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CLIMBERS' CLUB JOURNAL.

Edited by E. RAYMOND TURNER.

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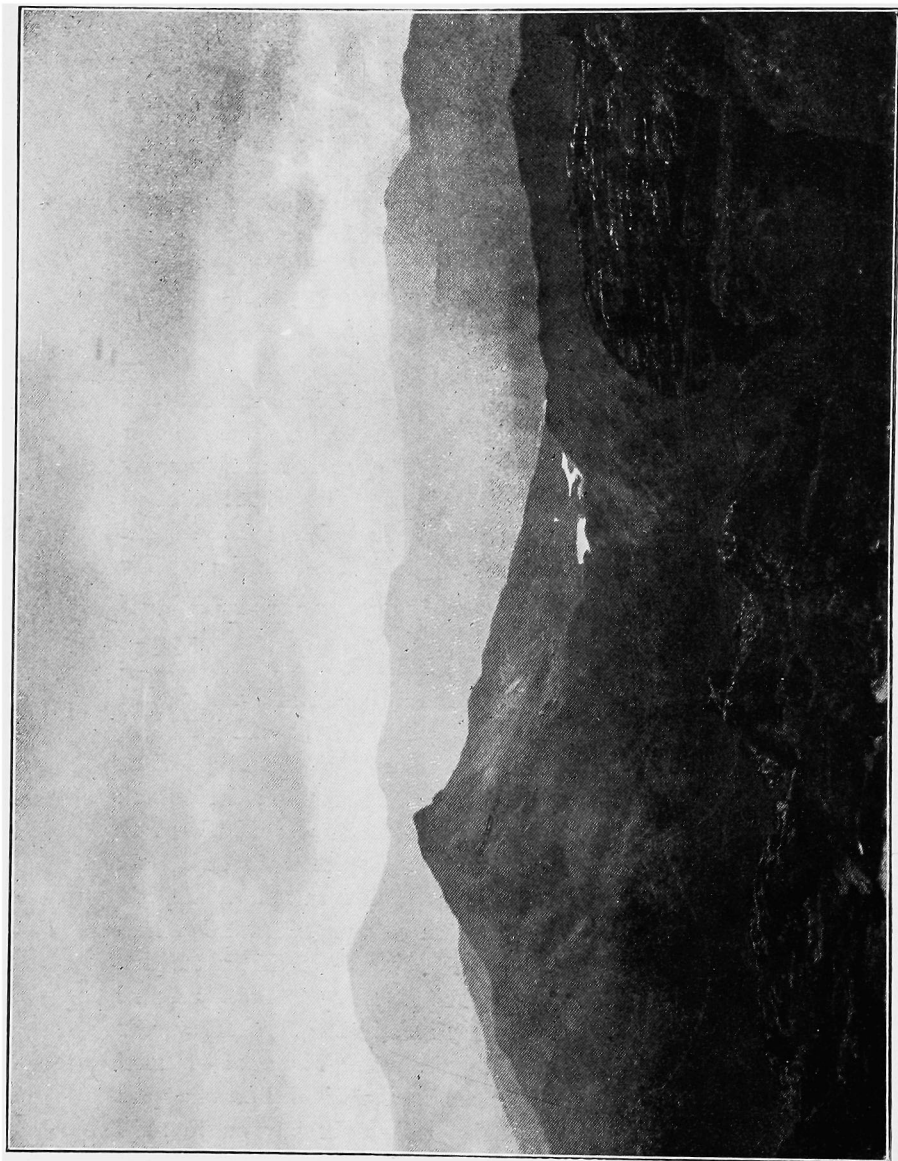
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A CLOUDY SUNSET IN NORTH WALES.

THE

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BRITISH CLIMBING; FROM ANOTHER POINT OF VIEW.

By C. S. ASCHERSON and H. V. READE

(Members of the Alpine Club).

EVERY sport or pastime may be said to pass through three stages. At first it is practised in secrecy, as a kind of forbidden joy, by a few enthusiasts. Then comes the proselytising and controversial stage, when the original devotees endeavour to justify themselves, and to communicate their enthusiasm to others. Finally, the new thing is recognised by the world at large, and finds its place in the list of orthodox recreations. Among amusements which have illustrated this law of progress in recent years may be mentioned golf (south of the Tweed), bicycling, and the study of the poet Browning. Those who pursue any one of these pleasures no longer feel either that they are eccentrics or that they must proclaim on all occasions that it is incomparably superior to anything else. The latter tendency, characteristic of the second stage, may be noticed just now among the players of Bridge, many of whom still think it necessary to impress upon one that neither whist, nor picquet, nor any other card game is fit to be mentioned in the same breath with it. Also among those who ride in motor cars. But when any recreation attains the third stage, among

the signs of the happy event is the withdrawal of the extravagant claims that were previously put forward on its behalf.

That the sport of climbing in the British Isles has passed through the first two stages, and is now permanently established, readers of this *Journal* will hardly be disposed to deny. But in this case, as in others, it was inevitable that some of its advocates, in their anxiety to glorify it, should have claimed much more than, now that the battle is over, we, their followers, can think it wise to maintain. Their line of argument naturally was to show how many elements of Swiss climbing—which had long been recognised as one of our national pursuits—could be found in Great Britain. If the authors of the present article venture to suggest that the time has come when it may be useful, and even necessary, to dwell upon the other side of the question, let it be inferred, not that they wish in any way to disparage British climbing (to which both of them are devoted), but that they consider it to have attained a position when one should endeavour to see “the thing in itself as it really is.” We propose then to point out what a very small part of real mountaineering is represented by the climbing that can be had, either in summer or winter, at Wastdale and other British centres, and how radical are the differences between the two.

Why should not the young climber take his preliminary training in his own country? is the question asked in the introduction to “Rock Climbing in the English Lake District.” It would be absurd to suggest that so expert a mountaineer as Owen Glynne Jones did not know the true relation of British to Swiss climbing, but the words themselves may easily be misinterpreted. The author’s enthusiasm for his subject led him, in fact, both there and in an article published in this *Journal* (Vol. I., p. 29), to write as though the two things differed only in scale. That this view recommends itself to many of those who have to be contented with what they can find in their own country is amusingly shown by the kind of conversation that goes on at their favourite resorts. “Is So-and-so a good climber?” is asked, and the answer

comes, "He ought to be: he has a wonderfully long reach," and if a third speaker can add "He certainly is, for he led up Kern Knotts Crack the other day," the reputation is made. Talk of this kind does not merely mean that an entirely erroneous idea of what constitutes "good climbing" is established. There is a real and serious danger involved, that those who, after a few visits to Wastdale or elsewhere, find themselves capable of mastering all the difficulties there presented to them, and qualified, according to the standard there set up, as "good climbers," may consider that they have only to practise in the Alps what they have already learnt. When they are able to get out to Switzerland, they scorn expeditions "suitable for a beginner," and persuade their guides to conduct them to the difficult rock-climbs. In some cases their disillusionment will be rapid. But if they meet with a succession of those days when the mountains are in perfect condition, and everything goes like clockwork, their good opinion of their own ability may only be confirmed, and they may soon decide that professionals are a needless encumbrance, and start climbing without them. That such a sequence of events is not altogether imaginary, a study of Alpine accidents will shew. Hitherto, indeed, it has been chiefly in the case of foreign climbers that guideless expeditions, undertaken on the strength of success in minor rock-scrambles, have led to disaster. But it is not only foreign climbers who have become notorious from exploits based on a disregard of all sound mountaineering principles.

To regard foolhardiness in the Alps as the natural result of extravagant talk in the Wastdale smoking-room may be considered far-fetched. But that an exaggerated estimate of the value of British climbing in the education of the mountaineer is prevalent, must have been observed by many. Let us consider, then, what British climbing does, and what it does not, offer. Taking the summer conditions, when snow and ice are absent, the climbs may be said to consist of well-marked routes, occasionally on arêtes or faces in part, but chiefly leading up fissures, which vary in width from a gully

to a crack, and in length from 60 or 80 feet to 1000 or 1500. In the shorter ones the climbing may be continuous, the longer ones generally consist of a series of "pitches," separated by places where little or no climbing is required. It is almost always the case that the difficult places can be taken—and are in fact taken, since time is no object—by each member of a party singly, the others being in a position of such absolute security that a slip, except on the part of the leader, is merely an amusing episode, while even the leader would certainly be stopped if he fell. Each member of every party will as a rule use exactly the same handholds and footholds. The rocks are for the most part sound, rotten stuff and loose stones being removed after the first few ascents have been made. Almost all the rock met with at any given centre is of the same general formation and character. Among minor points it may be mentioned that the more important climbs are almost invariably taken upwards, the "easy way" which is usually to be found being utilised for the descent, and that, on the other hand, several of the most difficult ascents were only rendered possible by a preliminary exploration from above on a rope!

