

THE YORKSHIRE RAMBLERS' CLUB JOURNAL.

EDITED BY THOS. GRAY.

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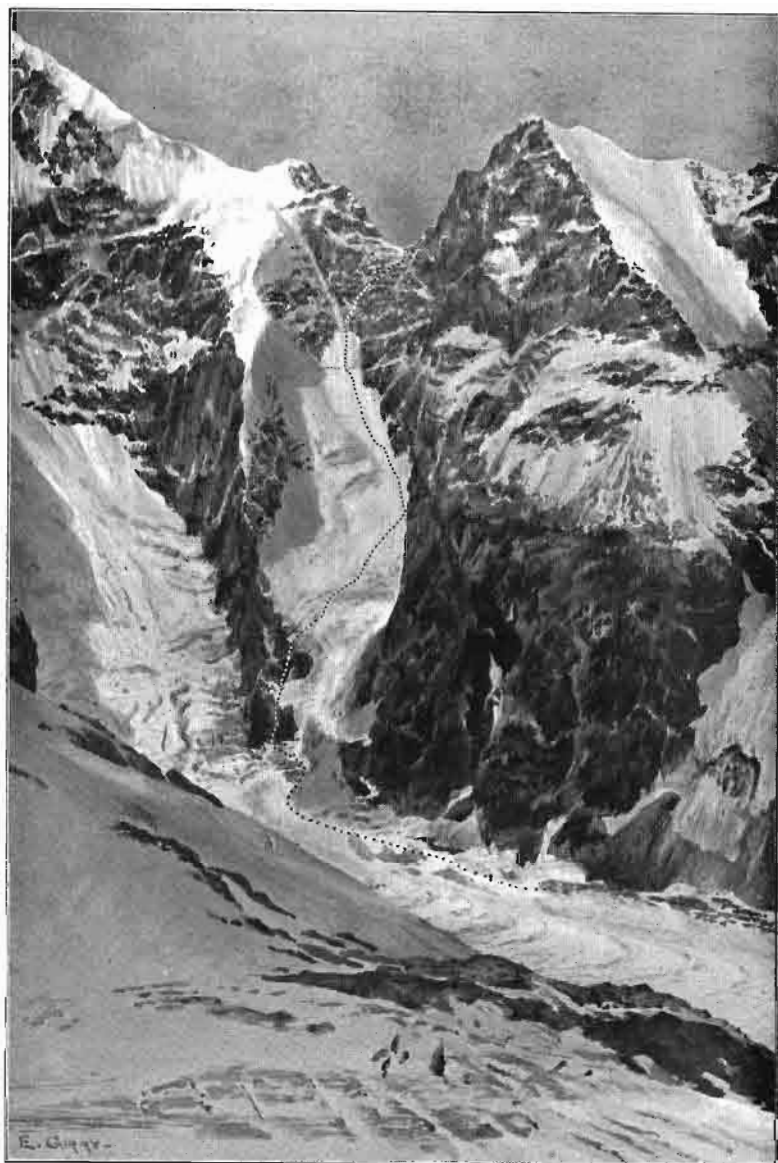
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EAST SIDE OF MORTERATSCH SATTEL,
FROM THE DIAVOLEZZA PASS.

THE
Yorkshire Ramblers' Club Journal

VOL. II.

1903.

No. 5.

THE MORTERATSCH SATTEL.

Extracts from a Diary written in 1876.

BY SIR MARTIN CONWAY, PRESIDENT OF THE ALPINE CLUB.

*"You infernal mountains! I should like to have you
rolled out flat and sown with potatoes."*

(Exclamation heard on Mont Blanc.)

FIRST ATTEMPT.

ON Saturday, August 5th, 1876, I started out to cross the pass lying between the Piz Bernina and Piz Morteratsch. All the guides in Pontresina agreed that this had never been passed, but it afterwards appeared that a Mr. Robinson, in 1868, had crossed the ridge with Jenni and Fleury as guides. I asked Fleury about it, and he said that they started from the Boval Hut and took to the rocks almost immediately, keeping to them the whole way. In fifteen hours hard climbing they reached a point on the ridge between the two peaks. This point appears to have been somewhere above the pass, and here they erected a stone man and left their names in a bottle. I never saw the stone man, so they cannot really have crossed the saddle itself, though doubtless they made a pass between the two peaks. They were obliged to sleep out on the rocks, and did not reach Pontresina till the next day. Their route and mine were different throughout, and the point of crossing was not the same.

I was alone, with Johann Gross as my guide. Our plan was first to reach the saddle from the Roseg Glacier, then to turn south along the arête of the Piz Bernina, and try to reach the lower white summit which at that time had never been ascended, and from that to try and get to the highest point

of the mountain. This course was actually taken by Messrs. Middlemore and Cordier with two Oberland guides on the following Tuesday. They avoided the rocks which turned us back, and thus reached the white peak over the long snow arête. They named it Monte Rosso da Tschierva. They say, however, that to pass from the white to the highest rocky summit is perfectly impossible.*

We started from Pontresina about 2.30 in the morning, walked along the Roseg Valley, and past the châteaux of Miscauna. Our way lay by the side of the eastern marginal moraine of the glacier, which we did not cross till we found ourselves just below the little ice-fall of the glacier between Piz Morteratsch and Piz Tschierva. Before entering on the ice we had our breakfast, and scanned the long broad couloir which leads to the saddle we wished to reach. The upper part of this Gross pronounced to be pure ice, and he advised our crossing the bottom of the couloir and keeping up the right side of the slope; I was for making our way to the left side and skirting by the edge of the rocks. He stuck to his opinion, however, and I had to give way. Events showed that my route would have been the better.

We took to the glacier at the foot of rather a long ice-fall,† up which we slowly made our way, cutting every step we took. We did not yet bear to the right, but kept straight up. At the top of the ice-fall a bergschrund had to be crossed, and then followed a small snow field. At the top of this we had another breakfast. It was now 8 o'clock, and we had still a long pull before us. Another ice-fall had to be surmounted, and then the long slope, which Gross pronounced to be ice. He still adhered to his opinion that we ought to cross to the proper left side of the couloir. Accordingly when we started again we took a diagonal course, crossing the slope and ascending at the same time. Before crossing far we had to make our way round the end of a wall of ice which stands across the head of this upper fall. This surmounted, the slope became more and more steep, and we had to proceed with caution. Gross cut small

* It is now frequently done.

† I imagine that these 'ice-falls' were really groups of crevasses, which assumed somewhat exaggerated proportions in my youthful mind.

steps and left them for me to enlarge, so that they should last till our return. Up to this point we had cut about 400 steps. We were now on the left side of the couloir, and just under the rocky precipices of the Bernina. We directed our way straight at the rocks to the south of the pass, and about 500 feet above us. Rather more than two hours' hard work brought us up to these, the slope being all the way so steep that the little pieces of ice we loosened in making the steps flew down it and over the ice wall far below us. When we reached these rocks we were on a level with the top of the pass, and had come up 800 feet of ice-slope, over the whole of which we had cut steps. The rocks barely rose out of the surface of the ice-slope, and afforded neither footing nor anything to hold by. They were very steep and in many cases were glazed with ice. We were obliged to cut our way over slopes of black ice, and in and out amongst these for about 100 feet higher, but as matters grew worse rather than better Gross said he could go no further. He had already made over a thousand steps, and it seemed as though several hundred more would be required before we could get on the snow arête, along which the way to our white peak was clear. We accordingly turned to descend in the direction of the saddle. This was no joke. Cutting up a slope of black ice is bad enough, but cutting down is far worse. Our old steps were in the wrong direction so we had to make new ones. I went first and cut away as well as I could till we reached some better rocks, where I was able to get a firm hold and pay out the rope, while Gross cut steps to another point of rock and then drew me in. Proceeding in this manner we reached the crest of the saddle, when a marvellous view suddenly burst upon us.

Immediately below lay the Morteratsch and Pers Glaciers spread out like a map; beyond were Piz Palü, the Bella Vista and Piz Zupo. This was the first view I had had of the latter mountain, and very fine it looks from here. It is in reality only a few feet lower than Piz Bernina, but it is hidden from almost every other point of view. Beyond lay the Orteler and Oetzthal groups without a cloud to interfere with the clearness of their outlines. The crags

of the Piz Morteratsch on one side and Piz Bernina on the other bounded our view in these directions. Behind us in the direction from which we had come, the principal attraction was the Piz Roseg. From here for the first time I had a clear view of the precipitous eastern face of the mountain. The two summits were seen as distinct peaks, and the knife-edge arête which connects them was very well seen. To the right of Piz Corvatsch the mountains of the Oberland were visible as though they had only been a few miles distant.

We crossed to the lowest point of the saddle where there is a patch of rock and there we sat down, and on looking at our watches discovered it to be half-past eleven o'clock. We set to work on some lunch and then examined the rocks which lead up to this point from the side of the Morteratsch glacier. The first 600 feet of the descent on that side consists of very steep crags, below these is a long steep and narrow glacier, much swept by stones falling from above; this reaches down to the Morteratsch glacier which it joins just below the great ice-fall. The rocks below us were so steep that we could throw stones which would clear the whole lot of them and fall on to the surface of the snow slope, down which they would whirr till lost to sight in the distance. While we were examining all this, a great avalanche fell from the Piz Bernina down a very narrow couloir within a few yards of where we sat. It was a splendid sight, but warned us not to attempt to descend down that side at this hour of the day. After spending an hour on the top we left our names in a bottle and then prepared to descend, following, however, the route which I had proposed for our ascent; and by which, if we had followed it, we should have reached the saddle without a third of the step cutting, and lots of time to have made the passage of the rock arête above and thus reached the white peak. This, in fact, was the route actually followed a few days afterwards by Cordier and Middlemore. I led down and skirted along by the edge of the rocks—at one time on them and at another on the ice by their side. By this means we avoided most of the step cutting, not having more than 100 or 150 the whole way; we also avoided the

greater part of the two ice-falls. We ran over the snow field and glissaded over some slopes, up which we had toiled in the early part of the day. By this means we reached the Roseg glacier in about an hour from the top. We then went to the Roseg Restaurant and had some milk, and found that it was then about 5 o'clock. Here we waited for some time as Gross said that Hans Grass would probably bring an *ein-spanner* for us. This did not turn up so we started to walk, but met it shortly afterwards. The only other adventure we had before reaching Pontresina was the coming off of a wheel, which happened twice, and we were all thrown out in a heap by the road side. Hans took it as the usual thing, and merely cut off a lump of the cart to make a new lynch-pin. This of course soon wore through, and we were pitched out once more. We however broke no bones before the hotel was reached. On the way we met several people who had come to meet us and hear how we had prospered.

A NIGHT AT THE BOVAL HUT.

ENCOURAGED by my partial success on Saturday, and by the seeming practicability of the rocks on the east side as seen from the top of the pass itself, Wainwright, Warren and I determined to try and cross the pass from the Morteratsch glacier. Wainwright and Warren engaged Hans Grass as guide, and I took Johann Gross again. We started at 3 o'clock in the afternoon of Monday, August 7th, from Pontresina, intending to spend some hours of the night at the Boval Hut. This is situated on the left bank of the glacier and just opposite to the Isla Pers. The way to it from Pontresina is along the road as far as the Morteratsch Restaurant, and then either up the glacier or along its bank. The latter was the route we followed. There is a rough path all the way. In one or two places the rocks to be traversed are steep, and at one point a natural staircase of a most remarkable construction has to be ascended. Here and there a few patches of snow must be traversed between the bank and the high marginal moraine. The hut is reached in about four hours from Pontresina. It is a curious shelter. One side consists of the bare rock, the other three are formed of rough stones. The roof is made

of a number of loose planks with stones on the top to prevent their being blown away. There is neither window nor chimney in the place. Along one end of it is a broad shelf, on which a good deal of hay is thrown to serve as bed, and some sackcloth is used for bed clothes. A small table is fixed in another corner, and in the remaining one the fire is lit. A shelf with a few pots and a frying pan form the remainder of the furniture of this remote resting place. The situation is grand. It is just at the foot of the Piz Bernina; in front is the splendid ice-fall, from nowhere better seen than hence; above it is the Cresta Agiuzza. To the left are the four peaks of the Bella Vista, succeeded by the triple Palü, and then by the Piz Cambrina. Above hang the crags and snow slopes of the Piz Morteratsch. We arrived at 7 o'clock, in time to watch the sunset tints fading from the mountains, only to be surpassed in splendour by the glorious light of the almost full moon. Our attention was much occupied with the rocks on the near side of the couloir which leads up to the Morteratsch Sattel. These did not look at all nice from here, so we decided to proceed to the bottom of the couloir itself before finally selecting our route. While Warren and Grass proceeded to cut up a small tree for firewood, I made a couple of sketches and watched the sunset. Everything seemed to promise a perfectly fine morning.

We all soon assembled in the hut, and set to work to unpack our knapsacks and make some soup for supper. There is a spring close by, so that good water is easily obtained. After supper we turned out for a few moments to look at the splendid night, and then we lay down in a row on the shelf to sleep for four or five hours, as Hans said we ought not to start much after 2 o'clock in the morning. We tossed up for choice of places, and good luck gave me the one between the wall and Wainwright, and furthest away from the guides. Warren lay between Hans Grass and Wainwright. Report says that one of us snored so loudly that he kept *all* the others awake, but I slept so soundly that I did not hear anything of it. Just before going to sleep I heard a tremendous avalanche which fell down a track somewhere near the hut.

At half-past one we began to get ready. The fire was stirred up and some coffee warmed in the frying pan. This formed the staple of our earliest breakfast. We packed up in our knapsacks everything we did not require to take with us, and left them and the hut at 3.50.

PASSAGE OF THE MORTERATSCH SATTEL. †

IMMEDIATELY after leaving the Boval Hut on Tuesday, August 8th, we entered on the patch of snow field which lies just before it. The bright moonlight rendered the use of a lantern unnecessary. The snow was hard, and we did not rope. We crossed towards the moraine, which we traversed, and then we found ourselves well out on the glacier and moving right towards the bottom of the great ice-fall. The shivered seracs shone like silver in the moonlight, and we wished we were going to thread our way through them towards the Cresta Agiuzza. This, however, was not our purpose. We proceeded straight up the glacier for some time, till we found ourselves at the bottom of a long narrow glacier descending very steeply from the saddle between Piz Bernina and Piz Morteratsch. As seen from near here by daylight, the whole of the route we intended to follow is visible. The glacier referred to descends in a very steep narrow gully, shut in on both sides by dark precipitous rocks. At the top it is surrounded by rocks, and the last five or six hundred feet of the gully consist of very steep rocks. At the bottom near its junction with the main glacier, this little one is much narrowed by two buttresses which stand out into it. The result is that the ice is here very much broken; it is steep, and ice avalanches are frequent. Above this ice-fall the narrow snow field is rather steep and leads to another small ice-fall, above which the snow field grows narrower and ends at last at the foot of the steep rocks. From the highest point of the glacier a narrow couloir leads towards the left to the arête of Piz Bernina. This couloir is constantly swept by falling stones and sometimes by avalanches. When Grass and I were on the crest of the saddle on Saturday, we saw

† It is now called Fuorca Pievlusa, I believe.

a large avalanche of mixed stones and snow plunge down it and sweep the surface of the snow field below. This snow field seemed from above, as it afterwards proved to be, quite covered with stone-runs. It is traversed by two great bergschrunds.

Such was the information we had gained by means of a telescopic inspection of our route from below and above. Arrived at the bottom of this glacier (it was now 4.50 a.m.) we roped ourselves together in two parties, Gross and I on one rope; Hans Grass, Wainwright and Warren on the other. We took to the rocks on the south side of the foot of the gully at first, in order to reach the snow field above the ice-fall. These were very steep and very smooth, being rounded by the action of the ice which must have covered them years ago. When these had been crossed and a little bit of ice-fall surmounted, we walked quickly over the hard surface of the snow field just as the sun rose. It was a grand morning, the most perfectly clear sky, over mountains and glaciers at our feet, with the sharp peaks above shining with the beautiful pink light peculiar to an alpine sunrise. Nothing was wanting for our enjoyment, and enjoy ourselves we did, as we have seldom done before and seldom will again.

We were bearing now to the right in order to avoid some big crevasses above which was some avalanche débris, which looked unpleasantly suggestive. Just under the precipices on our right we had our breakfast, and left a bottle to mark the route. We waited here for about half-an-hour enjoying ourselves and discussing the prospects of success, and then got under weigh again, this time all roped together in one party. Hans Grass led, followed in order by Gross, Wainwright, Warren and I. We found the snow much softer now that the sun had been shining for some time on it. Our way led almost straight for the highest point of snow below the rocks. In order to get to this we had to cross two bergschrunds. The first of these presented no difficulty, and we crossed it by a bridge near the north side of the glacier. Between this and the next bergschrund the snow slope was very steep, and the snow, which lay on very smooth ice, was soft and rotten.

For these reasons our progress was slow as we had to cut steps in the ice below the snow, which reached above our knees.

The second and higher bergschrund was a very broad one with only two bridges across it, one in the middle of the slope and the other near the rocks on the north



side. The only way to cross it was by one of these or by taking to the rocks. This latter was, I believe, the best way to have gone, as the middle part of the slope is swept by falling stones. But the guides elected to try the middle bridge owing to our nearness to it. This bridge was a most peculiar one, and I shall perhaps be able to make myself more clearly understood by aid of the accompanying sketch. In the first instance the reader must imagine a

split about 20 feet broad and 50 or 100 feet deep separating the glacier across its whole breadth, from the rocks on the left to those on the right. I have mentioned before that at the top of the snow is a narrow gully or couloir (visible in the full page illustration) constantly swept by avalanches and falling stones. These have made a regular track down the face of the snow slope up which we were climbing. This track is in the form of a semi-cylindrical gully, about 9 or 10 feet deep, and about the same width across the top. It is continually swept by falling stones which always bring down a little snow with them. When the stones reach the bergschrund the velocity with which they are moving carries them and the snow across it. By this means a narrow snow bridge has been formed over the crevasse, composed of the snow brought down by the falling stones. This bridge the guides thought would bear. We paid out the rope as Hans and Gross went across and cut steps in the ice below the snow on the other side of the schrund. Just when they were across there was a cry of 'Look out for falling stones,' and we dodged aside in time to see two or three about the size of one's head whiz past us. Then Wainwright went over, the bridge bearing beautifully, and the guides were able to go a little higher up and get out of the stone-run. Warren in going over put his foot through the bridge, but was all right on the other side. When it came to my turn to cross I could look through the hole which Warren's foot had made, and see the blue chasm below and the icicles hanging all around. Such peeps as these are among the numerous pleasures in Alpine climbing which non-mountaineers cannot have explained to them. They are among the delights reserved for the comparatively few who scramble in the regions of eternal snow. The bridge did not give way under me, and except the slight risk of falling stones, which constantly passed us, there was no difficulty in getting over the bergschrund and on to the snow slope above. From here we steered straight up to the highest bit of snow, where the slope started from the foot of the rock precipice. The slope became exceedingly steep and we had to continue the most careful step-cutting. The sun was shining on our backs with great

power and I was almost afraid of a sunstroke, feeling, as I did, the most unpleasant pains about the neck and shoulders. However, by the constant application of melting snow under my hat and down my back, I managed to ward off the unpleasant consequences, and the great heat abated when we reached the rocks. These improved very much on acquaintance, though very steep they gave a good firm hold, and there were always little nicks for the hands and feet. The only thing was that there were numbers of loose stones lying on the little ledges, and these we had to be very careful not to dislodge. Gross sent one down on to Wainwright's foot which hurt him considerably. About an hour of this sort of work brought us just under the crest of the great wave of snow which fringes the saddle at the top of the pass. This seemed ready to topple over us at any moment, though in reality it was quite firm. At 9 o'clock we found ourselves at the top of the Col, at the point which Gross and I had reached on Saturday. Here we found our bottle, but the provisions we had left had been eaten up by some animal or other. Gross said it was a fox. The first thing we did on reaching the top was to start a small stone avalanche down the rock precipice up which we had climbed. The stones cleared the whole height of rocks and then dashed down the stone-run and over the snow bridge we had crossed, obliterating our footsteps, dashing against each other and breaking into little pieces, raising echo after echo among the crags around. The noise of the stones and our shouts attracted the attention of a party crossing the Pers glacier who were on the look out for us. We shouted at each other, then settled down to eat some lunch and drink Grumello in honour of our success. Hans Grass was in great form. He drank his bottle of wine, shook the first finger of his right hand in a manner peculiar to him, and declared that the proper name for the pass was Grumello-sattel. The descent to the Roseg Restaurant, as Gross and I knew, would only take about three hours, so as it was 9 o'clock in the morning we determined to enjoy the magnificent view for two hours or more. So we ate and talked and drank and enjoyed

ourselves as only those can who know that they have done a bit of work and deserve the pleasure they have won. We could see a party of people on the top of the Piz Morteratsch above us; we shouted to them, and after a few seconds we heard the faint echo of their respondent jodel. The view on both sides of us has been described a few pages back. To-day the horizon was clear and every peak was distinctly visible. There was nothing to be desired in this respect. Our old steps cut on Saturday were still remaining, and we could trace the laborious route by which we had ascended. At 11.30 Grass, Wainwright and Warren went off, leaving me with Gross to sketch the top of the pass and follow afterwards. At 12 o'clock Gross and I started and descended as quickly as we could by the same route as we had followed in our descent on Saturday. We came upon Wainwright and Warren near the bottom of the steep part of our route, and after a run over the Roseg glacier we found ourselves again on the path to the Restaurant, which we reached in comfort at 3.10. Here I met some ladies who had just come down from the Corvatsch, and they gave me a lift in their *ein-spanner* to Pontresina, to the great disgust of their guide Gabriel, who had looked forward to being carried by them the last eight miles of his day's work.

TWO NEW CLIMBS ON SCAFELL CRAGS.

"Ce monde appartient à l'énergie: la lutte est la condition même du succès: notre ennemi est notre auxiliaire."

BY FRED BOTTERILL.

I.

