## THE

Yorkshire Ramblers

## Club Journal.

EdITED by ERNEST E, ROBERTS.

## CONTENTS.



## IILUSTRATIONS.



## ISSUED YEARLY.

Pubished by the Yorknhire Ramblern' Club, 10, Park Streel, Leeds,


"The rope must be well tested and guaranteed by a reliable maker"
-mountaineering art

| 48 Thunstrasse Ber.ve 16th Feb. 1923 |
| :---: |
| Messrs. ARTHUR BEALE <br> 194 Shaftesbury Avenue <br> London WC2 <br> Gentlemen <br> I would be most grateful if you would supply me with all information, as well as with descrip. tive, and if possible illustrated, literature, concerning your ALPINE ROPES, and specially the ALPINE CLUB ROPE as advertised in the last issue of the "Alpine Journal." <br> The rope I procured from you in 1921 has proved most satisfactory. As an illustration I may say that in October, 1921. it withstood the shock of two bodies falling a little over 60 feet, thereby saving two lives. The handling of it has always been very pleasant. <br> Thanking you in advance <br> Yours faithfully WILLIAM A. T. SOWDEN |
|  |  |
|  |  |
|  |  |

One of many Originals of which can be seen al
194 Shaftesbury Avenuc, London W C2

Also the maker of RUCKSACKS, Wrist Slings, Leather Head and Point Cases for Ice Axes. Safety Slings and Belays made to order.
som agent mon ghat britain for messrs.
CHAMONIX ICE AXES SWISS AXES, LANTERNS, COOKERS \&c. always in stock

Any of these articles may be sent on approval for customers Any of these articles may be sent on approval for cust
to select from. Carriage each way to be charged for.
ARTHUR BEALE ${ }_{\substack{\text { Alpine R Rove }}}^{\text {Shatict }}$ 194 Shaftesbury Avenue LONDON WC 2


## Yorkstire Ramblers' Club Journal

Vol. V.
I924.
No. 16.

## A GLIMPSE OF DAUPHINE.

By A. M. Woodward.
It had been cold and gloomy when the car emerged from the tunnel at the top of the Col du Galibier and began to descend the long zig-zags of the road down into the valley of the Romanche. Across the valley the Meije was hiding its summit-ridge in clouds, which augured ill for fine weather, but increased the impressiveness of the great glaciers pouring down its northern face out of the mist far above our heads. A drizzle was falling when we halted at Lautaret, a favourite haunt of the Alpine botanist.

Here, indeed, art and science have come to Nature's aid, for in a garden adjoining the hotel the University of Grenoble has laid out an Alpine garden, where the rarest plants from the Alps are ranged trimly by species, in stony beds, with sections containing unfamiliar treasures from the Pyrenees, Iceland and the Himalaya. But to the lay mind their charm is lost, for man had put them there and labelled them; and orderly arrangement is not one of Nature's qualities in Dauphiné.
On reaching La Grave and strolling up the slopes behind the village, one's view was still dominated by the Meije, which reminded one that mountains, unlike, as some say, small children, are not merely to be seen and not heard, for the thunder of its ice-avalanches boomed now and then across the valley.

Next morning, however, was bright, and my plan of campaign was soon formed. Théophile Pic and his brother Florentin were engaged to accompany-or, should I say, conduct-me up the East Peak of the Meije, an attractive snow-pyramid not visible from La Grave. This is one of the few real snow-peaks
in Dauphiné, and consequently thought beneath the notice of the expert climber, who attacks, as Dauphinés pièce de résistance, the great West Peak, a glorious rock-climb, continuously difficult, and one of the most laborious expeditions in the Alps.

I had no such ambitions, and if I had, the powdering of freshly fallen snow would have put rock-climbing for the time out of the question. Florentin was out in pursuit of gibier when we had hoped to start, but when he returned emptyhanded he shouldered our provision sack and we were off soon after II a.m., our immediate goal being the hut on the Rocher de l'Aigle. This is situated on the very crest of the main ridge of our peak, more than in,ooo fect up, where it slopes downwards to an outlier. The ascent to the hut needs no detailed description, for one glacier ascent is in general very like another, though forlunately the tourist docs not always have to battle with such a raging wind as smote us on the slaty buttress leading up from the valley. Cold squalls of rain beat on us when we halted for lunch, and retreat was suggested, with a view to a fresh attempt next day, direct from La Grave, which would involve starting at midnight. But I was loth to lose the $I, 800$ feet we had already risen, not to mention a dislike to quitting my bed four hours before dawn, if there is any reasonable alternative. Optimistic counsels prevailed, and the clouds lifted to encourage us.

A steep grass slope and 20 minutes on a hateful moraine brought us to the Tabuchet glacier, which we followed up to the hut, except for a short scramble up the rocks on its left (true right) bank to turn the bergschrund. Here, I own it without shame, I fully appreciated the practical as well as the moral support of the rope, for the holds seemed mostly inadequate to my clumsy extremities. The clouds were down on us before we finally reached the hut, soon after five o'clock, well satisfied with our progress so far; for we had risen more than 6,000 feet in less than four hours and a half, excluding halts, and step-cutting on the steeper slopes had checked the pace.

The day's delights were not over; as the sum went down a narrow band of sky, framed by the flat canopy of leaden cloud above and the rugged tops of the hills below, filled and glowed for a few minutes with all the colours of the rainbow; then to the south-west the crags of the Pic Gaspard showed up intermittently through the driving clouds, with the young moon climbing above its shattered arête. The dusk came, and with it the soup, such as cannot be made except in a mountain hut; no recipe could impart the secret of its peculiar charm. Profoundly thankful that we were not back at La Grave with prospects of a midnight start, we turned in to our comfortable straw and blankets. Pleasant as it is "beneath the roof, to hear with drowsy ears the drip of rain," as Sophocles hath it (who, though accounted most fortunate of men, was not a climber), it is pleasanter still to hear nothing-beyond the moaning of the wind and the occasional snoring of one's companions-and to wake, as we did, to a cloudless morning.

The night had been cold, and the September sun had little power when we started at six o'clock for our peak, now barely I, 700 feet above us; beneath a frozen crust, the snow was soft and powdery, and when the slope grew steeper, Théophile was soon busy with his axe. After 40 minutes' going we surmounted a rocky outcrop on the ridge, freshly powdered with snow, but luckily not extensive, and were soon on the arête proper, which now steepened yet more, in places to 50 degrees. A halt for breath, when it widened again, to let Florentin take his turn at step-cutting, was associated with disappointment, when my companions mistook an allusion to my Kodak for one to cognac, with which we were unprovided. Progress was resumed, and soon after 8.30 we were shaking hands on the summit. For half an hour we enjoyed the view and endeavoured to restore circulation in our half-frozen feet, with more success than I could hope for in attempting to describe what we saw.

No words can do justice to the impression caused by the Central Peak of the Meije towering straight ahead of us; the Climber's Guide is moved for once from its cold and formal
style to call it "a most amazing sight from the East Peak," on which we stood. From La Grave, and even from the Refuge, it is merely the second highest projection in a long jagged ridge dominated by the West Peak, but seen from here it has an individuality all of its own, with its summit apparently overhanging the terrific rock-wall which falls sheer to the Etancons Glacier, 4,000 feet below. More than this, it gives a sense of belonging to some world of fantasy, a new experiment of some unearthly architect, which might at any moment fall in ruin, never to be repeated. Well may the peasants in a valley away to the south-east call it Lc Doigh de Dicu!
The other giants of Dauphiné also claimed a share of attention, belles horreurs, as Mr. Coolidge calls them, after exploring them for 20 years or more-a mass of toppling crags, seamed with avalanche-raked couloirs, merc experiments in bizarre mountain-building - dominated by the Ecrins, on which one could follow and marvel at the route taken by Whymper's party up its northern face in their successful onslaught in 1864. To the north-east the summits of the Tarentaise, none reaching quite to the height at which we stood, greeted me again, for I had but recently been among them, skirmishing amid the outworks, rather than attacking the main strongholds; but beyond thém, Mont Blanc towered as usual above all his neighbours, as though by divine right. Far to the east stretched the Pennine peaks in range after range, with a glimpse to be had, over their western end, of some outlying summits of the Oberland, too remote to identify at a distance of 120 miles.
All too soon we retraced our steps, and an hour's easy going brought us back to the hut. Lunch, a rest, and a pipe smoked in more comfort than that tried on the summit, consumed the rest of the forenoon. Our descent was uneventful, though the mauvais pas on the rocks seemed no less difficult than in ascent, and we were off the glacier by r.30. A welcome halt by a spring, for rest after the descent of the loathsome moraine, gave us fresh vigour, and glissading down the last slaty slopes to the valley, we returned, flushed partly by our exertions, and one at least of us with satisfaction, to'La Grave. The tale

of pleasure was completed by the crowning mercy of a hot bath, and such regrets as came were confined to the thought that nearly a year must elapse before I could renew my acquaintance with the "peaks and pleasant pastures" of Dauphine, for two days later I was due back in England.
[We are indebted to the Editorial Committee of the Gryphon for kind permission to reprint (with verbal alterations only) this article, which appeared in that magazine in 19I4.—Editor]


## LES ÉCRINS AND THE MEIJE.

## By W. A. Wright.

Returning to the Alps after an absence of years caused by the great war, I was curious as to the state of mind and body in which I should find myself, being desirous of making the ascent of one or more of those higher peaks to which the lover of the Alps naturally turns. However, recollections of previous holidays, coupled with a visit in 1922 to the Montenvers region, served to assure me that by steady training I might have an cnjoyable time and reap some measure of success on expeditions of reasonable length, though not perhaps with the speed of former years.
My choice of district this season, 1923, fell on the Dauphine Alps, with the ascent of Les Ecrins and, possibly, the Meije as the ultimate goal.
On alighting at St. Michel de Mauriemne, I secured a place in a local motor conveyance, my travelling companions being an interesting party of peasant women with their curious white caps, and a genial padre. Through the good offices of the latter, who by telephone secured me a room at the Hotel de Valloire, I was spared the anxiety incidental to many travellers in the crowded month of August of being in doubt as to obtaining accommodation, so night found me safely ensconced in comfortable quarters, intending on the morrow to walk over the Col du Galibier to the Lautaret, with the hope of a glimpse, if not a glorious view, of some of the most romantic and beautiful peaks in the entire range of the Alps.
Due to no fault on my part, I was unable to make a start before 7.30 a.m., but by taking short cuts, I was enabled to reach the tunnel near the head of the Col a little before mid-day. Instead of going through the tunnel I diverged to the left, crossed the old road, and making my way over débris and patches of snow reached the summit, where my labours were rewarded by the view I had anticipated. To the south rose Les Ecrins, and the awe-inspiring arête of the Meije; southeast, Monte Viso and other minor peaks; to the north the
imposing range of Mont Blanc, and north-west one of the peaks of the Aiguilles d'Arve. Other partics arriving from Lautaret and Valloire by a small path on the other side of the tunnel were equally enthusiastic at the unique panorama.

After a delightful day revelling in the flora which abounds in the pastures near the Lautaret Pass, I decmed it advisable to make my way down to La Grave and secure a room at the Hotel de la Meije, which I intended to make my headquarters for the first portion of my climbing holiday. There I was recognised by Madame Juge, who evidently remembered my former visit, and had the pleasure the following day of grecting my guides, Alfred Balmat and Alfred Simond of Chamonix. We contented ourselves on the morrow by a preliminary walk of three hours to the Chalvachére Chalets, and arranged to make the ascent of Bec de l'Homme on Saturday, August 4th.
We left the hotel at four o'clock and on arriving at that part of the glacier where climbers making the ascent usually take to the rocks, the leading guide, Balmat, enquired whether we should do this or keep to the glacier, and after conferring with a friend who accompanied me, we decided upon the latter. We thus turned our expedition into one upon ice and snow, arrived at the Col de l'Homme at noon and returned to La Grave at 6 p.m. The result of this day's effort served to confirm my earlier impressions that more training would be necessary to acquire those reserves of physical strength and nerve force which contribute so much to the enjoyment of a first-class climb.
After a brief interval I revisited the Col du Galibier with an artist who had kindly promised to make me a sketch of Les Ecrins from the summit, but the sky clouding over gave disappointing conditions. We were, however, more fortunatc the following day in securing the same scene under sunnier aspects, with the very satisfactory result that a charming water colour of Les Ecrins with the rocks of the Roche Faurio and other peaks is now in my proud possession.

This was my second visit to the Dauphiné, my previous one lecing in 1907, when among other expeditions I. crossed the

Mrowlu de la Mcijc. We set out to repeat this on August 8th. Lemving La Grave at 4 a.m. we reached the Brèche at II o'clock fund there rested for one hour enjoying the view from this sharp deep gap. The usual route near the Promontoire Hut not bcing negotiable this year, we had some interesting work on the glacier and, by crossing a small ice bridge where steps had been cut by previous parties, reached the lower slopes of snow, which took us to the path leading to the Refuge Chatelleret. This the guides accomplished with true Chamoniard skill and sagacity.
After a few minutes' rest we were en route for Bérarde, and caught a glimpse of the wonderful rocks of Les Ecrins up the Bonne Pierre glen. Arriving at our final destination, we found the Hotel Tairraz in the full swing of the climbing season, the very steady fine weather which prevailed contributing to this. Though I had made the ascent of Pic Coolidge in 1907 , I decided to repeat the expedition for the purpose of again inspecting the steep rock precipices of Les Écrins, l'Ailefroide and Pelvoux, and this, followed by a walk up the Tête de la Maye on August 12th, helped forward my training for the bigger climbs I had in view. For the traverse of Les Ecrins I engaged the services of Joseph Eymard, of St. Christophe, as porter, it being desirable that we should be well provisioned, as after crossing the mountain our intention was to stay the night at the Ernest Caron Refuge and return to Bérarde by the Col des Ecrins the following day. As events turned out this proved successful.

If I am accused by some of taking things rather leisurely, the only excuse I can advance is that I must now class myself in the words of a well-known writer, as a middle-aged mountaineer.

The first night we slept until 12.30 at the Carrelet Hut, getting away about I. 30 a.m. The guides had already selected the route, from the summit of Pic Coolidge, and as a consequence we had no difficulty in making our way over the moraine to the Glacier du Vallon de la Pilatte, where we took our first breakfast at $5.30 \mathrm{a} . \mathrm{m}$.

I feel I must dwell on the grand view of the rocks of Les Ecrins from a point where the path diverges to the Col de la Temple. Of great breadth, they appear somewhat dwarfed in height, which is perhaps due to the intervening foreground, but these characteristics, combined with their colour, contribute to the romantic beauty of this wonderful peak.
Daylight had been assisting us for a little time, and though a party of younger men had overtaken us in the early morning and already climbed out of sight, we had no difficulty in selecting the right couloir and thoroughly enjoyed our first contact with the rocks. May I here mention the experience, no doubt shared by other mountaineers, of the ease given to mind as well as body by changing from moraine to glacier and then to rocks.

For about two and a half hours we continued steadily climbing, then we had refreshments in a couloir where water was available. The first portion of the climb is sufficiently difficult to be interesting, and culminates in a well-known slab where a steel cable hangs down for those who feel the need of it, but both hand and foot holds are in evidence for the observant climber.
Crossing a steep snow couloir we were soon reminded of danger by the porter, the last man on the rope, crying out, "Attention! Attention!" as a fairly large stone came bounding down, fortunately clear between Simond and myself. We were not to be deterred by such an incident and, making our way up another small couloir, got on the final steep ridge of rather loose rocks which leads to the arête of the mountain. Hitherto the climb had been in the shade, but now the heat of the sun was somewhat troublesome, and the last hour and a half became more laborious and required greater care on account of the nature of the rocks.

All mountaineers know the sweet and solid satisfaction of reaching the goal of their ambition, or what is of nearly equal truth, to have the summit. well in sight, and it was ours as we got on the arête and could see the heads of climbers sitting comfortably in the sunshine a few yards on our right.

I experienced a slight feeling of regret at finding the rocks disintegrated on the summit, but it was not possible to dwell long upon this view of nature, as the vision was directed to the majestic cliffs of Pelvoux, Ailefroide and La Mcije, and the far distant Mont Blanc and other peaks. It is one of the rewards of the devout and consistent lover of the mountains to be able to recognise the forms of the peaks which have been ascenderl in previous seasons.. This was our experience as we recognised with its long snow slope the Grande Casse among others, easily discernible against the deep blue sky.
After an hour's rest in warmth and sunshine on the summit, we made our way down the arête, descending a few rocks and an ice slope over a bergschrund, and traversing steep slopes of snow found no difficulty in reaching the Glacier Blanc, over which an easy walk brought us to the foot of the rocks upon which the Ernest Caron Refuge is built. We were pleased to enter this new and well-fitted hut and soon made preparations for "high tea." The following morning we walked leisurely on to the Col des Ecrins and made our way down the steep rocks to the Bonne Pierre glacier, where under a large rock we completely finished the remainder of our provisions and reached Bérarde in time for lunch.

The traverse of Jes Ecrins may not come up to the standard desired by an ardent rock climber, but it surely must rank high as an alpine expedition.

The traverse of the Meije had been seriously discussed, and the necessity had arisen of carrying with us a length of thinner rope for the descent to the Brèche Zsigmondy, and down the ice slope of the Central Peak, but our minds were set at rest by the porter Eymard securing a sufficient length from a guide at the village of Etages. As cvents turned out, we need not have shown anxiety on this puint, the local guides having already fixed ropes at the places mentioned.

