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## THE

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Edited by WM. ANDERTON BRIGG.

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MOTTO: Onty the bort in good enough for the mountaineer.


## Yorksbire Ramblers' Club Journal

## MANY HAPPY RETURNS! <br> By The President.

In November, 1913, the Yorkshire Ramblers' Club celebrated its coming of age with every evidence of virility and strength, and, in a moment of weakness, I promised the Editor that I would write him a short history of the Club during its period of infancy and adolescence. But while the Editor proposed the German Emperor disposed, with the result that, on the outbreak of the War, I found my services commandeered to the neglect of all outside duties I have, however, taken French leave in order to send a few stray thoughts and to wish the Club many happy returns!

To me one of the most striking evidences of the Club's virility is the fact that every man in the first list of its Officers and Committee is still active and vigorous. Is it not also a unique feature for any organization of twenty-one years' standing that every President-with one exceptionshould be in its ranks, able and willing to give assistance in a time of emergency? Not only this, but in spite of years, our ex-Presidents are just as fresh, just as energetic and vigorous as ever. Really we must ask Mr. Slingsby
and Mr. Barran for the recipe of this elixir which produces perennial youthfulness. Is it that the spirit of the mountains is synonymous with the spirit of youth?

Some time ago the Registrar General made the statement that married men live longer than single men; to which a cynic replied, "They don't ; they only seem to do." But from the above evidence I think we are justified in stating that Yorkshire Ramblers really do live longer than other men. What an excellent testimonial of membership! Apart from this, however, I am quite willing to apply the answer of the cynic to our members and to state that they also seem to live longer than other men. Was it not Stevenson who stated that a man's life depended not on the number of years, but on the number of sensations experienced; and I would ask any member of the Club if he would have sacrificed some of those crowded hours of glorious life experienced amongst the hills "where the snows are white and the great winds blow," or if he would have foregone the pleasures of struggles and stress in our gruesome Yorkshire pot-holes for weeks of the ordinary humdrum of existence.

Now, what has the Club done to justify the wisdom of its founders?

During the twenty-one years of the Club's existence its members have probably ascended every important peak in the Alps, have explored the Caucasus, have corrected our school-boy knowledge of the Canadian Rockies, have practically taught the Norwegians their own country, have conquered virgin peaks of the Himalayas, have done a large amount of original work in our British crag districts,
have made descents-in nearly every case first descentsof our Yorkshire pot-holes, and have - thanks to the versatile knowledge of Mr. Gray and the untiring efforts of Mr . Brigg—produced a Journal, now extending to a hundred and twenty pages, which can compare favourably with any magrazine of a similar organization.

But, after all, the value of the Club lies not in what its members have done but in what they have received from it.

I believe it was Nansen who, on being asked if the results of Polar exploration were commensurate with the waste of energy and loss of life expended in search for the Pole, replied "Man wants to know; and when man ceascs to want to know, then will man cease to be man." Is not this the foundation spirit of all our mountaineering adventure, the driving force in all our pot-holing exploration, and are we not justified, therefore, in asserting that the rock-bottom principle of our sport is, after all, akin to the principle of all human progress? If this be so, our members must be the better for having imbibedalthough unconsciously-something of the stimulus of this spirit.

I sometimes think that the ordinary course of town life does often mould our faculties so as to warp our power of appreciation of the "sacraments of nature." What better antidote than our association with kindred spirits united by the common bond of love of the hills, and what better corrective for the wrangling passions of modern competition than that calm when

In the hour of mountain peace
The passion and the tumult cease.

But what of the personal friendships derived from association with such a Club as ours? Would not most of us unhesitatingly say that through the Yorkshire Ramblers' Club our best friendships of life have been formed-those friendships that will never be broken and those memories that will never die? And is it too much to assert that it was through such a Club as ours that we had given to us the opportunity of drinking to the full of that spirit of life so admirably interpreted by Borrow: "Life is sweet, brother; there is day and night, brother, both sweet things; sun, moon, and stars; all sweet things."

In conclusion, I would like to refer to the part that I think the Yorkshire Ramblers' Club through its members should play in teaching the true perspective of the value of sport. It is a commonplace remark that many of our vices are but exaggerated virtues-thrift, carried to excess, becomes miserliness, valour becomes foolhardiness, and a natural desire for physical fitness, carried to extremes, becomes athleticism. In this mad crazc for athleticsparticularly by proxy - are we not confusing the means with the end? It appears to me that adoration of the crack sportsman at sixpence a head admission is becoming the cult of the day, and our sport-the pride of our English Schoolsis developing in a direction which must ultimately tend to national decadence. To my mind, the first principle of any game is that it should be made for the player rather than for the spectator. As soon as the latter iooms too prominently in the programme we have an intensification of the vicarious tendency of modern life. At the present time are we not getting vicarious thrift, vicarious exercise and even vicarious patriotism developed to such an extent
that there is a tendency to sap the sturdy manly independence which has always been the characteristic of Englishmen? Now, fortunately, our sport is the one which above all others demands self exertion and the one which cannot be carried out vicariously. Can we not. through the ideals of our own pastime do something to instil into the minds of our young people that the value of sport does not consist in record breaking, nor even in winning matches; but in the stimulus-physical, mental and moral-which comes from rivalry in games, and that no sport is worth its name unless it tends to manliness, cleanliness, purity of heart, unselfishness and high ideals?


## SPIRIT VOICES. <br> By "A. Rambler."

The Twenty-first Annual Dinner was over and the Rambler laid himself down to rest. Whether it was the result of the champagne or the cigars or the songs or the speeches appeareth not, but it came to pass that in the night when deep sleep falleth on men he had a dream that was not all a dream. He seemed to be in some mighty temple of nature, somewhat resembling Gaping Ghyll cavern, only immeasurably vaster, stretching away on all sides into illimitable distance, whilst overhead it seemed to oversoar the loftiest star of unascended heaven pinnacled dim in the intense inane. Suddenly across the darkness flashed a gracious vision, a procession of poets with their garlands and singing robes about them. The vision faded as quickly as it came and the Rambler then became aware of the presence of articulate sounds, tuneful and rhythmical. It soon became clear that that glorious company-the flower of men, had been interested in the greatest event of the twentieth century and that it had evoked from these far-off intelligences, lyrical manifestations. Sundry of these manifestations only reached the dreamer in fragmentary form, possibly because the muddy vesture of decay did too grossly close him in, possibly for reasons beyond our finite ken, and in some cases owing to deducible causes. An unfortunate accident appears to have cut short the poem of that wellknown lake enthusiast, W. W-ts-n. As for R. K. he is so obsessed with his military prejudices that he fails to appreciate the value of sport. Consequently the interruption of his effusion cannot be regarded as unfortunate.

It is indeed only recently that rock-climbing has come to be recognized as a reputable pursuit for sensible men (an impression which certain ultra-gymnastic young gentlemen are doing their best to undo), so that it is not remarkable that the nineteenth century poets are disposed to look somewhat askance at that sport and the kindred pastime of pot-holing.

First in the lists the Pilgrim of Eternity came veiling, as is quite obvious, all the lightnings of his song :-

Deep and unfathomed as is woman's heart,
Black as her hate, the gaping ghyll descends.
Vain-glorious man! contrast thy puny art
With Nature's, in her temples, when she rends
The hills in fragments. Far beneath extends A labyrinth of caves and streams and pools.
Not even in these depths men's daring ends :
Behold they come with ladders, ropes and tools
To risk their silly necks, the godforsaken fools.
Scarcely had the last words, resonant with the hate of hate, the scorn of scorn, trembled into silence, than stole a sound of softer melody :-

My head aches, and a drowsy numbness chills
My fingers. My sad muscles all are tense
Through standing tiptoe on these stony hills.
Something melodious rings that sounds like sense,
Perchance the self-same strain that found a path
Through Rambler's heart-and lips-when ill at ease,
He stubbed his toe and hurt his fav'rite corn ;
The same that oft-times hath
Woke sentry-boxes opening on the screes
Of perilous steeps in mountain lands forlorn.
Whilst the Medium was trying to make sense of these lines and, not being Carrie Morelli, utterly failing to do so, there came a soft, sobbing wail through the still air. Gradually it took articulate form :-

With fingers weary and worn,
With eyelids heavy and red,
A woman sat in unwomanly rags,
Somewhere near Wastdale Head.
At this point the words were lost in sobs. Gradually they recovered strength and clearness :-

It's $O$ for a pair of bags,
As worn by the lively Turk,
Where woman has never a skirt that drags,
If this is climbing work.
Climb! climb! climb!
My labour never flags;
And what are its wages? My hands all raw,
A lump on my head and-rags,
Those hideous screes, these ghastly slabs,
A stumble, a broken fall,
And blanketty blanks are all my thanks
For coming off at all.
O, but for one short stop!
A minute would be enough!
No blessed respite for food or drink
But only to get my puff.
A little cussing would ease my heart-
From the words which followed, which are entirely unprintable, it would appear that the good lady gratified her desires and unpacked her heart in words.

There was a sweep of harp-strings and a rich, mellow voice gladdened the darkness. So pleasant was it that the sadness of the theme was forgotten in the music of the tone :-

I saw to the Fleet the poor debtors returning,
With their tears on their cheeks and their shame on their heads ;
They had wasted the money they should have been earning,
Their homes were all ruins, their characters shreds.
And I said, 'That reminds me, bedad and bejabers, Of the day that I climbed to the top of the Reeks,
When I spent all my breath on my pain for my labours, And my hose were all tattered and so were my breeks.'
The next voice was soft, gentle and low, an excellent thing in woman, but a bit footling in man. The
extraordinary conciseness of the title suggested the identity of its owner:-

LINES TO A FRIEND WHILST TYING UP HIS LEFT bootlace one misty morning in autumn previous TO THE ASCENT OF PAVEY ARK FROM DUNGEON GHyll by way of mill beck.

Up with me! Up with me, into the clouds!
If thy rope, friend, be strong.
Up with me! Up with me, into the clouds !
Clinging, clinging
With all my weight below thee swinging,
Lift me, haul me till I find
That spot that seems so to thy mind.
I have plodded through morasses dreary,
And to-day my legs are weary,
And to canslong and beery
Fain with thee would I fly.
There is madness in this, but a moral hope
In the strength of the rope.
Up with me! Up with me! Gimme a hitch
To the banqueting place at the top of the pitch.
Again a voice, sweet and most gentle-this time a woman's. The verses would seem to indicate it was that of a lady noted for her piety, but not always, as still appears, for her accuracy. As usual, she is a bit mixed as to her metre :-

Have you heard the Ramblers' language, O my brothers, Down beneath the pot-hole's brim?
One of them is swearing hard at all the others;
They are laughing hard at him.
Sad it is to hear him ; 't will be far sadder
Should he chance to come
Swinging off the pirouetting rope-ladder
With a life-line round his tum.
See him clinging there like a human creeper,
Swearing fit to make you jump,
For the cave-man in darkness curseth deeper
Than a navvy with the hump.

The next psychic communication was preluded by loud snores. Indced, throughout the whole recital came the sound of stertorous breathing, as of a man under an opiate, so that the medium could only catch a few lines here and there with difficulty :-

In Helln Pot, creation's plan
Formed for the Yorkshire Ramblers' Club
A playground grim, whence streamlets ran
Through caverns measureless to man
Right upward to Turn Dub.
But Oh! that long mysterious churn that slanted
Through the fell side, beneath a limestone cover,
Where once imprisoned Ramblers strove and panted
Mid breast high waters, shivering, but undaunted, And held their own until the flood was over.

A damp fool with a whisky jar
In a pot-hole once I saw,
He had a helmet on his head
And was, I judge, from what he said
Swanking about Ingleboro'.
Could I revive within me
A liquor of that brand,
I would cry, Beware! Beware!
Here the words died away in a moan of intense, half conscious agony.

A stern voice, rough and discordant, but manly withal, rang from the empyrean :-

## O to be at Wastdale

Now that Easter's there!
Whoever goes to Wastdale
To the mountains wild and bare
Sees that Kern Knotts crags and the rugged Napes Are crowded with men who climb like apes,
All chaffing and making a jolly row
At Wastdale-now.

## Another starts and others follow

Where the Tongue is Brown and Stones are Hollow.
See, like a dainty blossom on a ledge,
A lady of the hills, a mountain rover,
Balance and cling beneath the chockstone's edge.
That's a wise girl! she tries each hold twice over Lest she should come, should no one chance to stop her, A most unholy cropper.
What though her hands are cut! Her step is light,
Her heart is cheerful and her cheeks are bright
With rosy hues, a healthy body's dower,
Far richer than a chemist's Patent Flower !
The next voice was slightly Scotch in accent and for a moment the medium feared he was to be honoured by a visitation from 'Oor Rabbie' in a tongue not understanded of the people. The refinement of the cadence reassured him. It rang out like a silver clarion :-

Hark! Hark! Wastdale and Ennerdale Call from the heights to the Cragsmen and Scramblers.
Hark! Hark! Kingsdale and Ribblesdale
Call from the depths to Pot-holers and Ramblers.
Will you not heed the call ?
Busk yourselves one and all,
Chuck up your work and come northwards together.
Come to the crag and hill.
Come to the pot and ghyll,
Come to the rocks on the wild moorland heather !
Come from your desk where the telephone's ringing,
Come from the town of the rate and the tax,
Come from the fields where the mavis is singing,
Come with the rucksack, the rope, and the axe.
(iarments are rending, toil seems unending;
Toil is but transient, joy is eternal.
These are your holidays!
Make them all jolly days,
And, please be sure, write them up for the Journal!

A voice, harsh and raucous with anger, clave the silence. "And wad ye daur say I canna write language understandit o' the people?" it cried. "Tak this in your lug."

See you yon Rambler ca'd a man?
In caves he'll jowk, and a' that,
And gar ye think nae ither can;
The man's a gowk for a' that.
For a' that and a' that
Whativer ye may ca' that,
He's naething but a feckless loon
And gomeral for a' that.
A dark cloud overshadowed the medium, like some vast bird of ill omen with outspread wings, and from the obscurity croaked a voice :-

To a place obscure and lonely
Haunted by the Ramblers only,
Where a Phantasm called sport
Lures you where you didn't ought.
Come I from my comfy tavern
To this dim infernal cavern
On a wild weird climb, down all the time
Out of AIR-into SLIME.
Bottomless vales and boundless chasms And groans and swears and grunting spasms,
And forms that no man can discover
For the wet that slops all over,
And candles toppling evermore
On the pot-hole's greasy floor.
By the stagnant lakes that spread
Their foul waters, still and dead,
By the subterranean river,
Murmuring hoarsely, murmuring ever,
By the dismal tarns and pools
Where sport the Fools.
For a cove whose funk is legion,
'Tis a most distasteful region!

Scrabbling over greasy planking,
Clinging, sweating, shivering, blanking,
To a place obscure and lonely,
Haunted by the Ramblers only,
Where a Phantasm called sport
Lures you where you didn't ought.
Came I from my comfy tavern
To this dim, infernal cavern.
The harsh, discontented croaking died away, the silence swelled into music and :-

From the deepness and the blackness,
From the deep and dark abysm
Came a tone that rung in rhythm,
Came a voice that spoke in metre :-
Though I know ye are not gamblers
In the sacred game of life,
Take these warnings, O ye Ramblers, In your sport of toil and strife.

Courteous be your speech and gentle, Never let your passions warm;
Language strange and ornamental Is exceedingly bad form.

Nay, nay, nay, I shall not quarrel With your words about my eyes ;
Though I cannot find a moral, Mine it is to moralize.

Ah, I think at last I've got a Parable the case to fit.
List to me, you climbing rotter! Though you're buried in the pit.

Though the damp and darkness smother And the pot-hole's black as night,
With the succour of a brother You may reach again the light.
'Hail to the world!' cried the next visitant, with a marked nasal accent, "Salut au monde!"-
"Others push their way through grisly swallets,
Risk their necks and their souls in the depths of Ingleborough,
Sleep in Long Churn, spend sleepless nights in the draughty chambers at the bottom of Gaping Ghyll,
Running the danger of asthma, catarrh, double pneumonia, chills, rheumatic pains and starvation,
Till some come down through the howling waters, bringing rucksacks full of bovril, oxo, maggi soup, tinned meat in huge variety, and plentiful drinks, non-alcoholic, but comforting.

The voice grew faint ; there came a further change ;
Once more arose the mystic mountain-range-
and from the heights rang out the 'deep-chested' music of a bard of bards 'mouthing out his hollow o's and a's' which, by the way, made it uncommonly difficult to understand him.

## O who would be

A Rambler brave
Sweating alone,
Panting alone
Under the lea;
Down in a cave
On a stone.

## II.

I would be a Rambler brave;
I would smoke and chat the whole of the way To the pot-holes deep by the mountain track,
And, when there, I would climb about and stray With the Ramblers in and out of the crags Which for ever are trying your skull to crack, Or hooking you back by the seat of your bags.
I would range with my comrades under the lea,

I would cuss at them till they cussed at me Chaffingly, chaffingly.
And we would wander away, away
Down the caverns dark far from human eye, Rotting each other heartily.

A wrathful voice with a note of agony in it, like the wailing of a lost spirit, shuddered through the darkness :-

Fouled with the slime that covers me,
Greasy and wet from foot to poll,
I hope to goodness I shall be Soon out of this confounded hole.

In spite of jolts and falls and shocks
I have not uttered grunt or groan ;
Though bashed 'gainst stalactites and rocks
I still pretend to hold my own.
Beyond this place so grim and dank Looms but the menace of the shade,
And I, in spite of all my swank, Feel most detestably afraid.
It matters not how swift the rate,
Tho' the chair twizzle as it will,
Ye Ramblers, masters of my fate,
Do haul me out of Gaping Ghyll!

Then came the cheery tones that betoken the mountain lover:-

## Climbing the Needle Arête! O yes, it was Hades and Thomas,

Base over apex I fell, flat on my back on the scree-
The cause of the sudden cessation of the poem is here evident, albeit it is quite certain that the poet must have been under a misapprehension as to the correct name of the climb; a fall to the scree from the Needle Arête would probably be fatal.

Wastdale Head's by Mosedale BeckCurse the rocks and blank the scree I That's the place to break your neck,
But it is no place for me.
Crocks, Crocks, Crocks, Crocks, Crocks of Wastdale Valley,
Bastard Patriots are you, every one.
O, you putteed fools in clinkers,
You abandoned set of stinkers,
Why don't you change the ice-axe for the gun ?
Wastdale Head's a blasted place-
The abrupt break-off is conceivably accounted for by the preceding verse and may be not wholly unconnected with clinkers.

The manifestations had clearly ceased, yet the medium waited. Where was that pard-like spirit, beautiful and swift? Had he so far outsoared the shadow of our night as to be out of touch with the earth altogether, or had his ethereal soul anticipated? The medium turned to his bookshelf and found, to his delighted surprise, that his latter conjecture was correct.

A deep ravine
And in its depths there is a mighty rock
Which has, from unimaginable years,
Sustain'd itself with terror and with toil
Over a gulf, and with the agony
With which it clings, seems slowly coming down;
Even as a wretched soul, hour after hour,
Clings to the mass of life ; yet, clinging, leans,
And, leaning, makes more dread the dark abyss
In which it fears to fall. Beneath this crag,
Huge as despair, as if in weariness
The melancholy mountain yawns. Below,
You hear, but see not, an impetuous torrent
Raging among the caverns, and a bridge
Crosses the chasm.


## CLAPHAM CAVE.

By the late Charles A. Hill.
INTRODUCTORY. Clapham Cave, or as it is sometimes called Ingleborough Cave, has been known for so many years that it would seem there was little new to be written about it. Yet there is still something fresh to be said. For instance, the history of its early exploration, though extant in MSS., has never been printed nor published, and its Plan (though produced in 1838, the year following its discovery) is known or accessible to but few. Admirable as this Plan is, it does not include the whole length of the Cave ; the whole of the area beyond the point known as "Giant's Hall" being marked as "unexplored." This region is seldom visited owing to its remoteness and inaccessibility, as it is possible only in times of prolonged drought to descend to its usually water-logged passages and to traverse its low and exceedingly uncomfortable galleries.
The work here detailed was undertaken during the summers of 1912 and 1913 with the view of filling in the unsurveyed portions of the existing Plan and clearing up several doubtful points which, in the opinion of the writer, required elucidation.
As already stated, the existing Plan of Clapham Cave was drawn from a survey made in 1838, the year following its discovery. This Plan, however, does not go further than the point known as "Giant's Hall," and as there is an area extending some distance beyond at a lower level, it was determined to survey this section, and at the same time to check the existing Plan by a resurvey of the passages and chambers already mapped, thus completing the Plan of the entire cave.

This new survey was partially carried out during the summer of 1912. During that year, however, it was found impossible to carry it beyond "Giant's Hall" owing to the formation of an impassable choke of sand on
the slope giving access to this low-level area. This choke, which seems to have formed within recent years, proved to be only temporary in character, and had disappeared by the summer of 1913, when the new survey was completed without difficulty.

The work of the survey was carried out by the writer, assisted by the valuable co-operation of Mr . Harold Brodrick, and the latter is responsible for the Plan. Various members of the Club have from time to time joined in the exploration, to all of whom my best thanks are due.

I am also greatly indebted to Mr. Claude Barton, the agent for the Ingleborough Estate, who has placed every facility in my way for carrying out the work.

I should like to place on record an appreciation of the careful and accurate manner in which the first survey was made and of the correctness of its details.

Whilst engaged on the work of the survey I was enabled, through the courtesy of Mr. J. A. Farrer, the owner of the Cave, to inspect the "Cave Book,"* a MS. Journal written by his grandfather during the years 1838-53, which contains a description of the Cave as first discovered. This book furnishes so many facts of historical interest in connection with the discovery and early exploration of the Cave (facts hitherto unpublished and therefore generally unknown), that I propose to draw largely on the fund of information which it contains, and to quote from it at length where necessary.

