

of the Swiss valleys, the stony wastes of Dauphiné have an impressive grandeur of their own which is unequalled further north.

THE ASCENT OF MJÖLNIR AND THE EXPLORATION OF
THE GJEGNALUND GLACIERS IN NORWAY.

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(Read before the Alpine Club, April 10, 1888.)

IN the summer of 1884 a new sheet of the Amtskarter, or Ordnance survey maps of Norway, was issued, and revealed, or suggested, the presence of a large snow-field about 17 miles long, and 4 to 6 miles broad, between the Förde and Nord Fjords, and west of the usual route from Vadheim to Faleide. On the map no great difference in height is indicated. At the east, a fine peak, Gjegalund, rises with grand northern precipices to a height of about 5,600 feet. Slingsby had often noticed this mountain, but had no idea that its surroundings were so fine, as a glance at the map suggested. West, the snow-field, which seemed to vary from 4,000 to 5,300 feet, terminates in two peaks, Kjeipen and Hjelman (The Rowlocks and The Helm), whose steep precipices face the storms of the Atlantic.

In the geological map this region is very conspicuous, as it forms the only important break in the continuity of the great mass of gneiss and metamorphic rock which stretches from the Sogne Fjord far past Romsdal. From the coast to the Hye Fjord the characteristic formations are sandstones and conglomerates classed as 'Siluriske,' which lie in massive layers, best seen in the cliffs of Skjærdal, and form a striking series of terraces on the upper fjeld. In Skjærdal also are remarkable examples of conglomerate, where small white and red granite boulders are aggregated into large secondary boulders, and are as clean and round as if they had only just been raised out of the sea.

In 1885 we agreed to take a short autumnal tour in Norway, in order to explore this snow-field, to try to climb some unascended peaks in Söndmøre, and, better than all, to attempt the conquest of Mjöltnir, a peak in the Romsdal district, which we had every reason to expect would prove to be an exceedingly difficult rock climb.

On September 4 we were joined at Florö by Lars Janssen, a handsome man who had just returned from a short campaign with Mr. Russell Starr. The previous year he had

made two capital expeditions with Messrs. W. C. Slingsby and W. Ecroyd. Lars is a good type of a race of men descended from the old sea-kings, and has himself many a thrilling adventure, experienced during winter fishing at the Lofoten Islands, with which to beguile the easier hours of travel. He was to act as guide, porter, or companion, as the case required.

The captain of the little steamboat 'Voss' most obligingly steamed some 12 miles out of his course to deposit us at the mouth of Nord Gulen Fjord. Before leaving steamer-comforts we provided ourselves with a long and substantial loaf, affectionately dubbed 'the baby.' Whilst waiting for a boat we watched a withered dame decapitating and cleaning herrings. Though in all probability we were the first foreigners who had visited her little cove, she was not in the least surprised to see us. The Norsk folk, though innocently inquisitive, rarely show surprise.

The evening row to the little hamlet of Rise was delightful. Nature's picture, wet as if fresh from her easel, showed her wondrous powers as a colourist. The richness and softness of the evening glow on the mountains, from rose red to deep purple, the contrast of the dark pines and silvery birches in the forest fringe, the golden yellow of the ripening corn, the vivid mosses and the tranquil greys and blues of the fjord, were beyond the art of pen or brush to portray.

On our arrival at Rise we found that a recent increase of population prevented our stopping where we had expected to do, but fortunately a woman who had travelled in our boat with us hospitably offered to accommodate us. We were provided with separate beds, occupied, alas! by thirsty armies.

Soon after 3 o'clock next morning we were rowing in the twilight up the Rise Vand, a lake about $3\frac{1}{2}$ miles long, and headed by the two mountains Hjelmen and Kjeipen. We intended to climb the latter, and, if possible, to traverse the great snow-field over a white dome about 5,300 feet high, and to descend to Strömsbotten Hej sæter, which is about 520 feet above sea level. The distance from Rise to this sæter, as the crow flies, is only about 16 miles, and, if the map had been correct, we could easily have succeeded. Next day we intended to reascend to the snow-field by a wild gully, well shown on the map, and make a glacier pass to Fördedal, or to West Øksendal, and, for the third day, we had set apart the ascent of Gjegnalund and the exploration of Skjærdal. Our failure or success forms the first subject of this paper.

