

also intended to apply to it. M. Gottlieb Studer, who was one of the very first travellers to penetrate into the recesses of the Graian Alps, and to whose kindness I am indebted for a copy of a memoir upon this district, contributed by him to the 'Mittheilungen der Naturforschenden in Bern' (No. 480-484), supplies us with two more, *Mont Prémou* and *La Grande Maurienne*.

The following additional heights were determined by us in our two days' excursion:—

			English feet
August 4, 8	A.M.	Bourg St. Maurice, Church (mercurial) . . .	2,730
"	4 P.M.	Peisey, Auberge . . . (aneroid, corrected)	4,328
"	7.45 P.M.	Entre deux Nants . . . (mercurial) . . .	6,840
"	5, 6.10 A.M.	} Breakfast-place . . . (aneroid, corrected)	9,870
"	3.20 P.M.		
"	4.15 P.M.	Col (do. do.)	9,620

WM. MATHEWS, Jun.

THE ASCENT OF GLÄRNISCH. By THOMAS HOWELLS.

'HE looks a preciously awkward customer from this side!' 'Oh! utterly impossible; but from the south he is more accessible.'

The speakers, on a glorious day in July 1862, were seated at the edge of a little lake, called the Klön-see, in the Klön Thal, in Canton Glarus, and were gazing up in thoughtful mood at a very promising mountain, which rises abruptly from the southern side of the aforesaid lake. Kennedy, myself, and Thomas Cox, Kennedy's servant, had come from England with the fixed purpose of what in English vernacular is termed 'having a shy' at Glärnisch. Hitherto we had progressed favourably, and, as we wound our way up the valley, we only wished for another fine day and an early start. About four o'clock in the afternoon we reached the little inn at Vor Auen, at the head of the Klön Thal, but not before the landlord, Herr Webber, had caught sight of Kennedy, and had come tearing along over stone walls and ditches to cross the fields to greet him. We had dinner; then came the business of the ascent. Herr Webber suggested guides as indispensable: he knew two or three first-rate men, chamois-hunters, in fact, who had been up no end of times; he would send for them in a minute. We declined the kind assistance. Hereupon our landlord talked much of the danger of the ascent—the old, old story, in short, told by all innkeepers, when mountains are the

theme of discussion—and finished up by telling us that we should not get to the top. However, we entertained a different opinion, and gave orders for the preparation of the food to be taken with us.

What a stupid thing it appears getting up long before the sun, to go tramping along a path where you are constantly knocking your toes against knobby roots and sharp stones, splashing up to your ankles through the thin ice into the puddles on a glacier, while you are not aware, save by ocular demonstration, that you are possessed of fingers. I must confess that this was somewhat after the fashion of my thoughts when Kennedy's candle flickered in my eyes, as he came to call me up the following morning. I felt very much inclined to say with the sluggard, who has been held up as a warning to the youth of all ages, 'A little more sleep, and a little more slumber.' But Kennedy was inexorable, I must get up; it was a beautiful morning, no excuse to go to bed again, so I dressed, and we had breakfast. It was decidedly chilly, but anticipating a hot day, I left my coat, which was a heavy one, behind me.

We made a clear start at 2 A.M.; the landlord shaking his head, as though saying, 'Ah! well, it can't be helped; if you will break your necks, you must, only don't say it's my fault.' We struck across the fields into the high road of the Prigel pass, which runs pretty nearly due west. This continued to be our route for about two and a half miles, till we came to a small valley running in a direction SSW. among the hills. This was the valley up which we were to find a path to get to the glacier descending towards the south from Glärnisch. It was now about three o'clock, and getting into the midst of pine woods, at the beginning of the valley, we were in almost pitchy darkness. Then came hunting for the path. Now there are very many employments much more congenial to one's feelings than groping about amongst loose stones and stumps of trees at three o'clock on a cold morning, when it is so preciously dark that you can hardly see your hand before you. Kennedy was the only one of our party that had been here before, and as he said, 'Places look so differently by daylight.' However, we scattered to feel for the path, and hunted and stumbled to our hearts' content. At last Kennedy, in a happy moment, hit upon the track; we rejoiced greatly, and started again for our attack on Glärnisch.

