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CLAUDE E. BENSON

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STICKLE TARN, LANGDALE PIKES, PAVEY ARK, AND BOWFELL.

Frontispiece.] From an old engraving (kindly lent by Mr. T. H. SOWERBY).

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By

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LONDON

GEORGE ROUTLEDGE & SONS, LIMITED

NEW YORK: E. P. DUTTON & CO

1909

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PREFACE

THE author desires to express his warmest thanks to the many fellow-climbers who have assisted him in his work with advice, criticism, and with illustrations. Indeed the kindness he has experienced—sometimes from mountaineers he has never even seen—has been remarkable, and he wishes to record here his most cordial appreciation of it. He would only add that where he has repeated himself, as in the case of Mr. C. E. Matthews' noteworthy words (Chapters I and IX), and elsewhere, he has done so advisedly.

CHAPTER I

INTRODUCTORY

THE story of mountaineering in any given portion of the earth, whether it be in the Himalaya or in Scotland, in the Caucasus or in Cumberland, comes back, in the long run, to the story of the Alps, and will be found, *mutatis mutandis*, to have developed on very similar lines.

Until comparatively recently, with occasional lucid intervals, the Alps were objects of terror and 'horror,' unattainable, forbidden wastes, the abodes of demons, dragons, and malevolent spirits. By and by, as superstition gave way to common sense, the beauty, the sublimity, the attraction of the mountains began to be recognized, and a chosen few learnt to worship them with distant reverence, and sought to impart to others their new-found emotions. At about the same time the peaks, passes, and glaciers became the quarry of another chosen few. The hand that beckoned the earliest of these pioneers was the hand of science, but the voice was the voice of the mountains. In 1857 a Band of Brothers met together and formed a club, the Alpine Club, the primary object of which was mountaineering pure and simple (though exceptions have been occasionally made, and a few members admitted by reason of their devotion to Alpine art or literature, or their researches in matters immediately connected with the mountains), and from that time climbing became recognized as a sport. In the tracks of these leaders came hundreds of tourists of varying sensibility, and scores of vigorous enthusiasts, daring, but, alas! imprudent and

unskilled. The former vandalized the valleys, the latter attacked the peaks, and on them the mountains took a natural and terrible revenge, insomuch that, for a time, the sport of mountaineering was, in the eyes of the undiscerning, discredited. Then came the tardy recognition that the pastime was indeed 'a reputable pursuit for sensible men,' and that, in the great majority of cases, the blame of the accident must be laid, not on the mountain, but on the man. Lastly, alas and alas! followed the inevitable concomitants of the advance of civilization, the caterer, the hotel proprietor, the tripper, and, worst of all, the 'lift' and 'funicular' railways, whereby the august mountains, the great world's altar stairs, are defaced and vulgarized, so far as it is possible to vulgarize the sublimest features of nature.

Through most of these phases our British hills have passed, though not quite in the same order. As objects of horror they followed the conventional lines for many centuries, and the overwhelming terror of their aspect seems to have paralysed the æsthetic perceptions even of men of great natural sensibility. Thus Defoe: 'I now entered *Westmorland*, a county eminent only for being the wildest, most barren, and frightful of any that I have passed over in *England* or in *Wales*. The west side, which borders on Cumberland, is indeed bounded by a chain of almost unpassable mountains, which in the language of the country are called Fells.' After this it comes as something of a disappointment to be told that every weekday during the summer months scores of tourists, in coaches or motors, on cycles or on foot, pass through the heart of these frightful scenes, rejoicing indeed in their beauty, without even a qualm of fear except perhaps that of being run into by a motor.

It is amusing to reflect on the emotions our hills inspired in the contemporaries of the men that fought at Minden. 'In area of paper covered with descriptions of it English Lakeland is probably many square miles ahead of any equal portion of the earth's surface,' and it is probably more familiar to Britons as a whole

than any of our other highlands, so that it is from writings on the Lake District that we can most readily learn. It may interest the long processions of tourists who year after year, on foot or on ponies, ascend Helvellyn, to know that they are scaling 'a mountain of tremendous grandeur, upon whose brows the snows hang as upon a glacier.' At any rate it was so in those days. I have seen some fine cornices on the imposing eastern front of Helvellyn, but the Wythburn side always struck me as being rather tame. I have also been by Thirlmere pretty often, but I did not realize that I was in 'a scene of desolation which is much heightened by the appearance of the immense craggy masses that seem to hang on the side of Helvellyn, from whose slopes they have apparently been severed, but arrested in their tremendous progress down the mountain by the impulse of gravitation' (this is a hard saying). 'Huge and innumerable fragments of rocks hang pendant from its sides, and appear ready to fall and overwhelm the curious traveller who dares to ascend its wild and fantastic heights.'

Saddleback, to the north of the Helvellyn range, in addition to its terrific aspect, had also its demons. At least, according to Mr. Jenkinson (the writer of one of the best of the Lake District Guides) its alternative title, Blencathra, signifies the Peak of Demons (the more probable meaning is Arthur's Seat). Demons apart, however, the mountain was sufficiently formidable, and even to-day the ascent requires care,[1] though scarcely by the routes described: 'When we had ascended about a mile, one of the party, on looking round, was so astonished with the different appearance of objects in the valley so far beneath us that he declined proceeding.' A little later another of the party 'wished to loose blood and return.' This was a bad condition to be in on what are, nowadays, easy grass slopes, but what about the stroll over by Watendlath in Borrowdale? 'To move upwards, keeping a steady eye on objects before

[1] Since these lines went to press, a gentleman has fallen whilst ascending Sharp Edge, Saddleback, with fatal results.

us, was no great exercise to the brain, but it rather gave it a rotation to look back on what was past and see our companions below, clinging, as it appeared, to the mountain side.'

In spite of its manifold terrors the ascent of Saddleback was successfully accomplished, and we learn that the views under the eye of the mountain itself (were) 'so tremendous and appalling that few persons have sufficient resolution to experience the emotions which those awful scenes inspire.' One daring mountaineer peeped over Foule Crag into 'a frightful abyss to the bottom of which the eye could not penetrate,' and certainly it is not an experiment to be recommended to people with unsteady heads.

The downward penetration of the eyes of our ancestors seems to have been defective. 'Beneath lies a precipice which the human eye can scarcely fathom, and along its sides winds a narrow and almost perpendicular path whence by one false step the traveller would be precipitated into the gulf.' This refers to the track on the Wastdale side of Sty Head. A reference to the Ordnance Map shows that the difference in elevation between the highest parts of the pass and the beck below is somewhere about 1,000 feet, and even from the summit of Great Gable, some 1,300 feet higher, the effort of vision would not seem excessive. As a last example, 'Pavey Ark, a hanging rock six hundred feet in height, with a tarn basoned in its summit, nods awfully to the passing traveller.' The tarn is 'basoned' at its foot, but there are few finer precipices in broad England than Pavey Ark, and, relatively, *relatively*, this passage is not extravagant.

It may, I think, be assumed that our Cumbrian mountain scenery did actually impress the writers of these passages with emotions of repulsion, of terror, of awe. For these we, the British climbers of to-day, have substituted affectionate reverence. Familiarity has not bred contempt, but love and veneration.

The Welsh mountains were, I gather, not less sinister in appearance and reputation than those of England, and

in Ireland either a saint or Satan is to be found on every other hill. Scotland, as might be expected, quite holds its own, though less written up. The magniloquent passages about Helvellyn, quoted above, might be applied without hyperbole to some of the sterner Scottish peaks, though it is doubtful whether the 'curious traveller,' on descriptive writing intent, ever penetrated as far as these 'wild and fantastic heights.' The passes were bad enough, according to report. The description of one pass, Glen Croe, I think, suggests such a scene of horror and peril as would require the pencil of a Doré to depict, and, indeed, it appears that mountain packponies were not infrequently lost here through stumbling over the edge of the track. For descriptions of Scotland, however, one naturally turns to Scott. As I passed through the Trossachs, I recalled the lines

> And now to issue from the glen,
> No pathway meets the wanderer's ken,
> Unless he climb, with footing nice,
> A far-projecting precipice,

and I concluded, hastily, that Fitz-James must have been an old woman at mountaineering. I find, however, a note: 'Until the present road was made through the romantic pass which I have presumptuously attempted to describe in the preceding stanzas, there was no mode of issuing out of the defile called the Trossachs, excepting by a sort of ladder, composed of the branches and roots of trees.' Now I should have thought one could have got out of the Trossachs at any time within the memory of man in almost any direction, with one's hands in one's pockets, so to speak. Scott's description, however, of Loch Coruisk is, allowance being made for poetic licence, as free from exaggeration as it is true and beautiful (*Lord of the Isles*, Canto III. Stanxas xiv. to xvi.).

By the early Victorian era people generally were beginning to take a more intelligent view of our mountainous districts and to recognize that, far from being frightful and repellent, they offered a holiday ground of rare beauty. First in tens and twenties, and then, with the march of mind, the steamship and the railway,

in hundreds, came tourists, and lastly, with cheap fares and increased facilities, the tripper, the bun-bag, and the gingerbeer bottle. The fells and mountains were explored, admirable guide-books were brought out, and by the last quarter of the nineteenth century it seemed that all that was to be known of our British highlands was known, if we except those thrice sacred sanctuaries, the deer forests, and the hills of the distressful country. These latter are getting opened up gradually, but there are, or at least were, certain disabilities connected with their exploration. I can avouch that not so many years ago pigs and chickens were not the only live stock to be found on the premises in the far west.

The hotel proprietor has been merciful to us. There is plenty of accommodation at most tourist centres, some of it first class, but the scenery is not disfigured thereby, and, praise be to the Olympians, there is only one mountain railway, albeit the most graceful of our peaks was selected for desecration.

Thus the history of the British hills was fairly complete and consistent, with one exception—the foolhardy idiot, which is the vulgar for cragsman. True, a hundred years ago, Southey wrote that he was a Cumbrian mountaineer, but Southey had no idea of what he was talking about. Somewhere about the same time a Mr. Gough managed to tumble off Striding Edge and kill himself, thereby providing an additional and unnecessary piece of repetition for schoolboys by Scott, and a rather less hackneyed poem by Wordsworth. By these means the Edge acquired a wholly unmerited reputation for danger which it has never lost. I myself, only a few years back, met two gentlemen traversing the Edge on their hands and knees. If they had not read Scott and Wordsworth, and if Mr. Gough had not provoked those poets to write about him, they would have walked on their feet like self-respecting men. Now and again, at rare intervals, a shepherd would tumble over a precipice; now and again a tourist would come to grief, generally a clergyman, which would seem to indicate either that the evil spirits still haunt

the hill-tops, or some other explanation, but, up till comparatively recently the 'foolhardy idiot' was an export of foreign manufacture.

Nevertheless he was there. Mountaineers, men with the love of mountaineering in their hearts, were not likely to be content with the short Alpine season, when there was work for them to do at home. They surmised that our British hills might afford a practice ground, a sort of gymnasium, a kindergarten gymnasium it is true, which would just serve to keep their muscles in tolerable order. They were to learn that, so far as rock-climbing was concerned, the humble elevations of the homeland could give them all the work they could do, and more. The Alpine Club, the *fons et origo* of all modern mountaineering, began to pay attention to our rocks and snows, and the true exploration of the British mountains commenced.

The Alpine Club is but fifty years old, and surely no lustier parent ever existed in the annals of sport. It now has a progeny of between 150 and 200 clubs, some with a membership running into thousands. The first of the British Clubs to come into existence was a Cobbler Club at Glasgow, so named from the Cobbler, Ben Arthur, a mountain at the head of Loch Long. This was superseded by the Scottish Mountaineering Club, 1889. Then came the Yorkshire Ramblers' Club, 1892, and the English Climbers' Club, 1898, besides which of recent years sundry youngsters have come to birth and are growing bravely.

Some idea of the nature of the work done by these clubs will be indicated in subsequent chapters.

Almost the first intimation to the general public of the presence of the foolhardy idiot in their midst was an article in *All the Year Round*, November, 1884, by Mr. C. N. Williamson. In 1892 appeared the Badminton Volume on *Mountaineering* with an excellent chapter on the home article by Mr. Charles Pilkington, at one time President of the Alpine Club. In 1893 was published Doctor Claude Wilson's little book with a chapter on the same subject, and in the following year Mr. Haskett

Smith brought out his *Climbing in the British Isles* (*England*) which may justly be described as epoch-making in the history of British Mountaineering, though it appealed almost exclusively to the *cognoscenti*. About this time, too, certain striking and somewhat sensational photographs of rock-climbing began to find their way into shop windows, and immediately attracted attention and comment, the latter generally criticizing the intellectual capacity of climbers in the manner already indicated. Then, in 1897, came Mr. O. G. Jones' monumental work *Rock Climbing in the English Lake District* (a companion volume to which, on Wales, was written by Messrs. G. D. and A. P. Abraham of Keswick in 1906 and another on Skye by Mr. Ashley Abraham in 1908) which came as a revelation, even to many mountaineers, and made the man in the street stare and gasp, and reasseverate his comment with more fervour and conviction than ever.

Thus, the history of the British hills has followed the conventional lines, except that the immigration of the tourist has preceded the advent of the climber.[1] The reason of this variation is sufficiently obvious. Even a minor ascent in the Alps, unless it be berailwayed and beroaded, is a mountaineering expedition only to be undertaken by a party of mountaineers, whereas quite seventy-five per cent of the British hills are, given fine summer weather, well within the powers of an average schoolboy of fifteen or sixteen. This is accounted for not only by the lower elevation but the physical conformation of our mountains. The ideal peak consists of ' two or more rocky walls which may be looked upon as coalescing at the summit. Between these walls are enclosed the faces of the mountain.' Now the mountain shape most frequently found in these islands is the section of plum pudding or the cocked hat. The section of plum pudding form is very common ; the mountain swells up from one direction is easy grass slopes, and

[1] Whether the climber will be followed by the imprudent enthusiast is on the lap of the gods, but—I fear the signs of the times.

falls precipitously on the other side. Sometimes it is half a plum pudding, e.g. Fairfield, sometimes a quarter, like Saddleback. Ben Nevis, our monarch of mountains, is of the plum pudding order.

The cocked hat variety is simply like a cocked hat.

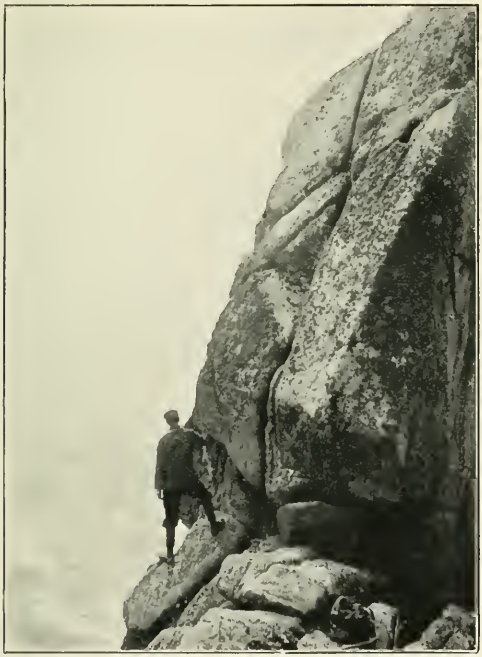


Photo by] [*A. W. Andrews.*

On the Granite Cliffs of Cornwall.

Catbells, by Derwentwater, is an excellent example, long inclines running fore and aft, and rising gently to a summit, with more or less steep slopes on either side. Where, however, the ideal mountain form is found, as in the Black Coolins of Skye, the work becomes unsuitable for schoolboys,

The mountaineering in England and the Principality is concentrated in the Lake District and North Wales, but there is excellent scrambling to be had elsewhere. The granite cliffs of Cornwall offer many capital little problems to 'the true-souled climber who can enjoy a tough bit of rock, even if it is only fifty, aye, or twenty feet high,' and the same is true of the numerous outcrops of millstone grit all over the Pennines, and there is sport to be had on the tors of Dartmoor. 'The hills,' says *The Badminton*, 'of North Yorkshire and Lancashire, of Derbyshire, Northumberland and Durham, have long stretches of little known moorlands, which are capital places for learning the use of map and compass; hidden away in their recesses are certain crags, which will give many a practical lesson of the way in which large blocks of limestone will break away when apparently firm, a very necessary lesson to those who would explore the dolomitic mountains of Alpine Europe.' This is very true, but the climber who enjoys a day on limestone when there is any other rock available, or when there is not, for that matter, is not easy to find. I may add that on the escarpments of the Northumberland moors some interesting scrambling may be had. The rock is chiefly trap, gritstone, or sandstone, and much more satisfactory than limestone. Some enthusiasts tackle the white cliffs of England, and there is quite a well-known pinnacle on Beachy Head, but chalk is abominably treacherous stuff, except where it has been bound by the brine, and not much pleasure is to be got out of it, or any other cliff climbing except in Cornwall.

Scotland is the happy hunting-ground of the home mountaineer. Twelve of the mountains exceed four thousand feet, and more than two hundred and fifty others exceed three thousand. The southern Grampians are disappointing except to men of the same way of thinking as a certain Scottish pioneer who extolled Ben Lawers because one could get to the top on pony-back, but farther north there is enough work to be done to satisfy the keenest climber's appetite. Moreover, owing

Photo by] GLEN SANNOX, ARRAN. *[W. Douglas.*

to their latitude, these hills retain snow in volume right into May, so that it is possible to put in a full day's work under sub-alpine conditions instead of having to adjust your expeditions to the untimely advent of darkness, like the less fortunate climbers of Wales and Cumberland. From the mountaineer's, as well as the artist's point of view, the Isle of Arran is a perfect little gem, besides, and above all which there is the incomparable Skye, indisputably the finest mountaineering centre, except as regards accommodation, in Great Britain, and, according to some enthusiasts, second to none in the world as a rock-climber's resort.

Another injustice to Ireland is that its mountains have been unduly neglected. It is impossible for me to say much about the Irish hills, because I know very little of them myself and I have been unable to find out any climber much better informed. Probably the explanation is that we have all made a bee-line for the Reeks, where we knew there was good sport to be had. I have, however, rambled a good deal about different parts of the country, and venture the following suggestions. The beautiful Wicklow hills afford a capital exercise ground—for a girls' school, and, from the little I know of them, the Galtees do not seem to be much better. The Mourne Mountains give enjoyable ridge walking, and I hear there is something to be done on the hills and cliffs of Antrim. Away to the west the mountains assume finer forms. Slieve League is splendid to look at and splendid to look from. Whether it is splendid to climb is more than doubtful. There is a little scrambling to be had on the Ten Pins, and only a year or two back a lady tourist was killed in the Joyce Country, which seems to indicate possibilities. I fancy, however, that the pick of the mountaineering is to be found in Kerry and Clare, and not from a rock-climbing point of view merely. I have known one of the Carn Tual ridges turn back experienced mountaineers. It must, however, in fairness be added that the weather was execrable.

It is a pity that not more is known of Ireland, as I

am confident that there is plenty of good work to be done there. As it is, however, for most of us the time available for rambling and scrambling is all too short, and to undertake a long and costly journey with no certainty of finding any adequate compensation at the end of it, is simply not good enough. For the rest, one climbing centre is as good as another—there is not a pin to choose between Scotland, Cumbria, and Wales as regards rock-work—an exception being made, as noted above, in favour of Skye.

Of what value is British mountaineering as a training school for work on a large scale abroad ? I am perfectly aware that to ask this question is to bring a hornet's nest about my ears, but I do not think it is one that should be evaded on that account. Let us see what the authorities have to say on the subject.

'In conclusion,' writes Mr. Charles Pilkington, ex-president of the Alpine Club, in *The Badminton*, 'let us sum up the lessons that the mountains of the British Isles can teach us. That they can give healthy exercise and cultivate in us the power of appreciating the beauties and grandeur of nature, has long been known to many, but apparently only the few have recognized what it is the purpose of this chapter to point out to others—namely, that they form a good and safe training ground where men may learn and practise *nearly all* that is necessary in the art of mountaineering. Amongst them we may learn the proper use of our legs, the balance of our bodies, and so to regulate our movements that distances may be traversed and heights scaled with the least possible expenditure of force. We can learn to discriminate between the real and apparent angle and difficulty of a steep mountain face, how to judge of pace and distance, and to steer by map and compass even in the worst weather. We may learn to climb difficult rocks, to avoid dislodging loose stones, and to guard against those dangers that are peculiar to grass mountains. We can practise carrying a pack, and to *a great extent* learn the use of the ice-axe and the rope, and *something* also of the varying conditions and

appearance of snow. We can cultivate perseverance, courage, the quiet uncomplaining endurance of hardships, and last, but not least important, those habits of constant care and prudence without which mountaineering ceases to be one of the finest sports in the world, and may degenerate into a gambling transaction with the forces of nature, with human life for the stake.'[1] If these propositions be true, and few will question them, the British mountains as a training ground are not valuable only but well-nigh invaluable.

Again Doctor Claude Wilson, a member of the Alpine Club and a mountaineer of repute, writes: 'Many of the general principles of mountaineering may be learned in our own islands. . . . While the majority of pedestrians who visit the Lakes learn little or nothing, there is, nevertheless, much to be learned, and the man who will go often enough, and trust to his own guiding powers in all seasons and under all conditions of weather, will assuredly gain *some* practical and useful knowledge of hill-walking, route-finding, and rock-scrambling, and even of step-cutting and glissading, which will serve him in good stead in any mountains he may visit. . . . I am not alone in believing that frequent visits to the British hills form a very important element in the training of a mountaineer. It is, I think, a very significant fact that those climbers, whether English or foreign, who have won for themselves the reputation of being good amateur guides, have, in almost every instance, had a great deal of practice among hilly districts below the level of perpetual snow.'

Finally, take Mr. W. P. Haskett Smith, A.C., ex-president of the Climbers' Club, and a household name amongst mountaineers: '*Icemanship can only be acquired through a long apprenticeship, by tramping many a weary mile helplessly tied to the tail of a guide.* . . . Nowhere can the mere manual dexterity of climbing be better

[1] The italics throughout are my own, but see also *The Climbers' Club Journal*, vol. iv, No. 13. 'British Climbing, from another point of view,' by Messrs. Reade and Ascherson.

acquired than among the fells of Cumberland; excellent practising ground presents itself on nearly every hill. Compared with real mountains the crags of Cumberland are but toys, but small as they are, they have made many and many a fine climber; and the man who has gone through a course of training amongst them, who has learnt to know the exact length of his own stride and reach, and to wriggle up a chimney in approved style with shoulder, hip, and knee, may boldly fly at higher game, and when he proceeds to tackle the giants of the Alps or Caucasus has no cause to be afraid of the result.'

Now in these passages it will—or should be—noticed that the British hills are spoken of consistently as a

CHIMNEYING.

training-ground and nothing more. The human heart, however, is abominably deceitful, and often, especially when it is set on an object, humbugs its owner most unconscionably. A University education is, or used to be, before these commercial days of hustle after the almighty dollar, an excellent training for life in the great world, but an undergraduate is not a man of the world, though he may fancy himself to be. Moreover, theological disputants are not the only people who see what they want to see in scriptures and quietly overlook passages not quite convenient to their theories, and it may safely be predicated of the human heart that it has occasionally succeeded in humbugging the youthful British climber, just as if he were an ordinary layman—or parson.

To take an extreme illustration of what might happen——I do not say it has happened, but I conceive it might. In one of his weightiest addresses the late Mr. C. E. Matthews, speaking of a recent accident which cost us one of our most brilliant cragsmen, uttered this solemn admonition: 'I am addressing you from this chair for the last time, and I tell you that there is no tone deep enough for regret and there is no voice loud enough for warning. Remember, you hill-climbers in England and Wales, that 100 feet of difficult work in Snowdonia or Cumberland require as much care and as much prudence and as much precaution as 1,000 feet in the Alps. It may be that I am only a voice crying in the wilderness, but I implore you, the mountaineers of the future, to do nothing that can discredit our favourite pursuit or bring down the ridicule of the undiscerning upon the noblest pastime in the world.'

B, an enthusiastic and somewhat rash young rock-gymnast, in reading *The Climbers' Club Journals*, comes on this passage. He is duly impressed for the time, and resolves to be good for the future. After a while, however, the heart begins to assert its humbugging propensity and by and by all the words fade away except '100 feet of difficult work in Snowdonia or Cumberland require as much care, as much prudence, and

as much precaution as 1,000 feet in the Alps,' and inferentially as much skill. Now B has led A, an Alpine climber of repute and experience, up Moss Gill on Scafell, and he has a suspicion, amounting to a certainty, that but for the moral support of the rope (that delightful fiction, but for which a good many of us would not be here to-day), A would never have even reached the Tennis Court Ledge. Wherefore, he puts two and two together and makes five, or six, or seven as the case may be, thus. If a hundred feet of rock in Cumberland require as much care as 1,000 feet in the Alps, therefore Cumberland climbing is, if not ten times, at least considerably more difficult. He himself, who has learnt all his mountaineering among the British hills, can with comparative ease lead up a difficult gully 500 feet high, which is beyond the powers of A, who has learnt all his mountaineering in the Alps. Wherefore it is sufficiently obvious that B is a better rock-climber than A and that, in this respect, an education on our own hills is at least equal to one on the Alps. These propositions—neither of which, incidentally, is sufficiently obvious—these propositions conceded, the deceitful heart will not take long in persuading B that he is almost, if not quite as good an all round mountaineer as A, and the British school is little if at all inferior to the Alpine.

In the passages quoted above the enthusiastic B will find much ground for self-satisfaction. Quietly passing over those words(italicized) which do not accord with his theory, with as much ease as if he were a theological controversialist, and entirely ignoring that unpleasant sentence, ' Icemanship can only be acquired through a long apprenticeship, by tramping many a weary mile helplessly tied to the tail of a guide,' he comes to attach an exaggerated importance to the branch of the mountaineering craft with which he is acquainted, which is, to say the least, unfortunate ; and when some one tells him that the incomparable Mummery stated that climbing in the Alps was difficult, without being dangerous, climbing in the Caucasus was dangerous, without being

difficult, but that climbing as practised at Wastdale Head is both difficult and dangerous, he fancies himself the two Lochmatters rolled into one.

B would have done better not to have read these words right to the foot of the letter. Any standard work would have told him that the skill of the mountaineer most chiefly consists in the avoidance of dangers. Now Doctor Claude Wilson gives a list of the dangers of mountaineering. Section I: Self-made dangers (which should never be incurred) may be omitted. Section II: Dangers to which all climbers may be exposed, but which can be avoided or provided for. A slip. Bad guiding. Falls into crevasses. Falls through cornices. Falling seracs and ice avalanches. Snow avalanches. Exposure. And Section III: Dangers which are sometimes unavoidable. Sudden storms. Falling Stones. A consideration what a very small percentage of these the British climber risks might have brought our enthusiast to a more sober state of mind.

The human heart, then, is troublesome enough in itself, but when it is associated with the swelled head, the situation becomes intolerable. I am afraid there is no doubt there has been a deal of 'bobbance and boasting' and a lot of loose, perhaps mischievous talk. The result has been more than one severe rebuke, and although the criticisms cannot be accepted unreservedly—indeed I think there is a tendency on both sides to overstate the case—there can be no question as to the general value of Messrs. Reade and Ascherson's article already referred to.

This paper should never have been needed. Some months before Mr. O. G. Jones, probably in intelligent anticipation of the possibility of devotees of the British school losing their heads and talking big and, worse still, thinking big, had written, '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.' Unfortunately, as I believe, both a warning and a rebuke came to be needed. Messrs. Reade and Ascherson point out, what one would have hoped was obvious, the really small experience of snow-craft that is to be acquired on British hills and the immunity of home climbers from ice and snow avalanches, etc., etc., and they also add a salutary, if rather heavy-handed, check on the glorification of our rock-climbing. ' 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 the 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 (*see* p. 153). 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 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 hours' 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.'

The sentence immediately preceding the above passage is also worthy of note: ' rotten rocks and loose stones may be met with for hours together, and often constitute the chief difficulty of the climb.' Now, though screes are abundant and a nuisance, an hour will suffice for the longest slope, and rotten rock—there is plenty of it to be found—the British climber avoids as the Devil does holy water, and I really do not see how

a man can be competent to deal with a sustained difficulty he has never encountered (*see* p. 154).

In conclusion, I think it a fair proposition that practice on the British hills should enable a man to graduate as a rock-climber and qualify for an honour degree as a mountaineer.