Leaving the boat, we toiled up the woody slopes on the left, where the honeysuckle filled the air with fragrance. The morning sun was hot and our knapsacks heavy, so that an occasional pause, to glance at the perfect reflections in the lake behind, was welcome. We cleared the woods at 6.10, and turned well to our right across a peat bog, in which Bruin had been having his morning tub and a red deer had left his foot-marks. The bear's route was ours for nearly a mile, and, after it diverged, we commenced our attack on the successive rock faces. At 9.20 the last escarpment was behind us, and a pretty peak, up which a snow slope offered an easy route, stood before us. We had had a magnificent climb, and for at least 2,000 feet we were on rocks where hand-climbing was necessary. It was a capital beginning, and each had gained confidence in his fellows.

The view was magnificent, and embraced the jagged Söndmøre peaks (North), the vast Justedalsbræ with its subtle curves and snowy domes (East), and the open sea and many fjords, with the precipitous Hornelen (West). Hornelen calls to mind the earliest and the greatest climbing feat recorded in Norway—Olaf Trygvessön's rescue of one of his followers, who, more daring and less discreet than his companions, had climbed to a place where he could not get up and dared not come down. Olaf rose to the occasion, scaled the cliff, and tucking the crag-fast warrior under his arm carried him down again.

The tract of fjeld and bræ before us was very remarkable. The cliffs and terraces which had marked the ascent, continued eastward in serried array. We could count in succession fourteen, most of them with small tarns on the terraces, each of which dipped towards the next cliff east.

We soon set off again eastwards along the ridge of the snow-field, and manfully resisted the temptation to climb a fine crag which we passed on our left. Beyond it, we turned north through a break in a rocky ridge, and passed close under a most remarkable tower of rock some 300 feet high. It is entirely cut off from an adjacent ridge by a deep gap and an overhanging precipice. We skirted this rock and its neighbour through deep snow, aiming for a glacier slope which rose to the ridge. On nearing this, we saw that the crevasses were many and deep, so we looked about for a quicker route. The cliffs to our right, though difficult, were practicable, if we could once get on to the rock. The ledges, though narrow and smooth, offered good hold. The long-legged members of the party, having found a narrow

place, had a great advantage in crossing the bergschrund, which was deep. A stride, even if long, gives a steadier pitch and is less sensational than a jump, over blue depths, on to a narrow ledge. Above the rocks, an easy slope led to the top of a small peak, Tremøndstind, where we built a cairn. Though lower than Kjeipen, this peak affords a better point for criticising the Amtskart, which is feeble, save in imagination. To our great surprise, we saw immediately in front of us a deep depression, and a series of tarns not even imagined by the map maker.

Above the tarns a rampart of high cliffs sprung up, and upon the top of them, in the distance, we saw the snow dome which we had intended to cross. We gave up the idea of crossing the snow-field and decided to try and skirt the mountain-side as far as possible above Grøndals sæter. Leaving Tremøndstind at 12.35 we rapidly descended over easy rocks, and at 2.15 halted by one of the characteristic tarns for our frugal 'middag.' We had one of the wildest views in Norway. The great feature was a large lake, Storebotten Vand, from which the precipices rose, without a shore, to a great height.

We climbed a cliff and turned southwards on the terrace just below the high rampart. Our terrace gradually narrowed to the typical ledge, with a perpendicular wall both above and below, so often imagined by the valley tourist, but so seldom found by the mountaineer. This one, however, just served our purpose, as it emerged on to a steep grassy slope, at the foot of which, far below us, was Grøndals sæter. Having still three hours of daylight we determined to push on for Strömsbotten Hej sæter, and worked eastwards, until we saw a little lake about 2,000 feet below us. The lake was of rich turquoise blue, and with its setting of vivid grass and dark pine forest made a striking picture. Beyond this lake, four miles away, we saw the col leading into the valley, where our intended sæter is situated. The direct way was down by the shores of the lake. As we did not relish the notion of going down 2,000 feet merely to reascend the same height beyond, we sought an alternative. We could not follow a contour line on account of impracticable precipices, so, though we were all fagged, and daylight was fading away, we turned upwards towards the snow-field. We soon came upon some difficult rocks, where Lars climbed brilliantly. In one awkward place he shoved Slingsby up and then climbed up nimbly himself without help.

Beyond the rocks, we reached a small glacier arm, which

we crossed with some care and step-cutting. The pure air braced us all. We glissaded down a snow slope to an easy moraine, and crossed below the ice fall of another glacier just far enough to avoid the danger of falling séracs. Then we toiled up a rough glen, where we found cattle tracks. Lars skilfully piloted us in the fast-falling shades of night up to the little col, where all signs of a track disappeared.