Now this is all very well. Every one knows that, despite these limitations, British climbing gives splendid sport, and that the standard of difficulty is very high. But how far it is from reproducing the real thing! There is a story—if not true, it is at least *ben trovato*—of a man who, on the strength of what he had done in the English Lakes, was invited by two experienced mountaineers to join them for a series of guideless climbs in the Alps. The result was that after a week that party broke up in confusion. Where, even among the pure rock-climbs of the Alps (we are not speaking of the Dolomites) is anything of the kind to be found? Gullies, chimneys, and cracks are the exception, the climbs lie chiefly on faces or arêtes, where no two parties may take exactly the same route; the formation and character of the rocks vary indefinitely; rotten rocks and loose stones may be met with for hours together, and often constitute the chief difficulty of the climb. In the more formidable climbs there will be many places

where each member of the party must look after himself, and a bad slip simply must not occur. This is especially the case if an arête is too broken to follow, and it is necessary to make a long traverse across the face of rocks just below it, a state of things which is often found in the Alps, but not in this country. Many of the expeditions would never be finished if the party moved one at a time throughout, in the deliberate way which is adopted on British rocks. The mere matter of scale amounts to a difference in kind rather than in degree. Feats which are possible on a boulder cannot be performed on (say) the north face of the Pillar Rock, and as the boulder is to a Wastdale climb, so is that to a Swiss expedition. In point of technical difficulty there may be little to choose between the Kern Knotts crack and the Grépon crack, but it does not in the least follow that a man who can do the one may safely attempt the other. The fact that the Grépon crack is only reached after some hours' hard work, and is followed by many more hours of climbing as difficult or more so—not to mention that a fall from it for the leader would certainly be fatal—makes the comparison fallacious. No doubt there are rock climbs in the Alps, each section of which could be paralleled by something that is to be found at Wastdale or elsewhere in this country. Owen Glynne Jones has shown this very amusingly in the article referred to above. But none the less the Swiss climb as a whole is something very much greater than the sum of the parts so described, as the author's own practice testified. At Wastdale he was always ready to conduct all manner of people up the stiffest climbs, knowing that with a competent leader they could be safely accomplished. But he knew equally well that in the Alps it was not so, and failing to find companions who were his equals in skill and experience, and could share the responsibility of guideless climbing, he entirely gave it up.

These are considerable differences to begin with. But much more important is the obvious consideration that, in the Alps, rock-climbing is almost always mixed with snow and ice work, which demand quite other methods. Now there are

snow and ice in Wastdale (for instance) at Christmas, and some enthusiasts have maintained that the rudiments at any rate of snow-craft may be acquired there. But a little reflection will make it evident that the climbing which one gets on British hills in their winter condition is a kind of thing that is not done in the Alps at all—except under the compulsion of a sudden snowstorm. One amuses oneself in Wastdale by attacking rocks which are in such a state that, on a Swiss mountain, no sane climber would touch them. The surface is glazed, the holds filled with snow or ice, the “pitches” would often be impossible if one did not know the exact places which must be cleared out, and what is in summer an easy twenty minutes becomes a laborious three hours. As for the snow and ice, taken by themselves, they bear very little resemblance to what one has to deal with in Switzerland. Such step-cutting as there is, probably has to be done in gullies three or four feet wide, which is a very different thing from cutting up, down, or across a big slope. To make the right kind of step with the fewest possible strokes of the axe, in constantly varying material, to put each in the right place, to continue cutting indefinitely without fatigue—none of these things can be learnt under the conditions. But apart from the leader's business, the ability to walk steadily and confidently on steep slopes of snow or ice cannot be acquired without far more experience than British conditions afford. To name a particular point, few things are more essential for a mountaineer to learn than how to deal with slopes where a layer of softened snow rests on hard snow or ice, and the thickness of the surface snow, and its degree of attachment to what is underneath, may change every few yards. But such conditions are rarely if ever to be found in this country. Indeed, that all-important factor in mountaineering, “the condition of the snow,” has not to be considered at all. It is needless to enlarge upon this side of the matter, for there is scarcely a feature of Alpine snow and ice work which can be found in Great Britain.

To turn to more general matters, the admirable chapter on

British climbing in the Badminton volume dwells especially on the art of finding one's way in mist, by map and compass, as one of the valuable elements of mountaineering that may be learnt on our own hills. But as a matter of fact this is a thing to which most climbers (in Wastdale at any rate) appear to pay no attention. It is only natural that when one has but a few days to spend at one's centre one should grudge every hour that is not devoted to actual climbing. If mist prevails, one thankfully accepts the guidance of some old hand who knows every yard of the ground, or, failing that, makes for any climb which one thinks one is safe not to miss. Still more welcome is the local man if the climb is done and one finds oneself befogged on such a trackless wilderness as the top of Great End. To depend on one's own faculties, and scorn assistance from the leader, is all very well when it is a question of mastering a difficult pitch, but it is quite another affair when there is no glory to be won, and the possibility of afternoon tea hangs in the balance. In the other branches of route-finding, such as discovering for oneself a practicable way up a mountain, or even up a big rock-face or a crevassed glacier, it need hardly be said that home training is of little or no assistance.

Again, true mountaineering consists to a great extent in avoiding the dangers of the sport. These may be roughly divided into three classes: the danger of a slip; the danger of falling stones, snow or ice; and the dangers arising from exhaustion or exposure, if a party is overtaken by bad weather or benighted. The first class is naturally the most prominent, being ever present to the mind of the climber, whether in England or the Alps, but the others are, in reality, of far greater importance in mountaineering proper. British climbing may teach one to be sure-footed, and a safe man even on rocks too difficult for one to manage unassisted, but on British hills, with very few exceptions, there is practically no danger of stones falling spontaneously. Consequently, the climber attacks cheerfully any rocks that come in his way, and, in particular, finds much of his best work in gullies, which often,

as on Scafell, form the only or the chief routes up the cliffs. In the Alps, on the other hand, to act on this principle could only result in disaster. There, too, gullies abound, but the mountaineer knows that, instead of being the high-roads that they appear, they are the natural channels for anything that falls on the mountain. When he is looking for a route he will note them only to avoid them, and in many cases he will decline to attempt a climb at all, if he sees that he will be driven to use such a gully even for a small part of the way. For instance, the long ridge descending westwards from the Little Dru is seamed by a dozen Deep Ghylls running down to the glacier, many of which it might be possible to climb. But the risk of falling stones so far outweighs the attractions of finding a new route, that no one thinks of attempting them. In this respect, then, British training is worse than useless. It is not only in gullies, however, that stones fall, and the capacity of judging when and where they are to be looked for is one of the most valuable accomplishments of the mountaineer. But it is one that can only be acquired in the high mountains. And if the dangers of falling stones cannot be studied in our own hills, still less can the dangers of falling snow or ice.

So, too, with the dangers arising from exhaustion or exposure; they are practically non-existent for the British climber. Solitary men have, indeed, perished in snow-storms on British mountains, but they have not been climbers, and there are no climbs, probably, in this country, from which a party could not extricate itself, in the worst of weather, without serious danger. To be benighted is not unknown, but the consequences are rarely more unpleasant than the descent of a rough hill side in the dark. The results of this, in a British trained climber, are likely to be a certain carelessness about the weather in which expeditions are attempted, and about the time which should be allowed. It is not easy for a man who has been accustomed to starting at 10 or 10:30 (half an hour, or more, later than he intended, perhaps), and after taking enough rests to suit the laziest member of the party, arriving

in comfortable time for dinner, to realise that a start at 3 instead of 2 a.m., and halts unduly prolonged, may mean either the failure of the expedition, or a night on the mountain. To turn back, either early in the day or when the peak is almost attained, merely because the weather is threatening, is one of the hardest things for the climber to bring himself to do. It is all the less likely that he will see the necessity of doing it if he is accustomed to snatch his climbs in the teeth of the weather, knowing that a wetting is the worst that can befall him. In England, again, he puts a few sandwiches into his pocket and starts, on the first fine day, for the "biggest thing" in the neighbourhood. In the Alps he must learn to get into good training before he attempts anything big, and to see that plenty of suitable provisions are taken, or his expeditions may end in an ignominious collapse, if nothing worse.

It may be argued that, even if a novice of purely British climbing is likely to cause the beginner in real mountaineering to ignore some of its most serious dangers, he will not have much chance of going wrong in practice, as the responsibility will rest with his guides. This is true if he is wise or lucky enough to secure a really good guide. But some of the third-rate men are more anxious to make themselves pleasant to their employer than to correct any evil tendencies he may display in such matters. There is many a guide who, if urged by his Herr, will allow the party to run unjustifiable risks, and will persevere in bad weather to the last possible moment, rather than abandon an expedition which the Herr is keen to accomplish. Indifferent to the discomforts of being benighted, and accustomed to exist on a little of the coarsest food, he will consent to a late start, and halts long and frequent, and will not trouble much about the provisions; almost always in condition himself, he will never enquire how long a day the amateur is fit for. And it may be hinted that the man who comes to the Alps after a course of British climbing has sometimes been known to prefer an inferior guide, with whom he can do pretty much as he pleases, to a first-rate man, who

will speak with an authority not to be gainsaid, and make his employer feel that he has gone to school again.

If any one thinks that we have spoken too strongly, let him consider a few words of wisdom from the recognised authorities, which might have served as texts for part at least of our discourse. "Of a truth many of our most prized little "climbs in Cumberland are but slightly better than boulder "problems. Taken singly, they cannot be reckoned for much "Alpine practice, nor can our ability to surmount them justify "us in assuming airs of superiority over men of general "elementary experience abroad" (O. G. Jones in *Climbers' Club Journal*, Vol. I., p. 36). "Most of these fancy bits of "rock-work are not mountaineering proper" (Mr. C. Pilkington, Badminton volume on Mountaineering, p. 336 of 1st edition). It is true that the same high authority says also (*loc. cit.*) that "British hills form a training ground where men may learn "and practise nearly all that is necessary in the art of "mountaineering." But we have ventured to lay the emphasis on the words "may" and "nearly," and to point out that, of the many things which might be learnt, under the guidance of a trained mountaineer, on our own hills (even as the history of the earth may be illustrated by a lump of chalk, in the hands of a Huxley) very few are, in fact, attended to or cared about by the majority of those that climb there. Climbing, as it is practised in Great Britain, forms a small sub-division of rock-climbing proper, and consequently a very small section of mountaineering in the full sense of the word. All that is commonly taught by it is the capacity to do a particular kind of short climb, which tends to develop rock-gymnasts rather than cragsmen. And, conversely, a man may be a thoroughly good all-round mountaineer without being able to perform some of these gymnastic feats. Real mountaineering is only to be learnt in an Alpine country, by working for several seasons under good guides.