On arrival at the Promontoire Hut on Friday evening for the morrow's ascent, we found five other parties with the same aim. We were the third party to leave the Hut at $5.30 \mathrm{a} . \mathrm{m}$. It is always an interesting and sometimes an amusing sight
to see climbers and their guides take their meals in turn, as in some huts the small table provided will only seat a limited number, and the celerity with which a meal can be prepared and despatched reflects credit on everybody concerned. More especially does this apply to the early morning breakfast.

We reached Refuge l'Aigle at the same hour in the evening. So thrilling an expedition, however, cannot be dismissed in such curt and summary terms. Undoubtedly the traverse of the Meije comes up to the high standard demanded by the kcen lover of rocks, these being firm and good, and the handholds sufficient both in quality and frequency. Each "mauvais pas" has become sufficiently well known to be incorporated in Baedeker and other guide books. I have in my library, among other books on mountaineering, a charmingly illustrated volume describing the ascents of Les Écrins and La Meije, with the various "mauvais pas" now known to climbers as the Dos d'Âne, Dalle des Autrichiens, Pas du Chat, Cheval Rouge, Chapeau du Capucin, cleverly depicted.

Sitting on the summit of the Grand Pic, the sight of the arête, including the intcrvening peaks, and the famous Doigt de Dieu, is sufficiently alarming to compcl the would-be traverser seriously to take stock of two things, firstly of his physical and mental capacity for the task in front of him, and secondly of the width and nature of the rocks of the arete. I made no remarks to the guides as to how the traverse would be made, whether by the steep snow slopes, some little distance bencath the arête, or by the rocks close to the ridge, but olscrving a party on the latter, this method was evidently the work in front of us.

I had been assured by an English climber who had recently traversed the mountain that there were no difficulties after the ascent of the Grand Pic, but I think this requires no slight qualification, there being one difficult place on one of the smaller peaks, while the final descent of the rocks of the Central Peak required considerable care. Below them the descent of the ice slope to the Tabuchet glacier from the arête beyond the Doigt de Dieu was achieved without
the genial warmth of the sun and accompanied by cold blasts of a north-west wind. In all difficult places the guides made safety, not speed, their first thought, and great caution was observed in descending this ice slope. One slight advantage arose from there being several parties making the traverse, as one party sheltered behind the rocks on the ridge while another descended to the glacier.

Once on the glacier, we soon restored our lowered temperature by a sharp walk to the Refuge de I'Aigle, at which we decided to stay the night. One of the other two parties who came in later kindly granted us the use of their spirit lamp, and we refreshed ourselves with hot tea and good supper. Wrapping ourselves in warm blankets, we secured snatches of sleep despite the gusts of wind and the banging of rickety doors.

The carly morning was finc but cold, and lower down we left the glacier for the rocks under the Bec l'Homme, gradually reaching a warmer climate and La Grave at io o'clock. Three days later a severe storm broke over the district, and M. Juge of the Hotel Meije expressed the opinion that with the heavy snow which had fallen mountaineering would not be possible for a considerable length of time, so we rightly congratulated ourselves upon having achieved the Meije expedition.

A motor run down to Grenoble and a further tour through the Grand Chartreuse to Chambéry afforded a charming contrast to the ice and snow of the Dauphine Alps and brought my holidays to a conclusion.

I must not omit to pay a tribute of praise to the guidesAlfred Balmat and Alfred Simond. To the former for his good managing qualities, to both for their skill on rocks and glacier, and their readiness to adapt themselves to my services upon every occasion.

As a striking contrast to the difficulties of the Meije, I recall a pleasant variation I made whilst returning from a holiday at Florence in May. During a short stay at Bellagio on Lake Como, I determined to secure a peep at the Alps from one of the mountains in the district, and engaging a porter from a
neighbouring hotel, I set out for the Ristorante San Primo to make the ascent of the mountain of that name early the following morning. The walk was enlivened by the porter relating his experiences as a farmer in California and pointing out the excellent point of view which the wealthy Italians had chosen for their summer residences.

The Ristorante was a very desirable resting place in every respect, and in addition will be remembered by its parlour having the characteristic odour which one associates with an old-fashioned English farmhouse. It rained heavily in the night, leaving a dark level bank of clouds to discourage us in the early morning. Even for so small a peak, I did not begrudge an early start, but at $3.30 \mathrm{a} . \mathrm{m}$. the outlook was still disappointing. An hour later I decided to make a move, trusting that the sun would soon assert its supremacy, though the whole sky was still clouded over, with the exception of a small portion over Lake Lecco.
On reaching the summit we were richly rewarded with a magnificent prospect of the Alps from Monte Rosa to the Bietschhorn, of the snow clad peaks at the end of Lake Como with Monte Legnone and the Grigna. Another group of mountains to the west of the Legnone was partly hidden by the mist. It was round the summit of the Grigna that the sun was having its final ordeal of battle with the clouds, and the grandeur of this scene almost equalled in glory the sight of the long line of snow-clad peaks.

We did not fail to enjoy the contour and lovely colour of the lake with the picturesque villages lining its shores, and I still recall the charm of the spring flowers, the narcissi and lilies of the valley near the Ristorante, and the gentians and other flowers on the arête of the Primo.

## A BRIEF VISIT TO JOTUNHEIM.

 By C. E. Burrow.On Thursday, July 5th, 1923, at 5 p.m., four Ramblers left Newcastle for Norway-their main objective the Store Skagastölstind. They intended to climb other peaks, but had they not "got" that particular Tind the holiday would have been incomplete. Truth to tell, one member of the party had been "knocked back" by the grand old peak some ten years earlicr, and perhaps it rankled.

After carcfully working out the correct sequence of boats and trains, they met their first reverse on the quay at Newcastle, finding that the ancient bark scheduled to sail that particular day had been obliged to put into dock for repairs, and that an cleler sister with a bent propeller shaft (this latter confirmed by two of our pot-holers exploring the shaft tunnel) was to take them across the North Sea and land them in Bergen in about 42 hours. The passage was quite smooth, apart from the disturbances caused by the propeller shaft aforementioncd, and the party reached Stavanger in good condition the following midnight, when the thirsty ones spent a short time in a careful study of "Prohibited Hours."
Reaching Bergen on Saturday too late for the morning train, they whiled away the time until evening. The day was hot, and they were glad to leave by the evening train, which arrived at Myrdal with its delightfully snowy surroundings about midnight. Shouldering heavy rucksacks they began the walk down the Flaam valley. Magnificent under all conditions, this valley with an abnormal amount of snow, for July, on the mountains was delightful in the Norwegian twilight. The night growing lighter and the party having got well below the snow line, they stopped and cooked their first breakfast; this finished, another mile or two were covered and an attempt made to get a little sleep by the way side. Deciding after a time that sleeping out was an over-rated amusement, they trudged on, made a second breakfast about 7 a.m. and slept for an hour or two in the warm sunshine.

Reaching Flaam about noon, as no boat left till 8 p.m., it was decided to walk along the side of the fjord to Aurland and, after a bathe on the way down and a generally lazy Sunday afternoon, this was reached in time for a meal before catching the evening boat to Laerdalsören. It proved more difficult than anticipated, as the staff had overlooked the fact that the evening steamer did not call at Aurland. Under the circumstances it was necessary to charter a small rowing boat, complete with a Norwegian youth, to row the party out, stop the steamer and last, but not least, to get on board. Some hours earlier, people on the boat from England had admired the way the pilot came on board outside Stavanger, but these people had not seen Yorkshire Ramblers come on board with heavy rucksacks, a coil of rope apiece and ice-axe in hand! Why are not pilots trained on the rope ladders at Gaping Ghyll?

The boat was due to reach Laerdalsören at midnight, and the original intention was to walk through the night again in a general northerly direction to Natviken on the Aardals fjord, thence up the fjord by rowing boat to Aardal, by motor boat up the Aardalsvand (lake) to Farnes, walk up the Utia valley to Vetti, thence up Midtmaradalen to Skagastölshytte ( 5,800 feet), where we intended to stop one or two nights and climb from there. This would have meant some very heavy going and also involved carrying a good deal of food and equipment, but would not, under good conditions, have taken any longer than going by the fjord steamer to Skjolden and walking IIf 10 Turtegrö, the usual approach to the Skagastölstindern. The reason it would not have taken longer is that very few of the fjord steamers run in connection with the boats from England.

However, on getting on board, our party were informed by the captain that owing to the very late spring the quantity of snow in Jotunheim was abnormal, that no motor boat was rumning on Aardalsvand on account of ice, and that we should have very great difficulty in following our proposed route, if, indeed, it were possible.

Under these circumstances we decided to sleep at Laerdalsören (it was Sunday and we had not been properly to bed since the previous Wednesday) and catch the first steamer to Skjolden. This was due to depart 2 a.m. Tuesday, which gave us the whole of Monday at Laerdalsören.

After a very magnificent breakfast we took the opportunity of telephoning Ole Berge at Turtegrö and learnt that the mountains had been quite unfit for climbing, but that he thought the Store Skagastölstind would be now possible, though no one had climbed it that year.
The day was spent on the mountains south of Laerdal, in very delightful surroundings; we returned for our evening meal at io p.m. and caught the early morning boat, reached Skjolden on Tuesday afternoon and, after a very hot walk, Turtegrö, where Ole Berge made very welcome members of the Club of which his old friend Slingsby was President for many years.

With every indication of good weather for the morrow, we arranged to make an early start for Store Skagastölstind. Leaving the hotel at 7 a.m. our party followed the usual route up Skagadalen and, although it was July IIth and the weather was warm, the lower lake as well as the one at the foot of the Skagastölsbrae were both frozen and we had to make steps up two long snow slopes before reaching the glacier. This was crossed without difficulty, most of the crevasses being plugged up solid with snow, nor was there sign of a bergschrund when climbing up to the Skagastölshytte in the band or col leading over to the Midtmarabrae. Being a guideless party, however, we took the precaution of using the rope.
In passing, it is remarkable to note that Norwegian and Swedish parties with apparently the most elementary knowledge of mountaineering seem to wander about on many of these glaciers. Particularly is this remarkable when a mountaineer of the experience of W. C. Slingsby mentions in "Norway, The Northern Playground," noticing "on that usually innocent looking northern glacier (the Skagastölsbrae) one of the most dangerous crevasses I have ever seen."




We spent some considerable time at the Hytte preparing a meal, putting out blankets to dry \&c., for we were only the second party to reach it. We had no need to hurry, not having any darkness to consider.

Leaving the hut we followed the ridge shown in the photograph (taken from the Axe on the Midtmaradalstindern a few days later) and encountered very little continuous difficulty and hardly any snow until reaching the higher shoulder seen on the right side of the peak. Passing over this we made an exposed traverse for about 200 feet (not shown in photo), with a sheer drop of approximately 2,000 feet to the Slingsbybrae below us, a most delightful situation, with magnificent views of the surrounding peaks. At the end of the traverse we reached the foot of Heftyes Rende (chimney), which fortunately was free of ice. This is difficult to enter, and the leader found it necessary to make nail marks on the second's shoulders and head before effecting a lodgment. (Tricounis grip better on bald heads than ordinary nails.) Once in the chimney about 30 feet of straightforward back and foot work landed the leader on a good stance with belay (which can be . used as a piton for the descent of the last man), where the second joined him after a little tensile persuasion.

The mistake was then made of trying to continue up the chimney, loose rock being encountered and forcing a somewhat delicate retreat. A good route of only moderate difficulty was then found on the left wall, the other two members of the party came up after similar attention from above, and another 150 feet of climbing of moderate difficulty landed the party on what appeared to be the summit, but proved to be divided from the real one by a gap. At this point we regretted having left our last axe on the traverse below, as the final rocks had a good deal of ice on them, but a further examination revealed a feasible route to the top ( 7,800 feet), which we reached about $5 \mathrm{p} . \mathrm{m}$. In perfectly clear weather we had a magnificent view of the surrounding peaks, and with no considerations of darkness to worry us we lingered there for some time, our last man leaving the summit at 6.30 p.m. The descent was
made without incident, following the same route, the lower slabs proving rather destructive to the nether garments.

We stopped to make a meal at the hut and it was after midnight when we reached Turtegrö. Ole Berge soon had an excellent dinner ready for us-he saw us with a telescope on the top of "Store" and calculated accordingly-and seemed as delighted as we were that four "Englanders" had made the first ascent of the year. Fancy getting a dinner at that hour and welcome of that sort at some of our English hotels !

We went to bed about sunrise after making adequate provision for a probable thirst cluring the night. Rising about 8 a.m. the same clay we spent a lazy morning and visited the Riingsbrae in the afternoon. Normally there is a very fine ice cavern at the foot of the glacier, but we could not see much of it, though one of the party indicated where it was by partially falling into it.
Next day was cold and we made a start about 8 a.m. for the Soleitind, approaching it by way of the long ridge on the east of the Riingsbrae. The clouds were down to about 5,000 feet, and though we were out for 12 hours and had scme sporting climbing, particularly up a gendarme which subsequently proved to have an easy side, we did not get our peak owing to being unable to locate it with certainty.

The day following we set out for Mellemste (or Middle) Skagastölstind, but could not find it for clouds, so took a compass line across the glacier to the "Skag" hut, where we stayed for some time until the weather cleared. The late afternoon became very fine, and we spent some time getting up on the Midtmaradal side to take photographs of Store Skagastölstind, from which the illustration was selected.

The following day being good weather we skirted round the foot of Riingsdalen into Soleidalen and made a route up the Soleibrae to the top of the Soleitind. Avoiding the schrunds we kicked steps up a snow gully, which later became very steep, the snow being succeeded by ice which required careful cutting. This brought us out in a narrow col, which on the other side dropped steeply to the Riingsbrae and gave us a glorious

view of the Skagastölstindern as a whole, with the Riingstindern in the near distance. The Soleitind rose steeply on our left. At this point, No. 2 of our Skag party, who had led so far, suggested that the leader of the Skag party (who was climbing No. 4) should take over, which after some persuasion he did. He then understood why No. 2 had been so insistent, because on having a good look at the proposed route it did not appear feasible for anyone under about " 3 Frankland Power." After duly thanking him for the implied compliment, No. 4 found a more reasonable route on the S.W. side, which gave pleasant, not too difficult climbing to the summit.

After spending some time on the top, we found a cairn at the northerly end, which indicated the top of a very steep face, leading down to a gap at the foot of the gendarme we had climbed two days earlier, so that we had been within a few hundred feet of the summit on that day. Once. the gap was reached a short climb up the other side landed us on the Solei Ridge, which gave splendid views down both sides, on the left the Soleibrae, on the right the Riingsbrae, from a crest only a few feet wide, narrowing every few yards to a foot or so.

At the end of this ridge a succession of gentle snow slopes led us down again to Riingsdalen and so back to Turtegrö.

This was our last climb, for the next day was wet and our party not averse to a lazy day. The following day two of us left for home by steamer from Skjolden and the other two went for a I4 days' tramp, setting off in a northerly direction and covering a lot of very interesting ground.

Climbing from Turtegrö was voted a great success. In the first place any Rambler going there will meet with a royal welcome from Ole Berge; in the second place there is no question of "queueing up" for your climb, for only once out of our five days in the mountains did we see a human being, even at a distance. The trouble is that for a short holiday so much time is taken in getting to your centre, but reaching it as we did the journey was almost as interesting as the elimbing.

## A TRAVERSE OF THE LANGKOFEL BY THE NORTH-EAST RIDGE.

By F. S. Smythe.
On July 27th, 1923, T. H. Somervell, his brother, and I left the comfortable inn on the Sella Pass, between S. Ulrich and Campitello, intending to climb the 3,000 foot north-east face of the Langkofel. This great rock wall, which rises like some titanic reef above the gentle pasture-clad hills to the south of the Grödner Thal, seamed by gullies and intricate with every form of rock structure that can be manufactured by the extravagant agencies of weather on the rough dolomite material, had long been an ambition of mine, and indeed I had cast envious cyes upon its splendid ramparts during the previous summer, but the weather then was always unfavourable for such a long climb.
It was a perfect morning at the hour of five, with a faint hint of frost in the air, and a pleasant walk through the "stone city," the name given to a collection of mighty boulders fallen at some previous age from the Langkofel Eck, and up the edelweiss starred pastures to the foot of the corner where the north-east face of the Langkofel sweeps round to the yellow precipices of the Langkofel Eck.

There we paused for a few moments, to watch the sun creeping across the glaciers of the Dolomite Queen, Marmolata, or lighting with warm rays the cold grey peaks.
Anybody examining the Langkofel from the north-east cannot fail to notice a wide terrace running across the face for a distance of nearly half a mile and about 800 feet above the foot of the rocks, both ends of which have been proved to be accessible from below. The way to the northern end lies up the difficult rocks of a wide gully, dangerously exposed to falling stones, and to the other up a long, easy and safe chimney. Between these two routes are formidable overhangs dripping with water. With the exception of the initial pitch, which I boggled very badly and was ignominiously hauled up, the

chimney of the latter route was delightfully easy and soon brought us to the terrace.

Seen from below or from a distance the observer could hardly form any idea of this great ledge of shattered rock, above which rises a wilderness of ridges, buttresses, gullies and towers. We walked easily along it for a considerable distance, keeping under the rocks as far as possible to avoid falling stones, and examining the route up the impressive buttress at its end, until it became necessary to climb up an easy face to a yet higher terrace, which led across to a gully slanting up to the nose of the buttress.

It was then about 8 a.m., so we sat down on the scree under some protecting rocks and ate second breakfast. It was not, however, an altogether safe locality, for we were almost in the centre of the wide stone-swept gully, and sun and wind were loosening the stones above. We had barely finished our meal when a stone came, with an unpleasant noise like a ricochetting rifle bullet, so hastily packing our things we fairly bolted across the dangerous area, well aware that a stone the size of a farthing will neatly crack the skull at a range of 2,000 feet.

