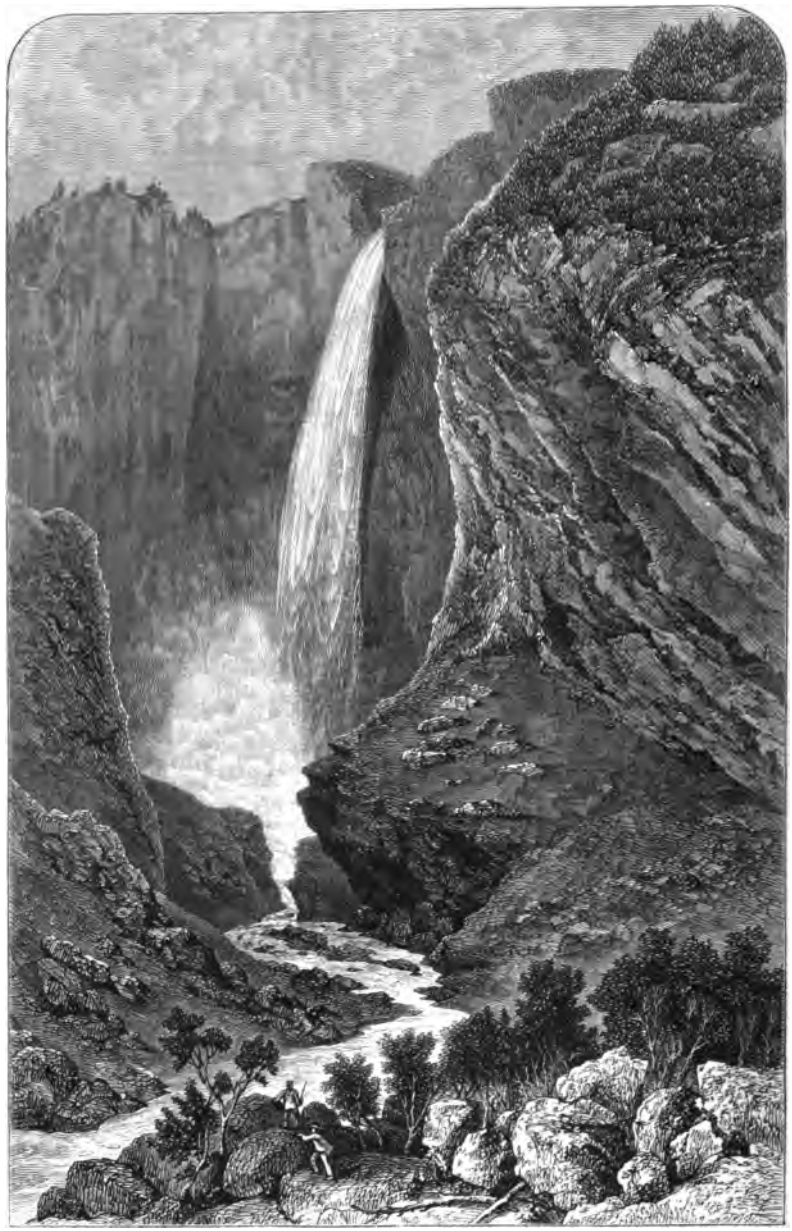

THE MÖRKFOS.

FROM A SKETCH BY CAPT. J. R. CAMPBELL.

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Excursions in Norway. By J. R. Campbell.

1. *Torghatten.*

Torghatten is a small island on the coast of Norway, being one of that long belt which forms a fringe along the Arctic coast, and is observable by all travellers in the weekly steamers between Throndhjem and Hammerfest, as they thread the narrow channel, or sound, which divides it from the mainland. It derives its name, Torghatten, or 'the hat of Torg,' from a supposed resemblance it bears in shape to a colossal 'wide-awake,' resting, brim downwards, on the sea. Who Torg was I don't know. The island is chiefly remarkable from there being a great hole right through it. This occurs about half-way up a mountain which corresponds, as it were, to the crown of the hat. Viewed from the steamer the opening appears small and insignificant; you may, however, generally notice a ray of light shining through it as you pass.