DEER AND DEER FORESTS.

By A. L. BAGLEY.

TWO articles have appeared in the May number of the *Scottish Mountaineering Club Journal* on the above subject; one of them by Duncan Darroch of Torridon, the other by A. E. Maylard. The subject, to climbers and mountaineers, is obviously of supremest importance. I, a humble member of the mountaineering brotherhood, had awaited these articles with eagerness, and opened my new number of the *S. M. C. J.* the other day in anxious expectation. I am bitterly disappointed. I hardly expected to find much comfort in Mr. Duncan Darroch's paper, but I am equally disappointed in Mr. Maylard's.

Mr. Darroch's paper opens very nicely. "To the majority of the owners and occupiers of deer forests in Scotland it is a great pleasure to be able to allow the climbing and scientific public to share as far as possible in the delights of climbing the hills and enjoying the scenery." Well, we must be thankful for small mercies, especially when no others seem likely to be forthcoming. The value of Mr. Darroch's benevolent proclamation is perhaps somewhat impaired by the qualifying words "as far as possible," since there is likely to be much difference of opinion between the Highland laird and the Sassenach tourist as to the limits of possibility; also it is a little discouraging to the tourist, who without any claim to be considered a climber, yet loves the moors and hills, to find even the meagre privileges which Mr. Darroch is willing to accord, restricted to "the climbing and scientific public"; still Mr. Darroch might conceivably have written, "The majority of the owners and occupiers of deer forests in Scotland are absolutely determined to prevent the public, whether climbing, scientific or otherwise, from sharing in the

delights of climbing the hills and enjoying the scenery." Probably a good many owners and occupiers of deer forests would very much like to issue such a proclamation, and I will do Mr. Darroch the bare justice to admit that he is a little more liberal-minded than many of his class.

After some remarks on the habits of the deer, Mr. Darroch goes on to define *his* views of the limits imposed by those fateful words, "as far as possible," and sums up by remarking that during the months of February, March, April, May, no real harm can be done to the sporting interests by those who wish to visit the hills for mountaineering or scientific purposes. I am glad to see, be it remarked *en passant*, that this time he uses the wider word "mountaineering" instead of "climbing." There are many mountaineers who are not, in any sense of the word, climbers. I myself love the mountains, and have set my foot on many of Scotland's loftiest summits, but a stalwart of the Scottish Mountaineering Club would laugh to scorn my claims to be considered a climber, because I have never held on to invisible ledges by my eyelids, or climbed rock faces by means of a living ladder of my fellow-men, or performed any others of the marvellous feats whereof one occasionally reads in their annals. However, enough of quibbling.

Unfortunately, Mr. Darroch goes on to say that notice should be given to the keepers beforehand. It is difficult to understand why this should be necessary, if, in his own words, "no real harm can be done." It may be said that this is a little thing to ask, but I think otherwise. In the first place, one has first to find the keeper, and this is not always easy in many parts of Scotland, where one's hotel, or head-quarters, is often at a great distance from the mountain which one means to ascend. Moreover, we all know the uncertainty of the weather, especially in the Western Highlands. To give notice to the keeper beforehand means deciding on your expedition a few days beforehand; when the day arrives, it is possibly pouring in torrents; if you have given notice to the keeper, he is probably awaiting you somewhere; you feel that

he will be deeply disappointed if you do not keep your appointment ; you either go, and get miserably soaked, or you decide, with unusual strength of mind, to stay indoors ; in the latter case the keeper will probably feel, and possibly express, intense contempt of your prudence, you will have to make all your arrangements over again, and the keeper will probably expect a double *douceur*. "Giving notice beforehand" opens up a vista of innumerable difficulties and drawbacks, and I for one will have none of it, if I can possibly help it.

Mr. Darroch goes on to say that we others—tourists, mountaineers, &c.—have no conception of the damage that may be done unintentionally. I will admit at once that this is probably the case. I am earnestly desirous, and I hope Mr. Darroch believes that we all are, of avoiding the committal of any damage, and I am open to instruction. I would like to ask whether it is literally true that a tourist, walking quietly across a moor or up a mountain, will banish a stag to a neighbouring forest? If it *is* true, then it seems to me that even if some of Mr. Darroch's stags fly to another man's forest, and do not return, some other stags will be in a similar manner frightened off the other man's ground, and fly for refuge to Mr. Darroch's forest.

I may as well say here, that I do not expect to be allowed to go anywhere and everywhere at my own sweet will. I do not expect, or desire, to interfere with sport by strolling over moors while stalking is going on, nor at all during the shooting season. I always endeavour to get my trips to Scotland as early in the year as I possibly can, and I never attempt to walk over deer forests or to ascend mountains, which are included in deer forests, after the beginning of July, unless of course there are public paths up them, as there is up Cairn Gorm for instance. In fact if Mr. Darroch could only extend the period, during which "no real harm could be done," to include the month of June, and would withdraw the suggestion as to giving notice, this article would never have been written. But in the last paragraph Mr. Darroch goes on to make special mention of the month of June, inasmuch as he states his willingness to

allow tourists to go over his ground during that month, "if accompanied by a keeper." I can only say, speaking for myself, that I would far rather not go at all, fond as I am of Scotland, and of Scottish hills. To me, and I imagine to most mountaineers, the pleasure of the day would be entirely spoiled, if I had to be personally conducted up a mountain; the greater part of the pleasure lies in making out one's own way, in the indulgence of the exploring instinct, which we all possess in a greater or less degree. Besides, I fancy Scottish gamekeepers might prove rather an expensive luxury, and personally I do not feel that I can afford such an addition to my holiday expenses.

I always try, as I just remarked, to arrange my Scotch trips as early in the summer as possible, but I have never yet found it possible to get to the Highlands before the end of May or the beginning of June. I expect many others are in the same position, and it seems rather hard that, because the nature of our respective avocations prevents us from taking our holidays before the beginning of June, therefore we are to be debarred from ascending the innumerable Scottish mountains which lie in deer forests, or are only to be personally conducted to the summit under the stern and expensive guidance of a gamekeeper.

It seems to amply prove the arrogance of Scottish landowners, as a class, when one of the most liberal of them thinks it worth while to enunciate with unction, that permission to go on the hills will always be given, at a time when "no real harm can be done," and when the majority of *nous autres* are unable to go; but when, in addition, a prominent member of our own camp accepts that enunciation with tears of gratitude and joy, and kow-tows, as it were, at the feet of the benevolent enunciator, showering down blessings upon the latter's head, it is really time for somebody to take up their parable, if only to protest that Mr. Maylard does not speak for all mountaineers. I cannot help doubting whether the glow of pleasure with which he seems to have been so profusely pervaded by the perusal of Mr. Darroch's paper, will be quite so universal

among the members of the Scottish Mountaineering Club, as he thinks, and feel convinced that very little of that pleasure will cross the Border and be transmitted to the various English climbing clubs.

There is a certain "stately home of England" built on a cliff, overhanging a river. I have been told that this river is really navigable, and that there still exists in the town archives a charter, centuries old, declaring the river navigable up to, and including, the town, which, be it noted, is situated above the castle. An ancestor of the present noble proprietor took a fancy to the site, wherein truly I find it difficult to blame him, built his castle, and then said, "Now, you base-born churls, clear out, you're not to pollute my river, or the neighbourhood of my castle with your presence"; forgetting, or ignoring the fact, that the river was there before either he or his castle, and that the base-born churls had more right to it than he. Similarly, a Scottish landowner takes a few square miles of moorland, on which incidentally are several mountains, converts it into a deer forest, and then says in effect: "Now, you base-born Sassenach tourists, clear out, this is a deer forest," &c., &c. I will admit that the parallel is not quite complete, inasmuch as the Sassenach tourist was not on the spot before the laird, but the spirit is the same, and everybody who knows anything of the Highlands, knows of innumerable cases where the most bare-faced attempts have been made to close up public paths.

There is a certain shooting-lodge in the Highlands built on a public road, the front door opens on the road, the lawns and gardens on each side of the road are not separated from it by any fence or anything of the kind, and at the boundary of the private grounds a gate is thrown across the road, which is thereby converted, to all semblance, into a private drive; passing the house one comes to another similar gate, then the road winds between various stables and outbuildings, out to the open moor. Now, this is obviously not right; no proprietor, whoever he may be, has the right to enclose a portion of the public highway within his private grounds.

The average tourist, arriving at the first gate, would naturally conclude that he had reached the entrance of a private domain, and would probably retrace his steps ; which very likely was the precise object which the noble proprietor had in view when the gates were placed there. I myself was driven along this road some few years ago, and, on arriving at the gate, my driver concluded, not unnaturally, that we had no right to go on, and thought he had taken a wrong turning (he had never been this road before) ; fortunately, I knew something of the road, and insisted upon his going on.