We are ordinarily a party of three; but last Whitsuntide, 1903, our party at Wasdale was augmented by one more member, a novice at rock climbing, but an athlete of considerable skill and of a strength quite out of proportion to his size. We were interested in seeing how a good gymnast being in a roped party and placed on difficult rock for the first time would manage. The results were exceedingly interesting and rather different to what we had expected. The weather during the whole of our holiday was fine and all conditions in our favor. Throughout the climbs the gymnast was placed third in the party, and as all were in fairly good form, we attacked, as a commencement, Moss Ghyll by the direct finish. This being successfully accomplished, we descended by the Broad Stand, and after lunch ascended Scafell Pinnacle via Steep Ghyll and Slingsby's Chimney, finishing the day by walking down the West Wall Traverse of Deep Ghyll.

Somewhat to our astonishment the gymnast seemed quite at home on the rocks, taking the difficult parts with great ease and sangfroid and after the above heavy day seemed in no way tired.

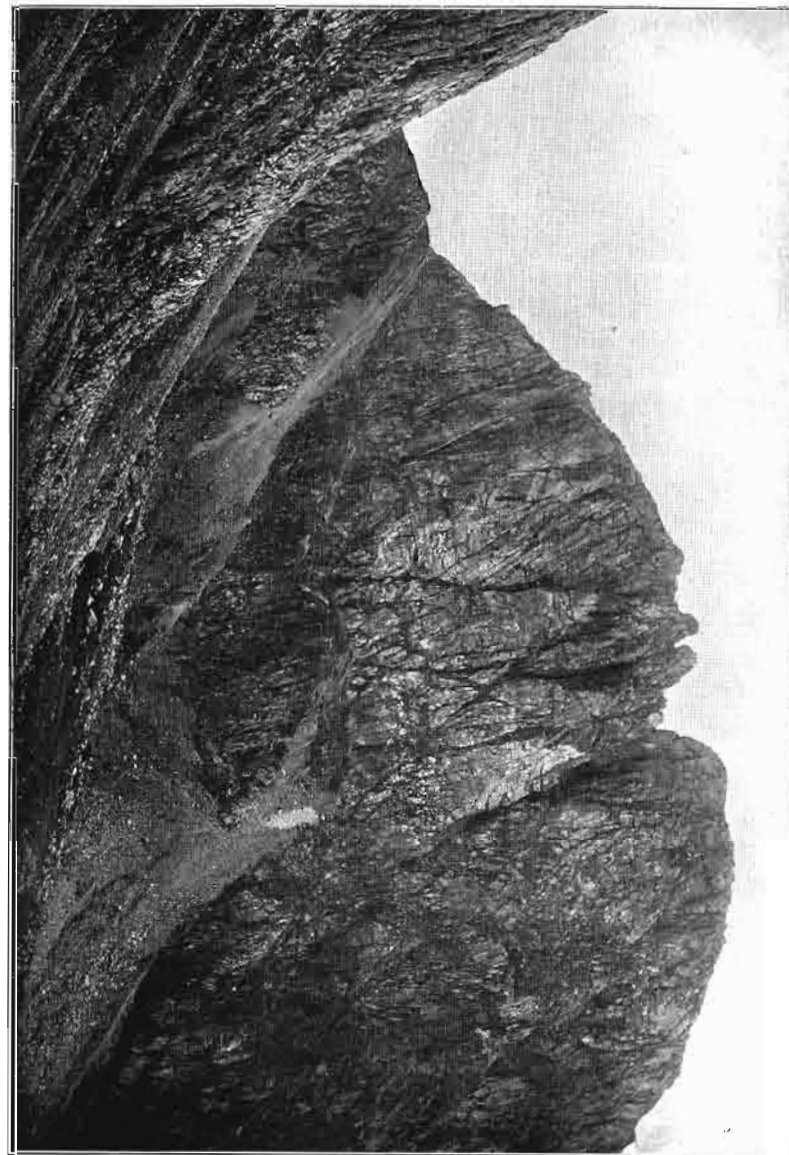
To make the experiment a thorough one, we did the following climbs in the next two days, and in the order named:—Kern Knotts Crack, Kern Knotts West Chimney, Gable Needle, and the North Climb Pillar Rock by the Hand Traverse.

The gymnast managed quite as well as any rock climber I know, his methods being perfectly sound, if somewhat peculiar. At the more difficult places he would insist upon taking elaborate precautions. If no belaying pin were handy he would go to great lengths to manufacture one, and to provide against a slip, would carefully engineer the rope—though not always in the most orthodox fashion.

Throughout these climbs he declared his want of sympathy with rock climbing, considering it rather risky, and we were not always able to reconcile him to the utility of the rope as a safeguard. It may be thought that in taking him direct on to some of the first class climbs we ran the risk of killing any affection he might have eventually entertained for the sport, but he admitted afterwards that he had thoroughly enjoyed it.

The fourth day, June 2nd, the gymnast having gained the confidence of our party, it was decided to attempt Jones's route up Scafell Pinnacle. We had made careful enquiries about it, and although the details were somewhat vague, we thought we knew sufficiently well what we were about. That morning the leader was very much out of sorts and unable to touch his breakfast. The climb now seemed out of the question. The poor invalid's companions however insisted upon dragging him up Brown Tongue, assuring him that climbing would cure any sickness. He was prodded and tugged as far as the first pitch in Deep Ghyll and then laid tenderly upon some uncommonly sharp stones. Observing that his lips moved we tried to distinguish what he murmured. "Soup!" The patient wanted soup. What could we do? our invalid was our cook as well as our leader. Our second however volunteered to get out the spirit stove and endeavour to make a little Maggi. It was done. The steaming cup was placed to the invalid's lip, and lo! he revived. Four thick slices of bread, three cups of soup, salmon, followed by bread and honey, and plums were consumed by that invalid, and then without a word he went straight up the first pitch of Deep Ghyll. At all events we were to have a climb of some kind. "Did he feel inclined for that second ascent" we enquired. "No, he was not sufficiently recovered." "Could he manage Scafell Pinnacle from Deep Ghyll?" "Yes, he might try that if a few raisins were given to him." Knowing that the leader developed a marvellous instinct for discovering handholds when chewing dried fruits he was supplied with a pocketful of Valencias and promptly landed us safely at the summit of the Pinnacle. After the descent of the Broad Stand we decided that we should finish the day

NORTH FACE OF SCAPELL.



- MICKLEDORF.

- COLLIER'S CLIMB.

- (KESWICK BROS
AND BUTTERILL
CLIMB.)

- MOSS GHYLL.

- STEEP GHYLL.

- THE PINNACLE.

- LOW MAN.

- DEEP GHYLL.

with a trial of the Keswick Brothers' Climb, while our gymnast went to the summit of Scafell Pike to enjoy the view.

II.

The idea of a new climb of any importance in the Wasdale district had never crossed our minds, and the suggestion of one on Scafell Crag—perhaps the most frequented rocks of all—would, if proposed, have been received with derision. Nevertheless, whilst looking for the foot of Keswick Brothers' Climb we chanced upon a square opening which, judging by the quantity of moss and grass in it, seemed to denote something new. The leader had by then quite recovered his spirits, and although the others protested there was nothing new to do on Scafell the party started up, H. Williamson being second and J. E. Grant third.

We soon found ourselves facing a crack some six inches wide which leaned away to the left at an angle of about 70°. It was decidedly rotten, but after clearing away a few loose boulders up went the leader with both hands in the crack for about 40 ft. until he was stopped for want of hand or footholds. He then bore away to the left and upwards until the ledge of Keswick Brothers' traverse was reached, and three yards along this the leader found a cairn. Whilst trying to locate the ledge Williamson attacked the continuation of the crack and managed to lead up what proved to be the second *mauvais pas* (the first is at the commencement)—a hand-over-hand climb of about 12 ft. After this we entered a good sized chimney with a large chockstone overhead and by the aid of back and knee we passed up the chimney, underneath the chockstone, and then up into the final gully. From here the ascent was easy, and coming for the first time across nail marks, we rightly concluded this was the upper part of Collier's Climb.

Our second and third were now convinced that something new had been done, and entered heartily into the task of building a cairn at the head of the gully. We again descended by the Broad Stand and were joined by the gymnast, to whom we somewhat boastfully announced the news. He was not adequately impressed however—mere

gymnasts never are—but only made some discouraging remarks. He said we were as excited about it as a party of school boys who had found a sixpence; but then he did'n't understand.

After dinner that evening we learned that we had climbed the entire length of the crack for the first time, and had unintentionally deprived another party, who had been hovering around it for some days, of that pleasure.

III.

The next day, Wednesday, June 3rd, we arranged to spend another day on the Craggs in order to examine the crack to the right of the new climb, and see if a way could be found connecting it with the finish of Keswick Brothers' Climb. Business called the gymnast away, and he left us to proceed to Boot, via Burnmoor, thence to be whirled away into civilization. During the whole of our visit we had had perfect weather, and that day was no exception. We slowly made our way up Brown Tongue, and leaving our rucksack at the foot of Deep Ghyll walked along the Rake's Progress, taking with us a light axe, which judging by the previous day's experience we were sure would be useful.

At the foot of the climb we roped up and noticed that the time was 12.15 p.m. The going, over grass ledges, was found fairly easy, until we reached the narrow crack which may be seen from the Progress. The bottom of this was entirely hidden by grass and earth, which when vigorously attacked with the pick, was dislodged in such quantities as to seriously alarm a party coming over Hollow Stones. The removal of some boulders uncovered a large sloping slab which afforded excellent hand and foot holds and enabled the leader to proceed about 15 ft. up the narrow crack. Clearly no one had been here before, so we made greater efforts to advance; it was absolutely impossible however to do so in the crack, it being only 6 inches wide and about 12 inches deep, and the sides almost as smooth as the inside of a teacup. The leader reluctantly descended to the afore-mentioned slab and examined the projecting face of the crack, which leans away towards Scafell Pike at about

the same angle as the crack we had ascended the day before. This seemed equally hopeless, the ledges being all inverted and the slabs too smooth to climb with safety. Traversing about 12 ft. outwards to the edge formed by one side of the crack and the face of the craggs, I saw that with care we could advance some distance up this nose. Clearing away the moss from little cracks here and there



Photo by J. H. Taylor.

BOTTERILL'S CLIMB, SCAFELL.

I managed to climb slowly upwards for about 60 ft. The holds then dwindled down to little more than finger-end cracks. I looked about me and saw, some 12 ft. higher, a little nest about a foot square covered with dried grass. Eight feet higher still was another nest and a traverse leading back to where the crack opened into a respectable

chimney. If I could only reach hold of that first nest what remained would be comparatively easy. It seemed to be a more difficult thing than I had ever done but I was anxious to tackle it. Not wishing to part with the axe I seized it between my teeth and with my fingers in the best available cracks I advanced. I cannot tell with certainty how many holds there were; but I distinctly remember that when within 2 ft. of the nest I had a good hold with my right hand on the face, and so ventured with my left to tear away the dried grass on the nest. I also remembered my brother Ramblers, who were at that moment exploring the depths of Gaping Ghyll, and wondered which of us were in the more comfortable situation. However, the grass removed from the ledge, a nice little resting place was exposed—painfully small, but level and quite safe. I scrambled on to it, but on account of the weight of the rope behind me, it was only with great care and some difficulty that I was able to turn round. At last I could sit down on the nest and look around me.

The view was glorious. I could see Scafell Pike and a party round the cairn. Far below was another group intent on watching our movements, a lady being amongst the party. I once read in a book on etiquette that a gentleman in whatever situation of life should never forget his manners towards the other sex, so I raised my hat, though I wondered if the author had ever dreamed of a situation like mine. I now discovered that our 80 ft. of rope had quite run out and that my companions had already attached an additional 60 ft. Further, I began to wonder what had become of my axe, and concluded I must unthinkingly have placed it somewhere lower down. There it was, stuck in a little crack about 5 ft. below me. Not knowing what was yet to come I felt I must recover it, so I lowered myself until I could reach it with my foot. I succeeded in balancing it on my boot, but in bringing it up it slipped and clattering on the rocks for a few feet took a final leap and stuck point downwards in the Rake's Progress. Standing up again I recommenced the ascent and climbed on to the second nest *à cheval*, from where, after a brief rest, I began the traverse

back to the crack. This was sensational but perfectly safe. As usual I started with the wrong foot, and after taking two steps was obliged to go back. The next time I started with the left foot, then came the right, again the left, and lastly a long stride with the right brought me into the chimney. The performance was what might have been called a *pas-de-quatre*. Complimentary sounds came from my companions below, but without stopping to acknowledge these I pulled myself up roft. higher on to a good grass-covered ledge to the right of the crack, smaller but very similar to the Tennis Court Ledge of Moss Ghyll.

"How is it now?" my companions enquired, "Excellent," I replied, "a good belaying pin and just room for three. Do you feel like following?" Without answering me the second man commenced the traverse to the chimney edge whilst I carefully belayed the rope. Up he came in splendid style and without stopping, taking only a quarter the time it had taken me. He then untied and we threw down the 140 ft. of rope to our third, who soon joined us. We hailed a climbing friend who was watching from the Progress and invited him to join us, but he very generously refused and said he would hover near lest we might not be able to advance further and so require the aid of a rope from above. We next christened our berth "Coffin Ledge," built a cairn on it and left our names on a card.

Starting off again a long stride with the left foot took the leader back into the crack, and a stiff climb of 20 to 30 feet landed us all into an extraordinary chimney, which though only wide enough to comfortably admit the body sideways ran right into the crag for about 15 ft. Like the crack below it leaned to the left at an angle of 70° or so. About 23 ft up, chockstones and *debris* formed a roof, and suspended in the middle, some 6 or 7 ft. below it, were three more chockstones. When the second man had joined me he exclaimed with astonishment: "What a place! how can we get out?" "Wait a bit," I answered, although for the life of me I could not then see a way. However, I went as far as I could into the crack and with restricted use of back and knee climbed upwards until the level of the suspended

chockstones was reached ; from there a narrow ledge rendered these easily accessible. They were securely wedged and safe to stand upon. The ledge continued along out of the crack until the most outward chockstone of the roof was within reach. This I seized with both hands, and a steady pull upwards landed me into the Puttrell Chimney of Keswick Brothers' Climb.*

Our main difficulties now being over, the comparatively easy upper gully was soon finished, and as we clambered out at the top, at 3.45 p.m., our climbing friend met us with congratulations on what we all agreed was the hardest three and a half hours' work we had ever done. During the descent we recovered the axe and built a cairn at the foot of the climb.

On our return to the Hotel at night we received cordial congratulations from our friends.

* See *Club Journal*, Vol. 1, p. 106.

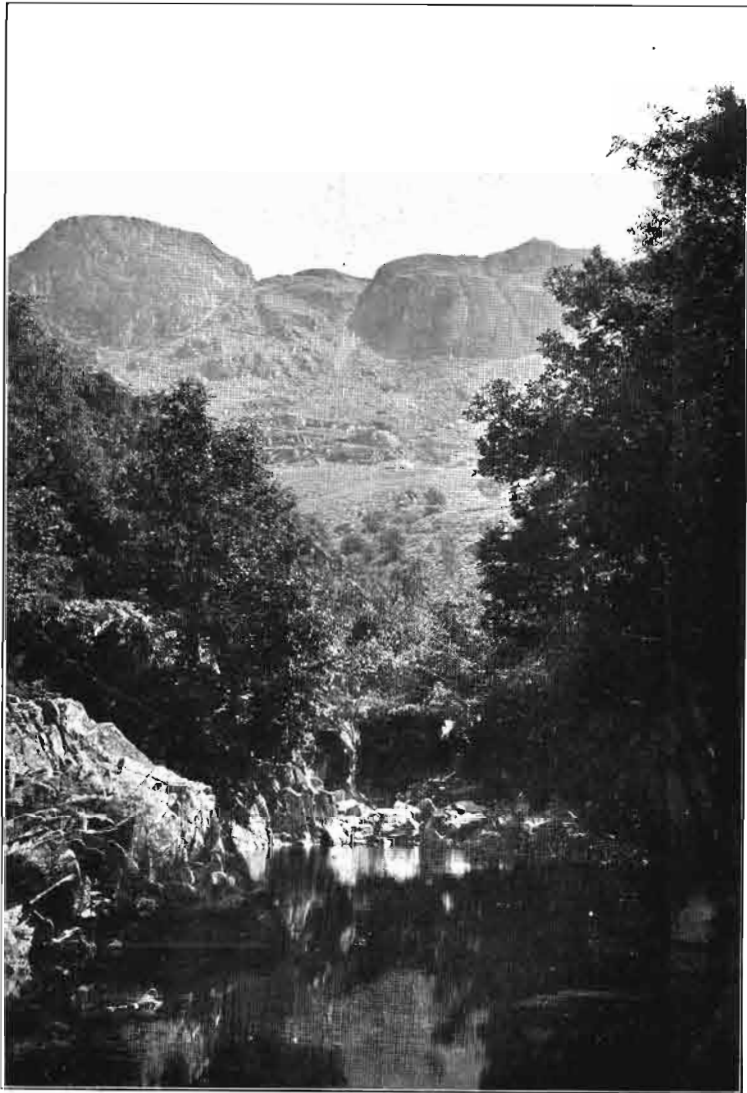
EASTER IN ESKDALE.

By PERCY LUND.

It is becoming more and more difficult to find accommodation at the recognised climbing centres of the English Lake Country at Easter. Rooms must be engaged four or five months beforehand, and even when secured, many inconveniences inseparable from crowding and heavy pressure upon a limited number of attendants, however willing, takes the edge off one's enjoyment. Having tried to "get in" at Borrowdale and Langdale without success, our party of three determined upon spending Easter at Boot, and met with comfortable rooms and excellent food at Gainford's Hotel.

On Good Friday we started for Scafell via Burnmoor Tarn. In three hours of easy going, including one or two slight deviations, we reached the S. end of Lord's Rake (2,400 ft.) Leaving this on our left we scrambled up the screes, skirted round the top of Deep Ghyll, and after a peep at the Pinnacle, which was occupied by a climbing party, descended to Mickledore by the Broad Stand, and from there visited a small shelter among the fallen rocks at the foot of Pikes Crag, where I had spent several nights two years previously. Thence our route lay up Lord's Rake, and across the fells to Boot. Mist covered the hills all day, clearing once or twice in the afternoon and giving us brief glimpses of Wastwater and the sea.

On the following day we scrambled over the hills lying S. of Boot, essaying a climb on Gate Crag on our way. A promising gully about 500 ft. above Boot, and easily visible from the village, appeared to offer excellent sport when viewed from its lower end, but about 50 ft. up, a large cave barred the way, and to pass out of this to the rest of the gully above proved too much for us, the rocks being seriously wanting in both hand and foot holds. Failing in the large central gully we turned our attention to a more northerly and less clearly defined gully which offered no serious obstacle, and was soon climbed.

*G. P. Abraham, Photo., Keswick.*

HARTLEY CRAGS, ESKDALE.

Our way beyond lay up and down, over rough and smooth, to the "Sleeping King," the head of which, seen rising abruptly above the driving mists, had a striking resemblance to Pike o'Stickle. As we stood upon the top, the wind blew so strongly that one could almost lean up against it. Frequent showers compelled us to shelter from time to time. We returned to Boot via Birker Force, which was in fine condition.

The next day found us afield rather earlier and tramping along the road up to Taw House, the last farm in Eskdale. A quarter of a mile beyond, the track zigzags up to the left, and eventually reaches a boggy plateau with a fine view of the E. side of Scafell. After passing some "hows," the whole of the left branch of Upper Eskdale comes into view, with the Scafell eastern crags towering most magnificently on the left, and further away Scafell Pikes themselves seen from base to summit some 2,000 ft. in height. This is one of the finest views in the whole of the Lake District. We attacked a long gully on Cam Spout Crag, one of the outlying buttresses of Scafell. It occupied us from 1 o'clock until 4.15, and though not what one would call a sporting climb, there were nevertheless several somewhat awkward situations to overcome, owing to the looseness of the rocks and the presence of much scree at a steep angle. On reaching the top of the gully we were delighted to find ourselves on an imposing arête, with grand corries on both sides, which was followed to a point half a mile S. of the summit of Scafell. Thence to Boot via Slight Side and Great How, through a biting wind and snow showers.

On Monday one of the three went fishing, whilst the other two explored the upper reaches of Eskdale, and especially the rocky bed of the stream where it forks, one branch running up towards Bowfell, the other towards Esk Hause. The falls of Esk are numerous and highly pleasing. Deep clear pools tempt the bather, and one, fifty yards long by perhaps five yards deep, would give ample scope for swimming. Looking from Upper Eskdale, especially about the neighbourhood of Esk Falls towards the ridge of Hard Knott, an isolated piece of rock will be seen, having a similar shape to Oak How Pinnacle,

in Langdale, and probably of much the same dimensions. This should be worth investigating. From the falls of Esk we followed the western branch of the stream, and after toiling up the foothills in a blazing sun, experienced a snow storm, through which the Scafell Pike buttresses exhibited a magnificent appearance. It proved a tedious scramble up to Mickledore by Cam Spout, and extremely cold there, where after waiting half an hour for several parties to descend, we went up the Broad Stand, down Deep Ghyll and out by the easy traverse, then along Lord's Rake, down to Burnmoor Tarn, and so back again to Boot.

If in the neighbourhood of the Wasdale Scree, it is well worth while to ascend Hawl Ghyll at the south-west end of Wastwater. The lower portion is much like ordinary lake-country ghylls, narrow and steep-sided with several waterfalls. The upper portion, however, opens out to far more considerable dimensions and exhibits exceptional features. The volcanic dyke which formerly occupied what is now the hollow of the ghyll, has decomposed and formed great quantities of sand, from which project small needles of harder rock in very fantastic fashion. It is an excellent example of a felspathic rock decomposing rapidly into china clay, and is worthy of introduction as a standard illustration into geological text books.

None of the farms beyond Boot take lodgers. If they did, Upper Eskdale would soon become a recognised centre. As it is, the distances are not so great from Boot, and the intervening ground which has to be covered is fairly interesting.

THE OPENING OF BRANDELHOW PARK, DERWENTWATER.

By J. M. NICOL.