From the few words in Murray's hand-book, and scanty information derived from other sources regarding it, I had a great desire to explore this natural wonder; and, being in the summer of 1868 in Norway, embarked for that purpose in the weekly Hammerfest-bound steamer from Throndhjem. These steamers leave Throndhjem every Wednesday for the north, stopping at numerous 'Stations' *en route*—depôts for merchandise, passengers, and mails.

A very curious accident occurred as we were steaming out of the Throndhjemsfjord, about 2 P.M. An open fishing-boat, with sail set, was observed bearing down towards us on our left, and the ship's course was slightly altered to give her more

room. Had there been anyone steering the boat, a collision would have been impossible; but there was not. Her crew, consisting of two men and a girl, were, it turned out, asleep, and the consequence was she did not *quite* clear us. Her mast caught a boat hanging out on the port-davits; there was a cracking of spars, screams from the ladies on deck, and then we saw the little craft dragged over; and, as the water rushed over the low gunwale, she rapidly turned keel uppermost. There was immense excitement. The steamer had, of course, been stopped, and not a moment was lost in getting a boat out to rescue the unfortunate crew. Before this was launched, however, we saw the head of a man—I believe he was the father of the two others—rising, apparently, from under the wreck, and followed by his shoulders and body, as he contrived to creep up and get astride of the keel. A second or two later and the younger man did the same; and there they sat shouting lustily for assistance—their boat being now floating in our wake. The girl was not to be seen; it was supposed she was under the boat. On reaching it our sailors at once applied themselves to raise the gunwale, but so long a time elapsed before they succeeded in doing so, and getting hold of the girl, that I, at least, began to have little hopes of her life. However, out they brought her at last. It appeared to me about seven minutes from the time of the capsize when they hauled her into their boat, where her companions already sat. Then, amidst universal joy, all three were brought on board the steamer—had brandy given them, and were put to bed. We got the fishing-boat righted, and took it in tow. It had sustained very little damage; even some loose boxes, and other articles the party had with them, floated and were fished in; and, when we reached the station near where they lived, there we left them—not likely ever to forget their adventure of that day.

It would appear that the boat turned over so rapidly as to incase under it a quantity of air. This the girl breathed during the time she was entombed, and it acted as a cushion in preventing the boat from pressing her head below water. The others, I was told, called to her through the planks, asking her how she was getting on. '*Meget godt*,'* she replied, adding that she hoped a boat would be sent from the ship to save her.

I left the steamer next day at a station called Brönösund, a solitary house on the mainland, some miles north of Torghatten, but the nearest point of disembarkation for that island. I

* 'Very well.'

doubt if even tolerable accommodation could be procured at this post- and boat-house; but there are several dwellings within a mile or two of it, mostly belonging to merchants and traders in cod-fish, where lodging may sometimes be obtained —though only by favour. I was fortunate in meeting on board the steamer two sons of the clergyman of Brönösund going on a visit to their father, and they very kindly gave me an introduction to the house of a Mr. Edward Quale, trader and 'Landhandler,'* where I found every comfort during the few days I remained in the neighbourhood. There are, however, many private houses nearer to the hole than Sælhuus, where he lived.

About Brönösund the coast is generally flat, and, to a great extent, wooded with birch. The inland horizon is backed by a range of mountains feeble in outline. The islands are mostly long flat strips of rock, with bare grass-land on the top; here and there you see stacks of *clip* fish drying in the sun. Torghatten is an exception to the rule, as are also some distant islands—Vegen, for example, whose high peaks rise like crisp blue clouds in the offing farther north. But Norway's splendid coast scenery does not fairly begin for about 100 miles north of Brönösund.

After waiting two days on account of weather, I visited Torghatten on the 28th, in company with my host, two of the clergyman's sons, and another man. We had to pull all the way from Sælhuus—about 7 English miles—but got the wind in coming back.

