

stone somewhere in that direction; and lastly Baumann proposed we should descend the fall as best we could. This was formally carried, but though we were now tolerably reckless, the difficulties in our way nearly beat us. Three times we tried, and thrice in vain, though knife edges of the most revolting description were passed, and crevasses of fabulous width and depth jumped or got over as seemed best. Again and again we were forced to return. At length, when we were almost in despair, a way was found, and at 6.30, drenched by the storm which by this time had burst upon us, we reached the little hotel at the Pierre l'Échelle, and after a short halt for some refreshment, regained our hotel at 8.

Here we found some dry clothes which Mr. Reilly had most thoughtfully and kindly sent in for us, and after a good dinner retired to bed to sleep the sleep of the justly wearied, after eighteen hours of the most exciting work I have ever done in the Alps.

One word more, and I have done. To those about to follow in our steps—don't. The risk from overhanging séracs in our ascent is not to be despised, while the descent to the Glacier des Bossons, with its treacherous rocks and avalanches, is hardly likely to be passed a second time without serious accident; and even in our case I do not think either Walker or Jakob offered their bruises in a hurry.

THE GLITTERTIND AND ULEDALSTIND IN NORWAY.

By T. L. MURRAY BROWNE.

DOES the untravelled reader know where Rösheim is? If not, it may be sufficient for the present purpose to say that Rösheim lies in Bæverdal, in the parish of Lom, near the watershed of Norway, and in close proximity to some of the finest mountain scenery of that country. We, i.e. my brother, Mr. W. R. Browne, Mr. J. F. H. Saunders, and myself, drove into Rösheim in the afternoon of Thursday, August 25. We rested at the hospitable abode of Ole Halvorsen Rösheim, a well-known guide, whom we were anxious to engage. A disappointment met us, so to speak, at the door. Ole was from home, and was not expected back for some time. This was a blow, especially as Ole speaks English, and our Norsk was not our strongest point. My brother was the only one of us who knew any; and his Norsk, though sufficient for ordinary travelling purposes, was subjected to a severe trial when it

became necessary to enter into complicated explanations with guides unaccustomed to mountaineering tourists. However, there was no help for it. We engaged one Eilif Aasen, an active mountaineer, and spent Friday in a sort of *reconnaissance en force* half-way up Galdhopiggen, a lofty but easy mountain which rises just above the village. The weather on Friday was very bad; nevertheless we resolved to devote Saturday to an attack upon Glittertind. This mountain, which is 7,860 ft. high, is described by Captain Campbell as a 'most remarkable mountain, of great height, and exceedingly spire-like.' It is also mentioned by Professor Forbes and others as one of the principal mountains of Norway. Eilif did not know the mountain; but it appeared that a farmer in the village, by name Hans Slaten, had been up it with Herr Wergeland, a Norwegian engineer officer connected with the Government survey of the district. The mountain had not, previously to our visit, been ascended by Englishmen, the only two previous ascents having been made by Norwegians for the purposes of this same Government survey. The survey in question has resulted in the production of the Amt map of the district, which all intending travellers will do well to procure.

Accordingly, on August 27, we prepared for a start. We wanted to get off at 5, but the guides came late, and Hans especially, very late. Various consequential delays ensued, and the result was that we did not fairly start till 6. Our guides were by no means accoutred in accordance with Swiss ideas. Eilif had a species of alpenstock, which I believe to have begun life as a hayfork, and having had one of its prongs broken off, to have been hammered into its present shape. As it was, it made a very fair *bâton*. Hans' get-up was of a very singular character—a rusty black frock-coat, black cloth trousers to match, no gaiters, and low shoes instead of boots. He carried in his hand nothing but a common walking-stick. Our route lay up Visdal, a mountain valley which debouches into Bøeverdal at Rösheim. The path, which was well marked, ran up the left side of the valley. We passed upwards through fields and pine-woods, having the river flowing in a deep rocky gorge on our right. The clouds were low, and precluded any distant view, but the valley itself was fine. We soon left houses and fields behind us, and entered a wild and picturesque pine-wood, broken by rocks, and opening here and there into lovely forest glades. We walked on for miles and miles; the rotting trunks of fallen pines encumbered the ground, no signs of life were seen, and we indulged in the belief that for the

first time in our lives we were in a real primeval forest, untouched by the hand of man. Such visions were rudely dissipated by the unexpected sight of a saw-mill and a charcoal-pit. Soon after this we came in sight of Sidheim Sæter, on the opposite side of the river, and halted at 9 o'clock for a second breakfast on the banks of the Glitra, a rapid stream which here falls down the mountain on the left to join the main river. Glittertind, I may mention, is clearly the peak of the Glitra, and has no connection with snow glittering in the sun, or any other suchlike simile.