The gully started with a big damp cave pitch, which was turned by steep and not too sound rocks on the right. Snow and ice followed, on which the one ice-axe we had brought justified its inclusion in the party. One or two more pitches led to a gap between an outstanding pinnacle and the crest of the main buttress.

We were uncertain what to do next, so explored a ledge on the right of the gap. It soon petered out into a hopeless wall, the view down the sombre sweep of which, to the gay pastures of the Grödner Thal dotted with tiny chalets, was most impressive. The only other alternative was straight up the crest of the buttress from the gap.

The first few feet were steep and then we worked to the left into a pleasant chimney on easier ground which, however, was loose in parts. At the top of the chimney the impending wall of the buttress forced us to the left until we reached a place where further progress was barred. Above rose the
vertical yellow wall, subtly tempting in its abundance of obviously loose holds. Somervell first of all attacked this, but was soon forced to return owing to the dangerously loose material. He, moreover, reported it as quite vertical and with no prospect ahead of easier ground. The only alternative, and one which on my part provoked pessimism, was across to the left. There again the rock was mostly yellow and rotten, but in the critical part where it was black it was sound enough, and Somervell with the spare rope tied on as a safeguard, climbed quickly across and upwards to a corner round which he disappeared. Almost at once came a cheery shout "It goes. Come on." It had proved not nearly so bad as it looked, owing to the ample and satisfying handholds, but nevertheless it was extraordinarily exposed and sensational.
A good chimney wats a pleasant relief after such trying route-finding, but a steep loose pitch soon forced us to the left into another chimney. At first steep, the angle gradually lessened till at last we felt we were making height quickly, as moving all together we scrambled up two or three hundred feet of easy rocks to the North-east Ridge which, as far as we knew, we only had to follow to reach the summit of the Langkofel. However, we sat down to lunch in a hot sun conscious that, though the worst of our difficulties had been overcome, a long serrated ridge, studded with rickety pinnacles and cleft by numerous gaps, lay before us.

Long ere we reached this point my climbing shoes, brand new ones, in use for the first time, had begun to suffer on the sharp dolomite rock. Now they were being rapidly torn to bits and the future prospect was by no means cheering.

It was after mid-day and we did not stop longer than was necessary to make considerable inroads into the delicacies that the Somervells invariably produce in a way worthy of the best traditions of St. George's Hall.
The weather was evidently on our side, for the sun blazed down from a cloudless sky and there was as yet no sign of the afternoon thunderstorm, so common in the Dolomites, and which we devoutly hoped would not come at all. It is a poor
compliment being employed as a lightning conductor on a sharp dolomite ridge.

Interminable edges, crazy pinnacles, and annoying gaps followed. At length came a level snow ridge abutting against a steep face of rock, which, however, did not offer any difficulty and landed us on easier ground, up which we scrambled quickly to the summit ridge and to the top of our peak, which was reached at about 2.30 p.m.

The ascent of the great face had taken nearly nine hours and it was a pleasant relief to relax taut muscles in a short but welcome rest, with our reward, or perhaps I should say part of our reward, in the magnificent panorama of which the Langkofel is master. It stands as an outpost of the rugged ranges to the south and when the eye is tired of these restless Dolomite forms it turns for relief to the tender undulations of hills to the north and the ordered line of the snowclad Alps beyond. But always the vision returns to the peaks of the Langkofel group itself, which, though lower, lose none of their grandeur as they rise cliff on cliff, buttress on buttress, and pinnacle on pinnacle, from the shadowy gulfs of the Langkofel and Plattkofel Kars.

Half an hour passed all too quickly, and we turned to our guide book for details of the ordinary route off the mountain, but it offered only vague information to those whose knowledge of the German language was as limited as ours !

First of all we descended to a gap and climbing up the far side followed the ridge beyond. Here I unroped and scrambled over easy rocks on the west side to explore any possible route in that direction. But in spite of remnants of cairns it did not look promising, so I rejoined the others on the ridge, which we followed until it suddenly dropped in an overhang. Somervell attempted to descend on the eastern side of this but had to come back, so we returned until an easy chimney on the same side presented itself. Splendidly sound rock in the chimney and then on the right wall led to a ledge which ran across the face and rejoined the ridge below the impasse.

The book said "make for a conspicuous yellow pinnacle," but pinnacles to the right of us, pinnacles to the left of us, pinnacles all round, laughed at the book, so dismissing the text in a few contemptuous and well-chosen words we started off down the west face, hoping to strike the gully leading down to the Langkofel Glacier.

This did indeed land us at the foot of an outstanding yellow pinnacle, where we had a meal and a fierce discussion as to whether we should descend on the right or on the left of the pinnacle. On this point the book remained obstinately silent, so we decided on the easier looking way on the right and a gully was followed which eventually led down to considerable patches of snow and scree, to the left of which, in a small col, we saw a cairn that proved to be at the head of the 800 foot snow-filled gully leading down to the Langkofel glacier. Fortunately the snow in the gully was in excellent condition, but even so it took time with only one ice-axe in the party, and we were further delayed by the almost complete disintegration of my shoes. Gloves and handkerchiefs were called into play as substitutes, but all the same it was chilly work moving step by step down the snow.

At length we could glissade and bumped merrily down the last slope on to the queer little Langkofel glacier. We had no time to waste, for the sun was getting near the horizon and the crags around were becoming a warm ruddy brown in his declining rays. The way for some distance was easy and we hurried down, following the cairns erected by previous parties, but towards the end the rocks steepened and we took to a chimney.

The sun had set and the Spirit of Night was gathering his forces in the silent Langkofel Kar as we scrambled down the last rocks and jumped thankfully on to the yielding scree, but suddenly, as if angry at the resistless march of night, the sun flashed forth once more from between a distant line of cloud and the horizon, and lit with an exquisite gold the peaks around. For a few moments the gaunt crags of the Fünffingerspitze glowed-a vast rudclied land, then faded into a deathly

pallor and stood hard and defiant against the unfathomable blue of night.

It was a painful trudge for me up over the screes to the Langkofel Joch in practically bare fect-never before had I realised how sharp Dolomite screes really are - but owing to the thoughtfulness and endurance of Somervell who, going on ahead to the Sella Joch inn, fetched my boots and brought them a long way up, I was enabled to get a good run down over the last part.
The night was perfect as we descended the last slopes towards the comfortable little inn, but in the south a constant flicker of lightning lit noble masses of cumuli moving in stately array over the distant plains beyond the ragged forms of the agetorn Dolomites.
The cheerful lights of the Sella Joch inn ahead were too suggestive of supper to let us delay and soon we were rapidly assimilating that commodity and a certain amount of liquid refreshment.


## MOUNTAIN AND SEA. <br> By Matthew Botterill.

## III.

That men should spend all the time they can spare from everyday life, uncomfortably striving up mountains, crawling wet to the skin in gloomy pot-holes, or tossing in wild seas a prey to the elements, and moreover treasure their achievements therein more than those of everyday life, seems incredible to such as are not Ramblers.

It is only this break away from civilisation, however, which can give to a man a true perspective of life. It seems to me at this moment that rambling is as important if not more important than the petty round of our communal life; for the true rambler, be he of, or outside a club, is preserving for the race some of those essential qualities which mankind will require when this temporary civilisation, now rotting from a surfeit of knowledge with too little wisdom, finally passes.

So, carry on, Ramblers, this Journal is of more importance than newspaper or political organ!

The Cobbler.-In May, 1922, the Yacht Molly, after some preliminary cruising, is working up Loch Long towards the mountains. We are favoured with a fine day and very beautiful are the views of snow-covered peaks, including Ben Lomond and that elusive Cobbler. Having rounded Knap Point, the beauty is marred by a torpedo testing range. To avoid these experimental death dealers we run Molly close to Ardgarten Point and thus get aground. From this situation we are finally pulled off by the launch used for retrieving torpedoes, and find ourselves towing alongside two fizzing and blazing specimens.

We had just laid our anchor in a little bay convenient for climbing, when the chief Torpedo Officer arrived alongside in a powerful pinnace, to assure us they had piled up torpedoes in that very bay; that he could not guarantee the direction of experimental types; that a torpedo striking the yacht would go straight through; and that anyway it was very squally
just there; and would we not prefer a buoy he would have cleared for us a quarter mile up the loch; all in the most courteous manner possible.

It was clear that if we had come to see torpedues we were not welcome. We accepted the buoy but declined the proffered tow at 12 knots, to show our independence and keep our shirts dry. After tea we used the engine and ran up to make fast to the buoy, which we were very glad to have.

The next day Skipper and Steward climbed to where they supposed the Cobbler was, for a thick mist obscuring everything soon turned to an equally opaque and very heavy rain. The final part of the ascent was not unlike Deep Ghyll, Scafell, and contained new snow on old ice, thus requiring more than ordinary care. On descending from the summit (it was probably the Eastern Pinnacle) we were so wet that a sitting glissade on the lower slopes of the rapidly melting snow could not make us more so.

A very wild night was succeeded by a still wilder day, and it was necessary to shackle chains to the buoy to replace thick warps nearly sawn through. We were glad of that buoy.

On returning down Loch Long, when just above Whistlefield we were struck by a whirlwind, made visible by the column of water it was raising from the sea. Our staysail was nearly lost in the scrimmage which ensued. It is these little occurrences that make Scotch cruising so full of incident.

Caisteal Abhail.-Some few days later Molly proudly sails into Loch Ranza, so that we may renew our acquaintance with the "Sleeping Warrior." At 2.45 a.m. I awake in pitch darkness with a presentiment that all is not well. Dressing quickly, I look out and, by the very first gleam of dawn, see we are rapidly drifting towards the reef which bars the eastern opening. Fortunately the engine condescends to start and we pull back to safety and renewed sleep after laying out three anchors. How it does blow in these hills!
For our ascent we enjoy a perfectly gorgeous day and set off by the Glen Sannox Road. Having left the road we find it exhausting work to walk over those abominable grass tussocks
to Upper Glen Sannox. Near a little tarn we surprise an unusual bird (probably a Crested Grebe). The heather is of extreme length and so covers boulders and holes as to render going very treacherous.

Skipper and Steward roped, ascended the gully leading to the eyes of the Warrior's profile, traversed his features and descended by the warts on his neck, thus completing the ridge walk we had contemplated on our previous visit. But what a difference; gone are the bottomless precipices, gone are the endless chimneys; for they were but tricks of the mist! And what a compensation-clear like a map, Ardrishaig, Tighnabruaich, Rothesay, Millport, Galloway, Ayrshire, Ben Lomond, and the Argyll Mountains.
Suilven.-Becoming more ambitious, Molly set sail in June, 1922, with only Skipper and Steward aboard, rounded Cantyre and Ardnamurchan and put into that offensive little hole Mallaig, where she was jostled by trawlers.

Skipper of Molly (to Trawlerman shovelling mackerel into baskets on the deck high above).--"Are those fish likely to fall on my clean decks ?"

Trawlerman (reassuringly).-"No, sir!"
Skipper.-"If half a dozen did you'd never get them back." Timed with a stop watch it took 7 seconds before that Scotchman saw the joke. The fish came over immediately afterwards and they were good!

We gladly left Mallaig with its half ton of decaying fish offal as a permanent feature of the pier, and coasting the whole length of Skye, entered Loch Broom less than a week out from Tarbert. There was so much rain on this journey that the day of our entry into Loch Broom was a red-letter day. It was perfect; the hot sun was tempered by a beautiful sailing breeze. We stood into Gruinard Bay and the collection of islands and rocks (Summer Isles) provided a scene of everchanging beauty. So delightfully warm was it, that whilst Molly sailed herself for miles without attention, her crew sat with their feet dangling in the sea, smoking and yarning. Anchored comfortably off Ullapool, we saw this magnificent
dluy finish off in the grand manner, the magic of the setting sun transforming Carn Dearg into a crimson giant towering over his attendant purple satellites.

Two days later Molly's Bo'sun arrived and we set sail immediately for Loch Inver. It was clear enough on our entry to sce that wonderful peak Suilven, but soon clouded over and turned to a depressing, soaking downpour.

June rgth, 1922, was unuṣually clear and sunny up in the north with a rather violent north-westerly breeze. Bo'sun and Skipper enjoyed the seven-mile walk up Glen Canisp and then lunched by a stream. We found it subject to ebb and flow with intervals of one minute; max. range, 5 in . This interesting phenomenon was caused by a large lake whose waters were in periodic oscillation.

Suilven has a well-marked horizontal band and we made for this and traversed on it, but were held up at its westerly extremity by the excessively violent wind, so that we dare not venture on to a sort of mantelshelf which seemed the only continuation. We retraced our steps to a prominent buttress consisting of decrepit rock, moss, and very steep grass. I am continually being surprised at the steep angle at which Scotch grass and alpines will flourish. The climbing required a good deal of caution and occasional stretches of steep clean rock were indeed welcome.

From the summit there was a good view of the innumerable tiny lochs which dot the country round almost to Cape Wrath. To the south we distinguished many mountain ranges, the foreground being dominated by those isolated peaks, An Stac and the Culs; but the impressive view was that of the eastern peak of Suilven which from the western peak presents an incredibly steep looking pinnacle. We descended on easy ground between the two summits.

There follows in the $\log$ an account of the voyage from Loch Inver to Little Loch Broom, where we anchored about a mile from Dundonnell Inn, which is the centre for much of this northern climbing. The distances of some peaks from this centre are such that if they had to be walked it would surely
leave little enthusiasm for climbing. The An Teallach Range, though, is quite near and this was our objective. Very unsettled weather overtook us and the only result of a sortie was that we got half-way up, had an inadequatc glimpse of distant crags and a wetting, more than satisfying.

The bad weather followed us down to Loch Torridon, save that we had a day of light airs for our entry therein. The outer loch is wide and affords no clue to the existence of an inner loch. The entrance to the latter is a narrow passage hidden by rocky promontories and it opens out with dramatic suddenness, revealing an unforgettable sight of mountain and sea. Molly drifted rather than sailed into Ob Gorm Beg (Little Blue Creek), an anchorage chosen from the chart, which proved intensely beautiful and well sheltered, and in which we found fresh water falling into a fern-clad sea cavc-a veritable fairy grotto. A hot humid atmosphere with almost continuous rain made the slightest physical effort painful on the next day, so that here again climbing was missed. We managed to stagger as far as Torridon village to a place marked on Bartholemew as "Pub. Ho." but which in reality was a post office.

And now Molly was to bid adieu to the mountains and cleave, what were to her, new seas. Changing crews at Tarbert, with Wingfield as a most efficient second in command, we sailed her to the south coast, where she was to slip across channel many times (always with different crews), visit the Channel Islands, Normandy and Brittany, and finally in June, r923, to be put to the great test-a gale in the Bay of Biscayand to lose the faithful little punt which had followed her so many thousand miles. Her many adventures belong rather to the sea than to the hills and so we must omit them. This 1923 season has been one monotonous round of indifferent and heavy weather, so that the sunshine we sought in the south has been denied us. September saw Molly once again gladly turning her bow to the magical northland, and she now lies in Tarbert waiting the first breath of Spring to begin anew the search for joyous adventure.

FOX HOLES, CLAPDALE-A ROCK SHELTER.

## By Harold Brodrick.

Ingleborough Hill in Yorkshire, if one considers it from the point of view of the pot-holer and cave explorer, is the most interesting part of England; but it was only shortly before the war that the hill was found to have in its flanks a "fortified" rock shelter which is probably unique in England.
The discoverics at Wookey Hole in Somerset are undoubtedly of greater interest, but those at Fox Holes present many features of execptional value. During the explorations of Clapham Cave and Giping (ihyll, a low cave (which went by the name of Fox Holes) harl been moticed some half mile above the water exit of Clapham Cave. On consideration of the surveys of Clapham Cave and the lower passages of Giping Cihyll, it was thought possible that, although these two systems of caves did not actually join, this low bedding cave might form a connecting link between the two. The entrance to the cave at the base of a thirty-foot cliff was almost obscured by a mound of talus, partly formed from the general weathering of the cliff and partly from stones washed down from the dry river bed above in times of excessive flood.
The first systematic investigation took place on June 7 th, 1913, although there was evidence that some other party had previously worked in the cave. While some members of the party crawled along the cave others commenced to cut through the talus slope; the bedding cave was found to lead to no results, a crawl through wet mud for a distance of 30 feet ending only in a small hole, below which running water could be heard, but which was much too narrow for anything larger than a small terrier.

Those members who had concentrated their efforts on the talus slope cut a trench through the fallen stones, about 4 feet deep and 6 feet wide and some io feet in length. On the next day the trench was deepened to nearly 6 feet in an attempt to

reach some opening below the upper cave. Naturally in an exploration of this sort it is not possible to continue from day to day, and it was not until June 15th that anything further was done. At this week-end there was only a small party, but the first object of interest was discovered, a human metacarpal bone, which entirely altered the aim of the exploration, and it was felt that not only was there a possibility of getting into the upper waters of Clapham Cave, but that there was also evidence of prehistoric man.

By this time the trench in the talus slope had been cut down to a bed of clay, and through this a trial shaft was sunk at the point furthest from the cave; this shaft was about 5 feet deep, but nothing except clay and waterworn pebbles was met with.
After several slight investigations, a very careful excavation of the floor of the cave was commenced on June 30th. The floor was found to consist of waterworn limestone, covered to a depth of 18 inches with clay; this was carefully cleared for a distance of about io feet inwards and all finds carefully noted. Portions of at least two human skulls were found and also bones of wild boar, horse, roe deer and red deer. On the extreme right of the cave the site of a fireplace was uncovered, the floor and roof exhibiting clear signs of calcining, while ashes and charcoal were found in considerable quantities. A few days later more fragments of human bones were found and also a small piece of what was evidently neolithic pottery.