Our landing was in a little bay on the east coast of the island. There are three farmhouses ('Gaards') on it—one called Torge giving the name to the place. The island may be roughly computed at about 3 miles from north to south by 1 from east to west. A mountain some 900 feet high forms the main bulk of it; this, in parts around the base, is skirted by grass and some cultivated land, and there is a little scrubby birch on the slopes. The entire formation is gneiss, very nearly approaching to granite. Indeed, the whole coast of Norway, for hundreds of miles, is of the same geological character.

The tunnel—I prefer that word to cavern—runs NE. and SW.; and the NE. entrance, to which we climbed (after paying a short visit to one of the farms near the landing-place),

* A 'landhandler' is a country merchant who keeps a general store. The traders ply in curious vessels called 'Jagts' (whence our word 'yacht'?), between the Lofoden Islands and Bergen, with fish.

lies at the head of an incline of débris—fallen, I imagine, for the most part, from the rock outside, which is indented, presenting somewhat the appearance of a quarry in the face of the mountain. The débris descends in a rough steep slope from this point into the body of the tunnel—a colossal gallery, some 200 yards long, and varying in width from 15 to 20 yards. It is quite straight, with smooth vertical walls and a jagged roof. The height of the roof over the NE. portal may be about 70 feet, but above the centre and towards the opposite end much more—probably from 100 to 120. The length we measured, *roughly*, by means of a fishing-line; but none of the above dimensions must be taken as more than rude approximations to the true ones. The great difference in altitude between the two ends arises partly, I think, from the presence of the débris, which seems to occupy a huge portion of the original NE. portal; indeed, the floor, if I may so term it—there 500 feet above the sea level—is 80 feet higher than it is at the SW. end. From the foot of the descent the floor continues in a succession of stony waves to the farther opening.

As may be expected, the view from the crest of débris under the NE. entrance is very remarkable. It is impressive in the extreme. You look downwards right through this grand natural hall, faintly illuminated by a flood of light pouring in from the other side of the mountain, whilst the distant aperture forms a rocky frame to a small bright picture—a patch of green meadow (lying at the base of the hill), and the blue sea studded with islands, above it.

The tunnel is easily traversable, and the approaches are void of any difficulty. It is used as a common communication between the farms, one of which is situated on the SW. shore.

Without attempting any long geological enquiry as to the formation of this singular place, I will merely suggest that it probably owes its existence to the destruction of a vertical slice of rock cased between walls of a harder nature than itself; indeed, it is noticeable that the blocks fallen from the roof are of a more rosy tint than that of the stone found in other situations. It is possible that whilst disintegration was proceeding to the greatest extent, the island may have been submerged to a point considerably above the present floor, and that the detached fragments were borne away by the action of strong currents. The surfaces of the layers, forming the roof, appeared to dip towards the south; and save where a little water trickled from it, near the SW. extremity, the tunnel was very dry.

After exploring the 'hole,' some of us scrambled, by follow-

ing a ridge, on to the top of the mountain above. I made the height to be about 900 feet. The view did not strike me much, having seen the same kind from higher elevations. At the foot of the large dome-shaped mound which contains the tunnel, there are numerous lower heights approximating to it in form, reminding one of bosses or cupolas of rock. There are also several cracks or horizontal perforations, which appear to be imperfectly developed tunnels, all of them parallel in direction to the great hole. One of these I went into. It was a groove, like a narrow railway cutting, extending many yards and terminating in a small cavern. It lay almost vertically under the grand hall.

We returned in the evening to Sælhuus, and next day I took the passing steamer back to Throndhjem.

N.B.—The boats going south pass Brönösund every Monday.

2. *Fjærland.*

Few parts of Norway contain more of the stern, impressive scenery, so characteristic of that country, than the district of Fjærland, including the Fjord and the valleys to which it forms the approach.

The neighbourhood has an advantage over many others, possibly of equal grandeur, in being within easy reach of the ordinary tourist route—the Sognefjord; for most pleasure travellers persist in following one another like a flock of sheep, and I have rarely encountered one in Norway who was not pressed for time. Now during the height of summer there are two steamers a week that make the tour of this great Fjord, of which Fjærlandsfjord is a northerly branch, running at right angles to it. A station called Balholm, where the steamers will land you, is close to the junction of the waters. Here there is a tolerable little inn, containing perhaps some three or four bedrooms—few Norwegian houses have more.