Having finished our meal, we turned sharp to our left, without crossing the Glitra, and, quitting the valley, took right up the mountain—and, alas! simultaneously into the cloud. We mounted through pine-woods till, on our right, we came into sight of a fine waterfall—a dark semi-circular chasm of black rock composed of perpendicular cliffs some 80 ft. high, over which the Glitra fell in one long shoot of silver. A little above the fall we turned to our right, and crossed the stream. By this time we had surmounted the first steep slope by which the mountain descends to the valley, and had reached ground of a somewhat more level character. We had also passed out of the region of trees, and had fairly entered upon that of *stones*, in which we continued for the greater part of the ascent. These same stones are so marked a feature of the country that it is impossible to pass them over without notice. Conceive a whole tract of country completely covered with loose stones of all sizes and shapes, heaped together in wild confusion, without the slightest regard to the convenience of a pedestrian. The only mode of walking under such circumstances is to step from one stone to another, and continue that process until you come to your journey's end. I consider these stones a very serious drawback to a mountaineering tour in Norway. In making this statement, I expect to be laughed at. Indeed, before I went to Norway, I remember having laughed myself at similar assertions. Nevertheless, I entertain a strong belief that if any of my readers will go to Norway, and try to do any walking there, he will come round to my opinion. No one who has not been in Norway knows what stones are. To the remainder of mankind I can only hope to convey a faint idea of the reality by means of tropes and similes. Norwegian stones may be likened to a Welsh scree multiplied to the n th, or the top of the Glyder Vach extended over the whole of North Wales. There is nothing like them in Switzerland, unless it be a moraine. Conceive, then, the worst and most disagreeable moraine in the Alps continued for some twenty miles; and

conceive yourself condemned to walk along it for that distance. You will then have some faint conception of Norwegian stones. These stones cover all the high valleys of Norway, and all the mountains, except where there are actual precipices or snow. They even extend to a considerable extent throughout the forests of the mountainous country, in fact everywhere except in the main valleys. The great Norwegian Fjelds—the Fille Fjeld, the Ymes Fjeld, &c.—lying above the limit of forest and below that of perpetual snow, are composed almost entirely of these stones—little or no grass—nothing but stones, stones, stones, and a little reindeer moss. The stones give an aspect of extreme sternness and ruggedness to the country; but to the pedestrian they are a most serious nuisance. Not to mention the chance of a sprained joint (which was subsequently my fate), they make the walking very fatiguing, as the traveller spends the whole day in balancing himself on the top of large stones in a state of uncertain equilibrium. Moreover, you can never look at the scenery while you are walking, since your eyes must be constantly fixed upon the ground immediately under your nose, on pain of a tumble. Matters become still worse when, as is sometimes the case, the stones are partially covered with loose snow. Under such circumstances, or when the traveller is very tired, the stones become as trying to the temper as they are to the toes; and if they do not break your heart, are at all events uncommonly likely to break your shins. The famous Gloucestershire song, ‘George Ridler’s Oven,’ begins, as my readers, I hope, remember, with the words:

‘Theay stwuns, theay stwuns, theay stwuns, theay stwuns.’

I feel convinced in my own mind that the line in question has been derived from some ancient Norwegian Saga, and furnishes a proof of the Norse ancestry of the English people. But to return to the Glittertind. Over stones such as these we painfully pursued our way. We could not see fifty yards for the mist, and it snowed at intervals; but our advance was enlivened by the appearance of a flock of snow-buntings. Before long we crossed another depression or hollow in the mountain-side; on the opposite side of which was a bed of snow, scarcely deserving the name of a snow-field. This we crossed without difficulty, and so arrived at the crest of a long rocky shoulder, clear of snow, sloping gradually upwards to the base of the final peak. Bearing to our left, we turned up this shoulder, which was broad and perfectly easy, and marched along it for a very considerable distance, with no other impediment than was