Record of the First Exploration.-The Cave, at the time the first attack was made upon it, seems to have been penetrable for a distance of $56 \frac{1}{3}$ yds., at which point there was a thick barrier of stalagmite called. "The Bay," holding up a deep pool of water to within a few inches of the flat roof from which stalactites depended to the surface of the water. The old level of this pool is still visible on the walls.

The first entry in the Cave Book reads as follows :-

* See Y.K.C. Journal, No. 5, vol. II., pp. 59-60, \&c.
"On the I6th September, 1837, heavy rain swelled the beck "so as to cause one of the heaviest floods ever known.
"The water rushed out not only from the Cave and Beck
"Head, but also from the side of the hill on the left-hand
" about 20 yds. above Beck Head. On the 22nd I went
"up with Jo to consider of the possibility of opening a
"passage into this part of the hill. The sound of rushing
" water was very distinct, and induced us to expect to find
"an entrance into some large cavern. Two men were set
" to work to remove the stones that filled up the hollow by " the rock side.
"The experiment not succeeding, Jo, on the 23 rd , took " the men into the old cave to the extremity of it, which
"was called 'The Bay,' and there broke a passage through
"the stalagmite that formed it. This opened to the New
" Caves-first into that small part which is now called 'The
' Porch,' and thence to 'The First Basin.' John Gornie
"and Robert Bradley waded through this Basin and thence
"through 'The Second Basin' to a point 76 yds. from the "gate of the Cave. In the afternoon of the 23rd Encombe "and Matt. reached the same distance."
"Jo" was Josiah Harrison, an old and valued servant of the Farrers, and the grandfather of the present guide to the Cave. There can be little doubt that the discovery of the New Cave was due to his initiative. "Encombe" was Viscount Encombe, afterwards John, second Earl of Eldon. There is a note in his handwriting affixed in the Cave Book which epitomizes the progress of the subsequent explorations in a few words. It will be noted from this that the distance of 76 yds . given above as the limit of the first day's exploration is not quite correct. It should have been 85 yds., an error which is rectified by Mr. Farrer in his succeeding entry in the Cave Book. Lord Encombe's note reads as follows :-
"On September 23rd, 1837, the New Cave was broken "through by three labourers under Jo Harrison, two of "whom penetrated to the point at 85 yds . from the
"Entrance Gate, which M.T.F. and Encombe reached " later in the same day, breast high in water at that time.
"On September 26th, James, Matt., Thomas, Henry, \&c., "reached 'The Pillar,' and in a second exploring on the "same day they penetrated to the point blocked up by "stalactited pebbles at (supposed) 450 yds . from the " Entrance Gate.
"On September 29th, James, Matt. and Henry remained " at a spot (supposed) about 790 yds., ...ing a very shallow "descent, while two labourers proceeded to the deep water "reached on October IIth.
"October I1th, I837, James, M.T.F. and Encombe, "accompanied by Wm. Hindley, passed through the shallow "waterfall and reached the deep water at the distance "(supposed) of 940 yds . from the Entrance Gate. (Here " James swam with a rope attached.)
"N.B.-The distances are given not entirely at random "guesses, but by the length of balls of twine, used as guides "for returning."
This record shows that on the second day the explorers reached the end of the present tourist part of the Cave, i.e., just before the commencement of the Cellar Gallery, and that on the third and fourth days they penetrated the full length of the Cave as at present known, getting through the low passages beyond Giant's Hall as far as the river, and traversing the straight "canal," which they named "Lake Avernus."*
Thus within three weeks of its being opened out practically the whole extent of the New Cave was known, with the exception of Giant's Hall, whose existence at that time was unsuspected, and to whose discovery I shall refer later.

Returning for a moment to the point where the exploration ceased on the second day (September 26th), " the point blocked up by stalactited pebbles at (supposed) 450 yds . from the Entrance Gate." This is clearly the blind passage just beyond the end of the present tourist part of the Cave, a passage which shows signs of having been at some period artificially excavated.

There is a letter preserved in the Cave Book which throws light on this matter. Dated April 23rd, 1838, and written by Mr. James Farrer to his father, it reads as follows:-
"We have been working this afternoon in the Cave, "endeavouring to find a passage from one of the "transverse arches in the Cellar-arched part of the
"Cave communicating with the supposed continuation
" of that part which is blocked up with sand and stones
"about 200 yds. beyond the creeping part.
"We have little doubt of being able to clear the
"passage, having already disentombed several
"stalactites. The discovery of limestone gravel is also
" very remarkable, with thick strata of clay above it.
"Should we at any time work through this we may
"reasonably expect to find remains of bones, \&c. The
"solid and compact form of the strata very much
"strengthens one's belief in its antiquity."
Evidently the attempt was abandoned after excavating a short distance, as the passage was found to turn away from the Cellar Gallery, and to be devoid of remains of bones, \&c. It will be seen from the Plan that the trend of this passage is towards the valley, and not into the hill in the dircction of Gaping Ghyll, so that further excavation would probably not have led to any discovery of interest.

Giant's Hall.-This would seem to have escaped detection during the first explorations of the Cave in 1837, and to have been discovered as the result of the investigations carried on by Mr. James Farrer during the year 1838.

The records of the year 1837 make no mention whatever of the Hall. In Mr. James Farrer's "Further Description" we read a detailed account of the passages traversed by the first explorers on their way to the "River." Passing along the Cellar Gallery, " nothing particular occurs till the long " Gothic Arch is reached. This part of the Cave is rather "narrower and is most beautifully inlaid with stalactite of
" different forms and sizes; and finally, after about 30 or " 40 yds., terminates in a low narrow point, where the arch
"has evidently been blocked up by stones and sand and "accumulated stalagmite. The passage, which turns to "the left, now becomes very narrow, and the descent very "sudden. On reaching the bottom . . . \&c."

Evidently the entrance to the Hall was so masked by the accumulation of stones and sand as at that time to be unrecognizable. So much for the year 1837.

In the entry dated 26 th October, 1845 , we find a record of the progress made during the following year, 1838 , from which we learn of the discovery of the Giant's Hall, or as it was first called " The Baron's Hall," and of a survey of the Cave being made by a Mr. Hodgson, from which the existing Plan was drawn.

This entry reads as follows :--" Since I made the former " notes of this very interesting series of the hidden operations "of nature, further discoveries have been made under the "personal direction of James Farrer. The last cavern "which he reached is called 'The Baron's Hall.' In the "autumn of the year 1838 we had a regular survey made of "the whole by Mr. Hodgson, from which he drew the plan " now in our possession. Upon his plan are noted the "names of the different objects which were given by the "discoverers."

Since Giant's Hall is figured on Hodgson's Plan, it must evidentiy have been discovered during the earlier part of 1838.

The description of the Hall from this entry of 1845 reads as follows :-
"The entrance into the Baron's Hall is low, the rock "impending towards the sandy bottom so as to drive you "to crawl or stoop very low. On the right hand as you " enter at a considerable height is an opening and projecting " mass of breccia covered with stalagmite, through which it " appears that formerly the stream was projected."

This opening is at a height of 20 feet above the floor; although spacious it soon closes in, being blocked by an impenetrable mass of breccia composed of rounded waterworn pebbles and clay, covered with stalagmite.

There is also upon the MS. Plan an entry which is of great interest and as throwing a possible light on the discovery of Giant's Hall. At the end of the "Gothic Gallery " occur the words "New Passage opened by Flood "in I 838 . Very low and unexplored." In the previous year this spot was described as "A low, narrow point where the " arch has evidently been blocked up by stoncs and sand and accumulated stalaymite." And in the account of 1845 , mentioned above, "The rush of waters is loud at the end " of the Gothic Arch." Evidently the flood of 1838 wrought a great change here, and it is possible may have opened up the entrance to Giant's Hall by altering the disposition of the sand.

The "low, narrow point where the arch has evidently "been blocked up by stones and sand and accumulated "stalagmite," and where " the rush of waters is loud at the "end of the Gothic Arch" is marked on Hodgson's Plan by the word "column." This formation is a very noticeable feature at the end of the Gothic Arch and has been used in the new survey of the Cave. The "rush of waters" is at the present time still very "loud at the end of the Gothic Arch." An attempt was made during the survey of 1912 to penetrate beyond this point, but the pool of still cold water on the far side of the column, coupled with the lowness of the roof, proved an insuperable obstacle to any exploration in this direction.

In 1913, however, during the survey of the low level area a spot was reached where the relationship between the open end of the Gothic Arch and the area below proved easy of solution. On measurement the distance between these two points proved to be 12 ft . vertically.

There is thus evidence that great activity was displayed during the year 1838 . It marks the discovery of Giant's Hall and the survey of the Cave by Mr. Hodgson, from which all of the existing Plans have since been drawn. There is also on record that an attempt was made to ascertain the length of Lake Avernus by sending a floating light along it. The plan in the Cave Book, which is
reproduced in this Journal (vol. II., p. 60), has the following note affixed to the end of Lake Avernus:-"The floating "light arrived at a supposed distance of 89 I yds. from Cave "Entrance." As the beginning of the Lake is labelled as 8 II yds., this would make out its total length as 80 yds . As a matter of fact this conjecture slightly under-estimates the reality. The exploration of 1896 , to which I shall presently refer, proved the total length to be something over 100 yds., a figure which can be accepted as accurate.

It was in the October of this same year that Prof. Adam Sedgwick, the famous Woodwardian Professor of Geology at the University of Cambridge, whilst staying in the neighbourhood, visited the Cave and accompanied an exploring party to the low-level area beyond Giant's Hall.

An account of this exploration is to be read in his Life (vol. I., p. 5 19), where, in a letter to the Rev. W. Ainger, he details the various incidents that took place on that occasion. The passage descriptive of this is quoted at length in Mr. Geo. H. Brown's pamphlet,* and excerpts are also given in this Journal (vol. II., p. 6r).

The net result was that the explorers" were satisfied that " no other caves are within reach on that side," a conclusion which still holds good at the present time. This assertion seems naturally to have choked off all further exploration for the time being ; and beyond the measurement of certain well-known stalactites, such as "The Jockey Cap" and others which cannot now be identified, nothing further of note appears until the year 1872 .

During this year a party, which included Prof. T. McKenny Hughes, Mr. John Birkbeck (of Settle), and the Rev. G. Style (then Headmaster of Giggleswick) and others, visited the low-level area beyond Giant's Hall, prompted doubtless by the hope that the celebrated food of that year would have wrought great changes in the interior of the Cave. (See Mr. Style's letter in Y.R.C. Journal, vol. II., p. 32.)

But, with the exception of the Cellar Gallery, practically no alterations were found and no new ground was broken. Previous to the flood the Cellar Gallery was practicable even for ladies, (See Sedgwick's account of his visit when a party which included ladies lunched in Giant's Hall.) Since that time the changes wrought by the flood have necessitated wading through the three feet of water held up by a barrier of sand across the far end of the gallery.

Prof. Hughes published a most interesting account of the great flood of 1872 in a paper read before the Victoria Institute, or Philosophical Society of Great Britain, in 1887. As he there states, he "had the good fortune to witness one "of those grand storms which in a few minutes change the "face of nature and in a few hours leave a mark that ages " may not efface." His description of the condition of the Cave after the tremendous rainfall caused by the storm is well worthy of reproduction. "I went," he says, "up the " valley round the Lake towards the celebrated Ingleborough
"Cave. It was a striking scene. Water spurted out of "every crack and joint in the rocks, but the united sub"terranean watercourses could not carry it all, and the "overflow from the drift-covered country above the usual "outfalls rushed down the valley, carrying mud and boulders " with it in its headlong course. The stream below the Cave "runs over bare limestone for a considerable distance, and "the noise made by the boulders, as they were rolled along " the rocky floor, was so great that my companions thought " the thunderstorm was beginning again and hurried home "I went on to the great cave. Here I saw a wonderful "sight. The lower cave was full, and the water was " spouting out of the upper cave, which is usually dry, as "you pour water out of the mouth of a kettle; and well it "might, for, if the swallow-hole that feeds it was full to "overflowing it had had the pressure of more than eleven " atmospheres upon it. This was one of the most instruc"tive phenomena it has ever fallen to my lot to witness."

After such a "local cataclysm" it is scarcely to be wondered at that fresh exploration was undertaken, with the result, however, as has been stated above.

Nothing further seems to have been undertaken until the year 1896, when a party of Yorkshire Ramblers went down to the low-level area beyond Giant's Hall and traversed Lake Avernus by means of a raft, measuring its length and sounding its depth. An account of this exploration is to be found in this Journal (vol. I., pp. 220-228). This account was written under the impression that the party was breaking new ground, but the publication of the article speedily called forth a correction, which will be found in No. 5 of the Journal, in a series of letters; all are of great value and historic interest.

In June, 1903, some members of the Club, including myself, visited the low-level area but discovered nothing new.

The summer of 1905 was remarkable for a prolonged drought, during which many of the active water channels and sinks on Ingleborough completely dried up, notably Mere Gill, where the waterfall entirely disappeared and the lake at the bottom of the chasm sank to small dimensions. These extraordinary conditions suggested to a party of the Club members who were then engaged in exploring this particular pot-hole that a more favourable opportunity could not be found for an attack on the lowlevel area of Clapham Cave, with a view of connecting it with the passages of Gaping Ghyll, which by this time had been descended and explored for a long way in the direction of the Cave, and a determined attempt was accordingly made to solve this problem. In this connection I ought to state here that previous explorations had always tended to follow the downward course of the running water towards its exit rather than upwards towards its entrance into this area. On this occasion the exploration was pursued upwards. A low bedding cave out of which the stream pours was found to be half full. Up this the explorers pushed for a considerable distance until, with their bodies wholly submerged and their mouths half under water, they decided it was best to retreat. In front of them still stretched a tunnel which looked capable of passage had
the conditions been a little more favourable. But prolonged immersion in cold water can be borne only for a short period even by the hardiest of men, so Nature conquered and the Cave still holds its secret.
On this occasion much new ground was traversed, but it was under exceptional circumstances such as are unlikely to occur again, and therefore we may take it as certain that the limit of exploration has been reached as regards the upward extension of the Cave. As to the lower extension the same may be said to apply because the area which concentrates on the end of Lake Avernus is certainly closed by a syphon.

Until this lower extension was surveyed by compass and measuring tape in 1913 its direction had always been taken as pointing towards Beck Head (see the Map in Y.R.C. Journal, Vol. I., p. 130) But the infallible compass has shown that Lake Avernus instead of trending in the direction that previous explorers have always thought it to go, i.e., parallel with the glen and so running towards Beck Head, really takes quite a different course. The Survey of 1913 demonstrates that the commencement of Lake Avernus lies directly beneath the last transverse arch in the Cellar Gallery and that the Lake runs in a N.W. direction straight back into the heart of the mountain in a direction almost parallel with Trow Ghyll.
This Survey of 1913 has also demonstrated the relationship between the water-sink at the end of the Cellar Gallery (see Plan in Y.R.C. Journal, vol. II., p. 56) and Lake Avernus (see Plan on $p .60$ ). In this latter plan will be noted a point marked " $X$, waterfall heard," just at the cominencement of Lake Avernus. These two points ought to be superimposed. There is a difference in level of only about 12 ft The result is that when the Low Level Area floods to its utmost capacity, which it does even after a moderate rainfall, owing to the exit at the end of Lake Avernus being a syphon, the water rises up through this sinkhole and this regurgitation is spread over the end of the Cellar Gallery and the Gothic Arch, thus tending to alter constantly the
disposition of the sand which is here piled up in large quantities. This explains why this part of the Cave is constantly altering in appearance; a fact $I$ have verified from my own personal experience during the summer of 1912.

Attempts have been made on several occasions to find an exit from Giant's Hall on a high level. The height of the chamber is at least 60 ft ., and there are various openings at different levels to be seen by means of the search light, all of which, however, on examination have proved to be impracticable. Only one of them needs to be described in detail. As you enter the Hall there is on the left hand side an overhanging shelf some 15 ft . high. This was surmounted by means of a wooden ladder, and, after climbing up a steep slope covered with slippery stalagmite, a narrow ledge was reached about 27 ft . above the floor. On this ledge there was just room to fix a second wooden ladder by whose aid an opening 10 ft . higher was reached, which seemed promising. This opening was partially blocked with wet clay and a certain amount of excavation was undertaken, but the labour under such conditions being dangerous and the reward scanty, the attempt was abandoned.
The Sand.-The most striking feature of the Cave in the region of Giant's Hall is the presence of large quantities of sand piled up at the end of the Cellar Gallery, in the Gothic Arch, in the Hall itself and covering the slopes leading down to the Low Level Area. All this region is constantly being flooded by the water rising up from the Low Level Area and every flood alters the disposition of the sand, but is always tending to wash it down to a lower level. Even my own observations, extending over a limited number of years, have cvinced to me how great is the alteration that is taking place. In 1903 it was hard to find the entrance to the Hall, and when found it was difficult of access. Now the approach is easy and obvious. The same applies to the exit towards the Low Level Area. We read that the condition in 1896 was as follows :-"A slit some 6 in. high " rumning along the base of the side to the right of where
"we had entered. The roof of the slit was rock, below was "sand 'Through this we commenced to burrow."* Now it is totally different, the first 20 ft . of the descent being down a slope of bed-rock absolutely bare of sand.

Even the end of the Cellar Gallery has been found to alter greatly in a month's interval, the mounds of sand having quite a different shape and disposition, while footmarks were totally obliterated.
The original point of disposition of the sand would appear to have been in Giant's Hall, and the water there has since been constantly at work removing it to a lower level. That being so, the question naturally arises how came it there and by what channels has it reached this chamber since the time that its parent (the Millstone Grit) was disintegrated on the upper slopes of Ingleborough and washed down Gaping Ghyll and other openings? One would expect from the enormous quantities present to find some large orifice either in the sides or roof of the Hall through which this detritus could pass. A careful search, however, by powerfulillumination has revealed nothing which one can definitely recognize at the present time as being the channel. The search light has disclosed several openings high up in the chamber, but on closer inspection each of these has proved impracticable. The most active of these openings appeared to be one above the $2 \pi \mathrm{ft}$. ledge, but this also has been found on examination to be impracticable. Judging by the moist condition of the mud that covers this ledge and by the fact that the sand on the floor immediately underneath is often deeply furrowed and cut into a miniature watercourse, it is easy to see that in wet weather water must descend from some point above in a considerable volume to carve such a channel. At the present time, however, this water brings down no sand in its fall ; its action is merely to clear away and wash down to a lower level that sand which has formerly been deposited.

The conclusion to which one is forced from an inspection of Giant's Hall at the present time is, that wherever and
whatever the opening at the roof or sides of the Hall is through which sand formerly came, that opening has now ceased to be patent and has become sealed up by stalagmite. Sand is no longer carried into Giant's Hall ; that which has been deposited in the past is now being gradually washed down to a lower level than the floor of the Hall and so dispersed.

The Abyss, \&c.-Reference may now be made to one or two points in the tourist part of the Cave which are marked on Hodgson's Plan as "unsurveyed." Chief of these, "The Abyss," is that well-known opening in the floor of Pillar Hall into which sinks the stream running through the major portion of the Cave. Under ordinary conditions there is sufficient water engulphed here to make a descent for exploration and an accurate survey impracticable; whilst after very heavy rainfall it is on record that the chasm has completely filled up so that the water has almost reached the foot of the Pillar. Favoured, however, by the prolonged drought of the summer of 1912 , I was able to make a thorough examination of the passages draining the Abyss. These proved disappointing so far as exploration was concerned, being merely fissures too narrow to traverse for any distance. The compass, however, showed that their direction, if prolonged far enough, would terminate at Beck Head, thus confirming the conclusion arrived at by the Committee on the Underground Waters of N.W. Yorkshire, in 1900, as to the direct connection between these two points. The annexed Plan illustrates how this occurs.

The line of this connection may clearly be seen as a wellmarked fissure running diagonally across the roof of Pillar Hall, directly over the Pillar itself, a fact which has certainly been in the past the determining cause of the formation of this fine and interesting column.

The next "unsurveyed" point to which I shall refer is one in the First Gothic Arch-that welcome place of relief which the tourist reaches after traversing that part of the Cave which the first explorers called " the first creeping place," and which is yet, even after modern improvements, a
trial for those of averdge stature. In the First Gothic Arch as you face The Ladies' Cushion-that well-known series of fine stalagmited terraces-there is, about ro ft . up the left hand wall, a broad ledge giving access to a low wide bedding cave. This cave may be followed for about 60 ft ., at which point it becomes too low to admit of further exploration, although the search light shows that it still continues onwards for some distance.

Besides these two points, all the others marked on Hodgson's Plan as "unsurveyed" were examined in turn and all were found to be impracticable, thus verifying the conclusion Martel arrived at in 1896.*

The Jockey Cap.-Much has been written in the past about this beautiful and celebrated stalagmite, and varying theories as to its age have been evolved from the measured rate of its growth over a number of years. Thus, from 1839, when it was first measured, up to 1873 , it presented an almost uniform rate of growth of $\frac{5}{17}$ in. annually, so that its age seemed easy of calculation. But subsequent observations have shown that its growth is not by any means so continuous as appeared at first sight. For the last forty years the rate of increase in size of the Jockey Cap has been gradually diminishing until during the last ten years it has become $n i l$.

This diminution may be due to two causes. The first, which is purely theoretical and for which there is no positive evidence, is that the dripping water feeding it contains less carbonate of lime than formerly. The second, which is a matter of actual observation by Mr. Harrison, the guide to the Cave, is that the quantity of water dripping from the point overhead is gradually year by year diminishing in amount. In other words, the funnel through which the water percolates is slowly becoming choked and will before many years cease to be patent.
There is corroborative evidence bearing on this from another source. When the Jockey Cap was first
*Martel. Irlande et Cavernes Anglaises, p. 33 r.
discovered there was a stalactite above it from which drops fell. In October, 1845, this stalactite was measured and proved to be io in. in length. The Cave Book records that in 1853, whilst taking a measurement, this stalactite was accidentally broken off. Its length was then $14 \frac{1}{4} \mathrm{in}$., so that it had grown $4 \frac{1}{4} \mathrm{in}$. in eight years. In other words it was not only a rapid but a recent growth as compared with the large mass of stalagmite beneath. Since then, i.e., during a period of sixty years, practically no new growth has taken place.