Not very long ago I was myself stopped on the public road by one of Mr. Darroch's keepers ; at least I conclude he was Mr. Darroch's keeper, since it happened near Torridon, who insisted upon knowing whether I had been on the hills. Have Mr. Darroch, or his myrmidons, the right to stop peaceful pedestrians on the King's highway, and demand whether they had dared to set a sacrilegious foot upon his—Mr. Darroch's—hills? I may further remark that this took place very early in June. As a matter of fact, I *had* been on the hills, but I might easily have been a simple pedestrian from Torridon, and the keeper had no reason to suppose that I was otherwise. I will, however, do Mr. Darroch the justice to believe that the keeper in this case exceeded his instructions.

In my opinion mountains should not belong to private individuals. Great natural objects belong, or should belong, to the nation. A great waterfall, like Niagara or the Skjaeggedalsfos, is open to the whole world. What would be thought of the proprietor of the ground round the Skjaeggedalsfos, if he were to put up a fence round it, and announce that in future tourists would only be allowed access at a period of the year when most of them could not go and would not care to, say the middle of winter? Everybody has a right to ascend Ben Nevis ; everybody ought to have a right to ascend Liathach, which is indeed, in my opinion, a far more interesting mountain than Ben Nevis. It is unfortunate that the country around Liathach, including, I suppose, that interesting moun-

tain, belongs to Mr. Darroch, but the proprietor is, after all, only a sort of trustee; the public have certain indefinable rights, and when they see a noble mountain like Liathach rising up almost immediately from the high road, and a magnificent corrie with most singular terraces, the like of which I never remember to have seen elsewhere, it is not reasonable to expect them to sit down on the road and look at it, and be satisfied therewith. If Liathach, or a similar mountain, were situated in my back garden, and I wish to Heaven it were, I should not consider myself justified in putting a brick wall round my garden, and rigidly excluding the public therefrom, nor in issuing a proclamation to the effect that certain sections of the public would be allowed, during a certain part of the year, to go round the property under the guidance of my gardener. I should not, certainly, throw open my garden gates, and invite every Tom, Dick and Harry to walk in, to go where he listed, to pluck my fruit, to pull my flowers, to play football with my cabbages. But I would allow everybody who show a genuine interest in mountains free access whensoever they might wish; possibly now and then this indulgence might be abused, but I fancy very rarely.

The British public, as a rule, are law-abiding, and respect the rights of property, and the mountaineering section of the public are almost invariably gentlemen, although Mr. Darroch seems rather unpleasantly to hint the contrary. At all events, after relating how a "distinguished scientist" had asked permission to "go along the watershed of my principal hill," and giving the gist of his own reply, Mr. Darroch goes on to observe, "Our friend . . . was a gentleman, and wrote at once to say that he would put off his trip for another year." Certainly he could hardly have done otherwise, in view of the snub he had received, and the moral of this instructive anecdote seems to be: "Don't ask permission to go over a certain hill, lest you should be snubbed." I should have thought it hardly necessary to state that a distinguished scientist was a gentleman, and believe they usually are, but

the inference certainly seems that Mr. Darroch in general considers men who desire to explore his hills are not likely to be gentlemen.

There was a little bill brought into the House of Commons last year, I believe by Mr. Bryce, entitled "the Access to Mountains Bill," and I regret deeply that it was negatived. I do not know any details of it, but the general principle, viz., that the public should be allowed access to all mountains, should certainly, in my opinion, be affirmed by Parliament, and recorded in the laws of the nation.

One more personal experience, and I have done. There is a certain noble group of mountains in the Highlands, which I have long wished to explore more thoroughly than is usually possible, owing to their remoteness from the habitations of men. I have been on all the principal summits, but they lie so far from the nearest inn or lodgings that I have never been able to do more than the summits, while a vast amount of interesting detail lies among them almost entirely unexplored. There is, especially, a vast corrie with glorious encircling precipices, which I have gazed at longingly, both from above and from below, but have never been able to explore. Close to this corrie, within a few hundred yards of its gloomy portals, is a small wooden hut, or bothy, used I suppose in the stalking season. I wrote to the mighty potentate, to whom the whole country-side, for miles around, belongs, and asked whether he would allow a friend and myself to occupy the hut for a few nights, in order that we might explore the surrounding mountains, and particularly the corrie. I believe it was the end of May when I proposed to go, and in any case I could, on that occasion, have arranged the time to suit him, and would of course have done so. There is an undoubtedly public path within a few hundred yards of the bothy, so that there could not be much fear of frightening the deer; moreover I asked him to place any restrictions upon us, in the way of leaving special sanctuaries for the deer, and such restrictions would of course have been religiously observed. The potentate refused absolutely, not on account of the deer, which would

indeed have been more consistent, and perhaps more pardonable, or at least comprehensible, but the sole reason given for the rejection was, "that were he to accede to my request, he would be inundated with many similar requests, which it would be difficult for him to consistently refuse." Ye gods! Is it likely that the British public will ever flock in their thousands, or desire to do so, to a spot about 15 miles, over some of the roughest ground in Britain, from a shop, post-office, inn, railway station, or any other of the adjuncts of civilisation, which to ninety-nine British tourists out of every hundred, are absolute necessities of their existence? Remember too, that all baggage, all provisions, everything, in fact, has to be in some way transported over these 15 miles, and that the ground for a great part of the distance is, I should imagine, far too rough for any beast of burden; it is obvious that the whole affair would be a most arduous undertaking, and that not many, even among keen mountaineers, would care to take it on. Moreover, the bothy would be required, I suppose, for the game watchers during the month of July, and after that by the sportsmen themselves; nobody would want to camp (and it would practically be camping) in those latitudes and at that elevation, earlier than the end of May, so that there would be only a very few weeks in each year during which it could possibly be occupied by mountaineering parties. It might conceivably lead to a little extra correspondence, a few extra letters per annum for the potentate's secretary to write, but it is absurd to suppose that anything else could result. This is the more surprising because the same potentate allowed a well-attended gathering of a Scottish climbing club to take place in one of his houses; if I am not mistaken, the house was placed entirely at their disposal; at all events they stayed there two or three nights, slept and feasted there, and were sent on their way rejoicing. I remember reading an account of the proceedings at the time with some envy, and thinking that after all these great Scottish seigneurs had been maligned; and it was in a great measure in consequence of this that I ventured to ask for the use of the bothy. Truly, it

does not follow because it pleases a noble seigneur to entertain a company of his compatriots, that he must therefore extend his hospitality to all and sundry who may present themselves. The noble seigneur, however, is a great stickler for consistency ; he cannot allow me the use of his bothy, because in that case he could not consistently refuse it to anybody else. He allows the Scottish climbers to use his shooting-lodge ; are we to understand that the same principles of logic are extended to it which apply to the bothy ? If so, should I have been allowed to occupy the shooting-lodge had I possessed the "cheek" to ask that favour ? If not, why should it be possible to consistently refuse me the shooting-lodge, but impossible to refuse other people the bothy ? It would have been a graceful act, and I should have esteemed it a great favour, had he allowed me to occupy the bothy. I think if he allowed a company of Scottish climbers to occupy his private house he might have found it possible to have allowed two Sassenach wanderers to occupy his hut.



PLATE I.



Fig. 3. Cast of Ice from the Schafloch.

THE MINUTE STRUCTURE OF THE SURFACE ICE OF GLACIERS.

By S. SKINNER.

THE structure of glacier ice has been the subject of much discussion, and it seems to be generally admitted that at some distance below the white surface of a glacier the ice is compact, transparent and free from fissures through which any flow of liquid can occur. Experiments in support of this are those of Huxley,* who showed that there was no infiltration of coloured liquids poured into cups cut in the solid ice. Helmholtz† has shown that closed fissures can be formed in solid ice under pressure, and Tyndall‡ has shown that closed cavities can be formed by the action of radiant heat.

If a block of the solid compact ice be exposed to the light and heat of the solar radiation it becomes porous, and with sufficient exposure to intense sunlight will break up into prismatic granules of various sizes. Hence above the compact ice the layer which is thus exposed during summer becomes permeable to coloured fluids which flow in the spaces between the granules. This porous layer may be as much as a foot in thickness, depending on the exposure of the ice. The top layer of this granular portion is modified in a further manner, and the experiments described in the following paper had as their primary object the examination of the minute structure of this first layer, which forms the brilliant white surface of a clean glacier.

A convenient method of examining the superficial structure of ice is that of Lohmann,§ who pours a mixture of ice-cold

* Huxley, *Phil. Mag.*, 1857, vol. xiv., p. 241.

† Helmholtz, *Popular Lectures on Scientific Subjects, Ice and Glaciers*.

‡ Tyndall, *Glaciers of the Alps*, p. 353.