CHAPTER II

EQUIPMENT

The very first essentials in the equipment of a mountaineer, Alpine or British, are health and condition. 'As frontlets between his eyes' are the words '*mens sana in corpore sano.*' The *mens sana* may be taken as read. To the man of unhealthy, unwholesome mind, the Voice of the Mountains can never appeal, the call of the wild can never reach his heart, and if such an one by ill chance take part in any serious expedition, he is pretty sure to do something insane which will, as likely as not, endanger himself and the whole party.

It is not necessary to be a strong man to take one's fill of pleasure on the mountains, but it is necessary to be sound in wind and limb, and the man who has something *organically* wrong with him had better give up all thoughts of the sport lest a worse thing befall him. I have italicized 'organically' advisedly because I do not think a weak heart, for instance, need, in the first instance be accepted as a necessary bar to this pursuit. I know of such an one who took to the Cumbrian Fells somewhat late in life. At first, even on such an easy walk as up Grisedale Pike or Broad Edge on Saddleback, he experienced intense discomfort—blood to the head, shortness of breath, slight palpitations. Of course he was going too fast, and walking all wrong, and perhaps a slight tendency to giddiness may have had something to do with the trouble. He consulted a doctor, who told him he had a weak heart, and must give up all thoughts of hill-climbing. In despair, for the mountains had breathed into him their spirit, he consulted another, who told him he might get all right if he took things easy till he got more used to the fells. Two years later he went to the top of Skiddaw from

Keswick and back well inside three hours, which is pretty fair going.

It is, I repeat, not necessary to be a strong man, in the ordinarily accepted sense of the term, but it is necessary to be fit. I am not sure that a Sandow would cut much of a figure on the mountains. Of course I am acquainted with the 'story-book' mountaineer *in* story-books, but I have not often encountered him in real life. He is a burly man of most massive physique, with a chest like a bended bow and muscles like the village blacksmith. Now some of the best men I have seen are rather of the greyhound build, with plenty of lung capacity but not obtrusive chests, and muscles sound, but not bulky. Endurance is more essential to success than high development. This will carry a man brilliantly and successfully over a difficult bit, but I do think that the finely-trained muscle possesses less stamina than one moderately developed. With one or two exceptions I have never met a climber with 'an arm' on him.

The question, then, of how to keep fit is of first importance, especially to men who lead sedentary lives in great cities. If they rush 'straight from the desk, with unseasoned lungs and muscles, in the cold and the wet, to attack alone or with chance companions whatever climb enjoys for the moment the greatest notoriety, frightful accidents are certain to occur.' Whoever attacks a 'notorious' climb alone under any conditions is a fool, and he who undertakes a serious climb with chance companions of whose ability he knows nothing is very little better. For present considerations, the text to be taken from the above paragraph is 'unseasoned lungs and muscles.' Few things are more aggravating than having to waste the first day, or perhaps the first two days of a short climbing holiday getting fit. Few of us can hope to be gifted, if not with the enthusiasm, at any rate with the resolution of the late Mr. Owen Glynn Jones, of whom it was said that he started on a climbing holiday in better condition than most men end it up, but it is quite possible for an ordinary mortal

to arrive amongst the mountains equal to undertaking a moderately difficult course right away.

Wind is of more importance than muscle. Of course men young enough for football, rowing, and boxing ought always to start fit, but years steal not only vigour from the limb, but opportunities of exercising that vigour. Football, of course, one has to give up quite early, and as one approaches forty, one regards a 'hot 'un in the ribs' with less complaisance than one did ten years before, and takes longer recovering. Rowing, with modifications, can be continued up to a green old age, and there is no finer exercise than rowing as training for the mountains. Unfortunately, most of us are hard-worked, overworked in fact between thirty and fifty, and besides have contracted, or become subject to certain obligations, e.g. a family, which prevent us getting about as much as we used to. There is generally a gymnasium accessible, but it is not often open at convenient hours, especially for people who live in the suburbs.

People who live in the country—*O terque quaterque beati*—ought to be able to keep fit, but we unfortunates who are condemned to penal servitude in London for the greater part of the year have a harder task. To these I make the following few suggestions: 1. Walk everywhere. Avoid hansoms, 'buses, and tubes or rail as much as possible. 2. Run as much as you can—not a sprint, but a trot. In the summer it does not require excessive energy to be out by 7 a.m. for a turn in the Parks, and in winter after dusk one can indulge in a canter without being mistaken for a lunatic or a thief. Personally I always try and make a point of trotting the length of the Row at least twice a week. 3. Swim regularly; it is splendid for the wind. 4. Row, if you can. There is difficulty here. In order to get in an hour's pull on the Serpentine or the Regent's Park Lake before breakfast (the day requires a courage too high for me), one has to get up at an unconscionably early hour, and the boat proprietors will not consent to making an arrangement for reduced terms for half

time. A shilling an hour is not much, but still one likes to get value for money One would not care to pay a shilling for a fifty up at billiards. 5. If a gymnasium is reasonably accessible, join it. Unfortunately, there are other additional disabilities to inaccessibility. One I joined was for ever turning you out for a Ladies' Fencing Class or something of the sort, or fixing up times for Gentlemen's Classes at an hour which made dinner and digestion incompatible, or interfered with your business, or your club, or something. It is as well to remember, moreover, that rock is not made of wood, and that one does not find horizontal bars adorning the interior of a gully. I am blest with a basement staircase of stone, and at various periods of the day I am to be found hanging by my finger tips to the outside thereof. I recommend all who can to imitate me. Let not false shame prevent them. Let them be bold, and brave the suppressed laughter of the tweenie maid. 6. Home exercises. I am not a believer in heavy bells ; they tend to make one muscle-bound. Sandow's Exerciser or any similar apparatus is to be commended, but I think the grip-bells are the best to use, as they strengthen the fingers. One word of advice. Always do your dumb-bell exercises by time, not by number. A minute for each of the standard exercises, with half a minute's rest between each, should keep one's muscular system in order. Always give your whole attention to each movement. When you bend your arm, do so slowly, and as if you were putting up your muscle on show. When you straighten your arm, do so slowly and to its full extent so that you can feel the pull in your back. In the exercise of lying on your back with your hands above your head and sitting up, you can use as heavy bells as you like, and remember to keep your arms up till the body is upright. In the exercise of lying prone and pressing up and down on your arms, it is as well to substitute the tips of the fingers for the palms of the hands, for as often as you can. The Japanese methods of opposing muscle to muscle are admirable and have the advantage that one can make the work as

easy or as difficult as one chooses. Skipping is good, and so are Indian Clubs, but in most houses there is not room for either. A friend of mine has a pair of short iron cylinders loaded with shot attached to thin, highly-polished handles. With these he can manage most of the Club exercises, and the polished handles try his gripping power. The intervals between the muscular exercises should be utilized for breathing exercise. This not only improves the wind, but is a safeguard against lung trouble. Ordinarily speaking, a man does not use his full lung capacity when he breathes, and consequently a certain amount of air is apt to stagnate on the confines, i.e. under the collar-bone, and down at the base, and there it stays ready for any malignant lung microbe that may come along. Pneumonia, etc., almost always start in one or the other of these sections, and they should be regularly flushed with fresh air every day. Try and keep your leg-joints as supple as possible. Stepping slowly on and off a strong table should be practised. It requires doing. The late Mr. O. G. Jones recommended practice on strong mantelpieces as an aid to the ascent of the Napes Needle. It is as well to be sure that the mantelpiece is strong enough, but how to apply the test is difficult to suggest. So far as I can gather, the mantelpiece never demonstrates its insecurity till you are nearly up, and then it throws you on the back of your head and makes a hole in your pocket. 7. Last, but by no means least. Observe the ordinary rules of health ; remember your catechism, and keep your body in temperance, soberness, and chastity ; and make a point of taking hard exercise of one kind or another every day.

Boots.—There are boots many, and no trouble or expense should be spared to secure the very best ; your comfort, your success, even your life may depend on your boots. Consequently it is not remarkable to find that more than three pages of *Badminton* are given up to this subject. I shall select such passages as are to my purpose.

'The soles should project at least half an inch all

round beyond the uppers when the boots are first made, and . . . it is equally important that the heel should also so project. After a few days of walking, it will be found that the uppers will be pressed down until they are nearly flush with the soles. The uppers should extend well above the ankle, and must be absolutely waterproof and made of the very best leather obtainable, for good leather is not only softer, but much more durable.' 'The places where a perfect fit are most important are the heel and the instep.' 'The tags are best made of leather, and they should be firmly sewn into the upper and extend down the whole length of the boot. . . .' 'The soles need not be of any very great thickness, only sufficient indeed to prevent the points of the nails from getting through; the heel should be two thicknesses of leather deeper than the soles.' 'The leather (of the sole) ought to be perfectly hard and dry when the boots are nailed. If the sole is thoroughly well hammered before any nails at all are put in, they will be found to hold much better. Another plan is to bore a small hole in the boot and to put a drop of water in it, and then drive in the nail, which rusts and holds more firmly.'

THE SHOES OF THE FAITHFUL.

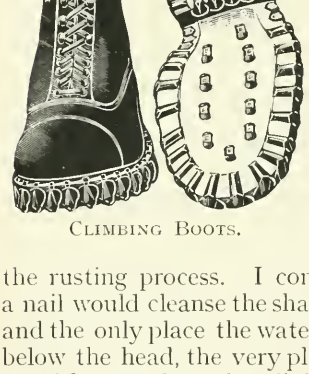
Next Doctor Claude Wilson (*op. cit.*): 'It is needless to say that boots for mountaineering must be very strong. Laced boots not too high at the ankle are the best, and the tongue should not be loose but be sewn at the sides. The soles should project, and the heels should be low and come right forward. It is a great nuisance to find the nails will kick out, but this will seldom happen if the boots are kept for a year before being nailed. The nails, too, may be dipped in water before being driven

in, so that they will rust into their places, and if those on the edges are placed so as just to overlap, they will help to keep each other in position.'

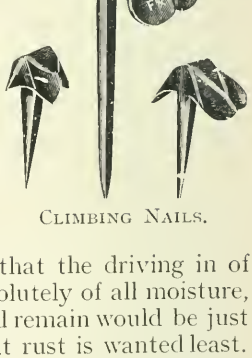
Again, Mr. G. D. Abraham, *The Complete Mountaineer* (Methuen) : 'The leathers for the uppers should be the best zug or chrome, soft and absolutely waterproof. The nailing of climbing boots is a fine art. The greatest skill is required in driving the nails direct, for it is imperative that no hole should be previously bored in the leather, otherwise they will come out sooner or later, generally sooner.' Then follows a warning against accepting the usual soft leather or boots advertised as having waterproof soles. Then, 'The accompanying illustration shows my own personal idea of the right arrangement of the nails, and the kind to be used. These, especially the outer row, should be of wrought-iron, not cast-iron or steel, such as are often used at home and abroad. It will be noticed that the outer nails overlap, and thus secure each other firmly, and they continue round the sole as far as the heel. I am strongly averse to the use of large nails for the inner part of the sole. They are a danger in many ways, notably in rock-climbing, specially that of a difficult order, because they protrude and cannot suitably be driven close by the outer nails so as to allow these to properly grip the smaller footholds. It will be obvious from the illustration that the row of lesser nails will steady the foot on small holds, and grip collectively with the outer nails. The bulky hobnails are also inclined to be felt through the sole, and cause painful feet. The heels are generally garnished all round with the outside nails, and the large pattern can be used for the inner section.'

Looking over these passages I may say that I prefer my boots not too high at the ankle. This is, however, merely a matter of choice. I know one mighty climber who has a pair of boots that come half-way up the calf, like a lady's. Bootmakers have an exasperating habit of pandering to the laziness of mankind by putting hooks on to the laced boots, instead of having eye-holes all the way up. Ordinarily this does not much signify, but

on a climbing boot they should never be seen. It is impossible to fit the boot so comfortably to one's foot as one can with eyes, and, besides, hooks have an irritating custom of standing up on end whilst being laced and having to be jammed down again. After two or three incidents of this kind they break, if they have not already knocked themselves off on the rock, thereby compelling the unfortunate climber to take off the boot and lose his time and temper endeavouring to shove a stout bootlace through an eye two sizes too small. The soles, perhaps, need not be of very great thickness, but they must be thick enough to allow one to dance on the sharp edges and tops of pointed boulders without trying the feet. I confess to feeling a little sceptical as to



Climbing Boots.



Climbing Nails.

the rusting process. I conceive that the driving in of a nail would cleanse the shank absolutely of all moisture, and the only place the water would remain would be just below the head, the very place that rust is wanted least.

With regard to the clinker nails round the edges of the soles, it is of importance that they should overlap. Some makers rivet the nail at the end of the toe, fixing so that it overlaps the edges of the nails on either side, thus becoming the master-nail of the boot. Personally, I should always insist on this being done, however obstinate the bootmaker might be. Again, though the edges should overlap, they should not do so too much.

A pair I had made in my salad days were nailed as if it had been the bootmaker's object to get as much nail as possible on the top of the next. Consequently, the gripping power of the clinkers was seriously diminished, and before very long, wear and tear worked them down till they became something like a smooth metal band round the sole, which was eminently undesirable. On the other hand, the interspaces must not be too wide. A pebble may easily get fixed in between two nails and effect a deal of mischief. One or both nails may be loosened or even wrenched out in a very short tramp by this means.

One method of fixing the clinker nails, I have heard both extolled and condemned (the latter word being a syllable too long). The nail is driven upward through the sole, and the head and point then bent over, so that the edge of the sole is ringed, something after the manner of a hog's snout. Certainly it is difficult for a nail so treated to fall out, but it occasionally works loose and then, in addition to damaging the sole, the sharp upper edge of the head sooner or later comes in contact with the upper leather and cuts it. If it comes to something 'having to go,' the sole of the boot gets torn outward and is irremediably injured.

The star or screw nail finds favour with some. It is a circular disk with strong spiked edges, with a hole in the centre by which it is screwed on to the sole. These nails grip spendidly, but I understand are liable to work loose and give, i.e. partially revolve, often at a critical moment. I mentioned this objection to a climber who uses them, and he admitted it, but explained that he safeguarded against it by screwing the nails up tight every morning. Such an argument defeats itself. If they could be screwed up on the following morning, they must have worked loose on the previous day.[1]

Star or Screw Nail.

I entirely concur with Mr. Abraham in his argument

[1] It is fair to say that the screw nail—to judge by the sale—finds annually increasing favour.

in favour of small nails on the sole of the foot, and would only add that care should be taken that they are square-headed.

I think all these points should be kept before one when purchasing a pair of climbing boots. As to where to go for them, the beginner had better ask two or three of his experienced climbing acquaintances where they get theirs, and, if possible, get one to accompany him. Almost any bootmaker will profess to be able to make you a thoroughly good boot, but most cannot. This is not hearsay. When I undertook to write this book, I set before me as one object to get my facts, at any rate, as correct as I could. Wherefore, acting on Miles Standish's motto: 'If you want a thing to be well done, you must do it yourself, you must not leave it to others' I dropped into one or two (or more) boot shops and asked if they could make me a climbing boot. They said they could—and I believe they honestly thought so—but a very cursory inspection convinced me that they could not, and never, never would be able to, and I forthwith determined to issue words of warning against rash purchasing.[1]

When your boots are laid up in ordinary, it is well to give them an occasional dressing with dubbin which keeps them supple, and prevents the leather perishing.

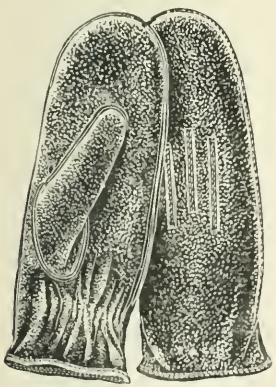
I always make a point of wearing a pair of socks under my stockings. A little hot they may be, but they prevent one getting footsore, or chafed, or blistered, as nothing else does.

General Kit. *Hat.*—Any kind of cap the climber fancies, except in very hot weather, when a light soft felt, with a wide brim, is preferable. Some people favour deer-stalkers, with a fore and aft peak, and flaps to tie down over the ears. I do not care for these. If they are tied very tightly under the chin, they are uncomfortable; if they are not well secured, they are very liable to be blown off. I have seen three such caps converted into parachutes in one day by the eccentric wind, and one fell over a precipice. A woollen 'Bala-

[1] I can, however, recommend, without reservation, Mr. J. S. Carter, Alpine Bootmaker, South Molton Street, Oxford Street, London, W.

clava' cap, closely fitting the head and neck, with an opening for the nose, mouth and eyes, is the best. It can be easily carried in the pocket. *Stockings.*—As thick as you like, and a little thicker. *Gaiters.*—No one who has worn *puttees* will ever think of gaiters again. Some people use Fox's Spiral Puttees, but, personally, I prefer the coarse Tommy Atkins' puttee as being better fitted for the rough work, as well as cheaper. *Knickerbockers.* — I prefer those that lace below the knee. Box-cloth, when wet, becomes hard, and crinkles, and buttons and button-holes are unyielding things. Some climbers have corduroy knees to their knickerbockers. These, though conspicuous, are to be recommended; they save the knee from being hurt and bruised, and make the clothes last longer. Chimney work on gritstone is most destructive. *Coat.* — Norfolk jackets are much favoured, and for rambling are not to be beat, but I do not much care for them to climb in. There is too much skirt about them and all in the wrong place. The chest can be deflated and the shoulders twisted, but the hips are incapable of deflation and will not admit of much twisting. I should recommend an ordinary short jacket with all the pockets inside. *Sweaters.*— One should always be taken; a Cardigan jacket is a satisfactory substitute, but too hot for summer work. *Muffler.*—A silk 'kerchief is

HELMET
(Balaclava Cap).



GLOVES.

desirable ; it may save many a cold. *Gloves.*—Gloves are essential for winter-climbing. They are made like baby gloves with no fingers to them. *Shirts.*—Flannel is the best material. Those made to take a detachable collar are the neatest. *Anklets.*—These should be knitted—canvas is inferior in respect of comfort, and leather worse. They are most useful in keeping out small stones and other inconveniences, and in preventing the bootlaces being untied by heather or bracken. They should be put on before the boot, and pulled down over the top when the boot is laced. A section of an old sock or stocking makes an excellent anklet. *Bootlaces.*—Take at least two spare pair.

Suit.—For rambling no suit equals a Burberry. For rock-climbing Burberry is hardly to be recommended. It is costly, and the wear and tear of chimney work reduces its waterproof value very quickly. Moreover, when a way has to be forced up a waterfall, the lining gets clogged and very heavy. I should suggest Tweed —Harris Tweed for choice—for a climbing suit.

Rope.—There is only one kind of rope, the very best, the Alpine Club rope. It is to be purchased at Arthur Beale's, 194, Shaftesbury Avenue, London, W.C., or at accredited agents.[1] It is made of three strands of the best manilla hemp, and a scarlet thread of worsted runs through the core, but this might quite easily be introduced into material of inferior quality. To possibly entrust one's life, or the life of one's companions to a rope that is not the best is not only foolish—it is wicked.

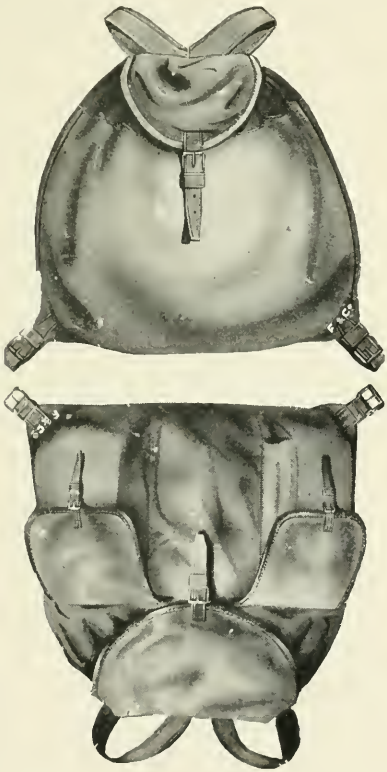
A new rope is troublesome. It kinks most obstinately. The easiest way of getting it into condition is to stretch and twist it round two uprights (the bannisters will serve, if strong enough) and leave it all night. Or it may be stretched round a post, or the shaft of an ice-axe. Or it may be slung over a beam and pulled out

[1] Messrs. Frederick & Co., Mountaineering Outfitters, of County Arcade, Leeds, have, however, recently produced a *four strand* rope, which would seem to be, from tests applied, considerably stronger, and only slightly heavier than the red thread. It is distinguished by a *green thread* down the centre. Messrs. Frederick have kindly provided the illustrations for this chapter ; and I may say I can conscientiously recommend their goods.

foot by foot, by swinging on it with both hands. This process has the advantage of giving exercise as well. Wet ropes should always be stretched and dried. The bannisters are a favourite drying ground, but I prefer to wind mine round the frame of my bed. I can at any rate be sure of finding it the next morning.

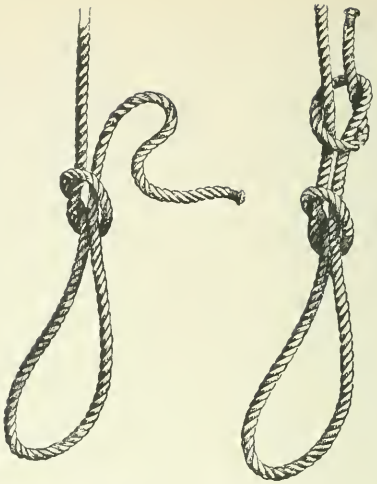
The ends of the rope should be whipped with waxed twine. Some climbers have the end of the rope bent back and fastened on to the main rope about six inches down. This is clumsy and untidy to look at, and gives scope for all the exasperating disadvantages of a knot.

Beginners should learn to knot and unknot ropes quickly and deftly. There are five kinds of knots in general use: The Fisherman's Bend, the Middleman Noose, the Double Overhand Knot, the Bowline, the Clove Hitch.



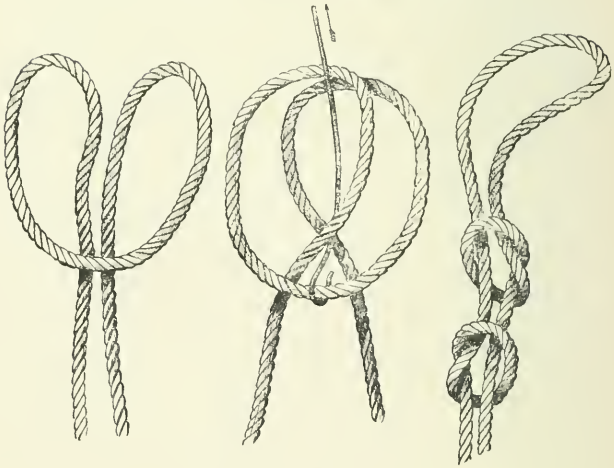
Rucksacks.

The Fisherman's Bend is the best for the leader or the last man. It is sound in principle, a knot on a knot. It will also serve to join two ropes. The Middleman Loop is the only one that should be used for middlemen. It requires a good deal of practice to tie.



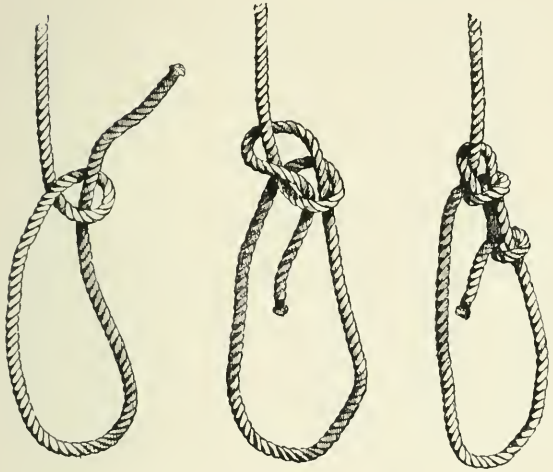
The Fisherman's Bend (for end loop).

The Fisherman's Bend (for joining two ropes).

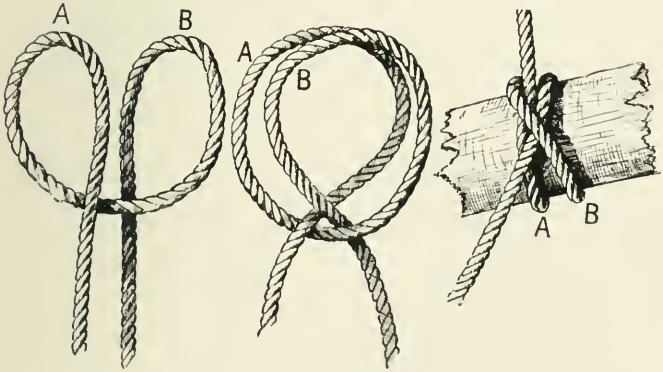


The Middleman Noose.

The Double Overhand Knot.



The Bowline Knot.



The Clove-hitch.

The Double Overhand is the lazy man's knot, and is the worst of all those figured. Though easy to tie, it is very difficult to undo if the rope be wet or frozen. The Bowline, on the other hand, is the easiest to untie. The loose end should be fastened round the waist-strand a knot on a knot. One should also learn to make a bowline on a bight. It is useful in case of emergencies, such as accidents, or aspiring lady climbers going over the Nose on Pillar Stone. The Clove-Hitch is the soundest belay possible, where possible. It may also be used for slinging axes.

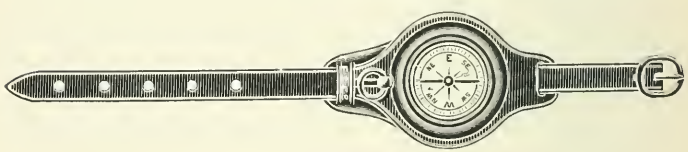
Rucksacks.—These are the best form of knapsack invented. They are made in several sizes, but generally speaking a small one is adequate for most British expeditions. It will hold rope, lunch, sweater, etc. For camping-out, or long tours, the larger size is preferable. There is no need, however, to fill it to bursting point, as some people seem to think. Take all you want, but make that all as little as possible. In this case—

> Man wants but little here below
> Nor wants that little long.

See that there are separate pockets in the rucksack. It is just as well to keep your lunch, your hair brush, and your slippers apart.

Slippers.—Warm slippers are very comforting when the feet have been cold and wet, and may stave off a chill or a headache.

Compass.—A wristlet compass, worn on the wrist like a watch is very useful, though unsuitable for rock-



climbing, but there should be one good compass in the party. Many prefer one with a floating dial, and if this be luminous, it can be used at night. The case, which

should be strong, may advantageously open with a spring like a watch, and should certainly be so arranged as to lift the needle off its pivot when shut. The prismatic compass has many advocates. Some compasses are made with the point of variation, about 17 degrees W. in Britain, marked, and these certainly save some trouble. I strongly dislike compasses in which the poles are coloured instead of marked N. and S.

Map.—A map should always be taken. Bartholomew's inch to the mile maps are sufficient for almost all expeditions. If possible, however, one should consult the 6-inch Ordnance Survey Maps, and put in on the smaller map the escarpments. This has been done in the *Thorough Guide* (Baddeley's) *to the English Lakes*, new edition by Thomas Nelson & Sons, which will appear shortly. The *Scottish Mountaineering Club Journal* contains some admirable maps of Arran, Skye, and other parts of Scotland.

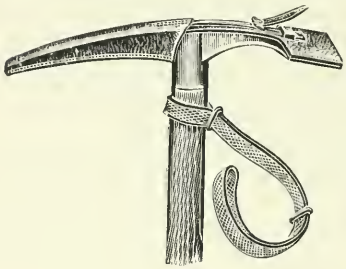
Ice-axe.—Look with suspicion on every axe that is not absolutely simple in construction. If there are any fancy features, such as a leather ring, or a thickening of the

shaft, or a roughening of the under part of the blade, it is quite evident that the axe-maker has no practical knowledge of the business in hand, and it is better to avoid him.

A beginner is as little qualified to select an axe for himself as he is a cue, and here the advice of an experienced man is most valuable. It is, however, just as well to know the points:—

The stock should be of seasoned, straight-grained ash, split, not sawn from the log. The axe should balance not more than 14 inches from the head, if anything

rather less. Forty-four inches is given as the correct length for a six-foot man. A shorter axe would probably serve just as well on the British mountains, but as the ambition of every climber is the everlasting snows, it is as well to get used to the genuine article. The head, which is like a spiked adze, should be made of wrought iron, tipped with finely-tempered steel. The blade may be a little curved, but the pick should be almost straight. Three pounds as given is a fair average weight, but many and expert mountaineers prefer something heavier. A leather cap should be taken to cover the head of the axe, and that not only 'for the safety of one's fellow travellers and their effects,' but also out of consideration for oneself. I once knew a man spike his Gladstone, and to hear him was a liberal education.