It would seem, therefore, that the history of the formation of the Jockey Cap has been something of this nature. At first, water heavily charged with carbonate of lime dripped so freely as to form stalagmite only, then the funnel through which it fell became choked so quickly that stalactite was formed with great rapidity. After the destruction of the stalactite, no fresh formation but the gradual obliteration of the funnel as shewn during the last two years by a total cessation of drip for weeks at a time. However, be the cause what it may, this much is certain from recent observations. (I) The drip of water is diminishing, and (2) the Jockey Cap is consequently no longer increasing in size, so far as can be judged by measurement.

In addition to the measurements of the Jockey Cap the Cave Book gives others of a number of stalactites which I have been unable to identify with any precision. The description of their location is more or less vague, and though I have endeavoured to place them no value could be assigned to such a problematical estimate of their rate of growth.

The Drainage System of the Cave.--Every one who has visited the Cave must have, of necessity, noticed the large quantity of water flowing through it. But so far as I am aware no reference has ever been made to its drainage system.

As far as Pillar Hall all the water met with runs towards the Cave mouth, where it finds an exit. On surmounting the plateau on which the Pillar stands one is immediately
confronted with the Abyss, the bottom of which is 13 ft . below the foot of the Pillar. The Abyss is the most active and important water-sink in the Cave, and receives the whole of the drainage from this point to the end of the tourist portion, a distance of over 200 yds ., the water here engulphed emerging at Beck Head. The watershed of the Cave is at the point called by the early explorers "The Second Creeping Place," and is the sloping bank of bare limestone on the left of where the present-day tourist stops. It is about lialf way through the Cave and may justly be called "The Parting of the Waters." In one direction the . water runs towards the Abyss, in the other through the Cellar Gallery into the sink at its far end, where, as already explained, it falls into Lake Avernus.

Thus the drainage system of the Cave concentrates on these two openings. The Abyss, being the larger, will take more water, and in times of great flood is called upon to do so, because under such conditions the whole of the far end of the Cave becomes waterlogged, owing to the exit of Lake Avernus being a syphon, the Cellar Gallery fills up to the roof and the imprisoned waters then pour over the watershed and seek an exit through the Abyss.
In Hodgson's Plan (1838) the level of the floor of the Cave from the iron gate at the entrance to as far as Giant's Hall is plotted out in a diagram. This measurement has been checked by the recent survey and may be summarized thus. Taking the level of the gate as zero, there is a rise as far as the Pillar of 8 ft ., thence onwards to the watershed a further rise of 5 ft ., thus making the highest point on the floor of the Cave (i.e., the watershed) 13 ft . above the entrance gate. Along the Cellar Gallery there is a gradual decline of 10 ft ., so that on reaching the water-sink at its end the level of the floor is only 3 ft . above the entrance. The "column" at the end of the Gothic Arch is 3 ft . higher than the water-sink, i.e., 6 ft . above the entrance gate. Descending from Giant's Hall the level of the stream bed, where first met, is 10 ft . below the column, but its floor gradually declines so that at the point where vocal
communication is possible between these two points, the vertical distance is about 12 ft .

Attempts have been made from time to time to find a way into the Cave other than by the ordinary entrance. Beck Head for instance, which is an obvious place to try, speedily flattens out into a low bedding cave which is quite impassable. Then there is the spot on the left hand side of the glen about 20 yds. above Beck Head, where by listening at the foot of the cliff the noise of the underground river can be heard at two different points. This fact is recorded in the first entry in the Cave Book. "The water rushed "out.....from the side of the hill on the left hand about " 20 yds. above Beck Head. On the 22nd I went up with " Jo to consider of the possibility of opening a passage into "this part of the hill. The sound of rushing water was " very distinct and induced us to expect to find an entrance "into some large cavern. Two men were set to work "to remove the stones that filled up the hollow by the "rock side. The experiment not succeeding, \&c., \&c." This was on the 22nd September, 1837.

Some seventy-four years later this experiment was repeated by some members of the Club, but again without success.

However, it must be remembered that on both these occasions no very serious attempt at excavation was made, and it is possible that a more thorough trial to find an access to the river might be successful, if it were thought worth while to undertake such work.
The recent excavations at Foxholes higher up the glen have demonstrated that this little valley is deeply choked with moraine and with rock weathered from its sides, and that its true rocky floor lies at some considerable depth below the present pathway. It is therefore possible that there exists an opening, now blocked with moraine, at a level as low as that of the exit at Beck Head.

There is another fact in reference to the Cave which has never to my knowledge been noted before, although the 6 in. O.S. Map gives an indication of it, i.e, that if you
walk over the surface of the hill side under which the Cave is situate, you can see traced out on the ground by a series of continuous depressions the whole course of its subterranean ramifications. This can be observed even better by gaining the summit of a line of cliffs which abuts on this area. and by looking down from above. It is interesting to note in this connection that these surface indications cease at the depression marking the position of Giant's Hall.

The Low Level Area beyond Giant's Hall.-As stated previously, Hodgson's Plan leaves out all the area beyond Giant's Hall, and no description of this part, which has now been surveyed for the first time, has ever been published. I propose therefore to describe briefly this portion of the Cave.

An inspection of the new Plan shows that two ways exist by which access may be gained to this Low Level Area. Of the two routes, that from Giant's Hall is the easier, though neither can be truthfully described as easy. From the Hall there is a climb down a rock slope of 20 ft ., then follows a squeeze between rock above and rock below which just* allows the ordinarily-sized mortal to slip through with discomfort and with much sand dispersed through his clothing. Ramblers of under-size have been heard to boast of the ease of this passage. A level floor, which is part of a huge bedding cave, is then reached through which runs a stream from left to right. As the space between the floor and roof is only 2 ft ., the accommodation cannot be described as either spacious or luxurious. By keeping to the right a spot is soon reached where it is possible to stand upright. This is a circular chamber some 6 ft . in diameter, which is just beneath the column at the end of the Gothic Arch. From here one can talk to any one abjve, though the opening joining the two is too small to admit of actual passage.

Next ensues a return to the posture to which Scripture foretold the serpent should be cursed, and which afforded
no comfort even to a member of the beneficed clergy who was of the survey party on this occasion. "Upon thy belly shall thou go," and that "it shall bruise thy head," were hard facts too patent to all. A crawl of 30 yds . along a stony stream bed, in a direction which the compass informed us was S.W., brought us again to the running water and to a place of higher dimensions where it was possible to sit in comparative comfort on a ledge of rock, and reflect on the truth of a text quoted quite $\dot{a}$ propos by the ecclesiastical explorer, "In the sweat of thy face shalt thou eat bread." Luncheon time had now arrived.

Beyond here the best guide to direction is the downward course of the stream. Passages branch out in various directions, all of which have been followed as far as human endurance will permit, but without definite result. Following the stream onwards at a distance of 17 yds . a chamber is reached which stands at the entrance to Lake Avernus.

Here are ways in three obvious directions. Straight ahead under a fine arch some 3 ft . high the stream disappears, and falling in a series of cascades shortly enters the long straight canal known as "Lake Avernus." On the right, when facing the arch, is a low tunnel which presently turns left at a right angle and affords an alternative route to the canal. The culvert on the left of the arch is promising, but soon becomes too narrow to follow.

The only record of a complete exploration of Lake Avernus is to be found in this Journal (vol. I., p. 226). The first exploration was attempted in 1838 , when a floating light was sent along and the length was thereby conjectured. The exploration of 1896 , to which reference has already been made, succeeded not only in measuring its true length but also in making various soundings in the endeavour to discover a likely outlet. On this occasion a raft was used, which is the only possible means of traversing a waterway too deep to wade and too narrow to swim in safety.

At that time its true direction was unknown, but as the compass has since demonstrated that a direct outlet of the waters towards Beck Head is quite impossible, the problem of their intermediate course is still unsettled.

Bibliography. -The first published description of the Cave is to be found in the Quarterly Journal, Geological Society, vol. V., 1849, pp 49-5I, from the pen of Mr. James Farrer. This description is illustrated by a map taken from Hodgson's Survey on a reduced scale.

Prof. Phillips, in his "Rivers, Mountains and Sca Coast of Yorkshire," 1853 , pp. 30-31, gives an interesting account of the interior of the Cave, which is quoted at length by Prof. Boyd Dawkins in "Cave Hunting," 1874, pp. 36-38.

Other references to the Cave are to be found in W. S. Banks' "Walks in Yorkshire, N.W. and N.E." and in R. R. and M. Balderston's "Ingleton: Bygone and Present," pp. 55-59.

There is also an excellent little pamphlet by Mr. Geo. H. Brown, published in 1905 by Lambert, of Settle (price 2d.), entitled "The Clapham Cave," which contains a concise history of the Cave and a number of fine illustrations.
Mr. Harry Speight, in the "Craven Highlands," also has a reference to the Cave.
M. Martel, that indefatigable French speleologist, in his memoir entitled "Irlande et Cavernes Anglaises," devotes nearly the whole of Chap. XXIII. to this subject.

The "Procecdings of the Manchester Literary and Philosophical Society," of April, 1873, contain a paper by Prof. Boyd Dawkins on the estimated growth of the "Jockcy Cap" to that time.
Length of the Cave.
The following figures taken from the recent survey will be of interest:-

From the Entrance Gate to the end of the
Tourist part (i.e., to the Watershed) is .. 418 yards.
From here to the entrance to Giant's Hall. . 279 yards.
From Giant's Hall to the commencement of
Lake Avernus .. .. .. .. .. 99 yards.
The estimated length of Lake Avernus is, say 104 yards.
Making the total length of the cave .. 900 yards,
or just over half a mile.

## CAVE EXPLORING IN COUNTY CLARE.*

## By E. A. Baker and H. E. Kentish.

The Cave of the Wild Horses.-It was our landlord at Gort who first told us about the cave, but the wild horses we did not hear of till later. Wherever you go round Gort you come across caves, devil's punch-bowls, underground river-beds, huge cavities engulfing water, and underground channels now deserted by their streams and brilliant with calcite and stalactite. There is also Lough Coole, a quiet lake that receives the worst-behaved of all these streams, yet never gets any fuller, though it has no visible outlet--a mystery explained, though not to the satisfaction of the peasant mind, by the existence of a large submarine spring a few miles off at the head of Galway Bay. In Clare and Galway, in truth, there is more water running below the surface than one ever sees above it. But the attractions just enumerated were of trifling interest compared with the landlord's secret-the name and whereabouts of a cave that had not yet got into any guide-book, that science had not explored, and the natives were afraid to enter. Not till we got him into the car and found ourselves going west did we realize that this was not in County Galway at all, but somewhere over yonder in Clare, the limestone border-line of which towered far along the horizon. The amount of refreshment stored away behind indicated that it was some distance off.

Yesterday we had come down from this limestone frontier through the biggest thunderstorm Ireland had had, so they told us. for thirty years; and to appreciate a thunderstorm, I venture to say, no sea-cliff, no mountain peak, provides such appropriate scenic accessories as this debatable land between Galway and Clare. It is the margin of that hopeless region, the Burren, into which they used to drive evicted Catholics in the old days, and which

[^0]was described as not having enough water to drown a man, trees enough to hang a man, or earth enough to bury him. Yet there are hills and valleys in the Burren, refreshing copse, cheerful heather, and a flora as choice as in any limestone district. But this Galway side of it, beyond a doubt, is the stoniest waste in the British Isles. Right, left, in front, as far as we could see, stretched a pavement of naked limestone, the polished slabs they call "clints" in Yorkshire here displayed on an unparalleled scale. The land, if "land" is the word for it, is let at three-halfpence an acre, and the poor beasts have a hard job to get his money's worth for the farmer from the few inches of browsing that come up through the cracks. From north to south of this landscape an inky sky spread, dazzling flashes lit a prospect as infernal as unassisted nature could produce, rain-torrents splashed us right underneath the hood, and we wondered whether indiarubber tyres were really as safe an insulator as people state. To-day, the weather was of that moderate degree of softness which they regard as fair in Ireland, but the clints did not look much more alluring. The terraces of the higher Burren, with the wonderful campanulas and cranes'-bills by the roadside, were a great relief, though we had to walk some of the hills. Altogether, in some fifteen miles, we passed barely half-a-dozen cottages. Then we came to a cluster, one of them a decent farmhouse, and our guide told us to alight.

We thought, of course, that we had reached the cave ; but an Irishman cannot appreciate the disinterested motives of the speleologist, and accordingly our landlord had brought us to what he thought a more profitable subject for investigation-a mine. It was an abandoned mine, yet doubtless there were still possibilities in it for the expert. All we found, however, was mud, and we were glad when a patch of deep water gave us an excuse for declining to explore any farther, and insisting on being taken to the genuine cave, about whose existence we were beginning to have doubts. Another half-hour of dodging along byroads with numerous hairpin bends and gates that had to
be unfastened in the pouring rain, brought us to another farmhouse at the head of a little valley exactly like those you find nestling under limestone crags in Craven or the Peak of Derbyshire. One feature gave the characteristic difference, and that was the ruined shell of a church standing in its graveyard beside the road. Kilcorncy $\dot{\text { Glebe }}$ is the name of the spot, and right opposite, beyond what the Ordnance map describes as a "turlough liable to floods," was our cave, at the base of a handsome limestone cliff. The spot is about a mile soutl of Carran, and six north-east of Lisdoonvarna.

We learned a good deal whilst we were getting into our overalls at the house. Out of this cave of Kilcorney, in days of old, a herd of wild horses had issucd and ravaged the plains of Ireland. Perhaps they were ancestors of the famous horses of Emain. There were variants of the legend, we afterwards found, and many persons aver that a savage race of horses still make their den in the bowels of Kilcorney. More to the point was the information that water never runs into the cave, but that in rainy seasons a flood pours out with a noise that is heard for miles. The cave runs in at the foot of the cliff, in a downward direction, but with no stream-course to feed it. On the contrary, the "turlough liable to floods" is obviously watered by streams forced up from below. Our cave, in short, is a kind of safety-valve or overflow-pipe, which comes into action when the cavities of the hills are glutted, discharging the excess of water that cannot be carried away fast enough by the subterranean channels.

It was rather disappointing to find, after all, that we were by no means the first in the cave. The entrance tunnel was full of traces of humanity, which grew scarcer, however, as we proceeded, though beyond the first severe obstaclea passage blocked by enormous stones, with a tight and cornery descent at the other end-we still found some evidence of former visitants. One of our party, a recent convalescent not eager for toil and hard knocks, turned his attention to a subsidiary passage. The landlord's


ENTRANCE TO KILCORNEY CAVE.
enthusiasm had lasted only as far as the cave mouth. We speedily found something that would be a sore tax on the two of us left. At the end of a painful crawl we suddenly found ourselves on the rim of a great funnel, plastered with slippery mud, a black, gaping hole at the bottom leading to unknown depths. Previous explorers, we soon ascertained from inscriptions on the walls, had reached this point and the end of a by-passage, and then retired, daunted by the aspect of the funnel and the hole. Doubtless, we were near the birthplace of the legendary steeds

It is a strict maxim in caving that one man must never let another down a vertical drop single-handed, because it is impossible to get him up again by a direct pull. Stones thrown down indicated some fifty feet. For a bit we were in despair, then we remembered our pulley. We had picked it up a few days before, in a moment of inspiration, at a marine store in Dingle, thinking it might be useful some day. It took half an hour to fetch it from the car. As the lighter man, I tied the pulley on in front. Kentish attached our A.C. rope to a jamıned block above the hole; the rope was then threaded through the pulley, and I prepared to descend. Even if it came to a vertical pull up, Kentish would have only half my weight to support, the other half depending on the fixed rope.

All went smoothly - too smoothly, for the walls of the chasm were not only unbroken by a single ledge, but coated with a lubricating sheet of mud. Then the rocks were cut away, and I found myself sliding down the corner of a mighty cube of limestone, without a hold to save me from swinging to and fro. Below was darkness, composed chiefly of black mud. Then at forty-five feet down I stepped off on to a peak of mud, and grasping the rope-end essayed to reach the base without slipping helplessly into the unexplored. There were lofty passages going in several directions, one of which I easily followed for some distance. But there were other openings that could not be entered without assistance, and it seemed best to return for the present to see if Kentish could possibly join me with more
help. The pulley trick worked admirably. Kentish got me up, but as no one could be induced to lend a hand for further exploration we had to be content for the present with the discovery that Kilcorney has a lower series, apparently much more important than the series previously known.

Our second chapter opened a year later, in 1913, when we induced two gentlemen, hitherto innocent of any wish to explore caves, or of any misdemeanour deserving this particular form of expiation, to lend us their muscular assistance in a joint descent of the mud-funnel and the hole. With several ropes to carry, we found the long crawl more excruciating than ever, especially as the tunnel had water in it, and there was no keeping dry except by straddling across with one's back forced against the roof. Piteous ejaculations came from the disillusioned volunteers, their moans changing only a semi-tone or so when they beheld the horrors of the funnel and the pit. Nevertheless, one of the novices followed down for the first trip, Kentish coming third.

We did not reach the wild horses. A main passage running at right angles to the chief passage overhead gave access eventually, by a cross road, to a parallel cave of no little beauty. Over a floor paved with ridgy stalaginite a brook came purling-the first brook we had seen in the Burren-spreading into a pool, whence it ran with a strong current into a fissure too narrow for us to penetrate. Close by this pool, separated from it by a mere lip of stalagmite, a pot-hole, thickly encrusted with stalagmite, ran down ten feet into a side fissure, and though the water was brimming up against the lip none ran over, and the fissure was practically dry. Other passages led into huge, misshapen, mud-lined chambers, with mud-lined pot-holes in the floor. There were also transverse openings and chimneys, but none led us far. At one of the cross-roads a startling incident occurred. Some five feet above the ground a big block bridged the passage, and to reach a point above it I scrambled on to this and into the chimney beyond. In returning, as I rested
comfortably on the block, I felt a move, and next moment it was on the floor with a terrific bang, sending my lamp flying and throwing me across the cave. Well over a ton in weight, the stone had been balanced on two points no bigger than a finger-nail ; it left only two minute scratches on the walls. Luckily it fell too far out to block up the passage through which we had to return. We had all crawled underneath several times, thinking it was a solid roof above us.

To the right of a man descending the big limestone cube under the funnel, one looks down a steep mud-slope to a pot-hole choked with mud, above which a branch passage ascends at a forbidding angle. Kentish climbed up this for twenty feet, and found the return ticklish. The main passage goes on to the left, but at right angles a narrow fissure passes behind the rock to a widish chamber containing another mud-lined pot-hole, which we could not descend for lack of a spare rope. As it appeared quite shallow, and the mud was some feet thick, there was no encouragement to explore it.further.

Having gone along every branch, and definitcly ascertained that Kilcorney Cave does not communicate with Galway Bay, or with the fabled home of the wild horses, we took our turns at the painful ascent to the mud-funnel, accepted each our share of the disparaging remarks from the friend who had spent some hours in the mud, with a solitary candle, waiting for us at the pulley, and returned to the "turlough liable to floods." At Lisdoonvarna they were sceptical when we said the wild horses were a myth, and told us of a cave, quite in the neighbourhood, where a seabeast comes out and roars at stated intervals. This sounds more exciting even than Kilcorney, and we hope to explore that cave shortly.
E. A. B.

Other Caves.-Near the supposed lurking place of the wild horses, but higher up in the cliff, is a large archway,
conspicuous from the road This cave runs into the hill for about twenty yards, and then becomes silted up. It was probably inhabited in prehistoric times Layzell began digging here, but in the short time available was unable to do very much. It appears very promising. This cave seems to have originally connected up with two other caves, visible from its mouth on the other side of the valley, before the latter was farmed. We explored these caves, and also various small rifts in the sides of the hills, but could not get in very far.

About two miles from here, on the road to Lisdoonvarna (on the cross road to Ballyvaughan from Kilfinora), we noticed a series of swallets. The first was choked, and would need to be dug out, but appears to be worth the trouble. We were on the point of leaving when we found a small cave hidden round a corner of rock. It was about seven feet high and two feet wide, and we followed it in nearly horizontally for about 680 feet. A short distance in, a stream fell from the ronf and ran along the passage to its end, disappearing into a pot. This pot was in the side of the main passage, the entrance a very narrow and twisting crack; and although I got into the top and could have descended, it appeared unlikely that I should be able to get out again without a ladder, so I came back. The pot appeared to be about twenty-five feet deep, with smooth, round sides, and there did not appear to be a large outlet at the bottom. On the far side of this, and in continuation of the passage we had entered by, another passage came in It was very cramped, and the floor covered with mud, iced over with an elusive stalagmite crust, which gave way under us as soon as we were fairly on it. Baker went in first, uttering awful groans, and found a pretty little stalactite chamber. I followed him, and went on to the commencement of this passage - a stalagmite fall from the roof. To get there I had literally to swim through three feet or more of mud, and presented a magnificent spectacle upon arriving at the entrance again. This cave, which is called Poulwillin, appears not to have been explored before.

Meanwhile, the hotel people having discovered our soft spot-I am sure they thought we were all mad-reports came in daily of fresh caves in the neighbourhood. Truly this region is honeycombed with caves. There were caves near Ennis, caves between us and the coast, and more caves on the slopes of Slieve Elva, towards Ballyvaughan. One of these latter, near the farm of Caherbullog, was said to have been penetrated for two miles and a half. We received this information rather sceptically at first, but afterwards had every reason to believe it true. We decided to complete our programme for County Clare with an examination of this cave, leaving the others for a future occasion.