We pressed on down the glen, whose steep sides intensified the darkness, until two points of support were insufficient, and we had either to squat on our haunches, or go on hands and knees, with the risk of slipping into the icy stream which rattled down from an adjacent glacier. We put on the rope and soon had need of it, as we had to wade in the darkness a little stream about knee-deep. Progress was so slow that we began to think of finding a sleeping-place, but found none for a long time, during which we descended a steep spur of rock for half an hour.

It may look all right in daylight, but it was a strange place at night. At 11.30 we found a hole, in which we perched ourselves by matchlight on stones of aggressive angularity, making ourselves as little uncomfortable as we could. 'The baby' then claimed our attentions and grew—smaller; and afterwards English and Norsk songs were lustily sung to the running accompaniment of the torrent.

At 4 A.M. we stretched our stiffened limbs, and after four hours of scrambling, wading, and pushing over and through rocks, screes, streams, rainwetted birch copses and the like, we reached the sæter, which is beautifully situated on the shores of the Skjælbrej Vand.

We were disappointed to find no food but milk and fladbrød, but soon discovered that potted game, cream, and water, suitably mixed, make an excellent white soup. The sæter method of cleaning the horn spoons by careful licking did not commend itself to our fancy. The bed into which we turned after our breakfast was small for two, and after Slingsby had had a short sleep he was ungratefully, though fortunately, kicked awake, whereupon he remembered his trout-rod and went out. His efforts resulted in a Sunday dinner of two trout weighing about a pound each.

Though our expedition occupied 28 hours in covering 16 miles of distance, from point to point, we do not think our route could be much improved, and we certainly travelled fast considering the nature of the ground.

The Skjælbrej Vand has not the morose grandeur of so many Norsk lakes, as shores of pasture land and gentle

slopes covered with copsewood, pines, ferns and grass give it quite an English beauty, but its background of ice-capped mountain cliffs is worthy of the West Justedal regions.

We were much too tired to think of attempting the glacier pass we had thought of making, so were rowed down the lake by a small boy, who told us that every lake and tarn thereabouts was 'fuldt af fiske.' We descended by a good road through a charming village called Hope; thence were rowed over the Hope Vand to Strømme, a fishing village at the head of the Hye Fjord, where we found decent quarters and stopped the night.

Next day, as the weather was bad and the commissariat department a failure, we were rowed hungry along the fjord to Hestenæsören, where we found good and clean accommodation at the post-office. The Hye Fjord is as yet unknown to tourists. It is the wildest branch of the Nord Fjord, and the mountains which rise from its western shores form a weird sky-line of jagged peaks.

On September 8 we made our second expedition in the hope of finding Gjegnalund to be the fine peak it looks from below, and in the belief that it was unclimbed.

Though disappointed in these hopes we had a memorable day.

We started as soon as it was light to row across the fjord, and by 5 o'clock were fairly on our way up Skjærdal. This valley is nearly parallel with the Hye Fjord, from which it is separated by the narrow range of fine peaks already alluded to. The track was good for the first forty minutes, but then grew rough and boggy. Whilst halting at 6.15 we were astonished to be overtaken by a little lad, from a farm an hour behind us, who, in breathless anxiety, and with dishevelled hair, warned us to turn back—for fear of bears! We showed him our axes. He shook his head in dismay, and at last we gathered that, on the previous day, three bears had been seen near a tarn just in front of us, and that the men of the valley had concealed on each side of the lake, on the usual goat tracks, 'selv skyt,' or an arrangement of rifles and guns heavily loaded with bullets, slugs and old nails, with concealed strings attached to the triggers. But for our timely warning we might possibly have fallen victims in place of poor Bruin. As there was a leaky boat on the tarn, the difficulty was soon solved by the boy rowing us over.

The beauty of this lake and its varied surroundings will make it some day a favourite spot with those tourists who love nature in her solitudes. The blue water was studded

with huge rocks greened over by moss, fern, and birch. The whole valley around and above the lake is covered with these rocks, which have fallen from heights above. Eastwards were thickly wooded slopes; west, an enormous precipice crowned here and there by snow and séracs, and relieved by waterfalls; whilst to the south an enormous amphitheatre of rocks and snow rose towards the jagged mountains beyond. We plodded steadily up the valley, winding in and out amongst, or over and under, the mossy rocks, many of which were far bigger than a sæter, till the slopes became steeper and the vegetation less luxuriant, and soon reached the snow. We passed the amphitheatre seen from below and entered a second, still finer, whose centre was filled with a small lake of deepest blue flecked with an icy flotilla from the glacier flowing into it. The rocks around showed their stratification by great curved bands on the western cliffs.