afforded by the exceedingly rough and stony nature of the ground. In this manner we reached the base of the final cone, which was composed of snow, some inches deep, lying over ice. This might in some seasons necessitate step-cutting, in which case the job would be a long one; but on the present occasion the snow, though soft, was deep enough to give tolerable footing, and as the slope was not excessively steep, and there were no crevasses, the ascent was free from serious difficulty. As a measure of precaution, we proposed to put on the rope; but the guides objected, saying it was not necessary; and, as this appeared to be the case, we acquiesced. However, about half-way up, the guides halted, and saying something about a cornice at the top, proposed to rope. We then found that they wanted us to hold the rope in our hands. To this we demurred; but as the rope was hardly long enough for five people, I agreed to try the guides' plan and hold the rope in one hand, the other four being properly tied. It was the first time I ever tried that method of using the rope; and it shall certainly be the last. I do not think I was ever so uncomfortable on a snow-slope before. The result of holding the rope with one hand, and the axe with the other, appeared to me to be that I was entirely precluded from using either the one or other to any useful purpose. However, it really mattered little or nothing what we did in this respect. At 2.40 we reached the summit. It was Saunders' first experience of mountaineering, and we therefore drew back, and resigned to him the honours of being the first Englishman on the top of Glittertind. By rights we ought to have drunk somebody's health; but we had nothing to drink it in, and were therefore obliged to content ourselves with giving three cheers to celebrate the achievement.

The view reminded me forcibly of a view which I had had two years before from the top of the Galenstock. It was limited, but possessed one great advantage—it was easily described. It consisted merely of some ten square yards of snow and surrounding mist. It is a curious circumstance, but strictly true, that I have seen exactly the same view (barring the snow) from a number of Welsh mountains of my acquaintance. Under these circumstances, we did not stop more than 10 minutes at the top. We put on the rope again to descend, though the guides did not consider it necessary, and soon reached the rocks. Here at last the clouds broke, and we got a view. It was but an imperfect one; but it was a mountain view; and in my opinion a mountain view is, under all circumstances, worth more than all the views from valleys that ever

were seen. A noble group of glaciers and snow-clad mountains came into sight to the south, in which direction the peaks of Leirhö and Memurutind were especially conspicuous. The peak of Glittertind itself was also visible—a fine cone of snow. We perceived that instead of ascending Glittertind by the long stony shoulder which we had traversed, it would be possible to get on to the snow at a much earlier point, and mount by it throughout. This would, I think, be a better route, at least in descending; but the guides did not seem very fond of snow, and obviously preferred to keep on the rocks whenever they could—a taste in which I by no means agreed with them.

We descended by the same route which we had followed in the ascent, till we reached the point where we had crossed the Glitra. From thence we shortened our return home by keeping straight away in the direction of Rösheim, over a shoulder of the ridge, and coming down through the pine-woods, till we rejoined the path not far from the saw-mill. We thus cut off the angle which we should have made had we followed the course of the Glitra. Eilif led us down through the pine-woods in fine style, and we followed at a great rate, leaping from ledge to ledge of the descent in a fashion which illustrated the value of the alpenstock in a very signal manner. We had a somewhat dreary tramp homewards along the valley, and reached Rösheim about 8.30. Our ascent of the mountain was decidedly slow. It might have been made, I should think, in less time by an hour.

We had now to decide upon our future course. I had had the advantage of some communication with Captain Campbell, to whom I am indebted for much valuable information, most kindly and courteously given. Under his advice, we resolved to attempt the ascent either of Knudstoltind, between the Bygdin and Gjendin Lakes, or of Skagstoltind, one of the Horungerne range. Both peaks had some pretensions to rank as the highest mountain in Norway, though that pre-eminence is usually supposed to belong to Galdhopiggen. The last-named peak had been repeatedly ascended; but Captain Campbell informed us that neither Skagstoltind nor Knudstoltind had been ascended. Hans Slaten, however, averred that Skagstoltind had been ascended more than once, though the rest of the Horungerne peaks were still untouched. In this uncertainty we decided in favour of an attack upon Knudstoltind, which was clearly a virgin peak *sans reproche*. This decision involved the necessity of making a pass of three days in length, from Rösheim to Nystuen in the Fille Fjeld. The

pass, though little known, is practicable for horses, as are most of the known Norwegian passes. It leads, however, over some of the wildest parts of the Fille Fjeld; and as there were no resting-places except miserable sœters, or châteaux, somewhat extensive preparations were necessary. The sœters at which we were to rest for the night would furnish milk, butter, cheese, and the coarsest and worst description of *flad brød*. We took with us bread, eggs, tea, a little meat (we could not get more), and an additional supply of cheese and *flad brød*. Besides this, we borrowed some coverlets for sleeping, and a couple of towels, which last proved very useful for our matutinal baths. We had also our knapsacks, and therein a small quantity of brandy and some concentrated meat. Of concentrated meat we had two sorts—Liebig's and Whitehead's. The latter I can confidently recommend. It has an advantage over Liebig's in being more portable. It is not a paste, but consists of a number of little hard cakes. There is therefore no difficulty in carrying it after it is once opened. Indeed, it would be perfectly easy to take a cake or two in the waistcoat pocket, if convenient. It makes a soup like Liebig's, and we thought it fully as good. To carry these several articles we arranged to take a horse with us, and proceeded to engage guides. Hans Slaten was to come, and we intended to take Eilif Aasen also, but unfortunately he could not leave Rösheim. We unwisely left it to Hans to engage another guide, and discovered, when it was too late, that he had saddled us with his son, a lad of about sixteen, and lazy to boot, who was not of the slightest use throughout the expedition.