We had not gone far when Thomas Cox suddenly exclaimed, 'What a smell of wine!' What could it be? there were no wine brewings up in the mountains; when, like a

flash of lightning, the horrid thought seemed to strike upon our minds, and we simultaneously burst forth, 'It can't be ours!' But, alas! it was only too true. The cork of our bottle, our only, our unfortunate bottle, with the contents of which we intended to recruit our wearied spirits, had come out; and the precious and luscious juice of the grape was fast ebbing away in the quicksands of the provender and the lining of the knapsack, giving, as we afterwards found, a taste of wine sauce to the bread and cheese contained therein. The bottle was hastily righted and corked; we having first ascertained with frantic eagerness that there was rather more than half still left. I am not sure Kennedy did not prove this interesting fact by raising the bottle to his mouth to find out how long the wine was coming. But time was getting on, and soon we saw the sun gild the eastern hills. Presently they began to glow, but with a nasty, sickly tint, that put me more in mind of the flickerings of a tallow candle than the reflection of the glorious orb of day. However, as we watched, this pale tint faded away, and immediately the summits of the surrounding peaks were bathed in streams of rosy light, and we beheld one of the most magnificent 'morgen-glühe' that it has been my lot to witness. By seven o'clock we were in sight of the glacier. We could see only the ice-fall at its termination. Immense 'seracs' sparkled in the morning sun, while the clefts and crevasses looked blacker by contrast. At eight o'clock we reached the very foot of the moraine, and sought a passage to the ice above. On the west side there was a charming gully in the rocks which promised well. But Kennedy knew it of old; it was but a delusive snare. The ice-fall was impassable; we therefore crossed the terminal, and part of the lateral moraine, and then made our way over some steep snow slopes which lay on the east side, between the rocks and the glacier. Upon these slopes we were much amazed to perceive the marks of large hoofs, apparently recent. How any creature possessed of such continuations could possibly have surmounted the lateral ice moraine, was quite a puzzle. Besides, there were no marks as if the creature had first ascended, had thought better of it, and had then come back again. One of Byron's heroes lived 'throughout all space.' Query, could he, for purposes of his own, have descended these snow slopes in preference to coming down 'like lightning?' Altogether it presented a series of questions which no fellow could solve, so we went on our way marvelling. We now came to a very steep bit of the lateral moraine, of which the ice was awfully hard and covered with loose stones, sufficiently numerous to

prevent the cutting of steps, but insufficient to give a decent foot-hold, so that we progressed but slowly. By dint, however, of scraping and scrambling in a feline manner, we soon overcame the difficulty, and then got easily upon the glacier. All difficulty was now over, supposing the final ridge easy; so we, like Bunyan's pilgrim, 'went on our way rejoicing,' dodging and jumping the crevasses in splendid style. The crevasses are passed, and an easy snow slope leads up to a ridge on the glacier. Thence, no doubt, we shall get a view of our peak; for up to this time he has been concealed. Who is ready for a race to the top? Youthful aspirant for Alpine honours, be not too hasty; reserve thy strength for future difficulties; such is Kennedy's advice. It is followed, and we jog on through the snow contentedly, or at any rate patiently, till we reach the ridge. We give a great shout, and tumble down, kicking with delight in the snow; for there is Glärnisch rising in proud majesty from the head of the glacier, and not so much above us as we had anticipated. But a new difficulty awaits us; there are two peaks separated by a deep gap. Which is the higher? We mean to find out presently, and meantime attack the grub, and drink success. We soon started again, and steadily climbed steep snow slopes to the head of the glacier. Gradually as we went on, the more westerly of the two peaks seemed to rise higher, though the other was scarcely inferior; so we decided on our west-end friend. Then came the ridge, the arête, which appeared an exceedingly easy one, and did not belie its appearance. At a short distance below the summit we started for a race, and I fortunately succeeded in getting up first; then I 'jodeled;' then, glancing at the rival summit, which was certainly below my position, I pocketed the top, the very tip, and have it now. Now, it struck me, as there was a stone man at the very edge, and on the highest part of the cliff, the thing would be to climb up to it, so that I, by nature short, might overtop all. But climbing ambition nearly o'erclimbed itself; for the 'stein-mann' gave way beneath my weight, and I was within an ace of following some of its constituent parts down into the Klön-see, or wherever their vagrant propensities led them. But I did not; and had the pleasure instead of welcoming Kennedy and his attendant to the summit.