Ten minutes' walk from the inn and you come to the Essefjord, also an offshoot from the main channel, but small and lake-like. It is wild in character, and worth exploring, should you have time.

Once a month a Bergen steamer not only touches at Balholm but goes up the Fjærlandsfjord and back. Information about this is given in the published steamer routes. She only stops a few minutes at the end of the Fjord, so there is no time to go ashore and return with her, but it is convenient to avail oneself of this steamer either in going or coming back. The general way, however, is to hire a row-boat and three men from Balholm direct to Fjærland—a cluster of houses with a

church, near the end of the Fjord, distant 17½ English miles. The boats carry a sail when the wind is favourable.

As you progress up Fjærlandsfjord—a dark groove-like passage, walled in by savage and often unscaleable precipices from 3,000 to 4,000 feet high—the boatmen will point out Rommehest, a towering peak above the margin on the right. I walked to the top of this during my stay in the district in 1868, having slept the night before at a 'Sæter,' or summer cheese-farm, high up among the mountains in a side glen called Rommedal, from which a ridge is easily gained leading to the summit. The view was a glorious one. I looked down upon the long valley of water with its wild torn cliffs, and there was a nearly complete belt of snowy mountains encircling the panorama, broken by glaciers here and there. 4,030 feet was the height indicated by my aneroid, but I learnt afterwards, from an officer on the trigonometrical survey now going on, that this was a little more than the true one. In the present Norwegian survey most of the heights are computed from vertical angles taken with a kind of theodolite, base lines being obtained with sufficient accuracy from the plans of the low ground.

There is no inn at Fjærland; however, lodging may generally be obtained at one or other of the farmhouses in the village or dotted round the head of the Fjord. My sleeping-place was at a Gaard called Mundal, near the church, where the people—as usual in Norway—did what they could to make me comfortable.

Three valleys radiate from the low tract at the end of the Fjord, a few minutes' row from the church, of which Suphelledal and Bojumsdal are the most noticeable. I saw both the day after my arrival, but now much regret not having devoted more time to them. Two or three days might well be spent in the neighbourhood. Peter Asmunden, son of the farmer at whose house I lodged, acted as my guide. He was a very intelligent lad of eighteen, who had been educated by the clergyman; and though working as a wood-cutter and about the farm, Peter told me he knew something of Latin, could construe the Greek Testament, had studied elementary mathematics, and acquired some knowledge of German and French. The weather, I may mention, was brilliant, but extremely hot.

Our first walk was up Suphelledal, a long narrow gorge, gloomily grand, framed between craggy heights which appear almost *mural* viewed from the opposite side. This is thoroughly Norwegian in character. A tolerable road leads up it for some miles, two or three times crossing the large glacier stream. The only awkward parts of the excursion are the bridges which

occur in series, the stream in many places being split into two or three. They are formed of two barked and roughly squared trunks laid close together, side by side, with their ends supported on rude stone piers. There is just room for one foot on each; but what with the narrowness of the way, the spring in the birch stems, the fact that there is often no railing, and your having your eyes resting on the roaring white current below, some steadiness of head is required for a safe transit, may be, of 20 feet or more. The Norsk girls, of course, think nothing of going over such places—in summer with a big bundle of hay on their backs; for the people mow every green speck it is possible to scramble up to, so great is the difficulty in procuring sufficient hay for the winter months.

About 4 miles' walk took us in front of the Suphellebræ,* the first of the glaciers in this valley. It is a broken-off structure of ice at the foot of a lofty wall of bare rock, fed by avalanches from a glacier above. This latter glacier, of which you see the jagged edge overlooking the crag, is one in direct connection with the so-called Jostedalsbræ—a vast field of ice and névé extending with hardly a break over the entire range between the Sognefjord and the Nordfjord.† During our short halt there, we saw numerous small avalanches splintering down. I had not time to go all the way to the second Bræ, called the *Lille* Suphellebræ, some 2 or 3 miles farther on. It is said to be a continuous stream from the plateau above, and remarkable for the purity of its ice. Perhaps the finest view of this valley is got from a point just before you enter it.