As no further signs of human occupation were met with in the cave, it was decided to dig down through the talus in the hope of reaching some lower passage. This excavation was found to be exceedingly laborious as, after the surface rocks had been removed, the material consisted of a very heavy waterlogged clay, while at a depth of about 3 feet, pockets of waterworn gravel were met with. It was now found that what had been considered to be a cliff face was really the upper portion of a water-worn passage entirely obscured by glacial drift. In clearing the stones and soil from the surface of the d.rift, bones of numerous animals usually associated with H
neolithic man had been identified,* and also of practically all the animals which live in England at present, both wilcl and tame.
During August, 1913, the party had the assistance of workmen employed by the lord of the manor, and the front of the cave was cleared of débris, i.e., rocks fallen from the cliff above. During this work it was noticed that the workmen were cutting through a roughly built wall running parallel to the cliff face. Great care was exercised at this part of the exploration, and a wall some 4 feet in height, enclosing a level floor of clay, was laid bare. This wall was finally completely exposed on the inner side and was found to be about 12 yards


LINE OF OLD OVERHANG OF Cliff. Sheli bed

PLAN OF ROCK SHELTER, FOX HOLES.

| 1-Urus Vertebra. | 8-Human Mastoid. |
| :--- | :--- |
| 2-Human Parietal. | 9, $9^{\prime}$-Pottery in separate Pieces. |
| 3-Horse. | ro-Wild Boar. |
| 4-Human Femur. | rr-Portions Human Skull. |
| 5-Pottery. | S-Sepulchral Area. |
| 6-Flints and Canine. | F.P.-Fireplace. |
| 7-Human Femur. |  |

in length; there was also found a transverse wall running towards the cliff and cutting off a small corner of the area; this was on the right-hand side. In this enclosure were found

[^0]
human remains fox homian

more than a hundred fragments of pottery of a very primitive type, and also remains of burnt human bones. It is probable that these fragments are all that remain of an early burial place.

Outside this portion of the wall, and at the level of the clay floor, two bone needles were found, similar to those discovered by Mr. J. W. Jackson, F.G.S., at Dog Holes, near Grange; many fragments of human bones were also found outside the wall. [See also note on Holocene Mollusca, by Mr. Jackson, published in The Naturalist, April 1914].

At a depth of about 3 feet below the clay floor, the evidences of an earlier occupation were found in the remains of a fireplace, near which was a charred vertebra of Urus. During the excavations below the clay floor, the front leg bones of at least five horses were found. These bones were similar to those of the Celtic pony (equus agilis), and it is a curious fact that only the bones of the front legs and the shoulder-blades were found. It is a coincidence that the only bones of the horse found in Kent's Cavern, Torquay, are similar to those found in Fox Holes.

There were also found a well-made hammer stone (limestone), three flint flakes (Bridlington flint), three chert flakes, and several bones of red deer, which had evidently been used as borers.

After the exploration of the dwelling-place and sepulchral area, it was decided to continue the search for the low level cave. Mr. Farrar kindly provided workmen for this excavation, and at a depth of some 30 feet, through sand, gravel and clay, a waterworn floor of limestone was met with. This floor was some ro feet below the level of the valley outside the entrance to the cave, and thus clearly indicated that the cave from which the water had flowed must have been of pre-glacial origin, as the valley itself is floored with glacial drift. From the foot of the shaft a waterworn passage leads into the hill, parallel to Trow Ghyll; this was found to be entirely choked with sand and waterworn boulders. The passage was in no place more than 3 feet in height and less than that in width. After very laborious work in removing the sand and boulders,
a low bedding cave was reached at a distance of 20 feet from the foot of the shaft; this cave was filled to within a few inches of the roof with wet sand, but seemed to offer some possibilities for further exploration. The last work done was in July, IgI4, after which the war put an end to the investigations.

I wish to thank the various members of the Y.R.C. for their continuous help in the explorations, and also Mr. Farrar for the assistance so kindly rendered. I also wish to thank Mr. J. W. Jackson, of Owens College, Manchester, for the identification of the bones $\& c$. My chief regret is that Dr. Charles Hill, who conducted all the investigations, did not live to complete the work.


ARTIFACTS, FOX HOLES.
Photo by H. Frodrick.


I-Hammer Stone.
13-Borer, Red Deer, R. Radius.
2-Bos Longifrons, Metatarsal (split \& calcined). 14-Borer, Bos Long., R. Metacarpal
3, 4-Bone Needles.
15-Borer, Bos Primigenius
10, 11, 12, 22-Rim of Pottery.
19, 20, 21-Flints, Bridlingto

## DICCAN POT, SELSIDE.

By W. V. Brown.
The Editor, who by the time this appears in print will also be the President, and whose commands may not lightly be set aside, demands the story of Diccan Pot.

The tale is a long one and commences, in so far as it concerns me; as long ago as August, IgII, when Mrs. Brown and I camped at Alum Pot, and after exploring Long Churn, Sunset Hole, Weathercote, Gatekirk, and the delightful gills on Penyghent side, turned our attention to the opening crossed by a stream about 50 yards down the wall from Long Churn, but not named on any map in our possession. From the peculiar shape of a rock at the entrance we called it Alligator Hole, but we were told later that it was Diccan Pot.

I am not sure that this has always been so. Place names have a habit of becoming transposed, and a book entitled "A Guide to the Lakes," with an addendum "A Tour to the Caves in the West Riding of Yorkshire," published by W. Pennington, Kendal, in 1796, gives colour to this, as in it, the passage now known as Long Churn is described under the name of Diccan Pot. The description is so exceedingly interesting that I think it well to include it in this article.
"After having excited the several passions of curiosity, dread and horror, from the negative knowledge we got of the capacity and depth of this huge pot, we went a little higher up the mountain, and came to another hiatus called Long Churn. We descended down till we came to a subterranean brook; we first ascended the cavern, down which the stream ran, proceeding in a western direction, for at least, as we imagined, a quarter of a mile, till we came to a crevice which admitted us into our native region. We measured the distance between the two extremities above ground, and found it 241 yards, but it must be nearly double that distance along the passage below, on account of all the turnings and windings. The petrifications here were the most numerous of any we had yet seen, few people coming either to break them off or deface

Hum. When we were almost arrived at the western extremity, we came to a fine round basin of pellucid water from 3 to 12 feet deep, known by the name of 'Dr. Bannister's Hand Basin.' A lufty, spacious and elegant dome is placed immediately uver it, which nicely corresponds to the hollow receptacle at the bottom; into this basin a rivulet falls down a steep rock about 6 feet high, which is very dangerous to get up, and must be done at the expense of a wet skin, except a ladder is taken along with the party, or the waters are less copious than when we were there; there is also some danger lest the adventurer should fall back and have his bones broken by circumjacent rocks, or be drowned in the Doctor's basin. After having surmounted this obstacle, and proceeded some yards further, we were favoured with an egress into our own clement, as was before observed; no unwelcome change after having been so long excluded from it. After having rested ourselves a little, we returned to the chasm where we first entered Long Churn, and descending again pursued the river castward, along another extensive subterranean passage, called Dicken Pot, which slopes and winds by degrees till it enters the ghastly and tremendous Alan Pot. We went 157 yards along this 'antre vast' till we came to a steep rock full 12 feet perpendicular; here we stopped; a wise consideration! We might have descended perhaps without danger, but the question was how we were to get up again; which, without ropes or a ladder, would be totally impracticable; at the far end was a lofty dome, called by the country people 'St. Paul's.' There is no doubt but if we had ventured further we might have come to Alan Pot, at least so near, as either to have seen the water that stagnates at its bottom, or the light that is admitted into this gaping monster of nature."
Clearly this tourist of the 18th century followed Upper Long Churn to the inflow P. 3r, called by Mr. Wilcock, of Sclside, Backscat Cove, and then went down Long Churn past where the stream leaves it, to the great master joint.

To return to August, Igri. The weather that holiday had not been too grood, and a fair amount of water was entering the
cave, making it impossible to do the first 10 to 15 yards without getting very wet, owing to the necessity of twice taking an absolutely horizontal position, but we got as far as the first small pitch, where the channel narrows and drops about 8 fcet into a pool, which, in the poor light of two candles, it did not seem possible to pass. The rush of water down the scoop, the swirl and boil in the pool, and the roar that came to us from lower down, was a combination strong enough to make us stop; but it also implanted in me a desire to know more of it and to see what lay beyond.
Owing to the stronger claims of Gaping Ghyll, it was not until I9I3 (August) that Ledgard, Frankland and myself found ourselves camping by Alum Pot. The weather was glorious. The streams everywhere were low, and had we known what we were up against, and provided for it, the story might have been shorter; but alas, we had only two 30 -feet ladders and about soo feet of rope, which turned out to be woefully insufficient.

The first few yards on hands and feet, the horizontal squirm, and the space which is covered in a position strongly reminiscent of a patent medicine advertisement sketch, were accomplished, and we were soon standing all together at the point arrived at two years before, but the conditions were different. A gentle stream poured over the scoop, but though there was no swirl or boil in the pool, it still looked a very nasty place to slip into, and we all tried different methods of traversing it until I went down, only to find that the fearful looking water was about 2 feet deep. This being ascertained, we hurried across and found ourselves in a passage 8 or 9 feet wide and about 4 feet high, which we traversed for some considerable distance until stopped by a pool with vertical sides about no feet deep and the same across, which held us up for some time until Ledgard (I think) discovered a rather delicate traverse on a 4 -inch ledge, about $I$ foot below the surface round the right wall.
The roar of falling water, though not so great as on my previous visit, was now very close and intriguing us greatly,
so we wasted no time, and after some io yards were peering with awe down an immense cleft into which the waters were pouring.

Our 60 feet of ladder were soon fixed to a perfect natural bollard in a plane on the left wall, and attempts were made by everyone to descend, but the water put out the lights, making it quite impossible for the victim on the ladder to see anything. We retired to camp for lunch, and on returning, pressed Ledgard's motor-cycle lamp into service, and by its light were enabled in turns to descend to the end of the ladder and inspect to some extent the gloom below. We soon came to the conclusion that at least four 30 -feet ladders were necessary, and that we must give up hope until another visit.

Between 1914 and 1918 matters of more importance than cave exploration occupied the attention of everyone, and it was not until August, 192r, that Frankland and I were again camping by the entrance. On this occasion there were only two or three days when it was possible to effect an entrance, owing to the amount of water, and when in, it was impossible, (wwing (o) the fearful draught, to keep our lamps lighted, and matches were in constant use. The rush of water over the great fill, and the terrible noise, were awe-inspiring, and made the visits well worth while.

Whitsunticle, r922, sitw Frankland, Hilton and myself camped in our usual place, and waiting with much impatience until the camp at G.G. could give us ladders. On the Tuesday morning we carried over izo feet, and by evening we had each descended, singly, on to a ledge at that depth, only to find another pitch immediately below. We used a bicycle lamp for the great descent, but Frankland was the only man who maintained a light all through; Hilton's was put out when halfway up, and I was so unlucky as to have mine extinguished as I stepped on to the ledge, and had to make the return in darkness, being nearly suffocated by acetylene fumes.
As we had to return on Wednesday we had again to give up, but we made up our minds not to fail again through lack of tackle.

At Whitsuntide, 1923, the same party, augmented by Roberts and Davidson, and supplied with 300 feet of heavy ladder, about 120 feet light ladder and plenty of rope, again camped, and the original party listened with joy and respectful admiration to the language used by one of the new men to describe the weather which rendered any attempt impossible. Hilton, who slept in my tent, had to get up at 5 a.m. on Wednesday, and he woke us up to share his joy at five inches of snow.
Early in July, Mr. Wilcock, of Northcote, Selside, who stored our tackle and who was very interested in our attempts, wrote me to the effect that another party had brought along some tongued and grooved boards and cement, with the idea of building a dam in Long Churn to divert the water, and so make a descent comfortably easy. I got in touch with Frankland (who was playing in a tennis tournament and unable to come), Hilton and Roberts, explained matters, and arranged for another expedition on July 7 th.
We arrived in Horton at noon, obtained a car from the "Golden Lion" to take up the light ladders brought by Roberts, and were fortunate in persuading the driver to load up the rest of the stuff at North Cote and take it right up to Alum Pot; the first car, I think, to go so far up the fell. By two everything was over at Diccan Pot, but-thunder was rolling all around-Mr. Wilcock advised us not to go in, and it looked as if fate was against us once more. At 2.30 we started in with six heavy and two light ladders, of which we tied five heavy 50 -footers together, and dropped them over the pitch. This took until about five, when we went out into the sultry afternoon to see what the weather was like. It was bad. Rain was evidently pouring down in the adjacent valleys, and our hopes got lower and lower. However, Maurice Wilcock came up about 7.45 , and at 8.30 he decided that the storm had missed us and that it would be safe to proceed, so we rcturned once more to the 120 -foot pitch and its appalling roar.
I had procured a special miner's electric lamp, with a storage battery in an aluminium case, to strap on the back, and a large
bulb at the end of a yard of armoured flex, and hoped that our difficulties regarding light were solved.
In our previous attempt we had been able to make the Club ladders catch and hold on a buttress about 20 feet down the shaft, somewhat clear of the main bulk of the fall, but I found that our new ladders, owing perhaps to being shorter in the rungs, or because these were round instead of square, would not do this, thus we were forced to make our descent close to the fall for the first 20 feet, and the rest of the way in the mass of spray caused by the plunge of the fall on the ledge at that depth.
Hilton went first. The new electric lamp was a great success, and he soon had an acetylene lamp burning in a sheltered corner.
Having helped Ruberts to fix a block, and arranged a signal in the event of a reconnaissance beyond the r2o-foot ledge showing that it might "go," two light ladders were lowered and I descended and joined Hilton. It was an eerie place, a floor not more than io feet by i2 feet, wet walls reaching up to a faint glimmer far above, the slender-looking ladder, and about a yard from where it touched the floor, another black and forbidding-looking pitch. This proved on trial to be less terrible than it seemed, and 30 feet of ladder touched the bottom. A quick rush was made down this, a quicker through the waterfall, a hurried inspection of the rift for some 30 or 35 feet to a large chockstone, and then a return to the ledge, from which six whistles were sent up to Roberts, who soon joined us, being played down over the block on a 250 -foot line.

Taking two light ladders with us, we proceeded and soon reached the chockstone behind which the water was pouring, leaving the ladder, which we fixed on a natural pin, quite clear. This descent, an easy one of 28 feet, was soon made, and another 10 or 12 feet descended in the rift at an easy angle before another ladder was necessary. This pitch looked like being a wet one, but we found, out on the left wall, a pointed flake which was easily reached, and over which it was possible to hook the loop and so allow the ladder to hang just clear of the water. Twenty feet of ladder took us to the bottom, after
which the rift became nearly level for about 40 feet, when the slope suddenly became very acute and the walls narrowed down to about 4 feet. Roberts made a short descent on a line, but found it very wet and cold. I tried a few yards further and came to the conclusion that we were at the top of the fall in the bottom chamber of Alum Pot. The extraordinary rift we had followed seems to be almost in the same straight line as that of Alum Pot. Hilton, being very young and eager, next tried and descended about ro feet further, going right under a fall and getting very badly chilled.
We were now about 250 or 260 feet down, it was after midnight, and the water seemed to us to be getting stronger and deeper, so we decided to get back without unnecessary delay. The light ladders handled very easily and we soon reached the bottom of the heavy ladders.
Roberts went up first, we giving him all the assistance we could, but it seemed a very long time before his whistle came down to tell us he had arrived. I followed, finding the climb very tiring, and looking up when about 40 feet from the top, got the full force of the fall on my face, and had to hang on very tightly for some seconds to recover my breath. I stopped on the 20 -foot ledge, getting Roberts to belay me above, the ryo-foot line was passed down to Hilton, and Roberts and I had a very strenuous quarter of an hour hauling up the light ladders. Hilton came next, very glad of assistance, and after a breathing spell, we all bent our backs to the work of getting up 250 feet of heavy ladder, which by this time was so waterlogged as to be at least 40 per cent. heavier than usual. Hilton remained on the ledge; I was on the edge of the pitch, hauling with him, and Roberts was behind me in the passage lapping ncatly in about ro-foot lengths. It was exhausting work, but it was done at last, and we turned without much enthusiasm to the task of untying and rolling.
This was finished about 2 a.m. By 2.40 we had everything out on the moor, and at 3 o'clock we were in dry clothes and looking for somewhere warm and dry to sleep. We were not in luck. The grass was very wet, Mr. Wilcock's high barn
was empty, and the clints though dry were very cold; 6.15 a.m. found us in the dry cave at Long Churn, where we lit a fire, ate the balance of the food we had with us, and smoked pipes of peace and contentment. By 8 o'clock we had three heavy ladders down at North Cote, and another journey was sufficient to get all Roberts' own tackle down to the road, where a car picked him up at nine. Having to get the balance of the tackle down, Hilton and I were returning through the farmyard when Mr. Wilcock invited us in to a cup of tea, during the assimilation of which we heard the story of Maurice's adventure.

He had come in about 9 o'clock and had seen us descend, but not knowing our method of crossing the deep pool, had got in nearly up to the neck. On his way out the draught put out his candle just before where the passage widens out into the bedding plane above the upper peot, where the creeps from long Chum join in. His matches were all wet, and he settled down to wait with a!l the patience he could muster until we should find hiin; but after about an hour, he managed to get a light by rubbing match heads together and got safely out.

