

great slope before us. Crossing one or two insignificant crevasses in the slope, we were soon on the Corridor itself, meeting a great mass of white clouds boiling up from Italy, and then at the summit of the Mur de la Côte; and here, for the first time, we saw the party in front about half-way up the Calotte. At the Petits Mulets we stopped to cast off our rope, and to leave my knapsack in the snow; and I asked Hadow how he felt, telling him that this was the point where travellers usually succumbed to the might of Mont Blanc. He only laughed, adding that this was the first glacier mountain he had ever ascended, excepting the Buet; his strength and endurance were extraordinary. We halted for ten minutes on the slope, and about 8.50 stood on the top, a few minutes after the first party. The ascent, therefore, from the Grands Mulets had been accomplished in somewhat less than four and a half hours. About an hour afterwards, just as Croz came up, we started on the downward journey. The snow was very soft, and Hadow, although of wonderful pluck and strength, had not yet acquired sufficient practice to make him quite secure upon his feet. So I left Perren to bring up the rear and afford Hadow support, and went on in front, ploughing downwards up to the knees in soft snow, and above the Grands Mulets nearly disappearing altogether down a concealed crevasse. A desperate struggle extricated me. We went on swiftly, sliding and jumping down the ice-hummocks of the Glacier des Bossons. At the Pierre Pointue we stopped for twenty minutes to pay our bill and to take up our luggage, and before three o'clock we were again in the Hotel de l'Union at Chamouni, having made the descent from the summit in five hours without a single glissade. The next morning my wife and I left for England, and the gallant Hudson drove with us as far as the village of Les Ouches, where we parted with him, little thinking that it would be for ever.

AN EXPEDITION TO HAMMERFEST. Read before the Alpine Club, April 2, 1867. By the Rev. R. ST. JOHN TYR-WHITT, M.A.

IT was about July 4, 1866, that we ran out of the Humber on board the little Bergen screw steamer *Amicitia*. I don't wish to abuse my own country and its institutions, or anybody else's, so I say no more of the steamer or of the town, and refer the club to Coleridge on Cologne and the Rhine, for the proper remarks about Hull and the Humber—though whether

the town dirties the river or the river the town is hard to say ; nor does it matter. The main incident on the voyage was, that I met a man who had seen the Sea-serpent with his (the man's, not the serpent's) own eyes. He who had the temporary interview with that coiled snake from the central deeps, was an old Scotch medical officer, high in the Bombay service. As he was of great sense, experience, and evident probity, and as he had two very pretty daughters on board, his statement commanded my attention—in fact, I believed him : and this is what he said. Two days on the homeward run from St. Helena, during tiffin, he was on the poop deck of a large Indiaman, with the captain and the man at the wheel, all passengers being below at their meal. Their attention (his and the skipper's, the man at the wheel had his eye forward, of course) was caught by a strange rippling on the lee beam, like a reef of rocks. Before either had time for a remark, a huge black head and twenty or thirty feet of neck and body rose out of said ripple, about 100 yards from the ship. The head had enormous eyes in it, and what seemed a black shaggy mane ; it took a good look at the vessel and then vanished. By the length of its track, it seemed that it belonged to a body which could not have been less than 100 yards long. There were only two to see it, and it was quite momentary, so they could not make much of it to the rest of the passengers ; but my informant was quite certain, and a most credible witness, and it is a very good example of the critical question about the value of one competent witness's testimony to an entirely abnormal circumstance, referred to, I remember, in 'Essays by a Barrister.' *

The Doggerbank, over which one runs for a day and a half on the Bergen trip, is a sort of anticipation of the Scandinavian mountains, I suppose. I suppose one may call it geologically an axis of upheaval ; at least, almost all the passengers seemed to find it so, though I think their health was a good deal undermined by dirt, discomfort, and the first sight of raw ham and salmon at meals. We sighted Stavanger on Tuesday, spent the day there, and inspected an American Monitor, presented by Ericssen to his native land, and reached Bergen on Wednesday morning. It is exactly one's ideal of an old Dutch town, as described in Knickerbocker's history of New York. Entirely built of wood—very clean, from continual rain and its steep site—painted in uniform red and white ; with a busy

* I have since been informed that it must have been a 'Phoca Barbata.'

picturesque fish-market, old women with caps like illuminations in a thirteenth century missal, watchmen with morning-stars, stocks, schiedam, tobacco-shops, and the usual untidily ornamented cemetery, where all the graves are always covered with decaying relics of cut flowers, and where newly arrived strangers generally seem to consider themselves bound to go and sentimentalise. I don't enjoy 'public gardens' in life, or want them over me in death, personally speaking.