The distance from Rösheim to Nystuen is generally done in three days, the resting-places being, for the first night, Visdal Sœter; for the second night, the sœter at Eidsbod, at the head of the Bygdin Lake; and for the third night, Nystuen itself. This makes one short day (the first) and two very long ones; but the work cannot be better equalised. We, however, were compelled to vary this programme, and give more time to the expedition, in order to enable us to attempt the ascent of Knudstoltind *en route*. We therefore arranged to sleep at the Visdal Sœter the first night, and at the Gjendin Sœter, at the head of the Gjendin Lake, on the second night, designing to attack Knudstoltind on the following day.

We got off about 10.30, on Monday, August 29, quitting Rösheim, and its most excellent and comfortable inn, with regret. Our route lay up Visdal by the same path which we had traversed on our way to Glittertind. We crossed the Glitra, stopped at Sidheim Sœter at 2, for lunch, and, still

keeping the stream on our right hand, arrived after about two more hours' walking at Visdal Sæter, where we were to sleep. This sæter is not marked on the Government map, but is situated on the right bank of the stream, nearly opposite to the foot of Stygehö. We slept on the floor of the dairy, on a bed of reindeer moss, which we gathered ourselves.

From Visdal Sæter, three routes, all passing through very fine scenery, lead to the head of the Gjendin Lake. They run together for several miles, and then fork. The first of these is the easiest route, but the most circuitous. Turning sharp to the right at Bukkehullet, it runs underneath the Kirken or Church (which is a mountain, not an edifice), and thence by Leir Vand and Lang Vand to Gjendin. The second route, which was the one ultimately followed by ourselves, keeps right up Uledal, a valley which runs into the upper part of Visdal. At the head of Uledal it crosses a pass which, though lofty, is below the snow-line; and leaving the peak of Simletind to the left, joins the first route a little below Lang Vand. The third route, which was not traversed by any of our party, coincides with the second as far as the top of the Uledal Pass, but then turns to the left up a snow-slope, enters another valley, and descends to the Gjendin Lake, leaving Simletind to the *right* instead of to the left.

We started from the Visdal Sæter at 6.15, the next morning, intending to go by the direct route up Uledal. We had proceeded for some distance when Hans declared that the pony could not go over the Uledal Pass; and, moreover, that it would take two men to get it over the circuitous route by the Kirken—one to lead the animal and the other to steady the packs, as the pony made its way over the stones. This decided our course. My brother and I announced our intention of going over the Uledal Pass by ourselves, while Saunders went round with the pony and the Norsemen. A Swiss guide would probably have raised some objection to this proposal, but Hans fell into it at once. We put some cold reindeer and *flad bröd* into our packets, took the rope and our ice-axes, and, bidding farewell to the rest of the party, continued our course up Uledal, while they turned to the right in the direction of Kirken. This was about 8 o'clock; there was little or no track up the valley, and we wandered on, enjoying the scenery, which was of a very high order. The view up the valley leading to the Kirken showed a very fine amphitheatre of snow-peaks and glaciers. The Kirken itself is a remarkable mountain, a sharp conical peak of black rock, reminding me much of the Eiger, as seen from some points of view. It has never

been ascended, and looks very difficult. In front, the view up Uledal was also magnificent; Simletind in particular presenting from this point of view one of the finest peaks I have ever seen—sharp as a needle and scarped on its eastern face into one unbroken precipice, rivalling that of the Finsteraarhorn, which it somewhat resembles. Simletind has been ascended, according to Hans, by an English gentleman. It looked very difficult from the lower part of the valley; but as we got nearer, we came into sight of a shoulder, from whence the ascent might apparently be made without great difficulty.