Later we got the rest of the tackle down, then walked over the moor, had a long sleep in the sun on a grassy bank in Ingleborough grounds and got the 7.30 p.m. train at Clapham.

I am looking forward to a week-end in 1924, when a strong party can go again and divide into two gangs; one to enter by Diccan Pot and pass through and out by Alum Pot, while the other does the opposite route.

It will be a sporting event.


AT THIE BOTTOM OF ALUM POT, THE UNCLIMBED FALL.

## LITTLE HULL HOLE, PENYGHENT. By The Editor.

Hull Pot on Penyghent we know, and Hunt Pot we know, but where is Little Hull?

Like Sunset Hole, it lies unnoticed at the end of a well-defined stream bed, and rumour says it was Palmer, the super-gymnast on the rocks, who followed a little beck from Whitber Spring at the foot of the shapely hillock called Whitber, west of Hull Pot, down a shallow valley 200 yards to an unlikely looking hole in a sink, and there discovered a passage and a big pitch.

Four years before the war, Hunt Pot was the only first-class pot-hole east of Ribble. Now it has two close companions, and in Hull Pot itself an interesting cave excursion has developed.

Palmer's news being noised abroad, there came a large party over Penyghent from Stainforth on a miserable wet day in November, igro. With the vaguest clues the cave was easily found, and Horn, R. F. Stobart, Barstow and myself entered the low passage. My diary says, "a nasty crawl through a deep pool and roo yards to a fine pitch-very cold and wet." We passed a strange place which appears to be a great drop, but is only a three-foot step into a pool, the deception being assisted by a small rock bridge and a sharp turn in the passage. Possibly Palmer stopped here, but there was no mistake about the real first pitch; the upper regions are carved in so curious a way that I cannot attempt to describe them.

Looking back on the exploration of what should have been called Whitber Hole, but grew familiar as Little Hull Hole, it is comical to find it taking four expeditions.

The first was in Coronation Year, when six of us coming by car from Stainforth on October 30, a misty morning with a hard frost, carried up two ladders and ropes from Horton. At noon Barstow, Stobart and I crawled in. It was warmer inside than out, but even when wet we had no chance to feel cold. A narrow awkward passage leads to a bedding plane nearly full of water, deep enough to float ladders, but allowing
almost sufficient space to keep one's body dry. It is a horrible place, and this pool is not like other pools; it goes on and on, and round a corner. When some of the floor rises out of the water, the roof drips furiously.

Finally the floor begins to fall and you enter a fine stream passage of the Douk Cave type. Bad as is the start, the journey to the big drop-the first ladder pitch-is a very fine one, and well worth doing.

Much water was going over this oddly carved first pitch, so that we were glad to see an alternative to a direct descent. Stobart went down six rungs or so, strode across to an extraordinary window in a thin partition, and on the far side descended 8 feet into a very narrow rift with a floor, forming a niche in the side of the great pot-hole. The ladder was passed through the window and sent down the open side of the niche. We then descended to the floor of a very fine shaft, 80 feet of ladder just reaching. From this a short lofty passage led to where the water roared into another fine pot-hole, one day to be the second ladder pitch.
The fury of the drips near the pool prepared us, as we struggled out, for the fierce downpour and gale outside, "which," said a miserable trio, "has been going on for two hours, while you blighters . . ." They vanished-with a totally inadequate proportion of the burdens. Never have I known food bolted, ropes and ladders wrapped up so fast; to change was impossible, and not until I had run half a mile with a heavy ladder bumping on my chest and a heavy rucksack on my back did I begin to feel I should some day be warm again. After a hot bath and tea at the hospitable "Golden Lion," we actually reached Stainforth at five by car, and somehow Barstow escaped pneumonia.

Next season was opened with another attack, May 4th, Igr2, by a party mostly arriving on motor bicycles, Chappell early Sunday morning. Again at I2, we three went in, supported by Chappell and Addyman. A note in my diary indicates that in the bad pool Chappell already showed a leaning towards the sea; none of us were silent. Stobart and I gained much glory
by working through this horrible place six ladders and three ropes in two journeys. We speedily gained and rigged the almost dry first pitch, and Barstow, Stobart and I descended. This of course took time.
The second pitch is the ideal in my experience. The top is wide and easy to work at. There is a huge rock pillar a few feet back for fastening, and best of all is the bcautiful deep pool with a nice round lip on which to settle the ladder. Any amount of water can be kicked over the lip to stop the fall, and as Stobart descended over go feet of ladder he was perfectly dry and we could talk to him with ease.

On and on he went, and as he reported no sign of the bottom, we were glad we had economised every possible foot of the ladder line and had a good length over to lengthen out the body line. The knot ran over the edge as he came to the end of the ladder and proceeded to climb down a considerable distance till almost all the rope was out, a good 130 feet. A grand place and the end!

Over went more water and up he camr. Despite howls, curses and protests from above the first pitch, I tied on and romped down this ideal pitch. The ladder just hangs against the wall and a toe well driven in brings it off without effort. At its cnd I found myself on a narrow ledge towards the bottom of a shaft, which struck me as semicircular. A drop on to another ledge, then to a wider one, and so on to the floor of the pot-hole brought one far below the ladder.

The shaft had evidently broken into a fissure. The little waller flowing down fell into a miniature pot in the floor, and down two little pitches of some 8 feet each I followed to a pool III the lissure. To the right a dead end, to the left the water llowerl under boulders where it appeared impossible and daugerous to follow. In the firm belief that the glorious secomel pitch was the end, we returned with all our tackle by our laborious route. We emerged at $7.30 \mathrm{p} . \mathrm{m}$., a time which justificl the stern reproofs of our supporters, who, starting at nine, had to motor to Harrogate. We Monday people whipping in Hor procession marle a joyous and warm but painful journey
down the two miles to Horton, laden each with two heavy wet ladders. These were the days before the Botterill ladder had come to its own.
Later in the year Mere Gill Hole gave in at last, and 1913 found the Mere Gill party looking for new worlds to conquer. Then came the astonishing declaration from Stobart that he believed Little Hull could be penetrated further, and that we had turned too hastily. I was incredulous, but was obliged to confess that neither of us appeared to have seriously attempted to force a passage, and that the place would have to be tried again till the pot-holer's test had been applied-that two men together and in one another's presence had tried and failed.

So to a camp at Hull Pot the Meregillers went at Whitsuntide. There was a holiday spirit in the air, a promise that it was not to be all work. Only this as a reaction from Mere Gill days can explain why the cave was not finished off.

Arriving at Horton after 3 p.m., and loading up a cart and the famous Fiat, tents were up and the party complete by 6 p.m., Mr., Mrs. and Miss Payne, with Miss Bowden (afterwards Mrs. Stobart), Hazard, R. F. Stobart and self. Wilson was in India and Addyman absent.

The same night six ladders and a rope were run in to the head of the first pitch. The holiday spirit had so seized upon Hazard that the magnificent weather following a terrible week would not permit him to go underground. The result was that while Stobart and I were engaged in the arduous task of rigging the first pitch and passing the ladders through the window, we were surprised by Miss Bowden, who had most gallantly travelled alone from the pool along the eerie passage. Hazard could not leave us in the lurch and duly arrived after all, of course.

There was a lot of water in the cave, owing to the previous heavy rains, and quite a large amount for Little Hull ran over the second pitch and made one glad of the magnificent pool above it.

The contrast between this ideal pitch and the usual awkwardness of the first, where of course a pulley had to be rigged to
permit the whole party to descend, was quite marked, for after getting down, receiving and tying up three ladders and the ladder line, I was engaged in settling the ladders on the pitch when the second man descended. He was followed by Miss Bowden and then by Payne and Hazard.

The second pitch to-day was no joke. The pool was half emptied, but though the first man went off at top speed, the water ran so fast that only the electric light saved the situation, when the fall came down with a swish and a roar as in the Mere Gill days. Once more, this time together, Stobart and I descended the miniature pot-hole in the main floor, and without hesitation one of us slid into the opening to the left. It went without trouble, to our amazement, and a few moments found us standing in a very narrow lofty fissure. Very soon we were held up, and failing to pass above the obstacle, were driven to contemplate two low wet tunnels. The first attempts were useless, but getting well down to it and trusting to the electric light hung round my neck, I passed without much difficulty but much dampness. The impression of what followed was not to be lost for years. The passage was narrow, rocks seized our clothing and tried to tear it off, our feet jammed, rocks held us down as we chimneyed to wider regions, and still the fissure continued straight as a sunbeam. We travelled along high above the floor, and finally reached a place where the fissure seemed to close. We climbed high up but found no way over, lower there was evidently a continuation, lut we could not force a way between the chockstones. Going some way back, we got down to the floor and worked forward lill we were faced with an impasse, a ludicrously small tunnel. Stohart tried it and failed, but I, lying almost submerged in 1.hre wattrr, with the electric lamp jammed between chest and will, folt that faint widening that encourages one to persevere. It went and I rose dripping. With groans and curses Stobart's mighty frame passed by the same route.

The rest was easier, and after about i20 yards of struggle we stood close to a third pitch. It was possible to get a good
view down and the summing up was "a twenty-footer with a grool big passage beyond."

Back we went and found the other three had spent quite a checry time between the pitches without attempting to get seriously wet. I was the first up the top pitch, and if anyone wants a really sensational position I can recommend the leading from the window up a ladder at an angle of originally $45^{\circ}$ or less, which trembles and threatens to turn over first one side and then the other. We had not then found all the holds that permit this ascent to be done most gracefully.

Miss Bowden was splendid, but the final working out of the tackle consumed much time, still eight hours was not bad. So we resigned our chance of a finish, but we thoroughly enjoyed Monday's delightful slack or tramp, according to taste.

Early in May, 1922, Stobart, after two years' absence, reappeared in the North, and confident in the fact that Little Hull offers no grave difficulty from water, we two speedily arranged that with the assistance of Ellis along the top passage, we would complete the job alone. No recruits having been enlisted, Stobart brought up one of his men, Legge, but a few days before Whitsuntide the doubtful issue was turned into certainty of victory, when Addyman announced that he would certainly arrive, and bring one Bates, a stout soul who had done nothing but the Stump Cross crawl.

The clans gathered on the Friday. The cart from Horton had some difficulty in passing a yawning trench torn in the road by the record storm of the previous Sunday week, and it was with astonishment I found that Stobart had already driven his Fiat with an enormous load past it and up to Hull Pot. When he had struggled back on his way to Settle for provisions, my first job was two hours of road mending. With the arrival of Mr. and Mrs. Ellis we put up an imposing camp of four tents for five people.

The weather was glorious. On Saturday the four men carried all tackle to the cave and took in six ladders and five ropes. The first little surprise was the length of the bit of passage to the pool. Legge retired at once-it is an awesome place on
which to enter a complete novice. The pool was just as expected, and as the ladders were rolled out of it one thought the worst was over. Alas, the crawl was longer than expected and from the roof came countless drops, a forgotten trouble, putting out candles and compelling one to speed. After that the fine stream passage was just as two of the three remembered it. Three ladders were lashed up and put over, Stobart descended and received the other tackle, then back to tea, then to work in attempting to clear High Hull Pot, which the recent great flood had failed to open out.
The next excitement was the arrival of Addyman and Bates, who drove up with only such incident as carrying away the side car on the bad place, and spilling the passenger.

The fourth and final attack was delivered on Whit Sunday (4th June). Stobart, Addyman, Bates and I carried in two ladders and three ropes more, supported by Legge up to the first pitch, and as I closed the procession I met an awe-struck lad, holding three lighted candles, making his way back.

The crossing of the sloping ladder was not difficult when the right holds on the walls were uscd, and I was soon tying up three ladders in the chamber below. Then I sat down to twist and twist the new 250 -feet rope for the body line, again and again, till the wickedness had gone out of it, with the memory vivid in my mind of the dreadful kinking of a new rope on the great Mere Gill third pitch.

By and by came Addyman to request me to move on. Down the long ladder I went, and down the steps to Stobart and Bates on the floor of the great shaft, to be met with the excited declaration that the place had changed. With a serpical reply I climbed down the two steps into the fissure, and found it-as before! While I was exploring, Addyman c:unc down, his body line held from below over a pulley, and my (mphatic declaration that all was O.K. and the stuff could come along was drowned by the splash of the first ladder into the witter.

With three ropes, a rucksack, and ladders of 36 feet and id lied, we began a painful journey. Very soon came the
first difficulty. Both waterways seemed hopeless, and in spite of Stobart's views, I tried two upper ways and was more or less stuck, while he was successfully negotiating the proper route through the water. Before the third man was through, the longer ladder had been dumped. Addyman and I struggled forward with the other. By and by one is driven off the floor into chimneying along the narrow fissure, and after going some distance thus, it became necessary, owing to a descent of the roof, to go down between two chockstones. I just passed, but Addyman could not manage it, so leaving him to his fate, I struggled on with the ladder, howling vigorously to the leaders. On Stobart's return, I learnt that I had passed the second place where one must lie in the water.
The end of the fissure by the third pitch is almost the limit. It is only just possible to draw the ladder past one's body and cast it over the edge, and there is precious little room to knot the rope to the ladder lines. Part of the fissure was wide enough, luckily, for us to get at a boulder a considerable distance up and belay the rope. Bates was now dispatched to help Addyman, and the air resounded with objurgations and appeals to the latter to get through somehow, take his clothes off, and other useless and useful advice.
It was really difficult to get out of the fissure on to the ladder. One had to lie on one's side and work gradually outwards. Luckily the doubled ladder rope ran upwards. There were several loose pieces of limestone to be cleared away on the descent, which proved to be nearly 24 feet as estimated.
Nine years after our first view of it, Stobart and I stood in the fine and lofty chamber we had seen in 19r3. The cave looked good for another pitch. If so, with the fissure passage behind us, it would rank with Mere Gill, the 36 -foot ladder would have to be fetched, with perhaps worse labour to come. The first point of interest is that our chamber is a junction, receiving another small stream through a fine looking passage. But downstream first, round a corner to a division. I take the dry side, and before I have fairly embarked on it, a disappointed voice announces that Little Hull has finished in a
pool. Only a little one, but as dead an end as ever I saw. A small dry tunnel further back, a flood channel, ended just as abruptly.

For abruptness, the end of Little Hull Hole compares only with the sudden finish of Gaping Ghyll East Passage. We had hoped for a long stream passage, as at the bottom of Mere Gill, but it must be confessed that we were just a little relieved that there was no other big drop. The "strait gate" is the absolute limit for the conveyance of tackle.
As we returned to the chamber, the crash of a rock announced Addyman on his way down after discovering the proper squeeze through a narrow waterway. Hopefully we entered the fine tributary passage. Presently the floor began to rise, the same stratum continuing as roof, and a 4 -foot step left us looking into a bedding plane where the water flowed over a thick layer of stones and silt. It might be excavated, but how far to the point at which the water breaks through the stratum overhead? We could get in, but no more.
Bates had done nobly and did not trouble to descend the ladder. It was climbed unroped, but landing was tricky. The journey back to the second pitch was a nightmare, a climb of an eternal chimney against an ever-increasing weight.
Up goes the first man with a tail-line behind him, and as we pull in his rope, over the pulley high above, the patch of light from the electric lamp climbs higher and higher into the darkness, still ascending a mere faint glow till we lose trace of ii, then the signal-one-stop, a pause, three-let out, a long wiit, finally a bright glow far, far overhead. At the next whistle we pull clown the end of the rope again by means of the tail linw, and the second man ties on. Once the whole party is up, null the ladders have been persuaded to follow, everything is albundoned but three ropes, and tailing these out doubled suracly checks our speed along the top passage.
Uttering divers yells and dripping water at every step we :.llmble through the heather to camp, about 9 p.m., with all lhat glorious satisfaction which the end of a big new pot-hole brings.

Ellis and his wife had been up Greenfield Knott and babbled of lovely views. Monday was brilliant, too, and the morning passed in a heavenly loaf in perfect surroundings. Bates' outfit being strictly limited, he was excused a further wetting before returning that evening to town and toil. In three hours the others, nobly assisted by Ellis and Legge, got out all the tackle, Legge making three double journeys through the pool, and Ellis two.

The exploration of Little Hull Hole was by no means the only success of our holiday, for while Ellis and I were proving that Larch Tree Pot, two miles north, dues not open out into a passage, Addyman and Stobart met with such success in their excavations at High Hull Pot that a hole was opened out, into which the tons of accumulated silt were being swept, bit by bit, by skilfully clirected flushing of the beck, until the place began to resume something of its appearance in rgrg.
Next morning we took five ladders over to Hunt Pot and enjoyed one of those perfectly idyllic expeditions down a single shaft pot-hole, which are so charming to look back on.
A short time before, the long rift of Hunt Pot had been spanned by a series of beams, which supported a complete covering of wire netting to prevent shot grouse falling into it. The recent great flood had carried away most of the beams and left the wire netting hanging from end to end, like a great hammock full of stones. We had to put out all our strength to land this great load.
Stobart and I descended in turn. The coolness of the first 90 feet was most grateful in contrast to the baking one enjoyed in the rocky sink-hole, and the view wonderful. The next 70 feet was just as vertical, but in the water. It is odd there is no stream passage at the bottom, but so it is.
Three hours was sufficient for Hunt Pot, and the rest of the day was given by Stobart to Hign Hull Pot, which he had the satisfaction of leaving swept clear of silt down to the limestone and ready for an attack, then our 1922 camp broke up and the loaded Fiat ran down the grass road to Horton for the last time.

## OXLOW CAVERN, CASTLETON.

## By A. Humphreys.

The entrance to these fine caverns is on the hillside above Oxlow House, on the road between Castleton and Sparrowpit. The distance from Castleton is one and a half milcs, measured in a straight line almost due west, and the elevation is about I, 400 feet above sea-level. Oxlow House is shown on the one inch Ordnance Survey.