§ H. Lohmann, *Das Höhleneis unter besonderer Berücksichtigung einiger Eishöhlen des Erzgebirges*. Jena, 1895.

water and plaster of Paris on the surface. In this way a cast is formed which shows, in reverse, details which are difficult to make out by direct examination. He has applied the method in the caverns of the Hartz mountains, in which ice is found during the whole year, and the casts show a remarkable regularity of structure. Similar casts have been obtained by the present author in the Schafloch, a limestone cavern north of Interlaken. A visit to the Schafloch is easily made from Interlaken; the steamer should be taken on the lake of Thun to the village of Merligen. After leaving the landing-stage turn to the right until the stream is reached, then follow its left bank by a woodman's path, climbing rapidly to the Justisthal. Some little distance up the valley the Rothorn is seen high up on the left hand. To the right of the rocky peak of the Rothorn is a gap; if a direct line is taken towards this gap a steep path will be found at its foot leading up through bushes to the col. At the col take the level path to the left and it brings you almost straight to the entrance to the cavern. The entrance can be seen from the valley, but is not easily recognised unless it is pointed out. The time required is about two and a half hours from Merligen, and the views in the Justisthal are magnificent. The excursion is strongly recommended to anyone who finds himself with a day to spare at Interlaken. The cave is 5840 feet above sea level. As the casts from this cave are simpler than those obtained

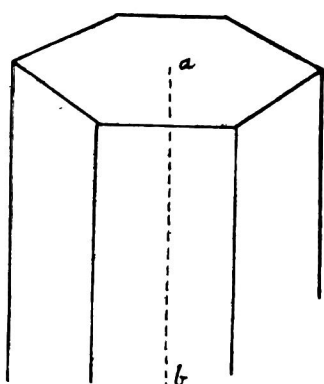


FIG 1.

from glacier ice a description of them will be given before discussing those of glacier ice.

The form of an ice crystal is a hexagonal prism (fig. 1), with the optic axis, *a b* in the diagram, joining the hexagonal bases. In Plate I., fig. 3, a cast of a portion of a column of ice from the Schafloch is shown. Its greatest length is 19.5 centimetres, and the direction of this length was vertical in

the cave. As the cast is a negative all the cavities in the cast are really prominences in the ice.* The general appearance has given rise to the terms "prismatic structure," used by Browne† and Bonney,‡ and "honeycomb ice," used by Lohmann. The crystals lie side by side with their optic axes parallel and at right angles to the surface exposed to the source of cold, just as in pond ice the axes are normal to the surface of the water. They, therefore, present to a spectator the appearance of an irregular mosaic, like the tops of the columns in the Giant's Causeway. A diagram of pond ice (fig. 2), copied from Bonney's paper is given, and it will be noticed that the prisms are not all hexagonal. The thermal conductivity along the optic axis is probably greater than in any other direction, and this is very likely the explanation of why the crystals form with their bases parallel to the source of cold. When crystals are formed in this manner, if the water contain any impurities, these will be collected on the outsides of the crystals where they are meeting one another. As is well known, water which contains salts or gases in solution has a lower apparent freezing-point than pure water. We may imagine the freezing of such water to occur thus: from some point six rays spring, forming a star, and on these secondary rays grow. It is pure ice which is forming, and the solution of impurities, which is becoming more concentrated, is thrust away in front. The impure layers, therefore, will solidify in the interstitial spaces last, and they will on fusion commence to melt first.

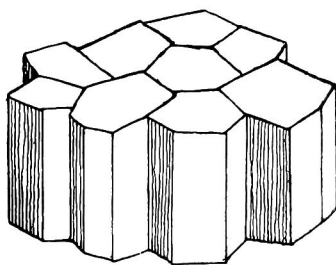


FIG. 2.

If heat be supplied to ice formed in this manner, so slowly

* A positive may readily be made by pressing putty on the cast. But to get the visual appearance of a positive this is necessary, as the figure, when looked at in a certain way, reverses itself and appears to be a positive. I find this optical reversal especially easy with figure 2 when the figure is inverted. Viewed in a certain way a coin which is actually in relief appears to be incised.

† Browne, G. F., *Ice-Caves of France and Switzerland*, 1865.

‡ Bonney, *Proc. Camb. Phil. Soc.*, March 4, 1867.

that the distribution of temperature is almost uniform, the fusion of the interstitial matter will occur before the purer ice and the individual crystals will be separated sometimes wholly, and at other times incompletely, by furrows. This kind of melting is especially favoured in ice-caverns where the temperature during a great part of the year is only a fraction of a degrees above zero. Lohmann, who placed a recording thermometer in the cavern of the Alte Thiele, found that the temperature from January to May was never more than a degree above freezing point. The cast (Plate I., fig. 3) is that of a case of this kind. The plaster of Paris has flowed into the interstitial spaces to different depths up to 5 millimetres. The same phenomenon is shown by artificial ice if the block be allowed to warm very slowly. It is also shown by many metallic alloys on fusion.

On the exposed surface of many crystals in the Schafloch a special kind of marking may be seen. The hexagonal base of some of the crystals is traversed by a number of lines which are approximately parallel to one another. The lines are known as Forel's "Streifen" or streaks. Their explanation is, as Emden* remarks, the darkest point in our knowledge of ice granules, but I think some light may be thrown upon the process of their formation if a comparison be made between the photographs in his paper and those of Ewing and Rosenhain† in their Bakerian Lecture on "the Crystalline Structure of Metals." The resemblance is very striking. Compare, for instance, the markings in Emden's Figure 6 and Ewing's Figure 14. Professor Ewing has shown that "the structure of metals is crystalline, and remains crystalline when the form of the metal is altered," and that plastic deformation in metals is due "to slips on cleavage or gliding planes within each individual crystalline grain, and partly (in some metals) to the production of twin crystals." There is no true shearing as in viscous deformation. I think it is probable that Forel's streaks

* R. Emden, *Ueber das Gletscherkorn*, *Neue Denkschriften der allgemeinen Schw. Gesell.*, xxxiii. i., p. 21.

† Ewing and Rosenhain, *Phil. Trans.*, 1899, A. 353.

PLATE II.

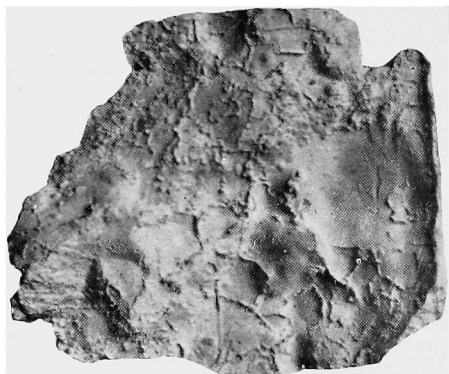


Fig. 4. Cast of Sun-exposed Glacier Ice.

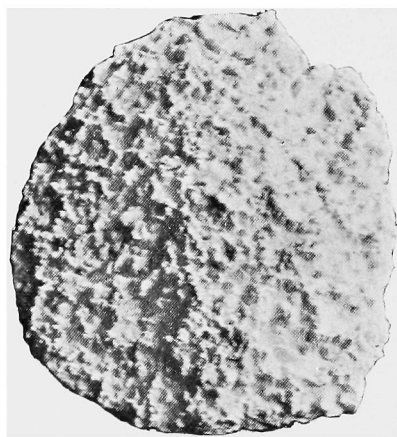


Fig. 5. Cast of Weathered Glacier Surface.

are evidence of a similar property in ice crystals, and that they are indications on the crystal surface of slips which have happened in the ice crystal under stress. The relation of the general direction of these slip-bands to the crystal axis has not been made out in the case of metals, but it appears it may vary from crystal to crystal. Emden* was unable to find any relation between the axis and the direction of these lines. In my own observations I have seen them only on the hexagonal bases of the crystals, but it must be remembered that the exposed surface of the cave ice consists principally of the irregular hexagonal bases.

The ice cavern contains air saturated with moisture at a temperature very near 0° C. If such slips were formed these conditions would be suitable for showing them.

In Plate II., fig. 4, a cast is shown of the crystalline structure of a block of compact glacier ice after half an hour's exposure to the sun. This fragment of ice was cut from a portion of a blue band on the upper Grindelwald glacier opposite the place called "Im Schlupf."† The block at first was quite compact, transparent with a continuous surface. After the exposure the cast shows that fusion has commenced at the joints of the crystalline granules, and so the surface is traversed by furrows more or less straight. The general appearance of the cast is like a bird's-eye view of a hilly country divided by hedges into fields of varying sizes. The spaces enclosed by the furrows are the exposed faces of the granules, and it will be seen how very much they vary in size. The horizontal width of the cast is 12 centimetres. Between the furrows very little can be made out in the cast, and the faces appear to be quite continuous. However, the optic axes are in all directions, and not parallel to one another as in the cave or pond ice.

It might be expected that the actual surface of a glacier would present a similar weathering as in Plate II., fig. 4, with the exception that the furrows were deeper and broader. It is, however, much more complex, and a cast of the surface is represented in Plate II., fig. 5. The cast is 10 centimetres high.

* Emden, *loc. cit.*, p. 22.

† 1700 metres above sea level.

The light has been arranged so that the ridges stand out prominently on the left-hand portion of the cast, and especially towards the upper part the granules are evident as small spaces surrounded by walls. But in the faces of these granules there are other cavities into which the plaster has flowed. These cavities have rounded edges, and appear either as cylindrical drill holes, or as elliptically-shaped recesses. The former are probably due to fragments of dust which have absorbed heat from the sun and so melted a passage for themselves into the ice granule. This action of small particles of dust can often be seen on a large scale on a glacier. The latter are possibly the closed cavities of Tyndall,* which have arisen as flat star-shaped cavities, which when the surface of the glacier melts are opened to the air. The star-shaped cavities are caused by the radiant heat from the sun penetrating the ice and melting it in the interior. The fusion takes place in a manner such that the ice is decrystallised, and as the water formed occupies a smaller volume than the ice from which it is derived, there is left in the centre of the star a small vacuole. The plane of the star is parallel to the hexagonal base of the crystal (fig. 6). The stars may be easily produced by concentrating the sun's rays on a clear block of ice with a burning glass and then, looking at the spot with a strong magnifier, they may be seen. This serves as a test to find the direction of the optic axis when the ice is an irregular mass without any proper faces which can be recognised. The figure is a diagrammatic representation of the relation between the faces and some of the star-shaped cavities.