It is situated close to the road skirting the eastern side of Slieve Elva, about six miles from Lisdoonvarna. There is a big funnel-shaped hole, with perpendicular walls on two sides, about sixty feet deep and a hundred in diameter, overgrown with trees, and below it a large perpendicular shaft about forty feet deep. A small quantity of water runs into this pot-hole and disappears into a horizontal tunnel at the bottom. There is also a big rift running into the side of the hill above the pot-hole, which can be entered through a small hole in the grassy slope near the surface. I let Baker down into this rift, but could not follow him, as we were by ourselves on this occasion. He was unable to explore this rift very far, as it proved to contain a staircase of deep pools held up in stalagmite basins, extremely beautiful, but difficult to traverse without planks or ladders. Our chief object, of course, was to explore the cavity below, and we wasted very little time here.

We next turned our attention to the tunnel leading from the pot-hole. Somewhat like an oval drain-pipe, its walls had a surface like hammered metal, the little stream from the entrance forming in places deep pools. We twisted and turned in a most extraordinary fashion, and once or twice had to take disused upper passages to avoid deep water at our feet. The passage gradually enlarged, and at times became an enormous rift, stretching for a hundred feet or
more into the roof, and expanding into a chamber below, round which the stream had cut out its channel. At 513 yards from the entrance a large waterfall came in from the roof, no doubt from a pot-hole on the opposite (east) side of the road, which we had examined but been unable to penetrate. A wide chamber with a capacious floor ten feet above the water occurred at a distance of 1,400 yards from the cave mouth, and here we found the names of several early visitors inscribed. Then came a huge dam of enormous boulders, and in various spots very magnificent cascades of stalagmite, which looked most imposing against the prevailing blackness and bareness of the cavern. At 1,563 yards we met a tributary stream coming down a huge cavern exactly like the one we were following, but we only ascended it a short distance, returning to the main stream. At about $\mathrm{r}, 800$ yards from the entrance we decided to turn back, as time and carbide were getting short-we had not come prepared for such a cave as this. If our information is correct, the cave extends a mile and a half further, and finally ends in a sink.
On our return our driver, J. Connolly, who by his local knowledge was quite invaluable to us, told us of another pot about a mile nearer home on the east side of the road, which, he said, was so deep that a stone dropped from the surface would take a quarter of an hour to reach the bottom! This would make the depth about thirteen million feet, so we got quite excited!! This was so overgrown with trees that we could not see the actual hole. A rock thrown down appeared to strike some kind of bottom at about a hundred feet. Unfortunately we had to leave this also, as we were due at Enniskillen to meet Wingfield in twenty-four hours. Its name is Poulelva.

While staying at Lisdoonvarna we made an expedition to the cliffs of Moher, which face the sea about three miles to the west. The strata here are nearly horizontal, and the cliffs have a perpendicular height of over 600 feet. The rock is millstone grit. The walk from Doolin village along the edge of the cliffs, which gradually get higher and


CLIFIS OF MOHLR
Photo. by H. E. Kenlish.
higher till they culminate at O'Brien's Tower, is worth going far for. It should be continued past the Hag's Head to Liscannor. Before leaving Lisdoonvarna we visited the sulphur springs. We had hitherto thought the Harrogate water sufficiently unpleasant to effect any cure, but that of Lisdoonvarna is just five times as powerful. Its taste is best left to the imagination.


## NOON'S HOLE, COUNTY FERMANAGH.*

## By E. A. Baker and C. R. Wingfield.

Noon's Hole, or Sumera, the deepest pot-hole yet explored in Ireland, lies near the northern edge of the hills stretching east and west, some six miles south of Lough Erne, from Belmore to Knockmore. Pot-holes of any great depth are scarce in Ireland, no other apparently reaching further than a hundred feet. Most of the vertical openings near Marble Arch are simply cavities formed by the falling-in of roofs into underground stream-channels; those in County Clare are either of the same nature or else deep funnels down which streams make their way to a more or less horizontal underground course. There are several on the Belmore range, but in most the bottom is visible from the surface, and Noon's Hole is the only one that in the natural course of things has come to be reputed bottomless.

It also has a romantic history. In 1826, when the Ribbonmen were troublesome in the neighbourhood of Enniskillen, a man named Dominick Noon turned informer. His delinquency being speedily discovered, his old associates decoyed him away from police protection to one of their hiding-places on Lough Erne, and thence took him one night to the hills south of the lake, a region of caverns and trackless moors, full of ancient legends of Diarmaid and Grania, where these bands used to defy the authorities. They meant at first to wreak their vengeance at leisure, but as they were passing this yawning chasm-then simply called the Sumera, or the Abyss-they could not resist temptation, and flung him in. Noon's body lodged on a shelf, and was afterwards recovered and decently interred. His death seems never to have been brought home to any individual, but a number of men suffered transportation as a result of the severe measures taken to stamp out these crimes. Noon's name has been associated with the place

[^1]ever since. The Sumera was always an object of terror, as a danger to man and beast, and the entrance to mysterious nether regions; it was now an object of hatred and loathing.

A little brook flows out of the bog on the gritstone strata higher up, and suddenly coming to a joint or fault in the limestone, forthwith tumbles in, running underground for five furlongs or so, and emerges into daylight again at a great opening in the face of a cliff, called Ooboraghan. Swollen by tributaries which have joined it somewhere in its subterranean course, it pours down a wooded ravine in a series of grand cascades, visible and audible afar. You can walk into the rocky portals of Ooboraghan. At first you are deafened by the hurtling of streams, then as you penetrate the darkness you come to deep, silent pools, where the waters well out from under huge transverse arches hanging one behind the other and plunging their shoulders beneath the surface. Behind these, the river flows first right and then left along narrow corridors. Here it was, some years ago, that a party including H. Brodrick, C. A. Hill, R. Lloyd Praeger, and E. A. Baker, tried to penetrate the mysterious region
between Noon's Hole, where the stream enters, and the point where it comes out again. Baker was the victim sent in, at the end of an Alpine Club rope, with a lifebelt round him borrowed from a Lough Erne steamer. The corridors between the submerged arches proved too narrow for swimming, too deep for wading, and the walls too smooth for any other method of propulsion; so he was forced to return with very little fresh information. The only alternative entrance was by way of Noon's Hole itself, which is 400 feet above Ooboraghan and 770 feet above the sea.
In 1895 M. Martel had made the first attempt at an exploration from above. He descended through the waterfall formed by the brook, which he does not appear to have dammed back, and reaching a depth estimated at twenty metres had to reascend. He reported that the walls converged a short distance below him, where the pot-hole dwindled into a series of small openings, completely occupied by the falling water. He managed to send his plumb-line to a depth of 47 metres, or 143 feet, and gave this as the total depth. Nothing further was accomplished till 1907, when the party just enumerated made a second attempt to explore Noon's Hole. Here also Baker was made the scapegoat, but he fared better than M. Martel, for the precaution had been taken to dam the stream, so that he escaped the waterfall which, in 1895 , had almost blinded the previous explorer and upset his reckoning. Below the place where M. Martel stopped there appeared a natural bridge, where the stream did indeed tumble into narrow holes; but behind a projecting wing of limestone a much wider chasm was disclosed, and down this the 70 -foot ladder was dropped at the end of a rope. Baker descended to yet another bridge. This was the place, 143 feet from the surface, where M. Martel's plumb had stopped; but the pot-hole went on down still further into the interior of the earth. The tackle available, however, would not reach


All attempts to light up the depths below with magnesium ribbon were unavailing, for there was still water cascading down this final pitch. Valuable help was afforded to the party on this occasion by Mr. Lemon, of Enniskillen, who lent two 120 -foot ropes, no preparation having been made for deep pot-holing. At this and every visit Mr. Thomas Plunkett also has, in the most generous fashion, given all the help in his power.

IIcre the matter rested until September, igiz. Although many people had had an eye on Noon's Hole, and a lot of cave-cxploring had been done in Ireland meanwhile, it had not been possible to muster a party strong enough for the deacent, and even when the party was forthcoming its members narrowly escaped failure through a slice of ill-luck. The 300 feet of rope-ladder and life-line in proportion, sent out by the Yorkshire Ramblers' Club, were delayed on the way from England, and did not reach Enniskillen till too late. But the idea struck the inventive member of our party -Wingrield-that we should make our own ladders. Enniskellen las boats on Lough Erne, and is not without ship ohandlers. We soon got manila enough to construct 105 feet of scrviceable ladder and some 300 feet of life-line, which, with a few 80 -foot ropes we had already, was sufficient for pulling the ladder up and down, so as to enable us to do the climb in sections. If our rough estimate of the bottom pltch was right, we could in all probability carry out the job quite safely, though not with the ease and comfort of a rope-ladkler reaching right to the bottom.
Great preparations were made for engineering the ladder past the two bridges down to the final drop, and arranging tha llfo- line to run beside it without entanglement. A hole was made in the dense thorn-bushes on one side, where a vertical wall gave a clear lead from a point 15 feet above the llp of the strean ; and a series of dams were built with yods, calculated to hold the flow back for six or eight hours. Three of the party proposed to descend, and local help was avallable for F. W. Dunn and J. Layzell, who undertook to tend the ropess. Having had experience of the hole already,

Baker was sent down first, removing a number of threatening fragments as he went. The ruinous condition of the opening in several places formed the only serious danger on the uppermost pitch ; but no shelter was to be had if anything happened, and it was necessary to be constantly on guard, especially when it came to shifting the ladder.
Under the mouth the interior bellies out like an enormous bottle, and is most picturesque, with deep black rifts gaping in the sides, the walls grooved and polished by falling water, and the light playing through foliage overhead. The oval shaft, 20 feet long by i5 feet wide where the stream runs in, gradually widens to a diameter of about 30 feet. The natural bridge had altered considerably since 1907, as a tangled mass of stones and brushwoorl which had made a false floor was now entirely washed away. There was nothing left for the first men down to stand on but a knifeedge of rock between two yawning gaps, where they had to balance on half a foot each whilst Wingfield descended past them into a sort of cup with a hole at the bottom in the direct line of the waterfall, and then clambered out again, dragging up the tail of the ladder to be swung over into the adjoining shaft for the second pitch. The ladder was then let down this, and Wingfield climbed over the knife-edge and descended an almost vertical wall into the roomy chamber whose floor forms the second bridge.

Baker and Kentish followed, and candles and lamps were lighted, as only a dim light comes through the holes in the roof overhead. There were two breaks in the rocky floorone a small hole at the north end, which could be used to divert water down if necessary, the other a north and south fissure in the north-east corner, io feet long by 3 feet wide, nearly opposite the ladder. This we selected as the line of descent. But at this point a trying delay took place. We had sent up a message tied to the life-line, and in sending back the rope those above got it badly fouled in the branches hanging down the hole. We dare not pull hard on the twine attached to the rope-end for fear of losing our connexion, and for thirty minutes at least we stood under
a cold drip, shouting and signalling without any assurance that we were understood, before we got the tackle lowered for the final descent. It was then let down to the full extent of the ropes, which left the top rung about io feet below the floor of the chamber. Baker proceeded to back-and-knee down to the ladder, whilst Kentish and Wingfield tended the life-line. He found the whole of the ladder coiled up on a sloping ledge some 20 feet down, and was supported from above while he disentangled it and threw it over. His mutterings gradually got fainter, till they suddenly resounded again through the small hole on the north, then there was a long interval of silence.

There is total darkness a few feet below the top of the final pitch, and even a big acetylene makes very little impression on account of the streaming water and the dense mist that rises. All the lamp reveals is a black pit, with straight, perpendicular sides, very wet and slimy with disintegrated limestone, and a steady fall pattering down from somewhere overhead, in spite of the damming of the main stream. It was not till he actually stepped off the ladder on to a kind of beach of rounded stones that Baker was able to tell that he was near the bottom. There was only a rung or two to spare, and the total depth of the hole proved to be almost exactly 250 feet.

Two whistles having sounded and the life-line being drawn up, Wingfield came down, his candle getting doused by the falling water almost immediately, and the rest of the journey was feebly lighted by the lamp from below. The bottom was a dungeon-like place, some 20 feet wide by 6 feet, with a tunnel carrying the stream away round behind a leal of rock. Following this through a pool and down a water-course for 20 feet, one came to deep water. Wingfield waded in and was willing to try a swim, but closer-scrutiny showed that there was only head-room for a little distance. This was the only opening of any sort. A piece of timber jammed in the roof of the tunnel, and a stick fixed horizontally above the arch, showed that there is sometimes a deep pool of water at the bottom. We had
got down Noon's Hole, but the ulterior object-the exploration of what lay between it and Ooboraghan-was as far off as ever.
Baker climbed back to Kentish, who did not think it worth while coming down, as there was nothing to explore. The problem now was how to get the life-line back to Wingfield. A big stone tied on to it fell out of the loop. Wingfield heard it coming and took shelter in the tunnel. At the next attempt he got the rope-end and came up to the ledge where the ladder had caught. Here he stayed and helped to hoist the ladder up, Kentish sitting on it whilst Wingfield finished the last 20 feet on the tailend. The rest of the ascent was finished without incident, and the surface reached five hours and a half from the start. Next day Dunn and Wingfield went down to the two bridges to photograph and to tie a rope to the ladder for convenience in hauling up ; the tackle was recovered, the hedge at the top mended, and the neighbourhood-which had taken the keenest interest in the proceedings, as news of the event had been carried broadcast by the postmanwas left with a little more history to add to its memories of Noon.


## SIBERIA IN WINTER.

## By S. W. Cuttriss

In my paper "In Northern Siberia" (Y.R.C.J., vol. III., p. 17) l gave an account of a summer journey to the Northern Urals by way of the river Ob and its tributaries. What follows describes an overland journey to the same district in mid-winter.

The Ostyak village of Saram-paool is situated on the eastern side of the Northern Urals a little north of the sixty-fourth parallel of latitude. It can be approached by two routes from Ekaterinbourg, the principal mining town of the Urals:-during winter, partly by rail and then by sledge, in a practically direct line through the trackless forests and over the frozen swamps, a distance of 800 miles; in summer, when this route is rendered impracticable by the impassable swamps, by water from Tiumen along the river Ob and its tributaries, a journey of over 1,350 miles.

Our party included Mr. J. Findlay, of Leeds, myself, and a Russian, who nominally acted as our agent d'affaires Our own knowledge of the language was very meagre, and as the Russian was totally ignorant not only of English but also of the dialects of the Zaryans and Ostyaks, among which tribes we should have to mix, our means of intercourse were decidedly limited, and for all negotiations with the people of the district we had to rely on a Russian merchant on the spot.

Ekaterinbourg was left, appropriately enough, in a heavy snowstorm, on January 30th, and after a tedious railway journey of 300 miles we continued another 60 miles by sledges to Nikito-Evedil, the most northerly town in the Urals. Here we spent a couple of days making preparations for the further journey of 440 miles, during which time we should be thrown on our own resources. The temperature, as yet, was not excessively cold, being only in the neighbourhood of $0^{\circ}$, Fahr., but it was imperative we should provide ourselves with extra fur clothing to
withstand the increased cold to be encountered later. Food also had to be purchased and the necessary culinary outfit and tools, \&c., including a supply of hay for the horses. We had expected after reaching this town to discard horses and use instead the swifter and more suitable reindeer, but in this we were disappointed, as all the available animals had gone with merchandise to the Winter Fair at Irbit. Horses are not nearly so serviceable as reindeer for travelling over the open country, as being much heavier animals they sink in the soft snow and make travelling very difficult, when off the beaten track. Nor have they the same staying power, and, moreover, have to carry their own food, whereas the reindeer live solely on the moss lying under the snow in the forests.

The provisions included a good supply of fresh bread made into rings, fresh fish, reindeer meat, broosnega-a red bilberry which grows in profusion in summer and is used in winter in place of vegetables-tea, milk, sugar, and pilmanee. The last, which I christened "Arctic Oysters," consists of minced reindeer meat seasoned with dried herbs. A small piece, about the size of a filbert, is covered with a thin layer of dough and then frozen hard instead of being cooked and when required to be eaten is dropped into boiling water and in a few minutes a most appetizing and sustaining meal is ready, the hungry traveller fishing out the nuggets with a pointed stick, or a fork, if he happens to be the possessor of the latter.

We took 36 lb . of this food and should have been glad of more. Necessarily all the food was frozen while travelling and we were always in too great a hurry to wait for the bread to thaw thoroughly, so while the outside was toasted the centre was still adamant; the milk was used in lumps like sugar. The natives prefer to eat the fish and meat raw, simply cutting off the flesh like chips from a block of wood.

With best wishes for a safe journey from our good friend and host, Mr. Lawson, who had rendered us every assistance possible, we started late in the afternoon in bright, sparkling


CAMPING IN MID-WINTER-NORTH SIBERIA.

weather. The dry snow creaked pleasantly under the sledges and the long hair of the horses became coated with rime from their breath, while our fur coats and huge collars, which nearly covered our faces, were soon surrounded by a ring of white crystals. My spectacles were a great nuisance owing to the vapour congealing on them and obscuring the vision, but, at the same time, they protected the eyes from the cold wind, which afforded considerable relief.
We were now a party of four, having engaged a one-eyed Russian workman, who proved a most useful and resourceful man, so with five horses, sledges and drivers, we presented quite an imposing array. The sledge is a kind of huge basket on runners, having a pair of outriggers to prevent it being overturned on rough ground, which, however, sometimes fail in their duty, as we found to our discomfort on more than one occasion. Baggage is first stowed away in the bottom and well covered with hay. Having encased your feet and legs in long stiff felt boots and donned a huge fur coat reaching to the ground, making you feel like an animated bundle of furs, you scramble into the sledge, the spare corners then being filled up with baggage. At first it feels very comfortable, but the hard corners of the luggage soon assert themselves and your time thereafter is mainly occupied in trying to find a soft spot. Travelling is done throughout the day and night, with occasional halts to rest and bait the horses. Crossing the rivers, when the banks were twenty to thirty feet high, proved quite a novel experience. The sledge is simply driven straight over the bank, there is a mad rush down the steep slope and quite possibly an upset at the bottom, then by a free application of the whip the horses are persuaded to struggle up the opposite side, a result, however, only attained after probably more than one ineffectual attempt.

Bourmantova was reached on the second night and we rested at the house of a Russian, sleeping on the floor, which practice is generally preferable to courting the risks of the ordinary bed. Fresh horses and drivers
had to be obtained here to take us on to Naximvol, where we hoped to be able to procure the much desired reindeer. Although we were now among the foot-hills of the Urals, and crossing over from one river basin to another, we only once caught sight of the bright snow slopes of the higher mountains towards the west. There was no change in the scenery, the same perpetual forests, crossing of rivers and frozen swamps which seemed interminable, looking like frozen lakes dotted here and there with isolated patches of trees and shrubs. There is no definite road but simply a narrow track, hardened by the traffic, which, when covered with freshly fallen snow, is difficult to locate. Once during a snowstorm the track was lost and the horses floundered about in the soft snow until they could go no further, the drivers then set off on foot to locate the proper route and after considerable delay and unmercifully belabouring the horses we once more regained the track.

One night, or rather in the early morning, we halted for a few hours at an Ostyak yourte, or village, and made ourselves at home in one of the huts. This was our first experience of a native dwelling and it proved more agreeable than imagination had pictured it. On entering through the low doorway and striking a match the room appeared to be untenanted. In one corner was a fireplace made by plastering the rough timber walls with mud, over which a canopy forming the chimney was constructed in the same manner. Round two sides was a low bench, six feet wide, and on this was piled a heap of reindeer skins. The one window consisted of a single block of clear ice. I was surprised to see hanging in a conspicuous place the emblem of the Russian Church-the Ikon or Holy Picture. Although the Ostyaks are primarily a nomadic race and their religion, so far as it exists at all, is a form of ancestor worship with witchcraft and sorcery playing a leading part, many of them have now adopted a more settled life and nominally accepted adherence to the Greek faith. They still use the bow and arrow for hunting although some are possessed of primitive fire-arms. While
we were busy lighting a fire there was a movement in the heap of skins on the bench and a diminutive man slowly emerged. Greeting us with the salutation "Pasha, Pasha," accompanied by a languid finger shake, in addition to which he would have bestowed a kiss had we not been careful to avoid the osculation, he proceeded to rouse his spouse. She at once made herself busy in preparing the samovar, wiping from off the low table the fish bones and other remains of the last meal, ferreting from an obscure corner sundry gaudy cups and saucers and making other hospitable preparations. By the time breakfast was ready several other members of the family had become evident, and, with the addition of our own retainers, the hut became inconveniently crowded. No payment is expected for thus making free of their domicile and property, but we always left a few kopeks as an expression of our thanks. Later, when we had obtained reindeer, we used to travel for eight or ten hours at a stretch until we reached one of these huts and then stop for food, but often the occupants were steeped too far in alcoholism to take much interest in the proceedings. Vodka is the curse of the country and the natives will often starve rather than forego a chance of procuring the fiery spirit. The more unscrupulous fur traders, unfortunately, take full advantage of their weakness.

At Naximvol there is a small wooden church and the Russian priest or pope surprised us by retailing the latest news of the world, including the first intimation of the English national coal strike, and the latest information about the Italian-Turkish war. Although we had travelled with all speed from Ekaterinbourg and he had come from Tobolsk, several hundred miles further east, he was able to give us later news than we had ourselves heard.

We were glad to be able to dispense with the horses here and, after some difficulty and considerable haggling, contracted for twelve reindeer and four sledges and drivers to take us the final two hundred miles to Saram-paool. As the men had been busy with the vodka bottles and the deer
were twenty miles away at their feeding ground on the hills we did not make a fresh start until the afternoon of the next day. The people have no conception of the meaning of hurry, as they have nothing to hurry for, and we constantly suffered delays on this account. My driver was a big Zaryan with a shock of flaming red hair and although the temperature was well below zero he preferred to drive bareheaded, not pulling up the hood of his fur coat until the air began to get a little nippy during the night.

The reindeer are harnessed three abreast. A single trace, which is attached to the collar bands on the outside deer, is passed between their hind legs and through bone eyes attached to the sledge; the centre animal is fastened by another trace to the middle of the other one, where it passes between the bone eyes which serve the purpose of pulleys. This arrangement causes the pull to be evenly distributed to the sledge, and if one animal is not doing its full share of work the fact is at once apparent by the animal falling out of line. Long slender poles are used to prod the animals behind and when guiding is necessary, which is very seldom, as they show wonderful instinct in keeping to the narrow track, the pole is used to turn the leader's head in the required direction.