Mr. Bennet, who occupies the house, kindly showed us the entrance to the cavern, which would be very difficult to find without a guide as it is an old mine shaft covered with stones, and these shafts are very numerous in the neighbourhood.

On Saturday evening, October 21st, 1922, B. Holden, H. Humphreys and the writer arrived at the top of the shaft with a large quantity of ropes and ladders, lamps \&c., and work was begun with the pot-holer's usual enthusiasm. A beam across the top of the shaft provided an easy and efficient belay for the first ladder, which was 53 feet long. B. H. went down first, H. H. following, and some delay was caused by the dangerous appearance of the side walling, which had to be thoroughly inspected on the descent.

While the two explorers were below I kept vigil at the top. It was dark and freezing, with a keen icy wind, and my only protection was a few rope ladders and stones. After a long wait, as it appeared to me, for I was nearly frozen, H. H. came up and said they had been to the top of the second pitch and invited me to go down and take a look.

The shaft is circular at the top and about 3 feet wide, built round with rubble, and descends almost vertically for 60 feet. About to feet from the top it becomes rectangular in form, being a narrow natural crack built up with loose stones on each side. There is an artificial ledge about 20 feet down, supported on timber which is quite safe at present, but many of the side stones prove quite loose if touched.

There was a very strong down draught, which nearly extinguished the acetylene lamp, but the descent is a very easy
one; no life-line is required, the shaft being narrow enough to admit of resting almost anywhere. I noticed deep grooves, worn in the solid rock by the miners' ropes. There was nothing to show that the shaft had been blown in, as claimed, subsequent to 19r5. The ladder was 7 feet short, but the last bit is easily climbed and is separated from the first passage by a rock curtain.. The floor of this passage extends downwards in a westerly direction and is composed of loose stones, mud and gravel, at a scree angle, with occasional vertical drops of from 3 to 5 feet. At these parts the rocks above are supported by very old stemples, which may last many years, or may not. Even now there are masses of loose stones which are easily dislodged, and it is dangerous for two persons to be on the slope at one time unless very close together.
At the top encl where the vertical shaft enters, the passage may be about 6 feet wide and ro feet high, gradually enlarging till it becomes a considerable cluamber, about 30 fect by 30 feet and the same height, with a mud bank further on reaching to the roof. In the floor of this chamber is a miner's shaft built round with rubble and supported with cross climbing stemples. A light was lowered about 25 feet, but getting entangled with the stemples, was with difficulty drawn up. It revealed enough to extinguish all desire to descend in person.
The floor slopes steeply in one corner and a low passage is found about 2 feet high, gradually rising to 5 feet. This passage runs steeply down for about 25 feet in an easterly direction and ends in solid rock, with a small hole about $\mathrm{I} \frac{1}{2}$ feet by $2 \frac{1}{2}$ feet in the floor, which forms the top of the second pitch. The floor, as it approaches the hole is, as we afterwards found, a platform of rubble supported on stemples. A lowered light showed us a way down between two rows of stemples to another platform 30 feet below.
As time had sped we returned to the surface and made our way back to camp with high hopes for the morrow, marred somewhat by the ever recurring thought that the stemples upon which our safety depended were perhaps 200 years old !

It was nearly 12 o'clock the next day before the remaining tackle was got to the entrance and the work of lowering it began. This took a lot of time, as some of the ladders would not pass the narrow parts, even with the help of a man on the ledge, and it was 2 o'clock before everything was cleared from the surface and the last man went down. I need not enlarge upon the delightful task of carrying 120 feet of rope ladder and 750 feet of rope, including a 250 feet main line of $\frac{3}{4}$ inch tarred hemp, over loose stones and through a low steep passage -it will be fully appreciated by most Ramblers.
I must acknowledge the valuable assistance we got from the work done by Mr. Puttrell earlier in the year, in timbering portions of the first shaft and driving two sturdy posts in the chamber above the second pitch for belaying the main line; also the help we received from a small sketch made by Mr. W. T. T. Bateman, in 1910, which, though not to scale, was very accurate. The drawing accompanying this article was partly taken from this.
The second pitch is very easy, being quite vertical, only the ropes have an unpleasant way of getting at the wrong side of the stemples, which are not easily scen. At the bottom of this pitch, in a built platform, is a nasty hole leading to a tunnel underneath and a lot of stones, originally supported on timber, have fallen, making it anything but safe. After leaving the horizontal platform there is a floor of stalagmite and stones, and after about 20 yards at a steep angle, another built platform, in the floor of which is a small climbing shaft leading below.
This platform is high up in a cleft of the East Chamber and from it the great size of this can be best appreciated. The roof we could not see even from this vantage point, so it must be very near to the surface of the moor above. The descent of 40 feet in the shaft became very alarming as the bottom was reached, its very precarious condition then becoming manifest, and we resolved to explore the East Chamber only and depart for evermore.
We were now at the head of a high natural passage leading to the Western Chambers, but we left this and scrambled down
a scree slope and a few stemples with the help of the main line, to the floor of the East Chamber. This cavern is truly a fine one; the sides are smooth and vertical and the floor quite level. There appears to be a small passage about 40 feet up the vertical wall on the east side and there is a sump of no great depth in a corner below. We noticed some stemples high up in a cleft at the same end, and it is somewhat of a mystery how the miners ever got up to them.

We felt very humble folk indeed compared to those hardy pioneers and we took off our hats to them.

Upon our return to the West Passage where the end of our ladder was hanging from the dark heights above, our resolve to go back melted away, and we accordingly made our way west down a wide stecply sloping passage at almost a scree angle.

High up above us we could see flat stones laid on stemples. forming a gallery which probably communicated with the vertical shaft we saw in the first chamber. This stone ceiling was not continuous, some pieces having fallen to the ground on which we stood.

Presently we arrived on a platform with a drop of about io feet which we climbed down. Farther on was a larger platform with a curious little tunnel on the left-hand side, which leads to the scree below. The wooden supports in this tunnel showed considerable decay and we emerged with a feeling of relief. Below this platform is a patch of gravel, and farther on the floor becomes smooth rock and slopes very steeply. More stemples appear and the angle increases to the vertical.

It was now 6 p.m., and after a brief consultation we unanimously decided to go to the bottom, although we had no food with us and our last meal had been breakfast at 9 a.m. B. H. and H. H., who had remained on the platform while I explored below, now went back for a ladder and some more rope, which had been left at the top of the last pitch. They returned in exactly half an hour and we immediately belayed to a strong stemple which had been put in recently. This pitch looked somewhat forbidding but proved quite easy,
the descent being made between two rows of climbing stemples. Most of the way down, about 35 feet, the rock is undercut and the ladder swings free.

Upon the steep slope at the bottom we found a large number of wooden rungs, evidently from a rope ladder. They were very black and had been there a considerable time. Who had been in such a hurry to escape that they needs must abandon their ladders? Presumably, the ropes had rotted away, we could find no trace of them.

We were now in the first of the three West Chambers, which are quite easily traversed from this point by walking. This chamber is very high, the roof being dimly seen, even with our acetylene lamps. At the far end is a low passage with a substantial roof of built stone, to the right of which is a natural S passage that carries a small stream of water, but is too small to crawl up. The other passage, after a few yarls, leads to the central and largest chamber, an immense place with sides which gradually close together at a great height. The floor has two distinct levels and it appears from the debris that the miners used to crush and wash the lead ore here. The channel ending with a dam in the lower level, and the heaps of "tailings" remain just as they were abandoned.

At the far end is a high rough screc, rising about 50 feet, and at the top appears a narrow passage which leads to the last chamber. This is smaller than the others, and owing to a rainlike fall of water from the roof it was difficult to see upwards, but it is certainly very high. This water, which was in considerable quantity, makes its way down a built sump, so small in diameter that it looked dangerous to go down. Jamming in it might have allowed the hole to fill up with water above one's head! Our sketch showed two small chambers below this sump. Needless to say, we did not make an attempt to descend.

In a cleft at the far end a few old stemples were seen. Doubtless these stemples, and many others in odd corners of the caverns, if repaired, would lead to mining levels high up the cavern walls, but it would be no light task to undertake.

It was 8.30 p.m. when we again arrived at the lowest level of the West Chamber, which is over 500 feet below the entrance, and we were very hungry and tired. Our original intention was to leave all the rope ladders in position and continue exploration on subsequent week-ends, but the dangerous nature of the built rockwork, all of which is supported on timber, now much decayed, caused us to consider the advisability of clearing everything away.
It is an unfortunate feature of pot-holing that the hardest work comes last and in this instance, after being ten hours without food, we were faced with the task of transporting ourselves and all our tackle 500 feet to the moor above. But just as the ass goes fastest home, so did we set to with a will and eventually got everything to the little chamber at the bottom of the first pitch. Here our strength gave out, so everything was stowed in safe positions and left for another day.

It was midnight when we emerged from the comparatively warm earth to the icy blasts sweeping across the moor, and with dragging feet we made the half mile back to camp in silence. A great feast was at once prepared, which revived our spirits and set free our tongues. All the day's difficulties were reviewed again and again, and the morning was advanced before we crawled into our sleeping bags at last, to dream as only pot-holers can.

The Oxlow Caverns are the largest in the Castleton district, not excluding the Blue John, and it is a great pity the miners built up so much rockwork in the passages. If this would only tumble down, instead of lingering as it does, these really magnificent chambers would be a joy to the cave enthusiast for ever.



## THE EAR OF DIONYSIUS.

By Harold Brodrick.
The Island of Sicily, which has an area almost that of Yorkshire, is usually considered to be of volcanic origin, but as a matter of fact the greater portion consists of limestone similar to that found on Ingleborough. The chief evidences of volcanoes are to be found in the north-eastern portions of the island, Mount Etna and the district near Messina (well remembered as the site of the earthquake in 1908), and also in the south of the island, the mud volcanoes of Maccaluba, some ten miles from Girgenti. The interior consists of rocky uplands, steep cliffs and sheep and goat pastures.
One of the most interesting parts of the island, from the point of view of the Journal, lies in and around Syracuse. The modern town of Syracuse, on what was formerly an island and which now only has some 27,000 inhabitants, is built on one portion of the old Grecian city, which is reputed to have had a population of more than half a million.

One interesting point on the "island" of Ortygia is the Fons Arethusa, where Jord Nelson is said to have watered his ships prior to the Battle of the Nile; this spring is similar to Keld Head in Kingsdale, the waters of the sea being kept out by a concrete wall, while the pool is crowded with fish (carp?) and ducks. If one throws a morsel of bread into the pool it is at once seized by a fish, but the fish rarely has time to swallow it before one of the ducks commandeers the bread.
There are, on the mainland, now connected with the modern city by an artificial causeway, innumerable remains of the old Greek and Roman civilisations, but the most interesting one to my mind is the so-called Ear of Dionysius. History, or it may be tradition, records that the "Ear of Dionysius" was made by the tyrant of Syracusc in order to overhear the prisoners below. There seems to be no doubt that after the defeat of the Athenian fleet in the Great Harbour of Syracuse (B.C. 415), some 9,000 prisoners were confined in one or other
of the great quarries on the mainland. These quarries (latomia) were evidently the source from which the stone for building ancient Syracuse had been obtained. This limestone, which seems to be of Jurassic age, is remarkably free from bedding planes, much more so than that in the great shaft of Gaping Ghyll.

At one end of the Latomia del Paradiso is the Ear of Dionysius, which is a partially artificial cave; this cavern is some 210 feet in length and at least 70 feet high and 30 feet wide; it is not straight but forms an $S$ bend; the least whisper, or even . the tearing of paper, can be clearly heard from one end to the other.

Near to this, but on a higher level, is the Greek Theatre, hollowed out of the rock in the 5th century b.c. Immediately above this is the Street of Tombs, a narrow passage with limestone some 40 feet in height on either side, into which have been excavated monuments, niches for urns and larger sepulchral porticoes, now overhung by masses of caper plant. Near the Street of Tombs and above both the Greek Theatre and the Ear of Dionysius, is a sacred underground stream, which comes to daylight for a few yards at the Nymphæum, and which had evidently been diverted in the olden days from the upper passages of the Ear of Dionysius. The higher portions of the Ear show clear evidences of water action, but the lower parts have obviously been enlarged and cleanly worked. The whole forms a wonderful replica of Gaping Ghyll on a smaller scale and the upper portions would probably be well worth thoroughly exploring, as it is likely that both geological and antiquarian discoveries might be made.

J. C. ATKINSON.

Late President of the Yorkshive Ramblers' Club

## IN MEMORIAM.

## JOHN CECIL ATKINSON.

By the death of Cecil Atkinson, their President, the Yorkshire Ramblers' Club sustains a very heavy loss. Thoughtful, cultured, kindly, cheerful, full of boyish enthusiasms, he was the very embodiment of the best type of mountaineer.

No one in Leeds could have represented the Club better than he did. He was a thorough sportsman, always keen about any form of sport in which he could take part in the limited time at his disposal. I well remember how when the bicycle came in, he was among the first to go on long expeditions on Saturday afternoons, nothing daunted by the terrific tosses which he took.

I cannot recollect when he first became a member of the Club, but it was at Easter, 1893, that I had the pleasure of accompanying him, J. A. Green, and Alfred Holmes to Wastdalc Hcad, where we climbed Napes Needle, the Pillar Rock by the North Face, and Scawfell by several routes. I only climbed will him once in Switzerland, where we spent a holiday in the Maderaner Tal, and did the Grosse Windgälle together, guided by the Supersaxos of Saas.

Atkinson was a fine cragsman; thin, spare, with a long reach, he was able to negotiato the most difficull climbs with porfect ease. I can see him now, tackling that very difficult gully on the north face of Simon's Seat, to the intense amazement of some who were standing on the top and who grected him on his accomplishment with the remark, "I suppose you must be a member of the Alpine Club."

During the last 25 years, owing to the long illness and subsequent death of his wife, he hardly ever went abroad and latterly he was so engrossed in his work that he never succeeded in getting a holiday of any length, but he always took the greater interest in the expeditions of others.-A. D. T.-C.

John Cecil Atkinson died as a result of an accident at Ilkley, on May 12th, 1923, at the age of 67 . He joined the Yorkshire Ramblers' Club in 1894, was Vice-President during the years 1898-1900, served on the Committee 1900-1902, and was elected President in November, 1922. Though never an active pot-holer, he was a frequent visitor to the Alps and climbed a large number of peaks between the years $1885-1897$. He was a member of the Mpine Club and at the time of his death was looking forward to another visit to Switzerland

An all-round sportsman, Atkinson played Rugby for the old leexls and Yorkshire Wanderers Clubs and also represented the
county. He was a keen fisherman-no day being too long for him-was on the Council of the Yorkshire Anglers' Association and was President in 1921-1922. Atkinson was a "Nature's naturalist"; his love and knowledge of birds, their songs and habits was remarkable, and to go for a tramp with him over the moors and dales was an intellectual and interesting treat.
A man of charming personality, the Club felt that they were incleed fortunate when he was persuaded to accept office as President and deplores his untimely death, which not only robbed them of their President, but of a true friend and fellow-member for whom they had a deep affection.

## CHARLES RALPH BORLASE WINGFIELD. 1873-1923.

In youth we see a vista of years ahead, each with its holiday opportunities for rambling, and the image persists until one day we are brought up short.
I can see Wingfield now as he stepped ashore at Plymouth with a string of mackerel we had caught in the Channel, in addition 10 a huge kit, and dressed in the most dilapidated oil-skin ever discarled by an economical fisherman (it had been at G.G., he explainecl). This was August, 1922. We bade each other a rather casual gool-byc; we were to cruise again together in 1923 to Norway or elsewhere. And next, I am asked to write a farewell.
Charles R. B. Wingfield came of an old county family for centuries connected with Shrewsbury. He joined the Y.R.C. in 1908, but must have been born a Rambler. His sporting activities would fill a volume, and I can do no more than suggest a perusal of this Journal for some of the records. In "Members' Holidays" (Vol. III., p. 96) Wingficld tells of what was then, probably, the longest ski-run ever accomplished in this country, besides much else. He was part owner of the 60 -ton yacht Gwynfa, run by amateurs and frcquently taken abroad. The records of our club meets rarely omit his name.
On one occasion Onslow Hall was placed at the clisposal of a party of Y.R.C. men for a meet, and their adventures are still fresh in their memories. The writer visited Onslow in 1913, when Wingfield and he accomplished some exploration climbs on Arenig and Aran Mawddy (N. Wales). In the Lakes in igI4 we arranged to take Gwynfa and a party of Ramblers to Loch Scavaig in Skye. Then came the war

Wingfield, then Captain and Hon. Major of the 3rd (Spcl. Res.) K.S.L.I. (with which he had served during the South African War), was promoted Major in September. Up to 1916 he was

C. R. B. WINGFIELD.
training recruits at Pembroke Dock. In October of that year he went into the H sector (Arras) with 5 th (Kitchener) Battalion K.S.L.I., having in characteristic fashion, acting as O.C., sent himself as captain to the front.
He compared trench warfare to pot-holing I
Later he was at the Senior Officers' School and became attached to H.Q. at Chester, earning further promotion.
We met again at the Club Dinner (1921). "It is as though Time had been at a standstill," said I, meaning the war had stopped all our cherished pastimes. "Yes," said he, "except that we have all grown older."
Wingfield, now a Colonel, had been Mayor of Shrewsbury on three occasions and High Sheriff of the County. He was a J.P., a County Councillor, Chairman of the local branch of the Comrades of the Great War, and later of the British Legion, and also actively interested in the United Services Fund. But one would never suspect all this when tramping the fells with Wingfield; then he was just a great sportsman. Of two columns devoted to his death in the Shrerosbury Chronicle, but six lines deal with the side of his life which we knew so well-" "He threw himself with enthusiasm into various forms of sport, yachting, shooting, fishing and ski-ing, in which he was an adept, finding in them all some of the great joys of life, as he often did in hard manual work on his own estate."