The drill holes and the cavities may occur anywhere on the surface of the glacier granule. They are absent in the cave ice where fusion by radiation is not possible. This forms a point by which the fusion in the two cases may be immediately distinguished. In cave ice the fusion is confined to the interstitial spaces between the crystals, whilst in the

* Tyndall, *loc. cit.*

case of the glacier fusion occurs both in the interstitial spaces and at points over the surface wherever dust has settled, and also in the interior of the crystal.

Two days after this cast was made the same spot on the glacier was visited and a very irregular honey-comb structure of plaster was found on the ice. This consisted of the plaster which had run down into the deeper cavities, and had not been removed with the cast on account of its frailty. The surface of the glacier had melted away and had left the plaster net-work standing up. It was about an inch high, and showed the form of the glacier granules and cavities, but no further peculiarities were noticed than those already described.

We may sum the results of this paper in two conclusions :—

- (1) Forel's Streaks are probably indications of slip-bands or twinning in ice crystals under stress.
- (2) The porous nature of the surface ice of a glacier is due to fusion in the interstitial spaces between the granules, to the formation of dust drill holes, and to the opening to the surface of Tyndall's closed fusion cavities.

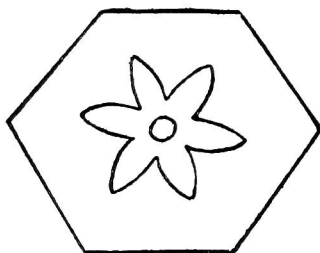


FIG. 6.

A CONTRIBUTION TO BRITISH OROGRAPHY.

IT is rather a curious thing that so few of us know much about the British hills in general. We all know parts, but very few take that geographical interest in the whole. The chief difficulty lies in the method of classifying the hills. Height is the generally accepted method, and though it conveys some idea, it is eminently unsatisfactory. There are no means of classifying hills by their shape or mass, and such classifications are intensely complicated by the different views and surroundings. Therefore, in order to give a brief survey of the mountains of the British Isles, other than geological, one is compelled to fall back upon the method of heights. Of the four components of our islands, Scotland is easily the most mountainous. Naturally, the first purely British Mountaineering Club arose there in 1890, when the beginning may be dated from the first number of their journal. A great enthusiast, both for geography and mountains, Mr. Munro, compiled lists of the Scottish mountains, which was published in their journal. The figures in this paper were a surprise to almost everybody. No one had any idea of the mountainous conditions of the country. The figures are now a little in need of revision in places, but will remain the standard for many years. It was found that there were 285 distinct and separate mountains in Scotland over 3000 feet. To this figure may be added 254 "tops," *i.e.*, summits, which are not sufficiently separated from a massif to be called mountains. The total is 539. The figures given above are Mr. Munro's, except for a slight alteration. On looking into the orology of the other countries, it was found that there were seven mountains in Wales over 3000 feet, six in Ireland and four in

England, making a total of 302 mountains over 3000 feet in the British Isles, of which Scotland contains all but 17. The highest mountain in the British Isles is Ben Nevis, 4407 feet, and whoever has climbed through its cliffs on a fine day will decide that it is a worthy monarch of the British Hills. Next to Ben Nevis comes Ben Muich Dhui, 4296 feet, *i.e.* 111 feet lower. Besides these two there are six others over 4000 feet high, in all eight. These may be enumerated as follows:—

1. Ben Nevis (the hill of the clear cold spring) . . . 4407 feet.
2. Ben Muich Dhui (the hill of the black sow) . . . 4296 "
3. Braeriach (the speckled or hoary hill) . . . 4248 "
4. Cairntoul (the northern cairn) . . . 4241 "
5. Sgor an Lochan Uaine (the peak of the little
green loch) . . . 4095 "
6. Cairngorm (the blue cairn) . . . 4084 "
7. Aonach Beag (the small lump) . . . 4060 "
8. Carn Mor Dearg (the great red cairn) . . . 4012 "

A goodly list, which may be done in two long days, but will most probably represent four. Ben Nevis and the two last are situated together near Fort-William, and the other five are close to each other between Aviemore and Braemar. It will be noticed that Ben Attow is not included in the above list. It is popularly credited to rise 4000 feet, but scientifically it has been found only to exceed 3300 feet by a little.

The highest hill out of Scotland is Snowdon, 3565 feet, which takes the 56th place on the list of the hills of the British Isles. Carnedd Llewellyn, 3484 feet, comes next, and is 72nd, the third highest being Carnedd Dafydd, 3426 feet, and 90th. Ireland's highest hill comes next, Cairntoul in Killarney, 3414 feet high, and which takes the 94th place. The highest mountain of the English division is Scawfell Pike, 3210 feet, and which humbly takes the 174th place amongst our British 3000 footers. When the corresponding positions of the lowest 3000 footers in our islands are taken, the above is completely reversed. Thus Scotland possesses three mountains 3000 feet high; Ireland one; Wales comes next with Tryfan,

3010, 289th; Ireland with Lugraquilla in Wicklow, 3039, 268th; England with Skiddaw, 3058 feet, and 255th.

To Mr. Munro's list of the Scottish hills I append those of Wales, Ireland and England—

WALES.	IRELAND.	ENGLAND.
Snowdon, 3565 feet.	Cairntoul, 3414 feet.	Scawfell Pike, 3210 feet.
Carnedd Llewelyn, 3484 feet.	Brenkeragh, 3314 feet.	Scawfell, 3161 feet.
Carnedd Dafydd, 3426 feet.	Brandon, 3127 feet.	Helvellyn, 3118 feet.
Glyder Fawr, 3279 feet.	Cumloughra, 3100 feet.	Skiddaw, 3058 feet.
Glyder Fach, 3262 feet.	Lugraquilla, 3039 feet.	
Y Garn, 3104 feet.	Caher, 3000 feet.	
Tryfan, 3010 feet.		

A factor which is intimately bound up with the height of the British hills is the depth of the snow, and how long it lies. The Observatory on Ben Nevis supplies us with figures on this point, just as it gives us hot coffee after a long cold climb. Taking the returns for the years 1883-1895, inclusive, the summit bore snow from November to the end of May, and generally through part of June. On two occasions did snow remain towards the end of July, and on four occasions did it begin in October. Thus, on the average, the summit will be clear of snow during July, August and September. On the average the snow was at its greatest depth during April, the end of March and the beginning of May, when the average depth was 78·4 inches. The maximum depth was 142 inches in 1884, and the minimum 57 inches in 1888. Ben Nevis presents quite an Alpine appearance for about eight months in the year, whilst snow will be found in the gullies all the year round. Excellent winter climbing can be obtained throughout the greater part of the year, and is at its best during the month of April.

WASTDALE NOTES.

By GEO. D. ABRAHAM.

THE usual crowd, and the usual rain, gives almost the only description that is necessary of last Easter at Wastdale. Day after day large parties braved the storms of wind and rain, and made perhaps all the ascents that were judiciously possible under the circumstances.

The afternoons were generally more favourable for climbing, and the Overbeck chimneys were justly popular on such occasions. These chimneys are well worth a visit, though all have been ascended several times since their discovery, and first ascents are exhausted. There is almost as much climbing here as at Kern Knotts, and one hour's easy and pleasant walking around the shoulder of Yewbarrow gives access to any of the three obvious cracks which lead up the crags. The central one, being most interesting, was much patronised at Easter, and the leaders were inclined to agree that this climb is equal in difficulty to Kern Knotts Crack.

Directly after Easter the weather improved considerably, and a party, led by the writer, was fortunate enough to find a new way up the west side of the Pillar Rock direct to the High Man Cairn. This new climb is one of the pleasantest routes up the much explored Rock, and being more sensational than difficult, it is likely to become a favourite. It is hoped that a description of the route followed will appear shortly in the *Journal*.

Amongst some of the more difficult excursions made after Easter may be mentioned the ascents of the Great Chimney and the West Jordan Gully on the Pillar Rock by Messrs. Thomson's party, several ascents of the Ling Chimney, and a new route of descent on Kern Knotts, which is not to be recommended.

Some valuable exploration was done in Savage Gully by Messrs. Thomson and Oppenheimer, details of which were given in the June number of the *Journal*.

Some doubt was expressed amongst south country experts as to the feasibility of the Engineers' Chimney since certain philanthropists removed the loose chock-stone at the most difficult part. Several parties are reported to have failed in the attempt to scale its slimy walls, but during the dry summer weather Messrs. Lewin, Dalton and Zimmerman showed that the climb was not only possible but safe.

During August the Messrs. Barton, after making several ascents on Dow Crag, succeeded in climbing Savage Gully by somewhat the same route as Mr. Thompson. The route appears from all accounts to be unsatisfactory as an everyday course, and most parties will find the old and original way, by the Stomach Traverse and the Split Blocks, the most feasible.

Some thoughtful person has suggested that danger boards, similar to the C. T. C. pattern, be placed on certain climbs—perhaps one at the lower end of Savage Gully would be a wise precaution in these rash times.



KYNDWR CLUB NOTES.