The sledge is a light wooden frame made of birch, the pieces being dovetailed together and bound with hide thongs. This construction makes a strong flexible structure which will adapt itself to the irregularities of the track without breaking. It is a common practice to pour water on the runners, which gives them a coating of ice, making them run more freely. The driver sits on the left side with his legs hanging over so as to be ready to jump off quickly when necessary. We had a light framework fitted to the rear of our sledges to form a back rest, and then, with plenty of hay and skins, we were able to either sit up comfortably or lie down at full length as desired. As each sledge only carried one passenger it was not possible to while away the time in conversation and we had ample opportunity for solitary communion.


TRAVELLING WITH REINDEER.
Phots. by S. W. Cuttriss.


After twenty-six hours' travelling, with only three short rests, we covered 133 miles, very different to the hundred miles in 60 hours with the horses, proving how superior reindeer are for this work. For the first time since the start the deer were now unyoked, and turned loose into the forest to feed. In a few hours time the drivers started off on snowshoes to round up the animals, catching them with the lasso. This is often a two or three hours' business, as the deer apparently much prefer their freedom.
As we travelled north the cold increased, the temperature going down to $48^{\circ}$ below zero, and, for five weeks we never again saw the spirit of the thermometer above the zero point.
Arriving at Saram-paool, we drove to the house of Petro Petrovich, the only merchant in the district. He does a very extensive and profitable trade supplying the people with all their necessities and buying the furs brought in by the natives for hundreds of miles round. His annual turnover amounts to over $£ 20,000$. He has now taken up. his residence at Tobolsk, leaving the business in charge of his manager, Gregory Prokroprovich, who will no doubt ultimately succeed to the business, as did Petro Petrovich to his predecessor. Even here we did not escape the attention of the Russian officials, as we were visited by one of the police, who was making a tour of his district from Berezof, on the River Ob, over 300 miles away. With the exception of the neighbouring small village of Sukarinsk, Saram-paool is the most northerly village in that part of Siberia, all the country towards the mountains and the tundra to the north being only inhabited by the nomad Ostyaks and Samoyedes. As the work on which we were engaged made considerable journeys up the various rivers necessary, we took the tent which had been used during the summer two years previously and camped out for one and two weeks at a time. Our native workpeople whom we engaged at the village and the olanechiks (sledge-drivers) lived in their own choom (tent), which they took with them. This tent is made of slender poles fastened together at the top and covered with reindeer skins sewn together-in
appearance very similar to the Indian wigwam. Our tent had been specially constructed for winter use to allow a stove being used inside, the chimney passing through a hole in two sheets of asbestos sewn to the canvas. A fire had not long been burning in the stove before we discovered the canvas was on fire, and an investigation showed that the makers had omitted to cut away the material between the asbestos sheets, which were therefore quite useless for the purpose intended and dropped away. Our resourceful Russian fixed a rough substitute by means of a piece of sheet iron.

The use of a wood fire in a canvas tent is not altogether an unmixed blessing. The shower of spariss from the chimney have an inconvenient habit of setting fire to the canvas, and several times, when comfortably buried in furs for the night, we had to hurry out and throw snow on the rapidly increasing rings of fire. With a temperature of $50^{\circ}$ below zero, one does not sleep in pyjamas, but rather dons every article of fur clothing available. Even with a good fire roaring in the stove, the lower part of the tent would be covered with hoar frost, and my moustache was frequently frozen to the fur collar of my coat. Daily ablutions, except to a very trifling extent, was a custom "more honoured in the breach than the observance." For a fortnight at a time I never had my clothes off, and found it a practice to which one can easily become accustomed.

The natives warm their tents with an open fire, the smoke escaping through an opening at the top-at least, it is supposed to do so ; but, as a matter of fact, it fills the tent to within about three feet from the floor, where one has to lie to avoid suffocation and blindness. On one journey, rather than be bothered with our own tent, we decided to live with the men-twelve people in a choom 14 ft . in diameter-but in order to get rid of the smoke we installed the stove. Satisfaction at the result of our experiment was, however, shortlived, for although we cured the smoke problem, the hot chimney acted as an upcast shaft, and the treezing air descended through the opening at the top on to
our heads like an icy waterfall. We were constrained to give the natives credit, after all, for knowing how not to warm their tents.

On one occasion, having made arrangements for a fortuight's journey, and waiting impatiently for the sledges to arrive, one of the men turned up with the information we should not be able to start that day, as it was a Bolsho Prasnik, or great holiday, the last day before the commencement of the Easter Fast of seven weeks' duration. We discovered everyone intent on holiday-making, which being interpreted, meant vodka-soaking. The principal umusement consisted of driving about the village at breakneck speed and, as our departure that day was out of the yucstion, we made the best of the provoking delay and joined in the fun. My driver, a Samoyede, was already so firr intoxicated that he could hardly keep his seat on the sleiges, but we luckily completed the circuit without a spill. later there were reindeer races on the river, and the day onded, of course, in a drunken debauch. Two days later I same across my inebriated Samoyede twenty miles up the river, looking after a herd of a hundred and fifty reindeer feetling on the hills.

The condition of the snow in these northern latitudes is very dilferent to what we are accustomed to in this country. It fills in fine, sharp, powdery crystals, and owing to the absence of heat from the low-lying sun, remains without packinir or surface crust. As a consequence, snow-shoes Wre ubsolutely necessary for travelling in the forests where the noww has not been disturbed. Norwegian ski would not be mitable for these conditions, as they would not afford nufficicnt support. The native lourzhe (snow-shoes) are much shorter, between two and three times the width, and amopletely covered on the underside with reindeer fur cut from a particular part of the hide, the lie of the fur being batiwarts. They are not so fast as ski downhill and on the level, but are excellent hill climbers

Mont of the higher mountains of the Urals lie to the west of the watershed, and were therefore quite out of our range,
but the main chain itself showed many an inviting crest and precipitous slope as their pure white sides stood out in clear relief against the azure sky, despite the fact that we viewed them from a distance of ten or twelve miles. One hill, rising to a height of 1,700 feet above the river, afforded me a good day's healthy exercise in its conquest. The ascent was very steep, and in places the assistance of an axe was necessary with which to cut away obstructions in the forest-clad slopes. I recollect one place in particular where I was forced to come out on the top of a precipitous rock and then turn sharply round and ascend an ugly slope. For a novice like myself the descent proved as difficult as the ascent, and at the more trying places I adopted the expedient of walking backwards step by step-perhaps not a very sporting but certainly a safer method of progression, and one which, I venture to believe, could not have been adopted on ski. Owing to the dense undergrowth and fallen timber it was not possible to adopt the broadside step, which can generally be used on smooth steep slopes.

The lowest temperature we experienced was $58^{\circ}$ below zero, or $90^{\circ}$ of frost, and the night following this minimum there was a very fine display of the Aurora Borealis. The natives said this indicated the approach of warmer weather, and they proved to be true prophets, as we never experienced the same degree of cold again. Naturally considerable care had to be taken to guard against frostbite, and with the exception of one occasion, when my companion, Findlay, suffered rather severely with his left hand, and once when I had a narrow escape on the top of a hill while manipulating the camera with bare hands, we had no trouble in that respect. Taken as a whole we experienced very little wind, but when a stiff breeze did blow the cold was very trying and then the tear-drops would freeze in the corners of the eyes.

When making long journeys we sometimes had trouble with the drivers owing to their antipathy to hurry. They always wanted to make a lengthened stop when we came to a habitation, and, if it happened to be during the night,
we had difficulty in getting them to turn out again. On the occasion of the journey referred to, at the time of the Bolshoi Prasnik, they turned quite mutinous on the first night out, being still in a condition of semi-intoxication, and it was only by persistent firmness on our part that they were kept on the move. However, they got the better of us in the end, as waking up from a light sleep about midnight we were astonished to find there were no reindeer in the sledges and all the men had disappeared, except one Zaryan lying on a sledge in a drunken sleep. This was certainly an unexpected and aggravating predicament, but we had to make the best of it and wait until morning, when they all turned up again. It happened to be a convenient place for feeding the reindeer, so they had quietly turned them loose and then walked back over a mile to a choon we had passed on the way, leaving us to our own devices. It was on this one occasion only that Gregory Prokroprovich served us a nasty trick. We were anxious to engage the same olanechik who had served us well before but Gregory said he was away in the forcst; however, he knew of another man who was very reliable, had the best deer in the country and an excellent choom. Although we were not at all favourably impressed with his appearance we were assured that everything would be quite all right. As events turned out everything was quite all wrong. On our return we learned that the man was well known as a good-fornothing drunkard and considerably in debt to Gregory. 'The latter had made use of us to enable him to get square with the defaulter, as the money passed through his hands and the man received practically nothing for his trouble.

On March 17th we finally returned to Saram-paool to make immediate preparations for the return journey south, as the thaw was threatening, and when that became established travelling overland would be impossible and involve a delay of probably three months before the arrival of the first steamer. After much bustle and interminable whuments everyonc appeared satisfied, we exchanged
farewells with the brothers Prokroprovich, their families, and half the village and got under way in the early evening. This time, for a driver, I had an Ostyak boy of fifteen years and he proved the smartest of the three. He was a merry soul, whistling and laughing all the day through, but as soon as night closed in his head would drop and sometimes his driving stick as well, and I had to wake him and send him back for it. We were obliged to push on with all speed, as during the day the temperature rose above freezing point, and the reindeer had great difficulty in dragging the sledges through the wet snow; the river ice also was getting flooded. Our rests were mostly made in the daytime so as to be able to push on when the night frosts had hardened the snow. In seven days we were back at Nikito-Evedil, and only just in time, as ours' was the last party to get through. This journey of 440 miles was accomplished in six running days and with the same animals, an average of 75 miles per day over very difficult ground. Give me reindeer every time!



A SPOFFORTH PINNACLE.
By " Columbus, Junior."
"Christopher Columbus was a great sailor and wanted to discover America. So one day he went to the King and said: ' O King, I want to discover America. Give me some ships.' So the King gave him the ships and Columbus went and discovered America."

This account, though generally regarded as a schoolboy howler, is nearer the truth than at first sight appears. Columbus was morally certain that there was land to the West to be discovered, though he was ignorant both of its character and of the fact that it had been discovered already by Leif Ericson, the Norseman.

The Spofforth Pinnacles may probably be credited with being the most frequently discovered rocks in England. I write in England advisedly, because they manage things differently in Wales. I do not understand the methods of Cambrian climbers. First they discover a climb, sometimes, in fact, a rock-face four or five times as high as a steeple and as long as a street. Then they lose it. Then they discover it again. Then they find it is extremely difficult ; then they discover it is really very easy. The next step, I suppose, will be for somebody to fall off. One of the latest achievements has been the discovery of a mighty rock-face that has been staring down Nant Francon ever since Adam was a schoolboy, and forms the most conspicuous object in sight for about a mile and a half of the way up to Ogwen.

It was in the spirit of Columbus I left Harrogate one morning with Leif Ericson He had been there before In fact it is a matter of dispute between himself and two other Ramblers as to which discovered the Spofforth Pinnacles first and, if so, most often.

For the information of future discoverers I may say that the Spofforth Pinnacles are situated on the left bank of the Crimple Beck to the north of Spofforth. From

Spoffortl Railway Station you walk through the village, leaving the pubs on the left and the Clurch on the right, turn to the right beyond the Church, then to the left, and so past Spofforth Mill. Beyond this you are affronted by a ridiculous notice as to right of way, which you regard or not, according to disposition-the legal detour is only about fifty yards-and there you are.
The first of the Torroni is something like an overgrown cask, about twenty feet high, with one of the sides stove in. The line of ascent is obvious, but neither quite easy nor pleasant. The chief difficulty is in getting out on sloping handholds with a bramble in your ear and a nettle on your nose. A tree is said to afford a feasible line of descent, but I mistrust it.
The next Pinnacle affords at least three sporting routesI think that is the correct phrase.
I. (Plate I.): Over the nose. This somewhat resembles the first part of the Inaccessible Pinnacle at Robin Hood's Stride, though far less difficult, and is to be commended to skilled players at leapfrog.
2. (Plate I.): A stiffish little crack, with a stiffish pull out on to ledges, greasy and sloping to the climber's disadvantage. The blur on the foreground of the photograph is caused by the tail of or belonging to the dog of or belonging to Leif.
3. On the uphill face of the rock-to the climber's right as he faces it-is a neat little face climb.

There are numerous other outcrops presenting courses of various interest. The next boulder solvitur saltando, if I remember rightly, you can jump on to the top with ease and nerve, and steady other people up any fancy routes with a rope, should they not scorn one. N.B.-It is easier to jump off than to jump on to this boulder, and it is comforting to know that the chances of bashing your shins are less than at the Laddow Pinnacle.

The next obvious bit of climbing has a wall in the middle of it, and the next, the bulkiest of all, is not inaccessible, though the way up takes a bit of finding.



Beyond this, close to the hedge running down below Braham Hall, is the pick of the boulders. There are two easy ways up (see Plate II.), and one of the most difficult climbs of its inches in Yorkshire (Figs. 3 and 4). The commencement somewhat resembles the start of the Virgin Climb at Almscliff, but, as soon as this minor traverse is completed, the way lies straight up the corner and is much more severe than the finish of the Virgin.
The ascent of the next boulder, a few hundred yards nearer Plompton, is not quite so simple as it looks. To save unnecessary exertion I may say that the key to the crack on the Plompton side-opposite a small excrescence of rock-is a splendid right hand-hold inside the, crack, about ten feet up. The joy of this boulder, however, is a corkscrew trayerse, beginning from an unmistakable little cave and working round the boulder, finishing above the cave. It is the first step that costs and the most delicate balance is required, albeit plenty of concentration is demanded elsewhere. The distance from the ground is not great but for the mair pairt of the time ye have a spike o' rock in your wame, and the tendency is to fall backward. Wherefore, although the Ramblers have no suckers in their feet, they might do well to provide themselves with gutta-percha safeguards elsewhere. There is another and very severe corkscrew traverse on the Pinnacle previously described, off which you can fall further and fare worse.


GAPING GHYLL IN 1913.
By Alex. Rule.
There is little new to record in connection with the general objects of the 1913 Expedition, but an interesting piece of exploration was carried out by Wingfield and Booth.

Less favourable weather than usual delayed the descent and thus interfered to some extent with the survey work. However, we were able to complete the plan of the Stream Chamber and the smaller passages leading from it and to map a portion of the main passage from the $T$ Junction. Rather more than the normal amount of water was flowing in the beck and it was found necessary to use the dam and divert the stream into the Rat Hole. In consequence a fine waterfall was produced which entered the Great Chamber from the roof, some distance to the left of the Shaft, and heightened very considerably the grandeur of the view from the Northern Boulder Slope. Hastings and Robinson, with the aid of a prodigious quantity of flash powder, secured magnificent photographs of the Chamber, and I trust that we may see them published in the fournal at some future time.

During the second day two members, one above and the other below ground, conducted an elaborate series of experiments with the view of ascertaining to what extent they had obtained mastery over the flow of the Fell Beck waters. At given telephone signals the waterfalls were made to perform weird antics, at one time uniting to one large fall in the shaft, then separating at various points and resuming their old positions. Some of the party who ascended during these operations were most emphatic as to their success, especially as to the possibility of uniting the separate streams into one large fall in the direct line of ascent. This interesting piece of research was brought to a premature conclusion by the despatch of the above-ground experimenter to Clapham for camp supplies. Later in the
evening the following conversation was quite unintentionally overheard:-
H.B.-_"It is now quite clear that when the beck is turned down PI52 X, it turns back on itself, performs a double somersault about 45 ft . below the sign-post and then flows into the far end of the Rat Hole."
C.R.W.-"I agree, except that instead of the double somersault I think it does a Telemark turn."

And so on.
This year the social side of the camp life was particularly marked. In the evenings cold winds forced us to desert the camp fire and to seek refuge in one of the bell tents, where we made merry with song and jest. It was felt that the presence of certain distinguished members called for some special mark of recognition, and toasts were drunk to their prosperity. The Mayor was the first to respond. Overcome by emotion he appeared to find the tent pole a welcome support, but recovering from this phase he finally addressed us with becoming magisterial dignity. The Sheriff followed with some witty allusions to the Ramblers' adventures in a previous year on the banks of the Severn, and an imaginary account of an incursion over the border into Wales. Moore rose to express the feelings of the rest of the members at the honour conferred on us by the patronage of these distinguished gentlemen. And so to our tents by those tortuous paths which lead alongside the stream, over it-and on certain occasions into it.

On the Tuesday and Wednesday, after the majority of the party had left, Wingfield and Booth attempted a landing on the buttress which forms the left wall of the Shaft locking up from the Chamber and whose top is about IIO feet from the floor of the Chamber and 230 feet below the jib. The exploration was successful, and Wingfield has supplied me with an account which is best recorded in his own words.
"On May I 3 th it was arranged with the men below ground that the guide rope should be drawn tight over the buttress, and, when this was done, I descended and landed on the smooth side of what proved to be a small
pinnacle. By means of two rounded footholds and a small chockstone I was able to reach the top and to obtain a good view into the fissure beyond. There was a traverse into it, and having ascertained that it would go I returned to report progress.
"Next morning Hastings and Robinson descended to take photographs. The guide line was then unrove, the chair hoisted and removed from the main cable, breeches being substituted, and a light 200 ft . tail line attached in place of the guide line. I descended nearly to the level of the buttress, and Hastings, having secured the tail line, jerked it over the pinnacle. I used a horn to signal to Hastings and a whistle for the surface men. While Hastings pulled I was lowered from above on to the buttress and sat astride the little pinnacle with my back to the rock. Fastening one end of a climbing rope to the pinnacle and the other end round my waist I commenced the traverse, Hastings pulling me in and those above lowering. It was necessary first of all to descend a few feet, then there was a level portion, and finally after an upward and inward climb I reached the first of the two large chockstones which are visible during the descent of the shaft.
"After I had left the pinnacle Hastings could only give me a little assistance, and $I$ had the weight of the curve of wire cable as well as the tail line and the climbing rope to. pull in. I felt like a spider spinning a web, but I knew that if I came off Hastings would be able to prevent me from swinging against the opposite wall of the shaft below the ledge. I belayed myself and got out of the breeches, which were then drawn up to the surface, and having set my camera for a time exposure (which was quite successful) I sat down to take stock of my surroundings and await Booth's arrival, fully realizing the loneliness of my situation. It was not long before Hastings drew Booth on to the buttress, where he tied on to the climbing rope. I was able to assist him to the chockstone, where there was plenty of room for two. Booth played me up the few feet to the inner chockstone and then joined me, and we found ourselves


MAIN SIAFT, GAPING GHYIL-IROM CHOCKSTONE IN ROOF FISSURE.
Photo. by C. R. Wirghiell.
at one end of an oval bell-shaped chamber with a terrace running round to the Rat Hole Waterfall at the other end, the chamber being intersected by the fissure in the roof of the Great Chamber. The terrace is about 3 ft . wide, smooth, and slopes slightly towards the fissure, but some good handholds and belays make it safe going. The Rat Hole Waterfall was too much for my lamp and I had perforce to retrace my steps in semi-darkness. Booth, who had remained in the breeches, played me back to the pinnacle from the chockstone, a traverse of about 50 ft . He then walked along the continuation of the terrace, which is above the traverse, for some distance. Booth went up to the surface and I waited on the pinnacle, feeling somewhat lonely as I was unable to talk to Hastings below, but in due course the breeches descended and I got into them cautiously, undid my belay which was none too secure, and was hauled to the surface.
"Given a dry spell, a spare day, and a party of three with covered lamps and at least a hundred feet of climbing rope, I believe the terrace could be traversed beyond the Rat Hole Waterfall, where there appear to be more chockstones. This is probably the place where the weight I let down from the end of the Rat Hole stuck and jammed in 1912.
"I found rope soles much better than nails on the smooth, wet limestone."


## CLUB SONG.

Words by J. A. Green. Air: "The Yeomen of England."
(1) Who are the RamblersThe Ramblers of Yorkshire ?
The Ramblers are the Cave-men The Cavemen of Yorkshire.
Vile are the clothes they wear, When in this sport they share,
Great is the love they bear, For the pot-holes of Yorkshire!

Chorus.
And Long Kin, and Lost John And Gaping Ghyll Cavern
Have all felt the might Of the Ramblers of Yorkshirc.
No other shire has such pots As their motherland, Old Yorkshire,
And o'er her broad moorlands
May they ever roam!
(2) Where go the Ramblers-

The Ramblers of Yorkshire?
In cavern and in pot-hole They do take their pleasure!
Stained with the muddy $\tan$,
Cave dirt doth give a man,
Filthy but happy in
The pot-holes of Yorkshire!
Chorus.
And Alum Pot, and Rowten, And Jockey, and Rift Pot
Have all felt the might
Of the Ramblers of Yorkshire !
No other shire has such pots
As their motherland, old Yorkshire,
And on her broad moorlands
Shall they ever thrive,
Shall they, shall they ever thrive!

## CHIPPINGS.

Editorial: The Editor can only repeat his apologies for the late issue of this number and plead his continued Mayoral and other engagements in part mitigation.

Waterford Ghyll :-The protest against the erection of a sinall-pox hospital at Waterford Ghyll, near Crookrise, by the Skipton Rural District Council-a protest in which the Club took part-has failed, and we can now only . hope that the building will be made as inconspicuous as possible and will never be used. It is a pity that the Council could not see its way to accept another and less objectionable site.

The Excavations at Foxholes:-Foxholes is about a quarter of a mile further up the glen beyond the entrance to Clapham Cave, and is on the left hand side just before turning up to Trow Ghyll. The excavations carried out here during the summer of 1913 have been successful beyond expectations. Undertaken with the intention of exploring the well-known opening at the back of the scree slope, the work speedily developed in a direction totally unexpected. The removal of the débris from the front of the rock face laid bare a fortified rock-shelter dating from early Neolithic times; a discovery unique in the British Isles. Combined with human remains, many of which are of exceptional interest, numerous artifacts were found, such as worked implements of flint, chert and limestone; many pieces of broken pottery, bone needles and borers, and broken-up marrow bones. Associated with these were the teeth and bones of many animals now extinct in Great Britain which were evidently used for food, or had been killed for defensive purposes.