As many of the members of the Club both subscribed personally and induced others to contribute towards the purchase of Brandelhow Park, they may be interested to have a short account of its opening to the public from a member who was present on the occasion.

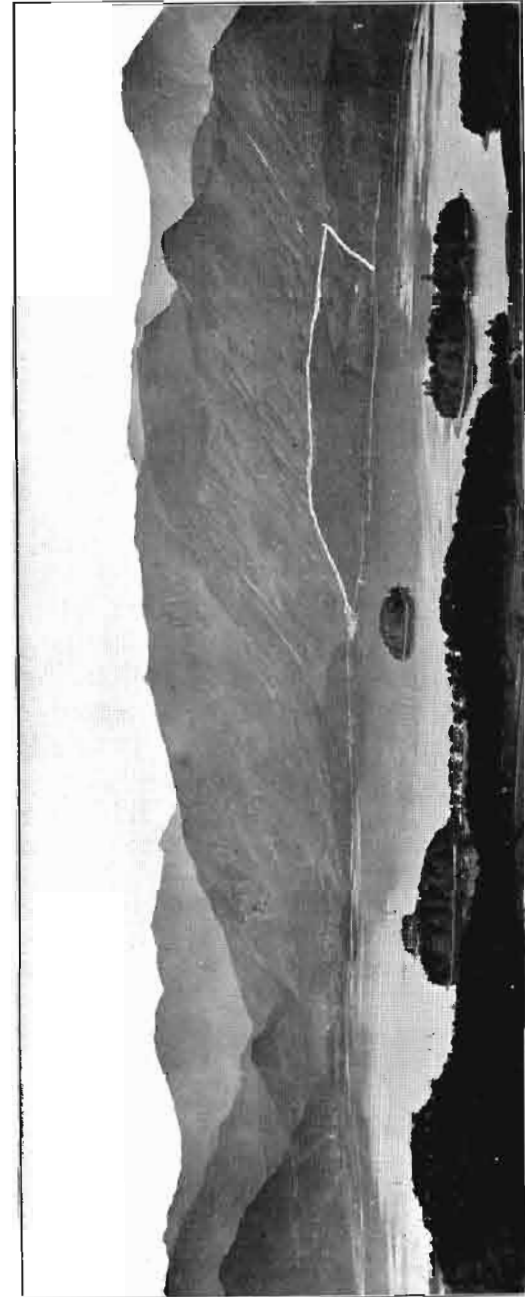
The Brandelhow Park forms the western shore of Derwentwater for about a mile, stretching from near Hause End to the Brandelhow Lead Mines; and extending in a westerly direction from the shore of the Lake to the road skirting the unenclosed common of Catbells. It consists of about 108 acres of lovely woodland and meadow intermixed, and can be easily reached from Keswick by road, a brisk four mile walk along the highway leading to it. A pleasant mode of approach however, and one which enables the visitor to get a good view of the Park, is to row across Derwentwater from the boat landing at Keswick.

One of the great benefits which this purchase has conferred on the public is the right of access to the Lake for ever. Heretofore this has only been enjoyed by the courtesy and goodwill of the proprietors, and although they have always been generous in allowing free access to the Lake, still the privilege might have been withdrawn at any time, and the public would have had no redress.

The National Trust for Places of Historic Interest and Natural Beauty, under whose management and organisation subscriptions were collected for the purchase of Brandelhow, felt, that as this was by far the most important work they had yet accomplished, its completion ought to be signalised by a formal ceremony. H.R.H. The Princess Louise (Duchess of Argyll) graciously consented to be present and formally declare the Park open for public use, and Thursday 16th October, 1902 was fixed for the eventful day.

Those who arrived in Keswick on the Wednesday evening must have had dismal forebodings as to the prospects for the morrow, as they found rain pouring in torrents and

BRANDELHOW
PARK.



G. P. Abraham, Photo. Keswick.

DERWENTWATER, FROM ABOVE KESWICK.

a furious gale blowing, and were informed by the inhabitants that the weather had been like this for some days; but in the Lake District all things in the shape of sudden changes of weather are possible, so the visitors went to bed not altogether without hope, and found on getting up next morning that matters had decidedly improved, and that there was actually sunshine.

It is a treat to the *blasé* dwellers in cities to visit a place like "the ancient and loyal town of Keswick" when it decks itself for a festivity. As each one of its 3,000 inhabitants seemed to feel responsible for the success of the day, nearly every house in the town was decorated long before the time fixed for the commencement of the formal proceedings.

It was arranged that the Princess and party should drive by road from Keswick Station to Brandelhow, stopping on the way at the quaint Town Hall in the Market Place to receive a loyal address from the Local Council, and also at the Keswick School of Industrial Art, which was established by Canon and Mrs. Rawnsley to provide employment during the winter for coach drivers and others whose ordinary work only occupies them during the summer time. This School has become famous all over England for its wood-carving and wrought metal work, and has no difficulty in disposing of as much as it can turn out. From the School the drive was continued till Brandelhow was reached.

It was impossible to be present at all the "functions," therefore I strolled leisurely round to Brandelhow in good time, so as to witness the principal event of the day.

It was typical October weather, and changed in the most rapid manner from clouds and heavy rain to bright sunshine, and back again. The wind had lost none of its vigour during the night, and early in the forenoon had uprooted and carried away bodily the large marquee erected to shelter the guests; however, as the rain held off during the ceremony, and for about an hour before and after, this did not matter.

A small platform had been erected on a convenient knoll at the North end of the Park, and round this the

visitors gathered, and whiled away the time by chatting with one another and admiring the wonderful view seen under such attractive conditions.

On the North side of the Lake, Skiddaw reared his mighty sides, and further in the distance the scarred slopes of Saddleback could be seen, while round to the East the Helvellyn range dominated the background, with the densely wooded Walla and Falcon Crag in the front of the scene. Towards the head of the Lake a silvery streak amongst the trees marked where the Lodore Falls came thundering down in a turmoil of foaming water after the heavy rain, and to the right of this was the Borrowdale Valley with Castle Crag standing sentinel at the entrance, and the hills on either side of it rising as they receded to be lost in the distance amongst the cloud-capped tops of the Scafell range and its offshoots.

The effects of sunlight, shadow, and colouring were quite kaleidoscopic in the rapidity with which they took place. One moment the rain clouds would bank up in huge solid masses and go sweeping along obscuring all the hill tops; then suddenly a shaft of sunlight would pierce through the clouds and travelling rapidly athwart the slopes of Skiddaw, and broadening and brightening as it travelled, would light up and bring out the glorious golden tints of the bracken, the more sombre browns of the oak and beech leaves, and the dark purple of the hazel and birch, and of an occasional patch of late-blooming heather. The light would spread as the clouds were driven before it till the whole sky was a vault of deepest blue with just here and there a shred of mist trailing across the mountain tops; then the rain clouds as if envious of so much beauty would come scurrying up again to destroy it; and so on *da capo*; but ever with new variations introduced into the original harmony. When added to all this beauty of sky, mountain, and forest, we had the whole moving panorama reproduced in the mirror of the lake lying at our feet, it will be easily understood that it would require the pen of a Ruskin to do justice to the scene, and that those who were fortunate enough to be present did not find time hang heavy on their hands while waiting.

In due time the mounted policemen who formed the advance guard of the procession appeared, and presently the three carriages conveying the Royal party were seen winding along the road at the base of Catbells. The Princess was the guest of Lord Lonsdale, whose postilions and "tigers" in their canary-coloured liveries lent a picturesque and old-world appearance to the cavalcade which was quite in keeping with all the surroundings and the purpose for which we were assembled.

The opening ceremony was of the simplest. After the presentation to the Princess of an address from the National Trust, and an Album of Views of the Lake District from the Chairmen of the Local Committees, for which the Duke of Argyll returned thanks on her behalf in an eloquent speech, Her Royal Highness declared "the Brandelhow estate open for the enjoyment of the public, under the keeping and direction of the National Trust." A verse of the National Anthem, sung with great heartiness, followed; then came the customary vote of thanks, in connection with which interesting speeches were delivered by Sir Robert Hunter (Chairman of the Trust), Lord Muncaster, Lord Lonsdale, and others; finally memorial trees were planted by the Princess, the Duke of Argyll, Miss Octavia Hill, Canon Rawnsley, and Sir John Hibbert.

So ended a very memorable day, when one of the most beautiful spots in all England was put in charge of those who will keep it in all its native beauty and simplicity, and guard it through all time as the precious heritage of the people of England.

But for the labours of Canon Rawnsley in all probability the work would never have been accomplished. It requires no small amount of courage to start out to obtain £7,500 in six months for an entirely new object, and one towards which many people are not only apathetic but antagonistic. Canon Rawnsley spared neither time, labour, nor money to promote the success of the scheme, and he most thoroughly deserves our hearty and ungrudging thanks and congratulations on the completion of his labour of love. May he live to see many more such undertakings launched and successfully carried through!

A NIGHT IN A POT-HOLE (LOST JOHN'S).

By "A SILENT MEMBER."

Our omniscient Editor has convicted me of inexcusable Pot holing, and by a threat of exposure exacted a description of my experiences. The temptation to bid him do his worst was very strong, but it is difficult to gauge the Yorkshire Ramblers' sense of humour, and I have decided to preserve my anonymity.

Some time ago, a letter from one of the Club's most dangerous members was delivered to me. Its subtle flattery beguiled me. The delicate insinuation that his fellow desperadoes wished to use the weight of my increasing years as an anchor to the rope banished prudence from my mind and induced me to accept rashly his invitation. Following my acceptance, some details of the proposed expedition were imparted to me. From these I gathered that a Pot-hole on Leck Fell, with the singular name of Lost John's, had excited their curiosity. Their last attempt had been foiled by a sudden flood, which swept away the whole of their tackle and caused their hasty retreat. This defeat had raised their fighting instincts, and they were very keen to avenge it. The name of Lost John's attracted me beyond measure. Of Gaping Ghyll, Alum Pot, Rowten Pot, one was *ennuye*. Their names, interesting no doubt to hunters of the derivations of place-names, have no romantic flavour, they lack humanity. But Lost John's, what did it mean? Why was it Lost John's?

When the members of the first party added to the relation of their other experiences a circumstantial ghost story, wild tales of passion and tragic disaster haunted me. When the necessary arrangements were made and communicated to me, imagine my horror to find these men had decided to make the descent in the night. Conceive if you can, at the dread hour of midnight, the mysterious Pot-hole filled with uncanny sights and sounds; the ghostly profiles of pale stalactites; the cold eyes of light-reflecting water drops; the rattle of the stream; the roar of the waterfall; the desperate depths of its descent, and perhaps one of Cutcliffe

Hyne's Douk Dragons hidden in its grim shadows. The thought of it all was almost too much for me. The Silent Member, whose nerve has carried him through years of Lectures was at last really frightened. He had not pluck enough to stay away much as he wished to.

Fortunately the period of suspense was short, and one fine Saturday afternoon the party met at the Marton Arms, Thornton-in-Lonsdale. There were six of us. You already know me, the other five are desperate characters, and their names must be sacredly withheld. It should suffice for me to say the President has publicly and repeatedly warned the Yorkshire Ramblers not to frequent their society. They climb impossible places, either with guides and ropes, or without. They are continually in pot-holes gratifying their passion for wearing old clothes. They bribe the farmers of Craven to let them down and pull them up again—a most unorthodox and reprehensible method. They seduce, it is feared, the Club's younger and more innocent members to join in their unholy practices. Yet rumour has suggested that our President himself has not only been seen with them, but also engaged in their dangerous pursuits. Personally I cannot believe it. One of the five, it is true, with dangerous subtlety covers both his shocking clothes and his misdeeds with the cloak of science. Gentle Rambler, avoid him!

Dinner was served at 5.30 p.m., and shortly after it was over, a start was made for the Pot-hole five miles away on Leck Fell, some distance above Leck Hall. It was a delightful walk for an autumn evening along the flank of the beautiful Lune Valley, with the waters of Morecambe Bay and the mountains of Lakeland in the distance. In the softening light my companions looked less dangerous. Even the Scientist seemed capable of deep emotion, for he resolutely refused to part with his peculiar green rucksack, and carried it tenderly the whole way. My mind grew calmer. The easy optimism of after-dinner suggested that after all the anchor would find good holding ground, and presently the sight of our jovial landlord and his cart-load of gear increased my confidence. Spare clothes and provisions were left at the little iron shooting box near

the Pot-hole, and the tackle was unloaded and carried to the pot's mouth.

Surely this glorified rabbit hole could not be the entrance to the mysterious Lost John's. Was pot-holing like climbing? Did pot-holers tilt their imaginations as climbers are said to do their cameras? Did they also ruthlessly cut off their foregrounds? Were these famous Yorkshire Ramblers—but the Scientist at this moment handed me a large lump of clay and a singular hat. The latter was extremely hard. In shape a compromise between clerical and lay, it was in colour a dingy and unbecoming yellow flecked with spots of dirty white and much too large. The clay I supposed was to make it fit. Fortunately before my ignorance was discovered I observed it was to be moulded into a candle holder and stuck in front of the crown. The insertion of a lighted candle gave the hat a more imposing appearance, but there was still much to be desired in looks and comfort. Before pot-holing is likely to become popular with women, the millinery incidental to the sport will require careful thought and more *chic*. I hope *chic* is the right word; one sees it dotted all over smart bonnet shop windows.

Our preparations were at last complete. Rucksacks containing provisions; rope-ladders, ropes, candles, a wooden beam, flare-lamps, paraffin tins, etc., were distributed impartially amongst us, and we slid out of the autumn evening and the moonbeams down a short slope of damp dirt into a pool of water. Our natural instincts urged us to get out of the latter as quickly as possible. Even veteran pot-holers make strenuous efforts to keep their feet dry, and spend much time in circumventing pools of water at the outset, although getting wet is inevitable. As a matter of fact the wetter and dirtier they become the greater is their enjoyment. This is a curious trait. It may be the survival of the boy in the man, or the potholer's sneaking desire to impress his friends at home by the filthy state of his clothes with the difficulties and dangers of his exploits. For a few yards the roof of Lost John's is low, and it was rather difficult to wriggle along with one's load from boulder to boulder without getting very wet. There were several

casualties amongst the candles, and my memory is indented like a phonographic record with the forceful monosyllables that accompanied them. Fortunately there is generally plenty of head-room in Lost John's, but it is in many places very narrow, and baggage is a serious encumbrance. Two streams flow into the main passage a short distance from the entrance, and there is at times a very considerable volume of water rushing down this underground water course. Beyond the meeting of the waters the roof recedes until it is some thirty feet high. The limestone walls are water-worn in an extraordinary manner. Thin horizontal bands of hard black limestone with jagged edges project at intervals and offer excellent hand and foot-holds. These bands are connected by vertical flutings, whose sharp edges promptly reward a slip or stumble with nasty cuts. In some places speckled patches of white vegetable growth, on each speck a globule of water, adhere to the walls and in the candle light glitter brilliantly. As we advanced the louder became the sound of falling water. In a pot-hole a small fall makes a great noise. The passage winds and twists about. Voices, the echoes of voices and strange subterranean sounds assailed our ears. Even the stream song was pitched in no monotonous tones; it was soft and gentle, gay and rattling, loud and threatening by turns. And when it threatened one looked up into the roof, considered the ledges apparently above high water mark, and wondered what it would be like to sit there water-bound. Presently the first waterfall was reached; and this was the terminus of Lost John's until an enterprising Rambler discovered the roof traverse.

This traverse greatly delayed us. One began to understand why pot-holing takes time and occasions hard work. Although the roof is not very high at this point, we had to back-and-knee up to the parallel ledges that run under it on either side of the passage. Further progress was made by straddling along both sides until directly over the fall, where the ledge upon the left disappears, and the feet must be kept upon the right wall and the hands upon the other. To pass the baggage along we stationed ourselves on the traverse at convenient distances,

and by dint of pushing, pulling and grunting, got it all safely over. Unfortunately the passage beyond is extremely narrow and became completely filled with tackle. This caused further delay and more hard work. We were now in an older stream bed, and after a drop of five or six feet in a few yards stood upon the lip of the former fall. A rope-ladder was lowered and made fast, and the party and their loads were safely deposited upon the dry floor of a small chamber upon the stream's new level. Here we had a jolly supper party. Pot-holing is not all vanity and vexation. It makes your food taste good. It turns acquaintances into good comrades and friends. After all, sport without the spice of danger and difficulty is like flat beer; it neither stimulates nor refreshes.

Our short smoke after supper was interrupted by a strange incident. Two of the more restless members of the party had made a further advance and vanished out of our sight. Suddenly they returned with traces of recent agitation and related their experiences. A short distance from where we sat the old and new stream beds unite, and they had proceeded upstream to explore the latter, leaving a lighted candle stuck on the rock wall at the junction. Presently they were startled by curious hissing noises and turned to discover their cause. They were then further alarmed by an unearthly blue light for which they could not account. Was the dragon there after all? They steeled their nerves for the awful encounter. They advanced with cautious temerity. The noises increased in volume. The light grew brighter and they were in the presence of the awesome mystery—their own candle and a coil of telephone wire, so does the pursuit of fiction stimulate the imagination; a lighted candle fires the covering of one of the nerves of modern progress—a telephone wire, and a mediæval dragon possesses our minds.

Leaving this supper chamber we all re-entered the water, turned up stream, and soon emerged into another similar opening. This contains the waterfall we had out-flanked. In the uncertain light, the water falls out of the dimness of the shadowy roof with weird effect, and the

narrow walls magnify its rattle into a roar. Resuming our journey down stream, we passed a curious window-like opening on the left wall. It is set at an angle to the wall like the squints one sees in some of our old churches. There are at least two of these in Lost John's. These openings, the fantastic and beautiful creations of running water, are oval in shape, and the limestone framing them is remarkable for its extreme thinness and polish. Then we reached the final difficulty—another waterfall. This one could not be turned, and preparations were made to descend it. The wooden beam which had been an exasperating portion of our baggage, was fixed across the passage some distance from the lip and the rope-ladders were made fast to it. Like the beam, the Silent Member found his mission and took charge of the life-line. Just beyond the fall the left hand wall makes a right-angle turn across its face, and the water shooting out over the lip is focussed into a rapid and powerful stream. This makes the lot of the climber peculiarly unhappy, as he cannot avoid the weight of the falling water during any part of the descent or ascent. It was decided that two of the party should have the honour of making this final effort, and they put on their oilskins. By climbing into the roof a flare-lamp was with some difficulty suspended clear of the fall to light them on their watery way, and in turn they presently disappeared. When they arrived at the bottom and got out of the water they found themselves in a long, lofty and narrow cavern. A pipe and the tackle lost during the previous attempt were found and recovered. Apparently the furthest possible point had been reached for the water disappears into a low passage. Cold and wet the men did not linger, and rejoined us as quickly as possible. Considerable time had been spent in getting them down and up, and we were all rather chilly. However, there was then no lack of hard, warm work. The ladders gave us a good deal of trouble. They were continually catching on the rocks, and when finally rolled up were seriously heavier. Slowly we made our way back to the scene of our late supper, and crawled up the ladder

left there. The narrow passage above was utterly blocked and choked with men and rucksacks, ropes and ladders, flare-lamps and oilskins. A way was forced through and some of us made the roof-traverse. A rope carrier was improvised and everything got over. But our troubles were not yet ended. Below the traverse the way was still very narrow, and loads were distributed with difficulty.

At last the caravan, a trifle weary perhaps, but with many jokes and much good temper, made its way to the exit. The outer world was wrapped in the grey mist of an autumn morning. Earth and air were cold and damp. We thought it must be very early and a rush was made to the shooting box for dry clothes and breakfast. Watches were found and to our astonishment we discovered it was nine o'clock. We had been underground nearly twelve hours. It was difficult to believe it; the time had gone so quickly; the work and interest had been so continuous and sustained. After breakfast everything was packed up. The cart arrived, was loaded, and we were free to make our way home. What a walk it was! five sleepy miles. Only the stumbles kept one awake. About twelve o'clock we reached Thornton, grey-faced, dirty and dishevelled. Our landlady received us with hot coffee and eggs, and we ordered an early dinner. On reaching my room I sat down on the bed; my next recollection is of some one asking me if I wanted any dinner. Now, dinner meant train and home, so one had to get up.

My pot-holing expedition has become a pleasant memory. Perhaps I may be tempted to go again, but not in the night. Expeditions of nineteen hours after a day's work are for the Club's giants—the men who tell us the delightful tales we hear at our meetings and read in our Journal. But they very properly apologize for being out all night, and I wish to associate myself with their apologies.

A little note of thanks from our leader alluding to my cheerful assistance will be a carefully treasured family heirloom, and may be useful to convince the Club that its Silent Members do not spend all their week-ends at Scarborough.



THE "MOUTH."



THE "BRIDGE."

ALUM POT.

Photos by S. W. Cuttriss.

ALUM POT.

By GEO. T. LOWE.

LAST year the Annual Meeting of the Club was held at Horton-in-Ribblesdale, and of the twenty-five men who attended, seventeen decided to participate in the descent of Alum Pot, the most interesting of the numerous chasms in the neighbourhood. The fact that the expedition was under the able leadership of our more experienced climbers and cave-explorers accounted for this unanimity.

The ropes, ladders, and other miscellaneous tackle essential to the work had been sent up the previous day (Saturday, 27th September, 1902), for a preliminary examination of the two passages in Long Churn, one of which was known to lead into the northern end of Alum Pot. A survey of these was made and the water turned by a barrier from its present course into the older passage. Along the watercourse thus freed a small party worked their way until they arrived at a large chasm. Unable to pass this a return was made, the barrier was broken through, and it was decided to use the traditional passage of Long Churn.

Alum Pot is mentioned by Hutton in "A Tour to the Caves in the environs of Ingleborough and Settle," published in 1780.