Crampons (climbing irons).—The best appear to be the new design evolved by Messrs. J. B. Farmer, J.C., Morland, A. W. Andrews, and O. Eckenstein. They are made of steel tempered till it can be cut into with a penknife and can be made to order at the Albion Iron Works, Red Lion Street, E.C., at a cost of about £2 10s. They weigh between two and three pounds.

Fell Pole or Alpenstock.—This semi-obsolete implement is a great assistance for one-tenth of the day and a nuisance for the remaining nine-tenths. Whatever a fell-pole is useful for can be done just as well, if not better, with an axe. Still, as many people use them, they may as well learn to use them properly, which, by the way, not ten per cent. do. Though somewhat out of order, I propose to deal with the use of the fell-pole here, as I do not intend to refer to the subject again.

Walking up hill. Most people extend their arm full

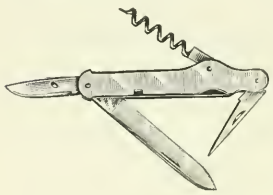
length in front of them, sink the point into the ground, and struggle up till they are abreast of it, when they repeat the operation. This may be very good exercise for the arms, but it is of no possible service in getting you up the hill. The correct method is as follows: Supposing the pole is in your right hand, drop the point simultaneously with and close beside your right foot.

Descending a hill.—The pole should be held lightly with both hands—they will tighten spontaneously at the right moment—with the point well behind you. The upper hand will, therefore, be brought across the body about breast high, with the other a little above the hip. It is remarkable how obstinate beginners are in this respect. Surely it is obvious that in the case of a slip on a steep slope the direction of the slip will be downwards, and that, therefore, to check it, the point of the fell pole must be higher up the slope than the feet. Surely it is also evident that in the case of a slip on a steep slope the first direction of the fall will be backwards. Wherefore the fell-pole should still be held with the point above and behind one. The second motion, assisted by a vigorous effort at recovery, may be forwards. Wherefore the fell-pole should still be held behind, lest haply it mix itself up with your legs and trip you. A white cross near the Foot of Fleetwith Pike commemorates a fatal accident that happened to a young girl precisely in this way. She was running down the slope with her pole incorrectly held in front of her, pitched over it, and shot with great violence over some low crags on to her head. It has been suggested to me that in adopting this wrong method one also risks injury through falling forward on the stock of the pole, and this might quite easily happen. With the pole held properly, however, steep slopes can be descended with great speed and perfect safety. So they can without a fell-pole at all. It is written: 'It is perfectly legitimate to use the pole . . . to break the force of an abrupt drop from rest to rest—as, for instance, when a slope is broken into binks (ledges) separated by drops of from three to

six feet.' The next sentence, however, ' In such cases a jump is often dangerous, and the life of Mr. Pope, lost on Great Gable in 1882, is only one of many which have been similarly sacrificed,' is hardly encouraging.

In one place a fell-pole *is* useful ; that is in crossing mountain streams.

Knife.—A strong knife with a catch to the large blade is a portion of the climber's equipment often overlooked and frequently regretted. It should also have a strong *corkscrew* and a *tin-opener*. N.B. —On the mountains the best way of cleaning a knife is not by driving it into the ground, as there is usually not much more than an inch of soil above the solid rock.



Piton.—A strong iron spike with an eye at one end through which a rope can be passed. Though situations occur when a *piton* might be used as a belay, the times I have felt the want of it, and never had it, has been when clearing holds of turf, and still more when wrenching out a bit of semi-stable rock to create a satisfactory handhold.

Safety-pins.—Invaluable, not only to fasten bandages in case of accidents to the body, but to pin up cloth in the more frequent event of accidents to the clothes. They also make effective pocket-guards.

Guide Book should be taken in the rucksack.

Camera.—A camera will more than repay the trouble of carrying it. It is best taken in the rucksack. If not, webbing should be substituted for the shoulder strap, and some arrangement devised for keeping it from swinging. Otherwise, when going up hill, it gets between one's legs in a most annoying manner. ' Telescope ' legs can easily be carried in the rucksack.

Field-glasses are invaluable in reconnoitring an unknown peak. Practice with them should not be neglected at home even though through the medium of

photographs, guide-books, etc., you are as perfectly acquainted as may be with the proposed ascent.

String often comes in handy.

Flask.—A strong flask of brandy[1] should be taken in case of emergencies. It had better be in charge of the total abstainer of the party.

Cup.—These are generally far too small. A *dampschiff*, or indiarubber collapsible cup is easy to carry, as is a metal 'telescope' cup.

Commissariat.—The food should be tasty, nutritious, and easy of digestion. Personally I generally travel on potted-meat sandwiches, gingerbread biscuits, and raisins. Bananas find much favour, and rightly so. Jam and marmalade sandwiches are to be recommended, and meat sandwiches, if you can get them cut decently. Bread and cheese make a lunch fit for a king, and a pork-pie secures for its owner instant popularity. Besides these mainstays, little luxuries are very welcome: preserved fruit, Carslbad plums, etc., besides apples, oranges, cherries; lemons and sugar should be taken. A tin of soup is most welcome in winter. I know nothing on a cold day much more cheering than a ration of *purée de tomate en tasse.* For odd nibbles I find chopped onion, sandwiched between oatmeal biscuits, appetising and sustaining.

For drink.—Mountain water in Britain is generally abundant and delicious. Of course one has to look out for incidents such as copper mines and dead sheep, and that delightful peaty brown of some Scotch streams does not improve the flavour. Lemonade is readily made and is very acceptable in summer, and tea and coffee are easily carried.

Tobacco.—Take fusees always in reserve. They save a deal of time and temper in windy or wet weather.

Spirit lamp.—A small, handy spirit lamp, which will set water boiling in an incrediby short space can be

[1] Brandy is preferable to whisky, if only for the reason that there is less of it drunk, and consequently there is a better chance of getting good stuff.

purchased at almost any good lamp shop for about 3*s*.

A *Thermos*, an apparatus for keeping coffee or other liquid hot for several hours, is a grateful companion in the winter. Great care must be taken, however, that it is not knocked about.

Saucepans should have a cover ; and one or two Japanned cups may with advantage be put inside.

This sounds rather a formidable list, but distributed over a party of three the trouble of carrying these provisions and apparatus becomes negligible.

Camping out.—There are sundry men, reputed sane, in Great Britain to-day, who, it is to be assumed, prefer sleeping on the hard, cold ground on a bleak mountain-side or in a wind-swept valley to the comfortable, warm bed which is awaiting them a few miles off ; who like to 'snore upon the flint,' with the chance of their snoring being interrupted by a beetle crawling up their nose ; who delight to find in the morning that the chicken they had tramped eight miles for has been walked off with by a fox ; who enjoy washing and dressing on sharp shingle by a icy brook ; who find greater pleasure, after returning from a long climb drenched through, in getting the dirt off them in the aforesaid brook on the aforesaid shingle with the additional rapture of wind and rain than in a hot bath ; who revel in changing in a tent where there is no getting away either from the draught or wet clothes rather than in a warm bedroom, with the kitchen fire waiting to dry those clothes that will now have to dry themselves, to say nothing of the chances of a puddle usurping your sleeping place or the whole tent being blown clean away, and provisions, kit, etc., scattered all over the said mountain or valley. In Skye it is necessary to camp out for certain peaks, and the splendid sport compensates for the enjoyment of the tent, etc., but elsewhere——

Tent.—Each man prefers his own tent, which is always unquestionably the best. One thing is certain, that strength must not be sacrificed to lightness, and that the material must be waterproof. Other accessories

are *sleeping-bags*, and a thick Balaclava cap, or woollen helmet (*see* above p. 31). This does much to keep off cold and neuralgia and, moreover, limits the area of operations for the insects. Of course the provision list can be extended *ad lib.*

Medical Accessories (*see* Chapter X).

Photo by] [*E. M. Corner.*

PEAKS OF THE CASTLES AND CARLIN'S LEAP, ARRAN.

CHAPTER III

RAMBLING

BEFORE starting on a British hill ramble it is not a bad plan to take the map and try and puzzle out for oneself a *general* conception of the *general* form of the mountain group one proposes to visit, and then in the evening after the expedition to compare one's impressions with the reality. It is perhaps unnecessary to say that at first one's impressions, unless one is accustomed to maps, will probably be hopelessly wrong, and that, with the usual perverseness of the human mind, a conviction will form and deepen that the surveyors responsible for the map had certainly never, never been near that part of the country. After a little practice, however, one will be able to form a rough idea of the shape of an unknown mountain simply by studying the map.

With a view to ascertaining the most likely pitfalls

for the unwary, I enlisted the services of an intelligent, educated gentleman, but with no knowledge of either maps or mountains. I put him down, metaphorically, on the top of Grassmoor in Cumberland and told him to find his way safely off it. He immediately picked out a point where the mountain falls about 1,000 feet in somewhere less than quarter of a mile, and walked over the edge.

Now had this occurred on the mountain instead of in my study a catastrophe would have resulted, wherefore I concluded that it behoved me to do what in me lay to try and point out what may, and what may not, be learned from an ordinary map of a British mountain group. I shall therefore ask the reader to accompany me for a ramble over Grassmoor.

Let us assume that we have arrived at Keswick overnight, and are entirely unacquainted with the district.

Looking at Grassmoor,[1] then, we find it is 2,791 feet high, and that the portion above the 2,500 feet contour is rather less than a mile long by about quarter of a mile broad. As within this space the ground rises less than 300 feet, it is fair to assume that the summit of the mountain is a gently curving ridge. Whether it be a chaos of boulders, a wilderness of bare stones, or grass or heather it is impossible to say. The name suggests grass, but as Grassmoor is quite possibly a corruption of Grise (wild boar) moor, this may prove a delusion and a snare. The general outline of the mountain, which seems to be of the plum pudding order, renders it improbable that the summit is much broken up, and it is reasonably certain that it is not marshy owing to the absence of any stream above the 2,500 contour.

In the direction of Crummock Water, the mountain evidently falls steeply, as the contour lines become

[1] I am using Section Map No. 8, tenth edition. Thorough Guide Series by M. J. B. Baddeley, 1906 (Dulau and Co.). In the new revised edition (Thomas Nelson and Sons) the scarps are marked and the errors in naming corrected.

crowded up. They indicate an interspace of 250 feet, and at one point we have three such spaces in three-sixteenths of an inch. As the scale is an inch to a mile, this gives a fall of 750 feet and 990 horizontally, which is precipitous. Further south, at Whiteless Pike, these lines widen out to seven-sixteenths of an inch, or only a fall of 750 feet in 2,970 horizontal,

Crummock Water and the Fells round Buttermere from below Grassmoor.

which sounds an easy slope enough. Having regard, however, to the general steepness of the mountain in this direction, to the fact that Whiteless is a Pike, that the sides of the ridge it terminates show somewhat close contour lines and that one point of the ridge above 2,000 feet is very narrow, we modify our conclusion and look out for a sharp gradient in that direction.

In a north-easterly direction, towards the head of the Coledale Pass, the inclination is obviously easier, the space between the 2,500 contour and the 2,000 being half a mile, or a fall of 500 feet in 2,640. Quarter of an inch (mile) to the east of the 2,500 on Grassmoor is the 2,500 line on Eel Crag, and nowhere between

the two does the level go below, or seemingly approach the 2,000 line. We note, too, that midway between the two fells is the source of a stream which runs, at an easy gradient (for a mountain stream) northwards. I do not think it too much to conclude that the fells are separated by a shallow depression, with quite possibly marshy ground at the bottom.

Here we have, then, a mountain of the plum pudding order, rising gently from the east, sloping away steeply to the south and south-west, rather less steeply to the north, and falling precipitously to the west. Moreover, we had better make a note that at one point in the direction of Brackenthwaite Fell, the space between the 2,500 and 2,000 lines narrows down to less than quarter of an inch, which is almost sheer, and that in other parts to the south it is not very much wider.

So much for Grassmoor. We intend, however, to take the regular guide-book excursion over Grisedale Pike, Sand Hill, Coledale Pass Head, Grassmoor, Eel Crag (the 2,749 point), Sail, Scar Crags, and Causey Pike.

Grisedale Pike is evidently well named. The coloured portion, indicating a height of more than 2,500 feet, is very small, and within the space the ground rises 93 feet. Moreover, the incline to the south-east is evidently at a high angle, and the slopes in the direction of Grisedale Gill and Hobcarton are scarcely less severe. And, as a matter of fact, in mountain form Grisedale Pike has scarcely a rival in the Lake District, but, unfortunately, it is of a meek and mild disposition and, even under the worst conditions, offers only a minimum of sport.

The summit lies about two miles from Braithwaite, which is some 250 feet above sea-level, so we may look for an easy stroll along a ridge line, which narrows as we near the summit, and so onward down easier slopes to Coledale Pass and thence up the rounded side of Grassmoor, returning over Eel Crag. We notice that the Grisedale ridge continues over a 2,525 peak, Hopegillhead (marked Sand Hill on the map), and

down a wide ridge, Whiteside, on which the 2,000 colour patch seems about 300 yards broad, that would appear to form an easy route to the Scale Hill Hotel, were it not that the contour lines round the extremity are threateningly crowded.

Eel Crag springs quickly from the valley between it and Grassmoor and falls steeply on the other side, somewhere about 500 feet in 700 in one place facing north-east. Guided by the name of the fell, as we are, we may expect to find rock here, but, before considering the eastern aspect of Eel Crag, we may as well remember that the side towards Grassmoor may quite possibly be inconveniently be-cragged and be-bouldered, the moderate slopes towards Coledale Pass notwithstanding. The map, as I have already suggested, very seldom even indicates the 'surface' over which we shall travel. For all we can judge to the contrary, those seeming simple slopes between Sand Hill and Grassmoor may be clothed with thick ling concealing multitudinous stones of all sizes, and roundnesses and sharpnesses, than which no more detestable going can easily be found.

To the east, however, we can get a pretty fair idea of what is before us. Eel Crag shoots out from a summit of 2,749 feet, a spur which, within quarter of a mile, touches the 2,000 feet line and immediately afterwards, a furlong at most, rises on Sail to 2,500 feet, the ground falling away steeply on either side, as we can see from the contours. Here, then, we have a narrow ridge which descends steeply from Eel Crag and jerks up again to Sail. Thence the summit-line continues easily downwards, descending about 500 feet in a mile and a quarter to Causey Pike, with steep inclines to the south and easier slopes to the north. Keeping to the ridge line a moderate slope 1,500 feet in a mile, takes one down to the main road. The small grey (2,000 feet) patch on Causey Pike suggests that the fell runs to a sharp point.

We start the next morning in perfect weather for Braithwaite, and immediately on leaving the village

we find that carelessness has let us in for a little bit more work than we anticipated. It is not serious, but still we ought to have noted that Kinn, the extremity of the Grisedale Pike ridge, rises to a height of 1,167 feet, and that the base is right on the road. Consequently we have a steep slope to tackle, which, however, is eased off by a zigzagging path.

Before starting the ascent, it will be worth our while to walk some distance along the pony track that leads to Force Crag. We find that the Pike is on this side heather covered till the summit is almost reached, when a few crags crop out, below which are long barren slopes, broken half way down by a band of crag (Lang Crags). The ascent of the Pike from Force Crag would be excessively fatiguing and perhaps a little dangerous, for rocks situated as Lang Crags, i.e. as it were flush with the fell side, not projecting boldly, are invariably treacherous and never by any chance offer a course of any interest. Force Crag, the bold bastion that closes the head of the valley, looks better, but experiment will tell us that it is very unreliable. In fact, were we close enough up, we might conjecture as much, for there is a great deal of 'garden stuff' about, and rocks so ornamented are always to be regarded with suspicion.

One thing strikes us as curious. For the most part the inclination of the mountain is uniform, but just where we are standing the upward slope eases considerably, whereas below us the fellside falls abruptly, so that it seems as if we could easily pitch a stone, or ourselves if we chose, into the beck below. This is an ocular illusion. Here, as elsewhere, the slope is uniform, but the eye is prone to *underrate the inclination looking up, and to overrate it looking down.*

As we approach the Pike itself we find that its side in the direction of Grisedale Gill, which we marked down as 'scarcely less severe' than the slope towards Coledale, is almost sheer. As a matter of fact, from these 1 inch maps it is impossible to do more than get a *general* idea of the *general* angle of any given moun-

tain side. In the descent of 593 feet to the 2,000 contour in this direction, for instance, there is plenty of room for a 200 feet precipice and a lawn large enough to play croquet on.

The nature of the 'surface' is, as has been already emphasized, largely a matter of conjecture. On the Grassmoor Group we find it chiefly grass, with a good deal of heather on the eastern spurs. The top of Grisedale is moderately wide and barely calculated to try the head of a seasick man, under present conditions. All the same, Grisedale can be exciting, as I shall presently relate.[1]

As we turn down towards Coledale Pass, we get another lesson. That Whiteside ridge that looked so broad turns out to be quite narrow. The contour lines on either side did, indeed, suggest that it might be less wide than it appeared at first sight, but not that it was a passage that, even under summer conditions, required care. NOTE.—When you see on a map a mountain spur that shows indications of broadening towards its extremity, if the contour lines suggest that the sides are steep, or steepish, look out for a sharp ridge.

The edge of the ridge facing Grassmoor is fringed with crags, which, however, ere long break away into scree, lines of which may be traced running up the channels between the crags almost to their crest. This is a sure sign that the rocks have disintegrated rapidly, and are, therefore, unreliable. The great precipice of the Screes facing Westwater, which is about as rotten as they make them, has worn away in parts right to the ridge line. It does not follow, however, that rock faces which do not markedly present these characteristics are sound—witness Hobcarton, close to Grisedale Pike, and the rocks on the south of the Eel Crag —Causey Pike ridge, which are dangerously unsound. On the opposite side of the valley a similar, but rather better looking fringe of rocks adorns Grassmoor.

Grassmoor, as we worked out, turns out to be of the

[1] *See* Chapter IX, p. 194.

modified plum pudding order, with an easy slope to the east, and falling with varying degrees of steepness in other directions. Of the structure of these sides we have no means of judging, and Grassmoor teaches us this lesson very effectively. Whiteless Pike is grass, and as steep a slope as any to be found in the Lakes. Then succeed long inclines of earth, loose stones and grass patches. Further west, on the side of Grassmoor that faces the foot of Crummock Water, we come to genuine crag, which promises sport for the cragsmen, and in fact there are here two of the longest gullies in the district, and if they only continued throughout as they begin, two of the most interesting. Unfortunately, however, after the first two or three pitches, the quality of the rock deteriorates and in parts becomes objectionably rotten.

Before leaving Grassmoor we make one resolve—never to trust to the map alone, but always to ascertain beforehand, from guide-books, and other sources of information, all we can about the mountains we are going to visit. Below the 2,000 feet contour, where the interspaces represent 250 feet, we may guess where to look out for trouble; above that line, where they spread out to 500 feet, we are quite helpless. Turn, for instance, to Section Map 9. There is nothing to show you that you cannot walk easily from Scafell to Scafell Pike by a ridge. In fact, the experiment would entail stepping 600 feet vertically down the Scafell Crags. Wherefore let us remember to follow the advice given on p. 37 and fill in the escarpments as well as we can.

The ascent of Eel Crag from the shallow valley, which we rightly calculated on finding between it and Grassmoor, is over a steep, bare slope, and on the north-east side, as we conjectured, we find precipitous crags. These, incidentally, afford tolerable sport. There is nothing very definite, but there are some pinnacles that offer one or two nice problems, and a good deal of promiscuous scrambling. Dove Crags, on the south side, are too rotten to be thought of.

The ridge proves worse than it looked, as it is covered in parts with slippery, clayey stuff calculated to throw you down anywhere, in a country lane, for instance, let alone on an *arête*, besides which it is sufficiently narrow to require a certain amount of head to cross it in comfort. Looking back from Sail, we note how steeply Wandhope falls towards Sail Beck in slopes of grass and reddish scree, lightly fringed along the upper edge with crag. Causey Pike proves a little knob of rock, and the earlier part of the descent a good deal steeper than we had calculated on, which was our own fault for getting lazy as we approached the end of our projected expedition, and omitting to measure the contour line.

For this expedition seven hours' leisurely going, including halts for lunch and looking around, should suffice. We have, therefore, plenty of time on hand, and some of it cannot be better employed than in practising the use of the map and compass. As a view point Grassmoor is second to none, a great number of prominent peaks being in sight. Our first lesson will be in locating these. Let it be remembered that the map is laid true north and south, and that the needle points 17° west. Some prefer to adjust the map to the compass; some the compass to the map. Each party advocates its plan with irrefutable arguments. My own idea is that it does not matter which you adopt.

It is as well to select for early experiments a peak north or south to work from. There is nothing prominent to the north but High Crag, Buttermere lies almost due south, and from there we can work round easily through the Scafell and Bowfell groups, the Westmorland Fells, up the Helvellyn range, noting where Catchedicam pokes up its perky little tip, and so to Saddleback and Skiddaw.

This of course is only the very elementary use of the compass; its chief object is to enable one to find one's way in thick weather. Nevertheless a man who has not accustomed himself to using a compass under

favourable conditions is a delusion and a snare, if not a danger, in a mist. I have seen one such lay himself down on his face, with the map neatly adjusted, his own head due north and his feet due south, take his bearings with, I doubt not, extreme accuracy, get up, put his map and compass in his pockets, take a pull at his pipe, and walk away south-west, when he ought to have gone south-east, having turned through quarter of a circle too much whilst picking and packing himself up. One *must* learn to take one's bearings whilst facing in any direction. At the same time, however, it is just as well to lay an ice-axe[1] or a stick north and south, or if neither is available, kick a groove in the snow or the soil. Also, I must emphasize the fact of the 'variation.' I once met two gentlemen on Sergeant Man and they told me it was the Pike O' Stickle (Langdale Pikes). A glance at the map will show the relative positions of these points. They were quite cross, and said that either I or the compass must be wrong, and they preferred to trust the compass. As a matter of fact I and the compass were right, but they had disregarded, or were ignorant of, the variation. However, the day was young and the weather fine, so I concluded to let them 'gang their ain gait.' A few miles out of their way might help to teach them experience, and manners.

Before going any further, I should like to say that I am perfectly aware that all this insistence on the importance of the use of map and compass will be regarded by some as superfluous, futile, faddy. Any ordinary individual, it is averred, can find his way to the summit of any ordinary British hill, and off again, even if overtaken by bad weather, by the aid of his own ordinary intelligence, assisted by tips from experts.

Foremost among these tips is 'Follow the sound of running water.' I confess to have been guilty of suggesting this guide myself, relying on the advice of older

[1] Care must be taken not to lay the compass near the head of the axe. Even a pocket knife may influence the readings.

and ought-to-have-been better men than myself, but I now desire to abjure it unreservedly. 'O, 'tis a wise rigulation,' as Mulvaney would say. 'Tis so useful, when you are on the top of Grassmoor, for instance, in a thick mist (or half a hundred other hills I could name, where there is no running water within a mile of you). 'Tis extremely useful, when the wind is howling and shrieking like ten thousand fiends, and you cannot hear yourself speak. ''Tis a Solomon av a rigulation that, and I'd like to be introjuiced to the man who made it.' Doubts began to grow in my mind as my salad days were getting sere, and I experimented for myself; and it is entirely my own fault that there were not paragraphs about me in several papers, and a memorial tablet spoiling some part of the hills.

Without quitting the little Lake District, I should like any one who is sceptical to find his way off the Helvellyn range by following the sound of running water *via* Stanah Gill, or down the other side of Thirlmere by Launchy Gill, or off Bowfell by Hell Gill, and then to say in a few brief words the exact value he attaches to this advice. Piers Gill I omit; it is a trap *sui generis*. (N.B. It is just as well only to play at there being a mist.) Nevertheless, in a valley, it is perfectly reasonable to follow a stream when benighted, as sooner or later it will lead you to some habitation.

Another gorgeous idea is to pick up a stone and pitch it in front of you. If you hear it fall, all well; if not, there is probably a precipice ahead. A lost party, say on Tryfaen in North Wales, imbued with this notion of finding their way, would invest the climbing there with a new excitement.

To deviate into sense. On an ordinary hill in ordinarily bad weather, it is generally sufficient to get your bearings accurately, and make for the safest way off, the general direction being easily kept, if the compass is consulted every few yards. It is on these occasions that a wristlet compass is so useful. On a difficult mountain, in exceptionally bad weather, it is wiser to cut to cover and wait till conditions mend.

Unless it is very cold it is better to risk being benighted than breaking one's neck, besides which you may have the gratification, or otherwise, of creating an excitement and turning out rescue parties to look for you. Fortunately it is generally possible to get on to moderately easy ground before any such alternative presents itself, and, as I have pointed out on p. 177, every effort consistent with safety should be made to get off the hills before dark.

Two maps ought to be taken, a large one of the district as a whole, and a small one of the particular mountain group visited. It is better for this second purpose to get a map in one sheet, not folded (the creases become a nuisance in time), cut out each group and paste them on separate pieces of cardboard.[1] Thus equipped [2] with map, compass, and as much knowledge as he can acquire by study and question—the tyro mountaineer may visit with safety almost any mountain group under almost any weather conditions except in winter. If he omits these precautions and comes to grief, it will not be because he is a tyro, but because he is a fool.

Before quitting the 'head' department, I should like to say that giddiness is not incurable, but will vanish with 'use,' though a good deal of resolution is required to overcome it at first. Nevertheless people with a constitutional tendency to giddiness are warned that in case of ill-health, or even indisposition, the trouble will assuredly return, and that they should therefore be careful not to undertake any serious work unless they are quite sure they are fit.

Let us now descend to the feet, pausing midway to remind tyro and expert alike that the one part of the equipment by no means to be overlooked is the commissariat. Here I should just like to say that, as a rule, people are inclined to eat too little and drink

[1] It is as well for a tyro to get assistance in this respect, otherwise he may find that he has 'grouped' the mountains incorrectly.

[2] *See* also Chapter II.

too much on the mountains. I have known more than one man get quite faint from what they thought was over-fatigue, till an exploration of the victualling department of my rucksack proved that the trouble was due to want of food. By drinking too much I do not refer to intoxicants. It is indeed an open question whether alcohol should be taken at all, and in case of exhaustion, when there is a chance of long exposure, there is no question whatever—it should be avoided. But where a man is in a tight place, a nip in due season will often just supply the extra energy necessary to enable him to extricate himself and, if followed up by a good ration of gingerbread or something sustaining, no harm will be done. The same prescription will be found valuable in the event of any of the party exhibiting signs of getting shivery owing to cold. What I mean by drinking too much is, that few people on a hot day resist the temptation of plunging their head into those delicious streams of sparkling mountain water, and having a good satisfying draught. It is nectar, but it takes the pace off, going up hill, seriously. In fact, if a man can learn to 'travel dry,' or content himself for the most part with washing out his mouth, he will go much farther and faster than if he keeps continually filling himself up with liquid. Moreover, it is well to remember that, though you are hot, the water is cold, and that the luxurious head-plunge will very likely give you a cold in the nose. Besides which, drinking cold water when very hot is not generally recommended by the faculty.

And now

> We teach him to uphold his manly brow,
> And how to walk, and where to put his feet.

The first principle is the most difficult of all to inculcate. On the other hand, once learnt, it is never forgotten. The second is one never mastered, and paradoxical though it sounds, this is a source of satisfaction. Every visit to the hills teaches us something of how to walk and where to put our feet, and that,

though age steals vigour from the limb, an unconscious, though perfectly appreciable increase of accuracy in the selection of foot-places (I will not call them footholds) and the art of conserving one's energy comes steadily with years and largely compensates for the abatement of natural vigour.

Everybody on level ground will agree that the more erect the carriage of the body, the better the balance. Put that man for the first time on a steep grass slope, and his action will assuredly contradict his theory, more especially if he be traversing (crossing) it. He will for a certainty lean towards the slope, just as if there were the smallest possibility of his falling over himself outwards, unless he choose to cross his legs. *See* also p. 197. If he wanted to slide down the incline, he would of course lay himself as nearly parallel to it as he could, and, by a curious process of reasoning, when he wants to stand on it, he also adopts an inclined attitude, instead of standing up like a man, and getting as much foot as he can on the mountain, thereby securing a firmer stand, a better balance, and lessening the chances of a slip. On scree, the leaning position is peculiarly ridiculous. If a man wants to dislodge a loose stone with his foot on a slope, he would naturally kick the upper edge; if he wanted to keep it *in situ*, he would put as much foot as he could firmly on it. Now, as scree is simply banks of loose stones, it is obvious that in crossing them one should keep as upright as possible. In traversing rocks, where there is danger of an accident, everything must be sacrificed to safety, but a mountaineer will walk with ease upright along crags amidst which the beginner will crawl.