What a glorious panorama lay spread out before us! We were on the culminating point of a horse-shoe-shaped ridge, the hollow of the horse-shoe being filled up by the glacier which we had traversed. The little Klön-see, and even the inn at Vor Auen, were distinctly visible, so steep is Glärnisch

on the west side. Indeed we became so very minute as to what we could see that Kennedy, who is notoriously far-seeing, swore he could distinguish the landlord's daughter looking out of one of the windows. Now having, as it were, looked at home, Kennedy wanted to look abroad, and make out some of the peaks by which we were surrounded. But I decidedly objected, infinitely preferring to attend to the internal economy, before I paid attention to things without. I may be called a Goth, but 'it's natur,' as Sam Weller observes. Accordingly, we did eat divers boiled eggs, and many chunks of bread and butter, washed down with the remains of our much treasured wine: then, lying flat on our faces in the brilliant sunshine, with the map spread out before us, we made out as much of the geography as we could. Scarcely a cloud was visible over the whole range of the horizon. It was the first time that I had been on a fine day at the summit of a high mountain, and I greatly enjoyed it. But human nature has its frailties: in spite of the beautiful view we fell fast asleep, as sound as a church, in fact; by the bye, a better rendering would be as sound as *in church*. In this state we lay for about an hour. Now it came to pass that as I lay half awake and half asleep, I felt a peculiar burning sensation in my arms, and then it dawned upon my somnolent senses that I had no coat on. It was before mentioned that, expecting a hot day, I left my coat at Vor Auen; on coming to snow and ice, I tucked up my sleeves and never again thought of my unfortunate arms. Now, what with the sun and wind, and snow and ice, they were too painful to bear the rubbing of the flannel; so I had to go down in the same manner, and, in consequence, got a subcutaneous inflammation of my arms, which laid them up for a week.

It was time to think of starting downwards, so off we went, got over the ridge in no time, and went slithering down snow slopes to the glacier, tumbling over each other, and tying ourselves in complicated knots in the most approved fashion. The crevasses on the glacier cost more bother to manage than in the morning, and I had the felicity of testing the way over more than one treacherous snow bridge. But we easily passed all, and soon got off the glacier; then got our boots full of water in crossing the torrent at the termination of the moraine, which now really was a good big stream. But what cared we, we had conquered Glärnisch. So we jogged happily along our stony path, and once more came upon level ground in the Klön Thal about 5.30 p.m. We got back to Vor Auen at six o'clock; thus having been sixteen hours out, eight hours twenty minutes

occupied by the ascent, and six hours from the top to Vor Auen.

Of course, Herr Webber came to greet us as we traversed his meadow, and seemed perfectly prepared to sympathise with us at our failure of getting to the summit. Indeed, the idea that we could not possibly have got up seemed so fixed in his mind that for a long time he would not believe that we had reached the top. At last he did, or said he did, for I have my doubts as to the perfection of his faith, and then and not till then did we leave him and enter the house to feed.

THE MISCHABEL-JOCH. By COUTTS TROTTER, M. A.

OF all the previously little known mountain masses which have been explored during the last few years by English and Swiss mountaineers, there are few, if any, more interesting than the remarkable spur of the Pennine Alps which, under the name of Saas-grat, stretches from Monte Rosa to the Balferinhorn, separates the valley of Saas from that of St. Nicholas, and finally dies away at Stalden. It was long reckoned almost, if not quite, impassable, at any rate between the Balferinhorn and Monte Rosa. Forbes was told of only one passage, apparently identical with that modification of the New Weissthor, by which it is possible to descend by the Schwarzberg Glacier to Distel Alp and Mattmarksee. The Allelin Pass and the Adlerjoch or Col Imseng were however soon afterwards discovered, the latter by the well-known Curé of Saas; they were crossed by Mr. Wills in 1852 and 1853 respectively, in company with Herr Imseng, and first described in his 'Wanderings among the High Alps,' in 1856. These passes, especially the latter, became rapidly popular: but though the Strahlhorn, Allelinhorn, Rympfischhorn, and Dom were all ascended, nothing further was done in the way of exploring passes till 1861, when Mr. Stephen crossed the ridge over the summit of the Allelinhorn, and afterwards ascending the Alphubel explored both sides of the Alphubel-joch lying between the latter mountain and the Allelinhorn. The real pass, however, was not actually crossed till the following year, though it now bids fair to become the most popular of them all. Another passage, still further to the northward, forms the subject of the present paper, while on the very day of the expedition here described Mr. Ll. Davies followed up his former victory over the Dom, by a most