The two earliest recorded attempts to descend Alum Pot took place in 1847, by a party of ten under Mr. Birkbeck and Mr. Metcalfe, and again in 1848; but they do not appear to have been successful. The first complete descent was made in 1870 by Mr. Birkbeck. This last expedition consisted of thirteen, three of whom were ladies. Beams were fixed across the middle of the mouth of the pot, and a cage worked from a windlass, operated by navvies employed on the Settle and Carlisle railway, was used. The party was lowered direct to the bed of the fissure, two hundred feet below, from whence they made their way to the bottom. The story is given in Boyd Dawkins' book on Cave-hunting. In April, 1893, Geoffrey Hastings,

Dr. J. N. Collie, and A. E. Preston succeeded in reaching the bottom pool. Later Mr. Harold Dawson, of Bradford, failed on his first attempt; but he tried again and was successful.† On the 22nd July, 1900, T. S. Booth, W. Parsons, and J. W. Swithinbank reached the bottom.‡

In "Cave Hunting," by Professor W. Boyd Dawkins, the name Helln is preferred to the ordinarily accepted Alum of the Ordnance Survey. The author connects "Helln" Pot with "Ællan" Pot or Mouth of Hell, and considers the name as a testimony to the awe with which the Angles regarded this huge hole.

Alan, Hellan, and Hell, among others are various spellings of the name; but local pronunciation most nearly resembles Alumn or Alum, hence the latter form has been adopted in the present article.

Alum Pot is four miles from Horton, 1,125 feet above sea level, on the eastern flank of Simon's Fell, near Selside. Soon after eight o'clock on the morning of the 28th the men in scattered groups left the surface at Diccan Pot, and proceeded through the shallow stream down three short pitches, overlooking deep pools, each of which required careful traversing along the sides, and thence, the passage being now dry, to a long narrow cleft, at the bottom of which, at a depth of about twelve feet, the largest cavity in Long Churn was reached. Soon the voices of the pioneers were heard, and daylight was faintly visible through the great fissure which marks the outlet of Long Churn into the uppermost and biggest portion of the pot, about eighty feet below the surface and a little over one hundred yards in a direct line from Diccan Pot. A rope-ladder was firmly fixed at the top of an almost perpendicular gully, thirty feet high, broken on the west side by a small ledge, flanked with sharp edges of limestone. The life-line rendered assistance beyond this, and the explorer found himself on a narrow ledge over a shallow pool with several humps of rock showing above its surface. Beyond two huge fallen blocks open daylight appeared, and the vastness of Alum Pot could

† See *The Gentlemen's Magazine*, March, 1897.

‡ See *Club Journal*, Vol. I, p. 233.

be viewed from a kind of balcony, which together with the sides of the great pot, was covered with ferns and mosses combining to form a most beautiful picture.

The length of the surface opening is directly north and south, and the sun's rays, now gathering strength, shone on the north end of the huge cavity through a cloud of spray produced by the falling waters of Alum Pot beck, which empties itself into the fissure at the south-west corner. The upper slopes were fringed with trees, whose waving branches sparkling with drops of spray and iridescent colours added to the charm of the weird scene. The vast walls of the pit illumined by the sun were transfigured and a charming effect produced.

A few interested spectators peered over the wall which surrounds the chasm and the small plantation that enables one to locate its situation from the surrounding hills. This wall is placed there for the protection of visitors, but it requires frequent repairs, as the stones are thrown by them into the pot to produce the awful clattering resulting from their bounding descent to the floor two hundred feet below. This practice is most exasperating to the farmer who has to keep the wall in repair. A caution was shouted against throwing stones, and the time was spent in surveying the surroundings.

It should be noticed in passing that great danger in pot-hole exploration may arise from falling stones dislodged by the men above; hence considerable care was exercised in clearing the ledges before the more difficult work commenced.

Below the balcony a rough and loose descent of about twenty feet leads down to the great terrace which runs round the sides, with the exception of a short length at the south end. The northern part of this terrace is curiously pitted with cup-shaped holes, containing stones and water, in which at flood time the grinding work is carried on, as is testified by the rounded form of the stones. In the middle a huge block has fallen, and rests at a steep angle against the other side of the fissure, forming a bridge across. At this point the hole is not more than ten feet wide. On the east side the ledge, covered

with debris overgrow with moss, is from nine to twelve feet wide and fully exposed. The middle portion is slightly elevated opposite the bridge stone. On the west the ledge is almost flush with the wall of the pot; but this being considerably undercut an easy way to the bridge is afforded. Care is essential as the green carpet is slippery. From the east platform beyond the bridge a climb of about twenty feet down a crack leads to a lower narrow ledge. This had to be cleared of loose stones, as it was directly over the sheer wall down which the rope ladder was to be lowered. This ledge gradually diminishes north of the bridge and then disappears.

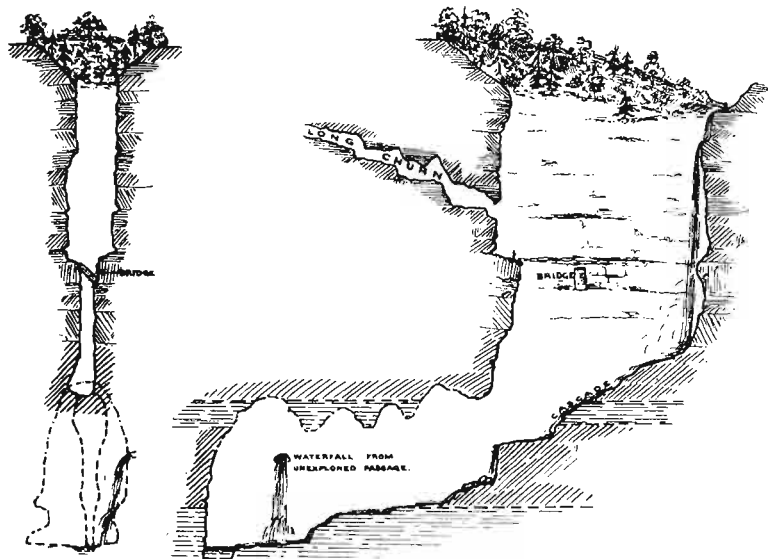
The ladder was hitched to two large pieces of rock at the top of the crack on the green platform. T. S. Booth, who had made the descent of the hole on a previous occasion, took charge of the life-line from the lower ledge, which supports the sloping stone bridge. For five hours he skilfully superintended the descent and ascent of the thirteen men who reached the bottom of the next stage at the foot of the sheer wall of rock. The hole is here very narrow, and the water falling from the south-western corner of the pot finds its way over fallen stones and down the rapidly sloping floor to a small cascade occupying the middle of a semicircular pitch of about ten feet. To the west the wall overhangs, and under this we crouched clear of any chance falling stone, interested spectators of the efforts of our friends on the ladder, until a sufficient number had gathered to continue the work. On the east a buttress nearly thirty feet high rose from the south corner close to the rope-ladder, and this was utilised by several men on the return; for rope-ladder climbing is not so easy as it appears from the descriptions in works of romance, where the lover lightly performs the impossible with a fair damsel hanging limply over one arm.

The leaves gently falling from the trees above caused us to wish we could emulate their easy downward course. Below the cascade the floor was heaped with small stones, kept back by a portion of one of the two beams originally used in the descent of 1870. These beams having become rotten and unsafe were thrown down the pot

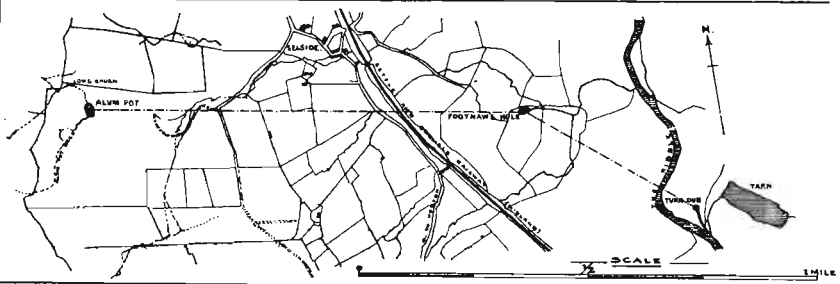
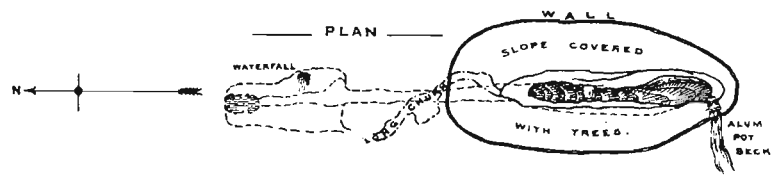
ALUM POT.

SECTION LOOKING N.

SECTION LOOKING E.



PLAN



in July, 1893. Beyond the stones the platform, smooth and very slippery, gives out over a circular opening of the same character, and, as it slightly overhangs, this bit is not easy. Immediately overhead the spray from the waters of Long Churn kept up a continual though not heavy shower. W. Parsons succeeded in climbing down without aid from the life-line; but the others relying on its support, and keeping as much as possible at right angles to the steep face, were let down. Some amusing incidents occurred at this point; but with care and time every man of the ten—W. Parsons, W. C. Slingsby, C. Hastings, H. A. Jeffery, F. S. Clay, J. H. Buckley, A. W. Bairstow, A. E. Horn, G. T. Lowe, and S. W. Cuttriss—reached the bottom of this pitch. The floor, thirty feet below, is formed of large loose blocks, and overhead the roof runs up into a sharp angle, seventy feet above. A stream, the combined waters of the two falls, rushes along the channel, which is now entirely underground. The black limestone through which we were here progressing was more slippery than the superincumbent white, and made our surroundings look very gloomy. Two more pieces of the old beams were passed, and high above, about midway along the passage, a long wooden rail was jammed, showing the height to which the torrent rises when in flood.

At last, after two low pitches and a continuous incline, we came to a beautifully rounded dip of about nine feet, terminating in a shallow pool. It proved a splendid sitz-bath; then the final chamber was reached immediately beyond. The lip overlooked a black sheet of water, its surface broken by stones, and luckily for us of no great depth. The traverse down to the west side along a black wall brought us to the rough stone covered floor of a hall about eighty feet high, resonant with the roar of falling water. On our right looking north was a large waterfall some sixty feet high. It fell clear for about forty feet and then striking a ledge, broke into spray and completed the leap. The hall measured sixty feet long and thirty feet broad. The west side overhangs considerably. At the northern end, in a quiet pool close to the rock face, the water flows away into the unknown.

The surface water had been coloured with fluorescein, and down in the great hall, deep in the bosom of mother earth, this silent pool was tinged a beautiful greenish blue colour. The subterranean waterfall evidently descended from the passage explored on the previous day. But somewhere, between where we now stood and the abyss examined by the flare lamps, must be either a vast chamber or a series of cavities. In the south-west corner of the waterfall chamber, level with the floor, I noticed an opening leading back in the direction of the passage we had just traversed.

Two parties of five, each accompanied by Parsons, reached the final pool, and then the way to the surface was slowly won, as each stage had to be carefully retraced and all the tackle brought up. Tired and wet, but cheered by success, we at last reappeared at the mouth of Diccan pot—the first two men about five o'clock, when it was almost dusk.

Considering the size of the party, we were to be congratulated on our day's work. To me it seemed one of the most successful expeditions the Club has ever done. The variety and beauty of Alum Pot are perfectly ideal. Almost every phase of underground exploration was represented, and the difficulties were not too great. The other giants of the district—Gaping Ghyll and Rowten Pot—we found more difficult and dangerous, the latter especially so.

Sketches were made and measurements taken during this and the last descent from which the preceding plan has been prepared. Later it is hoped a smaller party will undertake the task more scientifically. The actual depth of the final pool below the surface is usually given as three hundred feet, but we were inclined to think it a little under that figure.

During the last few years "The Movements of the Underground Waters of Craven" have engaged the attention of a committee of geologists, who are carrying on their investigations in conjunction with a committee of the Yorkshire Geological and Polytechnic Society, under the auspices of the British Association, and it is to

Mr. A. R. Dwerryhouse, M. Sc., F.G.S. (Secretary to the Society's committee), that I am indebted for the following interesting particulars:—

“Special attention has been given to Ingleborough and its neighbour Simon's Fell, a detached massif peculiarly suitable to the purpose. The summit of the group is Millstone Grit, then follow Yoredale Shales and sandstones, the whole resting on a plateau of Carboniferous Limestone. Many streams rise in the upper slopes of the hills and flow over the Yoredales; but without exception their waters are swallowed directly they pass on to the Carboniferous Limestone, to reappear as springs in the valleys which trench the plateau.

“On June 21, 1901, Alum Pot was the scene of operations. The joints in the neighbourhood of Alum Pot are more complicated than in the parts of the district previously investigated, there being three sets of joints, all more or less irregular in places. Close to Alum Pot there are two sets running S. 5° W. and N. 80° E. respectively. Thirty yards higher up Alum Pot Beck they run due N. and S. and N. 80° E. the north and south joints being the stronger and more continuous. On the Clints 100 yards above the Pot there are three sets of joints, as follows, viz.:—

Master	N. 10° E.
Secondary}	N. 35° E.
				N. 85° E.

“One pound of fluorescein was put into the stream flowing into Alum Pot on Friday, June 21st, at 7-0 p.m. There was not much water flowing at the time, and a few days afterwards several important springs in the neighbourhood ran dry, including that at Turn Dub, on the opposite bank of the Ribble, which is the reported outlet of the Alum Pot Stream. The springs commenced to flow again a few days later; but although they were carefully watched, as was also the river itself, no trace of colour was seen. It was therefore concluded that either the fluorescein had passed into one of the other river basins or had become so diluted as to be invisible.

“This experiment having proved inconclusive, a further one was commenced on Thursday, September 5th, when three-quarters of a pound of fluorescein was put into the water flowing down Long Churn, near Alum Pot, at 4-0 p.m., and a further quantity of three-quarters of a pound was introduced at 5-30 p.m. on the same day. It was afterwards learned that it issued from Turn Dub, on the opposite side of the river

Ribble, and close to the bank of that stream, on September 17th. The water therefore took twelve days to accomplish a journey of a mile and a half.

“The extreme slowness of the flow is partly to be accounted for by the dry weather which then prevailed; but when it is taken into consideration that the water of Long Churn plunges down a very steep fall into Alum Pot, the total depth of which is some 300 feet, the gradient of the remainder of the stream is considerably reduced. Mr. Wilcock, of Selside, informed me that the fluorescein mentioned above had been seen in Footnaw's Hole, which is nearly a mile from Alum Pot, prior to its appearance at Turn Dub.

“In dry weather Footnaw's Hole appears as a wide cleft in the limestone, with sloping banks of silt and sand round two sides and precipitous limestone rocks on the other two. When the streams are in flood after heavy rain or during the melting of snow the water in Footnaw's Hole rises to the lip and flows over down Footnaw's Beck into the Ribble.

“Turn Dub is very rarely dry, while it is only in exceptionally wet weather that water flows from Footnaw's Hole. Thus it would appear that Footnaw's Hole is a flood outlet, and only comes into operation when the underground passage leading to Turn Dub is full and, therefore, unable to take the excess of water. As the lip of Footnaw's Hole is just below the 825 foot contour, and Turn Dub just below that of 800 feet, there cannot be a fall of more than 25 feet from the former to the latter.

“Further, since in ordinary weather when the stream is issuing from Turn Dub only, the water in Footnaw's Hole stands some 20 feet below the ground level, it will be seen that there must be a siphon-like passage below the river; and since this passage must be constantly filled with water up to the level of the overflow of Turn Dub, it will account for the very slow passage of the fluorescein over at least this part of the journey.

“Since the water passes beneath the river Ribble it follows that there must be some impervious cover, because if this were not the case the water of the underground stream would find an escape at the lowest point, namely in the bed of the river, and would not as is the actual case, pass under that stream and rise some 10 or 12 feet above it on the opposite bank.

“With a view to ascertaining the nature of this impervious

cover and its thickness it was determined to carry out a series of boring operations in the alluvial flat between Turn Dub and the river.

"In the first place Turn Dub was sounded and found to be only about 18 feet in depth. Now Turn Dub is a circular pond of still water, and although a large stream of water flows out there is no disturbance of the surface, no welling up of the water apparent. This would lead one to suppose that the pool was much deeper than is actually the case. So far as could be ascertained by drawing the sounding-iron across the bottom of the pool, this consists of large boulders. This led to the suspicion that the cover consisted of boulder clay, and that the bottom of Turn Dub consisted of boulders, the clayey matrix having been removed by the action of the flowing water.

"The boring operations were undertaken with a small set of hand boring-rods provided with an auger bit. With this apparatus it was possible to prove that the bluish alluvial clay was underlain by a material consisting of a somewhat sandy brown clay with many large stones, and in every way similar to the boulder clay of the neighbourhood, which in some places can be seen close to the river bank. The presence of the numerous boulders prevented the boring operations being carried more than a matter of one or two inches into the boulder clay, so that it was impossible to obtain any definite evidence regarding the thickness of the bed. Further, although boulder clay was proved to underlie the alluvium on both banks of the Ribble it was impossible to obtain evidence of its existence in the river bed, as this consists of coarse shingle which could not be penetrated by the hand-boring apparatus.

"In order to clear up this matter satisfactorily it will be necessary to engage the services of a professional well-sinker and to have one or two bore-holes put down by mechanical means.

"It was laid down in the two previous reports of this committee that as a general rule the flow of underground water in limestone rocks follows the direction of the master joints, and this view has been strikingly confirmed by several experiments which have been carried out during the current year. (1902). It may be confidently said that there is a general parallelism between joints and passages, but this is by no means as close as was at first expected.

"To account for the want of parallelism between joints and passages it is necessary to study the evolution of one of these underground chambers. The joints in the limestone undoubtedly give the initial direction to the underground stream; but as soon as a channel is formed sufficiently large to allow of a free flow of water, as opposed to mere soakage, a number of other forces come into play which tend to modify the direction so as to cause it to diverge somewhat from its original one of strict parallelism to the joints. For example, the dip of the rocks causes the erosion of the channel to be more severe on one side than the other—namely, on the low or 'down dip' side—and where there are cross-joints the dip may tend to produce a lateral escape along one of these so as to give rise to a zigzag course.

"Up to a certain point the erosion in these underground river channels is entirely by solution, but so soon as the external opening becomes sufficiently large to admit sand, gravel, and boulders, excavation by means of attrition comes into play. At this point in the history of a subterranean river zigzags are changed into sharp windings, which in their turn impart a swing to the waters in the straight parts, thus causing a series of windings to be set up in a manner similar to that which goes on in surface streams.

"As the external opening which gives access to the water increases in size, so does the amount of water flowing through the passage increase. An increase of volume means an increase of speed and a lessened tendency to winding; at the same time the passage must be widened so as to accommodate the increased volume of the stream. The tendency at this stage is, then, to widen and straighten out the passages, and many are the deserted 'ox-bows,' both large and small, which may be seen in the passages. Some of these are small and situated at a considerable height above the floor of the main passage, while others of more recent formation are approximately at the same level as the water-bearing passage, a few of them still being occupied by a portion of the stream in times of flood. The condition of approximate stability is reached when the opening becomes sufficiently large to swallow the whole of the surface stream."

The probable manner in which the underground channels are opened out by erosion, and later, as they increase in size, are scooped by the attrition of running water bearing

sand and stones, is consistent with the appearance of the numerous subterranean passages I have explored; but a satisfactory explanation of an earlier condition of the limestone, when the minute cracks and fissures were in the process of being enlarged, is still wanting. There are irregular series of vast chambers, the varying altitude of whose roofs is most perplexing as their walls show no signs of erosion. Many of the nearly vertical pot-holes certainly show the results of water action at the point of influx of the stream, which as a rule empties its waters into their recesses; but many features of the shafts and the spacious halls in the passages below ground do not appear to be due to water action altogether. Neither does the falling in of a chamber roof at successive stages in its formation always account for its great width or length. The roofs in many instances do not even suggest that blocks have been detached from them. The quantity of water which flows through some caves also is too small to be responsible for the destruction of so much fallen rock. Where the floor is of sand however—as in Gaping Ghyll cavern—such blocks may lie hidden beneath.

To our early ancestors these pot-holes were dark, mysterious, and forbidding, indeed, veritable mouths of hell, and recent writers do not hesitate to use the most gruesome phrases to describe their hidden terrors. Mountaineering reversed is much more difficult than climbing in the open air. The dim light of spluttering candles or the intermittent blaze of a flare lamp is a poor substitute for sunlight. The feeling of being shut in quickly wears off, and the novice soon acquires the knack of groping in the semi-darkness. It may seem an exaggeration to say that cave-exploration is fascinating, but it is true nevertheless. It often entails hard and nearly always dirty work. There is danger which, with the exercise of caution may be safely encountered, and, more than all, under these adverse conditions one gets to know a man better in a day than in many years of ordinary social intercourse. Friendships are formed which will never be forgotten. The excitement is infectious, and it is delightful to see the boys of forty

years and more displaying the spirit and fun of early youth.

It is strange that no better name than Pot has been found for the numerous and curious openings reaching in many instances right through the limestone, which must be fairly honeycombed. Occasionally the surface rock has fallen in, and great depressions have been formed. Changes are still going on, slowly, but yet surely, and in some instances these can be noted.

Here at hand a sport is available, second to none for excitement and the awe of the unseen. It was until recent years practically unknown, and although much has been done, much remains to be accomplished. Descriptions of Yorkshire caves and pot-holes which appear in ordinary guide-books are frequently misleading, being for the most part the result of hearsay and conjecture. Their writers have not had personal experience, and erroneous information they have received has been accorded the permanent confirmation of print.

Some day, perchance, the discovery of a second Victoria or Kirkdale cave will reward our men, and we shall feel that our labours have not been in vain. Meanwhile, on the quiet, bare sides of our almost treeless fells, these holes and caverns lie challenging the ardent explorer to further efforts, and the challenge is not in vain.

GAPING GHYLL HOLE.

By S. W. CUTTRISS.

When this pot-hole was descended in 1896, one of the passages then discovered could not be completely explored through lack of time. It was hoped to complete the work the following year but changing circumstances vetoed such a proposal, and year succeeded year without anything further being done. A few of the members of the Club still cherished the hope of again treading the floor of the stupendous cavern, and the subject was seriously brought forward at the Club Meet last year. Messrs. Booth, Cuttriss, and Parsons were asked to take the matter in hand with a view to a descent in the following Spring. Mr. E. Calvert very kindly offered the use of the windlass and tackle used on the previous occasions, and in good time everything was ready, weather permitting, for a descent during the Whitsuntide holidays in 1903.