In our walk we had to cross the fast decaying remains of a recent spring avalanche which covered the road, and had passed unpleasantly near to a Gaard. The road was through a wood at this spot, but now only the tops of the alder-trees were visible protruding above the snow. All had been borne down in the direction of the flow. Every leaf was gone, the bark also to a great extent, and the ends of the twigs were frayed just as though they had been pounded between two stones. In Norway, as in other high-mountain countries, yearly avalanches—one or more in certain valleys, but generally pursuing the same course—fall every spring. When, however, there is an unusual accumulation of snow on the highlands, as there was during the winter

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* *Bræ* always signifies glacier.

† All the glaciers pouring into the many valleys which penetrate this range or *block* of high land, as Brixdalbræ, Nigaardsbræ, &c., have their origin in this field. Its extent is as yet hardly known. *Probably* the area may be between 7 and 10 Norsk square miles (?).

of 1867, extra falls—often of enormous volume—occur, tearing downwards by the least expected routes, and many were the sad stories I heard of entire households having been destroyed a few months back. Indeed the spring of 1868 seems to have been marked in Norway by a train of fatalities such as one rarely, if ever, hears of in Switzerland. One avalanche, happily unaccompanied by loss of life, is worth mentioning on account of its size. It fell into Fjærlandsfjord from the mountains on the west shore, and the snow formed a floating bridge, for a time, across the water—at that place nearly a mile in width—over which people walked. This I heard from several, or should hardly have believed it.

Bojumsdal, the valley I next visited, lies westward of Suphelledal—a mountain singularly bold in outline, separating the two glens at their junction. The slopes are very precipitous, but to a great extent clothed with birch—as indeed are those along the Fjord. The grandeur of this second valley bursts upon you all at once as, turning a bend, you come in sight of the great glacier streaming down its end. From a green strath between towering rocks rises the crevassed swell, which has a gentle incline on the top for some hundreds of yards, and beyond this the main body of the flow rears itself—a steep colossal bank of ice, purely white, without moraines and apparently 3,000 feet high! This is the Bojumsbræ, about the most striking glacier I know in Norway. The terminal débris occurs in lumps and short segments fronting the base. In approaching it I crossed a stream by a snow bridge, in the absence of which it *might* be difficult for ladies to arrive at the ice; otherwise the excursion to this glacier, distant some 5 or 6 miles from the Fjord, is one they might easily make.

Professor Sexa of Christiania, a gentleman who has devoted some time and attention to the observation of glacier phenomena, was staying at a Gaard above Fjærland, and I had the pleasure of meeting him during my rambles. He told me some curious facts relative to the temperature of the ice *below* the surface, derived from certain experiments made by him on a glacier of the Folgefond in Hardanger. It would appear from his investigations that, whatever be the temperature of the superincumbent atmosphere, that of the ice not directly exposed to its influence remains about the same throughout the year, being constantly near upon freezing point. I understood the Professor to say, he had bored three holes in the surface of the glacier and sunk a minimum thermometer in each. The lowest temperature of the air in the valley during the winter he assumed to be —14 Réaumur. The thermometers re-

mained in the ice all the winter, and on his examining them the following summer, the first, which had been buried 4 Norwegian feet, was found exposed by the melting of the surface; it registered −1° R. The second, which had been sunk to a depth of 8 Norwegian feet, indicated a minimum temperature of $-\frac{1}{2}$° R., and the ice had thawed down to it. On digging out the third, originally placed at a depth of 12 or 14 Norwegian feet,* it was found broken, and therefore gave no result.

I forgot to mention, that you can go in less than a day from Fjærland to Veitestrand, another wild valley with two glaciers in it, by crossing a snow pass at the head of Suphelledal. From Veitestrand an easy pass takes you over into Jostedal. Vide 'Travelling in Norway,' in number for May, 1868, of this Journal. (Vol. iv. No. 21.)