THE ROACHES.—This North Staffordshire ridge belongs to the Peak of Derbyshire geographically, being composed of millstone grit, and presenting a series of characteristic “edges.” It has been a *terra incognita* hitherto even to local climbers; but this year several visits have been made to it, and a number of interesting scrambles found. Indeed, the locality may be considered as good a practice ground as any in the Midlands. An excursion to the strange chasm of Ludchurch at the northern end was disappointing so far as climbing was concerned, though the scenery is very fine. All the scrambles are situated at the southern extremity of the Roaches, on the “edges” of Roach End, on Hen Cloud, an imposing little peak, and on the fantastic rocks of Blackshaw Edge. Hen Cloud is faced with a long range of cliffs, rising in places to a height of 150 feet, and it has a number of interesting pinnacles. The main cliff is very steep, and the best looking things on it unfortunately required more time than could easily be spared. However, a few sporting scrambles were successfully tackled, both on Hen Cloud and Roach End, and stiffer problems were marked out for future visits. The place is well worth thorough exploration. Blackshaw Edge was examined only superficially.

The Roaches can easily be got at from Leek, less easily from Buxton; in the immediate vicinity only cottage accommodation is to be had.

THE BEN NUIS CHIMNEY.—In August, Messrs. Baker, Oppenheimer and Puttrell made the first ascent of the gully or chimney (400 feet long), just to the south of the summit on Ben Nuis, Arran. This exceedingly steep and “boiler-plated” precipice has, so far as can be ascertained, been ascended only twice before, viz., in 1895, by Messrs. Green and Boyd, and in

1899, by Messrs. Raeburn and Inglis Clark. The big chimney or gully has been looked at by several good men, but never ascended previously. This climb is easily recognisable, even from Brodick, by the change in the angle of inclination half-way up ; below that point it is, virtually, all pitch, or at least a series of pitches, with hardly a ledge between. Half-way up is a cave that would not go, at all events, on the day after a downpour, and a traverse of a risky and sensational character had to be effected to get round the obstacle. Near the top, the party were arrested again by an overhanging chimney, and found themselves compelled to yield to the suggestions of friends looking on that a rescue party should be sent for. Long before help arrived, however, they extricated themselves by climbing the left wall of the gully—a nearly sheer face, with few holds beyond the tufts of grass growing in the joints of the rock, which would hardly be considered a legitimate climb in any other circumstances. Puttrell led up, except on the two traverses alluded to, where Baker took the lead as the lighter man.

The two last afterwards explored parts of the Cairngorm district, but, as usual there, the weather proved too serious a factor, combined with the great distances, for much rock-work to be attempted. On the advice of Mr. A. I. M'Connochie, that veteran Cairngormer, they tried Creag na Leacainn at the entrance to the Larig Ghais, and were rewarded with one fair climb of 200 feet, after several disappointments. Much of the granite in this region is unsuitable for climbing ; the crags of An Garbh-choire seem the best.

COMMITTEE NOTES.

THE following gentlemen have been elected members of the Club:—

Lionel F. Ryan, c/o General Ryan, Army and Navy Club, Pall Mall, S.W.

Herbert Owen, M.D., 58 Ebury Street, S.W.

William Buckley, Broad Oak Park, Worsley, Manchester.

Horace C. Lowen, 50 Gresham Road, Brixton, S.W.

William Zimmerman, Jun., 103 Bethune Road, Stamford Hill, N.

* * * *

Mr. E. R. Turner has been unanimously elected a member of the Committee (under Rule 3) in recognition of his special services to the Club as Editor of the *Climbers' Club Journal*.

* * * *

THE Committee will subscribe Five pounds to Mr. Sayle's scheme for a metal chart or map on Snowdon, as explained in his letter in the March number of the *Journal*, provided that the whole of the money required is subscribed during the present year.

* * * *

As will be remembered, a dinner was held at Birmingham on December 5th last year in order to meet the desire of many members for a *réunion* in the autumn at a place convenient to those whose homes are in the Midlands or North of England. The dinner was well attended, and the Honorary Secretary believes that there was a general expectation that it would be repeated. He therefore now suggests that members residing north of the 52nd degree, and in favour of a similar meeting this year, should write him their suggestions as to time and place for the assistance of the Committee, who will very shortly consider the matter.

EDITORIAL NOTES.

SEQUEL TO AN ALPINE ACCIDENT.—A correspondent writes :—"At the end of December last the Swiss papers were full of an accident which occurred on the Col de la Guelaz. On December 28 three young men started from Barbarine, where they had spent the night, intending to pass by the Col and descend to Fins Hauts, a summer resort on the road to Chamonix from Vernayez. Soon after crossing the Col the leading pedestrian fell through a cornice of snow into a ravine, thus starting an avalanche. Supposing that he would be injured by his fall his friends instantly set off for assistance, and a search party was despatched. Eight of these brave men were in their turn carried away by an avalanche, but no one was lost. The following day 80 people went to search, and every day since December 28 parties have gone out hoping to find the body of the unfortunate young Swiss. On July 6 the *curé* of Salvan, a hamlet further down the valley, went to the Col some distance above the spot where the boy fell, and where no one had thought of looking on the night when he was lost. Passing near a large boulder he saw the handle of an ice axe protruding from the melting snow, and found that this was in the hand of the victim, who had evidently not been injured by his fall, and instead of going down the valley had gone up the Col, hoping to regain the path with which he was familiar, and, yielding to fatigue, had remained under the rock for shelter from a heavy snowstorm. In this position he was found, leaning his head on his arm. A service was held at his grave by his own pastor from Lausanne, attended by the *curés* of the district, who all did their utmost to comfort his parents, who lost an elder son last summer in the Gorner Gorge."—(From the *Times*, 15th July.)

HOTEL FIRE IN SWITZERLAND.—The greater part of the Hôtel Reichenbach et des Alpes at Meiringen was destroyed by fire at three o'clock this morning. The visitors had no difficulty in effecting their escape. The service on the Alpes and Reichenbach Railway continues uninterrupted.—(From the *Times*, 8th July.)

* * * *

FOILED in their endeavour to disfigure the Pass of Aberglaslyn, the railway makers are now turning their attention to the Vale of Gwynant. The latest scheme is to carry an electric railway from Portmadoc to the foot of Snowdon on its south side, and although the promoters have undertaken to tunnel through the Pass of Aberglaslyn, a fresh storm of criticism has been aroused by the proposal to impound the waters of Llyn Llidau and Llyn Teyrn for the purpose of generating the electricity needed.

When the matter came before the House of Commons, Lord Balcarres, Mr. Bryce, and Mr. John Burns endeavoured to dissuade their fellow members from allowing the Dyli Falls to succumb to the same fate as the Falls of Foyers, but their eloquence was unsuccessful, and as it was believed that the railway would be abandoned if the water were not supplied at the head of the valley, the House sacrificed the mountain stream, and gave its consent to the conversion of Llyn Llidau into a reservoir.

When the Light Railways Bill was under discussion, the House of Commons inserted a provision that natural scenery was not to be injured by the construction of such lines, but we think the formation of an artificial dam across Cwm Dyli, and the interment of the Glaslyn River in pipes, may justly be considered as a wanton injury to one of the grandest pieces of natural scenery in the principality.

The inhabitants of Beddgelert are not unreasonable in their wish to have railway communication with the adjacent towns and villages, but surely this could be effected without allowing them to complete the disfigurement already so far advanced by the works at the copper mines.

REFERRING to the suggestion in the March number that a map or plan should be placed on the summit of Snowdon, the Committee has decided to give Five pounds toward the scheme, provided the whole amount required can be raised during the present year. The following donations have already been promised :—

The Club	.	.	.	.	.	£5	0	0
C. Sayle	.	.	.	.	.	1	0	0
G. B. Bryant	.	.	.	.	.	1	0	0
E. R. Turner	.	.	.	.	.	1	0	0

The total amount required will probably be about £40.