Owing to the loss of time involved morning and night by the long walk from and to Clapham village, arrangements were made for some of the party to camp out at the Hole, Mr. Scriven generously loaning his outfit for the purpose. This proved a great advantage.

In general the plan adopted in rigging up the gear was the same as that carried out by Mr. Calvert in the previous descents, a description of which has already appeared in the pages of the *Journal*.* To save time the jib was erected over the hole at the inner end of the side passage by three of the party the week-end before the actual expedition.

During this visit an interesting observation was made with respect to the flow of the waters of Fell Beck. It will be remembered by those who have read the articles previously referred to, that there exists an underground fall of water which enters the Hole right in the line of descent, and provides an unavoidable shower bath for the explorer. Some 200 feet up Fell Beck a portion of the water sinks underground through crevices in the rock, and

it was thought that very probably this water formed the main supply of the underground fall. As it would be a decided advantage to reduce this fall in bulk as much as possible, a dam of sods was constructed to divert the water from the crevices and send it all above ground to the main hole. Much to our surprise we found the result was the opposite of our expectations, the stream after flowing above ground from the dam sank entirely only a few feet from the side passage, and not a drop went into the main hole. We then reconstructed the dam and turned all the water into the crevices, with the result that most of it now appeared at the main hole. Our subsequent descents however showed there was still a considerable volume of water in the underground fall, no doubt the result of further unseen leakage. Very probably this absorption of the waters of Fell Beck by the underground water-course is rapidly on the increase, and it may not be many years before Gaping Ghyll, as seen from above, will become a dry pot-hole under average conditions of the weather. We may even yet see the Hole converted into a staircase, and the half-day tripper pay his shilling to gaze on the profound sight from the vantage point of the ledge 190 feet below!

On Friday, May 29th, all our tackle had been transported to the pot-hole, but the spirits of the advance party were damped by a downpour of rain—the first after an unusually long spell of fine weather. Were we to be just a week too late? Fine dry weather was essential to the success of the undertaking, and now it was raining hard as we busied about to make ourselves comfortable for the night. At 4.30 next morning we were astir with lighter hearts, the bright sunshine and rising barometer giving promise of success. Having arranged the camp we commenced work at the windlass and tackle, our numbers being augmented by an occasional fresh arrival as the day wore on. At 5 o'clock in the afternoon Booth made a preliminary descent, fitted up the telephone and arranged other necessary matters for the work next day. He was followed shortly afterwards by H. Harrison, the guide to Clapham Cave, this being his only opportunity of making the descent.

* See *Club Journal*, Vol. I. pp. 65 and 123.

The early part of Sunday morning was occupied in making several adjustments to the tackle, and then the work of descent commenced. When four men had been lowered, Booth and Parsons left the others at the bottom and proceeded to explore the branch from the main S.E. passage, about 80 feet from the top of the slope of fallen rocks in the Main Cavern. After several hours they returned with the disappointing news that nothing of importance had been discovered. The passage proved an exceedingly difficult one to traverse, being so low that they were obliged to wriggle laboriously on their stomachs for nearly two hours over loose stones, and although they knew their course was tending in a N.W. direction, great was their astonishment when they came out into the Main Cavern again at the top of the boulder slope within a short distance of where they had entered the S.E. passage. The existence of this opening had not been noticed before, although in the earlier explorations we had passed close to it many times.

The exploration work at this end of the cavern having come to such an unexpected and early conclusion our attention was now devoted mainly to giving every member of the party an opportunity to make the much desired descent. In the afternoon the weather looked very threatening and distant peals of thunder were heard, so haste had to be made to get those men who were down to the surface again. Fortunately the storm passed away and we were able to continue work until late in the evening.

Next morning it was intended that Mr. A. R. Dwerryhouse and myself should be the first two to descend, and that we should devote our attention to completing the survey of 1896, but unfortunately being temporarily indisposed I was not able to undertake it, and the completion of this work was abandoned. Later in the day I descended and accompanied Mr. P. F. Kendall some distance along the S.E. passage. He detected several features of considerable interest which might easily have escaped the eye of any but a well trained geologist. At one place he drew my attention to some "Faulted" stalactites. These originally had been continuous from roof to floor but were now broken

across the middle, the lower portion being displaced nearly one inch. This suggested a movement of the floor, probably a sinking at one side resulting from the falling away of the underlying rocks. There was also part evidence in the rock-slope itself, at this end of the Main Cavern, of a gradual subsidence into some cavity below.

When this passage was first explored in 1896, the numerous stalactites in places approached so close to the floor that it was impossible to creep along without breaking off the ends. One of these was now observed with a new growth at the broken end about $1\frac{1}{2}$ inches long, which had formed during the intervening seven years.

Although the expedition did not result in any discovery of importance, every member of the party expressed his pleasure at having participated in the descent.

The following are the names of those who went down:—T. S. Booth, J. H. Buckley, H. Brodrick, W. Brown, F. Constantine, S. W. Cuttriss, A. R. Dwerryhouse, R. Farrar, H. Harrison, A. E. Horn, C. A. Hill, P. F. Kendall, P. Lamb, W. W. Newbould, W. Parsons, J. W. Puttrell, E. P. Sykes, W. E. Waud, and H. Woodhouse.

It is to be regretted that E. Calvert, who was present, was prevented by indisposition from joining in the descent, but mention of his advice and the able assistance of J. A. Green and others on the surface must not be forgotten. Neither would it be fair to omit acknowledgment of the excellent and adequate catering of our friend C. A. Scriven.

EARLY EXPLORATIONS IN INGLEBOROUGH CAVE, CLAPHAM.

By J. A. GREEN.

The following correspondence resulting from the paper on Ingleborough Cave, Clapham, printed in number 3 of the *Journal* (vol. 1, page 220, et seq.), calls for an equal amount of publicity. From its perusal not the slightest doubt remains in my mind that the place which my companions and I named the Canal had been previously visited by two parties at least, and I desire that our unconscious egotism in assuming that we were the first shall be, so far as it may, atoned for by a ready acknowledgment of the prior visits of Mr. James Farrer so long ago as 1837 and 8, and of Prof. Hughes in 1872 or 1873.

It is regrettable that the arrangement of the correspondence and this acknowledgment were not prepared in time for inclusion in number 4 of the *Journal*, but a long illness which rendered me incapable of doing this will perhaps be accepted as a sufficient reason.

The correspondence taken in order explains itself.

GIGGLESWICK SCHOOL,
NEAR SETTLE,
16th April, 1901.

To

J. A. GREEN. ESQ.

DEAR SIR.

I have been reading with interest your account of the Ingleborough Cave.

You, in turn, may be interested to hear that a similar exploration was made a good many years ago by the late Mr. John Birkbeck, Junr., Prof. T. Hughes, Mr. Tiddeman, myself and others. I don't remember the date, but it was not very long after—the great storm which changed so considerably the far end of the cave.

At that time what you call the Cellar Gallery was fairly dry and could be managed, though not very comfortably, by ladies.

The Giant's Hall was easy of access; we searched in vain for other exits besides the one you used, but we found your slit of some six inches high more convenient than it was when you were there. We had to crawl a considerable

distance and then came to the water. After trying other ways we took to the water and followed it until it deepened and narrowed, and until the roof came down nearly to the water itself.

Four of us were roped and I think the man who went furthest was in the water up to his shoulders.

Prof. Hughes would be interested to see your account, and he would, no doubt, be able to give you a more particular account of our expedition.

He published somewhere or other an account of the great flood to which I have referred.*

You refer to the swimming of Mr. Farrer. If I remember rightly Mr. James Farrer told me that this happened not very far from the mouth of the cave, beyond the barrier now cut through.

I once tried going up the stream that issues close to the cave. We could not get very far; the roof came down to the water.

Most faithfully yours

G. STYLE.

21, BRUDENELL GROVE,
LEEDS, 15th May, 1901.

To the REV. G. STYLE,
Giggleswick.

DEAR SIR,

I was pleased to receive your most interesting letter of the 16th ultimo.

It would certainly appear from the general description that your party reached the point at which we were stopped. The one thing which strikes me as being strange is that you do not mention the remarkable characteristics of the water channel, which I think could not fail to strike any one entering it—perfectly straight and uniform in breadth, and with an arched roof of marked regularity. Did you notice this?

I think also that it might be possible to wade along the channel if the water was very low. A second journey which I made on the raft, equipped with a primitive apparatus of string and stone for taking soundings, resulted in my finding no greater depth than about seven feet, and, while I am not prepared to say that it is nowhere deeper, I do not think it can be. The average depth was about six feet, so far as I could judge roughly.

You do not say anything about our passage to the left—the dry and very low one. Did you see it?

The Editor of our *Journal*, Mr. Gray, who was of the

* Vide pp. 8—12 of a paper "On Caves" by T. McKenny Hughes, M.A. etc., read before the Victoria Institute, 1887.

party, suggests that the pool in what is now known as the Cellar Gallery may easily have been caused by a dam being formed by the silting up which has altered the level of the floor of Giant's Hall, and that the drippings from the roof in the gallery would keep a supply of water in such a place.

For my part, I am of opinion that this part of the cave is frequently under water. Each time I have been in it there have been horizontal lines of foam on the walls at varying heights.

If you are right about Mr. Farrer's exploit having taken place not very far from the cave mouth, then Prof. Phillips in his "Rivers, Mountains and Sea Coast of Yorkshire," pp. 31 and 32 must be wrong. I should like to get to the bottom of all this. If you can tell me anything more I shall be glad.

It would be well if we could clear up some of these old tangles and place on record a correct account of the various happenings in the exploration of this cave.

With thanks for your most interesting letter.

I am, very faithfully yours,
J. A. GREEN.

To which Mr. Style replied as follows:—

GIGGLESWICK SCHOOL,
NEAR SETTLE,
17th May, 1901.

J. A. GREEN, ESQ.
DEAR SIR,

Prof. T. McK. Hughes, F.R.S., Clare College, Cambridge, will I have no doubt, be able to give you a better account of the features of the furthest passage in the cave, than I can.

I have had a conversation to-day with Mr. Farrer, the present owner of Ingleborough, who throws some doubt upon the authenticity of the stories that are told about the early visits to the cave; he tells me however that his uncle Mr. James Farrer, who took very great interest in the early exploration of that, and other caves, has left in manuscript records of what was done, and Mr. Farrer intends to try and find these records.

If you get an account from Prof. Hughes, you may very reasonably pass over my incomplete notes of our scramble.

Most faithfully yours,
G. STYLE.

21, BRUDENELL GROVE,
LEEDS, May 23rd, 1901.

PROF. T. MCK. HUGHES,
Clare College, Cambridge.
DEAR SIR,

I enclose for your acceptance a copy of No. 3 of the *Yorkshire Ramblers' Club Journal*. It contains an article by myself on some exploration in Ingleborough Cave, Clapham, which was done by a party of which I was a member. Further, I am sending for your perusal copies of some correspondence which has been evoked by my paper.

If you will be so good as to verify, correct or extend Mr. Style's remarks, I shall feel indebted to you. To those of us who have spent much time in the exploration of the caves and pot-holes of Craven, it has been a matter of regret that the early work has in many cases found no permanent record. So far as we knew, up to the time of receiving Mr. Style's letter, we were the first to have passed Giant's Hall bent on serious exploration. This not being so, it is my wish to accredit those gentlemen who preceded us, and if at the same time new *facts* of interest can be traced and added so much the better.

I hope later to obtain from Mr. Farrer the MSS. which Mr. Style speaks of. They are bound to be of great interest and it is sincerely to be hoped that they are still in existence.

I am, dear Sir,
Faithfully yours,
J. A. GREEN.

To this Prof. Hughes replied so fully and added so much that is of interest to cave explorers generally, that in itself it forms an able disquisition on the formation of caves, and is therefore printed *verbatim*.

18, HILLS ROAD,
CAMBRIDGE,
October 29th, 1901.

J. A. GREEN, ESQ.
DEAR SIR,

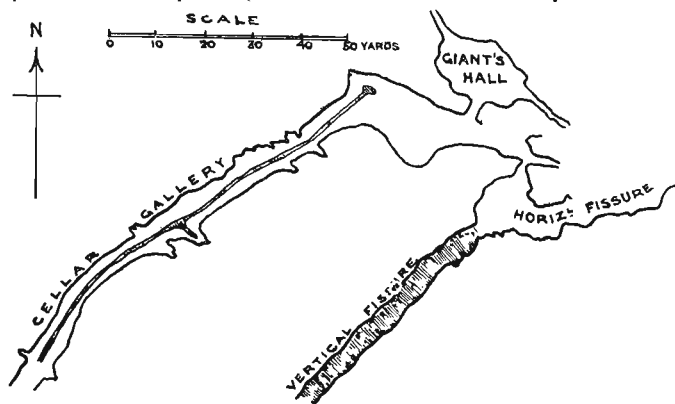
I forward herewith some notes on the far part of Ingleborough Cave. I have tried to get more exact information respecting the date, &c., of our early exploration, but without success. If I can assist you any further, pray command my services.

Yours very faithfully,
T. McKENNY HUGHES.

"I cannot give the exact date of the early exploration of Ingleborough in which I took part, but it must have been before the great thunderstorm of July, 1872,* a description of which I published in 1887.† The cave was so altered by that flood that I believe it has never since been possible to reach all the parts beyond the Giant's Hall which we then explored.

As we meant then to make only a preliminary examination in order to learn whether there was any considerable cave that could be explored beyond the Giant's Hall, and intended to return and carry out a more systematic survey later on, we kept no exact record of the directions or the distances traversed.

We were two hours walking, wading, and crawling under ground through new passages, and, therefore, the effort to remember the way out again did impress the turns and general direction upon our minds. I have here endeavoured to indicate by a sketch the impression left upon my memory of the part we then explored, based upon a plan of the old cave drawn by Mr. Farrer.



There are two kinds of cave well developed, perhaps we may say about equally well developed, in the under ground water courses of Ingleborough; namely the bedding caves and the fissure caves, with of course all combinations of the two, and, for the sake of easy reference, I will shortly explain what I mean.

In the bedding caves the water finds its way along the nearly horizontal divisional planes due to the original stratification. The exact horizon where these have been opened out have been determined by many accidents. For instance, the occurrence of a band of more impervious rock such as shale, or of less soluble rock such as dolomitized limestone, or it may be the knobby faces of some contiguous beds caused by concretionary action, or

* Prof. Hughes thinks his visit to have been "before the storm of July, 1872." Revs. G. Style and E. T. S. Carr, who were of his party, are of opinion it was "after the flood," and the latter remarks that "the point of the expedition was to explore for Gaping Ghyll Hole"—presumably because it was inferred that that cataclysm might have removed obstacles on the way.

† See *Proceedings of the Victoria Institute, 1887.*

the manner of delivery of the water supply on to the bedding face and so forth.

Whatever may have been the combination of circumstances which determined them, a very common feature is an irregular lenticular opening coinciding in general direction with the bedding of the rock as shown in Fig. 1. Of course where an

FIG 1



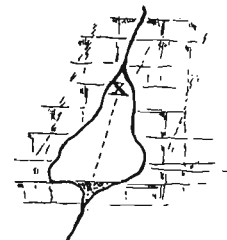
unsupported roof is extended too far by the slow lateral work of the water it will sag and touch the floor or break down, while sometimes the fallen masses, travelling on, will be wedged under it in narrower openings and act like props or walls in a mine.

The other common and simple form of cave is that due to faults or master joints. In this case the cave has usually a greater height than width—see Fig. 2. It is apt to thin off into an Ogee arch above, as shown at X in Fig. 3, and owing to the

FIG 2



FIG 3



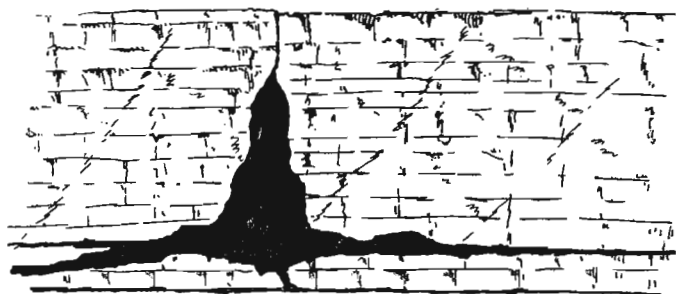
action of the water being more frequent and continuing longer on the lower part, the cave not uncommonly has a pear-shaped section with broader end down, as also in Fig. 3.

When a fissure-cave tapering downwards is clean swept it is very difficult to get along it, because ones body, knees, and feet get stuck between the converging sides; but it often happens that a great mass of debris is jammed in the narrowing fissure and provides a rough but safe path.

The intersection of more or less vertical fissures with nearly horizontal lines of weakness along bedding planes, see Fig. 4, gives rise to innumerable varieties of form and is generally the

explanation of large chambers and sudden expansions

FIG 4



All of these forms and many different results of combinations of them with various conditions affecting the feeders, outfall, etc., are met with in Ingleborough cave, and it will facilitate reference and save repetition to have drawn attention to them.

The lower cave where the water now usually issues and the "Second Creeping Place" in the upper cave are good examples of the bedding cave illustrated in Fig. 1, which, as we shall see immediately, is well illustrated in the new part of the cave explored by us. The upper cave near its mouth is also of the same character but it communicates at once with a series of fissure-caves or caves of mixed character, every variety of which may be seen before we get to the Giant's Hall, which is the end for most explorers. The parallelism between the fissures transverse to the general trend of the cave should be noticed as they offer a suggestion as to the probable direction of openings which may be useful in future explorations further in. It will be observed that the "Stalagmite Gallery," the "First Gothic Arch," several other arches between that and the "Second Gothic Arch," and the "Second Gothic Arch" itself are all approximately parallel and indicate an important system of master joints and fissures.

We were not able exactly to identify any of these with the cross fissures in the long water gallery.

The party consisted of Mr. John Birkbeck, Rev. W. Mariner, Rev. E. T. S. Carr, Mr. Tiddeman, Rev. G. Style and myself, and, having rapidly traversed the old cave, we descended to a lower level at the South East corner of the Giant's Hall. Bearing away first to the left, we found that this part of the cave belonged entirely to the bedding-cave group, Fig. 1. We crept for a considerable distance through broad but very low passages; indeed we found the roof and floor often approached one another so closely that it was only by squeezing our way through in contact with both that we could get on at all. Sometimes there was a good deal of sand which we were able to push aside with our hands and feet and so press forward.

There were many similar lateral openings so that we felt that we must be careful to observe, and leave marks along our route with a view to our return. Along the line where we advanced farthest the roof and floor got nearer and nearer together until our progress was quite barred, but we saw several directions in which it seemed possible that a little digging might open a passage.

We then returned, keeping as close as we could to the left, until we came to a deep fissure running as we thought towards the mouth of the cave. Along this, although it was somewhat rough, we travelled easily for a time, which was due, as well as I can remember, to its being filled with boulders and sand. By-and-bye however the fissure-cave was more clear of debris and we could see that it tapered downwards. It was then so full of water that we could not find the bottom, but Mr. John Birkbeck swam and climbed a long way beyond the rest of the party. The water was moving slowly in the direction in which we were going *i.e.*, as we thought, towards the mouth of the cave. We were about two hours in these passages, but suffered more from the coldness of the water than from anything else.

The two types of cave which I have distinguished above were well exemplified. When we turned to the left after descending to the lower level from the Giant's Hall, we travelled entirely under the low flat roof of a cave belonging to the first type, but when we turned back and followed it to the right we came into a long cave of the second type. Experience tells us that in that district the caves of the second type carry us much further than those of the first type, and therefore are better worth opening up and following.

Large caves of the first type however generally indicate strong feeders of the second type, and a careful record of the exact position of each would probably lend much help to those who propose to explore the under ground water courses of Ingleborough."

As it appeared possible that Mr. Farrer could throw some light on the exploration made by his uncle in 1837 and 8 he was approached, and the following interesting communication was received from him:—

INGLEBOROUGH,
LANCASTER,

DEAR SIR, April 23rd, 1902.

Your letter interested me much.

As my uncle's explorations occurred in the years 1837 and 8, neither Mr. Style nor Prof. Hughes can have been with him at the time.

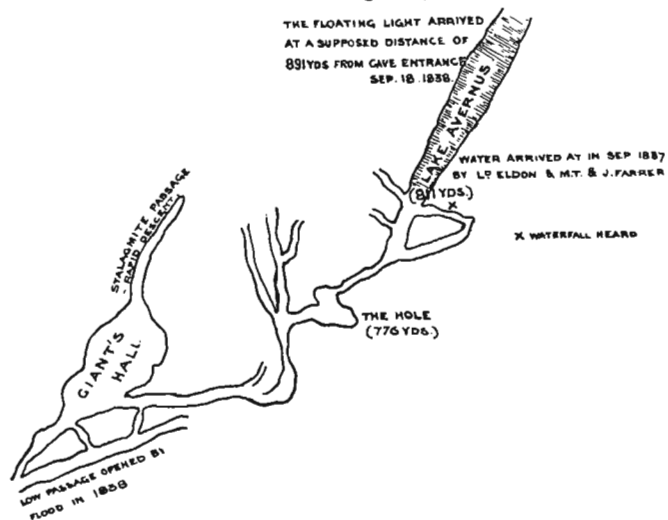
But Mr. Style is right about my uncle having left a written description of the cave as first discovered. It is inserted in his own handwriting in a book kept by my grandfather

called 'the Cave Book.' It fills about 3 pages. It contains no direct allusion to swimming, but references to variations of depth at different places are suggestive of swimming. For instance, at about 910 yards from the creeping place he alludes to a passage turning to the left with a sudden descent, at the bottom of which the passage continues in a straight line for about 40 yards when it becomes "so low with such depth of water as at present to defy further progress."

This place (wherever it is) I think he may have tested by swimming. For my grandfather's journal for October 11th, 1837, referring to that day's exploration, says of my uncle and father and two others: "they prosecuted their discovery till they were stopped by a depth of water, which James (my uncle) fastened by a rope tried to fathom, but it was too deep and he regained his party safe."