Our first expedition was a very easy one, as indeed they all were. I ought to have apologised to the club before for this — 'Story! Lord bless you, I have none to tell, sirs' — but I still hope to be able to point out sources from which a good deal of fun may be obtained. As to sport, it is hardly to be had by a tourist; or along the great roads, or near the favourite salmon rivers. There are still plenty of grouse and duck in Norway, but Norway is a wide place, and the conditions of finding game are very different there from here. They are thinning fast too. Game in England is rather an artificial product. I am not going to say anything about the matter. No sane man expects to find 'ripa'-grouse without dogs, or in the same numbers as on a Scotch moor: nor will any wise man be confident about getting a shot at a reindeer more than once or twice in a season. It is better to be lucky than wise in sport, as in anything else. But trout fishing is a certainty, and to any man who likes wild shooting, I have only to say, take a rough strong double gun, and keep it loaded and at hand continually, along the road and everywhere. A whole season might be passed in sketching, observing, fishing, shooting, and ascents of no great height, but sufficient risk and extreme beauty, between the two Fjords, the Hardanger on the south of Bergen, and the Sogne to the north. The latter forms a great part of the direct line of communication between Christiania and Bergen, as the Fille-Fjeld road joins it at Leirdalsoren. Our first point was Odde on the Sör branch of the Hardanger, a most lovely lake, running due south, with hills crested with glacier and capital expeditions to the Folgefond. Then we went north again to Utne, at the point of divergence of the three main branches of the Hardanger. This is the best headquarters, I think, for weaker brethren and vessels. It has the peculiarity (unusual in Norway) of being a station where you can get something to eat. The regulations of the place permit the hens to lay fresh eggs, which appears to be strictly forbidden in other parts. The old hostess took a fancy to my wife, and was herself, with her extraordinary white cap, red boddice, and jolly face, queer rafted and gabled house and belongings,

so very like a first scene in a pantomime, that one always thought she was going to undergo transformation the next minute.

Vik is the next place to visit after Odde. We had a capital expedition to the Voring-foss, one of the great Norway falls. Boat along a small, walled-in, bottomless-looking tarn to Sæbø. It would be rather awkward to be swamped in one of these cold half-glacier lakes, with smooth perpendicular cliffs plunging into the water on each side, and no chance of landing or help. Then a walk of about twenty-five miles (going and coming) nearly due east, rather like the Gemmi, and some short distance over the Fjeld or moor. The fall is difficult to get a fair sight of, as one looks directly into the black pit from a level with its surface, and sees the column of falling water foreshortened, so as to lose much of its height. Next day we went by boat to Ulvick, took packhorses for one stage over the Fjeld, struck a carriage road and station at Vassenden, did our first bit of cooking, and drove to Vossevangen. Thence, next day, a really remarkable drive to Gudvangen, where the road plunges into the head of the valley by the sharpest zigzags I ever saw. Driving one's self down zigzags is a new experience in charioteering. This valley is wonderfully like Lauterbrunnen, and may really be compared with it. The descent into it with its two lovely waterfalls, and the grand amphitheatre at Gudvangen, and round the end of the Sogne Fjord will stand comparison with anything anywhere. The Sogne Fjord alone would employ a painter, or I believe a geologist or mineralogist, for years. The last mentioned would be welcomed by the natives, whose one spark of energy and thought of progress is either in mining, which they don't understand, or in fishing, which they do, as far as cod-lines go. They are good at salmon-netting, and dodge their own laws about small meshes, traps, and stake nets with very sufficient skill. I may mention that a Salmon Act, much like our own, has lately been made law in Norway, and I trust the new inspectors will get it observed a little. The narrow defiles of the inlets of the Sogne Fjord are its great feature. It is more Swiss and less Norwegian than the Hardanger, as its mountains, though steep, are clad with grass and pines like Lucerne, though the Norwegian pine is slenderer than the Swiss, and has not the same spread of arms.