After a steep ascent up hard snow we reached a col from which a most tempting descent could be made to the Hope Vand. Crossing near the head of West Øksendal, we saw below us in that valley a large tarn, into which the glacier we were on projected, and on each side precipices arise out of the water and seem to block the way entirely. We roped and crossed the névé, south-east of Gjegnalund, and walked straight up a long rocky ridge to the top, which we reached at 12.17. Here we found, as on Kjeipen, the cairn built by the Ordnance surveyors, who had preceded us not long before.

We studied briefly the north-eastern face, which we had thought of descending. It looked formidable, and we decided that in driving snow and rain it was better left alone. We returned, therefore, in our tracks, which were then rapidly filling up, until we were able to descend to the eastern snow-field.

After a long trudge due east we climbed, very easily, a small peak, Björnetind, which stands directly above the lower tarn of Skjærdal.

After building a cairn, we turned northwards along the snow parallel to Skjærdal and crossed a little glacier above a very broken icefall, which terminates in a shoreless lake with lofty precipices on its south side. We were consequently driven to the rocks on the left and over them to the next side valley, and eventually descended by steep terraces to Hyenæs, whence we were rowed by a stalwart girl to Hestenæsören.

The Ascent of Mjöltnir.

From the Nord Fjord we proceeded to Romsdal, with the intention of attempting the ascent of Mjöltnir. Mr. Wills's hospitality at Aak afforded us a most advantageous base for the attack.

Two main valleys descend from the high mountain lands to the head of the Isfjord. Grövdal, the larger of the two, is about 8 miles long, and leads to a pass to the famed Eikisdal, and to the fine sharp peak, the Gjuratind. The other valley, Erstaddal, coming from the south-east, has two southern branches, Vøngedal and Kvandal; the former is headed by the Romsdalshorn, and the latter by Mjöltnir, whilst between them stands the fine range of the Vøngetinder.

Mr. Wills drove us up to Nedre Dale, which is the nearest farm to Mjöltnir, but only about 200 feet above sea level. Ivar Olsen Dale, the owner, and his wife and daughter, were very hospitable, and seemed to be glad to see us, and to put us up for the night, as well as to have a good talk about the world at large. They have a cosy house situated on a sunny knoll, facing Kvandal, but just out of sight of Mjöltnir. Everything was nice and clean, and the juniper sprays, scattered here and there in the corners, lent a pleasant fragrance to the rooms. They were much interested in our preparations, and thought that our axes and rope were fishing implements. This was not to be wondered at, as the herring had just been in the fjord, and every man, woman and child, as well as the seagulls, had been thinking of nothing else but fish for some days, and possibly had herring on the brain. As might be expected, the good folks had no name for Mjöltnir, but spoke of it and other peaks as the Kvandals Fjelde. Of course we must except a rounded mass which happened to lie due south of Dale, and which we might have guessed rightly to be named Middags Fjeld.

After Mr. Wills had left, we took a short walk up Erstaddal in order to study our route for the morrow. This valley is most beautiful, and its foreground possesses a richness of colouring and gentle pastoral beauty which form the most pleasing contrast to the fantastic aiguilles, solemn snow-fields, savage glens, and dark precipices of Mjöltnir and the Vøngetinder. We lingered long, and whilst intending to look principally at the mountains, our eyes were often recalled to the valley by the fitting about of the familiar water-ouzels and wagtails from stone to stone in the becks,

or by some lovely and familiar flower, as the meadow sweet, comarum or pyrola. After watching the rosy tints come and go from each great peak, the dusky shades of evening set in, and sent us reluctantly to bed. We had seen sufficient of the mountain, including the eastern face, the only one not seen before by Slingsby, to lead us to feel sure that at least a first-rate climb awaited us, and that it was quite probable that we might suffer defeat.

Slingsby has written the following account of his discovery of Mjöltnir and description of the mountain and its surroundings.

The Discovery of Mjöltnir.