It is intended to carry out further excavations during the summer of 1914, and the result of the work will be published later in extenso.

The following is a list of the animals whose remains have been identified :-Aurochs, or Urus, Celtic Short-Horned Ox, Irish Elk, Red Deer, Roe Deer, Wild Boar, Common Pig, Horse, Wolf, Dog, Wild Cat, Fox, Badger, Stoat.
C. A H .

Borrowdale Plumbago Mines:-We are glad to learn from a letter by Canon Rawnsley to the press, that there is no truth in the rumour that the mines are to be re-opened, and agree with his suggestion that all mining ventures in England's Playground should be submitted to a Government Commission before the owners or their lessees are allowed to deface its beauties in what appears to be a most uncertain form of speculation.

Buckstone:-In his little volume, "Some Gritstone Climbs," Mr. J. Laycock speaks of the Buxton Boss, an excrescence of gritstone on the side of Coombs Moss, not far from Buxton. If this be the boulder I have in my mind, it is also known as the Buckstone and Robin Hood's Stone and, in addition to presenting several attractive little problems, possesses a peculiar historic interest all its own.

This is the story. I have to rely entirely on my memory, so I hope that if any minor inaccuracies should be detected, they may be forgiven me.

Merrily blew the breeze o'er Coombs, the birds were singing, and nature had writ with her lusty wit that the year was at its spring. Near the Buxton Boss stood Robin Hood leaning on his unstrung bow, listlessly watching a herd of deer. To him came Brian the Bearward, with his charge on a chain, and, noticing Robin's unusual indifference, rallied him on his lack of enterprise. Robin replied that he was not out for venison that morning, but that if Brian would like a shot, he would lend him his bow. Brian accepted the offer with alacrity, and a noble buck fell to his shaft, " nor lacked a second blow," a phrase which would seem to mean exactly the opposite to what it appears to signify.

At this point Ralph the Ranger came on the scene. Seeing a dead buck with one of Robin's arrows sticking in it, he came to a not unnatural, if incorrect conclusion, and asked Robin how he dare slay John of Mortain's deer. Robin started a political argument to the effect that he did not recognize Prince John, that the deer belonged to Richard of the Lion Heart, and that he had His Majesty's permission to kill as many deer as he pleased. (At or about this time Brian, the cause of all the mischief, seems to have ratted; at any rate he took no further active part in the proceedings.) Ralph interrupted with a pressing invitation to Robin to go with him. Now, as the least unpleasant result of acceptance was hanging, with some such agreeable alternatives as having one's eyes bored out with a hot augur, or being flayed by the verderer, it is not surprising that Robin declined. Thereupon, at a signal from Ralph, up rushed a dozen or a score (I forget which) of Foresters. In reply Robin wound a blast on his horn, and forthwith, with a fitness " found only on the stage," an equal number of outlaws, clad in Lincoln green, came bounding o'er the lea.

A fierce fray was imminent, when Robin suggested that a buck was not worth the cost of brave men's lives, and challenged Ralph to settle the matter by a bout with quarter-staves Ralph, who seems to have been a sportsman, agreed After a little manœuvring, Ralph led off on the head with such effect that Robin was brought to his knee. "Well struck, well struck," cried bold Robin, and returned the blow with such interest that Ralph measured his length on the ground and stopped there.
The buck was now Robin's by right of conquest, but he, too, was a sportsman and generously offered his antagonist another trial of skill-this time with the bow.

The mark was the disputed quarry. It was to be placed at the top of Buxton Boss, and the competitors were to shoot from a range of, I think, five score yards. He was to be adjudged victor who placed his shaft nearest "the dead buck's glassy eye."

I have tested this trial to an extent. I put my rucksack on the top of the rock with my Rambler's button representing its glassy eye. I then paced off five score yards and tried to locate the mark, i.e., the bull's or rather the buck's eye. I conceive any Rambler who repeats the experiment will agree that our eyesight has deteriorated since the days of Robin Hood.
One would think such rattle-pate preliminaries as those recorded were scarcely conducive to good markmanship, but we, compared with the race of yore, are cast in a pigmy mould. Ralph had the 'honour,' and against the buck so right a shaft he set that it lodged in its "wame." "Well shot! Well shot!" quoth bold Robin, and at once let fly and landed his arrow in the dead buck's glassy eye.

Thus the prize became Robin's by a double right, and the affair concluded in all amity.

This is the story of the Buck Stone. There are some who advance that from this episode the town of Buxton takes its name. I fear the proposition will not bear examination. Nevertheless, it would seem that this spot is somehow connected with bowmanship or some feat of bowmanship, for the near by wall is known as the Archers' Wall, and the Archers' marks can be seen to this day.-C.E.B.

Dinner:-The Twenty-first Birthday of the Club was duly honoured at the Annual Dinner on the 15 th November; 1913, and we reproduce portraits of the Presidents, past and present,* which figured on the menu card, and the Time Table and Programme.
р.м.
6.45-7.50 Dinner.
7.51 TOAS' ...
"The King"
Proposed by The Prisident.
7.52 Song "Mere's a health unto His Majesty" ...
C. R. Barran.

* See Frontispiece.

Modern Mountaineering :-After some recent works in "Alpinism" it is a relief to learn from the Club Bulletin of the Climbers' Club Journal that a book on modern mountaineering is on the point of publication by Methuen and Co., to be edited by Mr G Winthrop Young, with contributions from Messrs. Farrar. Spencer, Longstaff, Raeburn, Conway, Slingsby; A. F. Wollaston, Malcolm Ross, Mumm, Claude Elliott, Finch and Lunn.

A Climb on Dow Crags:-A good many moderate climbers are apt to be shy of Dow Crags, on account of their notorious difficulty. May I commend to such a climb on E. Buttress. Its starts immediately S. of the N. Gully, a short, stiffish crack leads to a narrow, well defined gully, which affords interesting, but not difficult climbing for some 200 feet. At about this height numerous variation; would seem available, and an easy exit can be made by crossing the N. Gully above the great chock-stone to the easy rocks beyond. I think the best course is to continue straight ahead, keeping closely to the ridge line of the buttress until the crest is reached. The total length of the climb is somewhere about 400 feet. My companion considered the course as rather more serious than the Needle Ridge, which would classify it as a late moderate or early difficult. Another, but easier, course leads up the centre of the Buttress, and there is another, perhaps slightly more difficult, but less definite, close to the Easter Gully.-C.E.B.

As Others See Us:--One of the advantages of belonging to the English branch of the Club Alpin Suisse, is the monthly arrival of "L'Echo des Alpes," the lively and informing journal of the French-speaking sections, from the February issue of which we take the following appreciation of No. I2 of this Journal :-
"En lisant les nonante et quelques pages qui composent ce fascicule nous avons eu la grande surprise de trouver, reproduit in extenso, l'article que L'Echo des Alpes (avril,
1913) consacrait à la précédente livraison du Yorkshire Ramblers' Club Journal ; nous avons été touchés de cette attention et nous avons eu du plaisir à constater que même en dehors de nos pays $L^{\prime}$ 'echo est lu de la première à la dernière ligne.
"Le numéro 12 contient, comme d'habitude, un choix très grand d'articles accompagnés de photographies dont quelques-unes sont magnifiques.
"M. Reginald Farrer vante les beautés de la Grigna, montagne qui s’élève au bord du Lac de Come, au-dessus de Varenna : la flore y est magnifique, abondante, la vue sur les Alpes y est stupéfiante et la masse du Mont-Rose, surtout, se présente dans toute sa majesté ; non loin du sommet de la Grigna se trouve un refuge où, dans la bonne saison se pressent les botanistes et les admirateurs de la belle nature.
" M. Reginald Farrer, en parlant du Refuge de la Grigna, vante les refuges autrichiens et italiens qui sont moitié cabane, moitié hôtel, et critique notre genre de cabane qu'il trouve plutôt mauvais, ajoutons que l'auteur ne semble pas très bien connaître les cabanes du C. A. S. qu'il dit être rarcs et comparativement mauvaises; il ne faut pas en vouloir à l'auteur pour cette critique, car s'il apprécie les cabanes-hôtels, il deteste, par contre, et raille malicieusement les grands hôtels internationaux.
"The Aurora Borealis est une étude succincte mais documentée que $M$. Claude $E$. Benson consacre au plićnomène appelé aurore boréale, l'auteur montre que Paurore boréale aux couleurs si curieuses est causée par l'électricité qui afflue aux pôles terrestres.
"En mai 191 I M. A. Morris Slingsby s'est mis en route avec l'idee d'effectuer la première ascension du Kamet, haut sommet himalayen qui se dresse sur la frontière thibetaine ; après avoir surmonte de nombreuses difficultés l'cxplorateur parvint à un col, haut de 7000 m . environ, en vue du sommet mais encore très éloigné de celui-ci.
"M. John J. Brigg narre sa randonnée dans les déserts de la presqu'ile sinaitique, sa visite au célébre couvent du Sinai ct son ascension de ce sommet biblique.
" Les membres du Yorkshire Ramblers' Clubs' intéressent beaucoup aux cavernes qui sont nombreuses en GrandeBretagne; deux articles. l'un de M. E. E. Roberts, l'autre de M. Harold Brodrick, traitent d'explorations faites dans deux des plus vastes de ces dédales souterrains. Notons encore une jolie pièce de vers signée Alex. Campbell, une abondante chronique bibliographique et une rubrique amusante d'échos du Club.

Lake District Guide :-A new edition of Baddeley's "Thorough Guide to the Lake District" is out. Chief additions, \&c.: List of Garages; Closing of School Knott and Brant Fell; Purchases by National Trust; List of Old Oak Furniture; Height of High Street corrected; Amplification of Patterdale District; Unnamed places on maps named; Escarpments marked on map. The Editor will be glad to receive any corrections.
C. E B.

Telephone Posts:--Can nothing be done to stop H.M. Postmaster General disfiguring our moorland roads with these unsightly erections? A lively imagination can weave romance into a slender pole and a single wire, but when it comes to thick double posts every thirty yards, as on the Snake, with hundreds of wires and glaring white pots, one reaches out instinctively for an axe. The wires can be, and over portions of Shap Fells, are buried, and they ought to be everywhere.

Tall-Pieces:-These are taken (by permission) by Mr. Eric Greenwood from Mr. Louis Ambler's "The Old Halls and Manor Houses of Yorkshire."-(B. T. Batsford, 94, High Holborn, W.C.)

New Members :-The following have been elected since our last issue:-

Baliy, E. C. C., M.Sc., F.I.C., F.R.S, I4, Sunnyside, Prince's Park, Liverpool.
Clark, Edward Dowsett, M.A., Giggleswick School, Settle.
Croft, Edward Hugir, 28, Clarendon Road, Leeds.
Holden, Blackburn, Ghyll View, Coates, Barnoldswick.
Jones, Norman Kendail, 255, Hyde Park Road, Leeds.
Kerr, Robert, B.Sc., Cavendish Hall, Beckett's Park, Leeds.
Seaman, John Frederic, Ashfield, Guiseley.
Swales, Robert Kidson, 5, Ridge Mount, Cliff Road, Leeds.

Back Numbers :--These, which are limited in number, can be obtained from the Hon. Librarian (J. H. Buckley, 168, Wellington Street, Lceds). Price: Nos. I, 3, 4 and 5, 5/- each ; No. 2, 10/- ; Nos. 6, 7, 8, 9, 10, 11 and $12,4 /-$ each. Specially designed green buckram cases for the three volumes, $2 /$ - each. Postage extra.

Erratum:-The lecture "Recent Work at Gaping Ghyll," was given by A. Rule and not, as stated in our last issue, by H. Brodrick.

We hear, as we go to press, with deep regret of the death of Dr. C. A. Hill, and hope to publish a fuller memorial in our next issue.

## CLUB PROCEEDINGS.

Annual Report, igil-iz.-The Committee have pleasure in presenting their twentieth Annual Report.

The Club now consists of to honorary and II3 ordinary members. During the year seven general and seven committee meetings have been held.
At the Annual General Meeting held November 18 th, IgII, the following members were elected to hold office during the year :—President: Lewis Moore; Vice-Presidents: A. Rule and J. H. Buckley; Hon. Treasurer: A. E. Horn ; Hon. Secretary: F. Constantine ; Hon. Assistant Secretary: J. A. Green ; Hon. Librarian: J. H. Buckley ; Hon. Editor: W. A. Brigg.

Committee: F. H. Barstow, T. S. Booth, L. S. Chappell, H. E. J. Dalton, C. Hastings, Rev. C. C. Marshall, M.A., H. Williamson.

During the year six lectures have been given as follows :IgII—Dec. 12. "Among the Plants of the Eastern Alps."

Reginald Farrer, F.R.H.S.
," 19. " Personal Incidents."
1912-Jan. 23. "Guides in Warfare in the Home Country."
E. Kitson Clark, M.A

Feb. 13. "Rambles Round about Ullswater:"
Claude E. Benson.
" 27. " Recent Work at Gaping Ghyll."
Alex. Rule, M.Sc. Show of Lantern: Slides.

Erik Addyman.
Mar. 12. "Some Reminiscences of the Alps."
J. M. Davidson.

Dr. Inglis Clark, the Honorary Secretary of the Scottish Mountaineering Club, accepted the invitation of the Committee to lecture before the Club and show some of his splendid photographs in natural colours. The lecture was given, by the courtesy of the authorities, in the Electricity Hall of the Leeds University, on Igth December, I9II. Dr. Inglis Clark, who described his lecture as "Personal Incidents," delighted the audience with his eloquent and racy account of his climbing experiences in various countries. Dr. Clark, who is one of the most successful colour photographers, showed a series of superb slides, and it is difficult to say whether his striking pictures of the Dolomites or his charming views of Scottish Lakes and Mountains were the more beautiful, but his audience were charmed by them all.

It has not been the custom of the Committee to refer in the Report to lectures given by members of the Club, but they wish to record their appreciation of the excellence and interest of the whole of this year's syllabus.
The Committee wish to acknowledge gifts of books, journals, $\& c$. , to the Club library, and again invite members to make further additions to it.

Representatives of the Club were invited to attend the annual dinners of the Scottish Mountaineering Club, Climbers' Club, Rucksack Club, Fell and Rock Climbing Club and the Ski Club of Great Britain.

The tenth annual Club dinner was held at the Hotel Metropole, Leeds, on 18 th November, 19 II. The President, Mr. Lewis Moore, was in the chair, and sixty-eight members and friends were present. The Club was honoured by the presence amongst its guests of Mr. George Yeld, editor of the Alpine Journal, Dr. Inglis Clark, Honorary Secretary of the Scottish Mountaineering Club, Mr. Haskett Smith, of the Climbers' Club, Mr. P. S. Minor, of the Rucksack Club, Mr. W. T. Palmer, of the Fell and Rock Climbing Club, and Captain Hordern, of the Ski Club of Great Britain.

The usual toasts were proposed and replied to, and the programme of music provided by members of the Club greatly increased the enjoyment of the evening.
Three Club meets took place during the year. Arrangements had been made for the Easter meet to take place at Wastdale Head, and a number of men attended, but it was greatly interfered with by the disorganized train service, the result of the coal strike. The weather during the Easter holiday was very stormy, but those who were able to prolong their visit enjoyed some excellent climbing.

At Whitsuntide the members were invited to camp at Gaping Ghyll, and twenty-six accepted. The weather was, fortunately, very fine, and the conditions for the descent of the pot-hole were, owing to the absence of water, exceptionally favourable. A large number of descents were made, and everyone who wished had an opportunity of seeing something of the wonders of Gaping Ghyll. A further portion of the survey was completed.
'The Autumn meet was held at Horton-in-Ribblesdale, on 51/1 October, 1912, and following days. Twenty-three members were present and the greater number made a successful descent of Alum Pot, while others explored Long Churn Pot, on Penyghent.

The complete camp equipment belonging to the Club is at the disposal of members at a nominal charge. Applications for it: usise should be made to the Hon. Secretary.

The eleventh number of the Club Journal has been published during the year. The Editor, Mr. W. A. Brigg, has been successful in obtaining for its pages articles of great and varied interest, which are admirably illustrated by many excellent photographs.

A series of well-considered reviews of recent books is a noticeable feature of the Journal. The Committee, realizing the importance of a good Journal to the welfare of the Club, wish to thank the Editor for the untiring care and industry he devotes to his work.
Members of the Club are requested to assist in increasing the circulation of the Journal as much as possible, and the Editor specially invites them to send in accounts of their work for its pages.
Members have been actively engaged during the year in rambling, climbing and pot-hole explorations, and a number of new climbs and descents have been made.
The Yorkshire Ramblers' Club has during the year become affiliated with the Ski Club of Great Britain. Unfortunately the weather prevailing during the past winter in the north of England was not favourable for the sport of ski-running. Several members of the Club eagerly took advantage of the few opportunities afforded to exercise themselves on ski.
The Committee would specially commend to the notice of all interested in ski-ing, the formation, under the auspices of the Ski Club of Great Britain, of the National Ski Union, which offers many advantages to its members.

The Committee have to acknowledge the receipt of $f 50$ (less legacy fees) from the trustees of the late Mr. Edward Whymper. Yorkshire Ramblers will not fail to recognize the kind thought that prompted the late Mr. Edward Whymper's gitt.

The Committee have, with sincere regret, to record the death, on 26 th August, 1912, of Mr. Clinton Thomas Dent, one of the earliest and most distinguished of our honorary members. On November, 1897, he gave a lecture before the Club, entitled "Mountains," and it is scarcely necessary to add that, coming from such an authority, it was greatly appreciated by the Yorkshire Ramblers' Club. A frequent contributor to the Alpine Journal, Mr. Dent was perhaps best known as the author of the mountaineering classic "Above the Snow Line" and as editor of the Badminton volume on " Mountaineering."

By his death the Club has lost one of those great mountaineers with whom it has had the honour to be associated, and who has done such great service to the sport in which the Yorkshire Ramblers' Club has been, and is, so deeply interested.

The Committee are pleased to report that the treasurer's accounts show an increased balance to the Club's credit.

Annual Report, I9I2-I3.--The Committee have pleasure in presenting their twenty-FIrst Annual Report and congratulate the members upon the Club's attainment of its majority. The Committee would remind the Yorkshire Ramblers that excepting the Alpine Club, they are members of the senior mountaineering club in England, a responsibility to the sport they love which all should recognize.
The Committee are gratified to know the Club retains the freshness and vitality which marked its earlier years. Its members, although they have increased considerably in numbers, still cherish amongst themselves that loyalty and goodwill which have enabled the Yorkshire Ramblers' Club to attain its successful majority. The Committee are confident that by the help of its younger members the Club will increase its success and usefulness in the future and continue to provide the Yorkshire Ramblers with excellent sport and staunch friends.

The Club now consists of 10 honorary and 116 ordinary members. During the year six general and six committee meetings have been held.

At the Annual General Meeting held November I6th, 1912 the following members were elected to hold office during the year:-President: W. Parsons; Vice-Presidents: J. H. Buckley and C. A. Hill; Hon. Treasurer: A. E. Horn ; Hon. Secretaries: F. Constantine and Lewis Moore; Hon. Librarian: J. H. Buckley; Hon. Editor: W. A. Brigg.

Committee: F. H. Barstow, C. E. Benson, T. S. Booth, L. S. Chappell, J. A. Green, C. Hastings and W. E. Waud. During the year six lectures have been given as follows :-rg12-Oct. I. " Exploration and Climbs in the Karakoram and Zaskar Ranges."
A. Morris Slingsby.
" 29. "Sinai : A Desert Ride."
J. J. Brigg, M.A.

Dec. ro. " A Winter Ramble with Ski through Montenegro into Albania.
H. Archer Thomson, M.A.

19I3-Jan. 3I. "The Tarentaise.'
Feb. 25. "Mere Gill." E. E. Roberts, M.A.
Mar. I8. "Camping on the West Coast of Ireland."
C. A. Cheetham.

Sir Claud Schuster was good enough to accept the Club's invitation to give his lecture " The Tarentaise," illustrated with lantern slides, in the Philosophical Hall, Leeds, on 3Ist January, 19I3. The lecturer graphically described his climbs
in this comparatively little-known district, and the Club is greatly indebted to him for coming at considerable personal inconvenience to give them his lecture.

The lectures given by friends and members before the Club were marked by unusual interest and novelty, as evidenced by the list given above.

The Committee wish to acknowledge gifts of books, journals, \&c., to the Club Library. They suggest the Yorkshire Ramblers might, by examining their bookshelves, make many acceptable additions to the Club library, and at the same time very suitably mark the Club's twenty-first Anniversary.

Representatives of the Club were invited to attend the annual dinners of the Scottish Mountaineering Club, Climbers' Club, Rucksack Club, Fell and Rock Climbing Club and the Ski Club of Great Britain.

The eleventh annual Club dinner was held at the Hotel Metropole, Leeds, on I6th November, igr2. The President, Mr. W. Parsons, was in the chair, and eighty members and friends were present. The Club was honoured by the presence amongst its guests of Sir Edward Davidson, President of the Alpine Club, Mr. George Yeld, Editor of the Alpine Journal, Mr. P. S. Minor of the Rucksack Club, Mr. Kenneth Swan of the Ski Club of Great Britain, and Professor M. E. Sadler, Vice-Chancellor of the Leeds University.

The usual toasts were proposed and replied to, and the musical part of the programme pleasantly filled in the intervals.

Three Club meets were held during the year. The Easter meet at Alston, which was intended to be a joint meeting of the Yorkshire Ramblers' and the North of England Ski Club, suffered from the uncertainty of the English climate. The members who attended enjoyed excellent sport, and those who intended to be present encountered interesting adventures in their attempts to reach Alston.