Meanwhile we were keeping a sharp look-out upon Uledalstind, a mountain to our right. We had long had a scheme floating in our heads, as to trying a peak to-day by ourselves, as we had failed in persuading Hans to take to the notion. We finally decided in favour of the Uledalstinder. These are in number two. (I should mention that 'tind,' the plural of which is 'tinder,' signifies a peak. The Uledalstinder are therefore the peaks of Uledal—the dale of Ule.) The two peaks constitute distinct mountains, bounding between them the whole of the western side of Uledal. Of these, the southernmost, i.e. the peak which lies nearest the head of the dale, and which we ultimately ascended, is distinguished by a sort of sharp rocky tooth, which constitutes the summit. The other, or northernmost peak, is a round-topped mountain of the ordinary Norwegian character. We selected the southernmost, or peaked, Uledalstind as the object of our attack, moved thereto by the consideration that it was the nearest to the summit of the pass, and therefore the more conveniently placed for our purpose.

About 9.50 we reached two lovely little lakes in Uledal; and here my brother proposed that we should quit the valley and commence the ascent of the mountain. As a preliminary measure, we sat down by the side of the lake and discussed a second breakfast. The scene was very impressive. Dark clouds were driving overhead. The narrow valley was wild and barren to a degree; scarce a blade of grass was to be seen, and not a sign of human or animal life. On our right towered the bare rocky peak of Uledalstind; on our left a lofty ridge, powdered with snow, and seamed with parallel couloirs, rose steeply out of the valley. In front, above the low 'col' which marked the head of the dale, the keen peak of Simletind shot into the air, thousands of feet over our heads, glittering with new-fallen snow, and sharp as the spear-head of a Titan. The enjoyment of the scene was enhanced by the absence of uncongenial attendants, and by the sense of reliance upon our

own unassisted exertions. The meal over, we addressed ourselves to our task. It was now 10.15. The mountain rose steeply upwards from the very point at which we were standing. Two snow-couloirs seamed the face of the mountain for the greater portion of its height. Between these, and about half-way down the mountain, lay a large patch of snow, with some rocks in the middle of it. Beyond both couloirs, and not far from the col at the head of the valley, lay another patch of snow of considerable extent, not wholly undeserving to be called a snow-field. The rest of the mountain was bare rock, terminating in a jagged and broken ridge, which stood out against the sky and constituted the final arête. We struck boldly upwards, mounting for a length of time over steep but broken rocks, which presented no important difficulty. Our general direction was towards a sort of little col or depression in the highest ridge just to the left of the actual summit. At length we reached the nearest or northernmost of the two snow-couloirs. It consisted of ice as hard as iron, without a particle of snow to cover it, and uncommonly steep. I proposed to cut steps across it, keep below the patch of snow with the rocks in the middle of it, and so reach the other snow-couloir; then keep up the side of that to the final arête. This route we had to some extent examined from below, and, as it turned out, we should have done wisely to take it. Its advantages, however, were not equally apparent at the moment; and, at my brother's suggestion, we agreed to keep up the side of the couloir beside which we stood, working along between the rocks and the ice, till we came to a good place to cross. It was a queer sort of a place—a deep narrow gully, filled with a sort of frozen stream of ice, very steep and slippery; rocks on each side, also very steep and slippery, and coming right down to the ice like a wall. Progress was difficult. Sometimes we had to cut steps in the ice, which was in places so hard that the axe-head left its mark as it would in a piece of wood, without the ice chipping away at all. The task of step-cutting was rendered the more difficult by the cramped position in which we stood, without sufficient room to use the axe properly. At other times, we contrived to crawl along the rocks. These were of the most unpleasant character, always shelving *towards* us, and never having anything to lay hold of in the right place. At last we reached a spot where the ice-couloir was so narrow, that by cutting a single step, we managed to cross it, and reach the rocks on the other side. We got on to these pretty easily; but soon found that the worst of the work was still to come. The rocks were arranged in succes-