3. *The Mörkfos.*

In order to visit this remarkable waterfall, the easiest way is to disembark at Aardal,† on the Sognefjord, one of the stopping-places of the weekly steamers, from which it is distant 16 or 17 English miles (according to local belief somewhat less), up a wild valley, and just beyond a farm called Vette.

Aardal station, at the head of Aardalsfjord (a short branch of the great Sognefjord), stands, surrounded by grand scenery, on a neck of green land about a mile square, called Tangen. This neck divides the Fjord from Aardalsvand, a freshwater lake, and has dotted over it a number of farms, besides a parish church and Præstegaard (manse). Close to the station is a comfortable little inn kept by Jens Klingenberg and his wife. Jens is a good specimen of a Norwegian mountaineer; I found him a capital companion and guide. Should any future traveller require a man conversant with the high and hardly known mountains of this district, there is also a certain Dominicus 'to be heard of there,' who appears an intelligent fellow, and who told me he had accompanied one of the government officers on a recent trigonometrical survey.

Jens and I started for the Fos on the morning of August 25, 1868. Weather beautiful until the afternoon, when it broke and continued showery all that and the following day. Tangen is intersected by a wide river leading from the lake into the

* A Norwegian foot = 1·029 English.

† Sometimes spelt Aurdal. Vette is also sometimes written Vetje. In these and countless other cases of names of places there is much uncertainty with regard to the orthography.

sea, and both the river and Fjord are said to abound with large sea trout. I mention this simply as a report, not being a fisherman myself. We had two extra hands to pull us up the lake, which is about 5 miles long, and one of the grandest bits of freshwater I ever saw. Mountains—little else than piles of crag, with a green speck here and there—rise in many parts 4,000 feet abruptly along its shore. Most of these verdant patches, however, are mown in summer—often at the peril of people's lives.* One precipice, the Stigeberg, overshadowing the lake on the right, is singularly bold. The side springing from the water is a crag wall some 800 feet in height, but this is the lowest portion, for the precipice continues round the foot of a gill (which enters the lake beyond), and is developed into an unbroken face, as vertical as possible, and *apparently* 2,000 feet high. On the opposite side of the lake, also, the mountains are very wild, torn by deep corries, and seamed with numerous cascades; and in the smooth vertical rock flanking one of the gills, there occurs a curious network of quartz veins. Farther on the traces of an old copper-mine may be observed high above the shore.

From the head of the lake where we landed, pretty nearly all the way to Gelle, a distance of about 5 miles, the valley is a meadow with numerous farmhouses and patches of grain. A wide river courses through it, which was on our left all the way to the fall.

In this (first) portion of the dale there is a spring which is said to be so warm in winter as to melt the surrounding snow, whilst during the hot weather in summer it is always encrusted with ice. This I heard on respectable authority. I should have visited it on my way, but it lies on the left of the river, and there is no bridge for miles. At several of the houses on our route Jens made a call; he was evidently a great man in the valley, and (chiefly, I fancy, on his account) we were more than once hospitably entertained, especially on our journey back. At Svale (next day) we were regaled with coffee, cakes, and liqueur—any hint at payment for which would have been an affront. Moen, a Gaard crowning the brow of a sandhill, appeared to me one of the best houses, and where lodging might probably be procured if required during a day or two's

* A girl haymaking on the rocks above Aardalsfjord, lost her life by a fall only a few days before my visit to the neighbourhood; but, on the whole, such accidents are rare. Many of the peasants wear shoes called *Snaakopper*, which are merely upper-leathers formed into bags for the feet. They afford a wonderful amount of grip on smooth rocks.

exploration of the vale.* Just beyond Gelle (where a noticeable cataract tears down the mountain side), there is a spur projecting nearly across the glen, and the river boils through a groove at the base of its overhanging crags. You climb the spur, and from the top follow a path skirting a steep slope, down into a narrow, somewhat dreary defile called Uttlidal, which is simply a continuation of the main valley. For the remainder of the way the river is a boisterous torrent of white water, generally roaring at the bottom of an inaccessible groove. It is seldom more than 100 feet wide, and at Gelle only 60. There, there is a picturesque wooden bridge leading to the farms on the other side of the vale. A well-defined track undulates along a strip of débris descended from a range of crags all the way up Uttlidal. Now and then a stone avalanche† *might* occur about this part; indeed, I noticed the trace of a small one in returning next day.