The Whitsuntide meet at Gaping Ghyll was attended by twenty-three members and guests, and the camp was an unqualified success. An additional portion of the survey of the passages of Gaping Ghyll was completed, and a good deal of new work was accomplished.

The Autumn meet at Clapham, on 20th September, rgr3, was a most enjoyable function and attended by a large number of members. By the kindness of Mr. Farrer, the Club was given the opportunity of again examining the further extensions of Clapham Cave. Vigorous assistance was given to the opening out of Foxholes, the exploration of which is at present engrossing the attentions of the Club.
The complete camp equipment belonging to the Club is at the disposal of the members at a nominal charge. Applications for its use should be made to the Honorary Secretaries.

The twelfth number of the Journal, being the first number of Vol. IV., has appeared during the year. The Committee have decided, owing to the increased size of Nos. 9, 1o and II, that these numbers should complete Vol. III. of the Journal, and the index will be published shortly. Members will be able to obtain the necessary binding covers from the Librarian.
Members of the Club are requested to assist in increasing the circulation of the Journal as much as possible, and the Editor specially invites them to send in accounts of their work for its pages.
Members have been actively engaged during the year in rambling, climbing, ski-ing and pot-hole explorations, and a number of new climbs and descents have been made.

The Committee have, with very great regret, to record the death, on 28 th August, I913, on board ship in the Suez Canal, of Dr. Tempest Anderson. Dr. Anderson was an old member of the Club and took very considerable interest in its welfare. He was a man well known in the world for his scientific research work; by the Yorkshire Ramblers he was always associated with volcanoes, of which he had an unrivalled knowledge. On several occasions he lectured before the Club upon volcanoes in different parts of the world. His great knowledge of the subject, and his extraordinary and beautiful photographs, frequently obtained under circumstances of great difficulty, made his lectures singularly valuable and effective. A man of many interests and many friends, he will be greatly missed, and the Yorkshire Ramblers will always be proud to remember him as a kind and generous friend and a distinguished member of the Club.

The Committee are pleased to report that the Treasurer's accounts show a balance to the Club's credit.


## In Memoriam.

Tempest Anderson, M.D., D.Sc.-In Dr. Anderson the Club has lost one of its most distinguished members and York one of its most prominent citizens. A skilful medical man, a keen traveller and mountaineer, and a loyal and devoted son of his native city, his quiet genial manners and obvious sincerity and kindness of heart made him a welcome everywhere. His friend and travel-companion, Mr. Yeld, has spoken of him and his works so fully in the Alpine lournal (Vol. XXVII., p. 2r7), that we can only take this opportunity of recording our sincere appreciation of his character and keen sense of the loss which the Club has suffered by his death.

James Buckley.-Although Mr. Buckley had only been a member of the Club since 1906, he was our oldest member in age, and by his keen love of rambling-in his youth as a pedestrian in the Yorkshire Dales, Cumberland, North Wales, Ireland and Switzerland, and in later years as a tourist through the greater part of Europe, North and South Africa, North America and Australasia-had fully proved his title to membership. He was a keen politician, a cultured musician, a prominent Freemason and a close student of astronomy, having twice viewed a total solar eclipse with the Royal British Astronomical Society. Our sincere sympathy is extended to his son, Mr. J. H. Buckley, our Sub-editor and Librarian.

## MEMBERS' HOLIDAYS IN 1913.

C. E. Benson spent the first fortnight of September in Arran. With regard to the accompanying diagram of the mauvais pas on A'Chir (which is reproduced by kind permission from the S.M.C. Journal, vol. X., p. Io3), he notes that the descent at $b$ is made on the far side of the buttress, in the direction of Glen Iorsa, by some shallow and very rotten grooves. It seems to him that the mauvais pas is placed too near the end of the ridge and should commence below the point marked $X$. It consists of a short descent of the face by splendid holds to a grass ledge, which leads easily down to a little chimney. The only difficulty experienced in descending

(a) Descent to Glen Iorsa side. (c) Commencement of Manvais Pas.

Uhis is keeping the buttons on one's waistcoat. In fact, the $\Lambda^{\prime}$ 'Chir ridge is, except at the descent $b$ indicated above, mirgnificently sound, in happy contrast to much of the Arran rock, and exceedingly rough withal. Those who wish to nseape, in appearance at any rate, from the ranks of Sir Claud Schuster's " ninety and nine just persons whose "knickerbockers are still unriven," are recommended to take Hou A'Chir ridge in a hurry. The end of the ridge beyond Thu manvais pas does not go. The corrie between A'Chir and Lir Mhor, unnamed on the maps, is Coire Buidhe. Ramblers
staying at Brodick, who wish to take the ridge walk over Ben Nuis, Ben Tarsuinn, \&c., and approach by the usual route the " left" bank of the Garbh Allt are advised that, in spate, the Garbh Allt may be impassable. After very wet weather it is better to follow the "string" road, from Brodick to Blackwater Foot as far as the skyline, and then turn off to one's right. The Rosa Pinnacle does not go from the Glen Rosa side. There is, however, an easy way up a little below the summit of Cir Mhor. Those proceeding from the Peaks of the Castles, over the Carlin's Leap, itself a pleasing little climb, are recommended to keep strictly to the ridge line, especially in bad weather. The direct descent from Cioch na li'Oighe to Sannox does not go. The descent from the ridge line between Mullach Buidhe and North Goatfell is unadulterated beastliness. It lies between Cyclopean walls and great " boiler plates," often as rotten as pie-crust, by intricacies of disintegrated granite and treacherous turf. Its disgusting peculiarities are markedly accentuated by heavy wind and rain. It is not a walk; it is not a climb; it is a "demnition grind."
Before the approach of the "Arran Conference" Benson fled to the Lakes. He would commend to Ramblers staying in Borrowdale, who can spare a few hours away from the rocks, the walk over the King's How (formerly Brand and Grange Fells), purchased by the National Trust in 1910 and opened by H.R.H. The Princess Louise as a memorial to His Late Majesty King Edward VII. The walk is, perhaps, preferably taken from south to north, on account of the wonderful surprise view of Derwentwater. He had some pleasing climbing on Gable Crag and elsewhere. The rocks were in first-class condition.
C. R. Wingrield :-January I2th to 18 th.-At Arosa, S.C.G.B. Meet; I8th, Arosa to Davos, on ski; 20th, Parsen Furka to Kublis, very fine run-about 5,000 ft. ; 2Ist, jumped I6 métres; 25th to February rst, at St. Moritz, some easy tours, having hurt arm jumping; January 3Ist, Muraigl Glacier fine run, nearly $5,000 \mathrm{ft}$., half done with one broken ski.

March 4th.-Pricked High Sheriff of Shropshire; 8th March, elected County Councillor.

Whitsun.--At Gaping Ghyll.
July I2th and I3th.-Climbing, near Bala, with Mr. Botterill.
August 9th to 30th.-Yachting on "Gwynfa."
September 13th.-Shooting ptarmigan in a snowstorm on Schiehallion, $3,500 \mathrm{ft}$; September 15 th to 22 nd , shooting and fishing at Stornoway.

November roth.-Elected Mayor of Shrewsbury.

A. Charlesworth :-At Easter, with Mr. Frankland:Gimmer Crags (A and B routes), Kern Knotts Crack, Eagle's Nest Arête, Abbey Buttress.
August, 1912, Pyrences:-Ax les Thermes is not much of a centre for climbing, but abounds in interest for the geologist, the glaciated rocks in the neighbourhood reminding one of the Grimsel, in Switzerland. Andorra, too, is within fairly easy distance.

Luchon is an excellent centre for excursions. We visited the Port de Venasque, from which a fine view of the Maladetta group was obtained. The snow views of the Pyrenees are disappointing when compared with those of Switzerland, but the richly wooded valleys somewhat compensate for this. Indeed, I thought the valleys were more beautiful than those of Switzerland. The desolate valleys on the Spanish side were in striking contrast to those on the French.
Excursions were made to the Cirque d'Oo, a magnificent cirque containing a true "rock-basin," of great interest to the geologist. The Rue d'Enfer, a magnificent gorge, at a height of about $6,000 \mathrm{ft}$., was also visited.
Gavarnie, however, was the most striking centre. The famous cirque, consisting of highly-contorted cretaceous rocks and rising in terraces to a height of $2,500 \mathrm{ft}$. from the foot, never lacked interest. During the day the place is alive with visitors from Lourdes and other places down the valley, but at night Gavarnie is deserted. The climber need not be deterred from staying there, as he will see no crowd if he is away during the day.

The climbs within easy reach of Gavarnie are numerous. We spent much time about the Brèche de Roland and found the rocks very, rotten and dangerous.
The rest of the holiday was spent at Lourdes, Pau and Biarritz. Variety is assured by a Pyrenean holiday, as. if the tourist is tired of climbing and geology, he can " sandwich" amongst it such trivialities as the "Battle of Flowers" ai Luchon, the pathos of pilgrimage at Lourdes and savagery of Spanish bullfights at Bayonne.

The Editor and J. J. Brigg (with Mr. Eric Greenwood) spent the last three weeks of July in North Tirol :-

July IIth to August ist.-By the Arlberg Tunnel to Oetzthal Station; drive and walk by Sölden to Vent; Taufkaarjoch to Braunschweiger Hut and return to Vent ty Sölden; two days indoors; Hochjoch Hospiz; Ramol Ald. Sanmoar Hut, climbed Similaun and down to Kärthaus;
drive to Bozen and train to Sterzing; Sonklarhof in Ridnaunthal; Grohmann Hütte, bad weather; back to Sterzing; St. Jakob, thunderstorm ; Pfitschjoch to Breitlahner; Berliner Hütte and climbed Schwarzenstein; Ginzling, Mayrhofen, Innsbruck.

Anyone reading between the lines will see that as a climbing expedition our trip was not brilliant. Both Similaun and Schwarzenstein are plain snow mountains. The latter we climbed, in a thick mist, with many Germans. The former is a happy memory of sun and snow and pleasant company and will always have a sentimental interest to readers of Von Hillern's "Vulture Maiden" as the place of exile of poor, headstrong Wally. We sat for two solid days in the little inn at Vent, waiting for the rain to cease. We expanded Baedeker's time (Vent to Braunschweiger Hütte) from five hours to nine, tramping through deep, soft snow on two breakfast rolls apiece. We slept at Kärthaus, a ramshackle old village built in and round a deserted Carthusian monastery, where each monk lived solitary in a small, two-roomed house opening from the cloister, as you may see at Mount Grace, near Northallerton. We loitered in the arcades of Sterzing and Bozen, with their
 Grohmann Hütte and fled to the valley, next day, before a blizzard. We explored the garret of the Stern Inn at Mareit and carried off a spinning wheel and other old-world gear. And, speaking generally, we found in these Tirol valleys a field for the walker, who may climb higher peaks or not as he pleases, with good paths (indicated by splotches of green and red paint on stones and trees), inns and "bewirthschaftet" mountain huts at convenient intervals and a ready courtesy from all we met, native and visitor "Grüss Gott" is the greeting one meets everywhere in Tirol.


## KINDRED JOURNALS.

## The Alpine Journal.

No. 200: In "A Fourth Visit to the Sikhim Himalayas," Mr. Kellas, amongst much other interesting matter, describes in detail the sensations of an involuntary glissade down a thousand-feet ice-slope. Mr. Bourdillon, in his quaintlynamed paper, " Without are Dogs," tilts good-humouredly at the intrusion of the mere tourist into Alpine sanctuaries and against the mountain-railways built and projected for their entertainment. Mr. Yeld writes, with his accustomed charm, of some new climbs at Cogne, and Mr. Irving, of a solitary tour, at Easter, in the Bergamasque Alps, both papers a strong contrast, in the conditions met, to those described by Mr. Parker in his story of the grim, but successful, assault on Mt. McKinley, when, for twenty-eight days, the party trod on nothing but snow or ice. In "The Growth of a Legend : Paccard v. Balmat," Mr. Freshfield puts Dr. Paccard in his rightful place alongside Balmat as the first to climb Mt. Blanc, and deals faithfully with his detractor, M. Bourrit. But, perhaps the most interesting paper to Ramblers is that on Mr . Barrington's climbing of the Stack-na-Biorrach, in St. Kilda, which we commend to any of the "New School" in quest of a new sensation.
No. 20I: In "The First Àscent of the Finsteraarborn," Capt. Farrar examines, in detail, the claims of Meyer and his guides to that honour; Mr. Howard Palmer describes the first ascent of " The Monarch of the Selkirks," which surely deserved a happier name than "Mt. Sir Sandford." Mr. Yeld sings of still more new climbs at Cogne-surely there can be no more; Mr. Morris Slingsby, one of ourselves, sends a note on his second attempt-and failure-on Kamet, made when suffering from "flue" and in bad weather, and we can only and heartily wish him success next time. There is a note on Dr. Wollaston's ascent of Mt. Carstenz, in New Guinea--the latest field for mountaineering-and one on the Mt. Robson Camp of the Alpine Club of Canada, where our friend, Mr. Haskett Smith, met with an annoyingly small, but troublesome; accident from falling stones, of which we are glad to know he has recovered; one on the newly-completed Lötschberg Line and one on the Mountains of Bussahir and Spiti, by Capt. H. C. Reeves.

No. 202: has an article on "Some Dolomite Climbs," by Mr. H. C. Bowen, with an interesting comparison of their difficulties with those of Walker's Gully, the third pitch of which he considers as impressive as anything on the

Campanile di Val di Roda, or, indeed, on any of the Dolomite climbs with which he is acquainted, and of the N.W. Pillar climb, which he thinks as difficult as the Marmolata (south side) Mr. O. K. Williamson describes an impressive crossing of the Gletscherjoch, at the head of the Lauterbrunnen Valley; Capt. Strutt attempts to clear up the orographical muddlesand worse-of Italian and other mountaineers concerning "The West Wing of the Bernina," known to us as The Bregaglia Group. Another ascent of Mt. McKinley is recorded and the lamented death of Dr. Paul Preuss, in the Salzkammergut, is described.

No. 203: contains the retiring President's (Sir Edward Davidson) interesting "Valedictory Address" and Mr. Geoffrey Howard describes some sporting Scrambles in Sinai, not personally conducted; Mr. Bicknell, an ascent of the Ober Gabelhorn, by the N.W. ridge, by himself and Mr. Claude Elliott, without guides; Conrad Kain, an Austrian guide, of Raxalpe, the ascent of Mt. Robson; and Mr. Stuart Jenkins, an ascent of La Sengla, from the Col de la Reuse d'Arolla; Dr. Neu has a note on the Brahma Peaks of the Pir Panjal Range in Kashmir.
Each number contains the usual miscellany of Bibliography, New Climbs, Alpine Accidents, Reviews and Notices, and Proceedings of the Club, records which become fuller and more interesting every year, and there are "In Memoriam" notices, models of feeling and good taste, of the late Dr. Wilson, that fine soul who died with Capt. Scott; M. Loppé, the painter of snow and ice; F. F. Tuckett, one of the pioneers of the Alps; Sir Alfred East, R.A.; C. G. Heathcote; Herr Paul Preuss, a brilliant climber, cut off at the threshold of a career of great promise as a scientist and philosopher; and our own friend and fellow member, Dr. Tempest Anderson.

## The Scottish Mountaineering Club Journal.

No. 7I: The Editor and Mr. E. Backhouse describe the varied weather of the Easter Club Meet at Aviemore, and Mr. Farquhar a delightful day on Clisham, in the Outer Hebrides, looking across the western waters to the "Gem-like Trinity of St. Kilda,", a contrast to the Editor's "Fifteen Hours' walk in Benderloch," where he seems to have touched bottom in weather even for Scotland. We have read the Rev. Wm. Watson's paper on "Lichens" with mixed feelings. After describing lichens in general, and Scottish lichens in particular, and telling us that we may probably find " the oldest of living things in the form of lichens covering the glaciated surfaces
of quartz on the summits of our highest hills . . . where they have been since the prehistoric days when the glaciers of the Great Ice Age melted," he calmly goes on to tell us that to " collect ' these finger-prints of antiquity . . . these colour patches on the palette of the Great Artist,' all we need is a strong, sharp, flat-bladed knife, a geological hammer and a well-tempered chisel, to split off a slice of rock as thin as practicable," after which the "specimens" may be wrapped in soft paper and put in a haversack or "vasculum." He seems to ignore the unsightly patches of raw stone this would Icave behind, to be for years as much an eye-sore as the "pattern" made on a boulder by a shot gun. Surely it is time folks learnt that collecting in this fashion is no longer good form among real students, and that if people really must collect something, they should collect postage stamps. If we had a moor, our keeper would have strict orders to look out for Mr. Watson and his "vasculum." Mr. Cumming continues his pleasant excursions into old travel books on Scotland, and the Club Song: "Oh! My Big Hob-nailers!" is reproduced. The frontispiece is an excellent photograph of Briariach and Sgoran Dubh in snow.

No. 72: The Club Meet in the Knoydart district, Eastern and Western, is recorded. Mr. Wm. Douglas describes, lovingly and minutely, the coast between St. Abb's and liast Castle, with special reference to bird life. The Editor describes " The Duke of Argyll's Bowling Green," in ArgyllSire, a triangular piece of mountain land between Loch Goil,「orlt Long and Glen Croe, now included in Lord Rowallan's splendid gift to the City of Glasgow of a "National Park" of nearly 15,000 acres. (English Peers please copy!) The lilitor goes on to describe Glen Croe very fully, and under " Dixcursions and Notes," collects all the information to be hawl aloout the "Rest and be Thankful" Stone there. It arcms the original stone of 1748 had been chipped away by lomists and was renewed sixty years ago. Perhaps they were
vollecting" lichens!
No. 73: "Glencar, Co. Kerry," by Mr. James A. Parker, deswibes a mountain tour in Kerry and Connemara, and we molic: that the Bibliography of Irish Mountaineering (a sport : Aill in its infancy) includes our Ex-President's article on "The: Ancient Kingdom of Mourne," (Y.R.C.J., vol. I., p. I55) Sis gullies in Coire an Uaigneis, overlooking Loch Coruisk, liy Mr. $!$. W. Steeple, are described. The article on Scottish Plimp Names contains the appeal by a Special Committee of HIי Ordnance Survey to all interested for help in the accurate womaling of Gaclic and other place-names, and gives an official ghowny of common Gaelic place-words which will be of great
value in interpreting the Ordnance Map. May we, as mere Saxons (we would say "Sassenach" if we were not certain to spell it wrong), ask for more information as to the pronunciation of all consonants, vowels, diphthongs and triphthongs in Gaelic. We thankfully believe that all Gaelic words are pronounced according to fixed rules, but we think those rules are very little known. Our Highland friends must please believe that we are really not trying to be facetious, but when we are told that the Gaelic spelling of "Ardroil" in the Lewis is Eadar-da-fhaodhail, we think we are entitled to ask for more help.

The deaths of an Honorary Member-Lord Strathcona, of Dr. John Macmillan and of Donald Fraser, keeper of Derry Lodge at the foot of Ben Muich Dhui, a friend and companion of princes and of climbers, are recorded.

Among the " Excursions and Notes" will be found the fine expedition of Messrs. Ling, Raeburn, Young and Johns, to the Caucasus, and a very tempting description of camping in California, with the Sierra Club, by Mr. J. Rennie.-J. J. B.

The Cairngorm Club Journal.
Nos. 40, 4 I and 42 : The majority of articles deal with various aspects of the mountain group from which the Club takes its title, and afford fresh evidence, if it were needed of the endless variety of mountain walks at the disposal of our friends in Aberdeen. Miss Adams' artless confessions of her experiences with the Canadian Alpine Club, in their Summer Camp in the Rockies, are both amusing and instructive, and there are pleasant descriptions of Loch Kinnora (by A.G.); Jura (by Mr. A. I. M'Connochie). Dr. Levack's story of a beginner's wet fortnight at Zermatt excites our sympathy. The "Excursions and Notes" contain much " miscellaneous feeding," and the account of the opening of the Allt-na-Bienne Moire Bridge is a permanent memorial of a useful piece of work, for which all mountain walkers are grateful.

## The Climbers' Club Journal, Igi4.

We congratulate the new Editor, Mr. N. T. Huxley, on his success in maintaining the characteristics of this Journal. Varying in kind, from the "precious" to the practical, the contents are all interesting, though at times slightly bewildering to the wayfaring man. The Editorial summarizes in poetical terms what an Editor desires, if he does not always get, and
we cordially agree with his dictum that an Editor should "edit rather than angle." In "The Narrow Stream," E.H.Y. describes, at first hand we presume, a narrow escape from drowning when fording a stream; in "Ale for Sixpence" L. scarifies some unnamed popular magazine climbing story; Mr. G. Mallory deals with "The Mountaineer an Artist" in language, metaphysical and æsthetic; "Lola’s Philosophy" (Mr. G. N. Clark) leaves us gasping; "Mountains in Dreams" (Mrs. O'Malley), bewildered; "A Lunndon Mountaineering Essay," by Mr. A. L. Huxley, mystified ; and " A Happy New Year" (J. Laycock), amused. So much for the "precious." Of the practical, Messrs. G. and M. Finch describe some new and exciting "Climbs in Corsica," made in spring, when there seems to be some snow on the mountains; and Anon " A Midsummer Holiday in Norway in 1913," chiefly spent at Turtegrö. Mr. Eckenstein has a technical article on the new Tricouni boot-nail; Canon R. Camber Williams furnishes from the diary of Capt. Jenkin Jones's "An Ascent of Snowdon in 1819;" and Mr. S. W. Herford describes, with a good sketchplan, some new climbs on Scafell, Kern Knotts and the Napes Needle. Mr. F. A. Winder's article on "Photography in Caverns" will be of special interest to some of our members, even if it does not tell them anything new, and there is a summary of new work already recorded in the Club Bulletins. Last, but not least, are some pleasant holiday verses by Mr. W. P. Ker, and an altogether charming "Lithuanian Medley " by Miss Katharine Cox, describing her lively experiences with her Russian friends.

