal, and the important question was, how to get through a cornice on to the Grasdalsbræ and, when on the latter, how to steer a course through two icefalls and a maze of crevasses. Fortunately, we enjoyed almost a bird's-eye view of the glacier, and past experience on many similar places came in useful. There was, it was clear, one line—an easy one too, but intricate—which I could follow with my glass to within a few hundred feet of the valley, and which, if strictly adhered to, would lead us very pleasantly amidst grand surroundings to the valley below.

After a delightful half-hour on the top, we set off quickly down the snow tongue to the pass. The cornice was uninviting and dangerous, so we went a little further N., where we found a steep narrow snow gully, out of which we noticed a lane of snow leading through a rock portal on to the glacier. As the gully apparently terminated on the brink of a rock escarpment it was clear that care was needed. The snow was

* Though I had a camera with me, I omitted to take a photograph of Trolla until clouds came and robbed me of a view which would have surprised many persons. The mountain was, I am told, ascended a few years ago.

excellent, and we soon cleared the gully, but had to traverse a concave surface of glacier which led down to an avalanche dust-shoot, the bin of which was a deep glacier hollow many hundreds of feet below us. Care was needed here too.

Now came the real fun, following the zigzag route which we had planned on the heights above. All went well. Johann, who had never been on a well-crevassed glacier before, enjoyed himself immensely. It was the real thing, considerably better than the average glacier work one encounters on a mountain ascent in the Alps. Late in the summer this pass may prove to be exceptionally difficult. Now, on the other hand, we probably had the very best summer conditions, and we ran along over crisp snow, glissaded 400 or 500 ft., and left the glacier at 2.25, or in 1 hr. and 25 min. from the top.

More glissading on old snow lanes helped us merrily down to Grasdal, where we soon reached the haunts of the wheatear, dipper, and sandpiper, well-known friends on our Yorkshire fells.

A mountain path through Grasdal under Trolldal leads to Sundal through grand scenery. This is but little used, though some day its grandeur will be fully recognised, as by it the tourist gets into close touch with the ice world. A path through the parallel valley, Giklingdal, E., though not quite so grand, is rather better known.

How we chatted with the men who had just arrived at the sæter; how we planned other glacier passes; how we found and lost, and found over and over again, our way through the forest on a so-called path; how we descended hundreds of feet, well knowing that we should have to make up our loss of height; how we marvelled at the colossal mountain ruin which in olden time has blocked up the valley and formed a lovely lake; how tired I felt when following the steep road up to Indredalsvand; and what a hearty welcome we received in the little subsidised mountain inn! These and many other such details can easily be imagined.

It rained all night. It was rain, rain, rain, in the morning. New snow covered the symmetrical Daltaarn, a high pyramid of a mountain, which has a strange fascination for many people, but which I fail to appreciate. Clearly our second little campaign amongst the mountains, full of enjoyable incidents so far, must be ended.

Though I am sorely tempted to scribble about Indredal, I will resist the temptation.

We walked, we drove in a carriole, a stalwart farmer sitting

on the shafts, through fine scenery and fertile lands to Opdøl. What a lovely view from the windows of that charming inn! An hour's row, a short walk, and then an excellent English dinner at Sjöland.

Fish and glaciers. Surely no other topics for conversation were needed for that evening, at any rate.

III.—*Ascent of the Vinnufjeld.*

The day after my return from Indredal, Farrer organised a fishing expedition on the fjord, where we spent a most enjoyable and idle day. However, good weather had returned, and I felt an irresistible call to the mountains again. My host repeated his suggestion that I should climb Kalken, whose gaunt 6,000-ft. precipices rose up so grandly in front of us. The smallness of its two glaciers was my principal reason for declining to visit it, though the only reason why they are so small is owing to the fact that the narrowness and steepness of the range allow of no large gathering-ground for the snow nor for any large hollows.

No! I must climb the Vinnufjeld and descend the whole length of the Vinnubræ, if possible. Both were out of sight except for the tiny serpent glacier tongue which headed the Furugjæl. There is an air of mystery and romance about the Vinnufjeld and its great snowfields, whilst the loftier Kalken, proud in its strength, conceals nothing.

Johann and the gillie Lars were consulted, and each of them was apparently determined that I should ascend by the Tyvsti, or Thieves' Path. With becoming modesty I expressed a doubt as to my eligibility. Still, Lars pointed out one place where stones fell down very frequently over a huge crag directly on to this remarkable terrace, and so made it very dangerous. Indeed, we frequently saw this happening. Lars indicated a way of avoiding this danger by following a remarkable ledge—a mere pencil line it seemed from below—which runs round the face of a crag and connects the low sheep terrace with a place on the Tyvsti beyond the point of danger. Lars had discovered this, and Johann had once descended it. No one else had traversed it. In honour of the discoverer we named it Larsstien.

On July 13 Johann and I set off at 6.15 A.M., and in a few minutes were climbing through the brushwood which brought us to the lower sheep terrace. My guide then led me up and over huge bosses of glacier-polished rock which took us to the base of a perpendicular crag. Here the ledge began, broad at

first, then it narrowed; and as it narrowed, the rocks below became more and more precipitous, until they were nearly as square cut as those above. The ledge meanwhile was ascending. At first I enjoyed it immensely, then the ledge developed into a groove chiselled by Nature out of the rock, and we were forced to resort to creeping locomotion. Our rucksacks were in the way, and great care was necessary. Still, all seemed right until I saw Johann stop. He stopped because the ledge stopped. There was a gap of about three yards, and then the ledge apparently went on as before. Yes, only three yards. No jumping here. No way of turning it either. The rock above us overhung. Below us was a horrid ice-polished precipice. Yes, there was indeed one foothold half a yard down and half-way across; but though it did exist, it was very small. There was no real handhold, but only a sort of elbowhold, and to me the place looked horrible. Johann never flinched, but, holding on carefully with one elbow, he slowly lowered one leg into the gap and then the other, until one foot reached the wee foothold. Then he straightened himself up, leant over towards the further side of the gap, got an elbowhold, then a handhold, but where I could not see, and worming himself up to the ledge he crawled forward.