Walking up hills is fortunately not the same as walking up stairs, else would easy expeditions become excessively laborious. Take for example a peak rising 3,000 feet above the valley. Now the height of the 'riser' of an average stair is 6 inches, and consequently the ascent per staircase would involve 6,000 steps up. Any one who wants to get a modified notion of what this would mean can take a walk over the Tower Bridge.

It happens, however, that many people find hill walking extremely fatiguing, just because they tackle a slope exactly as if they were walking up stairs. The weight is thrown almost altogether on the front part of the foot, and the body mainly raised by the muscles of the calf.

Now this is all wrong. The leg should be swung forward and upwards from the hip with the knee slightly bent, as much of the sole of the boot as possible being placed on the ground, and then, with a steady, rhythmical movement, the other leg should be brought forward. In this way the work of carrying the body upwards and onwards is transferred to a large number of muscles, none of which will become unduly fatigued. I do not pretend that this method of progression is elegant; indeed there is a distinct suspicion of the 'coster roll' about it. In fact one may profitably learn to 'loaf' up hill. Pace will come all in good time. Do not let it be imagined I advocate racing up hill; the practice is to be most strongly deprecated. All I mean is that it is unnecessary to crawl.

There is not much good in losing your temper with a mountain. The mountain does not mind, and you only make a fool of yourself. Nevertheless, there are plenty of self-made fools in evidence on our hills. More than once I have been out with a beginner, who after conscientiously loafing and zigzagging up a hundred feet or so of grass slope announces crossly his intention of going straight ahead at 'the beastly thing' and having done with it, and away he goes accordingly, digging in his toes and lifting himself with a small group of muscles, to arrive in triumph at the top, three minutes before the other man who is following with leisurely zigzags—but a bit done up, whereas the tortoise is as fresh as when he started, and perhaps fresher. The importance of the zigzag as a saving of labour in ascending can hardly be exaggerated. Where the nature of the ground forbids you making long zigzags, make short ones!

In coming down hill, everything should be loose,

joints and muscles. At first one should be content with dropping from foot to foot, taking care not to jerk or shake the body unnecessarily in so doing. To avoid this, the heel should rest on the ground for as short a time as possible, and leave it with a slight spring. With practice the pace can be increased to a smart run, the direction being perfectly under control all the time. A series of short zigzags save the body from being jerked in any case, and on steep slopes, where it is necessary to dig the heel well in, they help to preserve one's dignity as well, for it is impossible to look impressive, or indeed anything but ridiculous when one's wild career is checked by an involuntary sit-down. All the same, it is unkind to laugh at the unfortunate down-sitter ; such slips jolt one up abominably. After a while, as confidence increases, the smart little run will magnify itself into a kind of bounding canter, both feet touching and leaving the ground almost simultaneously. The stride one develops by this means is something inspiring.

Few exercises are more exhilarating than scree running when the scree is fine. One can simply go pounding down hill as hard as ever one likes with most absolute safety. Running scree that is not first class requires a good deal of practice, but the art is not difficult to acquire. Broken heather slopes are even more trying, but they may be raced, provided one lifts one's feet high enough and springs fearlessly. There is, however, always a danger of concealed ankle-twisting loose stones.

Warning. A perfectly easy grass slope in summer may become difficult, and even dangerous, in winter and demands respectful treatment. I once saw what might have been a nasty accident on such ground. I was contemplating the descent of a steepish grass-shoot with some hesitation, for it had occurred to me the soil might be frozen, and a couple of kicks convinced me of the correctness of my surmise. At that moment a 'local' came up and remarked, with good humoured and barely veiled contempt, that he would run down there 'like a squirrel.' I have never seen a squirrel

run that way. A short trot, a sudden 'taking his seat and the oath' at the same time, a sitting glissade of momentarily increasing rapidity, a helpless roll, and then the 'squirrel' was fortunately hitched up by a projecting bit of crag. There were plenty more scattered about further down, but I think it was as well he stopped where he did. Even as it was, had he hit his head, it would have done him no good, but it was not his head he hit. I hardly think squirrel is the right animal to which to compare that man.

Photo by] [*W. Marler.*

A Pinnacle on the Little Glyder.

One of the greatest troubles the beginner experiences is in crossing boulders. Often one comes across a wide tract which looks as if all the luggage of all sizes and at all the railway stations had been tumbled out at all angles, and petrified. The method is the same as adopted in crossing a brook—springing from boulder to boulder and never stopping a moment. The motto for this and for going racing down hill is the same. 'Let yourself go, and don't be afraid!'

Of course such things as sprained ankles are not unknown, but they seldom occur. As *Badminton* says, it is very unlikely that a man will sprain his ankle

Photo by] [*E. M. Corner.*

CIR MHOR, ARRAN, FROM NEAR THE SADDLE.

when he is on the look-out. One trap that needs guarding against is a projecting bit of loose soil that looks as if it were part of the solid fell side. Your foot goes down

on it, and through it, with the certainty of jerking the knee of the other leg abominably, and the chance of a sprained ankle or ricked knee into the bargain. A sprained ankle is bad enough in all conscience, but one *can* get over that. A ricked knee, so far as I know, one never does get over. It lets you down time and again without warning, and apparently without reason, and there you have to sit for five minutes at least, setting your teeth and feeling peculiarly sick. *Experto credo.*

Many people find ridges (*arêtes*) a great trial. The fact that there is nothing on either side of them but air gets on their nerves and makes them waver. Given fine weather and good health, these ridges should afford most enjoyable walking. In my early days I was a great deal troubled with headiness on ridges, until it occurred to me to estimate not the ease, but the difficulty of falling off, and to my surprise I found that it would require a distinct and definite effort on my part to do so. Of course there are some ridges that require considerable care, e.g. Crib Goch on Snowdon, but for the most part they are p rfectly safe even for an unsteady head.

Assuming that the tyro is a tyro indeed, and has had no previous acquaintance with mountains, he had better confine himself to the regular tourist tracks. His time will not be wasted, especially if he practice conscientiously with map and compass. As he gains in experience and confidence he will not require encouragement to avoid these tracks. Nevertheless let him not despise them. For the most part they indicate the natural line of ascent, and their study may more than repay him when he finds himself engaged in tackling an unknown peak in distant parts of Scotland or Ireland, with no map with red-dotted lines showing the path, and no minute instructions in the guide-book telling him which foot he is to start with from the hotel door. Good and experienced men have been known to exchange the excitement of finding their way off a mountain by their own intelligence for the certainty of a beaten track not without relief, and there is a rumour that a party of climbers once welcomed the fact of the Snowdon railway

as a guide to the lower regions, i.e. valley and victuals, not to mention bath and bed.

I conclude with some advice taken from Doctor Claude Wilson's excellent little book—'go *at all seasons*, and climb in *all weathers*; never take a guide; pay little or no attention to guide-books during your actual walk; and, if you cannot find a companion, go alone, but in this case your aspirations must be confined *within moderate limits*.'

A little further on, he writes: 'It is not too much to say that a climber must learn to trust implicitly to the compass readings, and my own feeling is that the best and quickest way to gain this confidence is to make a few excursions in thick weather quite alone. Mr. Pilkington prudently advises pedestrians not to ascend *out-of-the-way* hills without companions; a knee can easily be twisted or an ankle sprained. This, no doubt, is true; but still, if one *merely walks eschewing all temptations to climb rocks*, it should be possible *with care* to avoid all such mishaps.'

I have italicised certain words which I think may be amplified with advantage. *Within moderate limits*, I should interpret as keep off all hills that have not at least one obvious and easy route of descent. *Ascend out-of-the-way hills!* Why do so, at any rate until you are pretty sure of yourself? In any case, if you follow the advice given previously and arrange your expedition over night, you can, and, I think, should, leave a note with the hotel proprietor, giving an outline of your proposed excursion in case of accidents. '*All temptations to climb rocks*' should by the novice be translated avoiding rocks altogether in thick weather as far as possible.[1]

In all weathers. In thick mists, I should recommend the beginner to keep below the cloud-line, and in a violent gale to avoid all but the safest and easiest ascents. If overtaken by wind, one should be very

[1] Whilst writing, comes the news of an accident to a German tourist on Glyder Fawr, through scrambling about on the summit boulders. He was out for two nights with a broken leg.

cautious in approaching steep declivities. When one comes to a craggy edge, it is as well to go down on hands and knees before peering over, in case a sudden gust should blow one over the edge, as it very easily might. Many of these rock edges which look formidable from above, prove to be amiable frauds, terminating a few feet down in grass slopes which afford a quick and safe route off the mountain.

The late Mr. Baddeley writes: 'When a difficulty occurs in the descent of a mountain, the safest plan is to keep along one of its shoulders, either to the end, or until the way down one side or the other is seen to be quite practicable. This calls for a good deal of patience, as the descent is often very gradual at first, and in places level ground has to be traversed, or even a slight ascent made.' I think we may even go one better than this and say, 'Find out over night the easiest line of descent, and in case of real difficulty make for it.' Always, on all mountains and in all weathers, in the ascent particularly, as well as throughout the entire walk, take special note of the landmarks in the immediate neighbourhood, and at your very feet. The recognition, say, of a patch of white quartz may save you going a mile or more out of your way.

'*All seasons*' includes winter. It is better to go late in the season rather than early, as the snow is then more set. There is neither profit nor pleasure in plunging knee or waist deep in loose, powdery snow, but few sensations are more delightfully invigorating than a brisk walk over a firm crisp surface in the higher, purer air (*see* also p. 168). In winter, the beginner will do well to avoid *arêtes*. Ice and snow will transform an easy ridge into what an authority calls 'an exciting approach' or even 'give splendid chances of real mountaineering practice,' which means roping up and cutting steps. Cornices, overhanging edges of snow, should be looked out for. Wherever there is a cliff, assume there is a cornice, and do not venture to the edge until you are quite sure. You can usually ascertain by walking a few yards to the right or left. It is, I am

told, a most unpleasant sensation to find one has been standing over several hundred feet of vertical nothingness with only a foot or so of frail snow between one and 'down there' (*see* also p. 170).

Snow slopes require circumspection. Remember that on many mountain sides springs are numerous, and that where water and snow come in contact, the result is ice. It is not easy even for the experienced eye to detect the difference in the snow surface. Especially look with suspicion on any open patch on a snow slope. It may be taken for granted that it is caused by water, and that the surface of the snow below it is frozen. Rash youth goes plunging down the delightful, firm snow, crosses the bare patch with bound and alights on steep ice. A slip, a heavy fall, and a bad shake are the certain consequences, with a tolerable chance of something broken into the bargain, even if catastrophe do not result. It is probable that one of the few fatal accidents that have occurred on the British hills was attributable to an oversight in this respect.

One last word. When you see a thin streamer of 'mist' flying from a summit, you may be reasonably sure that it is not really mist, but fine snow, blown away by the wind. In approaching such a ridge, wrap yourself up, and put on your muffler, for the cold is sure to be exceedingly keen, and keep your head down, for the driven snow will sting the skin like hard sand. In fact, I am not sure whether it is not wiser to avoid such ridges altogether until one has gained both experience and confidence. I have seen novices buffeted and bothered out of their course in this manner to an extent actually dangerous.

WITH CARE. Always and everywhere the first and great rule of mountaineering.

N.B.—It is very well to bear in mind that

> 'To climb steep hills requires slow pace at first.'

This Shakespearean maxim applies not only to all mountaineering expeditions, but to mountaineering holidays. Always take it easy to start with.

CHAPTER IV

SCRAMBLING

SCRAMBLING is a term loosely used amongst climbers. In one sentence you will read—'From this point the climb becomes'—or, perhaps, 'degenerates into a mere scramble,' which means that the rocks become so easy that the climbers can move altogether with safety. Again, in the same book, possibly in the same chapter, you find that. 'Such and such crags afford capital scrambling,' which 'scrambling' you will find, on a visit, comprises three or four courses quite difficult enough to test the skill and strength of a strong party.

It is therefore necessary that I should define what I mean by scrambling. Before doing so, I must explain that there are two methods generally followed by visitors to the British hills. The one is to make for the summit cairn by one of the regular tourist routes, and to return either by the same or another, no divergencies being made, except for a little uncertain wandering about on the summit; the second is to reach the foot of the crags as quickly and easily as may be, and, when the day's climbing is over, to return after the same fashion.

Climbing to-day, at home, means rock-climbing, that is, the scaling of rocks necessitating the use of the hands as well as the feet, and custom has decreed that these rocks shall be of such difficulty as to render an attack on them by an individual always unadvisable and generally unjustifiable.

Between these two, the tourist-ramble over the well worn track and innocent grass slope and the cragsman's

ascent of difficult rocks, there is a great deal of country to be covered, and all this ground I propose to include under the term Scrambling. It must be understood, however, that our scrambler is not to be permitted to take an ice-axe with him, and that, therefore, steep slopes of hard snow, which are common, or of ice, which are not common, frozen ridges, etc., are out of his province.

I have been at some searchings of heart as to where to place this chapter as, in importance as part of the training of a mountaineer, it should, I think, come between Summer Climbing and Winter Climbing. I have, however, been led to decide to take it next in order after Rambling, because it is quite possible for a man to become an expert Scrambler (as above defined) without ever having climbed (also as above defined) in his life.

I think it will be best, as in the previous chapter, to ask the reader to accompany me on an actual expedition, and if I select the Lake District for the scene of operations, my excuse is that I know more about it than any other mountainous region in the British Isles.

The preliminary canter over Grassmoor ended at the foot of Causey Pike, close to which is a comfortable little inn, and there is no reason why this should not be made a starting point for a day's scrambling.

To the south lies the range of fells that overlook Buttermere, viz.:—Robinson, Hindscarth, and Dalehead. All three send out long spurs to the north, and the question is which to select. High Snab Bank on Robinson has some crags, and from Scope End on Hindscarth the rocks fall with great steepness to Littledale on the west, but whatever attractions these may possess vanish at the sight of Eel Crags which fringe the western barrier of Newlands, two long miles of broken precipice. We will try and cross over these into Borrowdale, and mayhap we shall find we have taken more tow on our distaff than we can spin.

The first thing to do is to reconnoitre, and here we have the ground laid out for us, as if for the special purpose. Of course Alpine magnates may smile at

our going out to reconnoitre a little toy cliff like Eel Crags, but, all the same, they will do well to remember that the British hills are a training ground for mountaineering on a great scale abroad, and no one will underestimate the importance of reconnoitring out there (*vide Badminton*, Chapter V). They will also know that, unless they are gifted above ordinary mortals, it is almost impossible to judge of a precipice from close beneath it, and, if neglecting a preliminary survey, they attempt a morning walk up one side and down the other, turning neither to the right hand nor to the left, they may find themselves obliged either to put on the rope in the interests of safety, or turn back again and again in the interests of common sense.

An easy walk up Scope End and the ridge to the foot of the final incline that leads to the summit of Hindscarth takes us along at a level of about 1,500 feet, with Eel Crags arranged like a panorama a mile distant to the east, that is to say, a mile distant as the crow flies. They do not look it, but the map shows that they are, and, as there is a deep valley between us and them, we had better allow ourselves a good part of an hour to reach their base.

This is a little matter over which every one new to a hill country—and a great many who ought to know better—are continually making mistakes, and not infrequently losing their tempers, not without provocation I admit. To find three hours' hard work in anticipation turned into an hour and a half's easy going is only one degree less irritating than to find a short, easy stroll grown into a long, stiff grind.

Amongst mountains the atmosphere makes its own distances, and, I might almost say, its own dimensions and its own gradients. It is, I submit, impossible even for the trained eye to estimate the distances in an unknown country even approximately, and mountain dimensions are almost equally deceptive. To give an example. One evening in Dumfriesshire, when walking home after a day with the Otter Hounds, we saw high above the clouds, and apparently almost over our heads,

a sunbright summit mingling with the sky which I declared to be Skiddaw. My companions derided the idea. Was not Skiddaw five and twenty miles distant and only 3,000 feet high ? Whilst we were discussing the question, the mists thinned into a light haze, and there arose before us a mighty mountain, with bold peaks and precipitous sides. In another half hour the atmosphere was clear, and there, five and twenty miles away, as usual, was dear old easy Skiddaw, sunk to a squat insignificance relatively to its recent gigantic proportions. This is not an extreme case ; similar eccentricities exhibit themselves every day, especially in early autumn, when on the earth the mists begin to fall.

To return to the business in hand. The fact that the crags are a mile distant horizontally gives, as the French would say, furiously to think. We know from our own experience the diminishing effect of distance. If we look, say, down Pall Mall, somewhere about half a mile, we recognize that that small boy in uniform on a pony is a six-foot Guardsman on horseback, and that that swiftly speeding wheelbarrow is a motor car. Therefore it follows that, as Eel Crags are double that distance, the Guardsman would probably be invisible, unless against the skyline, and that yonder pebbles may be boulders as big as motor cars. Let us bear this in mind ; it will save us much heart-burning on some future occasion. It is, in fact, always wiser to overrate than to underrate the size of distant objects.

I will try and explain, and, as an instance, I cannot do better than quote again from Doctor Claude Wilson : —' Examining through a telescope a rock face on the opposite side of a valley, we (a party of four) came to the unanimous conclusion that, if we could reach a patch of snow about half way up, our difficulties would be over. The lower rocks appeared to be very smooth, while the upper ones were cut up into terraces, and seemed to offer a natural staircase to the top. Two or three days later, when this peak was attacked, we found that our estimate had been quite wrong. The lower

rocks were full of minute irregularities, and did not prove difficult, while the upper ones turned out to be unscalable, though they would have been easy work for a party of giants who could reach some fifteen or twenty feet.' Later, he goes on to say—'The man who examines rocks habitually with the same glass, and afterwards tries to climb them, acquires in time an ability to appreciate the real proportions of the objects seen.' At the same time, I would venture to suggest, to do so, he must know, approximately, the actual distance of such objects from him.

Revolving these things in our mind, we get out our field-glasses. It does not require a telescope to tell us that the bold bastion of rock that stands out from Maiden Moor at the north end of the crags is, as far as we are concerned, quite unassailable, but, for the next mile, the rocks appear to offer various routes to the ridge line, being much broken up and abundantly seamed with cracks and fissures. The question, however, to be first answered is not which of these shall we try, but whether we shall try any.

'One is reminded a little of the Wastwater Screes,' has been written of these crags, and certain unpleasing resemblances can be recognized on sight. The scree runs in wide inlets and sometimes in long, narrow rivers up into the heart of the crags, in some places indeed nearly to the sky-line. It is quite possible that one of these scree-shoots might be traced to its source and that thence a scrambling walk might take one over the rocks that fringe the ridge. The experiment, however, is not to be recommended. The cliff we can see is very steep, and the rocks we can guess are, to say the least, unsound. The fissures may afford easy passages, but, on the other hand, they may be extremely difficult, or, which amounts to the same thing for scrambling purposes, may contain one short portion which even an expert would not be justified in tackling alone.

Perhaps the face of the cliff may offer better going. An examination through the glass is not reassuring. The colour of the rock is not promising, a dark reddish

brown, deepening to black, which, as our rambling experiences have taught us, is generally associated with those high-running scree shoots we regard with such suspicion, and the hue of the scree, which is parti-coloured and much lighter than the parent rock, suggests rottenness. Moreover, there is a good deal of vegetation scattered about promiscuously.

Stay a bit. Those green ribbons we see running across the face of the rocks, sometimes in parallel lines, sometimes in long diagonals, may give us the clue yet. True, they look hardly thicker than ribbons, but we remember that we are a mile away, and, owing to the diminishing property of distance, they may be and quite possibly are broad ledges. And sure enough a white object comes into the field of the telescope, a mountain sheep, contentedly and safely cropping its way along the face of the rocks. So far so good, but with the realization of the breadth of the ledge comes the disquieting certainty that the next green ribbon below is seven or eight times the height of the sheep further down, and that the interspace between that and the next ribbon is even greater. And then there is the shape of the rocks. They are featureless, rounded, boiler-platey; they possess no definition of outline, there are no pinnacles, no clean-cut chimneys, no sharp cracks. Altogether this portion of the crags is fitter for the attack of a roped party of climbers than for that of a scrambler, but even cragsmen would find, judging from appearances, quite a sufficiency of difficulty, more than a sufficiency of danger, and less than a sufficiency of sport. All the same, cliffs of this kind are unduly neglected and ought to be visited, *quâ* practice grounds, more frequently than they are. *See* pp. 19 and 154.

Of course I know I shall be told it is easy to be wise after the event (as a matter of fact it is not, or why do people go on committing the same mistakes again and again from early youth to the end of the chapter?) I admit I have paid more than one visit to this part of Eel Crags, and that I speak from experience. I

have found my way up one of these scree shoots without any serious difficulty, but with extreme discomfort; I have been stopped at the outset by a little pitch, a small chimney or wide crack, which I do not believe would go at all. The outer edges were smooth, rounded and holdless, and the interior was slimy and rotten, and what holds there were I pulled out intentionally, and threw at the scenery on purpose. And on one occasion I concluded that where a fox could run (or where I thought a fox had run) I could walk, but that was a mistake. I have found that precipices of similar appearance present the same general characteristics wherever I have met them—and they are not uncommon —and I submit I am justified in assuming that they will be found to do so also in those mountainous portions of the British Islands I have not had the good fortune to visit.

Towards the head of the valley the appearance of the crags changes. The precipice shows a less indented front, the rivers of scree cease altogether, and the inlets are fewer, narrower, and less deep. The colour, too, of scree and crag is much the same. It does not indeed follow that a marked difference in this respect is a sure indication of rotten rock, but fancy tint-variations may generally be regarded as a danger signal.

The character of the rocks, too, has altered. Here we do have clean-cut chimneys, sharp cracks, definite gullies, and bold crags. In the gullies and chimneys also we notice plentiful chockstones. I do not say that a chockstone is a sure sign of sound rock, because it is not, but, in comparison with those long scree shoots just described, it is a hopeful indication.

To save a reference to the Glossary, I may say here that a chockstone is a piece of rock which has fallen from higher up the cliff, and has been caught and wedged in its descent between the lateral walls of a fissure. Maybe it is the size of a cottage, maybe of a man's head. In this latter case it assumes the humbler title of jammed stone.

At this point the precipice resembles gigantic steps,

the 'riser' of each being a hundred feet and more, giving out on wide heather terraces, large enough to line up a battalion on

I know of nicer places than such terraces. Very often there is an easy way on to them, broken rocks, or an ill-defined gully. Up you scramble, and find yourself on two or three acres of steepish heather, terminating in another wall of rock similar to the one you have just scaled. You walk up to this in search of a passage upwards, but none is to be found. The ascent of this second cliff entails genuine climbing, and of no easy character. Now climbing alone is universally condemned. It is dangerous for one thing, it is excessively foolish for another, it is wrong for a third, inasmuch as it exposes the life God has given you to unjustifiable risks, and it is not playing the game: even if you do not break your own neck, your example may induce some other fool to imitate you, and you will have his death to your account. Wherefore, like a wise Scrambler, you turn back to descend by the way you came.

Can you find it? Not a bit. You have a heather edge a hundred yards or more long, and every foot of it exactly alike. The slope is at much too high an angle to admit of your craning over and looking straight down the face of the precipice. Moreover, you remember that when you examined the crags from below the heather fringe overhung in places, and that to stand on one of these overhangs would mean a sudden acquaintance with the screes a hundred feet below. In scrambling up such places, it is very well worth while arranging a few stones in a cairn, or a circle, or something, to mark your emergency exit before proceeding on further exploration.

The result of our reconnoitring, however instructive, has so far been unsatisfactory. The northern cliffs look, and will probably prove unpleasantly rotten, and the southern buttresses are unjustifiably difficult. Wherefore it is the northern end, or nothing, for there is neither sport nor pleasure to be got out of stumbling up the path that leads to Lobstone Band to the south, and we certainly do not mean to go fagging two miles

back to the slack that leads over between Catbells and Maiden Moor.

We are now on the eastern slope of the top of Hindscarth, so that we know where we are ; and yet, to use a slang phrase, ' we don't know where we are.' We have studied our course with guide-book and map over night, as recommended on pp. 44 and 51. The guide-book does not help us at all, but the map shows us that the ground falls steeply away to the Newlands Valley, and the course of the streams suggest that the tendency of this slope is slightly in a north-easterly direction. We also note that the face is scarped.

So much for the map. What we know practically is that we are on a steep incline, covered with dwarf savin, and that our object is to get down into the valley and up the other side. True, we gather that there are crags about, but experience has told us that crags do not bite, especially on moderate slopes, and that a safe and easy way can often be found amongst them. We descend accordingly, and are almost immediately pulled up by the head of a most objectionable gill.

On rock-mountains there are many majestic ravines which form, for the scrambler, insuperable obstacles ; they are not for him ; there is no deception about them. But on soft-material hills the gills are often a trap for the unwary. They cut their way to a great depth in the fell side, twenty or thirty feet maybe, and once in them it is often difficult to get out. The sides are often steep enough to present a stiff climb, assuming they were composed of decent rock, but as the composition is generally, first few feet, by the water, greasy, rotten, vegetation-covered rock ; next few feet, loose rock and loose soil ; last few feet, loose soil, it can be imagined it is not easy to climb out at the sides. It is, however, generally easy enough to sprawl and scramble up the bed, but it is nasty work getting down. In the present case the gill terminates in a vertical cleft of earthy rock, and the only way of getting into it is by hanging on to the savin with our hands and lowering ourselves into it, all the time with the inspiring con-

sciousness that if anything gives way we shall arrive in some part of Cumberland where we are not expected with extreme suddenness.

We turn up hill again for another try, and find ourselves at the head of a steep, bare slope leading to the foot of the Dalehead cliffs. It is an easy run down this except for one portion, where the grass gives way to a greasy clay, liberally dotted with weathered splinters of sharp slate set at right angles to the slippery slope and not the nicest things to sit down on. This descent has taken us some distance to the south of our position on Hindscarth and shows us a portion of Eel Crags heretofore concealed. And here we perceive a door of hope, a wide and deep gully, apparently little more than a scree shoot, sloping back at a gentle angle deep into the fell side, and finishing at the head of a buttress from which an easy incline leads to the summit ridge. Our glass confirms the impression and we start off with light hearts. MORAL. Never neglect, when practicable, to examine a precipice throughout its entire length. There is almost always a reasonably easy way up it, and very frequently this way is not at first view evident—is, so to speak, round the corner.

We learn another lesson before we reach the foot of the crags on the other side, viz. that in reconnoitring it is just as well to pay a little attention to the valleys as well as to the mountains. This we have neglected to do, and the result is that we get hung up by the series of cataracts at the head of the valley. The beck here has cut a deep channel and forms a succession of beautiful falls, so beautiful that I have known a man who had not seen them before, stop, though wet through in the sleet and wind, for a quarter of an hour and more admiring them. They are, however, not easy to cross, more especially when there is plenty of water coming down, and we find ourselves forced a good way up towards Gable Crag on Dalehead before we can effect a passage. All of which trouble might have been saved had we only taken the trouble to reconnoitre from above.

We tramp over some of the roughest screes we have encountered with some misgivings, for these tumbled fragments do not generally indicate easy work ahead, but, as we approach the gully, the stones diminish to a more reassuring dimension.

The gully is all it promised and a little more. It is much broader, a great deal deeper, and considerably longer than we had reckoned ; moreover, some of the big stones we saw littering its bed, turn out to be real little pitches, twelve or fifteen feet high. Still, they are quite easy, and it is perfectly justifiable to go on. Even in case of a slip, the result would be only a scrambling tumble and perhaps a short roll, enough to shake one up and bruise one, but not dangerous. Moreover, we are two of us. Alone, prudence would counsel one to turn back. A sprained ankle or knee, and the chances would be all against one. I realized this one day when I was climbing up a greasy little waterfall here, with a smart snowstorm blowing miniature blizzards down the gully, and an excited old mother kestrel dodging about just above my head, no doubt under the impression I was after her nest. I reflected that I was in one of the most unfrequented of the Lakeland dales, and a good fifty feet inside the mountain side to boot, and that if I fell just there, I should hurt myself in all probability sufficiently to make locomotion difficult. I took particular trouble not to fall.