This does not look as if the swimming on that occasion amounted to much. My grandfather was himself in the cave that day, but appears to have kept behind the others. A note by Lord Encombe (my uncle's half-brother) referring to the same day says: "James, M. T. Farrer, and Encombe, accompanied by Wm. Hindley passed through the shallow water-fall and reached the deep water at the distance (supposed) of 940 yards from the entrance gate. Here James swam with a rope attached." I have often heard my father refer to the same event, and I think it proves that my uncle did swim somewhere on that day, but from my grandfather's account I should doubt if on that day the swimming was long continued.

As to what point this refers to I am in ignorance, but there is in the same book a plan of the cave made by my uncle of which I enclose a rough copy. It appears, I think,



to show that it was somewhere beyond the Giant's Hall. The distances are stated to have been ascertained "by lengths of balls of twine used as guides for returning."

So much for the year 1837, that of the cave's discovery. Now for 1838. Prof. Sedgwick (see his Life v. 1, p. 519) refers to a visit he paid my grandfather in October of that year, when they went to the cave. "We endeavoured (at the distance of about three-quarters of a mile from the entrance of the cave) to make some new advances . . . we wriggled our way about 200 yards when the roof became more lofty and the water more deep. We were provided with a cork-jacket, &c. We sat on a low ledge of rock . . . and solaced ourselves with a cigar, a luxury our floating friend could not enjoy while he held a large candle in his mouth to light his way over the waters. After running out 100 yards of rope the chamber closed, and the water seemed to escape through many narrow sink-holes. So the voyager came back, and we all returned as we could, &c., &c. (October 5th, 1838.)"

My grandfather's account of Sedgwick's visit fixes the date to October 5th "After breakfast we all went to the cave with our guest Sedgwick." The party lunched in the Giant's Hall, and when the ladies returned home after luncheon James and Matt (*i.e.* my uncle and father) led Sedgwick down below the Giant's Hall . . . The result is that Sedgwick and the rest were satisfied that no other caves are within reach on that side." The swimming on this occasion, vouched for by Sedgwick, but not mentioned by my grandfather, must, I think, have been done by my uncle, and at a point apparently some way beyond the Giant's Hall; since the distance of the latter is given as 702 yards, whilst the plan speaks of 891 yards for the further point.

My uncle was of course frequently in the cave, and may have swum about on several unrecorded occasions. I certainly gather that he did so when Sedgwick was there. It is odd that you should have written to me just now, as I only chanced on the passage in Sedgwick's "Life" last Sunday.

I notice that Mr. Green, on p. 224, [*Club Journal*, Vol. I.] speaks of a place where apparently the party might have swum, and would have swum if they had had ropes with them: possibly this is where my uncle did swim.

As his plan was clearly made in 1838, and bears special reference to explorations made on September 4th and 5th of that year; and as his written description seems to be explanatory of the plan, I should say the latter was written in 1838, and that on those occasions also he may have done some swimming, before the occasion related by Sedgwick.

Perhaps I had better quote his own words for what they

may be worth. I start from an allusion to the long Gothic arch, which I think means the Giant's Hall. "This part of the cave is rather narrower, and is most beautifully inlaid with stalactites of different forms and sizes, and finally, after about 30 or 40 yards, terminates in a low narrow point where the arch has evidently been blocked up by stones and sand and accumulated stalagmite. The supposed distance from the small pillar to which the string is attached is about 910 yards—(he first wrote 310, and then seems to have changed the 3 into a 9, which makes a difference.) The passage which turns to the left now becomes very narrow, and the descent very sudden; on reaching the bottom, the passage continues in a straight line for about 40 yards, at which point one end of the line of string terminates; it is here so low with such depth of water as at present to defy further progress. Returning therefore about 40 yards, the cavern turns to the right which leads to a small but deep round hole (marked on plan) sufficiently high to admit of standing upright. Proceeding to the left again the passage becomes very low, and the water the current of which becomes much stronger, is of a dark colour, and has every appearance of having passed over the fell. Near this part another passage leads to the left, still very low with but little water. This passage remains yet unexplored; in some places the bed of the stream passes over solid rock, in others stones and sand intermingled form the course over which the stream flows. Here the noise of rushing stream becomes much louder, and after creeping about 30 yards further we enter a high but narrow passage, probably about 4 feet in width, into which the water falls; the water, which is very rapid near the point where the stream joins the still water, is within a distance of nine yards very deep; the cavern is supposed to turn to the right, but nothing is known further at present owing to the depth of water. There is no under-current; the stream rather turns to the right, and the water almost immediately becomes very deep. There is here neither stalactite nor stalagmite, nor is there apparently any lower level of water. The distance to this deep pool of water from the commencement of the descent is supposed to be about 150 yards, but owing to the numerous turns and passages this calculation is obviously very uncertain."

I don't know how far this can be made to tally with the Ramblers' explorations on the same spot, but I should think that the great storm of 1872 might, to some extent, have altered the configuration of this portion of the cave, as it affected other parts.

Yours sincerely,

J. A. FARRER.

As I said before, it seems quite certain from the foregoing correspondence that two parties at least reached the Canal (or Lake Avernus as they termed it) before our party. The sketch plans of Mr. Farrer, Prof. Hughes, and one made by our own party do not differ much in their main features, but in the direction in which the Canal is placed and its distance from the Giant's Hall there is much difference. This is just what one would expect from the very winding route followed. It is regrettable that we made no careful survey; but the fact that these most uncomfortable passages ended so disappointingly rather quenched our ardour. We still hope to go over the ground more carefully, and with compass and line.

The main feature of difference in the condition of the cave is the silting up of the Giant's Hall entrances. At the time of our visit it was only with great difficulty that we could force passages into and out of it owing to the packing of sandy débris which filled up the approaches.* Prof. Hughes simply remarks: "we descended to a lower level," which would indicate that at that time the difficulties were much less than at the time of our visit.

As a last word I would say that the pleasures of our work were as great as though we were really, as we supposed ourselves to be, on unexplored ground, but this does not cause us any the less willingly to give up the honour of the pioneer work to Mr. Farrer in 1837 and 8, and to Prof. Hughes in 1872 or 1873.

* See *Club Journal* Vol. 1, p. 222.

A NEW ROUTE UP SLANTING GULLY,
LLIWEDD.

By FRED BOTTERILL.

Those who possess Haskett Smith's little book, "Climbing in the British Isles. Wales and Ireland," will, if they turn to pages 85-87, read a short history of the early attempts to ascend Slanting Gully. In the accounts therein, parties appear to have been ultimately turned back at the 70 ft. chimney above the cave, and it was from near the top of this, as far as I can make out, that Mr. J. Mitchell of Oxford fell and lost his life in 1894.

In the account of the attempt made by Messrs. F. O. W., C. W. N., E. H. K., and H. K., on January 9th, 1894, it says:—"With longer time at disposal it seemed possible that this difficulty might have been surmounted by wriggling up inside the crack, or by a dangerous scramble on the face of the slab." Both of these have since been climbed. The first complete ascent was made in 1897 by the brothers Abraham of Keswick, who after reaching the top of the 70 ft. chimney or crack kept to the gully all the way.* I have no record of the second ascent; but what is believed to be the third ascent was made on the 18th June, 1902, by a party composed of Messrs. H. L. Jupp, J. V. Brett, J. H. Phillips, and A. E. W. Garrett. This also was made by the chimney.

On the 17th of June last my brother Matthew and I started for a cyclo-mountaineering tour in N. Wales. We had heard a report of the deplumation of Pen-y-gwryd Hotel as a climber's resort and decided to seek accommodation elsewhere. We found a very comfortable berth at the house of John Owen, Bron-y-graig, in the little village of Glanaber, Nant Gwynant, and failing Pen-y-gwryd or Gorphwysfa would recommend this village as a temporary climbing centre.

On Saturday, June 20th, 1903, at 3.45 p.m., we found ourselves at the foot of Slanting Gully with 80 ft. of rope, a light English axe, a hand camera, and a rucksack containing cooking outfit and eatables. We roped up

* See *The Climbers' Club Journal*, Vol. 1. p. 14.

and followed the ordinary route as far as the cave, finding no particular difficulty even with the rucksack and axe which I carried, M. not being in the best of form. Reaching the little grass ledge where the crack overhangs the cave I put down my *impedimenta* and mounting on M.'s shoulders tried the crack. It would not go, and after fumbling about for a time my companion politely asked to be allowed to let me down as the extra big nails in my boots were making serious impressions on his shoulders. I then invited him to mount on my shoulders, or on my head if he found that necessary, and try and discover a way. He tried bravely for some time but without success, and after a short rest I turned my attention to the slabs on our left.

There is a conspicuous white quartz vein about 8 inches thick which runs horizontally above the grass ledge, and after traversing to the left of the crack for about 10 ft. I was able to stand on the quartz and obtain a full view of the slabs. Here a way was visible, and before rejoining M. I had made up my mind that it would go. Meanwhile M. had found a suitable belaying pin, so after paying special attention to the knots of our rope I left the axe and rucksack with him and returned to my standing place on the quartz vein. Ascending obliquely away from the crack for about 15 ft., I reached a distinct line of holds up the slabs, and advanced slowly up these until my companion shouted and warned me that only 8 ft. of slack rope remained. I was still 18 ft. from my objective and looked around me for a possible resting place. There was none, so further advance was made until the cry came that all the rope was out. I was then on a projecting piece of rock, the top of which formed an equilateral triangle a little over 1 ft. each way. On this I sat while M. unroped and tied on the rucksack and axe, which I dragged up; then finishing the climb, my burden was deposited on the terrace—a narrow grass ledge leading back to the top of the chimney. When about to return to the triangular rock I observed that it might be possible to stand over the chimney and throw the rope down direct. This proved correct. M. then came up, resting half way, and commenting

on the difficulty he was experiencing. The climb was finished in the ordinary way and we came out at the cairn at 7.20 p.m. A cairn was built above the chimney and a long piece of rock placed upright over our route.

At least 80 ft. of rope is absolutely necessary for this climb. The route up the slabs is singularly like the

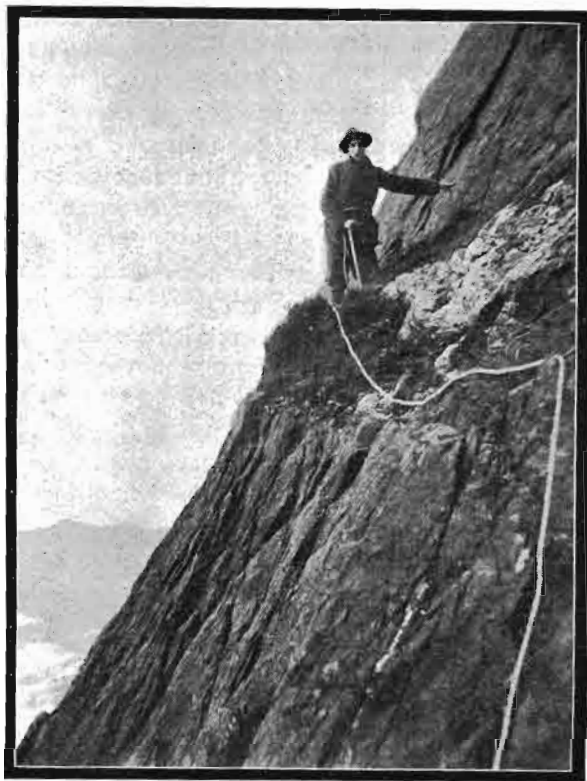


Photo by M. Botterill.

THE TERRACE, SLANTING GULLY, LIWEDD.

Eagle's Nest. The handholds are very similar, and the triangular rock though rather less comfortable, may be likened to the Eagle's Nest Ridge (difficult way) on the Great Gable. The total difficulties of the two climbs are much about equal.

By the discovery of this route the ascent of Slanting Gully will, we think, be made a little easier than before.

SAVAGE GULLY, PILLAR ROCK.

THE third ascent of this Gully was made on the 5th June last by Messrs. F. Botterill, H. Williamson and J. E. Grant

As Mr. J. L. Oppenheimer states in the *Climbers' Club Journal*, vol iv., p. 168—it was found necessary to traverse the narrow rib of rock frequently. When the leader was 90 feet up, a large rock weighing roughly about 5 cwts. threatened to topple over when touched, and to bring with it a similarly sized rock underneath. The leader pushed it back and scrambled over it on to the ledge mentioned in Mr. Oppenheimer's account.

After consultation it was decided that Williamson should ascend and Grant, being last man, should send down the dangerous blocks. This was done, Grant being held on the rope during operations. The two blocks thundered down to the foot of the North Climb and rattled down the screes below.

The removal of these blocks will, we think, render the climb a little more difficult, but gives a distinct advantage, as the leader may rest at 90 feet instead of 110 feet as formerly. The time taken was about $2\frac{3}{4}$ hours, in favourable conditions of weather.

F.B.

PROCEEDINGS OF THE CLUB.

THE TENTH ANNUAL MEET was held at Horton-in-Ribblesdale on 27th and 28th September, 1902, over twenty members and their friends attended, and the event throughout was highly successful.

On the occasion of the last Club Meet at Horton an attempt on Alum Pot was projected, but owing to the bad weather had to be abandoned. Last year the weather was everything that could be desired and a descent of the Pot was successfully accomplished.

Preparations had been made by an advance party on September 27th, and after an early breakfast a start was made on the following morning for Alum Pot. Long Churn passage was followed, the President indulging his passion for bathing by falling into one of its larger pools.

Upon the return journey there was much fun at the final climb into Long Churn, some of the men getting very wet and requiring a good deal more than mere moral support from the rope. The whole affair passed off without the slightest hitch, and to those members of the Club responsible, the party were indebted for a most enjoyable excursion.

The Inn at Horton was uncomfortably crowded, but beds were eventually found for every one in the village. The dinner on Saturday was by no means a formal function, and was followed by some excellent music, and the 1902 Meet remains a pleasant and entertaining memory.

LECTURES.—The Club's Lectures during the past year were excellent, and largely attended by members and their friends.

At the Philosophical Hall, Leeds, on November 25th, 1902, Mr. Gilbert Thomson, Vice-President of the Scottish Mountaineering Club, gave us a graphic and interesting account of "Mountaineering in Scotland," treating his subject with much quiet humour, and illustrating it with many beautiful mountain pictures.

The Lectures given during the past season were as follows:—

November 11th, 1902. "Through the Tarentaise and beyond." By Mr. W. A. Brigg.

November 25th, 1902. "Mountaineering in Scotland." By Mr. Gilbert Thomson. (Vice-President of the Scottish Mountaineering Club.)

January 27th, 1903. "The Rambling Geologist." By Mr. J. H. Howarth.

February 10th, 1903. "Rambles in Galloway." By Dr. Forsyth.

February 24th, 1903. "A Journey to Alaska." By Mr. James Buckley.

March 10th, 1903. "The West Indian Eruptions." By Dr. Tempest Anderson.

That on the "West Indian Eruptions," by Dr. Tempest Anderson, was given at the Philosophical Hall, Leeds, under the joint auspices of the Leeds Geological, the Leeds Photographic, and the Leeds Naturalists' Societies, and the Yorkshire Ramblers' Club. The room was crowded, and a general wish was expressed that similar lectures should be arranged in the future. Dr. Anderson gave an account of his experiences and work as a member of the Commission sent out by the British Government to investigate the devastating eruptions in the West Indies. The Lecture was illustrated by many remarkable slides.

THE ANNUAL GENERAL MEETING was held in the Club Rooms on 28th October, 1902, at 8 o'clock p.m. Mr. G. T. Lowe in the chair. The Committee's Report, of which the following is a summary, was presented and adopted:—

The Club now consists of ten honorary and 68 ordinary members, the largest membership it has so far attained. During the year seven general and eight committee meetings have been held. Six lectures were given and the improved attendance has been fully maintained. The Committee have again to acknowledge gifts of books to the Club Library, and also invitations from the Leeds Geological and Photographic Societies to their Lectures.

The Sub-Committee elected at the General Meeting arranged the following Club meets and excursions during the year:—

1901.—December 14th. Almscliff Crag.

December 26th. Washburn Valley and Blubber-houses.

1902.—January 18th. Ilkley.

February 8th. Ingleton.

March 1st. Almscliff Crag.

March 28th. Easter Meet.

April 26th. Dacre, Brimham Rocks, Pateley Bridge.

May 17th. Whitsuntide Meet.

These excursions were arranged to meet the wishes of the members expressed at the General Meeting, but the Committee regret to report they have not met with the support they deserved.

The Committee think that before making arrangements for another series, members should be invited to express their opinions upon the desirability of continuing with them.

During the year the fourth number, completing the first volume of the Club Journal, has appeared. It has become a permanent record of much of the Club's best work, and an important factor in its advancement.

The Treasurer's statement:—

The following officers were elected for the ensuing year:—*President*, W. Cecil Slingsby; *Vice-Presidents*, Dr. F. H. Mayo and W. Parsons; *Secretary*, Lewis Moore; *Assistant-Secretary*, Frank Constantine; *Treasurer*, John Davis; *Committee*—A. W. Bairstow, S. W. Cuttress, Alfred Barran, J. M. Nicol, T. S. Booth, Chas. Scriven, Rev. L. S. Calvert and Thos. Gray.

A vote of thanks to the retiring officers and auditor was passed.

NEW MEMBERS who have been elected since the last issue:—

JAMES BACKHOUSE, Daleside, Harrogate.

J. J. BAINES, 31, Grange Avenue, Leeds.

EVELEIGH BISHOP, 81, Briggate, Leeds.

FRED BOTTERILL, 10, Consort Terrace, Leeds.

JOHN BRIERLEY, 36, Wellclose Mount, Leeds.

HAROLD BRODRICK, 7, Aughton Road, Birkdale, Southport.

ALEXR. CAMPBELL, Aros, Allerton Park, Leeds.

E. A. CAPEL, 17, Virginia Road, Leeds.

S. J. CHADWICK, Lyndhurst, Dewsbury.

J. H. CLAPHAM, 13, Beechgrove Terrace, Leeds.

JAMES DUDLEY, Flounders Institute, Woodsley Terrace, Leeds.

A. R. DWERRYHOUSE, 5, Oakfield Terrace, Headingley, Leeds.

DR. C. A. HILL, 13, Rodney Street, Liverpool.

J. M. JEFFREYS, 10, Vernon Road, Leeds.

L. A. LOWE, 23, Chestnut Avenue, Leeds.

H. D. MIDDLETON, Moor Grange, Far Headingley, Leeds.

DR. KEITH W. MONSARRAT, 11, Rodney Street, Liverpool.

W. W. NEWBOULD, 63, North Street, Leeds.

H. W. THOMPSON, 195, Belle Vue Road, Leeds.

J. C. WALKER, Beech Villa, Shaw Lane, Headingley, Leeds.

HENRY WILLIAMSON, 127, Oxford Street, Preston, Lancashire.

There have been five resignations in the same period.

The first ANNUAL CLUB DINNER was held at the Hotel Metropole, Leeds, on 14th of February, 1903. About fifty members and friends were present, with the President, Mr. W. Cecil Slingsby, in the chair.

The Toast List was as follows:—

“The King.”

“The Yorkshire Ramblers' Club”

Proposed by the President.

“The Editor of the Club Journal”

Proposed by Mr. Alfred Barran.

There were many excellent songs and recitations given during the evening by Mr. Bedford, Mr. Green, Dr. Hill, Mr. R. Mackay, Mr. Gilbert Middleton, and Mr. J. M. Nicol; Mr. Alec. Campbell accompanying on the piano.

Mr. Alfred Barran, in proposing the toast of the Editor of the Club Journal, presented Mr. Gray with a vellum bound copy of the first volume as a token of the Club's esteem and appreciation.

This Annual gathering is a new feature in the social life of the Club. It will, we hope, strengthen old friendships, create new ones, and increase good fellowship amongst the Club's Members.

The Journal.—No. 2 is out of print. Copies of Nos. 1, 3 and 4 may still be obtained.

IN MEMORIAM: R. WILFRED BROADRICK.

The duty of recording the first death in the ranks of the Yorkshire Ramblers is in any case a mournful one: and is to me made doubly so by ties of long association and friendship.

Although Wilfred Broadrick was among the more recent members of the Club, he had certainly, before his entry, established notable claims to distinction in those varied branches of athletic prowess—as distinct from mere climbing skill—which are so greatly prized in our Club.

Born in 1872 of an old Yorkshire family, though his home was at Windermere, he spent his school days at Haileybury College, and from there went in 1891 to Trinity College, Cambridge. His tall and sinewy frame, straight as a lath and capable of immense endurance, fitted him admirably for both the oar and the mountain side, and he rowed in the First Trinity boat at Cambridge and Henley, while building at the same time a sound reputation as an expert fellsman and mountaineer. Graduating in 1894 in the 2nd class of the Moral Science Tripos, he studied modern language abroad for a while, and then adopted the profession of a school master, first at Bedford, and in 1899 at Fettes College, Edinburgh.

Through all these years walking and climbing were the chief delight of his holidays; and his home at Highfield, from which the Lakeland ranges could be seen spread out in tempting nearness—the Langdale Pikes in the foreground, and Scafell with Great End and the Gable rising beyond—was the starting point of many a good expedition, for which no time of year came amiss and muscles and good fellowship were the first qualifications. It was during this time that his 24 hours' walk took place, of which he has left a record, characteristic in its simple directness, in No. 4 of our *Club Journal*. He became a member of the Alpine Club and among many achievements in France, Switzerland and the Tyrol, perhaps the finest was his ascent of the Aiguille Verte by a new route in August, 1902. But, while he added to his reputation abroad, his heart was to the end among his native fells: and he returned straight from the conquest of two fresh rock climbs in the Alps to the Scafell expedition at which he met his death.