Farmhouses perched high among the rocks on some narrow terrace, or looking down from the plateau above—*human nests*, as it were, often hardly accessible to any but a mountaineer—are very common in Norway. You see one in going up Uttlidal above the precipice on the left. The place is called Afdal, and the way up to it is a queer one—at any rate towards the top, where in more than one case vertical crags cross the path. Here shelves 2 or 3 feet wide, formed of tree-stems, are supported in front of the rock, and they constitute the road, which must be far from a pleasant one in winter. A doctor, whom I know, had once a rather narrow escape in descending one of these places after a professional visit at the farm. There was snow—he slipped, and came down into a sitting posture, with his legs dangling over the edge of the shelf. Stigegaard, above Aardalsvand, is another such nest, only to be reached by a ladder; and there is a Gaard in Aurland, built so close to the brink of a precipice, that (it is said) they 'hobble' the legs of the young children, to prevent them strolling too near the edge! When death occurs at farms so badly connected with the world below, and where (as is often the case) it would be difficult to prepare even a shell, the corpse has the backbone broken in order that it shall 'pack better,' and is borne in a basket on a man's shoulders down to the quiet churchyard—or, more probably, to some valley-farm, where a coffin awaits it. There is a story, but I will not vouch for its truth, that in certain cases where the route is a horse-path (and a Norwegian horse is equal to almost

* A pass leads from near there over to Nystuen on the Fillefjeld.
† 'Steenskred' in Norsk.

any *track*) the body has been lashed astride a pony, and made to *ride* down the crags to its last home. Near Ronnei is a Gaard on a slope above a curtain of crags which overlook the Fjord; and once, when they were about to take a corpse down to the valley church, the coffin containing it was accidentally upset, and, thus started, continued rolling over and over until it cleared the brink of the precipice, whence it plunged hundreds of feet down into the sea below. Many of the mountain farms are 20 or even 30 English miles from a doctor, and when the attendance of one is *essential*, his fee amounts to 1*l.* or more, owing to the distance he has to come. Now this is defrayed out of parish funds, in cases where the family is too poor to afford it—an admirable plan, I think. Much doctoring, however, is done without medical help, or with the assistance only of a 'Jordemoder,' who is a professional nurse educated at a hospital, and who can bleed, cup, and attend confinements (for which in Norway doctors are rarely called in). Every parish, I believe, has such a woman, and she acts *under the doctor*. They are an excellent institution, and it would be well if we had them for our own poor.

Uttlidal widens out on your rounding the base of another spur, on which are some patches of cultivation, and you then come in sight of Vette. The farm reposes on the brow of a little mound (also an offshoot from the high cliffs which flank the valley on the right) 950 feet above the lake. Coming from the sombre ravine I had just traversed, it looked rather a cheerful place; there are a few aspen-trees about it, two or three cottages for *pladsmænd*,* and some fields of barley. The Mörkfos is on the same side of the river as the farm, but farther up the valley. It leaps from the edge of the mountain plateau, which appears to extend for many miles above the precipices of the main chain, and both the top and bottom of the fall are accessible—neither point being more than 40 minutes from the Gaard. I saw it from the valley below on the evening of my arrival, and next morning (after sleeping at Vette) had a view from the top, looking down it from the corner of the brink.