And so an enjoyable scramble goes on, a little walking, a little mild scrambling where some assistance from the hands is necessary, and a little genuine, but easy hand and foot work.

So far progress has been exhilarating, though neither exciting nor severe, albeit the gully proves far longer than we anticipated, and the rock scenery is really fine. All at once we lose all interest in the rock scenery, all appreciative interest that is. Straight in front lies a really formidable looking pitch, crowned by a big chockstone ; on the right, the containing wall of the gully is straight up and down, and on the left is a thirty foot chimney with a flat slab of rock, something like a big

trapdoor, lying across the top of it. If we were skilled climbers, we could no doubt make light of these obstacles, but, for present purposes, we are only scramblers, and such obstacles are beyond our sphere.

And yet, and yet, the glass certainly showed that the gully did finish off on the buttress. Of that there is no manner of doubt, so the only possible conclusion is that it must do so higher up—above the obstacles. Like the majority of only possible conclusions this proves wrong. As we sulkily retrace our steps, we come on an easy passage leading out to our left as we descend, just below where the gully makes a sudden twist to the north. A very short inspection convinces us that this is the finish we had noted from a distance, and that we had overshot our mark, simply through being too careless to keep our eyes open.

I have never been able to understand why it is so many people will persist in walking and scrambling up hills, so to speak, in blinkers. They limit the field of their vision to the few yards of mountain side in front of them, and, of course, the steeper the slope the more limited the field. When they do halt, it is not for the purpose of considering or reconsidering the route, but because through some mysterious agency, some peculiar faculty which enables them to look behind them without turning round, they are smitten with admiration for the distant scenery. In other words, they have been going too fast and have got out of breath. Some years ago I knew a beginner who went straight up a steep slope of grass and crag after the hounds and arrived at the top, very hot and winded, to find the huntsman and whip, who had started below him, there already, and quite fresh. They had come up by an easy grass-shoot not ten yards to his left, which he could not have helped noticing if he had only taken the trouble to look for it. I was that man, and I have not forgotten.

A short scramble on hands and knees takes us on to a broad grass ledge leading outwards and upwards along the face of the buttress. Two steps along this, and we begin to realize that the gully is much steeper than

we thought. We start ten feet above the bed. A yard further along the ledge, and the bed is twenty feet down, a yard further thirty feet, and so on, so that, within a minute after leaving the gully we find ourselves looking over a sheer drop of a hundred feet, with hundreds of feet of screes, that seem scarcely less steep, below.

This style of thing is trying to people who are in any way affected with unsteady heads. The remedy is, of course, to keep continually looking down from the very beginning of an ascent. I have known people complain of getting giddy when climbing a ladder, and I have cured one such by insisting that he should look down at every step. He was not giddy at five feet, or at ten, or twenty, and so on. One consolation is that after a day or two this kind of trouble vanishes.

As we turn over the nose of the buttress, a narrow slab of rock cuts our ledge in half. It is easy to step round this, and we do so, steadying ourselves with the left hand on the slab. All at once the fingers of that hand tighten, and we step back hastily, and the broad ledge on which we have been walking so safely becomes unaccountably narrow and insecure. Want of care and observation again! The ledge on the other side of the slab slopes slightly downwards, and the grass covering is loose (it is safe to assume this of the grass and soil on every ledge), and we have stepped round with as much *nonchalance* as if we were walking downstairs. Consequently the grass, under the sudden pressure, has slipped away and the foot has gone with it, and, but for that lucky, steadying handhold, it would have been 'good-bye.' Experience teaches fools; much more does it instruct wise men. Steadying ourselves again, we step round, place the foot gently on the ledge, and then quietly *transfer* our weight on to the advanced foot, and there we are, safe and sound. The importance of learning to gently shift one's weight can scarcely be over-estimated. I shall take occasion to refer to this 'first principle' more than once.

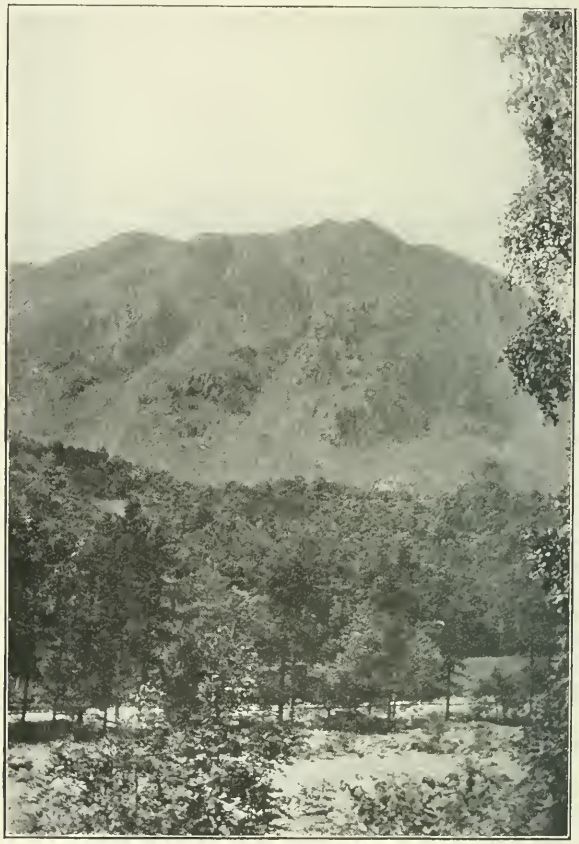
The rest of the way is a pleasant scramble over a steep slope of rock, heather and grass, with only one obstacle

to give any pause, a rock face some twenty feet high, which is split in half by a deeply-cut and very dirty grassy chimney. It is possible by descending a few feet to contour round this face, but the chimney offers better sport. Besides being deeply cut, the floor is almost level, so that you will not go any further if you do come off, and the ledges that adorn the containing walls render this unlikely. We step up on to the first ledge of the right wall with the left foot, with the palm of the right hand pressed against the left wall (throughout the book, in speaking of gullies, chimneys, etc., 'right' means 'proper right,' and 'left' 'proper left' as in the case of banks of rivers). Any one can test the safety of such a position at home on the staircase, by placing one foot against the bottom of the uprights of the bannisters, and the opposite hand against the wall. He will find he can move the other arm and leg with perfect freedom. The weight of the body is now on the left foot and right arm. We then step up on to the next ledge with the right foot, left arm extended, and the weight of the body is gradually transferred to these. It is perfectly legitimate for a scrambler thus to spread-eagle himself upwards between two walls of rock (provided there is not a serious drop beneath) and perfectly safe and easy.

Descending, theoretically, is easier than ascending, and generally speaking this is true! It is of course easier to run down slopes than to toil up them; it is less difficult to climb down steep rocks than to scale them; in the latter case one has to lift oneself up against the force of gravity, in the former one has only to resist it. I think, however, that most people experience more trouble in finding their way down a steep and broken mountain side than in scrambling up one.

The problem, now, is the descent of Gate Crag. The name would seem to put it out of the Scrambler's category, but a name is not always to be trusted. As a matter of fact, a way can be found down the face of the Crag by a series of grass ledges, interspersed with an occasional short spell of genuine hand and foot work,

and there is a wide scree terrace ending in a mighty scree shoot on the side facing up Borrowdale, which can



GATE CRAG, BORROWDALE, CUMBERLAND.

be reached without any great difficulty, but we do not know this. All we do know is that we are looking over a cliff some hundreds of feet in height, and of unknown

steepness and difficulty. It is quite impossible to conjecture what the face is like, because the first thing we see beyond the tips of our toes is the Derwent, and the map tells us the Derwent is a long half mile distant horizontally. If we crane over, we can see crags descending ruggedly to a grass ledge, immediately beyond, but a long way below which are tree-tops. There is a gill on the Knitting Howe side by which we may find a way down towards Grange, and beyond that is a heather slope. We do not want to go to Grange, however, and we definitely abandon Gate Crag.

Incidentally I may say that I think that in this, and all similar cases, such a decision would be a wise one. I have been over a good deal of Gate Crag, looking out for one or two climbs which pretended to be there when viewed from the other side of the river. I do not say they are not there—every one who has tried the experiment knows how difficult it is to find a climb one has located from a distance when the search has to be carried out more or less after the manner of an adhesive plaster—but I only found one that promised at all, and, as that threw a cartload of loose material at me the first time I shook hands with it, I cannot conscientiously recommend it to a friend. As a general rule, I should say that, on first acquaintance at any rate, a scrambler should let all faces that are mainly crag alone, especially for purposes of descent. Of course if one knows the rocks and has been up them, it is just as well and better to come down them. The art of descending, is as a rule, very much neglected.

Accordingly we give up Gate Crag and make for Rosthwaite. We have been through Borrowdale often enough to be sure that this descent is a regular moderate grass incline. Closer acquaintance shows that it is nothing of the sort and reveals a large acreage of broken ground, here level, here sloping gently, here falling abruptly, strewn with crags and furrowed with runnels, hitherto unseen and quite unsuspected.

We make a note of this for future guidance, and purpose presently to look more closely into the matter. At

present our business is to find a nice object-lesson in descending. Eventually we decide on the southern face of the Langdale Pikes.

Theoretically we are ignorant of the district. It therefore behoves us to give a reason for the faith that is in us.

Apart from local talent, which always and everywhere on the British hills the 'erratic' will do well to distrust utterly, our stand-bys are the map and guide book. The map does not help us much; it shows that the Pikes fall towards Langdale with considerable steepness; in fact at one or two points the incline seems to be somewhere about a thousand feet vertically in somewhere about a quarter of a mile horizontally, and that is all. The slope may be grass, like Kirkfell, towards Mosedale, or a sort of glorified scree bank with some boulders 'on top' (*pace* Carlyle), or precipitous.

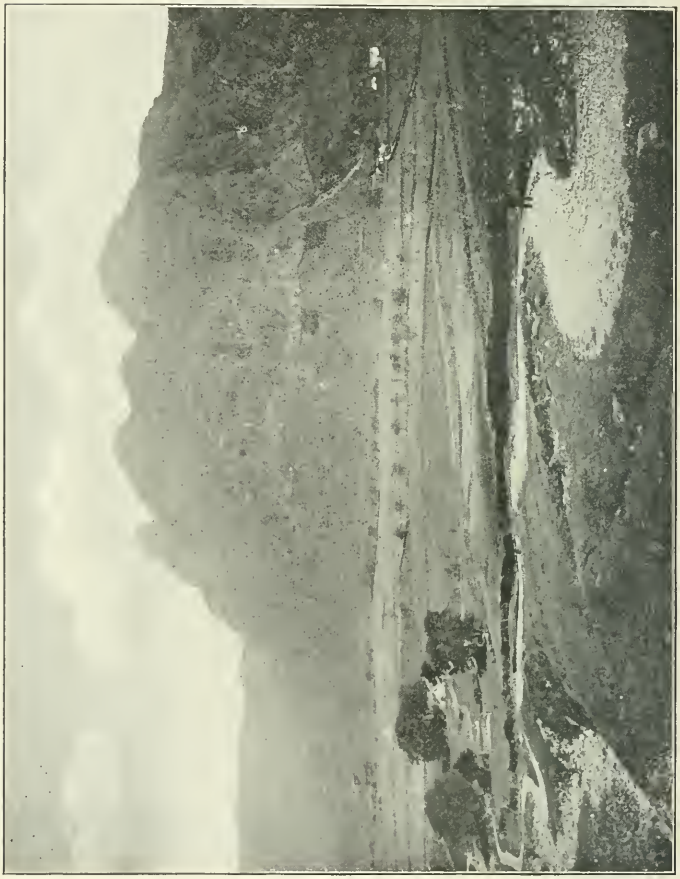
So much for the map. For more definite information we turn to the guide books, and at first sight the outlook is not encouraging. Thus: 'These fine hills should be scaled from Dungeon Ghyll.' So far, so good. 'Ponies can be taken to the top.' This is a damper, and calculated to make us seek fresh crags and scrambles new, but later we find more encouraging detail. Thus: 'The "lake" mountains, from top to toe, have probably a greater mean steepness than any other mountains in the kingdom, except the Coolins of Skye; but even in Lakeland, an average slope of 40 degrees continued vertically for 1,800 feet is unique. . . .' 'There is no difficulty in the ascent, but the direct descent is very awkward in foggy weather in consequence of the crags half way down, overhanging Dungeon Ghyll and the Old Hotel. . . .' 'The descent into Langdale is not recommended. . . .' 'Care should be taken not to stray far from the path, especially towards the end, or the wanderer may find himself pulled up unexpectedly by a sheer drop of 40 or 50 feet.' Forthwith we determine to stray from the right path. Clearly this is an ideal place. Any donkey, or other animal, may get to the top, and there is plenty

of opportunity for any donkey, or other animal, to get into trouble, due carelessness being exercised, if not to come to grief, on the way down. Besides which, there is an easy way to be sought for and found, without much difficulty, in case of need. It is to be hoped the term 'donkey' will not be considered invidious. That excellent quadruped has sundry qualifications altogether admirable in a scrambler. He is exceptionally sure-footed, and he has no imagination—nothing ever gets on his nerves. Moreover, a donkey can never, by any possibility, make an ass of himself. Man can, and very easily.

Speaking personally, I have selected the descent from the Pikes into Langdale, because I happen to know that tourists not infrequently do get into trouble over it, and I take it that for the one or two cases I hear of, there must be scores I do not, I think I am justified in assuming that there is something tricky about the Langdale face of the Pikes, and therefore something worth considering from a mountaineering standpoint.

For instance a friend of mine, who had never been on a mountain before, asked me to give him an itinerary for a fortnight's tour in the Lakes. I did so gladly, and, of course, my programme took in beautiful Langdale, which I recommended him to reach over High Raise, one of the finest view points in the district, and thence by Stickle Tarn, descending the steep grass slope between Pavey Ark and Harrison Stickle. He seems to have reached the swampy tract behind the Langdale Pikes all right, and there he met the experienced mountaineer, 'the man who knew.' I distrust the man who knows. I have met him; but my friend, though in the prime of life, had not. The paragraph of my letter dealing with the Langdales had ended, 'On no account attempt to descend into Langdale direct, or you will get into trouble.' The man who knew scoffed at this—was there not a pony track up? but at length was overpersuaded, with the result that they both descended into Langdale direct, and seem to have had really rather an exciting time, to say the least of it. They appear to have got

fairly entangled amongst some crags and to have been finally driven out on to a steep heathery buttress, where



[*Photo by*] [*G. P. Abraham, F.R.P.S.*

THE FACE OF THE LANGDALE PIKES FROM BLEA TARN ROAD.

a fall would have resulted in serious, if not fatal consequences.

The question is, how did these good people go astray

first of all, and how came they to get into such bad trouble on the way down. The guide book says '*To Langdale*: The Stickle Tarn route is unmistakeable from the top of Harrison Stickle. The tarn itself lies immediately below, etc.' So it does, a sheet of water quarter of a mile long by three hundred yards broad, the style of landmark one would have thought it impossible to miss. The cause of misadventure, it seems to me was—I hope I shall be acquitted of discourtesy—

Photo by] [*E. A. Baker.*

BOWFELL, A VIEW UP ESKDALE.

carelessness and hurry, complicated by the agency of the man who knew.

Let us consider (1) *Carelessness:* We are supposed to be on Harrison Stickle, the summit of the Langdale Pikes facing Langdale or rather Mickleden. On the opposite side of the valley is Bowfell with Crinkle Crags stretching away southward. These points, one would conceive, are as unmistakable as the sugar-loaf of Pike o'Stickle a short distance away on the right. Behind us to the north is Pavey Ark, evidently a con-

siderable elevation, and marked on the map 2,288 feet. We look round. There is Pike o'Stickle on the right, Mickleden at our feet, with Bowfell beyond, and behind, and certainly in a northerly direction is a well-marked elevation, which must be Pavey Ark. Therefore, argues the tourist, my line of descent is between the elevation on which I am standing and Pavey Ark. Stay a bit! Another look at the map shows us, or should show us, that behind and a long way, nearly a thousand feet, below us, is Stickle Tarn, a considerable sheet of water. We look round. There is no rapid slope, no marked descent at all in fact, and all the water we can see is a puddly swamp and a marshy beck. Clearly then we are not on Harrison Stickle at all. As a matter of fact we are somewhere in the neighbourhood of Gimmer Crag, a prominent buttress midway between the Pike o'Stickle and Harrison Stickle, which all who approach Langdale from the Brathay Valley, locals and tourists alike, christen the Pike o'Stickle. Viewed from the south, there are few more impressive hills in all broad England than the Langdales; viewed from the north, they are merely insignificant knobs. There is some excuse for not being able to tell 't'other from which' at first, but, to persist in the mistake, except in thick weather, is inexcusable, and on the occasion I have referred to the weather was not thick. What then was the explanation of the initial mistake? Carelessness, i.e. want of reasonable attention to guide book and map, to say nothing of the compass, which not one tourist in ten takes with him.

Now for (2) *Hurry*. Before he has descended many feet it must be evident to our tourist that he is going in the wrong direction. There is no tarn, nor sign of a tarn, and he is descending into Langdale, whereas he has no business to be going in that direction at all. Obviously the right course is to turn back and make a fresh start, but turn back is the very last thing the self-confident beginner thinks of doing. It is only a little English hill, and there must be an easy way off it. So there happens to be, but it does not in any way follow that he will hit it off. Accordingly he goes scrambling

down, but still matters do not improve. He begins to lose his temper, and that is never any good to any one. He hurries more than ever, apparently under the impression that the quicker he goes, the sooner he will be out of his difficulties. So he may be, and for ever, were not Nature exceeding merciful. American hustle is entirely out of place on a mountain. At last he finds himself ' pulled up unexpectedly by a sheer drop of 40 or 50 feet,' and with no way out except by the way he came. At this point he loses head and nerve with extreme suddenness and for a time he really is in a parlous state. After a while, he realizes the necessity of doing something, and doing that something coolly. He accordingly looks about him, thinks, beats a short retreat, keeps to quite easy ground regardless that so doing may necessitate occasional ascents, and eventually gets down to the valley, safe and sound, but more than a bit scared. Or else, like my friend, he may find his way down by a steep and not too safe scramble.

Of course there are some people with no nerves, who get into similar scrapes and out of them by sheer ' brute force and blessed ignorance ' and go on their way rejoicing in undeserved safety, quite unaware that they have swindled the coroner by the merest shave.

I dare say I shall be told I have exaggerated the ' terrors ' of such a trifling descent as from the Pikes into Langdale (or any similar descent) and have written it up in a manner more suitable to that of some difficult peak. I desire to repudiate any such intention. I have made it my business to try and find out what inexperienced people actually feel and do. Nay, not inexperienced people only. I have known a shepherd who had spent all his life among the hills lose his head quite suddenly and go scrambling on at no slight risk and in deep anxiety (to use an euphuism for a feeling that is usually associated with ' blue '), when all he had to do was to turn round and walk back a few feet. I have endeavoured faithfully to record what I have learnt with the object, of course, of trying to save other people similar unpleasantnesses.

For these hurry is, I think, largely responsible. It is, as I have said, quite out of place on a mountain, except in running open grass slopes, etc. It is, as a rule, unnecessary to caution men against hurrying up hill. They may start doing so, but very soon want of breath remedies that mistake, and, as suggested already, forthwith the scenery assumes a commanding interest which necessitates a halt. Coming down hill, this sporadic appreciation of the beauties of nature mysteriously vanishes. The views, in ever-changing beauty, are before the eyes—there is no need, as in ascending, to turn round to see them—and every now and then some exceptional picture merits a halt at least as worthily as any of those that proved so absorbing on the way up, but no halt is called ; the æsthetic agency of want of breath is absent, and the sole idea is to get to the valley and its flesh-pots, or beer-pots, or tea-pots, as soon as possible. Again, during an ascent, a man will rather enjoy a bit of a mild scramble among some crags ; coming down he resents their presence, his sole wish is to get out of the beastly place (there is a suggestion of another feeling besides resentment in this epithet) as soon as possible, and he *hastens* to do so—as if that were the way to achieve his object.

Let us then, the reader and I, make for the Langdales and go blundering blindly down the face of them. If we get into trouble, well and good, we will then take things carefully and unflurriedly, and see about extricating ourselves.

In due course, having threaded our way in and about and over sundry crags, we come to an *impasse*. In front and to the right is, as far as we can judge, a sheer drop, and to the left a steep heather slope which leads to somewhere or other—where we cannot say.

That is the aggravating part of descending broken slopes—the inability to see where one is going. Of course the same is true, with modifications, of ascents, but at any rate you can see the mountain side immediately in front of you, and you ought to be able to retrace your steps by the way you came to the valley and safety

and comfort. Coming down you can, and quite often do, see nothing immediately in front of you but the tips of your toes, and beyond them a remote valley with no visible means of descent, except thin air, between. Of course you can equally well retrace your steps to the top of the hill, but as, sooner or later, you have to get down, whereas there never was any necessity for you even to start up, turning back in ascending and descending is not the same thing at all.

Moreover, a repetition of such situations is calculated to get on one's nerves. ' The mountaineering " tyro," ' wrote my late friend, Mr. Baddeley, ' when he has lost himself on a fell, is in a desperate hurry to get down, and seizes the first opportunity that offers itself, however steep and awkward the descent may appear. Worse often follows. The crags become steeper, or a watercourse suggests a means of extrication. For a short distance it descends gradually ; then, all of a sudden, it falls among crags and leaps down several hundred feet more or less perpendicularly. Steps must then be retraced, and a feeling of hopeless bewilderment comes over the baffled wanderer.'

There is no need for us to get bewildered, and still less to feel hopeless, even though the mists are coming down and bad weather is brewing. We are on a comfortable ledge, as big as a billiard table and nearly as level, and, if things get very bad, we can always scramble back to the top and get off the fells by one of the recognized routes—the Stake Pass in emergencies.

It was Mark Twain who said that he could not see the bottom of his own precipice, unless he lay down and projected his nose over the edge. He did not do this, because he did not wish to spoil his clothes. We do not go quite to this length, but the edge of our ledge being solid rock and not treacherous soil as on Eel Crags (*see* p. 73), we project our heads over (kneeling as recommended, p. 64) to ' see that we can not see ' the bottom of our precipice. About 50 feet down is another ledge, and about 500 feet beyond that some cows and a field.

There is no good wasting time over map and compass,

because we know whereabouts we are, somewhere west of Dungeon Ghyll, which lies away on the left, so that if we work along to the left, with the slope of the fell under our left elbow, and with our eyes open, we ought, before very long, to hit off the pony track. The pony track is, however, at present about the last thing we want to follow, though, who knows, we may be glad enough of it later on.

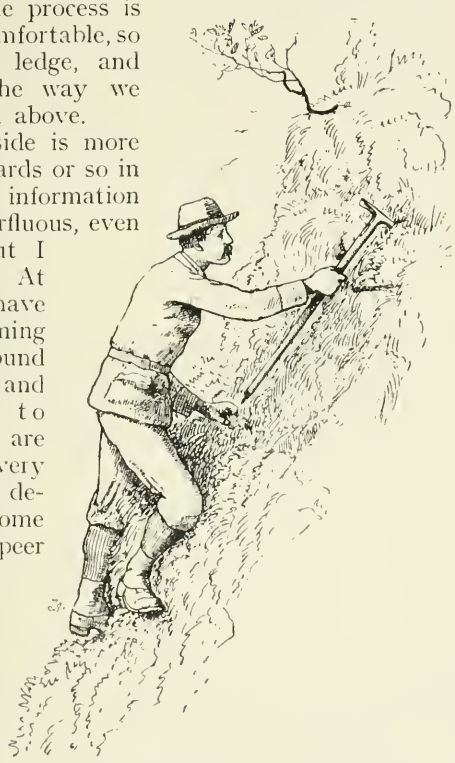
The heather slope looks abominably steep and may be the one that caused so much distress to my wandering tourist. We start carefully down, until we come to a bit of rock that enables us to stand upright with confidence. As we do so, we stretch out the right hand to steady ourselves withal. There is nothing, however, within reach, and a look shows us that the heather is a good two feet out of reach of the arm fully extended at right angles to the side.

NOTE.—*If the incline is such that it can be touched with the arm extended as above, that slope is exceedingly unsafe.* This lesson is probably superfluous, because, on an incline at that angle, a man generally finds himself all asprawl, clinging on with tooth and toe-nail. However, as a rough indicator it is not a bad guide, and when the hillside commences to approach that slant, look out. As it is, the angle is quite severe enough. If you once started rolling, you could not save yourself. On looking up, of course you find that the incline appears less steep than on looking down, but quite steep enough, too steep, to walk up.

There is a right and a wrong way of crawling up such places. The natural tendency seems to be to get on one's knees, as if you were going to play horse for a small boy, and lay hold of the slope with both hands at about the level of one's head. This is all wrong. The body should be kept as nearly full length as possible, with one hand about shoulder high, and the other not much above one's waist. Only one leg should be bent at a time, and then the knee should be turned outwards from the body so as to allow the inside of the thigh and the calf to press against the slope.

Nothing is to be learned by scrambling down interminable slopes of heather. One ten feet is very much like another, and the process is eminently uncomfortable, so we regain our ledge, and leave it by the way we reached it from above.

A mountain side is more than a dozen yards or so in breadth. This information may seem superfluous, even impertinent, but I judge it is not. At any rate, I have seen men coming down broken ground time and again, and they appear to imagine they are confined to a very limited line of descent. They come to a bit of rock, peer over it, see nothing; walk three yards, peer over, and so on, till they come to some route down, which they immediately follow. At last they arrive at the valley, tired, and perhaps suffering from the after effects of—shall we call it, 'nervous excitement,' to find that quarter of a mile to the right was a pleasant grass slope, and at about the same distance on the other side some easy scree. 'Oh,' they lament, 'if we had only known that, what a lot of trouble it would



STEEP GRASS (the correct position).
By Permission of George Bell & Sons.

have saved us.' They might have known it quite easily, if they had only had the sense to look.

It is quite impossible, I submit, to describe in detail such a scramble down hill as we propose to take ; and, even were it possible, I have no intention of so doing, because the account would occupy space better filled with other matter. One suggestion I make which may be taken for what it is worth. Not infrequently on hill-sides one meets with long grass streams or channels which terminate abruptly on one side of some crag. There seems to be an idea that here is an end of all things so far as a descent by that grass channel is concerned, but I have found, and more than once or twice, that the crag is merely, so to speak, a promontory in the stream, and that by skirting the head of it, the grass may be picked up again. In the present case suffice it to say that by keeping our eyes open and prospecting not only above and below, but *also to the right and left*, we find not one, but several reasonably easy lines of descent. Also, unless we have wasted our time, we ought to have learnt a deal.

I have referred already to unseen tracts of broken ground on mountain sides. I think I am justified in adding that the general ignorance of British mountaineers and hill-walkers concerning the hills they constantly visit is really remarkable. Let a fresh rock-face, with climbing thereon, be discovered, and it will be explored with a thoroughness and energy that would delight the heart of Lord Kitchener, but, this incentive apart, climber and walker alike stick to the beaten track, occasionally varied by a ramble along the ridges continued as far as fancy directs, when the first available regular path off the fells is taken—almost for a certainty. All the sides of the hills, except so far as they are crossed by paths leading to crags or by regular tourists' routes, are practically unknown. Now here is an example of what I may call, with all deference, the sheep-headed, follow-my-leader tendency in this respect on the part of mountaineers in Great Britain.

' In the hopes of later enjoying an exceptional view,

we decided to cross Scawfell Pike on our way back to Wastdale. We were not disappointed, for as we strode out on to the top of the highest English mountain, the thick, snow-laden cloud grew thinner, and ere long it rolled up like a great white curtain, to disappear finally over the black crags of Mickledore.

'Then we had the sight of a lifetime. . . . Above the grimy smoke of the Furness district and the dark grassy slopes of Black Combe rose the snowy peaks of Wales. The two Carnedds were strikingly conspicuous; and even at this great distance the extreme ruggedness of their northern fronts was obvious. By means of a powerful binocular we discovered several gully-seamed precipices. . . .

'*It was a strange feeling to think of the many times we had driven beneath the southern slopes of these same mountains*, and yet had travelled over a hundred miles to discover the climbing that was hidden away on their northern forces.'