This is not the place for any question or comment on that awful accident, nor can I do more than briefly allude to those other sides of Wilfred Broadrick's nature for which he was

loved in his lifetime and is mourned in his death. As a climber, he may claim our admiration for his cool head, sure hand, firm foot, and splendid bodily vigour. As fellow Ramblers, we may sympathize with his love for the fells which, like his fine singing powers, came to him—let us think—in part at least from his Yorkshire ancestry. As a master and a man, he gained the affection of his boys and the respect of his equals by a simple sincerity of character, a gentleness and charm of manner, a high standard of life, and a quiet devotion to duty, which will not soon be forgotten by those whose happiness it was to come in contact with him.

J. N. BARRAN.

THE DISASTER ON SCAFELL CRAGS.

ON the morning of Monday, the 21st of September, 1903, two parties of climbers left Wasdale Head to spend the day on the crags of Scafell, one party, consisting of R. W. Broadrick, A. E. W. Garrett, H. L. Jupp, and S. Ridsdale, went up Deep Ghyll, and from its second pitch climbed direct to the summit of Scafell Pinnacle. The other party, whose members were W. E. Webb, A. J. Slade, and H. Williamson, passed the morning on the north face of the mountain. The two parties met and had lunch together on the Rake's Progress between Botterill's Climb and Moss Ghyll, after which, at about 2.30 p.m. they separated, the first-named four going off in the direction of Lord's Rake and taking with them 60 feet of rope which they had borrowed from the others to augment their own.

Webb and his two friends did the Keswick Brothers' Climb, went down by the Broad Stand and returned along the Rake's Progress to pick up a rucksack they had left where the two parties had lunched together. Continuing along the "Progress" with the intention of descending the scree which spreads out below Lord's Rake they found the four men from whom they had lately parted lying some way down the scree. All were roped, Ridsdale being much entangled in it. A brief examination showed that Broadrick, Garrett and Jupp were beyond human aid, but Ridsdale was still conscious, and, ignorant of the fate of his three friends, he implored his helpers to "look after the other chaps." The time was then about twenty minutes to six, or three hours after the two parties had separated. Almost immediately Williamson left and raced down to Wasdale Head for assistance, arriving at the Hotel thirty minutes later. Webb and Slade stayed with the injured man, doing what little lay in their power to alleviate his sufferings. During their trying vigil in the gathering dusk they learned from his fragmentary utterances that the ill-fated party had been attempting "something new" on the face of Scafell Pinnacle, and that when the climb was commenced Broadrick was leading, but that he changed places on the rope with Garrett who resumed the ascent as leader. Subsequently a slip occurred and all four fell, with the sad result recounted.

After hastily getting together lanterns and other necessities, Williamson and a few others—including a doctor, who fortunately was staying at the Hotel—started back for the scene of the accident, where they arrived at about 8.30. Later they were followed by some dalesmen who took up a hurdle on which to carry the survivor down. This arrived about 10 o'clock and it was eleven when the long and painful journey down to Wasdale was begun. Progress was necessarily slow, as the darkness, only partially dispelled by the feeble light from the lanterns, added much to the difficulty of the descent. The Hotel was not reached until 3.30 on Tuesday morning. Poor Ridsdale had

passed away during the journey. The bodies of the others were brought down during the day and an inquest was held on Wednesday, the 23rd September.

Such are the main particulars of this terrible disaster, the first that has happened in Great Britain in which an entire party of roped climbers have met with their death, and the sympathy of all mountaineers who have read the sad tale will have gone out to the relatives of the unfortunate men.

Of Broadrick, who out of the four, was the only member of our Club, a short memoir will be found on another page of the *Journal*; and of Jupp, Ridsdale and Garrett one of our members who has spent many days with them on the fells writes:—"They were all such uncommonly first rate fellows," and we believe that the anxiety manifested by Ridsdale—badly injured as he was—on behalf of his companions, was only what would have been the feeling of any one of the other three if he had been the survivor.

Although in the absence of personal testimony the precise spot where the fatal slip occurred may never be known with certainty, sufficient proofs have been found to show that Broadrick and his friends had been attempting the ascent of the Pinnacle direct by the buttress. The line of route lies not many yards to the right of Jones's Pinnacle route from Lord's Rake. The rocks have been examined from above since the accident by more than one party, and nail marks seen by them evidence the height to which the unfortunate climbers had reached. The marks cease within a few feet of the bottom of the crack which divides the detached block at the top of the nose from the main crag. O. G. Jones wrote of the buttress as a "thrilling piece of work" and "possible," but between the nail marks and the crack above mentioned the crags are regarded by men of undoubted skill and experience as absolutely impossible, and in the hope that others may be induced to look upon the whole buttress as such we propose to briefly call attention to the nature of the rocks thereabouts and the undesirability of further attempts being made on them.

Within the angle formed by two lines drawn from the top of the Low Man, one to the bottom of the buttress and the other to the bottom of Hopkinson's Gully, the crags are very much alike in kind. Only one successful ascent of the Pinnacle is known to have been made up them. They were attempted from Lord's Rake in December, 1887, by Mr. C. Hopkinson and Mr. H. Woolley and two others, but at a height of "between 150 and 200 feet" the party was stopped by a steep slab of rock coated with ice, and it was not until nearly eleven years later that O. G. Jones and G. T. Walker "favoured by the best of conditions were just able to overcome" the difficulty. Readers of the account which Jones has given in his book may have noticed that it is not characterised by his usual fulness. There is ample sufficient,

however, to satisfy most men of the exceptional difficulty of the climb, and though it was Jones's custom to verify his notes by making a subsequent visit he never repeated this climb, which fact, taken with the serious manner of his record, may be regarded as significant. In his classification of Lake District courses beginning with "easy" and ending with "exceptionally severe" it is placed last of all. A slip is known to have occurred during an attack on this face later to a strong and experienced cragsman, when the safety of his party seems to have been due to something little short of a miracle; and when we consider Jones's description of the rocks—their steepness, smoothness and the probably insufficient halting places they afford, and remembering too that though he usually endeavoured to justify his brilliant climbs by detailing their precautionary possibilities, and that he nowhere in his description refers to the possibility of belaying the rope on these slabs we are irresistibly led to the conviction that the climbing there is of too desperate a character for any party. We are well aware that what would be criminal for some men to attempt may be well within the power of others, but it should be always borne in mind that the ablest of climbers is not exempt from the risk of a slip at some time or another, and there is one rule that should apply to all, viz.:—*If the nature of a climb is such that the members of a roped party, instead of being able to afford that mutual security which is the sole reason for the use of the rope, become a source of danger to each other, then there can be no justification for attempting it.*

Much as every climber must feel the sadness of the fatality, and loth as one may be to seem to cast a shadow of doubt on the judgment of such excellent cragsmen as Broadrick and his companions (the brotherhood which exists among mountaineers negatives the suggestion of such intention), the interests of the living has compelled us to touch on the question. When the previous history of the Pinnacle from Lord's Rake is seriously weighed, together with this terrible disaster to four thoroughly able men, we feel sure that the record and object lesson will not be thrown away. If the effect of the accident is to induce the exercise of still more of that caution which we know to be the rule among good climbers, and thereby to ensure their greater safety, then, and then only, can it be said that any compensation is afforded for the loss of four valuable lives. There is no accident from which a lesson is not to be learned, and if the obvious teaching of this, the saddest event in British climbing records, is disregarded it may safely be predicted that it will not be the last of its kind.

It should not be thought either that these strictures apply only to the ascent of Scafell Pinnacle from Lord's Rake. Other rock climbs have been done where the margin of safety is too small even for the most skilful cragsmen. Not only on the hills of Scotland, Cumberland and North Wales, but on the numerous

and comparatively low crags scattered over Britain and used as practice grounds, the standard of difficulty is extremely high and is yearly becoming higher, and with the increase must come a larger element of risk. Anything in the nature of competitive climbing such as this increase may bring into existence cannot be too strongly condemned, and a man who becomes imbued with the mere desire to surpass the rock climbing feats of others will deserve the fate he is not unlikely to meet with.

Let all men climb who may, but let them ever bear in mind that accidents bring the sport into disrepute, and, above all, that he climbs best who climbs safest.

THE ACCIDENT IN DEEP GHYLL.

A sad fatality happened to one of the climbers who had assembled at Wasdale Head for the Christmas holidays of 1903. Mr. Alexander Goodall of Keswick, and Mr. Fred Botterill of Leeds arranged to ascend Scafell Pinnacle, via Steep Ghyll and the ridge route, on December 26th. They were accompanied by several other men to the foot of Scafell Crags, where the party divided, Goodall and Botterill taking one of the ice-axes which had been brought up. They had hoped that another member of the party would join them in the ascent of the Pinnacle, but he did not do so, and the two men, who had not previously climbed together, then roped up and took to the rocks, with Botterill leading. Subsequently, the leadership was taken by either man as fancy or circumstance suggested, and when they reached the 'crevasse' at the bottom of Slingsby's Chimney they made use of an extra 80 feet of rope as a steadier in descending the chimney leading to the traverse which Jones did in his stockings when he ascended the Pinnacle from Lord's Rake. Botterill and Goodall made this traverse on the rope, and from a distance of about 25 feet examined the scratches believed to have been made by Broadrick's party on the rocks below the level of Hopkinson's Cairn. After spending some time in this investigation, and a brief snowstorm coming on, Botterill led the way up the Chimney, and they finished the last 100 feet of the ascent.

Ten minutes were afterwards spent at the summit of Scafell, and the glorious sunset they witnessed being immediately followed by another snow shower, the two men made their way back, intending to descend Deep Ghyll by the West Wall Traverse. What subsequently happened may be told in Mr. Botterill's own words:—

"It would be about four o'clock when we arrived at the top of the ghyll. I tried the snow there and found it soft, as evidently it had been in the sun. A few feet down, perhaps 40 feet, was a patch of loose scree about 12 feet long. The glissade to the patch looked easy, and I asked Goodall to give me the axe that I might glissade to the scree patch, try the snow beyond, and see if we should have to kick or cut steps down to the West Wall Traverse. To this he replied 'No! let me glissade down.' We each had a rope, yet neither of us mentioned roping, although in my mind, and I have little doubt in Goodall's too, there was the intention of roping at the scree patch.

I had no thought of either of us glissading below there, and to his remark I replied enquiringly, 'Hadn't we better cut steps?' 'Oh no, it's all right, I want to get into this thing,' he said, and immediately set off in a standing glissade. He went well to the scree patch, took three or four steps forward and momentarily stopped. He was leaning forward, and I drew breath to ask him how the snow was below him. The words were never uttered, for at that moment he sat down on it. I

shouted to him 'Stand up! don't sit down,' but he moved slowly forward in a sitting position for about 40 feet, as near as I now can tell, using the axe as a brake, and then for an instant he appeared to stop. The next moment I saw him on his back, arms outstretched, sliding down with gradually increasing speed, and, to my horror, I noticed he had lost the axe.

He turned with his face to the snow and disappeared uninjured from my sight at a bend in the ghyll just above the upper pitch. He uttered no sound; but a few seconds afterwards I heard the sound of falling rock and hoped he had pulled up at the pitch. Until he disappeared from view I felt helpless. Then my first object was to get below the upper pitch, where I thought it possible that Goodall's fall might have been arrested. Without an axe I felt I could not safely go down the ghyll, being sure Goodall would have checked his slip at the beginning if the snow had not been too hard below the scree patch. I ran round to the head of Lord's Rake, hoping to be able to descend it, quickly secure my ice-axe left with the other party, and lead them up Deep Ghyll to Goodall's assistance. In my hurry I failed to find the high end of Lord's Rake, where I had never been before, and unfortunately took the wrong gully. When I had gone a little way down I saw it led away from Scafell Crag altogether, and in desperation I determined to return and attempt the descent of Deep Ghyll, despite the obvious danger. Dusk was gathering fast as I reached the top again, and I noticed many valuable minutes had been lost in my fruitless attempt to find Lord's Rake. Starting down Deep Ghyll I found the snow soft to the scree patch, one kick being sufficient to make a decent step. Below the scree patch, however, the snow was in a quite different condition. Hard kicking barely made any impression on it. Six or eight blows were necessary for the tiniest toe-hold, and before many steps had been made my legs began to ache. About 40 feet below the scree patch I was surprised to find the axe sticking *pick-end* in the snow. Down to this spot Goodall had braked with the shaft end and must have changed his tactics. I took the axe and cut steps down, shouting for Goodall at intervals, until opposite the West Wall Traverse. Then for the first time came answers to my long-repeated shouts, and I asked if it were Goodall. On hearing that it was not, I enquired where he was. I fancied I heard the word 'killed,' but was not sure, so cut my way on to the Traverse. This was nothing less than a steep ice slope, and I had to cut every step and feel for it with my foot, as darkness had now fallen. Still doubting whether Goodall had been found, I peered over opposite the upper pitch to see if I could distinguish any traces of him, but I could not see anything, nor hear any answer to my shouts other than the voice I had previously heard. In answer to the enquiry if I wanted help, I shouted 'no, look for Goodall, I am coming down as fast as I can;' but, as I learnt

afterwards, my words were not distinguishable, and I hacked away in silence. My arms were beginning to ache, and by the time Lord's Rake was reached, perhaps $2\frac{3}{4}$ hours afterwards, they were almost helpless. After a brief rest I started to kick steps down Lord's Rake, and again heard shouting, this time apparently nearer. A voice asked if I were safe, and I said 'yes.' Then I heard a chorus of voices and imagined they were on the top of the Crag. I shouted that Goodall was in Deep Ghyll, and I was contemplating the ascent of the first pitch, when I heard the swish of an ice-axe and saw the reflection of a lantern below. I started down towards it, and was met at the foot of Lord's Rake by Messrs. Payne, Tilleard, and Moritz, who were coming to my aid. On asking them if they had seen Goodall they wisely reassured me while they tied me on to their rope. I was famished and utterly done up. Moritz and Williamson accompanied me to the hotel, and on the way broke the news to me.

I should like here to acknowledge with deep thankfulness the extreme goodness and unselfishness of Messrs. Benbow, Moritz, Payne, Tilleard, Williamson, and Winterbottom, both then and subsequently when their thoughtfulness and kindness were sorely needed."

Mr. Tilleard has favoured us with the following account of what he and his party saw of the accident:—

"On the evening of 26th December, I should say about 4 p.m., Moritz and myself had bidden good-bye to some friends whom we left sketching in a small cave a little below Marshall's Cross, and were just leaving the scree at the bottom of Hollow Stones when we were startled by a terrific crashing, apparently coming from the vicinity of Deep Ghyll. I turned round and shouted to my friends warning them to look out for falling stones.

Presently the noise ceased, but, actuated by some presentiment of what was to come, I still continued looking. A few seconds later the body of a man, which I at once recognized by the clothes as that of Goodall, appeared round the corner of Lord's Rake rolling over and over in a helpless way, which left no doubt in my mind that a fatal accident had occurred, and finally settling down against a large rock at a point where the snow joined the scree.

We both rushed up to where he lay (a distance of some 200 yards), but on feeling his pulse I realised that my fears were only too true and that the worst had happened.

We were now joined by Williamson and his party who had been in the cave, and it was at once arranged that they should proceed to Wasdale for assistance while we waited to see if any help could be given to Botterill, whose whereabouts were unknown to us.

It was rapidly growing dark and we decided to start our search at once, but after going some distance we returned, having made up our minds to wait until we could hear a shout.

We did so a short time afterwards, but it was impossible to tell with any degree of accuracy whence it proceeded. However, we set off again. By now it was quite dark, and this fact rendered our attempts extremely hazardous. Every step had to be cut with the ice-axe, and as it was almost impossible to distinguish them when they were cut we had to be guided chiefly by the sense of touch. It was not until nearly 8 o'clock that search parties from Wasdale began to arrive, and Payne, who was amongst the first and had brought a lantern with him, roped up with us, and we had only gone a short distance when we met Botterill in Lord's Rake much exhausted but happily not seriously the worse for his terrible experience.

Up to this point he was quite ignorant of what had taken place, and for obvious reasons we dared not approach the body or let him see the traces on the snow until he was in a position of safety. Accordingly, after a short rest, he started for the hotel with Moritz and Williamson, while I stayed behind to point out the place where poor Goodall lay.

I will draw a veil over our journey down. No good object can be served by a description of that sad procession, suffice it to say that we arrived shortly after midnight and despatched a telegram to Mr. Ashley Abraham, of Keswick, asking him to break the sad news to Goodall's relatives.

In conclusion, I am glad of this opportunity of expressing my deepest sympathy with Mr. Botterill, who throughout bore up manfully under what must have been a most terrible trial. The descent he accomplished was no mean feat under the existing conditions, and the way in which he overcame his difficulties speaks well for his pluck and stamina."

This accident ought not to have happened. The two men, who knew each other by reputation only as rock climbers, undertook to make a descent which under the ordinary local conditions of snow offers no very serious difficulty, and is quite safe with proper precautions. Failing the observance of those precautions, however, the consequences of a slip may easily be imagined by anyone who knows the character of the Ghyll.

Goodall, this day and previously, had proved himself no mean cragsman, but although his companion was not aware of it he had little or no knowledge of snow, and its condition in the upper part of the Ghyll at the time may have led him to believe that a similar state of softness prevailed lower down. With more experience he would probably have proceeded with greater caution.

Beyond the fact that men who together undertake any serious mountaineering expedition without mutual knowledge of each others individual experience and ability incur obvious and avoidable risks, it would not appear that any blame attaches to Mr. Botterill.

REVIEWS.

CLIMBING ON THE HIMALAYA AND OTHER MOUNTAIN RANGES.

By J. NORMAN COLLIE, F.R.S.

(EDINBURGH: DAVID DOUGLAS, 1902.)

Seldom in the history of mountaineering literature has the publication of a book been awaited with more impatience and interest than of the one which should record the exploits and adventures of the extremely strong party which in 1895 left these shores to essay the ascent of some Himalayan peaks, and which had for its chief objective the high summit of NANGA PARBAT.

At long length time has fulfilled the desire and expectation of the many, and the volume now given to the world has only one fault—it is much too short! Especially does this seem to apply to the portion dealing with those great peaks of the Himalaya whose grandeur and immensity are so vividly impressed upon us by the glowing fervid descriptions of Mr. Collie. Few things could drive home with greater force—even to the least imaginative—understanding of the vastness of the details of this region than the description of 'days' of 40 and 42 hours' toil and exertion and semi-starvation. To the average man who, well fed and in fair condition, can get comfortably tired with twelve hours' walking and climbing over the infinitely easier ground of, say, our own Lake District fells, such feats of endurance savour of the ancient days when there were giants in the land.

Nanga Parbat is yet unconquered, and that fact is probably due to two causes—its own intrinsic difficulty and the everlasting trouble of the commissariat and its purveyors in the "shiny East." That the three men who essayed the task were good enough to accomplish anything within the power of present-day man we have no doubt. Rarely, if ever, has climbing of such difficulty been done at such altitudes as is described in some of these pages, while the route taken by Mr. Mummery to his highest point (over 20,000 feet) on Nanga Parbat is probably the most sporting one by which such a height has ever been reached.

Once more we find the wholly delightful Gurkha soldiers, trained by Major Bruce to mountaineering according to approved methods, doing excellent work in their own buoyant merry way. Are the whole of this race cast in the self same mould? They seem to pass the greater part of their lives wreathed in smiles, few things seeming to present greater humorous qualities to them than a fall on a mountain side. Even such a fall as comes perilously near to ending their mountaineering career appears to be invested with all the qualities of the deepest and subtlest humour.

The slip of the Chilas tribesman, Lor Khan, reminds one forcibly of the similar accident to Sir Martin Conway's party on Pioneer Peak, and especially so in the admirably cool behaviour of the fallen one after his slip.

The 106 pages which record the journey of the party to and the reconnaissances and assaults on Nanga Parbat are all too few. Few writers have touched so surely the spirit of the great mountains as Dr. Collie, and his readers cannot but feel in a measure defrauded at receiving such brief accounts of the momentous happenings on such a stage. An explorer of the most modern type would never have thrown away the golden opportunity of making a big book out of that journey alone; but the tragedy which so summarily cut short the expedition and which invests all its interests with regrets and sadness must be held responsible for this reticence.

The section dealing with the Canadian Rocky Mountains exemplifies at large the truth of the author's statement that "for those who wish to spend all their time, during a short holiday, climbing peaks, this region cannot be recommended." A sojourn in those ranges consists largely of travel over and through virgin forest, swamps and rivers, but the joys and excitements of such travel look strangely attractive as seen through Mr. Collie's glasses. Even a pack-team journey of ten miles in as many days of travel "through immense timber, "dense thickets of willow, through swamps, along insecure river banks, climbing up the hill sides, jumping logs, cutting through fallen trees and undergrowth so thick one could hardly see a yard ahead, splashing, fighting, and worrying ahead," with "an experience of almost everything that could delay," and "whether the woods, the streams, or the muskegs were worst, "it was impossible to say,"—is compensated for in full by the fact embraced in the five words: "But we were the pioneers." Of the joys of leading too, our author is, in all senses, competent to speak. In fact, so full of charm to him are the incidents of trail and camp in the Rockies, that he has not given a single detailed account of any of his ascents there; but his pages are the richer for a brilliant living picture of primeval forests and the joy of man escaped for a time from the trammels of civilised life to struggle hand to hand with untamed nature on which "the taint of staleness" has not yet fallen. The strength of this desire to escape completely from the herd is shown with some force in the remark that "during all the years I spent climbing with Mummery "(in the Alps and elsewhere), only twice have I slept in a hut."

The golden age when many new climbs were still possible on the crags of Cumberland and before the gullies and ridges were numbered and classified is the subject of a chapter entitled "Wasdale Head."

That entirely delightful article describing the first ascent of the Tower Ridge on Ben Nevis, which appeared in the *Scottish Mountaineering Club Journal* under the title of "The Oromaniacal Craft" is here reprinted by its author.

As an expression of appreciation and for analysis of mountain form and beauty and the glories of atmospheric colouring, few better things could be written than the chapter "A Chuilionn"; and the first feeling of astonishment that photography can produce such artistic triumphs as the illustrations to this volume is softened by the knowledge that the photographer is in this case also an artist.

First and foremost among the illustrations—difficult as choice is rendered where the standard is so uniformly high—is the beautiful picture of Lofoten. The breadth, atmosphere and suggestion of colour in it is wonderful, and much of the same qualities is to be seen in the frontispiece—"A Stormy Sunset."