To reach the base of the fall, the way is over the brow behind the farm, and by a steep descent down to the river. An old farmer we took with us from Vette made holes for our feet with a pick in coming down this slope, but they were hardly needed. You then have to coast the river bank for

* *Pladsmænd* may be roughly described as tenant labourers on a farm.

some distance, and here, for perhaps 100 yards, a little caution is required in skirting a strip of large débris, as if one of the stones slipt it *might* hurl you into the deep swift flood, from which there would be little chance of escape. This past, you mount a gentle rise, partly wooded with scrubby alders growing amongst large blocks of stone, and you then get a front view of the Mörkfos—the base of it being some 200 yards off. It is a fall of *about* 1,000 feet, and comes down in *one* plunge from the top, presenting the appearance of a feathery tail of foam suspended in a wild black framework of crags, more resembling a sharply-cut *bay* than a *cleft* in the mountain side. Nearly everywhere the rocks are vertical, and those flanking the lip on the left overhang. Certainly it is one of the two or three finest falls in Norway, and I, for my part, prefer it to either the Rjukan or the Vöring. At the same time, viewed from this point, it hardly looks by 200 feet or more its real height. The stream, carrying its waters down to the river, is a hasty torrent split into several threads by islands of shingle and débris. The upper portion of the valley running for several miles beyond the fall is inaccessible.

A zigzag track leads from Vette on to the plateau above the fall. This is a large district called Vettesmarker, and there are peaks rising from it which (it is said) command good views of the stern Horungtinder range. The track, I ought to mention, is the commencement of a horse-path from Vette to Gelle. There are Sæters on Vettesmarker, and at one of them is a bridge leading over the stream which supplies the fall. This stream—nothing more than a mountain 'beck' in point of size—rustles, with many a little tumble in its course, through a wood of birch and Scotch fir. At the lip or edge over which it rushes, the breadth can hardly be more than 14 feet, but it is tolerably deep. Gazing down from this point, one is struck with the extreme wildness of form among the crags round, or rather below, the brink of the fall; and the valley itself is a grand feature in the scene, for on the opposite side the precipices are almost mural; there is also a cascade bounding down nearly in front of you, making a succession of long white jumps—which in any country, Norway excepted, would draw a summer stream of tourists to the vale.

Had the weather been fine (it rained all the time I was on the plateau), and I had not been somewhat pushed for time in order to catch a steamer, I should much have liked to have spent a day or two in the neighbourhood. It is a district worth exploring, and as yet almost if not quite unknown to English travellers.

The people at the farm, Anfin Jorgensen and his wife Johanna 'Iversdatter,' had never, or certainly not for the last eleven years, received a visit from an Englishman. I found them nice, kind people, who did their best to make me comfortable. Of course, theirs is but a homely dwelling, and far too out of the world to afford the luxuries that some 'Norwegian tourists' might vainly enquire for. It is a very old-fashioned looking house inside, and, as is so frequently the case in Norway, there are sacred verses carved or painted on the panels and doors. Here is one which I give literally as it stood:—

'Naar vi gaar ind, naar vi gaar ud,
da tænk paa os, O milde Gut.'

(Trans.) 'When we go in, when we go out,
then think on us, O merciful God.'

Note.—From aneroid observations taken below and at the top of the fall, I made the height of the Mörkfos about 1,040 English feet. I was told that an ordnance-survey officer in 1867 computed it at 986 English feet; measurements by two other gentlemen have given it as 1,100 and 1,029 English feet respectively. I saw the Fos when there was comparatively little water in it; early in the summer, during the melting of the snows, it must be twice as fine.

On some Winter Expeditions in the Alps.

By A. W. Moore.

(*Continued from No.* 26.)

THE comparative ease with which, in the winters of 1866 and 1867, passages previously considered impracticable at such a season had been effected, naturally suggested that, under equally favourable conditions of weather, even more considerable expeditions might be tried with fair prospect of success, and that, in particular, there was no reason why Mont Blanc itself should not be accessible. The extent of snow to be traversed would not be very much greater than on the double passage of the Strahleck and Finsteraarjoch in 1866, while there would be no rock difficulties such as had been successfully overcome on the Brêche de la Meije in 1867. The idea, at any rate, took firm hold of Mr. H. Walker and myself, and when last winter approached, having secured the co-operation of Messrs. G. E. Foster and T. S. Kennedy, we determined to make an effort to carry it out.