One fine day in July 1875 my sister and I climbed a spur of the Troldtinder in Romsdal in order to study the Romsdals-horn, at that time thought to be unascended and inaccessible. We were particularly delighted with the Vøengetinder, a sharp and many-peaked range, which is seen from the main valley and from the fjord, but which is partly masked by the intervening wall of Romsdal. Just beyond the Vøengetinder, we saw a remarkably fine aiguille, which I sketched at the time. This was my first view of Mjöltnir. Near the top a sharp tooth rises out of the arête, which bears a striking resemblance to a clumsy hammer, standing with its head upwards, and suggests the name for the mountain, as Mjöltnir was the hammer which the war-god Thor wielded to such good purpose when fighting against the Jotuns and Trollds in bygone times. Indeed, it is most suitable that Mjöltnir should be in a district where there are so very many petrified Trollds, standing on the mountain ridges in hideous array, so as to be handy in case they should be reawakened to life. In the happy days of general superstition, it was usually believed that if a Trolld remained outside after sunrise he was immediately turned to stone. In Romsdal and Søndmøre there have been thousands of erring Trollds, and these districts are very rich in legendary lore.

My second view of Mjöltnir was in 1881, from the top of the highest Vøengetind, when I had, for a moment only, a glimpse of its storm-battered crest above a sea of rolling clouds which seemed to engulf the wreck before my very eyes.

In 1884 my wife, Mr. William Ecroyd, Erik Norahagen, and I had a glorious day on the Romsdalshorn, from which we had a distant view of Mjöltnir in profile.

A few days after this, having slept in Vøengedal's sæter, which had been occupied a short time previously by Dr. Scriven and other mountaineers, unfortunately for them in vile weather, Ecroyd, Erik, and I made the first ascent of the south-west or second highest Vøengetind, by the great gully which is visible from the fjord. From the skar, or col, between the two peaks, there was revealed to us, for the first time, the especial grandeur and isolation of Mjölneur and the deep glacier recesses between it and the Vøengetinder.

Three almost parallel glaciers cling to the skirts of the Vøengetinder. They all flow eastwards, and each of the two upper glaciers so completely fills its own glacier basin that there are several lateral overflows on to the glacier immediately below. The highest, or Vøengetinden's bræ, which Vigdal and I ascended in 1881,* has indeed an outlet towards the Vøengedal (North), and though at that time we failed to find a way down from this glacier to its neighbour, I have since seen that it is possible to climb from one to the other. There is only one place where a descent can be made from the middle glacier (Midt bræ) to the lower, or Mjölneuren's bræ, far down the glacier, though Ecroyd, Erik, and I tried very vigorously, but vainly, to force a passage down a gully where the rocks were as smooth as the bald pate of a parish beadle. There is a gully very much like this on the Zermatt side of the Mischabel Joch, which has tempted more parties than one to try to descend by it from the upper to the lower glacier, but in vain.

As the two upper glaciers of the Vøengetinder fall over high precipices, where I have seen many avalanches, a direct route to either from Kvandal is positively forbidden. It is almost certain, too, that there is only one way by which the Mjölneur's bræ can be reached from below.

Mjölneur rises immediately out of the Mjölneur glacier with terrible and utterly impracticable precipices, some 3,000 feet high, which terminate in a crescent-shaped crest, of which the convex side faces Kvandal north-east, and the concave side, the weird Svartvand, and the Rensdyr bræ, on the south-west. The crest is extremely narrow, and nearly a mile in length; it is highest in the centre, and forms a most broken sky-line of sharp pinnacles which rival the Aiguille de Charmoz in the Alps. A blunt arête rises out of the head of Kvandal, between the Mjölneur's bræ and Kvandal's glacier, which latter lies east of Mjölneur, and with the roots

* See *Alpine Journal*, vol. xi. No. 79, p. 154.

of the horns of the crescent, gives a triangular base to the mountain. The blunt arête becomes eventually merged in the north and east faces. The eastern face, which I saw at first in profile only, consists of a dark mural precipice, a very savage contrast to the glittering snows of the Kvandal's bræ just below it. Above this wall, there are a few steep buttresses and miniature gullies, but they vanish near the top.

The only place that seemed to offer even a ghost of a chance of success to climbers was up this arête, and then—somewhere. But where was somewhere? Both horns of the crescent are impracticable.

We descended from our peak by a steep gully to the head of the Midt bræ, then reached the Mjölneur glacier, and, after giving Erik some good lessons in ice craft, we crossed out of this wonderful cirque by a col—Mjölneiren's skar—just under the western horn of the crescent, and descended by the Rensdyr bræ (Reindeer glacier), directly under the south-western or concave side of Mjölneur. We examined the crags on this side most critically, and agreed that the lower portion was practicable, but that the way would be very intricate. As to the upper part, it was delightfully obscure. It was, however, as plain as daylight that the rock-climbing on this side would be much shorter than on the other, and it was quite evident that the ascent of Mjölneur would prove to be a difficult one, and we much regretted that fate would not then allow us the time to try our luck upon so noble a mountain.