I have spent time, I fear to little purpose, in talking about this expedition round the two Fjords, because so very much may be made of it, and it is so easily accessible. A tent, a gun, and a fourteen-foot rod, with some black, red, and yellow flies

ribbed with silver twist (small *butchers* for salmon) with a good stock of preserved meat and biscuit, would make one independent enough; and very little money and few good words go very far with the natives. They are slow coaches, it is true, and as a rule one can't get much work out of them, and nothing better than oatcake, milk, butter, and coffee is to be had throughout the land. But that is something; and they are stout fellows when on their mettle, and honest all through. It is odd enough that, backward as they look and are, there are four very important matters to this day well worth the trouble of importing from Norway, viz. a horse (under fourteen hands), a cow, a carriage, or a boat. Describing one-horse conveyances in the Alpine Club would be enough to bring St. Martin's Chambers about one's ears; but Norway is literally a one-horse nation, and I could not help just mentioning the name of the national trap.

But the regular Norseman goes by sea wherever he can, and quite rightly, for he has such a system of literally inland navigation provided for him as no other country enjoys. Any one who is not a good sailor may be interested to hear that from the time he enters the Stavanger Fjord to his arrival at Hammerfest, close to the North Cape, he need not be exposed to more than six hours' open sea.

We reached Bergen in about fourteen hours from Leirdalsoren, and just caught the northern steamer. The coast is the Highland rocks over again—I mean in the wilder parts of the Western mainland. Skye, its hypersthene mountains and their unearthly forms, must stand aside for a moment till its turn comes to be compared with Loffoden, which is so exactly a magnified Skye, that one might expect to find rough terriers there of the size of sheep. But if you take any fifty miles of the mainland coast from Argyleshire to Sutherland, you will have a good idea of the Norwegian coast to within a day's run of the Arctic circle, deducting some brilliancy of colour, the heather, &c., and adding considerably to height of cliffs, and sheer downfall of precipice, and general violence of impression. The pine scenery of Norway is wanting on the sea coast, though here and there the inner fjords are fir-clad. But the characteristics of both lands are the same—utter barrenness within reach of the wind, exquisite green in shelter; birches, stunted or luxuriant; *roches moutonnées*, and varied traces of glacier. Granite prevails, yielding to the Sutherland rock from which the Sugarloaf, Quinaig, and other hills seen round Loch Inver are hewn, and which I understand Sir Roderick Murchison to have pronounced the most ancient rocks known.

The bay of Molde is the great panoramic view south of Thronthjem, and the mountains between this and Bergen are comparatively unexplored, as in fact they are all the way north to the North Cape, and the highest in Norway. Their type and form, as everybody knows, is not equal to the Swiss, for want of peak. What Mr. Ruskin shows us as Turner's favourite or typical form of lower mountain, that is to say, slope above and precipice below, as all the Staubbach side of the valley of Lauterbrünnen—that is the Norway form. The first two hours of any Norway expedition, from the lake-level to the fjeld, are sharp indeed to a weak goer.

The lions of Thronthjem are its cathedral and its two waterfalls. The former is a heap of ruins, kept up (or rather let fall) much as a population of small farmers and dealers would be likely to deal with such a place, if fully left to themselves, as they are. The falls are fine, and after rain it may be worth while, I think, to take a boat below them, and fish the river over with the big rod and a small butcher, or something with a mallard's wing, silver twist, and golden pheasant's tail, according to weather. At Thronthjem one takes leave of the pretty Lower-Canton-Berne-like scenery of Norway, and about thirty-six hours' run by steamer brings one to the Arctic circle and the beginning of the wildest coast scenery in the world. Not but that there are charming pieces of vegetation in sheltered valleys and low-lying green basins sloping to the sea; but that everywhere there is a background, or distance, or visible presence somewhere, of sheer-down gneiss precipice, crested with snow. Big sunfish go insanely about, with their great stupid back-fins up; whales and porpoises come up and have looks at the steamer; you see distant, clumsy square-sailed 'jagts' standing on their mastheads in the magic calms of refraction; the wind gets colder and colder, and the more it does so, the more you eat and drink; streams of white gulls and black cormorants follow your barque like a clanging rookery; eider ducks and their brood, protected by law, won't get out of your way. You pass the Namsen and the Vefsen, the great salmon rivers, with their pretty pine woods and cliffs, like Ross-shire, and may be aware that now there is nothing inland, that no man, except a stray Lapp or Fin, dwells in the land you have all day on the east, and generally all round. Then the wilder isles begin, and you pass the Seven Sisters, and Torghattan, the granite rock, 1,500 feet high, with a hole right through it, and the Horseman, and the outer isles of Thränen, wild-shaped big stones all alone at sea, and you dive into the channels round Bodö, last nameable town but two of



RAFTESUND, LOFFODEN.