If, as Jean Ingelow says,
"Joy is the grace we say to God,"
then we may look upon Wingfield as in the truest sense a deeply religious man. But the key to his character was simplicity. We shall miss his tonic laughter, which never failed when things were not going too well. In spirit he was a boy. Somehow it seems impossible to think of Wingfield growing old. His youthfulness and love of sport would have fared badly in an ageing body. Nature has avoided the paradox.
Nor would I think of that procession to the old family vault at Bicton. Rather would I conjure up that superlative evening crossing Cardigan Bay in Molly, the last rays of the setting sun making a golden path to the west, and Wingfield at the tiller (Molly never had a better hand), yarning of weird experiences, from chasing a submarine in a trawler armed with a 22 rifle (he was pilot), to doing a difficult pitch on the summit of the Pyramid without a shoulder.
May we not in fancy share Rupert Brooke's quaint conceit and ask-
"And shall we walk along the hills of heaven,
Rucksack on back and aureole in pocket ?"

## THE FELL AND ROCK CLIMBING CLUB WAR MEMORIAL.

A ceremony of great interest to all lovers of the open fells, no less than to the devotees of the sport of rock climbing, took place at the Annual Dinner of the Fell and Rock Climbing Club, held at Coniston in October, 1923. This consisted of the presentation by the Club to the Nation of a large tract of mountain tops in the Lake District, to be held in the custody of the National Trust for the free enjoyment of all lovers of the mountains for ever, as a memorial to those of its members who gave their lives for their country in the Great War.
In the course of a well-chosen address, the President of the Club, Dr. A. W. Wakefield, described the purchase by the Club of between thrce and four thousand acres of mountain tops in the region of Sty Head, which may be roughly indicated as bounded by the 1,500 feet contour lines, including Kirk Fell, Great Gable, Great End, Glaramara, and the Seathwaite Fells. This tract includes some of the finest mountain and rock scenery in Great Britain, and its crags are famous in the annals of British rock climbing.
It was acquired by the Club from Mr. H. Walker, of Seascale the purchaser of the Musgrave estate, who, himself a past member of the Club, entered into the spirit of the undertaking and very kindly made the arrangement of the conditions and boundaries as easy as possible.
Dr. Wakefield then handed the title deeds to the Rt. Hon. F. D. Acland, as the representative of the National Trust, who, in accepting the gift on behalf of the Nation, expressed the hope that it might be the nucleus of a national reserve, embracing a large proportion of the Lake District.
It is very gratifying that through the public-spirited action of one of our kindred clubs such a magnificent area should be preserved for the enjoyment of everyone for all time, and it may en courage others, either individuals or organisations, to add to this area, thereby precluding the possibility of the public being excluded from the mountains which they have enjoyed for countless generations, on the pretext of the preservation of game or the formation of deer forests-a state of affairs which unfertunately exists in many parts of Scotland to-day.
The Fell and Rock Climbing Club could have found no more worthy form of memorial to its fallen members. Monuments crumble and fall, but the everlasting hills stand fast and give inspiration to all who lift up their eyes to them until the end of time.
J. F. S.

## CHIPPINGS.

Mountaineering Equipment.-Facing the collection of articles of food and clothing laid out for a long expedition, the climber wants a very good reason for taking the heavy ones. Camera, crampons, rubber shoes-often the cry is, "scrap the lot."
Yet, year by year, the load which well-meaning persons desire him to carry grows more monstrous. Enthusiasts commend a stove-so jolly to have hot tea or bacon and eggs on a glacier, they say. An advertiser would put a "neo-belay" in the sack. A winter sport man would have us carry or drag ski to the top. Last and latest comes a writer in Alpina who, that we may allay the anxiety of our friends, would have us add to the lot-three or four carrier pigeons in a cage !

The Club Huts of Switzerland.-A puzzling problem for the S.A.C. to-day is how to deal with the crowds of visitors who make a night at a club hut the object of an excursion, for the ideal of a refuge open at all times to all is difficult to reconcile with comfort for the mountaineer.
The statistics of the visitors are of some assistance in avoiding the most crowded places. Taken for what they are worth in a moderate season, those of 1922 indicate that plenty of room may be expected in the Valais, at the Dom, Weisshorn, Valsorey (Combin) and Saleinaz huts-in the Oberland, al the Balmhorn, Rottal (Jungfrau) and Bergli huts-in the Grisons, at the Pontaiglas, Sciora, Albigna, Jürg Jevatsch, and Lenta huts, while you may expect to slecp outside the two Orny huts in the Valais, the Doldenhorn, Blumlisalp, and Guggi huts in the Oberland, and half a dozen others elsewhere.

Industrial Smoke in the Alps.-Dreams of a clearer and brighter future for the manufacturing areas of this country are rudely dispelled by a journcy to Dauphiné. We have grown accustomed to hearing of electricity as an agent of reform, and to count those countries fortunate which dispose of unlimited waterpower. Pittsburg, we are told and do not believe, is a clean city, though it is in the steel trade.
In the magnificent valley of the Romanche, 25 miles below La Grave, have been established steel works using electricity derived from water-power, apparently also producing carbide. The volumes of smoke out-rival the worst sights in the West Riding and the effect is perceptible at immense distances.
According to the French magazines, the establishment of such works is proceeding apace, and the imagination is staggered by
the possibility of a view from Mont Blanc in which the French Alps are obscured by yellowish smoke haze.

A Y.R.C. engineer remarks-"After all, in many cases electricity is adopted as the cheapest method of applying heat in furnaces, and therefore naturally is no solution of the smoke problem."

Lead Miners' Terms, Grefnhow Hill.-There is in the Transactions of the Yorkshive Dialect Society, Part XXIV., 1923, a glossary of much interest, by Mr. H. J. L. Bruff. It includes particular applications of ordinary words, mining terms fairly well known, terms adopted in geology, and common dialect words like "slape" and "knap," as well as much less known words of interest to cave-men and trampers. We select the following-
cow or coe, the very finest crushed lead ore.
dowk, a mixture of sand and clay which will run when wet, occurs mostly in "lough-holes."
glut, stone or timber jammed in a shaft.
gor, sticky, dirty clay.
swirl-hole, a round hole in the rock formed by water, not
containing clay. Filled with clay it is called a lough-hole. hazards, last year's peats.
hoobs, stroobs, boockets. In peat graving the first spade cuts bring up hoobs, the second stroobs, the third boockets.
hush or hoosh, hollow formed by water dammed up and
flooded down to bare the rock. Hushing is now illegal.
kile, wedge. shirley, brittle.
slifter, vein worked in daylight, a great gash in the hillside. old man, earlier miner, old working.
shookles or shoggles, stalactites and stalagmites. (At last we have the English for these !)
It slear that in the old days the picked ore was put into leather bags and dragged out by boys through the narrow winding drifts, as in the early coal mining.

Pennine Peat-It is usually supposed that Bog Moss (Sphagnum) is the principal agent in the formation of peat. But an article in the Naturalist, referring to the investigation of peat moors by the Yorkshire Naturalists' Union, states that our Pennine hill peat has a very simple history and is mainly due to the singleheaded Cotton-grass (Eriophorum vaginatum). Sphagnum peat is rare on the Pennine moors. Heather covered peat is retrogressive.
Elgee, in his Moorlands of N.E. Yorkshire, clearly agrees with these views, but considers Sphagnum the principal agent in the district with which he deals.

Somerset.--No. 3 of the Proceedings of the Bristol Speleological Society contains a plan and section of Goatchurch Cavern in the Mendips, with a short account. Goatchurch seems to be about 200 yards long.

There is also a map of Bristol and neighbourhood, recording the positions of the 20 small caves of which Mr. Tratman gives brief details.

Record Breaking.-We fear Mr. Eustace Thomas's great walk in the Lake District is responsible for the round of the Three Peaks in six hours. Scheclule to the next comer on application.

Everest Expedition.-The Everest climbing party of 1924 includes J. V. Hazard, well known to us as a climber and pot-holer. His expeditions, undergrouncl and above, between 1908 and early 1914 were made under the banner of the Y.R.C., of which he was a member until he went out to Nigeria. He has just recently returned from India, and is as fit and as fast as ever. Good luck!

An Aurora at $48^{\circ}$.-"Sailing over Lake Superior on Sunday night, I saw the most gorgeous display of Northern Lights. At first I thought it was the afterglow of the sunset, and then it struck me it must be the Aurora Borealis. It was a pitch-black sky with twinkling stars, a velvet sky it seemed, and on it was this glorious glow. In the centre was a sort of half-oval of soot-black foreground. behind this, as if giant ships were there, appeared first a mass of whitey-silver wool and from this, giant search lights sprang, some shorter than others, but one or two in the centre of the oval stretching up beyond my ficld of vision. All the water for halfway between the horizon and the ship was faintly tinged with the reflected glow. It was a wonderful sight and not to be forgotten. I think it mostly occurs in the beginning of autumn, so I was lucky to see it." [From a letter to our Hon. Librarian from his daughter.-ED.]

Illustrations.-The block for the illustration, Gaping Ghyll Main Chamber, in Y.R.C.J., No. 15, was very kindly lent us by Holden.
We are indebted to the late Mr. A. A. Scott, President of the Gritstone Club, for permision to reproduce the photograph of the fall of the water from Diccan Pot into the bottom chamber of Alum Pot (page 124).

Reviews.-Owing to lack of space, we are unavoidably compelled to hold over all reviews of books and journals.

## ON THE HILLS

Two New Lake District Climbs.-Eagle's Corner, Great Napes, Great Gable, is the address of the first climb to be made on the wall of the Eagle's Nest Ridge that bounds Needle Gully on the west The new route begins at the level of the foot of the Needle Ridge climb. While following the natural trend of the ribs and hollows the climbing is easy for three pitches, but an attractive rock tower tempts one to the left across "the grain," and the second on the rope must secure himself and party during the long run-out over difficult rocks. The inside corner that looks so useful from below deteriorates as one approaches, and becomes positively repellent at close quarters. Instead of returning, the leader moved to the left to view the exposed outer face of the square tower, and found a most engaging traverse a little higher, which would take him to an apparent chimney, if he could round the corner beneath which he was prospecting. The chimney happens to be of the best width, and after traversing the exposed vertical face on one narrow ledge for the feet and another for the hands, it can be entered by a swing on the hands, the footing giving out too soon for perfect comfort. Brown built a little cairn on the top of the tower. The crest of the Rimbed in and the leader, Frankland, in rubbers The crest of the Ridge is reached by typical Napes climbing (Easter, 1923.)
Cam Spout Crag, Peregrine Chimney.-The left buttress of Peregrine Gully has yet to be climbed along its crest, but just to the left of the crest a shallow bay, filled with bushes and shrubs and other embarrassments, narrows within 150 feet to a tall chimney; this is closed by a long steep slab, difficult of access and rather hard to climb; a short chimney follows and what appears to be an enclosing vertical wall, probably unclimbable, bars farther progress. A charmingly unexpected winding passage (almost a tunnel) leads off towards the Gully. A huge block bars the through route out of the narrow way. Although 15 fect square, the block moved horribly beneath the woight of the lealer, but it settled immediately, and is pronounced safe by Addyman. The edge of Peregrine Gully is soon reached and the downward view is entrancing.
When we made our ascent the falcons were in distracting attendance, and Brown climbed out of the chimney half watching daring flying stunts performed by three peregrines. The leader was fortunate in having a front seat at this marvellous performance, complete with wing drumming and vocal effects.-C. D. F.
Ross-shire.-The Editor went to the S.M.C. Meet at Easter, 1923, as the guest of J. H. B. Bell, and in warm and hazy weather
had a series of most interesting expeditions in a little-visited country. There was no snow to speak of. Ncar Loch Maree are two remarkably fine and rough ridges of considerable length, Ben Eighe and Liathach. A full day's march to the N.E. is another very fine group, the Teallachs. There are three magnificent ranges of crag, on the Teallachs, Ben Dearg opposite, and on Ben Eighe. The first two and the lower third of the last are Torridon sandstone, forming many hopeless walls and splendid ridges, an attack on which requires plenty of time. On the upper part of Ben Eighe the Eastern Buttress is quite easy.

Very little appears to have been done on the Teallachs or on Ben Dearg, or on the numerous crags of the superb and almost unknown Fionn Loch glen. Access is hopeless after June, but as these are in the Zetland Forest it might not be impossible for a Yorkshireman to get leave to camp or to stay at a keeper's.

The S.A.C. Climbing Course at Klosters.-The idea of a climbing course was received with a good deal of amusement by a large number of climbers in this country. But how is the novice to learn? No guide will give away his professional knowledge, which is often confined to his own locality, and the beginner who is taken out by a party of experts can consider himself to bo exceedingly lucky.

About 15 of us, five British, a Jap, an Alsatian, a Dutchman, and some Swiss, assembled at Klosters on July 25th, 1923. The British party was under the leadership of Dr. C. Blodig, a wellknown Alpine climber. The first two days were spent in the valley. In the mornings we were employed in simple rock climbing, and the afternoons were spent in theoretical and practical map reading. On the Saturday we climbed a local peak about 8,000 feet; it consisted of a long steep grass slope, with a rock arête along the top.

On the Sunday we left for the Silvretta Hut, situated at about 8,000 feet and within half a mile of the glacier. Monday morning was spent in learning to cut steps on the seracs, and in the afternoon we had some more rock scrambling. We left the hut at 3.30 a.m. on the Tuesday to climb the Silvretta. Crampons were used for practice on one rather steep snow slope. There was very heavy rain on Wednesday morning, so we had a lecture on the theory of ice and snowcraft, and also on the use of ropes under various circumstances on ice and snow. In the afternoon we went out on to the glacier and several of us were, in turn, lowered into a crevasse and pulled out, to illustrate various methods. These had on one occasion to be applied seriously.
We left again early on Thursday morning to climb the Signalhorn, about the same height as the Silvretta, in,ooo feet. Throughout both climbs instruction was given on different subjects,
including map and compass work. The weather was bad again on Friday, very little work being done. We returned to Klosters on Saturday.--Johi Wright

The Alps.-The season of 1922 appears to have been only a moderate one, but the season of 1923 was exceptionally good, in spite of a most inauspicious start. In the Alps, as in this country the spring was decidedly inclement, in fact conditions in the High Alps are summed up as, winter till late in June, no spring, hot summer at one bound. The extremely fine hot weather laster till the I5th August

In 1922 A. B. Roberts had quite a successful time, ascending Petite Dent de Veisivi, Aig. de la Za, Dent Perroc with traverse to the Grande Dent de Veisivi, Mont Brûlé, Punta Nera and Punta Bianca, Grivola, Gran Serz, Gran Paradiso, and returning to Arolla in bad weather via Cols du Meiten and de la Serpentine.

Creighton, starting from Modane with Messrs. Newton, Pryor and O'Malley, traversed the Polset, Grande Casse, Tsantaleina and Tête du Ruitor to Courmayeur, thence over Col du Géant to an attempt on the Grépon

The Editor in Dauphiné climbed Pic de la Grave, Roc Noir, Grande Ruine, Pic de Neige Cordier and Pic d'Arsine, S. Peak of Grandes Rousses, and crossed three cols
John Wright made a couple of ascents from Engelberg
F. S. Smythe went to Landeck on the Arlberg line in the summer of 1922 , and in the course of a year spent on power station works between Landeck and S. Anton did not fail to take full advantage of his opportunities of ski-ing and climbing, In June, 1922, with J. H. B. Bell (S.M.C.) he climbed the Langkofel-kar Spitze, the Fünffingerspitze over badly iced rocks, and further north in Austria, the Gross Venediger by the N.W. ridge, a magnificent climb.

In September he went from S. Anton to the Saumspitze and See kopf, then into the Stubai valley, and up the Wilder Freiger with chance companions, Austrians. On the ascent of the Wilder Pfaff they were struck by the van of one of the most frightful storms which have ever visited the Alps, and though they gained a hut in safety, the party were in a starving condition when they were at last able to struggle to one where there was food.

In the winter, Smythe ascended on ski the Kaltenberg, Riffler, and other peaks of the Ferwall group from S. Anton

In 1923, in the course of six days on ski in the Silvretta group at Easter, he bagged ten peaks, including Silvrettahorn, Piz Buin and Fluchthorn. With Colonel Neame he left Fiesch in the Rhone valley on 2ist April, returning on 4 th May. In this period they experienced a succession of storms, but spent nine nights

at the Concordia hut, and climbed the Mönch and Finsteraarhorn. The whole of this latter journey from and to S. Anton cost eight pounds.
"Spring is the finest time in the Alps and ski-ing at its best." In the summer, Smythe climbed the Kleine Zinne, Croda da Lago, the great rock wall of the Langkofel by the N.E. ridge, and the Zahnkofel with Dr. T. H. Somervell, then going on to the Oberland with Somervell, Brown and others, made the ascents of the Wetterhorn, Klein Schreckhorn, Eiger and traverse over Klein Eiger, Mönch, and Schreckhorn.