I told him to stop. He did so, but he could not look round. A rope would have been of no service here.

I said little, but thought much, and somehow I got across one of the nastiest bits of rock I have ever tackled.

The ledge soon became broader and we were able to walk. Then we came to a gully polished like an old maid's copper kettle. This we had to cross, and I liked it almost as little as I liked the gap. Johann, on the contrary, seemed quite at home. This over, we got to good ground.

The whole ledge was but little more than 150 yards in length, but it was highly sensational the whole distance, and of a type which is rarely met with even in Norway, where gneiss rock lends itself to square-cut crags and ledges. On the aiguilles of Mont Blanc one finds delightfully narrow and sensational ledges, and still more so in the Dolomites; but I have never come across a groove cut in the face of a mountain wall except in Norway.* Now we were on the Thieves' Path, above the place of danger, but for my part I think it infinitely safer to run the gauntlet of a possible stone-fall on the path than to follow the Larsti.

* See the illustration on p. 300, in 'Norway, the Northern Playground.'

We reached the top of the Tyvsti at 9.15 and the Faar Skar at 12.5. From the latter we climbed an easy ridge, having on our right hand, far below us, the steep snow of the Furugjæl. This ridge led us up to the serpent glacier tongue which had lured us forward, though in vain, on our first expedition.

At 1.25 we reached the top of the gap between Furunebba and an outlier of the Vinnufjeld—a glacier pass which, being also the very top of the Furugjæl, we named the Furugjæl Skar.

Here we took a well-earned half-hour's rest before embarking upon the snowy billows of the Vinnubræ. This great glacier flows from the massive heights of the Vinnufjeld, with grand undulations, steeply down to a great basin which has two outlets, the main stream flowing almost due S. nearly to the verge of the huge Vinnu precipice, the smaller one going E. to the Grasdals Pass and almost to the foot of the mountain Trolla.

Our way was clear and easy enough, though later in the summer the case would be very different. We roped, and sped merrily over capital snow, having on our left the outlier of the Vinnufjeld. We crossed a bergschrund by a strong snow bridge, and climbed a steep snow slope up to a large glacier plateau, probably 100 acres in extent, the actual summit of Vinnufjeld, which we reached at 3.40.

The last snow slope made me realise that an ascent of a 6,000-ft. mountain from sea-level is—what shall I say?—well, it is 6,000 ft.!

We walked to the northern edge of this plateau and, looking over its precipices, saw the whole glacier system of Grasdal, and very grand it looked too. We noticed in the distance our footmarks of a few days ago. Then we went to rocks on the N.W., the W., and the S.W., where, not finding any cairns, we built a few. The precipices on three sides were grand, the view magnificent. Old Snehættan, 50 miles away and apparently smothered in snow, glistened in bright sunshine.

We stopped an hour on this grand snow-girt mountain, and then raced famously down perfect snow. All was straight-forward, most of the crevasses being still sealed up with their winter snow covering. In 50 min. from the top we sat down on an old lateral moraine, near the snout of the glacier, where we unroped.

The tongue of this fine glacier terminates not very far away from the brink of one of the grandest rock walls in Norway—

a true mural precipice, unclimbable for miles, which must be some 2,000 ft. in height. Now and then the glacier advances, and tons of ice come thundering down to the valley below. But though the Vinnubræ is larger and generally steeper than the Glacier de Giétroz, its powers of destruction are much less. The snout of the Vinnubræ has room to expand laterally, and there is little fear of any really large glacier fall taking place, as for some distance its bed is not steeply inclined, as is the case in the Glacier de Giétroz. The Norse valley is broad; the Val de Bagnes, above Mauvoisin, in which is the Giétroz Glacier, is a mere gorge. There is no steep and polished rock shoot, beautifully arranged by Nature for evil-disposed glaciers to slide down, below the Vinnubræ, as is the case with the Bies Glacier or the Altels in Switzerland. The Vinnubræ has done, and will do, its work slowly and not cause much damage, even by air-blasts. It is a most interesting place, both above and below, and there are plenty of traces of mischief to be seen. Ordinary avalanches of destruction are, however, only too common in many other places in Sundal.

As without a parachute we could not reach the valley direct, we turned eastwards, crossed a more or less grassy spur, and glissaded madly down to a frozen tarn. Then we looked up a gruesome *cul de sac* headed by Trolldal, and descended a steep and rough path under Hoasnebb, feasting on wild strawberries part of the way, and reached the farm Hoas at 8.30. From here we drove down the beautiful valley, and reached Sjöland at 10.20.

This was the last expedition which I made in Trolldheim, and I was as much delighted with it as I had been with the others. I intended to have climbed Trolldal from Indredal, but was prevented from doing this by wet weather. It can equally well be ascended from Hoas.

It is quite certain that Trolldheim offers great attractions to the tourist who loves to go quite out of beaten tracks. Much detailed mountain exploration still remains to be undertaken there, in which the spice of adventure, so dearly loved by us all, will certainly appear.

Lastly, I cannot speak too highly of my guide and friend, Johann Sjölsvik Furu, who was invariably cheerful and obliging, full of pluck and energy, an excellent climber, and in every respect a delightful mountain comrade, of whom I have nought but pleasant recollections.

THE SUNDAL MOUNTAINS, A PART OF TROLDHEIM,
 drawn by
 ERIC GREENWOOD,
 after the Amtskart and other maps.