Ay, and not the writers only, British mountaineering experts if ever there were any, but scores of others, men perfectly aware that plum-pudding mountains, and long grass slopes have a habit of sending down crags on the far side! and yet for many years it would seem that not one of them ever thought of strolling up the Carnedds and 'projecting their noses' over the other side, to see whether there was any climbing there, though I should think the betting was at least 10 to 1 on finding crag of some sort, and quite 2 to 1 on coming across climbing.

Leaving rock-climbing out of the question, and remembering that there is much to be learnt on the British hills, and the professed desire of many ramblers and scramblers to get away from the madding crowd, it is curious how very little originality they show in their methods.

One variation I would suggest is to take the map and, drawing a straight line between two given points, set out to keep us closely to that line as possible. The map will tell you which are the regular tourist routes, so that you can choose out a course which will largely avoid

them. The moment you leave the beaten tracks a delightful and not wholly unwarranted sense of proprietorship wakens within you. There are a thousand hills at your mercy and 'a hundred and a hundred savage peaks' challenging you to make good your title as lord of the land. I know of no plan that offers more variety, enjoyment, and delightful exercise.

There is an alternative which, though perhaps tedious, not to say fatiguing, has the advantage of being most instructive, namely, to contour round a mountain or along the side of a range at about two-thirds of the way up. One great point in favour of this plan is that it does take you clean away from the madding crowd; on the other hand, there is no denying that the process is desperately fagging. I once made a traverse of this sort fourteen miles long, and the strain of being always one side of the foot all the time was *very* trying to the ankles. When I say fourteen miles, I mean fourteen miles by the coach road below. The actual distance must have been much greater.

It is of course impossible to keep at the same level, except on unbroken grass slopes which, however, are fortunately rare, as they are abominably fatiguing and very uninteresting, but the moment the ground begins to get broken up, the lesson and the enjoyment commence. You come on crags, and combes, waterfalls and becks, little verdure-covered nooks and deep, forbidding fissures that, quite possibly, no appreciative eye has seen before. You may even be 'pounded.' A couple of ardent fox-hunters, who got into trouble in one of the main gullies, called attention to the climbing attractions of Great End, and it is conceivable that you may confer a similar boon on the mountaineering fraternity, at the cost, indeed, of considerable personal inconvenience; but if you are a true-souled mountaineer, you will not mind that. Anyway, if you exercise reasonable forethought in selecting your course, you will find plenty of crag. If the rocks are well broken up, it is often possible, and justifiable to work across the face; and even on sheer, up and down precipices, you occasion-

ally meet passages which would not overtest 'a mountain sheep of ordinary powers.' These afford delightful and exhilarating work, though sometimes they lead only to disappointment by breaking off abruptly, in which case steps MUST be retraced. The most trying obstacles, however, will be found to be the gills. As already stated, they often cut very much more deeply into the mountain side than they appear to. I have often found the easiest way of negotiating them is to walk with them in a horizontal line until the stream is reached, and then, when that is crossed, to walk out again along, not up, the side, or, in other words, to traverse right into the bed of the gill and out again.

That there may be much learnt on such expeditions I need not, I think, insist, not only in respect of the particular ground traversed, but in respect of mountain form generally. It is hardly necessary to say that on such scrambles as these it is unusual, to say the least of it, to keep going the whole time. Halts are frequent, not only for prospecting, but for rest, and these may be profitably employed in reconnoitring other mountains. For instance, a man who works across the face of the Langdale Pikes from the Stake Pass to Mill Gill, keeping as much as possible to craggy ground, will, I venture to think, not be wholly unwilling to call a halt now and again, and, during these rests, he might do far worse than take out his glasses and study the face of Bowfell. On the morrow, he might walk up the Band to a little above the level of the Three Tarns and traverse across to Angle Tarn, which he will find pretty work. He can then compare the face of the Langdales as he found it to be with what it looks like through the glasses, and the face of Bowfell as he finds it with what his examination through the telescope led him to believe it would be.

A golden rule in making these traverses is, if there is any difficulty, never go forward unless you are positive you can retrace your steps, under which is included, *never*, *never* scramble down a boulder, unless you are quite, quite certain you can scramble up again. The reverse is, of course, important; but whereas it is

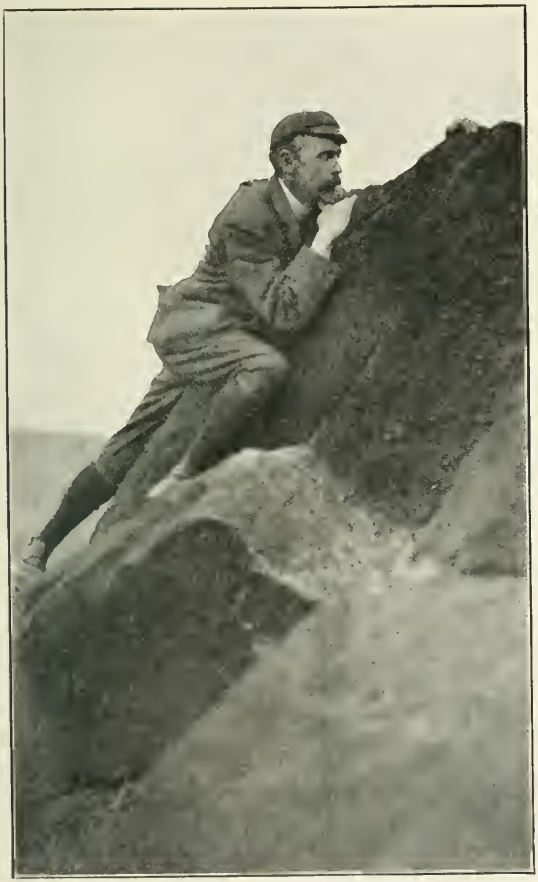
practically certain one can scramble or slither down nine or ten feet of rock one has ascended, it does not by any means follow one can climb nine or ten feet of rock one has got down.

Southward of Bowfell lie the Crinkle Crags, and these, to my mind, give the finest ridge walk in the district. There the paper-bag ceases from aggravating, and there the ginger-beer bottle is not at rest, because it is non-existent. Not that the tourist is unknown on the Crinkles; but fortunately he interprets the guide book instructions in the fullest sense.

'To attain the latter (the second Crinkle from the south) strike a little to the left, and make for a pillar of stones lying in a little depression to the left of the highest point. Precipices make a straight track impracticable. . . . A narrow neck of a very small depression connects the second and highest with the third Crinkle, whence, unless you wish to incur the toil of climbing up and down several more heights, without any compensation in the way of fresh views, you will do well to turn to the left in the direction of Scafell Pike, for a few minutes, till you double a rather prominent crag.'

The ridge line walk, rigidly kept, is a very different matter. To quote an article on Lord's Rake, Scafell (*Penny Magazine*, 1837): 'It may be recommended to all who can bear hard labour and enjoy the appearance of danger without the reality,' besides which, I can promise compensation in the way of views both far and near, and as much intermittent scrambling as one cares to have. There is one rather *mauvais pas* where some rocks overhang a bit, and unless you start with the right foot (I forget which it is now, but I should recollect if I were there), you get rather tied up, and have a little difficulty in getting back. Once again, to quote Doctor Claude Wilson on Rock Climbing: 'Sometimes a man may get into an awkward position, and find that it is difficult to move either up or down. In such case, if not in good training, his legs will be very apt to become affected with a quite uncontrollable form of

trembling; and if seized by a feeling of nervousness, this condition will be aggravated.' I conceive that if



A Pleasant Scramble.

that *mauvais pas* could speak, it might have tales to tell of not wholly steady legs.

Such scrambling walks give capital fun, and there is one device which illustrates the psychological as distinct from the physical strain of mountaineering. You meet a bit of crag and an easy scramble to the top. Now walk a few feet to one side and you find yourself on the edge of a considerable drop—not very deep, perhaps, but like Tybalt's thrust, ' 'tis enough : 'twill serve.' The scramble up the crag by the side is quite as easy as by the front, but, if you keep religiously to the outside edge—well, if you are not in condition, there *is* a difference. In fact, it may happen that a man who will joyously dance up Route No. 1, cannot be brought to look at Route No. 2.

I should like to quote the very sensible remarks of Mr. Ashley Abraham in Rock Climbing in North Wales : ' A first-class cragsman, in perfect training, is supposed to ignore the height, to allow his aërial position to be a negligible quantity, and to devote himself entirely to the technical difficulties in hand ; but it has always been inconceivable to me that a hundred feet of altitude could have no influence in rendering a place more difficult.' As a matter of fact, it has that influence, and if on a first-class cragsman, how much more on a tyro Scrambler ! A companion equipped with a few feet of rope (20 feet is enough for all scrambling, and takes up no room to speak of in the rucksack) is, whilst thus experimenting for the first time, a friend quite possibly both in need and in very deed.

Delightful scrambles of almost endless variety can be devised among our British hills, giving health and pleasure, exercise and experience. As time goes on, you find that they are not only a source of enjoyment to yourself, but ' a cause that " enjoyment " is in others.' I have had some ever so nice things said to me for having suggested fresh routes and scrambles new.

It is, I think, unnecessary to animadvert on the wickedness of intentionally rolling stones down the sides of a mountain. I forbear to comment on this folly, and ten hundred times worse than folly. I just quote one paragraph from a climbing journal.

'Glyder Fach, in North Wales, was also the scene of a fatal accident during Whitsuntide. Messrs. Stephenson and Slater were ascending the Eastern Gully, when Stephenson, who was leading, was struck by a stone, and fell some 70 feet. Slater was saved by a belay.'

I wonder—I wonder whether any tourists were on Glyder Fach at that time. I wonder whether any one of them chucked a stone over that cliff. It is not the kind of thought one would care to have to wake up with the following morning, or for many mornings.

There is, however, a great danger on steep mountain sides of unintentionally dislodging loose stones. A friend of mine with some companions very nearly got wiped out in this way on a Scotch mountian. A rash and idiotic novice was with them and had gone gaily ahead. The mountain side was extremely loosely put together and required care, but the novice had a soul above such things. His one idea was to get on as quickly as possible. Stepping on a loose bit of rock, he used it as a take off, sending it down as he did so. It was quite big enough, in itself, to account for any one thirty or forty feet below, but, in its course, it started other stones, and a whole avalanche swept the open gully up which the party were scrambling. Luckily the sound of the falling material gave warning in time for them to get out of the line of fire, otherwise the consequences must have been disastrous. Loose stones set at a high angle require great care and some practice. The rule is: Put your foot down steadily and slowly, and lift it even more steadily and slowly; and never get hurried or flurried.

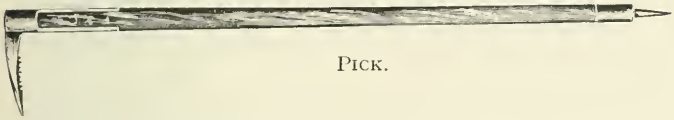
With regard to the weather the Scrambler should be guided by common sense. If it is so bad that it is foolish to go on the mountains, it is also wrong to go on the mountains. A man must judge for himself. Moreover, conditions that might make an expedition unjustifiable for an individual need not keep a party off the hills. As a rule I should recommend beginners who have learned how to scramble and take care of themselves

generally, to go out in all weathers, subject to the exception indicated above, and to make a point of so doing (*see* also p. 64 and p. 192 as to violent wind).

In winter also common sense must be your guide. Common sense tells one that the heather slope on the Langdales we tested a few pages back would, if the soil were frozen, and the heather covered with hard snow, be a regular death-trap to an individual who attempted to descend it. There would be no possibility of checking oneself in case of a slip, and one would slide with ever-increasing velocity, perhaps to shoot over a cliff, perhaps to be brought up by collision with rock or with frozen soil scarcely less hard. Common sense teaches the man in the street to walk warily in slippery weather lest haply he sit down hard and suddenly; common sense teaches the young man of the mountains to do likewise, lest he go farther and fare worse. A rough, sloping ledge may be quite safe in summer; iced it may be extremely dangerous. Ice and snow may make an easy fair weather scramble difficult and entirely unjustifiable for an individual. In summer one may perhaps risk a slither of a foot or two on to scree or soil at a moderate angle; substitute for that soil a slope of hard snow, and the risk is apparent. Common sense tells one that, if snow is soft enough to admit of steps being easily kicked, short slopes may thus be ascended, but that long inclines, especially if there be crag at the foot, under such conditions are better left alone. Common sense, in fact, teaches one not to play the fool on the mountains; and if it does not do so, the mountains will take that part of one's education in hand themselves, with consequences the most unpleasant.

Common sense is greatly aided by a pick. I omitted this implement from the list of Equipment advisedly, because it is not quite the genuine article. It is a sort of ice-axe in mufti, afraid of advertising itself as an officer and a gentleman. Nevertheless, it has my full sympathy. It may be overwhelming modesty, or it may be overweening self-consciousness, but one does feel a sort of awkwardness—and a very unpleasant sort

—when parading through the streets, say of Keswick, alone, with an ice-axe in your hand. Every loafer turns round and gazes after you with contempt, and it is hard to be despised by a loafer. It is still harder to be conscious that you would rather he had not so looked at you, to experience an uneasy feeling that you wish you could



Pick.

stow your axe up your sleeve, or swallow it, or something. Of course companionship gives courage, but alone such trouble is difficult to bear. All this is avoided by taking a pick, which is, in fact, a stout crop-handled walking-stick, the crop being a strong metal pick, with a spike at the ferrule end. The spike is useful in probing the snow, and in clearing ledges. In such a step round as that described during the ascent of Eel Crags it is invaluable. A few sharp jabs would have removed the frozen earth and made the step quite safe. Otherwise one has to kick the ledge clean, which is fatiguing, and not entirely without risk. The pick-end may be similarly used in clearing holds which cannot be got at with the spike, and I have also known it driven into steep grass so that the shaft can be utilized as a steadying handhold. I confess, however, I am not much in love with this process. A pick is, in fact, a distinct aid to common sense on occasions ; on occasions, also, like an ice-axe, it is very much in the way, and it is as well to devise a sling by which it may be suspended from the wrist. Unless carefully fastened, it is liable to slip through the sling, but a couple of hitches about two inches apart, round the shaft below the head, should prevent this.

I may be wrong—I hope I am—but I do think that this side of the mountaineer's education at home is much neglected, that the lessons that can be learned by these means from the British hills are overlooked. There is no sport, on the mountains or off them to my mind,

to equal rock-climbing, but expert rock-climbing is not the be-all and end-all even of British mountaineering. Of course, I am sure a good rock-climber can take care of himself anywhere. Well, he may be able to, but occasions do arise on which a little less specialized, more general, knowledge is not unwelcome.

CHAPTER V

PRACTICE CLIMBS ON LOW CRAGS

Happy is the climber who lives within reasonable distance of some reasonable rock. For him there is no need of the surreptitious row on ornamental waters, of canters in the early morning or after dusk down fashionable promenades, of attendance at unattractive gymnasiums at unseasonable hours, of hand traverses up the outside of basement-staircases, in fact, of most of the artificial means of keeping fit suggested in Chapter II. He has the real article to hand, and if he does not start his climbing holidays in first-class condition, he will only have himself to blame. If such a man can contrive —and he always can if he will—to put in two hours climbing twice a week, he may be quite sure that, provided he observes the ordinary rules of health, wind and muscle, will not only be in trim, but in capital trim.

To a climber of experience, even of moderate experience then, the neighbourhood of a practice ground is of very high value indeed ; to the unlessoned schoolboy in the Academy of Mountaineering it may prove not a wholly unmixed blessing. He is likely to come to erroneous conclusions both as to the art of rock-climbing—let alone mountaineering, and his own prowess, and some time, seasoned with kindly advice and possibly not unqualified by a tumble, may be required to knock the nonsense out of him.

The fallacy : ' The shorter the climb, the stiffer must be the work,' is responsible for much of the trouble. It is a capital mistake. Excellence as a rock-gymnast does not necessarily constitute excellence as a rock-

climber. Feats which are quite playing the game on a boulder would be wholly unjustifiable on the precipices of Cumbria, Snowdonia, and Scotland, and in the same way a climb which reckons its feet in hundreds admits of methods and practices which would lead to failure, if not disaster, in an ascent that counts its altitude by thousands of feet (*see* also p. 19). Some day or other, I fear me, there will be a smash, if not on one of these ' boulder ' climbs, directly traceable to this ultra-gymnastic bouldering which is becoming increasingly the fashion. I only hope it will be on a boulder, and require the services of doctor and nurse only, not of coroner and sexton.

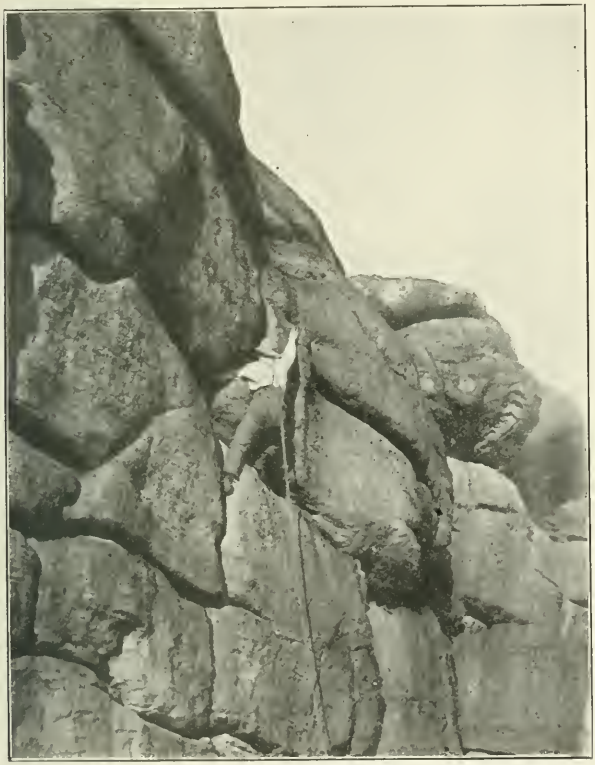
I was going to say, ' I hope this note of warning is needless,' but that would not be true, for I am convinced that is urgently necessary. I do hope, however, that my voice is the voice of Jonah, not of Cassandra. It will be remembered that the people of Nineveh mended their ways.

At the risk of repeating much that I have said before, I shall endeavour to explain what I mean and to drive my explanation home, not only because I desire to do so, not only because I think it desirable to do so, but because I consider it absolutely wrong not to do so. I submit, too, that I can better illustrate the principles I wish to enforce by taking, as before, as an object lesson a practice ground with which I am tolerably acquainted, but which I prefer in this instance should remain nameless.

Some years ago a small group of crags attracted the attention of certain keen climbers. These men were just ordinary, work-a-day Englishmen who had to earn their daily bread in the sweat of their brow, or brains, for the greater part of the year. They lived in the same neighbourhood, went for week-end walks and cycling runs together, and, when their all too short holidays came, scampered off to their loved mountains in company.

I think I am justified in saying that not one of these men had any true idea of the possibilities of these crags. That there were a dozen or so of chimneys, cracks, and

face climbs, some easy, some moderate, some quite difficult was evident on sight, and the problems thus presented were promptly tackled. The easy courses fell, then the moderate, and last of all the difficult, the



A Face Climb—Gritstone.

climber being for the most part safeguarded by a rope from above, taken round to the top of the crags by some easy way, in this case a walk.

Holiday time came, and the climbers made for the

mountains, some to Wales, Scotland, or Cumbria, some to the Alps, and, contrary to the expectation of the man in the street, who is always very ready with an opinion on a subject he knows nothing about, hastened gratefully to renew their acquaintance with the low crags, acknowledging with no uncertain voice their indebtedness to them. Not only, they admitted, had these practice scrambles taught them much, but they had enabled them, on the British hills, to get to work at once. I am, alas ! a dweller in the south where no crags are, and I have been filled with envy and longing at seeing some of these fellows starting right away, with their climbing muscles in perfect trim, on the very first day for some first-class sport, whilst I and other less fortunate mortals are compelled to fly at lower game. Of course in the Alps a preliminary expedition or so is absolutely necessary for all and sundry, but even there the man with the practice ground has the advantage. His rock-climbing machinery is in good order, in better order than is possible for men less happily situated.

Now these men did not despise the day of small beginnings. Originally they had managed to get up the easy courses somehow, struggle up the moderates, and conquer the difficult ones with the moral support of the rope, generally ending the latter climbs with the parting question, ' I didn't come on the rope, then, did I ? ' O beginner, who askest this question, be not convinced by the reassuring negative and shake of the head. If you ask, the chances are you *have* been on the rope. The man playing you up may be quite honest and may not have felt you, especially if there were any friction of the rope against the rock. It has been truly said that an ounce of pressure will sometimes get a man up a difficult place. Believe me, an ounce will much more easily throw him off. It is quite impossible for the man with the rope to speak definitely. I dare say some will question this. If so, let the sceptic fasten a scale to the end of an Alpine rope and dangle it from a window some thirty feet up. Then let a friend below—and out of sight—place a quarter of a pound weight in the scale.

I will undertake to say that, if the rope is running over the window sill, the man above will be wholly unconscious of the increase of weight, and, even if he were holding the rope clear, I very much question whether he would be aware of it, unless he were on the look-out. If in any doubt, decide that you have been on the rope, and never be satisfied until you are quite, quite sure that you have not. Of course the most convincing way of ascertaining this is to lead up the climb oneself. All the same, on a practice scramble that is only just within the limit of one's powers I strongly advocate the safeguard of a rope from above. In serious work I should always be disposed to regard a difficulty I had found just within the limit of my powers, as just beyond that limit. This may not be a heroic view, but I submit that it is eminently sound.

As I have said, these men did not despise the day of small beginnings. They have left geological evidence to this effect, in the form of innumerable nail-scratches up and down the easy courses. And they were right. It is not enough to be able to 'get up,' say, an easy chimney without much exertion; it should be climbed throughout with precision and finish. Of course some men, and good men too, will always appear clumsy on rocks, but it does not follow that they are really so. Some of our recent South African visitors could scarcely, by any stretch of admiration, be called stylish bats, but they scored quickly and cleanly enough for all that, too quickly and cleanly for the liking of some of us.

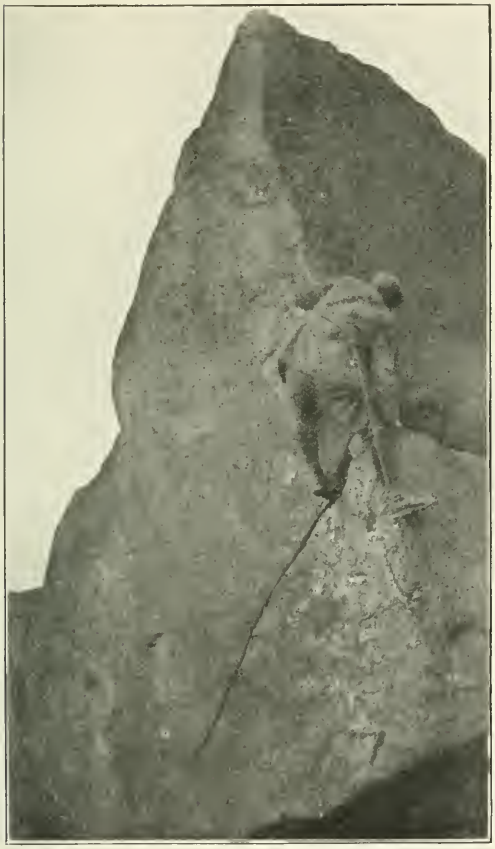
If this course be resolutely persisted in, it is wonderful how soon the moderate climb will become very moderate. I write the word 'resolutely' advisedly, because the principle requires no small amount of determination to follow out in practice. To take an every-day instance. Every one who has handled a cue knows, or ought to know, that the backbone of the game of billiards consists in half-ball hazards into the middle and top pockets. These are what the professional enjoins his pupil to practise and practise and practise. The pupil, full of good resolutions, hires a table and

practises accordingly—for about ten minutes. After that he thinks he will try something else, ' see if he can't make a break.' He would make a break much sooner if he stuck to his work, but it is too tedious. Such a man will never excel. He may become the average player, a man who makes a fifty break two or three times in a year, and says, ' Well, we *ought* to be able to get through a hundred in twenty minutes ' ; whereas he very well knows at the back of his mind that he will be very well satisfied if he scores his points in under half an hour.

As with billiards, so with rocks. The temptation to go for something more interesting is almost irresistible, but, as in billiards, self-denial in this respect will more than repay one.

Attacked on such sound methods the moderate climbs soon, as suggested, became very moderate, and the difficult ones ceased to be very formidable. Rocks have a truly remarkable habit of becoming easy on familiar acquaintance. First a climb is almost impossible, then severe, then difficult, then moderate, until finally it becomes ' an easy day for a lady.' Of course practice and the accompanying increase of skill and experience are partially responsible for this phenomenon ; but I think, and I fancy most climbers will agree with me, that the main reason is that rocks almost invariably appear more difficult than they really are. If a climb turns out to be as hard as it looks, it is pretty sure to be really severe. Of course there are exceptions. I have in my mind a simple little crack on Row Tor in Derbyshire which, so far as I know, has as yet proved unconquerable. It is so mild in appearance withal, just the kind of climb that invites you to stretch your muscles pleasantly before tackling something ' interesting.' For all that, it won't ' go,' even with the moral assistance of a rope, unless that moral support is strained beyond the limits of even an enthusiastic novice's credulity.

As the difficult courses fell one by one, fresh problems were sought out and mastered, until I think I am justified in saying the extreme limit of human skill and



A Fancy Bit of Bouldering.

Rock gymnastics. The strain on the fingers is extremely severe. In fact the climb, as it is, approaches the limit of strength, and were it two feet longer I question whether it would not be beyond the powers of any man.

strength has been reached. I know, for instance, of one little problem on which the main difficulties are concentrated in about two feet. I have seen a climber of quite exceptional skill and strength take quite a min-

ute over those two feet (you have to cling with your finger-tips pulling sideways at a vertical crack and work up inch by inch) and I am of opinion that if that two feet were doubled in length not a man in Merrie England could make it 'go.'

Now in tackling problems like these, a climber knows perfectly what he is about. He knows that if he can master them, unassisted, or even with the true moral support of the rope, he will be able to deal quite satisfactorily with any ordinary difficulties he may encounter on any ordinary climb in Great Britain. He is also perfectly aware that these fancy bits of rock-work are not mountaineering, or even rock-climbing proper. That is where the novice makes the mistake.

He visits the crags in the company of some climbing friends of experience who have begun at the foot of the ladder and worked up. He sees them indulging in impossible feats on impossible boulders and desires to go and do likewise. He scorns the easy courses and the sound and kindly advice of friends; he disregards the half-ball hazard, the backbone of the game; he goes out for something brilliant; he comes, he sees, he conquers. A young fellow of eighteen, fresh from school, especially if he be a rock-gymnast, with his joints unset, and without that handicap of twenty or thirty pounds extra of avoirdupois that another dozen years will put in 'the howdah on his back,' will quite often be able to haul and wriggle himself up a bit of rock that will test and overtest many a mature and experienced cragsman. Consequently he will not unnaturally be disposed to think himself a better man, which is a mistake.

This is where the trouble arising from the fallacy, 'The shorter the climb, the stiffer must be the work,' comes in. Many of the soundest methods of rock-climbing may be acquired on low crags, but if one goes to them with the idea that one must only tackle problems of exceptional difficulty, indulge in advanced rock-gymnastics in fact, one will not learn much, and that little learning may prove an exceedingly dangerous thing. As illustration. A lady I know was watching

an expert negotiating an exceedingly difficult and delicate traverse. When he had successfully accomplished it—and I, incidentally, had successfully come off—she asked him what he would do if he met a passage like that in the Alps. His words were the words of wisdom : 'I'd go back. I wouldn't try it on Scafell, let alone the Alps.' And he was a man who does not often turn back. Now I am afraid that in a similar situation on a long climb the gymnastic novice would not turn back. In fact, I happen to know he would not. And sooner or later there will be a smash.

Let us novices, therefore, approach these low crags in a spirit of teachableness. Let '*Festina lente*,' be our motto !—we will make progress with extreme deliberation.