The Editor then joined Smythe and they had a most successful time in the Dolomites, the more interesting as they had no guide books and had to pick up information as best they could. From the Sella Joch they climbed Sella Turm III., Fünffingerspitze, and the great wall of the Langkofel Eck, then moving on to Cortina the even more impressive and intricate South Wall of Tofana di Roces. To these climbs the other two Tofanas, Sorapis, and Antelao were a great contrast, being ascended in nailed boots, and Antelao in deep snow. Severe rock climbing was again tackled on the Grohmannspitze, Winklerturm, and Murfreitturm. On the last peak the difficulty of picking out a safe route up the rotten face left them insufficient time to solve the puzzle presented by the final pitch, their only defeat.

The standard of rock climbing in the Dolomites is a very high one, but British guideless parties of experience, who are prepared to reconnoitre the mountains and to retreat the way they have come, need not hesitate to tackle the Dolomites, even the great faces. But they must realise that even in settled weather these huge walls are real mountaineering expeditions and not to be treated as Lake District expeditions, like some of the smaller pinnacles. Crepe soled boots are the best foot gear.

Creighton, after the visit to Norway with C. E. Burrow, Anderson, and Lowden, recorded elsewhere, got in ten days in the Alps, climbing the Titlis, Weiss Nollen, Eggstock, Dammastock, Galenstock, and Finsteraarhorn.
J. M. Davidson, early in July, 1923, ascended the Jungfrau from the Guggi side, and the N.W. face of the Mönch, severe climbs, with Hans Kauffmann as guide, and the Schreckhorn by the Andersen Grat.
W. V. Brown made the traverse of the Eiger and Klein Eiger to the Bergli hut and also the ascent of the Schreckhorn in his first season.
A. B. Roberts visited the Pyrenees, but his only climb was the Pic des Crabioules.
W. A. Wright's expeditions are described in this number.
C. Chubb and J. S. Crawford had a most clelightful tramp in late September, going from Champéry over Col de Susanfé to Finhaut on the Chamonix mountain line, thence to Chamonix, back into Switzerland to Sion, Arolla and by Col d'Herens to Zermatt.

Anderson and Lowden followed up the expeditions from Turtegrö by an extensive walking tour in Norway
A. M. Woodward spent a month in the Alps. Starting from Sulden, with Hans Sepp Pingerra he traversed the Vertainspitze, the Ortler (ascent by Hoch-Joch, first of the season from Sulden, and descent by Hintere Grat, on Aug. 6th), Tschengsler Hochwand (ascending by E. ridge), and the three peaks of Cevedale with descent to Pejo. From Campiglio he climbed Cima Tosa and Cima di Brenta (usual routes), and from Pontresina, with Ulrich Gras-Lendi, traversed Piz Morteratsch, ascending from Boval Hut by Speranza-Gra1, and back to the same hut by usual route. This fine ridge is little known; left hut 4.12 , roped at 6.0 , halt $7.35-8.15$, top of rocks at 1.15 , summit 1.30 . He was told that it had only been climbed once throughout (and about five times by keeping below central gendarmes on snow to $N$. side).

## CAVE EXPLORATION.

## I.-New Discoveries.

Ingleborough, Diccan Pot.-In the night of 7 th July, 1923, as described in this number, W. V. Brown, J. Hilton, and E. E. Roberts made the second descent of the mighty underground shaft by which the Long Churn water pursues its course towarls the bottom of Alum Pot.

In making the first exploration beyond the foot of this 120 -foot shaft, they descended rapidly in a narrow and lofty rift by means of three single ladder pitches, and reached a point at the head of the final waterfall, about 250 lect below the entrance, one man being lowered another 30 feet.
Newby Moss.--In the autumn of 1922, members of the Gritstone Club descended all the shafts of Pillar Pots I., II. and III., which reach to the same chamber. They also descended Long Kin West and all the other pot-holes of the group, including three which they dug out, Star Pot ( 90 feet), Boggart's Roaring Hole II. (izo feet), and one marked at present as $Y \operatorname{Pot}(45$ feet $)$.

Fountains Fell, Gingling Pot.-On 22nd July, 1923, W. V. Brown, J. Hilton, and E. E. Roberts penetrated a considerable distance into this hitherto unexplored cave.

It is the last well-known pot-hole to sustain serious attack and proves to be of a different type. The party was not strong enough


TOFANA DI ROCES, SOUTH WALL. (Hfight betzeen 4 and B, 3,300 feet.)
in numbers to push on with ladders \&c. along the extremely narrow passage, and stopped after accounting for three pitches.

Mallerstang.-The mysterious rumours which have been current for some years of the existence of pot-holes N. of Hawes Junction, were given reality by the discovery in the last days of 1922 of the Angerholm Pots on Wild Boar Fell. Two expeditions, by J. H. Buckley, J. Buckley, Devenish and E. E. Roberts in March, and by Ellis and Roberts in June, have since accounted for in pot-holes in the Angerholm group which require a ladder and for half a dozen elsewhere
The limestone beds are thin, but the clistrict is an interesting one to explore, and it is clear there are still many more shafts to be found of depths up to 40 feet


Penyghent, High Hull Pot.Members of the Gritstone Club made the first descent on 8 th July, 1923, after diverting the beck and making a partial descent the week-end before. There are three vertical ladder pitches into three chambers, almost on top of one another and running to the south. The floor of the first, 75 feet deep, forms a fine circular bowl, with the water flowing out of the S.W. corner down a narrow opening, to fall 65 feet into a roomy chamber. Here a bedding plane enlarges into a drain pipe, which opens in a few yards into a huge chamber 60 feet deep. The ladder being Io feet short, Mr. H. C. Wood had to drop off on to the piled-up scree. The end, reached in a fissure going S., was about 210 feet below the entrance. High Hull Pot is a splendid place to visit.

## II.-OTher ExpediIIons

Penyghent, Little Hull Hole.-In July, 1923, the Gritstone Club descended the two big shafts which follow the top passage. One man reached the head of the third pitch at the end of the straight and narrow lower fissure passage, and another was hung up at the worst point. They agree that the Y.R.C. explorers have not exaggerated the trials they went through.

Gragreth End, Marble Steps Pot.-H. Humphreys, A. Humphreys and Blackburn Holden, with several friends, made a further exploration of Marble Steps Pot, Easter, 1923.

At the top of the scree slope in the big chamber, a passage was found on the right-hand side by means of which the party were enabled to reach the bottom, obviating a 50 -foot ladder pitch necessary for the direct descent.
[The small stream passage about 40 yards higher up the watercourse from the main hole was thoroughly examined. This passage opens out into the big chamber near the roof. A 50 -foot ladder and about 30 feet of climbing bring one to the top of the 50 -foot pitch at the bottom of the scree slope.]

The far passage beyond the big chamber was followed until it narrowed to a tight squeeze; a light lowered in one of the most difficult places showed a large passage or chamber at a lower level. Further exploration may find means of access to this place.-H.H.

Wharfedale, Hell Hole or Trollers Hole.--A descent was made in April, r923, by three Y.R.C. men. No difficulty was found in passing the rolled-up ladders through the "Fat Man's Agony" and the tunnel beyond.

Nidderdale, Manchester Hole.-A visit in December, 1922, led to the following notes, which add something to Cuttriss's description. A wide high passage leads downstream a long way. In one place, behind a curtain of stalactites, you look up a steep mud slope. When the passage narrows, steep mud on the right can be ascended to the area described by Cuttriss as 100 feet by 40 feet, whence it is possible to reach the stream again. It was found possible, however, and much shorter in time to follow the water through two low tunnels into good going. These seem to have been cleared of mud since October, 192 I.
After a sharp right turn in a deep pool, the roof descends, but a 15 -foot crawl takes one into a high narrow fissure, with its sides eroded into "rags." The cave very soon ceases at a wide pool with a flat roof sloping into it. It may have been many years since this point was last reached.

Goyden Pot.-We learn that the Labyrinth described in the last number was entered and partly explored in 1896 by Booth and Cuttriss. This disposes of the idea that about that time the entrance was blocked with silt.

## CIUB MEETS.

1922.-A fine Easter was followed by an exceptionally fine and hot May, good weather lasting over Whitsuntide till the middle of June.

The Club was out in great force at Whitsuntide, ancl the eye of faith might have discerned from Simon Fell, three camps, at Gaping Ghyll, at Alum Pot, and at Hull Pot, reminiscent of former days. The many visitors who were lowered into Gaping Ghyll included six ladies of the Pinnacle Club.

The summer was variable, degenerating into a bad August and a poor September. The Alps generally had not a good season, though in Dauphine the weather was quite fine in spite of constant bad weather signs.

The summer meet had to be diverted to Horton-in-Ribblesdale (July 1-2) and people had a cheery time, though the weather was hopelessly bad. A most amusing sweep by a long line of men in the rain of Saturday led to the re-discovery of Old Ing Cave. On Sunday Alum Pot was descended to the head of the third ladder pitch in a still worse downpour.

The autumn meet (September 16-17), at Horton again, attended by 18 men, was also an unlucky affair. The attack prepared for on High Hull Pot did not go further than a demonstration on Saturday afternoon of the possibility of diverting the beck. The first result of the diversion was to send all the water into the pot-hole by another route, but some more work in a fcarful storm by a mutinous gang seemed to be more successful. The knowledge gained was of much service to the Gritstonc Club when they made the first descent in July, 1923.

In a fierce gale and heavy showers, Alum Pot was tried once more on Sunday. On this occasion nine men reached the end of daylight, and three penetrated to the final pool through the dense spray of the waterfall coming down from Diccan Pot.

The autumn provided us with some glorious week-ends. A party visited the Howgill Fells, and others the Lake District.

The meet at Middlesmoor (December 9-10) was favoured with two perfect days. Complaint was even heard of the warmth of the water in Manchester Hole.

The following Sunday was miserable and no one appears to have even tried to go to Brandreth Crags, near Blubberhouses, while another poor day was the fate of the fixture at Ilkley in January, though a dozen men put in an appearance at different hours.
1923.-For the winter meet at Malham (February 10-11) the weather was even worse, and the Editor's recollections are of miles along muddy roads and over wet moors, in a dense, hot, soaking mist. Snowdrops, primroses and sweet violets were reported.

A compass was found to have been affected to the extent of $90^{\circ}$, but severe pressure has been exerted to prevent an account of this incident.
The night walk was promptly transferred by the organiser to a night of full moon, 3rd March. As so often happens in the winter, the sky was clearer and the weather better than in the claytime. Four members had a delightful tramp from Ben Rhydding (ir. 20 p.m.), by Blubberhouses and the Pock Stones Moor track to Simon Seat, where it was just warm enough for an hour's rest. Early morning in Wharfedale was glorious. The Wilson Arms at Threshfield was reached at 8.40 and a most convenient train at $9.48 \mathrm{a} . \mathrm{m}$. , the best of the week, was used for the return. It is extraordinary that the normal Midland service on weekdays to places like Grassington continues so hopelessly bad.

For a change, the Sunday meets of March and April at Almescliff took place in fine weather, and the Easter meet (April Ist) at Coniston was very successful, in fact quite a ladies' meet. Some of the climbers on Dow Crags had the happiness of "rescuing" those of the party who had earlier on refused to climb.

Since 1909 the succession of fine Whitsuntides has been so continuous that even the atrocious weather of May could not shake one's faith in the anticipation of sunshine. Snow fell in London on 12th May. Though the Club was not justified in holding the camp proposed at Leck Fell, two parties were in the field, at Ingleton and at Alum Pot. Fxcept on Monday, the week-end was a succession of storms. The Ingleton party drew blank, and the Alum Pot campers, slightly more fortunate in their expeditions, fled to lower regions after the snowfall of Wednesday morning on the higher fells. In fact the whole campaign of 1923 underground can only be described as one of mitigated disaster.

Only three men were able to attend the meet at Hawnby in July, but they urge members to make an effort to visit the delightful country of the Hambledons in the height of summer. Hawnby is quite easily reached by an afternoon's walk from Thirsk.

The autumn meet was held at Austwick on 22nd September, at ' "The Knoll" (kindly lent by Miss Byles). Fifteen members were present, but the persistent heavy rain, continuing up to Saturday afternoon, prevented the exploration of Juniper Gulf being persevered with, though all the necessary tackle was carried up. Sunset Hole was visited and many ascents of Ingleborough were made.

The December meet at Middlesmoor was well attended, as meets at Mr. Carling's always are. A perfect day favoured the men who walked from Masham and those who had the whole Saturday at Middlesmoor.

## CLUB PROCEEDINGS.

1922.-The week-end meets held during the year were-12th February, Kettlewell; 26th March, Kettlewell; Easter, Langdale; Whitsuntide, Gaping Ghyll; 2nd July, Horion; 17th September, Horton; roth December, Middlesmoor.
In March the Committee clecided that the Club should join the Advisory Council of British Mountaineering Clubs.
The fifteenth number of the Club Journal was published in November.
1922-1923.-At the Annual Gencral Mecting, on 18th November, 1922, the following were elected to hold office during the yearPresident, J. C. Atkinson; Vice-presielents, F. Constantine and P. Robinson; Hon. Treasurer, C. Cilubb; Hon. Secretaries, C. E. Burrow and J. Buckley; Hon. Jibrarian, J. H. Buckley; Hon. Editor, E. J.. Roberts; Commiltce, D. Burrow, B. T. Courtney, H. P. Devenisit, C. D. Frankiand, G. L. Hudson, A. C. Mackie, J. F. Seaman.

The sixteenth Annual Dinner was held all the Ifold Metropole, Leeds, on 18th November, 1922. The l'residem1, Mr. J. C. $\Lambda$ tkinson, was in the chair, and over go mombers and wuests were present. The principal guest was Dr. T. H. Somervell, just returned from India, who gave a most intercsting address on the Mount Everest Expedition, illustrated by lantern slides, including the views he obtained during the final climb, which had not been previously shown in England. The kindreal clubs were represented by Mr. W. A. Brigg, Alpine Club; Mr. Worsdell, Scoltish Mountaineering Club; Mr. R. K. Evans, Rucksack Club; Mr. Wilson Butler, Fell and Rock Climbing Clul); Mr. Myles Mathews, Climbers' Club; and Mr. C. D. Ycomans, Derbyshire Pennine Club
1923.-On 26th January there was a Ladies' Dinner at the Hotel Metropole. This was attended by about 50 members and guests, and the Pinnacle Club was represented by Mrs. J. W. Hirst.
On 19th February, Brig.-General the Hon. C. G. Bruce, C.B., M.V.O., lectured in the Albion Hall to about 300 members and friends on "The Mount Everest Expedition, 1922." A most interesting description was illustrated by magnificent photographs. The week-end meets held during the year were-I Ith February, Malham; Easter, Coniston; 8th July, Hawnby; 22nd September, Austwick; 16th December, Middlesmoor.
Mr. C. Scriven, one of the earliest members and most generous supporters of the Club, who has served as Treasurer and as Vicepresident, has been elected an Honorary Member.
The Club consists of II honorary and 123 ordinary members. With deep regret we record the death of two of our members during the year. Our President, Mr. J. C. Atkinson, met with
a fatal accident at Ilkley in May, at the age of 67, and Col. C. R. B. Wingfield, one of our most active members, died in lichruary at the early age of 49 . The loss of two such personalities is very grievous.

1923-1924.-At the Annual General Meeting on 171h November, 1923, the following were elected to hold office during the year-President, E. E. Roberts; Vice-presidents, P. Robinson and J. F. Seaman; Hon. Treasurer, C. Chubb; Hon. Secretarics, C. E. Burrow and J. Buckley; Hon. Librarian, J. H. Buckley; Hon. Editor, E. E. Roberts; Committee, M. Bottrerili, W. V. Brown, D. Burrow, B. T. Courtney, H. P. Devenish, C. D. Frankland, J. Hilton.

The seventeenth Annual Club Dinner was held at the Hotcl Metropole, Leeds, on 17th November, 1923. The President, Mr. E. E. Roberts, was in the chair, and the kindred clubs were represented by Mr. W. M. Roberts, Alpine Club; Mr. J. H. Buchanan, Scottish Mountaineering Club; Mr. J. H. Entwistle, Rucksack Club; Mr. J. H. Wells, Derbyshire Pennine Club; Mr. H. C. Wood, Gritstone Club; and Mr. J. F. Seaman, Fell and Rock Climbing Club.

## NEW MEMBERS.

1922. 

Hassé, Alexandrr Eric, Red House, Menston, near Leeds. 1923.

Dawrs, Thomas Richard, Secondary School, Castleford.
Thompson, Gfoffrey, Fairmount Lodge, Mount Vale, York. Longfiei.d, John Norman, Laurel Bank, Ilkley.
Butler, Ronney Fabcett, 2, Albert Grove, Moor Road, Headingley.
Crawford, Kenneth, Park Square, Leeds.
Eales, Cfcil Montague Dormeux, , , Slation Harade, Harrogate.
Lowden, Arthur Sheridan, Ingleiew Coltage, Roundhay. I924.
Booth, Fred Singleton, 43, Richmond Mount, Headingley. Booth, Harold Singleton, 43, Richmond Mount, Headingley. Greaves, Clarence, Lowick House, Harrogate Road, Leeds.

Back Numbers.-These, which are limited in number, can be obtained from the Hon. Librarian (J. H. Buckley, 168, Wellington Street, Leeds). Prices-Nos. I, 3 and 4, 5s. cach; Nos. 2 and 5, ios.; Nos. 6, 7, 10, It, 12, 4s. each; Nos. 8 and 9, 2s. each; No. 13, 3s.; Nos. 14 and I5, 5s. each. Specially designed green buckram cases for the four volumes, 2s, each. Postage extra.


[^0]:    * Bos Primigenius (Bos); Bos Longifrons (Celtic Shorthorn Ox); Cervus Megaceros (Irish Elk); Cervus Elaphus (Red Deer); Cervus Capreolus (Roe Deer); Sus Scrofa Ferus (Wild Boar); Canis Lupus (Wolf).