After passing a blue lake, miscalled Svartvand, we surprised a herd of reindeer which were feeding on *Ranunculus glacialis*. Then we descended to Marsten in Romsdal by a rough gully, appropriately called Skomageren's skar (The Shoemaker's Pass), on account of the leather-destroying properties of the stones. The difficulties of this descent were much increased by the presence of immense quantities of wild raspberries, strawberries, and bilberries, all ripe, which a stern sense of duty impelled us to stop and pick. This expedition was a first-rate one from every point of view, and, almost to the last, it was uncertain whether we should be able to make our way across the glaciers, and to descend to the Romsdal, or be obliged to retrace our weary steps over snows, crags, and scree to Vøengedal again.

W. C. S.

Next morning, September 12, we set off at 4.50 down the dewy meadows and across the sparkling trout stream, and

after a gentle ascent through a fine forest, where the bilberry leaves were bronzed by the autumnal sunshine, we gained the open and flat ground of Kvandal. At 6.40 we reached the old moss-covered moraine of the Kvandal's bræ, and crossed it to a spur N.E. of this glacier, in order to avoid an icefall. At 7.35 we halted to make a further study of our peak and of the Mjölmir glacier, down which we might want to return, and to enjoy the glorious views of the Vængetinder, which were infinitely finer than Hopkinson had expected them to be.

We soon started again, and crossed the Kvandal's glacier diagonally towards a gully which descends from 'the blunt arête.' The snow was very hard and steep, and after we had crossed it we said: 'We ought to have roped.' As we neared the gully it began to look very bad, and we abandoned the idea of trying it, on account of the fear of falling stones, so we turned to the right a little below it.

It was then 8.15, and we had made about 3,000 feet. Here our rock-climbing began in earnest, and at once hands had to do their share of the work as well as feet. After mounting 350 feet we were fairly on the blunt arête, with a glacier on each side. We crossed over the top of the gully which we had aimed at, and it looked very savage, and was bristling with icicles. We soon put the rope on, and found our axes and Lars's knapsack to be fearful nuisances. At first the climb was of the true arête character, our backs being *now* to the north, *now* to the east, and *now* midway between the two.

After about a thousand feet, the rocks became steeper and steeper, and the arête merged in the two rock faces, of which the northern was nearly sheer, and without a pretence at either hand- or foot-hold, like a Wetterhorn precipice, whilst, though the lower part of the eastern was perpendicular, it was partly broken above, as Slingsby had before told us.

Lars led us in good style, and as we rose in height so also the spirits of all rose in sympathy. We had to follow a series of narrow ledges, all of which sloped downwards towards the mural precipices rising out of the Kvandal's glacier. Then came some narrow chimneys, where one of us had often to make a back, as if for leap-frog, so as to give Lars a step, and where we were hoisted up by him in return. In one very awkward corner some moss happened to grow pretty profusely; this was extremely slippery, and a thin sprinkling of snow did not mend matters. Fortunately the rocks were

not much glazed. If they had been we should soon have been defeated.

After some really glorious climbing, which will long live in our memories, we reached a grim col in a vicious arête, and found that we were looking down into the hollow of the crescent. We turned to the right up a high crag with very great care, and after crossing over one distinct peak and several minor points, and along a narrow and jagged arête which will vie with any in the Alps, we reached the summit at 11.23. As it was much too sharp to form a good seat, we climbed down into a notch for our lunch.

The near view, especially of the Vœngetinder, was very impressive, but, for the most part, the mountains in sight were the ordinary hog-backed, lichen-covered fjelde, fit for the reindeer but not for the mountaineer; still, we could see in the distance many mountains which will, some time, give capital work to climbers.

After building a small and insecure cairn we thought of the return, and did not at all relish the notion of descending by the way we had come. The character of the climb was much like that met with on the north face of the Ober Gabelhorn, but was much steeper, longer, and finer altogether.

We looked down on the S.W. side, and thought that we could trace a way for several hundred feet, and as Slingsby had observed the previous year that the lower portion was practicable, we agreed to attempt the descent on this side, and thus to add more variety to our climb.