Far apart and varied in scale and character as are the mountains amongst which Mr. Collie has wandered and climbed—from Scafell to Nanga Parbat, from the Alps to the Rockies, and home again to Ireland and Skye—they are not more diverse than his humour and his love of every phase of the many-sided sport and its associations. He certainly proves, if proof be wanted, that athleticism and æstheticism are not incompatible. The very small proportion of climbing 'shop' and the large recognition of the quieter, more lasting and more intellectual appeals that the mountains make to their lovers give the book a peculiarly high literary value.

J. A. G.

CLIMBS AND EXPLORATION IN THE CANADIAN ROCKIES,

By H. E. M. STUTFIELD AND J. NORMAN COLLIE, F.R.S.

(LONDON: LONGMANS, GREEN & Co., 1903.)

In the preceding review of Professor Collie's work on the Himalayas, etc., it is remarked that no detailed account of any of his climbing experiences in the Rocky Mountains is given, but the publication of this book, of which he is part author, following so closely on its heels, is a sufficient explanation of what appeared to be a somewhat strange and regrettable omission.

From the point of view of the climber whose scenes of activity have been limited to the more civilized and convenient regions of Europe, it might almost be said that this breezy narrative described travels that had for their secondary object climbing in the Rockies, rather than that climbing was the subject of the book. The great difficulties encountered in moving from place to place through the dense forests and scrub;

fallen timber and creepers—often poisonous; where trails were non-existent or overgrown and had to be re-cut ere the train of pack-ponies could be got along, accounts largely for this feature. The labour and time expended in getting to the scene of desired action was enormous. One journey of 150 miles took 18 days of what the authors modestly call "pretty constant work."

It is strange to learn that in a growing British Colony tracks and trails are now far worse than they were 40 years ago, but that is so, and the explanation is "that then game was more abundant and the passing to and fro of Indians and trappers kept the trails open. In these times things are altogether different; the woods are veritable wildernesses, and, strange as it may seem, we never met a human being—red, black, or white—during either of our journeys up country in 1898 or 1900."

Under these conditions it is readily understandable that the chop of the lumberer's axe clearing the way resounds oftener through the pages than the chip of the mountaineer's ice-axe. The dangers and difficulties of fording flooded rivers are more in evidence than those of crag and icefall. Further, those ever present troubles of transport and commissariat which in other countries place the traveller at the mercy of porters or coolies are here reproduced by the diabolical perverseness of Indian pack ponies, whose greatest joys seem centred in either going swimming with their packs on at any available opportunity—to the detriment of the contents of those packs, and, doubtless, to the ultimate sorrow of the pony,—or in making use of their undeniable agility to jump into some inextricable criss-cross of fallen timber, whence their rescue can only be effected by laboriously cutting them out of their self-chosen pound. It is hinted that at these times the profanity of the trailers was delightfully diverse and enlightening, and one cannot help experiencing an unregenerate regret that a specimen harangue is not given.

The Bush River expedition of 1900 was an epitome of the trials, dangers, and hardships peculiar to the country. Dense bush, wet sleeping places, two narrow escapes from drowning while fording rivers, and a hairbreadth one of losing a pony, who, thinking a load of 250lbs of bacon a suitable bathing costume, "took a header into a stream running like a mill-race and 10 feet deep," and was only rescued with her precious load after the expenditure of time and much strength; and to such troubles was added the trying one of a bad climate. Indeed, one gathers that the atmosphere, not only in the valleys but to considerable heights, consisted of wood smoke from distant forest fires, mosquitoes, and other and harder biting flies called bulldogs, in about equal proportions, mixed together in steamy mist or rain—conditions as far removed from the austere purity of the air in more familiar mountain regions as can well be imagined.

But it must not be supposed that things were always as bad as this, nor that the writers dwell upon this aspect of their journeys; so far from that, such incidents are merely recorded as part of the day's work involved by sporting travel in almost virgin country. The joys of the wilderness far exceed its hardships. "The wilderness lay between us and dull respectability: . . . with its conventions and boredom; its feather beds and table d'hotes; its tall hats, frock coats and stick-up collars . . . we could wear what we liked and enjoy the ineffable delights of being as disreputable as we pleased."

Neither must the reader suppose that climbing was not done. Numerous ascents were made, but principally for the primary purpose of attaining surveying points; and throughout the volume exploration is given priority of place to mere holiday climbing.

The description of the ascent of Mount Forbes—all too brief though it be—reads strangely like the classic pages of "Peaks, Passes and Glaciers" in its graphic delineation and broad treatment of the incidents of climb and bivouac. The climbing of Neptuak, consisting mainly of very difficult rockwork, is, so far from being cumbered by detail, dismissed in very few words as one of the best climbs in the country; and so with many other ascents.

This breadth of treatment is characteristic of the book and is very noticeable when comparison is made with much recent climbing—as differentiated from mountaineering—literature. Especially does this apply to many modern descriptions of crag work, where detail and methods are so elaborated and so much scientific ingenuity is displayed that one quite expects to come across a formula for determining the number of square inches of Harris Tweed which if applied to the surface of a specified kind of rock at a certain angle would be sufficient to hold up the wearer.

While the reader is spared much arid detail he gets in its place many passages of fine appreciation and insight which must often give utterance to his own inarticulate fancy. A single and partial quotation from p. 120 is one of such—"Our view was largely spoiled [by haze], but, as a compensation, the sense of vastness and mystery was enhanced—and in travelling through a new mountain country the sense of mystery is everything. The spell that once was upon the Alps has been broken: the illusion and the mystery that formerly enshrouded them have departed, never to return; and with the illusion has gone much of the awe and reverence they used to inspire."

The fall into a crevasse described on p. 30 which narrowly escaped casting the gloom of disaster over the expedition was apparently due to a strange neglect of mountaineering rule. To

cross unroped over a high and crevassed snowfield implies a carelessness and disregard of danger which cannot be approved of, and which, if persevered in, can have only one end.

In these pages one meets many delightful and picturesque beings. An axeman with a keen sense of the beautiful in Nature, guides and "outfitters" who have seen service in South Africa—all serve to enliven the narrative and add human interest.

The geographical results of these journeys are considerable, but are not insisted upon in the volume under notice; probably they have found a permanent home elsewhere. Some 3,000 square miles of mountain, valley, stream and lake have been mapped; the heads of those mythical giants Mounts Brown and Hooker have been shorn off, and their heights reduced from about 17,000 feet to about 9,000; and icefalls and icefields greater than any in the Alps are recorded.

The volume is well printed in strong type, and the illustrations—all from photographs—are good, many indeed possess qualities of uncommon distinction.

The picture of Mount Sir Donald facing p. 226 shows the mountain which has perhaps the greatest resemblance to the forms of mountain architecture familiar to travellers in Switzerland; the curiously hard lines of horizontal stratification causing many of the Canadian peaks to lose much of dignity and beauty.

And so for want of space must end the bare notice of a book which gives to the reader the result of years of work and observation in one of the most beautiful regions of the world: the tale of which is told modestly and with touches of humour.

J.A.G.

CRAG AND HOUND IN LAKELAND.

By C. E. BENSON.

(LONDON: HURST & BLACKETT, LTD., 1902.)

Beginners, novices, and those who have hitherto found "the spirit willing but the flesh too weak" to climb the steep crags of our Lakeland Mountains will welcome the advent of this book, as it is written expressly for their benefit. It is divided into three distinct parts, Part I. being devoted to Preparation, Part II. to Rock-Climbing, and Part III. to Fox-hunting.

The first part deals with the equipment and training of the would-be climber, and gives good advice on what to use and what to avoid, the author inculcating his various teachings with appropriate anecdote. In fact the book throughout teems with good stories told with genial humour, and its pages abound in amusing description of personal experiences; moreover, Mr. Benson does not hesitate to tell his story when the point is against himself.

To the more experienced climber, much of the author's advice to beginners may seem superfluous, but Mr. Benson is evidently a cautious man, as he had need to be if one may judge by the more than fair share of nasty little adventures he has had during his own climbing career. Besides, as has been said, the book was not written for experts; it is addressed to beginners and is very modestly prefaced with a remark made by the late Owen Glynne Jones: "*A novice can often explain to a novice far more effectively than an expert.*"

We have all heard of Bedroom Gymnastics, Mr. Benson takes us a step further and shows us how we may practice our climbing by sundry antics on the staircase, banisters, and in the bedroom doorway. He does not, however, instruct us as to our mode of procedure should the landlady put in a sudden appearance.

The part on Rock-Climbing deals mostly with practice climbs on Castle Head—some rocks about ten minutes walk from Keswick. About ten pages are devoted to an amusing but instructive glossary of technical terms, and the part concludes with a list of the "Easy Courses" given in Jones's "Rock Climbing," with instructions how they may be reached and suggestions as to the way of overcoming them.

Lest the uninitiated should conceive the idea that climbing begets profanity he may as well be informed at once that it does not do so. Even under the most trying circumstances climbers as a rule do not swear, the sport on the contrary generally tending to bring out the more philosophic parts of a man's nature. One therefore likes to think that Mr. Benson's "swears" are only imaginary and that his "really solemn carefully thought out comprehensive swear" is only a mild, humorous ejaculation of satisfaction. If it were not so, then we might reasonably expect the tourists to tell us "they have never heard the fells re-echo with the glad sound of the horn and hound," but that the echoes were of a more profane kind.

The third part—on Fox Hunting—is excellent. Mr. Benson here shows his knowledge of the district and also handles the subject in a masterly way.

The book is well illustrated and should be of considerable value to the beginner, while the author's humour and breezy style render it interesting even to those who have no ambition to climb Crag or follow Hound in lakeland.

F. B.

NORWAY, THE NORTHERN PLAYGROUND.

BY WM. CECIL SLINGSBY.

(EDINBURGH : DAVID DOUGLAS, 1904.)

Mr. Slingsby's book is a spirited and affectionate invitation to climbing men and lovers of wild natural scenery. The country pictured in its pages with delightful enthusiasm is one to be visited and loved by the sportsman whether he climbs, fishes or shoots. The book disabuses one's mind of the idea that Norway is quite overrun by steamboat tourists and entirely exploited by the advertising excursion agent, and makes good its claim to be one of the most delightful of our Alpine playgrounds.

The name of Slingsby is inseparably connected with mountain exploration in Norway, but it is probably not generally recognised how deservedly. From the author's accounts of the many first ascents, new passes, glacier and snowfield explorations he has made, we are able to gather how strenuous his labours have been. Difficulties and dangers must of necessity be encountered by the explorer of unknown mountain countries, but they have not always been so cheerfully accepted and so pleasantly recounted. The hardships of earlier days—the poor and scanty food, the indifferent and unclean lodging, the burdensome and weary way—are dwelt upon but lightly. Mr. Slingsby's attitude towards them is very simply explained in these his own words: "without which, though we should have had less fun and fewer adventures, we should have probably doubled the number of the maiden ascents which fell to our lot."

One of the book's most pleasant features is a generous desire to give credit where it is due, and to unselfishly recognise and commend the work of other men engaged in the same field. Perhaps the book's greatest claim upon the regard of the Yorkshire Ramblers will be that it is so strangely and unmistakably imbued with its author's personality. It is to be feared they will not greatly trouble themselves about its history or its politics, but they will rejoice to recognise in its tales of adventure a fellow Rambler "warranted not to jib." They will accept its irreproachable mountaineering ethics and regret without condemning its author's lapses from them. All Ramblers will appreciate his pluck and enterprise, his eye for a mountain and his capacity for finding a sporting way up it, and keenly sympathise with his joyful appreciation of the grand and beautiful and his deep affection for all nature's creatures. The book has been called "breathless," with some justice. Its arrangement without regard for the unities of time and place is perplexing, and makes it difficult in places to follow. Unfortunately, Mr. Slingsby has not kept his resolution to adhere to his mother tongue. Scraps of Norse, and French and German quotations have been allowed to creep into it. Quotations are at their best dangerous things, and they haunt the pages like the ghosts of the great dead. It

would probably have been well for the book if he had remained content with the sentence of Ruskin's which so happily precedes it.

The book is liberally illustrated by photographs and sketches. Some of the former are beautiful, notably Mr. G. P. Baker's frontispiece Loen Vand, Mr. Howard Priestman's Fjærland and Mr. W. N. Tribe's Romsdalshorn. Perhaps the best of the mountain photographs are Mr. Priestman's Western Horungtinder and his fine glacier picture of an ice cataract on the Kronebræ. Mr. Colin Philip's sketch of crags on Slogen is excellent, and the ledge on Skagastolstind by Mr. G. P. Baker is full of admirable detail. The numerous illustrations in the text are, however, poor and misleading. Drawn principally from sketches by the author they lack value, but the amateurs to whom they have been entrusted have probably made the most of the rough materials given them. It is to be regretted that photographs have not been made greater use of. The text itself is modest and free from exaggeration, but one can hardly say the same of the extraordinary mountain forms that illustrate it. Good photographs, if obtainable, would have been more satisfactory and convincing. Mr. Howard Priestman's maps are excellent aids by which to follow the author.

The book is of fascinating interest to lovers of Norway and an entertaining record of splendid work. It contains no appeal to the curiosity of the morbid. It is singularly free from pose and its author never plays to the gallery in a mountaineering sense. He is always a kindly courteous Englishman, winning the hearts of his hosts in the lonely sæter, and the confidence of his fellow climbers on the untrodden peaks of Norway, as he has gained and keeps the affection of the Yorkshire Ramblers.

L.M.

THE BERNESE OBERLAND.—FROM THE GEMMI TO THE
MÖNCHJOCH.

BY G. HASLER.

(LONDON : T. FISHER UNWIN, 1903.)

As compared with Mont Blanc, the Pennines, and other Alpine Ranges long fashionable with mountaineers the Oberland may have been called a "poor, neglected district," but that either its valleys are poor in loveliness or its peaks lacking in grandeur, or even that the Oberland is neglected either by the tourist or the mountaineer will be indignantly denied.

In one sense only can it be said to have been neglected. While other districts, much less frequented by mountaineers,

have for a number of years had their "Climbers' Guides," the deserving Oberland has been without one. Mr. Hasler's little volume is the first instalment towards remedying this long standing grievance. It deals with the central and most important mass of the Oberland, covering from the Gemmi on the W. to the Eiger on the E., and includes, though necessarily briefly, the groups of the Balmhorn, Breithorn, Blümlisalp, Bietschhorn, Aletschhorn, and Jungfrau. The various routes made on these are here arranged in chronological order and the particulars, which have been gathered from reliable sources, are concisely stated.

A second volume, shortly to be issued, will comprise the district from the Eiger to the Grimsel, and the third and fourth volumes, completing the Oberland, will be devoted to the groups E. of the Haslithal and the long wing W. of the Gemmi as far as the Muveran.

That new and good work may still be found in the Oberland is proved by Mr. Meade's descent of the N.E. arête of the Jungfrau made since the first volume was published, and, as is the case in previous Climbers' Guides, a few blank leaves are inserted for the addition of further records, so that its possessors may conveniently keep it up to date.

A great acquisition to these little volumes would be the insertion of a small map of the district dealt with—similar to those in the Dauphiny Map volume, and with the positions of the huts marked on; also outline sketches roughly indicating the routes up the peaks. This latter the Swiss Alpine Club has furnished in its "Clubführer durch die Glarner Alpen," which being otherwise broadly on the lines of the English "Climbers' Guides" is a flattering testimony to the usefulness of the series.

MOORS, CRAGS AND CAVES OF THE HIGH PEAK.

By E. A. BAKER, M.A.

(LONDON: JOHN HEYWOOD, 1903.)

Mr. Baker's book comprises a collection of well written articles of great interest to lovers of the moorland in general, and to rock scramblers and cave explorers in particular. To all such the High Peak offers no few possibilities of enjoyment, and the author's chapters tell of these in such terms as should induce other than Derbyshire men to visit that part of the Pennines.

Yorkshiremen who are familiar with their own moors, crags and caves will read the book with especial pleasure for in it they will see ably depicted by word and picture many scenes strikingly similar to those in their own county. One section

records the more important cave explorations made by members of the Kyndwr Club. Though there are no Gaping Ghylls or Alum Pots in Derbyshire, excellent underground sport may be had there. Elden Hole, explored by Mr. Rooke Pennington in 1873, is the nearest in point of size to the larger Yorkshire Pot-holes.

The methods employed by Mr. Baker and his friends in making descents are not always above reproach—as they ought to be, considering the unpleasant possibilities which may attend the sport. Indeed, he confesses that after the adventure which his party had during their first descent of Elden Hole he almost resolved never to venture down a pot-hole again. Fortunately for his readers a second descent, and one more successful, in its freedom from 'incident,' caused him to alter his opinion and he became an ardent speleologist. He, however, cannot be very familiar with work of this kind in other parts of the Pennine chain or he would not have stated that "to get a party of thirteen men to the bottom of a 200 feet pot-hole without accident" is "a feat unique," unless he meant that the unlucky number called for a disaster, and that in this instance there was no response.

The "craggy" section of the book should prove of service to local scramblers. The author, following O. G. Jones's example, has classified many of the Derbyshire Rock climbs in order of difficulty.

The book is nicely got up and well illustrated, and it can be heartily recommended to all Moor Ramblers, Crag Scramblers and Cave Explorers.

RECENT BOOKS.

- ACONCAGUA AND TIERRA DEL FUEGO. A book of Climbing, Travel and Exploration. By SIR MARTIN CONWAY. With 27 illustrations and a map. Size $8\frac{3}{8} \times 5\frac{1}{2}$, pp. xii. and 252 (London: Cassell & Co., Ltd. 1902. *Price 12s. 6d. net.*)
- ROUND KANGCHENJUNGA. A narrative of Mountain Travel and Exploration. By DOUGLAS W. FRESHFIELD. With 43 illustrations, panorama and 3 maps. Size $10 \times 6\frac{1}{2}$, pp. xvi. and 367. (London: Edward Arnold. 1903. *Price 18s. net.*)
- CLIMBS AND EXPLORATION IN THE CANADIAN ROCKIES. By HUGH E. M. STUTFIELD and J. NORMAN COLLIE, F.R.S. With 80 illustrations and 2 maps. Size $8\frac{3}{8} \times 5\frac{3}{8}$, pp. xii. and 343. (London: Longmans, Green & Co. 1903. *Price 12s. 6d. net.*) *Reviewed on p. 85.*
- CLIMBING ON THE HIMALAYA and other Mountain Ranges. By J. NORMAN COLLIE, F.R.S. With illustrations and a map. Size, $8\frac{3}{8} \times 5\frac{3}{8}$, pp. vii. and 315. (Edinburgh: David Douglas. 1902. *Price 16s. net.*) *Reviewed on p. 83.*
- THE BERNESE OBERLAND. (*Conway & Coolidge's Climbers' Guides.*) Vol. I. From the Gemmi to the Mönchjoch. By G. HASLER. Size $5\frac{1}{4} \times 3\frac{3}{8}$, pp. xxv. and 164. (London: T. Fisher Unwin. 1902. *Price 10s.*) *Reviewed on p. 91.*
- ALPINE FLORA, for Tourists and Amateur Botanists. By Dr. JULIUS HOFFMANN. Translated from the German by E. S. BARTON (Mrs. A. GEPP.) With 40 coloured plates. Size $8\frac{1}{8} \times 5\frac{1}{4}$, pp. xii. and 112. (London: Longmans, Green & Co. 1903. *Price 7s. 6d. net.*)
- A PLEASURE BOOK OF GRINDELWALD. By DANIEL P. RHODES. With 61 illustrations and a map. Size $8 \times 5\frac{3}{8}$, pp. xv. and 235. (London: Macmillan & Co., Ltd. 1903. *Price 6s. net.*)
- GUIDE TO SWITZERLAND. With 31 maps and 6 plans. Size $6\frac{3}{4} \times 4\frac{3}{4}$, pp. cvi. and 235. (London: Macmillan & Co., Ltd. 1903. *Price 5s. net.*)
- TRUE TALES OF MOUNTAIN ADVENTURE for non-climbers, young and old. By Mrs. AUBREY LE BLOND (Mrs. MAIN.) With 36 illustrations. Size $8\frac{3}{8} \times 5\frac{3}{4}$, pp. xvi. and 299. (London: T. Fisher Unwin. 1903. *Price 10s. 6d. net.*)
- VOLCANIC STUDIES IN MANY LANDS. Being reproductions of Photographs by the author of above one hundred actual objects, with explanatory notices. By TEMPEST ANDERSON, M.D. Size $9\frac{7}{8} \times 7\frac{5}{8}$, pp. xxviii. and 202. (London: John Murray. 1903. *Price 21s. net.*)
- NORWAY: THE NORTHERN PLAYGROUND. Sketches of Climbing and Mountain Exploration in Norway between 1872 and 1903. By WM. CECIL SLINGSBY. With 102 illustrations and 9 maps. Size $8\frac{3}{4} \times 5\frac{5}{8}$, pp. xviii. and 425. (Edinburgh: David Douglas. 1904. *Price 16s. net.*) *Reviewed on p. 90.*

Recent Books.

- NORWEGIAN BY-WAYS. By CHARLES W. WOOD. With 9 illustrations. Size $7\frac{3}{4} \times 5\frac{1}{8}$, pp. 384. (London: Macmillan & Co., Ltd. 1903. *Price 6s.*)
- THE LAKE COUNTIES. By W. G. COLLINGWOOD. With 42 illustrations and 6 maps. Size $6\frac{3}{8} \times 4\frac{1}{4}$, pp. xii. and 392. (London: J. M. Dent & Co. 1902. *Price 4s. 6d. net.*) [An exceptionally interesting Guide Book containing special Articles on the Flora, Geology, &c., of the Lake District, and one on Mountaineering by W. P. HASKETT SMITH. A useful Gazetteer is included].
- THE ENGLISH LAKES. By F. G. BRABANT, M.A. With 12 illustration and 10 maps. Size $6 \times 3\frac{3}{4}$, pp. x. and 379. (London: Methuen & Co. 1902. *Price 3s.*)
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