Practice is to be had on chalk, sandstone, limestone, granite cliffs, the tumbled fragments of the hills and short faces of rocks that are scattered all over their sides, and millstone grit. Of these chalk is the most entirely detestable, and gritstone the most delightful. There are, of course, cliffs of other material besides granite and chalk ; but I do not think there is any good to be got out of them. There may, too, be other kinds of rock inland which give good practice—I do not pretend to an exhaustive geological list—but I have not met them. I can only speak of my own experience. Wherever I have been, I have always looked out for anything that promised the chance of a scramble in the neighbourhood, and the above are the only rocks I can recommend, such recommendation in respect of chalk, limestone, and sandstone being qualified by a rider, 'only when you can't get anything else.' I have tried that wretched stuff of which the coast of Northern Devon in the neighbourhood of Ilfracombe is composed, and, though good enough to knock a hole through the bottom of a first-class battle ship, it is emphatically not good enough to climb on. I have tried the quarries at Malvern, but they were eminently unsatisfactory, pieces flaking off unexpectedly just as they had deceived you into a belief in their stability. I do not think there

is anything to be learned from such experiments; indeed, I am of opinion that they are better left alone. The outcrops of crag on the eastern faces of the Malvern Beacon and the North Hill, however, afford numerous capital problems.

Chalk, sandstone, and limestone, unless dolomitized, are all alike bad. They are absolutely unreliable; they are all extremely deceptive. It is usual to ascend a cliff from the bottom. Now the foot of *chalk* cliffs, as far as the brine can reach and bind together the loose material, is quite reasonably sound and generally affords moderately easy going. Above this comparatively solid portion the chalk is too rotten to be thought of. The only sport I can suggest is to take Mr. Haskett-Smith's advice and to make traverses a short distance up along the face of the cliff. These involve a good deal of up and down work and can be devised so as to afford admirable tests of balance.

NOTE.—On these traverses, especially in bad weather, there is some danger of being hit by loose pieces of chalk or flint falling from the cliffs above, and occasionally great masses, weighing hundreds of tons, come away without warning, as may be read broadly in the daily papers.

Sandstone.—I can only speak of sandstone as I have found it. I am told that in some parts of Scotland it affords capital climbing (e.g. the Torridon Hills, An Teallach, etc.) and on a grand scale, but the low outcrops I have met in England have proved unsatisfactory. Its deceptiveness lies in its resemblance to millstone grit. It weathers almost as fantastically and abounds in enticing-looking cracks and chimneys. Sometimes the two are found together, forming a kind of bastard gritstone, which is treacherous stuff, because gritstone is a rock you can generally trust with absolute confidence, though care is required in dealing with certain portions, as I shall have occasion to remark later on. My quarrel with sandstone is that when you do come on a good satisfactory-seeming handhold (I don't mean a ledge, but a projecting piece, you can grip well with your fingers) you never can be sure that it will not come away unexpectedly

like a bit of biscuit. Still it is far preferable to chalk, and, in my opinion, to limestone.

Limestone.—As to the merits and demerits of ordinary mountain limestone from a climber's point of view controversy has waxed hot. Who shall decide when experts differ? I have sought for an authoritative opinion, but have failed. At length I have come to the conclusion

Photo by] [*Rev. A. E. Robertson.*

COIRE MHIC FHEARCHAIR, BEN EIGHE, TORRIDON.

that there must be two kinds of ordinary mountain limestone, one that I know and one that I do not, and that the latter is the stuff that is good to climb on.

At first sight limestone is certainly fascinating. Almost every face appears to offer several interesting routes, many suitable for beginners with the holds large and plentiful. Limestone shares, with chalk and sand-

stone, the objectionable characteristic of deceit. It often seems firm enough. When I first turned my attention to it, I was led, or rather misled, to believe that the

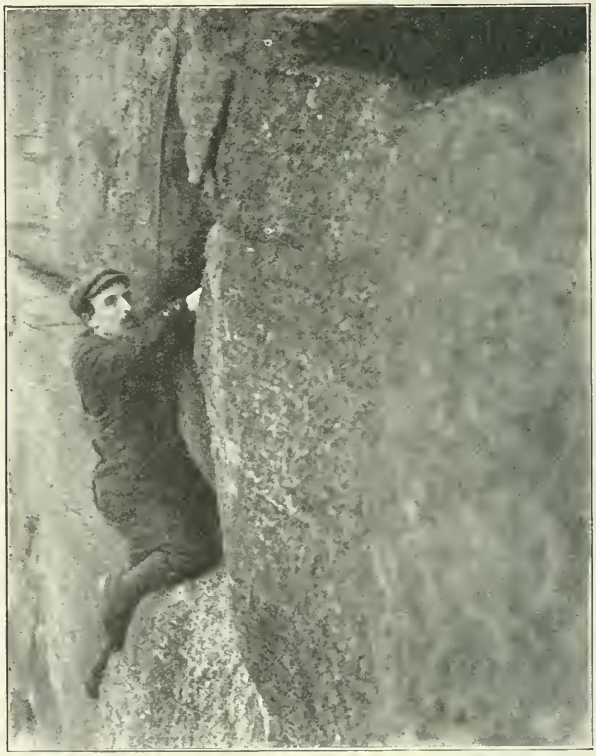


Photo by] [*H. Williamson.*

SAFEGUARDED BY THE ROPE—A DIFFICULT CRACK.

accounts of its untrustworthiness were exaggerated, until I was enlightened by a large and seemingly perfectly sound foothold on which I had been standing, coming away without the slightest warning. Fortunately for me the handholds proved true.

I think I am justified in saying that all limestone pinnacles, such as the Dovedale spires in Derbyshire, are utterly unfit to climb. I have been up one (I shall not say which, for fear of being asked to do it again), and I have fallen off another (I shall not specify this one either, for the same reason) and I never wish to be on such rubbish again—and I never will.

There are, however, *faute de mieux*, plenty of limestone faces on which practice may be obtained provided you are safeguarded by a rope from above. Without this precaution limestone is, I think, better left severely alone by tyro and expert alike. This is only my opinion. Some climbers, I have read, swear by limestone. Many and many a climber have I heard swear[1] at it.

Before passing on to sound rock, I should like to say that for the beginner, at any rate, any rocks which are too high to admit of the climber being safeguarded by a rope from above should be ruled out of the game. Twenty feet is not very far to fall, but any one who walks out of his drawing-room window into his area would find it quite far enough. Sixty feet is no great height either, but it would serve. Any one who questions this has only to step off the coping of an ordinary London west-end house on to the pavement to be convinced. To my mind the standard of difficulty on these low crags has already been carried too high. It will be bad enough if a beginner smashes himself up, but at any rate one will be able to console oneself with the reflection that the accident was due to his ignorance and rashness and not the fault of the sport, but if a man who ought to know better and does know better comes to grief on one of these ultra-gymnastic problems, I do not see how the sport can fail to be discredited. Listen to the words of wisdom of an experienced cragsman. 'Though I have frequently ascended the Crack on a slack rope, I should say that to attempt it without a rope at all is a very dangerous and perfectly useless feat.'

[1] 'Swear' must be construed as a forcible expression of adverse opinion. Among the climbing fraternity the man who uses bad language is 'a rare bird, and very like a black *sheep*.'

The Crack referred to is the Stonnis Crack on the Black Rocks near Cromford, and I entirely agree with the above sentence. To my mind, to attack it unroped would be wholly unjustifiable, even for the best man in Great Britain, and I could name some other climbs which, in my opinion, come under the same category, but which have been ascended without a rope from above. Also let it be remembered that what may be perfectly justifiable for *A*, may be wholly unjustifiable for *B*. A little further along the Black Rocks is the Pine Tree Gully which is well within the powers of most climbers of experience, but which a novice would have no business to attempt without a rope.

Magnesian Limestone!—If ordinary mountain limestone is 'a delusion, a mockery, and a snare,' magnesian limestone is a climber's paradise, though, like the Mahommedan Paradise, it has to be reached along knife edges. You can cut your fingers very conveniently on dolomite, and, if you happen to come off, you are pretty sure to cut whatever part of you first reaches the earth, for these outcrops have a habit of littering the ground at their feet with sharp splinters, splinters that, like calthrops, invariably have their points uppermost.

My only complaint against magnesian limestone is that there is not enough of it, and that it is not always sufficiently dolomotized, and therefore not always reliable. The best dolomite I know is to be found near Brassington and Harborough in Derbyshire. The outcrop at Breedon-on-the-Hill is larger and higher than either of these groups, but the rock is not so sound, besides which the scale is, though small, rather too big for beginners. Before leaving these rocks, I do not think I can do better than quote from the authority on Derbyshire climbing. 'At Breedon we have an epitome of all the *technique* of crag-work except the points special to chimneys and gullies. The scale is small, of course; but then, if you have a smaller distance to fall, the holds also are smaller, so that matters are somewhat equalized. Then again, beyond a certain height, something less than a hundred feet, the consequences of a fall do not increase in gravity;

wherefore the wise climber may, if he please, enjoy nearly all the delights of his sport on quite a minor height,

Photo by] [*G. A. Fowkes.*

BRASSINGTON ROCKS—A FACE CLIMB.

including those possibilities of sudden death that we pretend, by a pleasant convention, to find so alluring.'

The Brassington and Harborough dolomites are ideal. So weathered is the rock that the surface somewhat

Photo by] [*G. A. Fowkes.*

EAST ARÈTE, BREEDON.

resembles that of a fossilized sponge, affording holds innumerable, which enable one to walk, like a fly, straight

up a perpendicular face. These finger-holds must be very tenderly handled. One reason is that they are so thin that it requires very little pressure to snap some of them off; another that they resent rough usage by cutting your fingers.

Granite cliffs.—I believe the cliffs of Cornwall, west of St. Ives, are full of capital climbing. I have never been

Photo by] [*A. W. Andrews.*

A Tough Bit of Rock on the Cornish Cliffs.

there, though I was tempted to do so by a very attractive article that appeared in *The Climber's Club Journal*, vol. vii., No. 29. The climbing, as there illustrated, would seem to be too severe for a beginner, but no doubt there is plenty of easier work to be found.

Short climbs among the mountains.—The great advantage of practice on these is that you have to deal with the same rock (granite, of course, included) that composes the long climbs for which they are a training ground. There is a tendency, and I think a re-

grettable tendency, to overlook these little crags, on the part of both experts and beginners. The general custom is, for the first day out, to take a long ramble and an easy climb. I should recommend instead a long ramble interspersed with as much bouldering as you can conveniently get in. An hour's practice on low crags will do more to get your climbing muscles in order than many of the recognized moderate courses. The reason is that you can put in twice as much work, and that the work is two or three times as difficult. It is extremely hard to convince some climbers of this. They must go off and do something big, and megalomania bears them away captive, and perhaps oneself as well, as one does not wish to be unsociable. Nevertheless, if one can do so, one will be more than repaid by substituting bouldering. It is not always easy to get a companion even from among the non-climbing section of the people at the inn. In such a case one may do worse than spend a shilling or two in employing a native to hold a rope from above. If you adopt this plan, you must insist that the rope shall not be pulled. You will have to repeat this some half a dozen times, for the mountain shepherd is a thick-headed animal as a rule. He sees a rope, with a man at the end trying to get up some rocks, and he conceives that the rope is there to be pulled by himself, and that the man is there to be pulled by the rope. And pull he does. Be particularly careful in starting a climb under these conditions. *Rusticus* will promise implicit obedience and will give you reason to trust that he actually does at last thoroughly understand what you want done. The moment he gets his fingers on the rope, however, the old Adam is too strong for him, and he hauls. This is not only aggravating but mildly dangerous—to the epidermis at any rate. Once I was standing at the foot of a small, though difficult problem, and Dunderhead was aloft, having walked round by some grass, and I was just stepping delicately up on to the first foothold, steadying myself lightly with my hands, when there was a pull, and I was jerked violently against the rocks, flattening my nose, and knock-

ing the skin off my chin and fingers, all through the officious stupidity of my retainer. And as that man was, so will most of his kind be. Wherefore, take care.

Millstone Grit.—I personally am a devotee of gritstone, but I am not blind to its shortcomings. The matter with this rock is that it is too good. Feats impossible on ordinary crags become comparatively easy on gritstone, and herein lurks trouble. Mr. Cecil Slingsby has said, and with deep truth, that climbing is so safe because it is so dangerous. It may be said of gritstone that it is decidedly dangerous because it is so safe.[1] I think, nay I am sure, that it tempts men to go too far, to pass over the border line that divides difficulty from danger. All those ultra-difficult problems to which I have referred when speaking of the Stonnis Crack are on grit. Neither does the mischief end here. It has been written: 'An experienced climber used to tell us that the man who could ascend the [Alport] Stone by the difficult way was equal to most of the favourite scrambles in Cumberland and Wales. We were sceptical then, for we felt an awful respect for the famous climbs we had heard so much about, but not yet made acquaintance with. Nevertheless, it was a true saying. The hardest British climb contains nothing appreciably harder than this shoulder climb, the Crack at the Black Rocks, the Boulder climb at Robin Hood Stride, and one or two other things the neighbourhood can boast. The great climbs are simply more extensive.' All this is very true so far as it goes; the objection is that the great climbs are not composed of gritstone. More than once an enthusiastic youngster has come to me with the tidings that he is going to the Lakes for the first time, and, in such a case, if I find his experience has been limited to gritstone, I always consider it my duty to warn him, and to lay the warning on with a trowel. The extreme roughness of the grit enables

[1] It is conceivable that preliminary practice on gritstone, coupled with an experience of the gabbro of Skye, which is even rougher, may have been a contributory factor in the fatal accident on Pillar Stone, 13 Oct., 1908.

one to take liberties with it that other rocks would resent ; you can in some places literally hang on by the friction of your clothing only, and by friction you can wriggle up slabs, chimneys and *arêtes* that would be impracticable on smoother material. I suppose that almost every one who is interested in climbing knows the Napes Needle by the photograph, at any rate, and many have made its practical acquaintance. No one could ever call it an easy climb, and it is, I think, one of the few that is becoming more difficult—with time and bootnails. I believe that climbers will agree that, if the Needle were made of gritstone, the climb would be as easy again as it is. In fact, almost all the difficulty would be over when the cracks were surmounted. The formidable final struggle would be reduced to a commonplace wriggle, provided you had a good reliable waistcoat. On the other hand, if you attacked the top of the Needle, as now composed, with the same confidence that you might a similar gritstone problem, you would—well, you would not get up.

Other objections to gritstone are that it wears out the clothes and the skin. Clothes cannot always be saved. If you have to back up a gritstone chimney, your coat is bound to suffer, but your hands you can take care of. Many people seem proud of such 'honourable' scars. Now personally I judge my form by the state of my hands at the end of the day. One can hardly hope to get off without a scratch or two—the surface of the rock is, without exaggeration, as rough as a nutmeg grater—but the fewer the better. Speaking generally, many scars mean bad climbing. Of course even an experienced stranger to grit cannot be expected to know this. He tackles the stuff in the same way as if it were ordinary rock, and his skin pays the penalty. A little more deliberation is what is required, and deliberate movement is, I submit, in climbing a feature that cannot be overcultivated.

Having said all this against gritstone, it may seem contradictory to state that, in my opinion, it gives the finest practice climbing to be had anywhere in

the Three Kingdoms, not omitting the Principality. 'One of the most eminent authorities on rock-climbing,' writes a gentleman I have more than once quoted, 'once observed to me that the characteristic of our Derbyshire climbs is that they are extremely technical.' Gritstone is not confined to Derbyshire, it is found all over the Pennines, and wherever gritstone is, there is sport for the climber and education

A Sensational Bit of Bouldering.

for the beginner. On one outcrop alone that I visit whenever I have a chance, there are gullies, chimneys, cracks, face climbs, *arête* climbs, traverses—a natural gymnasium where a man may learn and practice much that constitutes 'ye compleat rock-climber.' I dare say a good many enthusiasts would be inclined to write a man may learn and practise nearly all that constitutes 'ye compleat rock-climber,' but they would be wrong, as I shall show in the next chapter.

Before leaving the millstone grit I may say that,

though as reliable a rock as the heart can wish, it cannot be absolutely trusted. It weathers, especially along the upper edges, into curious, thin, cup-shaped frills and miniature pinnacles, and occasionally these come away without warning like so much cheese. They are specially treacherous, because in nine cases out of ten these edges will hold a fifteen stone man wrenching at them for all he is worth. In fact, on gritstone, as on every other rock, it is a first principle to treat every hold as unsound until you have made quite, quite sure that it is absolutely reliable.

Granite, for practice climbing purposes, is not confined to mountains and cliffs (there are, for instance, granite tors on Dartmoor which give some real sport); *Chalk* is. I cannot conscientiously recommend a chalk-pit to any one. Perhaps I am prejudiced. A friend of mine was standing on a wide ledge in a chalk pit unsuspectingly, when suddenly, after about five minutes' waiting, it gave way, with the result that he was laid up for some weeks.

Happy, I repeat, is the climber who is within reasonable distance of reasonable rock. Of course the more of it there is, the better, but even a solitary boulder is by no means to be despised. I experimented on such an one the other day with a special eye to this book. It was not more than ten feet high, and in shape somewhat resembled a penny bun. I found seven different ways up, all affording genuine climbing, and two or three other problems which proved too much—for me, at any rate. By the time I had done with that boulder I was feeling wonderfully fresh and fit. Still, when I come to total up, I had climbed seventy feet up, to say nothing of coming down, some of the work being not easy, besides tackling the other small problems. Now a man with a boulder like that in the neighbourhood ought to be able to keep in fairly good form.

I will now ask the reader to accompany me to some low crags and study with me some of the principles of climbing. We will have ideal material to work on, an outcrop of splendidly sound rock on a mountain side,

Having arrived at the rocks and marked down a climb, the first thing the beginner has to do is to look at it. That is generally the last thing he thinks of doing. Of course he gives a casual glance, sees a hold here and one there, and then goes ahead. Now the object of a climber is to get to the top of his climb with as little, not with as much, exertion as possible, and this cannot be achieved without careful preliminary inspection.

To the same end the novice is warned that his legs are stronger than his arms. Of course one would think he knew that, but he never by any chance acts as if he thought so. He pulls himself up with his hands, whereas he should push himself up with his feet.

Let us start with a short chimney climb. It is easy enough and can be climbed in several ways. So much we know! It is our business to find out which way is the best.

Preliminary inspection shows us a fissure about three feet across, between the containing walls of which, about fifteen feet up, a big stone has jammed. There are some good holds on the left wall, but none at all for seven feet on the right, where there is a deep, horizontal crack forming a splendid handhold. At the back the chimney narrows to a crack with rough edges that can be used as footholds.

Now the chances are that the very first thing the beginner will do is to get as far into the chimney as he can. He always does, and is almost invariably wrong in so doing. A little reflection would tell him that the outside edges must be more weathered than the interior, and that consequently better holds are likely to be found there. I suppose it is some idea that the deeper one is in a fissure the safer one is. I suppose this is so, to an extent, but it does not follow because the interior of a chimney is safe, the outside is unsafe. I have known a whole party held up in this way for twenty minutes by an obstinate climber. Nothing would induce her to come out, and the rough and ready means which would have been adopted in the case of a man, viz. of hauling, were impossible. Chivalry forbade. She was

perfectly safe, securely roped, with the leader firmly anchored, but she stuck to her own methods, and stuck in consequence. At length a certain amount of sustained moral support was afforded, and eventually she got out, or was got out.

To return to our chimney. The beginner walks in, reaches up to the handhold on the right wall, and as far as he can on the left, scrapes with his toes at the crack at the back, and so, by sheer force of arms, wrestles his way up, until he finds himself right under the chockstone, and quite unable to get any further upwards. He might be able to traverse out under it, but as he has squeezed himself as tightly into the chimney as he can, he is unable to manœuvre his head so as to see, even if the idea occurred to him, and down he has to come.

Want of examination is not the only mistake he has made. It is a fault common to all beginners to grab at the highest handhold they can reach, and it is very difficult to break them of this bad habit. That it is a bad habit can be ascertained without going out of one's room. Stand by the door with your arms extended over your head and the fingers resting on the top. As soon as you begin to feel tired, which will be in less than a minute, go and rest your fingers on the mantelpiece. Immediate relief will be experienced. The position of the arm full extended upwards is trying for the muscle and bad for the circulation. Of course it is often necessary to keep on reaching up and up for a considerable time, and consequently it is advisable, whenever possible, especially on a long climb, to rest the arm, letting it hang straight down.

'A novice,' wrote Mr. O. G. Jones, 'can often explain to a novice far more effectively than an expert.' Let us make our novice his own interpreter (I may say, incidentally, that I am recording *choses vues*, not drawing on my imagination). Forced to retire, he does what he ought to have done first of all, puts on his considering cap. His business is to find a way to the top of the jammed stone, and that way, he has ascertained, is not

by squeezing himself into the innermost recesses of the chimney. A short examination shows that the left-hand edge of the fissure is plentifully supplied with good holds, offering an easy clamber. Up he goes, hand over hand, foot after foot, for some six feet, when the angle steepens abruptly and the holds threaten to lead him out on the face of the crags and away from his objective. It is simple, however, to stretch his left foot across to the crack on the right wall, which, he has noted, terminates in a comfortable ledge as big as a plate. Accordingly, reaching across his left hand to a tolerable hold—as high as he can, as a matter of course—he steps across exactly as if he were walking upstairs—that is to say he takes all his weight off one foot almost simultaneously with throwing all his weight on the other. Alas and alas! There is a small pebble on that ledge. It slips away under the hasty, careless pressure, and, getting wedged between the nails, takes the foot with it, and the next moment the novice is left dependent on his hands, which are gripping not too good holds some three feet apart, above his head. No ordinary fingers can stand such a strain, and long before his frantic right foot can recover its lost hold, he swings off on the rope, a very unpleasant experience in a chimney. It is remarkable, under such conditions, to find how many sides a chimney has. There seem about half a dozen of them, all hard, and you hit every one.

This is 'worse than a crime, it is a blunder' (I acknowledge that I misquote), and is due chiefly to the neglect of the principle already inculcated of the slow transference of the weight. Of course it is of first importance to clear the holds in all cases, but the left foot, if deliberately placed on that hold, would have felt the pebble, which could then have been removed. Even supposing the foot had not detected its presence and had started slipping, if the weight were being gradually transferred, it would have been easy to rest back on the right foot again, which at the time the slip occurred *was actually leaving its hold, instead of being kept firm until the stability of the left foot, in fact of the whole body, was ensured.*

Nothing disheartened, a sorer and a wiser man, our novice tries again, and this time gets both hands on the edge of the chockstone, which gives splendid holding. A strong pull with the arms, some wild kickings with the feet, and he gets his chest over the top, and, wriggling, pawing, and pulling, at last he achieves victory.

It is something of a Pyrrhic victory. He is out of breath, his muscles are feeling the strain, he has knocked the skin off his knuckles, split a fingernail (a detestable nuisance), is hot and dirty, and generally not in very good case. He does not require to be told that if the climb were three hundred feet high, with pitches like this all the way up, he could never get or, for that matter, be got to the top owing to sheer exhaustion.

Nevertheless, his methods were perfectly legitimate, though he hurried too much at the end and trusted too much to his hands. Had the upper edge of the chockstone been smooth, instead of rough, he would probably have come off again.

It is time to give a practical lesson, so we will call in an experienced climber. The construction of the chimney will be remembered. He walks into it, leans his back against the smooth right wall, and steadying himself with his hands lightly on the left wall, steps up to a small ledge about eight inches up with one foot. Then he stands up on that and his other foot is placed on another hold, somewhat higher, and so he literally walks up the chimney, with his back against one wall and his feet against the other, the hands being employed merely as a reserve force, but in instant readiness for action. About five feet below the top of the chockstone, the holds on the left wall cease. It would be easy to back up this short distance, but backing up on smooth rock is fatiguing, and needless fatigue it is the climber's business to avoid. Consequently he reaches first his left hand, then his right on to the edge of the chockstone. Mark how deliberately he *lays them* on the stone, gently and firmly, quietly picking up a little piece of loose rock that comes under his fingers on one

side, clearing the holds in fact. Then he stands up on his right foot, making a half turn to the left, and presses his left shoulder and hip against the right wall, whilst he wedges his knee as well as he can in a little crack between the chockstone and that wall. He is thus with his head and shoulders already above the top of the pitch, and has thrown no appreciable strain on his hands at all. Now it becomes necessary to pull, but pull he does not. He *presses* his hands, greatly holpen by his left hip and knee. Another second and the right knee comes easily on to the top of the chockstone, and the climber is up, as fresh as when he started.

The importance of pressing with the hand instead of pulling with the fingers, whenever possible, is scarcely to be exaggerated. This method is less fatiguing, gives a firmer hold, and is less likely to dislodge a doubtful stone. Often a bit of rock jammed in a crack, which could easily be pulled out, affords a perfectly safe handhold if pressed.

This little chimney climb is only one of innumerable problems. I have selected it as an object-lesson, because it illustrates, in its small way, the main principles of rock-climbing.

I went pretty thoroughly into this question some years back, and I trust I may be forgiven for repeating my conclusions and some of my illustrations.

'Three main principles of climbing are:—disposition of weight, distribution of strain, and application of strength.' 'One great object—and it is an extremely difficult lesson to master—is to let the rock do as much of the work as possible.' 'The principle' (of distribution of strain) 'is the same as the first principle of health. Let each organ or limb perform its proper function, so that no undue strain be thrown on any particular part.' 'The great, the vital, principle of balance is a branch of the study of the disposition of weight, but balance cannot be taught, it can only be acquired by constant practice.' 'The scientific application of strength consists chiefly in the direction of energy from the point of most resistance towards the point of least resistance,

so far as is compatible with safety and with just distribution of strain.'

Now I think our climber has observed all these principles except the important feature of balance, which, however, did not enter: everybody knows what balance means, without demonstration. He made use of the rock by leaning almost lazily against it whilst he walked up the wall, whilst his hands, though never hard worked, during this process were utilized so as to reduce the strain on the legs, and so on to the top of the pitch, the weight being so disposed, whenever possible, so as to minimize the exertion of lifting the body.

Finally, let us anatomize our climbing bodies methodically, but not, I hasten to say, exhaustively. The part of the body that may not be used in climbing is difficult to find. The chin has more than once been most useful on the Napes Needle. There is an extremely welcome back-of-the-head hold on a traverse on one of the Keswick climbs. In chimney work the back of the neck is sometimes called into play, and fingerholds have frequently to be resorted to, especially on gritstone. I only propose to consider the legs and the arms, first independently, and then in conjunction with the back.

On easy rocks the feet are used very much as they would be in climbing a steep flight of steps, and no instruction need be given except to insist on the all important maxim that the foot must never be put down suddenly, never lifted suddenly. But rock-climbing is not rock-walking, and one has to go to school to learn how to use one's feet to the best advantage. It is a sound principle to make a point of getting as much boot on the rock as possible, with one exception, in dealing with vertical cracks. The greatest care must be taken not to let the foot wedge. It is not enough to put your boot in and out as a preliminary test. You must remember that in climbing your weight will have to come on it, driving it down and home between the rocky edges, and, if it happens to jam, you may find yourself not only in a position of difficulty and discomfort, but of danger. Moreover, the experience is a most unpleasant

one. The strain on the instep and front of the shin whilst you are disentangling yourself, or getting disentangled, is very painful, particularly if the trouble should have occurred whilst descending, and your disengaged foot is below the level of the imprisoned limb.

Incidentally I should like to say that on practice climbs, the novice should never omit to descend by the way he climbed. The art of descending is, however, regrettably neglected both by beginner and expert alike. Almost invariably, as soon as a climb is over, the party make for the easiest way off the rocks. Yet on great mountains descending is every whit as important as ascending, possibly more so, for one can always turn back on an ascent in case of trouble, whereas, after the climb has been completed, when everybody is tired, it may suddenly become necessary to get off the mountain with all speed, and, as the pace of a party is regulated by its slowest member, a single 'lame duck' may endanger the whole. Though more nerve-trying, descending rocks is generally easier and safer than climbing them, with one exception, viz. when the climber has to pass from a good hold to an indifferent hold. In ascending, one can always step back, whilst on a descent recovery might prove difficult. Moreover, the heavily booted foot is far less able to judge of the security of a hold than the fingers.

'In the descent of rocks which are at all steep or difficult, the climber's face should be turned to the mountain; and in almost every position which really requires the hands to be used as well as the feet, this is the workmanlike attitude to adopt. The toes can be inserted into cracks that will not take the heels, and the handholds and footholds used in going down are precisely the same as those employed in the ascent. To descend with the back to the mountain is, in any but easy places, dangerous as well as clumsy; for the eyes cannot see where the feet are being placed, and no grip can be got which would be of much use in case of a strain on the rope' (Doctor Claude Wilson). This is very true, but I do not think many climbers are premature in

estimating the time when the necessity or advisability of such procedure arises. I should, with all diffidence, suggest that descents should be made facing outwards so long as such method is consistent with safety. It is far speedier. For instance, two climbers the other day descended the Great Gully on Pavey Ark in less than twenty minutes, only facing round at the great pitch. It is aggravating, after having crawled slowly and painfully down the 'Brant and Slape' (steep inclines of wet or muddy rock) on your toes and finger tips, to see your leader romp confidently down with a contented smile on a face that is turned towards you all the time. The leader, as explained later on, comes last in descending (*see* p. 161).