sive shelves or steps, some 6 or 7 ft. high; each step being perpendicular, and all possessing the same unpleasant peculiarity—namely, that the ledges all sloped *towards* us; the consequence of which, of course, was, not only that we were more likely to slip, but also that we never could find a good angle to get hold of, while the ledges exhibited a marked tendency to project over our heads. This latter feature was exhibited in a conspicuous manner a little farther on. After some awkward scrambling, my brother, who was leading, proposed to take up a low cliff some 7 ft. high, which much resembled the wall of a house, having, moreover, certain rocks on the top of it which projected over our heads, like the wide eaves of an old-fashioned thatch-roof. There was, indeed, a certain gap or opening in the said projecting eaves, through which it was possible to introduce a head and shoulders; but inasmuch as this feat required a good deal of wriggling and twisting, and there was very little to hold by and nothing to step upon, I mildly remonstrated against the proposed attempt. Nothing heeding me, my brother essayed the rocks; but slipped in the middle and came down with a run. I then tried another place, a little farther to the right, but that turned out to have a roof over one's head too, and after balancing myself on my toes for some time, without getting any higher, I gave up the attempt. I now thought that we should have been obliged to go round; but my brother, making a fresh try at the original place, succeeded in some mysterious manner in getting up it. I followed, and also got up, much to my own surprise. This proved to be the worst place of the whole lot. Thenceforward the rocks, though rather queer in places, were decidedly easier. We came upon a rock couloir, which helped us for a bit; and, finally, climbed straight up the rocks till we came out upon the edge of the final arête, and saw the valley on the other side of the mountain lying at our feet. For a moment I thought that we might by good luck have hit the very summit, and have no farther to go. But my rising hopes were dashed to the ground, and were succeeded by a feeling akin to despair, as I saw the actual summit some way to the right of us, and separated from us by a deep and precipitous gap, cut as it were out of the ridge. A further examination, however, showed that the passage of the gap was practicable enough. We descended a little way on the side by which we had ascended, worked along the face of the mountain till we were clear of the gap, and then climbed up again on to the topmost ridge. At this point I happened to be leading. The ridge proved to be a narrow arête of rocks, exceedingly wild and broken.

In the excitement of the moment, I clattered along it merrily, though afterwards when descending I thought it by no means pleasant going. The summit was soon reached. It was the wildest mountain-top I ever saw, being merely the highest point of the arête, very narrow, and composed of broken and shattered rock, which looked as if it might fall at any moment, and on either side. The view was very far from perfect. It had been snowing at intervals for some time, and as we stood on the summit, cloud after cloud came driving past us successively, wrapping us in their folds. At times everything except the wild rocks on which we stood was blotted from our sight. At other times, the mists opened, and we could see, now here, now there, the peaks and glaciers around us. It was a wild view. Not a tree was in sight, much less a house or a field—scarcely even a blade of grass. Rock and snow and a little reindeer moss constituted the component elements of the scene, nor was a single living creature visible. And ever and anon the snow-storms came driving up again and blotting out all. I will try to describe some of the most striking features of the view as we saw it. To the right and left, beneath each of our feet, as we sat astride of the ridge, lay two blue lakes. They must have been some 3,000 or 4,000 ft. below us: yet it seemed as if I could have kicked one shoe into one lake, and one into the other. One of these two lakes was the tarn in Uledal, from whence we had commenced the ascent. The other lay in a deep and narrow valley on the opposite side of the mountain. It was a wild and beautiful lake of the most exquisite blue, with a snowy glacier sweeping down upon it and terminating in a fine ice-cave overhanging the blue water. The mountains in the direction of the Gjendin Lake were especially conspicuous. Close at hand rose the sharp peak of Simletind, which I have already mentioned. Beyond it were the mountains between the Gjendin and Bygdin Lakes, Knudstoltind and the neighbouring group of the Svartdalpiggene. Together they constituted a peculiarly noble and imposing mass of mountains, of very varied outline. Knudstoltind itself, to which our attention was especially directed, appeared as a very noble peak, clothed from head to foot in snow. Its ascent appeared to be practicable, though not very easy, on the side of the Gjendin Lake. The other side of the mountain seemed steeper.

We had reached the summit at 12.45, and stayed there half an hour. The height of the peak has not been ascertained; but by comparing it, while at the top, with neighbouring mountains whose height was marked on the map, we estimated it at about 7,300 ft.—a very respectable height for Norway.

At 1.15 we commenced the descent. Our object was, not to return to the point whence we had started, but to work along the face of the mountain, slanting downward in a southerly direction to the head of the pass, which lay immediately beneath the mountain. We should thus save both time and distance, as we must necessarily pass this point in order to reach our quarters for the night. We soon quitted the arête, and again took to the face of the mountain by which we had ascended. The rocks were easy, and we met with no difficulty worth mentioning until we reached the second or southernmost of the two snow-couloirs, which I have mentioned before. This it was necessary to cross. I delegated the task of step-cutting to my brother, in consideration of my having a sprained wrist, and placed myself as firmly as I could upon the rocks, while he proceeded to cut the steps. We were roped together, and I payed out the rope gradually to him as he advanced, being always prepared for a strong pull and a long pull, in case he should slip. The couloir was of hard ice, about 40 ft. broad, and inclined at an angle of say 45 degrees, and although Mr. Carter's axes did their work well, some time necessarily elapsed before the steps were cut. At length my brother, having completed his task, reached the other side, and then in his turn planted himself upon the rocks, and held the rope while I crossed. The rope (50 ft. long) was just long enough (after allowing for the portion tied round our respective waists) to prevent the necessity of our both being upon the ice at the same time. Some more rock-work followed, and we then reached the upper edge of a small snow-field, which had to be crossed. I went first, with the rope round me, and at first advanced somewhat cautiously, keeping a sharp look-out for crevasses. But it was all safe. Snow, some inches deep, lay over ice, and there seemed to be no crevasses; so we were soon across it. I may mention, by the way, that this arrangement of snow lying over ice seemed to be characteristic of all the snow-fields which I was on in Norway—the only exceptions occurring where there was ice and no snow at all.