We must not omit the novel expedient of covering a photograph of the south face of Mt. Blanc with a sheet of tissue paper marked into the various lines of ascent so as to show the latter on the photograph without marking it.

## Journal of the Fell and Rock Climbing Club

(Vol. III., No. r.)
Full, as usual, of well-written climbing matter, mingled with articles of more general interest, it would seem that if Lakelimel, as a climbing district, is not soon exhausted, it will mot be for want of effort by the untiring "Rockyfellers." Mr. Herbert P. Cain writes of ", More Buttermere Climbs ; Mr. Laycock of "New Ascents"; Mr. G. F. Woodhouse of "'wo New Climbs"; and the Editor catalogues a long list of " Climbs: Old and New.'
Messrs. Thackrah and Craigie have been in the Pyrenees, windering unconventionally and climbing arduously; Mr. Iferford and Mr. Sansom found the greatest Dolomite climbs
a little over-rated, and compare them, from actual experience, with our Cumberland rocks; Mr. J. Coulton invites us to the Marble Mountains of the Italian Alpi Apuave; while Mr. Ascroft has been up the Wellenküppe.

Miss Murray describes very vividly a plucky climb on Dow Crags under severe winter conditions, and the Editor describes a midnight tramp on the Fells. A very useful description of the ferns of the Lake District is given by Mr. and Mrs. Darwin Leighton, and Mr. J. P. Rogers describes some thrilling adventures in photographing wild birds at homea sport which we hope is superseding the egg "collecting" of our youth.

But the outstanding feature of this number is a delightful chapter of reminiscences by Miss Douglas Selkirk, full of the folk-lore and the country life of West Cumberland fifty years ago. With reproductions of old drawings of the Lakes, this is a chapter that ought to be read by every lover of Lakeland. Mr. Millican Dalton writes of the charms of camping, and Mr. Dent has a parable drawn from a "sentinel" thorn tree near Keswick.

Several climbing songs from various sources will be welcome at meets of this and other clubs, "Lines Written in Depression near Rosthwaite" among them. The Club is perpetuating its officers in a portfolio of photographs, and the other illustrations in the journal are excellent.-J. J. B.

The Rucksack Club Journal. (Vol. II., No. 4.)
The stories of members' tours in the Alps--Dauphiné, by Mr. R. B. Brierley, Andorra and Aragon, by Mr. Morley Wood; Cortina, by Mr. J. Walter Robson ; The Oberland, by Messrs. Minor, Seaton, Cookson and H. E. Scott, are all well told and whilst successfully conveying the experiences and impressions of the average climber, contrive also, as might be expected from Lancashire men, to give a lot of useful detail which more pretentious writers often omit. Mr. Schaaning went to the Hardanger Jökelen, near Finse, for climbing, and Mr. Pearce had some good ski runs from the Parsenn Hut, near Davos. Turning to what we may call the English section, Mr. J. Rooke Corbett writes with real sympathy of many Christmases spent among many hills from Snowdon to the Cuillins; Mr. Wallwork got a good time and Mr. Melldrum some splendid photographs in Glen Brittle ; Mr. F. C. Aldous names and illustrates some good bouldering on High Neb, near Bamford, and Mr. Isherwood writes of Laddow Rocks lovingly, and makes some very timely suggestions as to the
way rock climbs in England ought to be described, which we commend to all future editors of climbing guide books. Mr. Hobbins' account of a proposed camp in Langdale is very funny, and R.W.'s definitions in "Boulder Bits" very searching. Last, but not of least interest to Ramblers, is Mr. Wilding's suggestive " High Level Walk in the Pennines," from Hawes Junction by Nine Standards to Tan Hill Inn, thence across Stainmore, by High Cup Nick and across Cross Fell and Great Black Law Hill to Brampton, fifty-four miles as the crow flies, and bad going at that. Mr. Wilding suggests it as a rival-and we think a successful one-to the Lake District Fell record. Mr. Wingfield might try it on ski when the next big snowfall comes.

The Annual of the Mountain Club of South Africa.
Nos. 16 and I7: This Annual is a model of what a club journal should be, with List of Members, Rules, Club Proceedings and short accounts of climbs and excursions of members, well illustrated by photographs. The articles are too numerous even to mention, still less to review, and besides those of a more strictly mountaineering character, include others on topics of more general interest, e.g., Botany, Antarctic Exploration, South African Scenery, Climate, Snakes and Biology. It would seem to be the Golden Age of South African climbing, and the pioneers are fortunate in having such a hospitable shelter for their exploits.

Ski-running, the youngest of British sports, is being nursed into strength by many clubs, both at home and abroad. Of these, we deal here only with British clubs. As ski-running can only be carried on with any certainty at foreign " winter-sport" places, where conditions are further complicated by the limited number of hotels open in winter, there is room for a proprietary and commercial interest, which may lead to a good deal of heart-burning. Most Englishmen wish to excel in their own branch of sport and a great many wish to pass some kind of examination and to receive a certificate of proficiency.

The Ski Club of Great Britain, founded in Igo3, has always insisted on a test called by it a " third-class test," and whilst at first it admitted all candidates of good standing who could prove a practical interest in ski-ing, but its policy of late has been to make the qualification much stricter.

The British Ski Association was formed in 1912, under the auspices of Sir Henry Lunn, and has conducted tests at places in the Alps within his sphere of influence, e.g., Villars, Morgins, Wengen and Mürren.

The National Ski Union, founded in the Autumn of 1912, was the natural reply to this of the S.C.G.B., and for some time there was much rivalry and bitterness between the two bodies. Happier counsels have prevailed and there has now been formed:

The United Ski Council, composed of representatives of all the clubs, and this body will, in future, hold tests and grant badges for proficiency in the same way that the National Skating Association does for skating.
The clubs concerned mainly with touring, all of whom have agreed to join the United Ski Council in place of holding their own tests, comprise :-

The Ski Club of Great Britain, mentioned above;
The Scottish Ski Club, which does for Scottish ski-ing what our friends of the S.M.C. do for climbing;
The North of England Ski Club, connected with the Northern Counties, chiefly Cumberland and Northumberland;
The Winter Sports Club, started in IgI2 with the object of securing better terms for its members at foreign winter sport places, is not concerned with tests, and publishes The Winter Sports' Review in four numbers during the winter, as well as The Winter Sports' Annual;

The Public Schools' Alpine Sports' Club, founded in 1905, has for its object: "To secure the presence at one or more Swiss resorts during the season of a congenial society of people interested in Winter Sports and to make such arrangements for their comfort and enjoyment as may be desirable." It is, a proprietary club under the control of "Alpine Sports, Ltd.," and lastly:

The Alpine Ski Club, founded in 1908, which takes no account of tests and is concerned entirely with ski-touring. By the strictness of its qualification for membership it is for British ski-ing what the Alpine Club is for climbing.-J. J. B.

We have received for review the following publications of these clubs:-
The Year Book of the Ski Club of Great Britain and the National Ski Union.
Mr. E. C. Richardson suggests an amalgamation of the Year Books of the various British ski clubs and enlarges on
the difficulties of an editor under present conditions. The editor of this Year Book, however, does not seem to suffer from lack of material, though some of the articles are very brief. Travel information may be found in papers dealing with Arosa and Dalwhinnie, Hindsaeter (Jotunheim), Lapland, the Dolomites, Two Himalayan Passes, Canada, Val Ferret, Saas-fée and the Britannia Hut, Kosciusko in Australia, the Riesengebirge and Aare in Sweden.

Commander Victor Campbell, R.N., writes on the use of ski in the British Antarctic expedition, and it certainly seems as if our English explorers were slow to take lessons from their Norwegian rivals in this matter. But there is this to be said for the 1902 expedition, that the snow was hard and wind swept and in Captain Scott's last expedition ski were taken and used.

From a paper by Mr. Alec. N. Milne on Pinkerton's Voyages, and a treatise, "De Calceo (ITII)," it seems that the Lapps were expert ski-ers two hundred years ago. It is even said that they could run "faster than thought."

Technical articles on Snow Photography, First Aid to the Injured, International Regulations for Competitive Races, "Controlled Running," and last, but emphatically not least, a detailed list of Swiss Alpine huts available in winter, are of great value.

Several pieces of verse and a very notable lot of photographs give an artistic completeness to the whole number.-J. J. B.

The Alpine Ski Club Annual, Igiz.
Capt. Daukes writes on "Ski-ing in the Himalayas" and of how he spent three days in a small hut during a blizzard, enduring agonies of sleeplessness, which he considers to be a winter form of mountain sickness. He was rewarded by a glorious vision of new snow and unclouded peaks. Of Nanga Parbat, he says: " I may mention here that after living at the foot of 'Nanga Parbat' for nearly two years, I have not yet met anyone who knows that famous mountain ly this name. There is but one name here-Dyamir. Fairies atre popularly believed to rule over those wonderful snowliclds, which seem, perhaps not unnaturally, more closely allicl to the blue of heaven than the brown of the Indus valley. Mımmery's name is unknown, but the story of the sahib who, it is believed, is still held a prisoner by the fairies, is known (1) everyone and has often been told me. Dyamir is his monument, and those who, like myself, worship her from afar, will agree that she is not unworthy."

Dr. Goehrs writes in French of "Le Mönch en Hiver"; Dr. Tauern of the Oetzthal valleys and mountains, which, from summer experiences, we should imagine well adapted and certainly well " hutted " for the sport ; the editor tells of ski-ing over the passes between Zermatt and Saas-fée.-J. J.B.

Year Book of the North of England Ski Club.

## (Vol. I., Nos. 3 and 4.)

The Club's carefully-thought-out plan for informing its members of any brief intervals of ski-ing weather is described, and they, in turn, contribute articles full of interest and information for anyone seeking ski-ing at home in such places as Alston and Teesdale, whilst others write of Morgins, Grindelwald, Wengen, Andermatt, Fjaeldsaeter and Aare.

## Ski-Ing. (Vol. I., No. 2.)

Mr. Arnold Lunn discusses the use of the rope when ski-ing on snow-covered glaciers, and insists on the need for it, suggesting for a party of two the use of a second rope, with loops, to act as a ladder for the man who has fallen into a crevasse--a doubtful expedient. The Hon. E. C. Pery, in "Rucksacks and Runs," gives many valuable hints, and Mr. Baggallay describes the much-travelled route from Montana to the Plaine Morté Glacier.

## The. Winter Sports' Review. (Vol. II., No. 4 ; Vol. III., Nos. 2 and 3.)

We have not space even to mention the various articles on Ski-ing, Skating, Curling and other forms of winter sport in this well-written and up-to-date journal, but we strongly recommend it to every winter-sporter who wants the latest information. The " Interviews with Celebrities" have much quiet humour and "A Blizzard at Finse" is grim reading.

## Scottish Ski Club Magazine. (Vol. II., No. I.)

We congratulate the Editor on this, the first number of a new volume. It includes accounts of ski-runs in the Cairngorms, Ballater, Blair Atholl, the Grampians, Glenshee
and elsewhere, and a plain-spoken article by Mr. E. C. Richardson, in which he attributes the accidents, now so numerous, to over-tight ski bindings. The season 1912-I3 is described as exceptionally snowy, the violence and frequency of the storms were very remarkable, but on no occasion did ski-ing conditions hold for more than a day or two.

The Public Schools' Alpine Sports' Club Year Book, I9I4.
This handy little volume gives every information about the P.S.A.S. Club and the fun enjoyed by its members and others at Sir Henry Lunn's centres--Wengen, Mürren, Villars and the rest-and is adorned by numerous snapshots of winter sporting.


## REVIEWS

Kulu and Lahoul.
By Lt.-Col. The Hon. C. G. Bruce, M.V.O.
(London: Edward Arnold. 1914. pp. xii. and 307.)
Col. Bruce has made many expeditions in the Himalaya, " some," he says, " serious, some not serious enough ; some aimed at achieving great height; some aimed at the exploration of a great mountain or mountain group. But in nearly every case there was that most annoying thing, an object in view, always looming before me and destroying pleasure "and so he runs on in the true British spirit of self-depreciation. We fancy, however, that his many companions, who have owed so much to his help and knowledge of the country, would put his services much higher. At any rate, in this well-written, well-illustrated volume, he tells of a glorious seven months' holiday-think of it, you whose "grindstone" allows a bare fortnight or three weeks-in the, for India, comparatively humble districts of Lahoul and Kulu, a mountainous country lying north of Simla. His wife ccompanied him and contributes a charming chapter from a lady's point of view. He had also Heinrich Führer as guide, and, for part of the time, Capt. Todd, a nephew of our Ex-president Slingsby, and between them they did some big climbs, though the author was hors de combat for some time through an unlucky slip on rough ground.
The mountaineering tales are all interesting, and not less so the intimate sketches of native life, the glimpses of missionary and colonizing efforts and the quaint folk-lore stories. Altogether, a modest, informing and enticing book of mountain travel. $O$ si sic omnes !

## Switzerland in Snow and Sunshine.

## By Edmund B. D'Auvergne.

(London: T. Werner Laurie. r914. pp. viii. and 307.)
It is good for climbers to be reminded at times that Switzerland is not co-terminous with his playground among the snow and ice, and that it holds, also, cities and lowlands, less majestic and inaccessible, but by that very fact more ttractive to the lover of the quieter appeals of nature and of the human interest, which, as Leslie Stephen pointed out, make the Alps superior in attractiveness to other mountain ranges. And in Mr. D'Auvergne the charms of cities like

Berne, Neuchatel, Lausanne and Lucerne have found a loving and light-handed historian. For the solid facts of Swiss history we should go rather to Mr. Coolidge and his foreign compeers, but the holiday reader will find in this work quite enough to inform him of the tangled history of the various members of the Swiss Confederation and to set him in the way for acquiring more. Nor will he be the worse for hearing of the less-known, but always pleasant, places like Appenzell, Baden and Glarus. Except for short articles on Guides and the Marjelen See the author never takes us near the glacier world, but he has a chapter on the new-found joys of Winter Sport, and right through he keeps us amused with a constant flow of good humour and apt comment.

The photographic illustrations are novel and good.

## Walks and Scrambles in the Highlands.

## By Arthur L. Bagley.

(London: Skeffington \& Son. 1914. pp. vii. and 204.)
Scotland, from the climber's point of view, is a country of magnificent distances, and in these days of motormountaineering it is refreshing to read of anyone attempting it on foot. This the author has done, in parts, and his descriptions, always cheery, convey an excellent idea of his experiences in the Cairngorms and Skye and in other more remote, or more strictly "preserved " districts. Of climbing, he does not profess to know anything, and, indeed, his experiments on Skye peaks, made alone, might easily have got him into difficulties-or worse. But he makes good stories out of his walks through deer forests like Glen Affric and Assynt, and shows up clearly "the barrenness of the land" when under deer. We do not always realize that there are large areas in Scotland with a less population than any of similar size in the Alps. There are some excellent photographs.

## Rambles in Norway. <br> By Harold Simpson.

(London: Mills \& Boon. pp. xii. and 242. 6s. net.)
Of the three usual ways of seeing Norway-from a " pleasure-yacht," by the ordinary steamer and carriage roads, and on foot among the "fjelds" - the author chooses the second, and we heartily commend his work to any who would
do likewise. They will not taste the charm of Turtegrö or Rujsheim, or of chalet huts like Memuruboden, but they will see all the beautiful places that all their friends have seen, and will be able to join with him and them, if they have been lucky in the weather, in extolling the singular charm of that pleasant land. Let us hope that they will imitate the author in his ready deference to the customs of the country and his courtesy to its well-bred people.

There are some very good photographs and coloured plates.

## Some Gritstone Climbs. <br> By John Laycock, B.A.

(Manchester: Refuge Printing Department. 19iz.)
"Majores majora canant." Mr. Laycock has modelled this unpretentious little volume somewhat on the lines of "Climbs on Lliwedd" and "Climbing in the Ogwen District," and is, I think, to be congratulated on his effort. In one respect he is entitled to unqualified approbation : he has not sinned the sin of understating difficulties. Many average climbers would have set aside the Three Chockstone Chimney on Almes Cliff as very easy, the Pine Tree Gully on Black Rocks as moderately difficult and the Fluted Pillars, Almes Cliff, as difficult. Mr. Laycock quite properly describes them as moderately easy, difficult, and decidedly difficult. In fact, his classification of the climbs with which I am acquainted may be accepted, albeit I am inclined to regard the few stiff feet of the Long Chimney on Almes Cliff as decidedly difficult, at any rate, to a long-legged man.

This moderation is specially creditable to a climber of Mr. Laycock's powers. It was written of the mass of rock overhanging Rock Hall (Staffordshire Roaches) that " we shall never be equal to it until our constitution has been reconstructed on the angelic plan." The last time I had the pleasure of seeing Mr. Laycock I noticed no such structural alterations of his anatomy, and yet, I understand, he had accomplished the climb.

Before leaving Almes Cliff, I submit that Mr. Laycock would have been well advised to have relegated the Nose, et hoc genus omne, to the ranks of the hundred odd climbs not described. The difficult Bird's Nest and Chimney are genuine climbs-the others are merely fancy gymnastics. Mr. Ashley Abraham writes: "Most will agree that if these difficult places . . . could be brought into one's back-garden, where the ground is soft and conveniently near, they would lose most of their terror." The nearness of the ground is the
excuse for these climbs. It is to be hoped they would never be attempted at any considerable altitude. For the information of those unacquainted with the Nose, I may explain that the chief difficulty resembles nothing so much as climbing on to a chimney-piece out of a fireplace, using the back of the grate to kick off from. At a crucial point the body is sustained by the arm wedged horizontally. Of course, in the event of any sudden strain in this position, something is bound to go-and it will not be the rock.

Incidentally, Parson's Climb should read Parsons' Climb. It is named after Mr. W. Parsons, President of the Yorkshire Ramblers' Club.

Mr. Laycock locates Almes Cliff with commendable lucidity, indicating its proximity to Leeds and Harrogate. It is to be wished he had adopted this principle throughout. For all the book tells us, Helsby is nowhere near anywhere, and we are left to the tender mercies of Bradshaw-which way exasperation lies. Such omissions seriously detract from the value of the book. For instance, a climber might easily find himself stranded, say, at Buxton, and go away quite unaware that the Black Rocks, Cratcliffe Tor, Robin Hood's Stride, Castle Naze and the Brassington and Harborough Dolomites are all within reasonable distance.

There is some confusion as to the title of the book; on the outside and on the fly-leaf it is called " Some Gritstone Climbs," and on the title page "Some Shorter Climbs."

The photographs throughout are interesting and the plans of Almes Cliff, Brassington and Kinder Scout should prove most useful to strangers to the crags.

It must have required considerable nerve to adventure a volume which was assuredly liable to be dismissed by a percentage of mountaineers as a Baby Book on Toy Climbs. Nevertheless, it is to be regretted that Mr. Laycock should have commented on the hindrance and discouragement he received. A book should be its own vindication, and it may fairly be said that this volume fulfils this condition. Moreover, Mr. Laycock may console himself with the assurance that he has abundantly proved himself to be "a true-souled climber, who can enjoy a tough bit of rock, even if it is only fifty, aye, or twenty feet high."

The book, as its title indicates, is not comprehensive, and leaves untouched many delightful playgrounds. It is to be hoped that Mr. Laycock may some day present us with a sister volume. Besides the better-known crags, e.g., Simon Seat, Ilkley, Stanage Edge and Wharncliffe (when accessible), there is an abundance of good work to be found in Northumberland, and also passim among the Pennines.

H
C. E. B,

## Odd Yarns of English Lakeland.

## By Wm. T. Palmer.

(London: Skeftington \& Son. 1914. pp. vii. and 160.)
It is well to be reminded sometimes that there has been a Lakeland before the climber and tourist-or even the Lake poets-discovered it, and that, as Mrs. Humphrey Ward reminds us in a charming preface: "If we would feel its full spell we must 'put off' ourselves as we enter. it and 'put on' its native life." This Mr. Palmer, well known put on its Editor of the Fell and Rock Club Journal, does to us as the Editor of the forms of local colour and information. Some are of old customs and festivals and superstitions, now dying or dead, and for that reason worthy of record ; others, of the ways of life in the last generation and a few of the present. In all of them the local way of speech is given its full value. There is nothing about climbing proper, but the author's coniectural story of Moses' Sledgate and the Smugglers' Cave, on Great Gable, will interest all who have clambered on that side of the mountain. We recommend the book to everyone who loves the country it deals with.

## How to Become an Alpinist.

By Frederick Burlingham.
(London: T. Werner Laurie, Ltd. pp. xii. and 218.)
We hardly know what to say about this book. It is certainly, as the author says, " in the interest of everyone concerned, except probably the undertakers, that the few basic rules of mountain climbing should become known generally and put into practice," and he devotes a chapter to some. of the best known of them. Most of his advice, especially the need for a guide, is sound, but we hope our countrymen will not follow his recommendation to buy a suit of loden cloth at Zermatt, in Chamonix, or wear trousers and puttees, and we should be sorry to think that on steep snow or ice " the effect of the rope is moral rather than practical, for if one falls, all the others are likely to follow." Nor is it our own all the of of a hut, at I a.m., that " the first experience on turning out of a hut, at rumning," but perhaps we are getting old.

Certainly the picture the author draws of crowded centres Certais and rash climbers essaying difficult climbs without and huts and rash climbers essaying difficult climbs of the
accidents resulting therefrom-makes us glad to have known the Alps when they were still comparatively unspoilt and 10 be jealous of disclosing those parts still unknown to the "Alpinist." His stories of guides and their methods are interesting and instructive, and we are glad to learn that the brown stains on the snow, which we always associate with those gentlemen, are not bestowed haphazard, but serve as indications to those who follow, of their movements. Truly, as he says: "The Theory of Alpinism comes not by asking questions, but by observation, and only after long experience."

His accounts of cinematographing Mont Blanc and the Matterhorn are interesting records of this-surely the lastinsult, and Rock Climbing in the Clochetons de Plan Praz and The Red Needles are valuable contributions to our know. ledge of the rock climbs at the back of the Brévent.

The photographs are numerous and interesting, especially those of the now numerous band of lady climbers.



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