At 12.45 we left the top, and worked towards our left down jagged rocks which afforded good hold. These soon gave place to smooth steep rocks, which were firm enough, but had little hold. Down these we climbed carefully, one at a time, into a shallow gully, just under the col, which we first reached on the arête, and found ourselves on the top of an impassable precipice. We were perfectly cut off from a promising chimney just below the south arête by a crag whose smooth surfaces had quite an old-fashioned drawing-room table polish about them. To the right also our way was apparently cut off by another sheer precipice. Carefully exhausting the possibilities before accepting defeat, we were fortunate enough to find a steep gully a few feet above us, which led down to a broad ledge invisible from above. We very carefully climbed down to this ledge, and traversed the cliff to the right. This brought us to a small sun-warmed basin of rock, a pleasant contrast to the icy ledges of our ascent.

From this point we made rapid progress, finding a good traverse to the right whenever the direct descent became barred by precipices, and climbing into and out of one gully after another.

At 3 o'clock we reached the Rensdyr bræ, and after half an hour's trudge through soft snow we sat down on the warm rocks on Mjölneiren's skar. This pass, already described by Slingsby, has two little cols. The first party took the most southerly one; we made a mistake, as it afterwards proved, and hit the northern col. From here we had a capital view of our peak in profile, including the hammeritself, a pinnacle about 150 feet high, with an overhanging top much resembling the Napes' Needle on Great Gable in Cumberland.

Hopkinson and Lars took a run up the most southern tooth of the Vængetinder, in order to have a good look at the Romsdalshorn, whilst Slingsby made a sketch.

At 4.15 we began to descend. As is the case with many a pass in the Alps, the top 300 feet were prodigiously steep. Our way was limited to a narrow serpentine band of snow underneath a high wall of rock on the left, as on the right hand there was a cliff below us crowned by a small cornice. Several protruding teeth showed us that the rock had but a scanty covering of snow, and that, though the snow was in capital condition, great care would be needed. Slingsby led the way. After about 150 feet had been descended, the band came to an abrupt end on the top of a high crag. Here we had to make a very awkward traverse below a smooth boss of rock upon soft and treacherous snow. Fortunately there was good anchorage on each side of the boss; had this not been the case, we should have returned to the southern col, though it would have cost us a good hour's work. Beyond the boss we kept on the level, with cliffs above and below us. This brought us to within two ropes' length of a tongue of the glacier, and here we again began to descend. At first there were fifty feet of snow as steep as one ever cares to meet with. Then came bare granite. We all came down a little. Then, whilst Lars and Hopkinson held on, Slingsby was lowered a little in order to look at the bergschrund below, and then was slowly let down on to a mass of snow which had bared the granite and filled the jaws of the schrund, there very narrow. Luckily the snow was tolerably firm, though an ice-axe could be poked through it. After a little gentle beating down, the bridge was consolidated, and Hopkinson came down. Whilst one of us was anchored below the lower lip of the schrund, the other held

up the axes as a step for Lars, whose turn had come. However, with perhaps laudable pride, he persisted in trying to climb down the rocks, about twelve feet high, alone, where climbing was impossible, and down he came, and there was a medley of men, axes and rope. We all had a good laugh, and then looked down into the depths of the crevasse a few feet away. We had been exactly an hour from the col and had lost no time whatever.

The waning light bade us to hurry, and after threading our way through a maze of crevasses, and passing the gully down which Slingsby, Ecroyd, and Erik had descended the previous year, we escaped from the glacier by scrambling down a long gully over which the wall which separates the two lower glaciers overhung. There were many stiff places, and our excitement was maintained to the very last by the uncertainty of our being able to force a passage. We were very nearly beaten in one place. By climbing our best and quickest we reached the final snow slopes below the Midt bræ, and here we raced down and were fairly clear of the glacier and in the valley at 7 o'clock.

A lively trot through Kvandal brought us, at times varying from 8 to 8.30, to Dale again.

Frue Dale was most kind and attentive to us, and an admiring audience thronged round Lars, who modestly told of our adventures. Ivar Dale was much disappointed when told that we were going to drive to Aak that evening, and expressed a wish to see us again, which Hopkinson has already done.

Mjöltnir is by far the finest peak in the Romsdal group, and it presents more varied and stiffer climbing than The Horn or the Vœngetinder. The ascent by the south-west face would doubtless be easier than by the blunt arête; but the way would be more difficult to find, as the traverses are frequent and some of them long, whereas our route presented little possibility of deviation.

It is a great, but very unusual, luxury to be able to start direct for so fine a peak as Mjöltnir from such cosy quarters as Nedre Dale, and there is little doubt of there being many a good expedition from there in the future. When we say that Mjöltnir is barely 6,000 feet high, that we went very quickly, only making two long halts, and were out between 15 and 16 hours, it proves the work to have been really good.