After crossing the snow-slope we made our way without difficulty to the head of the pass leading from Uledal towards the Gjendin Lake. Here we rejoined the regular route, and the ascent terminated. This was at 3.50, so that the descent from the summit to this point had occupied 2 hours 35 minutes.

On reviewing the above account, I fear I may have depicted the difficulties of the ascent as more serious than they were in reality. They were nothing that a Swiss guide would have thought worth consideration; though they were sufficient to

cause some pleasurable excitement to us, engaged as we were in the task of finding our own way without assistance. I have, moreover, to defend myself against the more serious charge of disregarding a recent solemn resolution of the Club, levelled against mountaineering without guides. In the principle of that resolution, as applied to the Alps, I entirely concur; but the Norwegian mountains are certainly easier. Their height is of course comparatively insignificant, and independently of this, both rocks and snow seem to me to be easier in Norway than is generally the case in Switzerland. At the same time, it must be remembered that my experience is limited. There may be, and I believe there are, mountains in Norway, such as the Romsdalthorn, which are difficult enough.

We had reached the bottom of our mountain, and the top of our pass. The descent from the pass was a trifle, but the difficulties of the day, as far as I was concerned, were by no means over. The rough work had renewed an old sprain, or rather two old sprains, and my left knee and right wrist were crying out sadly. My knee had given me some pain in descending from the peak, and induced me to wonder whether a lame man had ever gone up a virgin peak without guides in a snow-storm before. Now, however, my knee grew worse, and in a short time I was very lame. There was little or no track, and the entire valley was completely filled, as is the custom in Norway, with one of the interminable fields of stones which I have already attempted to describe. It is not particularly pleasant to walk for hours upon the tops of big stones, even if you are not lame; but the unpleasantness is decidedly increased if you happen to have a sprained knee, which was my case. However, there was no help for it, and I tramped on as best I could down the valley. My brother gave me all the assistance in his power; but this was but little. I consoled myself for some time with the hope that as soon as I got into the regular track from the Kirken, by which the pony was coming, the walking would be better; but when I did at length reach the desired path, I found it, to my disgust, rather worse than the ground I had been on already. Hours passed away. I fortified myself with some brandy, but was obliged to make but a sparing use of this, as we were short of brandy, and were anxious to reserve our slender stock for future emergencies. At last I persuaded my brother, much against his will, to leave me, and push on to the sæter to which we were bound, there to prepare for my arrival. He was soon out of sight, but the distance proved to be much greater than we

imagined; and, to make matters better, it got dark. In the next place, I lost the track in the increasing darkness, and wasted much valuable time in trying to find it again. At last I gave up all hopes of recovering the track, and resolved simply to keep straight on down the valley till I got to something. As usual, that something seemed to get further off, the further I walked. It grew darker and darker. I limped painfully on, steering my course by such imperfect light as the night afforded me, and stumbling over stones and rocks and all sorts of impediments in my path. A torrent roared on my right, the mountain rose steeply on my left; I began to speculate on the possibility of breakers ahead in the shape of awkward rocks; and altogether was not ill-pleased when I heard in the distance a faint shout. I answered lustily, and in a few minutes was met by my brother. He, finding the distance so considerable and the night coming on, had not waited a minute at the sæter, but immediately returned to meet me, bringing with him Hans. The point at which we met was still half an hour from the sæter; and as we marched on in the dark, I was struck with the skill and sagacity with which Hans contrived to keep the track. No doubt he knew its general direction, but he could not have travelled it *very* often; yet he never strayed from it once, though it was quite indistinguishable in the darkness to *my* eyes. He seemed to do it almost as much by feeling as by sight, working his feet along in the narrow track which ran in and out among the stones. We did not reach the sæter until about 10 o'clock at night, having occupied six hours in descending from the top of the pass. We had been, of course, greatly delayed by my lameness, which lengthened our walk, I should think, by at least two hours.