(From a sketch by the Rev. R. St. John Tyrchitt.)

the civilized world, and there you go ashore, and if you happen to have an old dog with you you may have a very good two or three hours at snipe on the flat moor behind the town; and you may observe the only turnips in Nordland—very fine and successful—and reflect that if the like were grown all up the coast, as they might be, the curse of leprosy would be driven from West Norway, and the price of meat lowered in England as well as in Scandinavia. The fact is, squires of the right sort are wanted in Norway as in the West Highlands. There is not capital or spirited farming anywhere. Fishing and fish diet are everything, and between that, dirt, and hardship, the horrible diseases of the country are a 'caution.'

The finest part of the mainland coast lies between the Hestman or Horseman (a conical rock which Norse sailors say they consider like a cloaked man on horseback) to the point of crossing over the Vest Fjord to Loffoden.

Forbes says he observed some true glaciers near Rodö, opposite the Isle of Thränen on mainland, not *névé*, but evidently formed ice, denuded of snow in summer.

Either Rodö, or Bodö, a larger town about 40 m. N., would be in fact the best head-quarters on the coast, unless one established one's self at Balstadt or Steilo, in Loffoden. It takes about four hours in calm weather to run across to East Waagen (pron. Vogen) the nearest of the Loffodens. Hindö is the largest, Moskenos south, Ando most north, West Waagen to the west. South of Moskenos are Varö and Rost, and it is the sudden upheaval of the submarine peaks of the Loffoden mountains, with the more gradual but still rapid shallowing of the whole ocean, which causes that generally dangerous current between these last islets, which we call the Maelstrom. Nobody ever goes near it, with good reason, said our old skipper; it would be dangerous in bad weather even for a steamer. Edgar Poe's great whirling black funnel is an invention of course, but if there is not that, there is a violent current in which no vessel will answer her helm, a dreadfully violent cross sea, and a certainty of wreck against the rocks of one or other of the southern islets.

There is a scene in Loffoden which struck me as an absolutely perfect one, and the most beautiful place in the world—after Wady Feirân in the Sinai desert (there are lots of places in the Alps quite as good as either, but they compete in one's mind, and drive each other out, and these two are singly perfect). I made an oil sketch which has resulted in Mr. Whympers's engraving, which, I am sure, does it more than justice. It is a very calm, profound, clear green sound,

between high sharp-peaked mountains of red granite, clothed with snow and beautiful shell-like (secondary) glaciers—all know their delicate curves. There are endless coves and inlets, ἀνήλιοι, ἀνήνεμοί τε πάντων χειμώνων. Great mossy rocks, magnificent granite forms, stick up out of the sea with pretty birches and deep Arctic grass on them, and there is plenty of Scotch fir and birch on the lower hill-sides. There is a perpetual clang of all manner of odd birds as tame as pigeons—porpoises and seals turn up here and there, and over all there is sunset all night long, in that land wherein it seemeth always about 7.30 on a summer evening.

An exploration of the Loffodens would be a work worthy of the Club, in every sense of the words. A good tent would be required, and plenty of eatables—one is very hungry in those parts. Steilo, or Balstadt on the West Fjord, would be the best head-quarters, I should think. Tromsø, close to the mainland about would also be a nice place to settle at—the Lapp encampment, in a wide wet valley about seven miles off, on the mainland opposite is a great sight. They have generally about 2,000 tame reindeer pasturing on the moss and summer grass. It should be remembered that though the summer only lasts two months or so, still there is little or no night, and the unintermitted warmth of the sun makes the grass grow double tides, so that Arctic green is particularly fresh and beautiful when there is any. The Lapps are worthy little Mongolian looking savages, in deer-leather frocks and leggings. The reindeer seemed rather small and over-burdened with their enormous horns. Milking them is an awful sight to any one who proposes to taste the milk; but they make capital venison, with a fine game-flavour. I made some sketches of the glaciers of the Nûs Fjord, represented in Forbes, and also on the Alten and Lyngen Fjords. There are stations on both of the latter where I fancy one might live not uncomfortably; and it is all quite unexplored. One side of the Lyngen Fjord was the most utter Arctic desolation I ever saw—rock, snow, and glacier down to the sea, without a sign of vegetation.