Three days later we made an attempt to climb the highest Trolldtind from the Middagshorn. The latter rises by steep grass slopes and patches of bare rock immediately opposite

Aak to a height of 4,000 feet. Behind it, a little glacier fills a basin, guarded by a high rampart of rocks. This rampart is broken by two deep notches, clearly seen from Næs. From the higher notch, a couloir comes down to the glacier.

In 1879 Hopkinson found the couloir to be completely cut off from the glacier by an open bergschrund. This time the schrund was closed up, and we began to climb the couloir under Hopkinson's leadership. It was a strange place, a very steep and deeply cut groove about 850 feet high, about 12 feet wide, and with a high and perpendicular wall on each side. Our only anxiety arose from a fear of avalanches, as a fierce wind blew blinding mists of fine-grained snow-crystals in our faces and down our necks. However, we saw that this only came from the peak above us, and that the snow in the gully was all right.

It was most laborious work for the leader, and very chilly for Lars, who began to feel ill about halfway up. When at last we reached the col—a 'windy gap' if ever there were one—we dug a hole in the snow for Lars to shelter in, whilst we gave him some *aquavit*, which soon restored him. As the weather had obviously gone to the bad, we agreed to descend by the opposite side, which is rather easier, and to leave the peaks for the future. The great Troid was just above us, and very wicked he looked too. The rocks at the back are most fantastic, and some five-and-twenty jagged columns tower up in melancholy array, and thoroughly accord with the name of the range, the Troid peaks. Our descent was a most interesting one, though made first in a snowstorm and then in drenching rain.

Though the height of the Norsk mountains is not great, there is now no need to recommend them to climbers in the half-apologetic manner which was necessary a few years ago, as their claims, as a good field for exploration and for the best sort of climbing, are fully recognised.

As the limits of this paper do not allow of repetition, we refer any climbers who may happen to visit Norway in the future to former papers in the 'Alpine Journal,' and to those in the 'Norske Turist Forening's Aarbog.' Many of the latter are written in English; especially we refer to the 'Aarbog' for 1883, where a good deal of new work is suggested. Many excellent hints will be found in these papers.

In the Jotun Fjelde, where are the highest mountains in Norway, though there are few maiden peaks remaining,

there is yet plenty of good new work to be done, and there is now capital accommodation, and, what is very important, there are now—bridges. The Justedal's bræ is a most noble snow-field, and is not yet fully explored. Its many western ice streams show wilder ice scenery than any in the Alps. There are actual ice falls—not of *névé*, but of real hard blue ice, nearly 6,000 feet high. Bears are common thereabouts. This great snow-field must not be crossed in the nightless days of the end of June or beginning of July, as snow *can* be soft in Norway as well as in the Alps.

The most promising fields for exploration now are in Söndmøre, Romsdal, and within the Arctic circle.

We most strongly recommend any mountaineers who may happen to travel by the west coast land-and-water route to forsake, for once, the gloomy, overrated, guide-bookish Geiranger Fjord with its shoreless mountain walls, and to go instead to the Hjörund Fjord west, the grandest in all Norway. When there, they should climb Slogen, either with Jon Klok or Peder Haugen. This peak is extremely sharp, but not difficult to climb; it is only 5,200 feet high, and, according to Slingsby, it affords infinitely the most varied and beautiful view he has ever seen.

Once on the top, in fine weather, the mountaineer will see all around him many unascended, and probably difficult jagged-crested peaks. He can take his choice, few have yet been climbed. As the glaciers are small, and soft snow not very troublesome in Söndmøre, June and July will be suitable for this region. On two mountains above the Hjörund Fjord there are large holes in the ridges, through which one can see the clouds scudding about on the opposite side. One of these, on Gluggen Tind, is 18 feet high by 6 feet wide. Tradition says that King Olaf the saint was once out on a sporting expedition near here, and saw a Trolld on Gluggen Tind; he immediately shot an arrow at the Trolld; whether he aimed well or not one does not know, but, at any rate, the arrow pierced the mountain and fell near Standal, where a portion of it now forms a respectable little bridge 16 feet long, and was shown to Slingsby in 1876. The tale must be true, as the hole is there, plain enough to be seen from the fjord itself, and the arrow lies just where it ought to lie. The Söndmøre folks, a fine race, are delightfully superstitious, and are descended from Scotchmen who repopled the district after its complete depopulation by the 'Black Death.'