* * * *

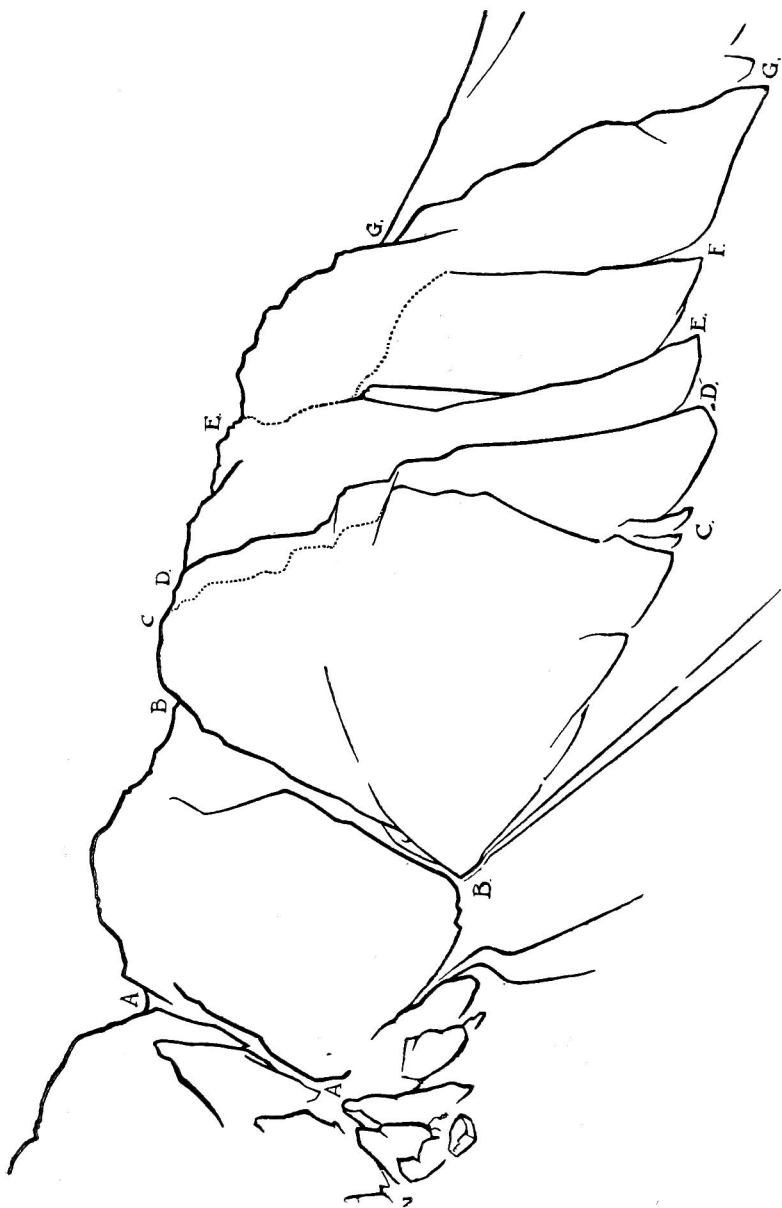
SHOCKS OF EARTHQUAKE.—Canon Rawnsley writes from Crosthwaite Vicarage, Keswick, under date July 10:—"A well-defined shock of earthquake passed through the Keswick valley, apparently from south-west to north-east, yesterday afternoon, at 4'30 p.m., accompanied by a loud sound that seemed to some like thunder, to others like the passing of a heavy train. A second shock was felt at 1'30 a.m. this morning."—(From the *Times*, 15th July.)

* * * *

MR. C. E. MATHEWS, our late President, is preparing a paper on "Pen-y-Gwryd in the Days of the Owens," which will appear in our next issue. If any member should happen to have a sketch of the Inn before its enlargement, we shall be obliged if he will communicate with the Editor or with Mr. Mathews.

NEW PUBLICATIONS.

- THE CAIRNGORM CLUB JOURNAL. Edited by ALEX. INKSON McCON-
NOCHIE. Vol. III., No. 17. July, 1901. Containing :—
Ben Alder. By William Garden.
Ballater to Lynwilg. By William Skea.
The Black Mount. By E. M. Corner, M.B., B.Sc.
The View from Ben More and Am Binnien. By William
Barclay.
Meall Na Cuiach. By James H. Brown.
A Day on Braerlach. By E. G. Cash, F.R.S.G.S.
The Bin of Cullen. By W. Cramond, LL.D.
In Memoriam—Charles M'Hardy. By Robert Anderson.
The Argyll Stone. By Rev. D. M'Dougall, B.D.
Dundee Law. By Alexander Elliott.
(Aberdeen : The Cairngorm Club. 1/-.)
- MAZAMA. A Record of Mountaineering in the Pacific North-West.
Vol. II., No. 2. April, 1901. Alaska Number. Containing :—
Alaskan Attractions. By Dr. B. E. Fernow.
Harriman Alaska Expeditions. By Treva Kincaid.
Explanation of an Indian Map. By George Davidson, Ph.D.,
Sc.D.
Going to the Mountains. By C. H. Sholes.
The Flora of Mount Rainier. By Prof. Chas. V. Piper. &c., &c.
Portland, Oregon, U.S.A. The Mazamas.
- SWITZERLAND, AND THE ADJACENT PORTIONS OF ITALY, SAVOY AND
TYROL." Handbook for Travellers. By KARL BAEDEKER. 19th
edition. 8s. (Dulau.)
- THE BOLIVIAN ANDES. By SIR W. MARTIN CONWAY. (London :
Harper and Brothers. 12s. 6d.)
- THE ALPINE CLUB JOURNAL. Edited by GEORGE YELD. Vol. XX.
No. 153. August, 1901. Containing :—
Sulitelma. By Victor H. Gatty.
With Ladies in the Lepontines. By George Brook.
The Grindalwald Dru. By G. Hasler.
The Accident on the Matterhorn. &c., &c.
(London : Longmans, Green & Co. 2/-.)
- YORKSHIRE. Part II. West and Part of North Riding. Thorough
guide series. By M. J. B. BADDELEY, B.A. With Geological Notes
and Descriptions of Caves, and 20 Maps and Plans by Bartholemew.
Fourth edition. (London : Dulau & Co. 1901. 3/- net.)



DOW CRAG GULLIES.

A Easy Scree Gully.
 B Great Gully.
 C Central Gully.

D Intermediate Gully.
 E Easter Gully.

F Easy Gully, from which traverse can be made
 into Easter Gully above the Crack.
 G North Gully.

CORRESPONDENCE.

To the Editor of the CLIMBERS' CLUB JOURNAL.

DEAR SIR,

DOW CRAG GULLIES.

On August 4th and 5th I was climbing on Dow Crag with L. J. Oppenheimer, and we met with considerable difficulty in locating the various gullies. So far as we can now make out, their proper order is given on the accompanying diagram, kindly sketched by Mr. Oppenheimer from a photo by Mr. A. W. Lambert. It will be observed that the North Gully is really situated near the extreme end of the crags, opposite the head of Goat's Water. The diagram facing p. 235 of Jones' "Rock-Climbing" is evidently wrong in locating this gully nearer the middle of the crags, putting it where the Easter Gully ought to be or thereabouts. We ascended an indefinite sort of gully to the right of the latter, in the belief that it was the North Gully, but discovering it to be void of interest we climbed the dividing buttress and found ourselves on top of the great pitch in the Easter Gully. Later on, by mere accident, we hit upon the real North Gully, which is not traceable from the foot of the tarn.

The confusion as to the names and localities of the gullies makes the published accounts of the climbs seem all at variance. Jones attempted to clear up the confusion, but it is not yet easy to identify beyond dispute the various gullies referred to by him, and by Mr. Haskett Smith. The latter mentions "an intermediate gully of terrific aspect," which he descended "with indispensable aid from the rope." Was Jones right in saying this was the North Gully? (see *Journal*, Vol. I., p. 109). Does it not apply better to the Intermediate?

On p. 39 of the *Journal* he says, with reference to the Intermediate Gully, "It may conceivably be taken direct over every pitch." This is the course I adopted, and, while the work was very hard, I should say it is a decidedly safer course than the traverses recommended by him, apart from the satisfaction one has in going straight ahead.

If any of your readers will kindly correct or supplement these notes, it would be a satisfaction to us, and doubtless helpful to future explorers of these magnificent crags.

Yours faithfully,

ERNEST A. BAKER.

August 17th, 1901.

THE LAKE DISTRICT: AN APPEAL.

To the Editor of the CLIMBERS' CLUB JOURNAL.

Crosthwaite Vicarage, Keswick,

Aug. 7th, 1901.

SIR,

Many of your readers will be starting for their summer holidays—some will be coming to the English Lake District, others will be off to Scotch Moor, Welsh Valley, or British Coast. If it chance that at any time they feel the beauty and the freedom of foot in some entrancing scene quicken their pulses and bring the smile to their lips, will they think of the possibility they have of securing just such pleasure for tens of thousands of their fellow countrymen in the generations yet to be, by sending a subscription or promise of subscription towards the purchase of a mile of the western shore of Derwentwater, for which the National Trust is now raising the necessary funds?

We have only a limited time in which the purchase-money (£6,500) can be collected, and we need £2,500 still. Is there

anyone who could wish to perpetuate the memory of some dear friend by a gift of an acre of the 108 acres we are purchasing? If so, the way is open. We spend large sums in costly and perishable monuments to the dead ; here on the shore of Derwentwater the gift of £60 would purchase a memorial whose blessing and whose charm for the weary worker on his too short holiday would be perpetual.

We have committees at work in Leeds, in Manchester, in Liverpool, in Birmingham, and in Keswick, and nothing has touched me more than letters enclosing 2s. or 2s. 6d. from *bona fide* working men in our great northern cities, who say, "I have had a day's outing on Derwentwater five years ago, and in memory of it I send you a small subscription, and I will ask my mates and see what I can do." One man sent £1 with this short note, "I am blind and I am dying, but I once saw Derwentwater many years ago, and I beg to send you a sovereign for the good object." It is for the blind and the dying we appeal—men who live in the half-darkness of city smoke, and whose souls are withering for want of communion with that spirit of Nature whose glory is revealed by just such a shore as the shore of Derwentwater. We ask all holiday makers in this August season, who feel the good of being where hills and woods and lakes can speak in their unfailing language to the heart, to aid us who are resolved to keep this bit of lakeland shore in its loveliness and calm for the rest and refreshment of far-off generations.

Since writing the above, I learn from the *Spectator* that a kind friend, who signs himself "Stroller," has offered £100 on condition that nine others will each give a similar amount. One of the nine has also liberally come forward. I trust this generous challenge will be accepted.

Subscriptions should be sent to myself, or Miss Octavia Hill, 190 Marylebone Road, London, or to the Secretary, National Trust, 1 Great College Street, Westminster.

H. D. RAWNSLEY.

T H E

CLIMBERS' CLUB JOURNAL.

Edited by E. RAYMOND TURNER.

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