We reached Hammerfest about 10.30, and landed at once to go up the hill, from which one sees the sun turn again upwards, like Whittington, instead of dipping beneath the Northern Ocean. It was cloudy, I regret to say, but both here and at Tromsø the change of light was very remarkable. Most of us feel the difference between evening and morning light, and the sudden transition from fading evening colour to growing morning light, with all its freshness and sparkle, was beautiful. Hammerfest is the metropolis of fish-liver oil;

it is by no means the cod only whose livers become water in our service. Grampus is especially popular. The name of the fish is of no great consequence: a rose, you know, by any other name would smell as sweet; and so would Hammerfest and its chief staple. All scuttles had to be kept close in the harbour, and we smelt the town miles off on the other side of a large headland.

The southern voyage was much like the northern—crossing and recrossing the Lyngen and Alten Fjords, and also another called Ox Fjord, about whose name our Norse friends, who had ascertained some of my antecedents, made various jokes, which seemed to do them good. We reached Thronthjem in a week, and found a little salmon-fishing on the Gula, about forty miles south. But no rain fell above us, and sport slackened, so we drove over the Dovrefjeld to Dombaas, where the north and west roads divide, and then turned west again, and drove down Romsdal to the well-known Aak Hotel, where the proprietor farms his own land, lets his own fishing, speaks very good English, and always gives one enough to eat. The valley is one of the finest in Norway; and here I *did* go up a hill about 5,000 ft. high, on the south side, with a good deal of snow in large patches. There were regularly formed small secondary glaciers, at the same height on the next hill; and the view from the top showed several much larger ones. From the great steepness, in fact perpendicularity, of the lower parts of Norway hills, and from their affecting the form of a high table-land above, there do not seem to be many large moraines, and all the rivers run very clearly, as far as we saw. On the Dovrefjeld we were much struck with the great pine region or belt of original forest, beginning, I should say, at 1,000 ft., and extending over about 1,000 perpendicular feet of hillside. The view over the uninterrupted sheet of spruce firs, reaching to the hilltops, and only broken, if at all, by the last snow-covered rocks, was very striking indeed. All is left to itself. There is no thinning or wood-ranging, and the trees are small and poor in consequence. Sometimes you may see an acre or more of them all dead together, and this makes a strange purple or grey patch among the deep greens. There is very fair trout fishing along the road from the wild and beautiful pass of the Driva, almost all the way to Jerkin—nice thick yellow fish rising to 1½ lb. Capercaillie are now and then to be got in the woods, but all Norsk shooting is growing yearly more uncertain. The Bonders and peasantry go in for utter destruction at all times of the year, and all they say is, that there will always be plenty on the fjeld.

From Romsdal we turned eastward, and drove across to Christiania as hard as we could go, caught the 'Scandinavian,' the most comfortable boat on the line, with a large cabin amidships; and reached Hull in three days in a gale of wind, for which we had been prepared by the appearance of mock suns, or sun-dogs, two smaller lights, one on each side of the afternoon sun. I never saw them before, and at sea I had rather not see them again—and so said all our party.

THE EBNEFLUH JOCH, SCHMADRI JOCH, AND AGASSIZ JOCH. By the Rev. J. J. HORNBY, M.A.

SINCE the discovery of five great passes over the main chain of the Bernese Oberland, it may seem unreasonable to complain that the mountaineer's choice of routes between Grindelwald and the *Æggischhorn* is inconveniently limited. Yet probably most of those who have crossed the great mountain barrier once or twice will feel, with the writer, that if these five great passes are the only practicable routes, nature has by no means done all that could be desired for the convenience of travellers. Two of these passes, the *Eiger Joch* and *Lauinen Thor*, were found by the excellent mountaineers who first crossed them to be so long and difficult that others have been deterred from following their steps. The *Viescher Joch* is supposed to be still longer and remarkably tedious; and the *Jungfrau Joch*, the noblest of passes, must, I fear, be considered often rather dangerous. Thus the mountaineer who devotes much time to the Bernese Oberland, especially if in the prosecution of his plans he is obliged occasionally to cross from the south to the north side of the mountains, is apt to think, in his ungrateful heart, that he is always wasting his finest days in crossing the *Mönch Joch*, and to entertain rather harsh feelings towards that worthy pass.

This summer Messrs. Kitson, Morshead, Philpott, and I, finding ourselves at *Lauterbrunnen*, with an unusually strong party of guides, consisting of Chr. Almer, Chr. Lauener, and Jakob Anderegg, determined to devote some time to attacking the few apparently practicable passes over the great barrier which had not yet been traversed. It is hardly necessary to say that we did not expect to find another *Mönch Joch*, which might be crossed at almost any time in either direction; but we had some hopes of finding some route from the north less dangerous, if not less difficult, than either the *Jungfrau Joch*, *Eiger Joch*,