The sæter, when we got to it, was a miserable hut. It consisted of but one room; for the dairy was a mere closet. It was most inconveniently small for our party of five, in addition to the woman who lived there, and her two or three children. The walls were built of mere rough stones, without mortar; and the wind whistled merrily through them. The floor was merely earth trampled flat; and such little furniture as the hut contained was of the roughest description. We were anxious to husband our small remaining store of meat; and, accordingly, contented ourselves, after the day's exertions, with Liebig soup, milk, cheese, and *flad brød*. Supper concluded, I prepared for the night by putting on my second shirt and second pair of trousers over that which I was wearing at the time. I then lay down on the floor with a rug—a sort of horse-cloth—

under me, and the rope for a pillow. My brother and Saunders slept on a sort of bench, with their legs stretched under a kind of shelf which served as the only table. The woman and her children occupied the only bed; and Hans and his son slept, like myself, on the floor. Before long it got very cold. I soon pulled the horse-cloth from under me, and put it over me; then rolled about on the floor in an uneasy manner, half asleep, till I came against something warm, and stopped there. In the morning I found myself and the two guides packed into one close mass, by the operation of that species of mutual attraction which warm bodies appear to possess for one another on a cold night. I may mention that both the Glittertind and Uledalstind appeared to be composed of gneiss—the common material of Norwegian mountains.

We were up early the next morning. My knee forbade my thinking of Knudstoltind; but I was anxious that my brother and Saunders should not be disappointed of the ascent. For about ten minutes I thought they were going to try it, and began to wonder how I should contrive to pass the day at the sæter by myself; but Hans pronounced the weather to be too bad, and the attempt was abandoned. I believe Hans was right, but at the same time I do not think he was very keen about the ascent.

I shall say but little about the remainder of the expedition. A pass which is practicable for horses is clearly unworthy of the prolonged attention of the Alpine Club. We left the Gjendin Sæter at 7, passed the new hotel at Eidsbød, on the Bygdin Lake, and reached the new hotel at Tornehang, on the Tien Vand, at 4.30, where we slept. These new *hotels*, as the peasants call them, are liable, by their imposing title, to mislead travellers. They are mere huts erected for the convenience of sportsmen, and are more like new and good sæters than anything else.

In 1870, the Bygdin Hotel was abandoned and locked up in the latter part of August, and the Tien Hotel was also by way of being closed. The latter contained no furniture except a stove; and we slept on some shavings, which remained from the original erection of the building. I cannot say what accommodation these huts may afford to travellers in the season; but it cannot be much. We left the Tien Hotel the next morning at 7, and reached Nystuen at 2. So ended the expedition.

The country which we had passed through is probably one of the wildest in Europe. We had travelled straight ahead for three days and a half without seeing a fence, and scarcely

a bird or a tree. I may add, for the benefit of future travellers, that we paid a specie-daler (about 4s. 6d.) per day to each guide, and the same for the pony; but no return fare.

Here this paper ought properly to terminate; but a few words in addition upon the important subject of guides may be useful. It must be remembered, however, that my experience of Norwegian guides is very limited. My impression is that although of course Norwegian guides are by no means equal to Swiss, yet they are not to be despised. They are aware of the value of the rope, and are not unacquainted with step-cutting. No regular system of guides exists; and the best men can only be discovered by enquiry at the different villages. Their charges are very low. A specie-daler (4s. 6d.) a day is the usual charge, even for an ascent. Our men asked a specie-daler and a half for Glittertind; but they rather apologised for doing it. This contrasts pleasantly with the 50 francs which are expected of a traveller in the Alps. Nevertheless, I think the best plan for Norway would be for two or three good mountaineers to join together and make their ascents generally without guides. Caution would of course be necessary; but with caution Norway seems to me to be exactly the country in which mountaineering without guides may be safely indulged in.

As to individual men, we were not much taken with Hans Slaten. He is dreadfully slow, and he certainly stuck us in saddling us with his son, who was entirely useless for our purpose. I should be inclined myself to try Eilif Aasen, who is a much brisker and more active fellow. Hans, however, knows the mountains better, having accompanied the Government engineers when they made the survey of the district. At the same time I should certainly take Eilif for any mountain which he knows, such as Galdhøpiggen or Glittertind, neither of which requires more than one guide. Hans Andersen Boium, of Boium, in Fjærland, is, I should think, a first-rate guide, but we were prevented by bad weather from trying him upon snow. Physically, he presents one of the most magnificent combinations of strength and agility which I have seen anywhere, and he has had considerable experience in his own district. Of other men I know nothing.