'There is a great art in the use of small footholds, especially those which slope slightly downwards to one's disadvantage. The important point to remember is that the sole of the boot should be so placed on the hold as to lie parallel to its slope. The nails will thus "feel" the holds better, and, though in some cases the strain may be felt on the ankle, the climber will in time be able to stand comfortably on holds sloping at a considerable angle' (*The Complete Mountaineer*, G. D. Abraham). And, by a similar method, the danger of jamming the boot in a crack may sometimes be obviated.

Occasionally, in the case of wider fissures, it is possible by pressing hard with the knee against one side and the foot against the other, to stand up on the leg thus wedged in perfect security.

Never despise the smallest foothold. A 'toe-scrape' may make just the difference of getting up or down, besides fulfilling the all-important function of distributing the strain and relieving the arms.

It is a prime fault of beginners to step up straight ahead. For example, let us return to our doorway.—'Face the door, with your toes touching the bottom and your fingers resting on the top. Now raise either foot to the level of the knee, and a very severe strain will be felt on the muscles of the front part of the thigh,

and, if the leg be held in that position for a few seconds only, there will be a tendency to cramp in the muscles of the calf and at the back of the knee. Naturally this strain would be enormously increased if a hold were found for the foot and the exertion of lifting the body

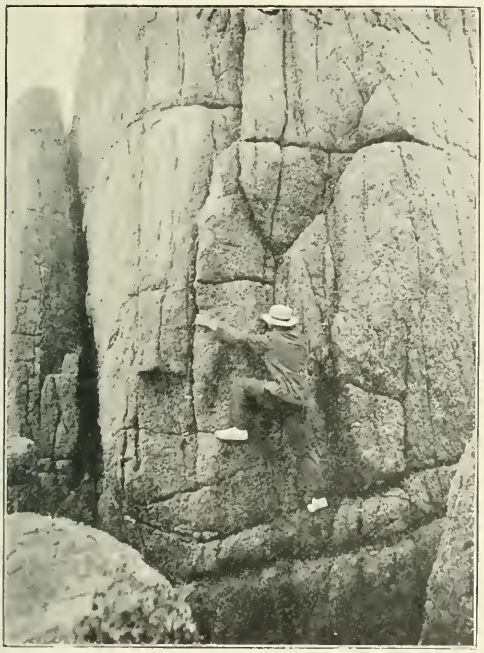


Photo by] [*A. W. Andrews.*

A Difficult Face-climb on Granite.

thrown on the bent and cramped limb. Moreover the forcing of the knee between the body and the door will push the weight outwards, and throw the responsibility of supporting it on the hands and arms to such an extent that it will be found necessary to grip firmly with the fingers to prevent falling backwards. In actual

work, if the handholds were not of the very best, such an experiment would probably end in disaster before the climber had time to recover himself.'

'Now standing in the same position as before, lift the foot to the side, and you will find that you can do so easily without unduly exerting the arms. Moreover, and this is an advantage it is difficult to over-estimate, you can see what you are doing. It will be found easier to reach a hold three feet high and four feet to the side than a hold eighteen inches high directly in front of you. In fact, the foot raised shoulder high and planted against the rock, even if there be no actual hold, will grip, if the boot be properly nailed, any minute asperities so firmly as to give good and sufficient hold and leverage.' Of course it is often necessary to step straight ahead. In such case, it is frequently possible to raise the leg sufficiently, by bending the knee outwards, to get the side of the sole or the heel on to the hold, thus avoiding the pushing out of the body and the consequent strain on the arms.

It is, in difficult rock passages, of first importance to start with the proper foot, but this knowledge cannot be taught in books ; it must be acquired by experience. It is, however, quite safe to say that, should you find you *have* started with the wrong foot, the proper course is to get back *at once*—one should never advance one step unless one is certain one can retire two. Delay and serious trouble will probably ensue. It is generally fatal to attempt to remedy the position by crossing the legs. Experts may cross their legs, but it will not be because they have started with the wrong foot. In all but experts, the manœuvre is to be deprecated. And never, never attempt to change feet. Get back *and at once.*

'I have one great fault in my climbing,' said a young fellow to me once, 'I use my knees.' It is an excellent fault to cultivate. Leaving chimney work aside for the present, the knee is a most useful ally. Supposing one has a large foothold in front of one, waist high, and sloping to the climber's disadvantage. It is difficult to get the foot on to it, and, when there, it is awk-

wardly placed, heel down and toe up, whereas the knee can easily reach it and will find itself in a perfectly natural position. Shallow scoops on rock faces, affording very bad foothold, can be similarly utilized. In hand-traverses, where the body has to be slung along

An Excellent Fault to Cultivate (bracing the knees against the rock).

the face of the rocks by the hands alone, the knees may with advantage, should, in fact, when possible, be braced

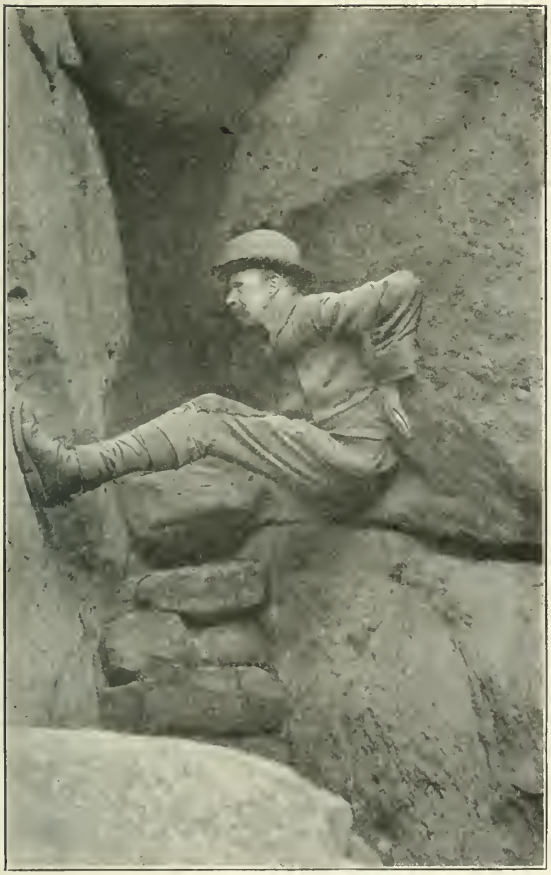
against the rock thus making the position of the climber safer, and taking a deal of strain off the arms. Again, very often on slabs, the hands may have to be reached seven feet up or so, and the rock between may be absolutely holdless. The exertion of hauling oneself up such a place by one's fingers alone is very severe ; but one can very often walk up them on one's knees quite easily. In these places the toes of one's boots are serviceable adjuncts.

I have already remarked on the advantages of pressing as distinguished from pulling with one's hands, and on the tendency of beginners, to select the very highest hold they can reach. Not content with this, they almost invariably neglect any less than shoulder high, whereas holds below the level of the thigh can often be used to push the body up. The position of the arm as indicated, is then better for the circulation, and for security a good handhold so placed approaches a good foothold. In descending, facing outwards, it is of course necessary constantly to make use of holds similarly placed. Under such circumstances the backs of the hands should be uppermost and the thumbs turned outwards.

Personally I am a great believer in undercut holds, though I know many climbers do not favour them. They are especially useful in dealing with stones jammed in cracks. Often such stones which afford an unsatisfactory, not to say precarious, handhold when grasped from above, prove perfectly firm and reliable when handled below.

Occasionally one is driven to keep oneself in position by thrusting one's hand into a crack and closing the fist. If the fissure be too wide for this, one may often wedge the forearm, and, if again too wide, the palm of the hand pressed hard against one side of the crack and the elbow against the other, will serve to keep you from falling outwards. The forearm, too, can often be advantageously substituted for the hand in downward pressure on a ledge of rock.

Sometimes, especially towards the end of a crack, the



BACK AND FOOT WORK.

The position was chosen only as convenient for purposes of illustration.

holds give out altogether, and wedging, owing to the narrowness of the fissure is impossible. I know of one or two such problems. They are surmounted by inserting the hands, knuckle to knuckle, in the crack, and trying, as it were, to rend it open, whilst the body is

somehow frictioned up, the fingers all the time crawling up the crack, till a hold is in reach. This is very hard work, and I should not care to try it, or see it tried, except where a slip would entail no serious consequences. Conversely, when confronted by a large block, excellent hold may be obtained by stretching out the arms at right angles to the body and pulling on to the outside (the vertical) edges of the rock.

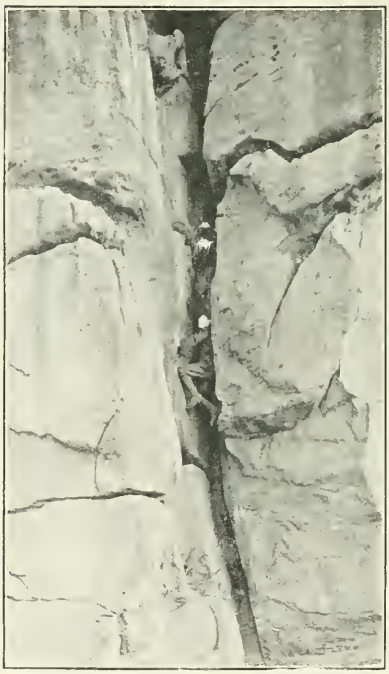


Photo by] [*J. Thornton.*

CHIMNEYING (constricted back and knee work).

Frequently, even on difficult rocks, a handhold may be dispensed with altogether. As an illustration, go to the staircase, place one foot against the uprights of the bannisters and the opposite hand against the wall. You will find that you are in a position of perfect security—the extended arm will sustain the lateral thrust of the body with a minimum of fatigue—and that you can move the other arm and leg with freedom (*see* also p. 79). Sometimes one has to walk up a fissure with your hands pressed against one side and your feet against the other.

The most usual method of ascending such chimneys, however, is by back-and-foot or back-and-knee work.

Backing up on smooth walls is extremely tiring. You place the soles of your boots against one containing wall, and your back against the other, keeping yourself

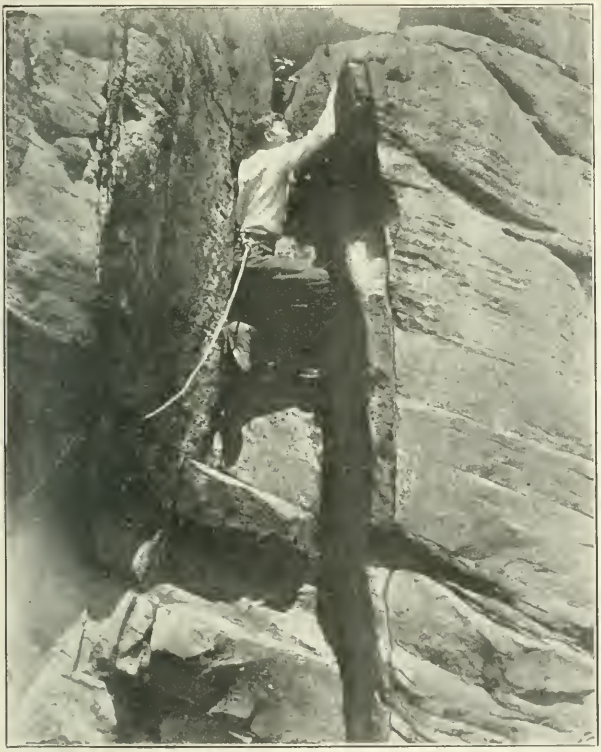


Photo by] A Difficult Chimney. [*H. Williamson.*

The right knee pressed hard against one side and the left foot against the other help to keep the body in position.

in situ by lateral pressure. You then move painfully up, foot after foot, wriggling your back upwards with shoulder-blades, elbows, and all other means at your disposal. One thing the position has to recommend it

—security, i.e. unless you get over-fatigued. I have known a man brace himself thus across a passage and let two men swing from his knees. He was not a very strong man either.

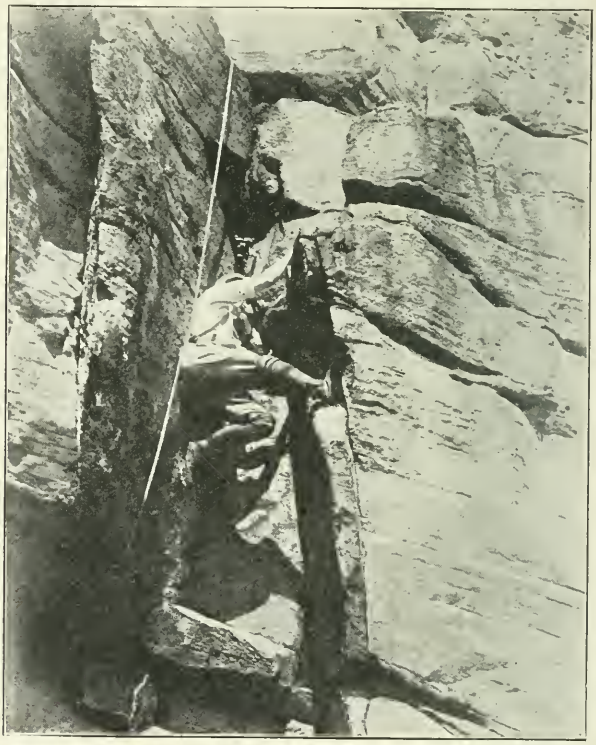


Photo by] [*H. Williamson.*

A Difficult Chimney.

The right foot pressed hard against one side and the left against the other help to keep the body in position.

Where the chimney is narrow and footholds are plentiful, the climbing becomes delightfully easy, but when the holds give out, trouble comes in. Back-and-

foot work is hard, but back-and-knee, especially if restricted, is harder, with the additional disadvantage of being less safe. One can rest occasionally by placing both the soles of the feet against one wall and the knees against the other, and trying to sit down hard on one's heels, thus wedging oneself, but that is about the most fatiguing kind of rest I know of. Security may be increased under certain conditions by pushing sideways, as well as forwards, with the knees.

Occasionally the knee, say, of the right leg has to be pressed against one side of a chimney, and the sole of the left foot against the other. The strain of such a position is generally very great, but it may enable the climber to sustain himself long enough to reach a satisfactory handhold when the stress may be immediately lessened. This method may also be adopted, without excessive exertion, in descending chimneys.

To conclude, beginners visiting practice grounds are strongly counselled not to be led astray by gymnastic ambition, but to practice steadily the principles above inculcated, on easy rocks, until they 'come natural' to them. Be careful! Be deliberate! Examine your climb first! Always have a rope from above till you are sure you are master of the particular climb—and don't forget to practise descending.'

THE NORTH FACE OF SCAFELL (Height of rocks from A–A, about 600 feet).

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CHAPTER VI

ROCK-CLIMBING.

NOTE.—The reader is requested to look through the glossary before reading this chapter.

So much has been well and truly written on British rock-climbing as practised that it is difficult, even if it were desirable, to find anything new to say on the subject. For myself I do not intend to make the attempt, and, if I consider it advisable, I shall unhesitatingly adopt not only the maxims and counsels, but the phraseology of those distinguished mountaineers whose works are to be found on every climber's shelf. Nothing is to be gained by originality. No amount of originality can make spasmodic movement on the rocks anything but wrong, or climbing with a clothes-line instead of an Alpine rope safe. If, therefore, I appear to dwell rather on certain points that others have touched more lightly, I trust I shall be acquitted of mountaineering on the Athenian principle of going to the Hill of Mars merely to tell some new thing.

As I have observed on p. 123 certain enthusiasts are apt to think, and sometimes to assert, that on practice climbs on low crags a man may learn and practise nearly all that constitutes 'ye compleat mountaineer,' connoting that this idea was a wrong one. Nevertheless such enthusiasts on their first visit to any well-known climbing centre, or, perhaps, on their fiftieth, would see much to confirm this theory.

If the beginner has not wasted his time, he will not only, whilst practising, have endeavoured to perfect

himself, so far as conditions admit, in the art of rock-climbing, he will have endeavoured to learn something of the use of the rope. He will at any rate have mastered all those simple knots given on pp. 34, 35 so that he can tie and untie them all with ease. He will have learned, too, to tie them with the lay of the rope. He will have come to regard the reef-knot with the same suspicion that has led me to omit it from my list. Not that it is such a bad knot in itself, but under the influence of haste, or cold, or discomfort, even an experienced man is liable to make a 'granny' of it. He will also have manipulated the rope from above and played a man up, and he may fancy he knows all about that, because he has at length acquired the art of 'feeling' his man, instead of keeping the rope either too tight or too slack.

Now the sole object, the sole justification of the use of the rope is the mutual security of the party. When the nature of a climb is such that the rope fails to afford that security, that climb is unjustifiable.

If this proposition be true, and few, I think, will dispute it, the paramount importance of the rope becomes at once evident. It would be thought that every climber would do his best to understand its use as thoroughly as possible. I fear this is not so. Some climbers are dangerously careless about the rope—they seem to look on it as a kind of necessary evil; others make a fetich of it; only very few are its masters.

Only very few are its masters, though, amongst those who are not, are some brilliant cragsmen. The explanation of this is that rock-climbing in Great Britain has come to mean scaling difficult rocks, and that a man's skill as a rock-climber is estimated by his ability to negotiate such problems. From this, by a natural process, which commends itself with peculiar facility to a certain cult, comes into being the fallacy that the brilliant cragsman is the complete mountaineer all round, as I have endeavoured to point out in Chapter I. And rock gymnastics no more cover the whole art of rock-climbing than rock-climbing covers the whole art of mountaineering.

To return to our rope. Let us watch the ascent of any one of the longer popular courses by a party of three fair gymnasts. They walk to the bottom of the first pitch, where they rope up. The leader then climbs up till he reaches secure anchorage, whilst the second pays out the rope gradually, and the third amuses himself by making a cigarette and letting the slack of the rope between him and number *Two* play cat's cradle with his legs and any bits of rock there may be in the neighbourhood, instead of attending to the business in hand. By and by, the second man has to go on, which he is permitted to do as soon as *Three* has disentangled himself, whilst *One* takes in the rope. Half way up *Two* makes anxious inquiries as to his security, to which *One* replies reassuringly: 'Oh, you're all right. I've got you belayed.'

So he has true enough. There is a convenient spike of rock, the size of a soda-water tumbler, and, having hitched the rope over this, he has taken it in round and behind it. Now this method not only does not improve the rope, but has other disadvantages, one of which is, that it is difficult to 'feel' your man in this way, and another that it is condemned by weighty authority, *provided the alternative course is open.* In the case instanced, the alternative is open.

Ordinarily speaking, the correct procedure, when a suitable delay is available, is for the leader to belay *himself* to the rock, so as to *leave a clear rope between himself and the man following*, and so on, all along the line, though cases do arise when it is desirable to exercise as much friction on the rope as possible, so as to relieve the man holding the rope of strain in case of a slip on the part of the man he is playing up. Such friction, however, should only be exercised *over* a blunt or rounded edge of rock, not *round* a hitch.

I shall, however, go into the question of belays later on. I have only stopped to insist on this method, not only because it is the best, but because, so far as I know, it is so seldom practised that I cannot help thinking it is not generally known.

Two having joined his leader, it is found that the anchorage is insufficient for three persons, so *One* has to go on again. *Two* meanwhile looping the rope between himself and the leader over the spike of rock, belaying pin in climbing parlance. This is good, so far as it goes, inasmuch as a belay should never be neglected, but it would have been better had he tied himself to the rock with the rope between himself and Number Three, because, in the event of the leader falling, the security of the party would have thereby been less endangered.

'A slip on the part of the leader is the greatest danger of rock-climbing,' yet such things have happened, and no serious consequences have ensued. According to book-lore, it is the duty of the Second, in such a case, to take in the rope as quickly as possible. If the leader be only a short distance up, or the fall a scrambling one, well and good; but in the event of a clean fall clear of the rocks from so small a height as 16 ft. I fancy this process would avail little. I name 16 ft. because that is the distance a falling body travels in a second, and I question whether it is possible to take in that amount of rope in the time given. If one failed by only a few feet, all the previous trouble would be quite futile: the rope would be torn through the strongest grip like the line off a reel with the rush of a salmon, flaying the hands in transit. Of course, the force of the fall *might* thus be broken, and the leader *might* be able to bring himself up. Here, for instance, is a case in which a fatal accident was averted something after this manner. Three gentlemen attempted the North Climb on Pillar Stone, made, it would seem, about as many mistakes as they could, got ingeniously into bad trouble in Savage Gully, and wrote to the papers to say so.

Nos. I and II were duly lowered into the gully below the nose, whilst III remained in his appointed place, till the others had reached a position from which they could safeguard him over the Nose. I could not find the way up the gully so unroped for exploring purposes, whereat II, for some reason of his own, started scrambling,

and promptly came off. 'I,' writes No. III, 'was simply standing on my ledge with the rope in my hands, when suddenly without the slightest warning, it rushed through them till the blood ran, and I felt a dreadful wrench as it tightened round my waist.' The unfortunate man was plucked off his feet, but managed, with the energy of despair, to clutch a projecting piece of rock, and by the exertion of great strength—he must have been very powerful—to hold on, at the same time checking, and at last holding, his falling companion. In this case No. II's fall began below where III was standing. In another instance the leader fell just at the finish of an easy gully on Great Gable. The second held on like grim death, flayed his hands of course, and was finally pulled from his stance, to tumble helplessly on to the top of No. I, both stopping just at the head of the next pitch. In this minor casualty the flaying of the hands was the worst damage sustained, and, in a somewhat similar accident above Nant Francon, two climbers got off with a black eye and a bruised back between them. The cause of the first of these latter mishaps was the leader slipping; the cause of the second was, according to II that I, seeing an eligible blade of grass, plunged the adze of his axe-head into it, and hung on to the handle, which thereupon, naturally resenting such treatment, came out.

I have had one little experience of this kind. A friend and myself had been struggling for some time with a vertical wall of rock. He had stood on my head, and I had stood on his without avail, when it occurred to me that if I could steady his foot on a hold just within my reach, but out of his—he was the shorter man—he might get up. The rocks were in a vile state—a sharp thaw had succeeded a hard frost. This occurred whilst we were climbing, otherwise we should never have tackled rocks of that difficulty in that condition. As it was, we ought to have retreated—unquestionably. The manœuvre succeeded, but under the chilly influences my friend's fingers began to give out, and he announced that he was coming down. Scarcely were the words

out of his mouth than he did—with great velocity. Under such circumstances one acts quickly. I slipped my left hand into a fissure in the rock and turned it, though I realized that if my man once passed me, I must be pulled away, possibly leaving my hand in the crack. Simultaneously, dropping the rope, I threw out my right arm and took the falling man to my bosom, with a hug like a bear. For a moment I felt what I conceive must be the sensation of every blackbeetle I meet, but it was all right. I had not been converted into an *alto-relievo*, and no damage had been done except to my right foot, which had received the full impact of one of my companion's boots, with all his superincumbent weight. Another friend had a similar experience, though he, curiously enough, succeeded in grabbing that portion of the rope that was fastened round the falling man's waist. I believe that, to field a man, where possible, is best and safest.

Supposing, however, in our pictured climb, the leader should slip and fall past his Second, II would dutifully flay his hands, of course, but eventually he would have to let go, and then, if the rope were belayed between him and the leader, there would be necessarily a foot or two of slack which would straighten out with a jerk on the hitch, and such a jerk is no good to a rope. If, however, the rope were belayed between II and III, the final pull would come directly on to II's waist, and through him would be transmitted with diminished force to the belaying pin, which would be strong enough to hold both himself and No I. Besides which, if the strain came direct on the belay, there would be a strong chance of the rope snapping, whereas, with the tug transmitted through the body to the hitch, there would be practically no danger of a break. In case it should be thought that to let the strain come on one's waist would be to court internal injury or broken ribs, I may say that neither of the men who held the rope in the first two accidents I have recorded suffered any serious damage from the pressure of the rope. As an example of what the amount of pulling and wrenching

the waist can stand see *Alpine Journal*, February 1907, pp. 393 *et seq.*

I think very few men have any idea of the momentum a falling body very quickly acquires. A friend of mine has been experimenting lately and has found that 10 stone dropping 10 ft. would break a belayed rope, if the belay were less than 8 in. in diameter. I understand that a rope will only just not break with $9\frac{1}{2}$ stone falling 11 ft. which represents a strain amounting to something close on 2,000 lb.

It is just as well to consider what this means. It means that a leader, weighing 11 stone, only 8 ft. up, i.e. with his heels about 5 ft. above II's waist, would, if he fell clear, i.e. another 5 ft. down, or 10 ft. in all, would come on the rope with a jerk sufficient to break it. I do not say it would break, because of the yielding quality of the waist, but if hitched over rock, it would very likely snap. It is hard to estimate physically what the energy of such a pull would be, but it would certainly suffice to pluck a Sandow from his feet like a doll, unless, of course, he was so wedged or anchored that he, almost, could *not* be pulled out without breaking off some part of him. Yet you will find a leader going serenely ahead on rocks almost beyond his strength in sweet security, because, forsooth, he is belayed, or his Second has good anchorage. Indeed, men have been known to expostulate with a leader who has had the good sense to come back in some such terms as these. 'You couldn't have come to any harm. I had you perfectly safely belayed.' This is what I call making a fetich of the rope.

I quote from a letter from a kind friend and distinguished climber[1]:—'You ought to have a clear rope

[1] Many and experienced mountaineers prefer always to take the rope in over a hitch, and very frequently, indeed in the majority of cases, this is the only way of utilizing a belay. Nevertheless, one can, I submit, do no more than recommend the method one considers best, and give reasons for the faith that is in one.

between you and the man following, provided that this is the most convenient way of doing it, in the particular place where you are' (I should substitute 'where possible,' for 'if this is the most convenient way,' preferring security to convenience) 'and that the hitch above is a good one, the rope well and securely fastened and taut between you and the hitch, and quite taut between you and the man below. . . .

'Don't let any possible strain come direct on to the hitch. Always sit down when holding the rope, i.e. if you can, and be very particular how your heels are placed. . . . Your own body makes the best hitch of all, if you are well placed and the rope be carried round the small of your back' (or round the back and over one shoulder) 'and held on each side by a hand, drawn in by the one and held firmly by the other. . . . *But one cannot draw rules to suit all cases.*'

Our leader, however, climbs the pitch without mishap and III comes along, whilst II takes in the rope *round* the belay, judging III's progress by intuition. Thus III reaches the top of the pitch with 5 ft. of rope below him, i.e. there is some 12 ft. of loose rope between the hitch and his waist. This he points out both in sorrow and anger to II, whom he has twice called on to haul in the slack, unheeded by that gentleman, who was indulging in vocal music, making day hideous instead of devoting *all* his attention to managing the rope. The excuse is the same old one, 'Oh, but I had you belayed.' Belayed, indeed; and how would the belay have helped III in case he had slipped. It is, I submit, very difficult to 'feel' a man on the rope round a belay, whereas on a clear rope it is easy to play him up. Nevertheless, under all and every circumstances, the man holding the rope *must* see to it that it is taut between himself and the man following.

That is what I call unpardonable carelessness. It is not a fancy picture either. *I* have uttered those words of expostulation and reproach, and I also registered a vow never, never, never to climb with that man again. I shall not keep that vow, because he has mended his ways.

Still, though, as I have endeavoured to show, it is possible to over-estimate the value of belaying in rock-climbing, it is, I must admit, difficult to do so. *It is always right to belay;* and one might almost say it is always wrong not to, though this, perhaps, would be pushing the practice to an extreme. It is not necessary to have a spike round which the rope may be looped; any projection behind or over which the rope may be passed, from a pinnacle as big as a man to a splinter the size of a thumb-joint, may be utilized. These insignificant little belays are not insignificant, as you find out when the rope contrives to catch in one. You may pull, you may jerk, but nothing will move that rope except climbing back to it. That is when the belay is accidental. Treated skilfully, the rock will behave reasonably and allow the rope to be paid out or taken in behind it.

There is one bad habit that some Seconds have of belaying the rope after the leader has begun climbing. This is all wrong! It is the business of the Second to belay before the leader starts, and from that moment to keep his eye on him. Some time ago I was reading an account of an accident which fortunately did not end fatally, though it quite easily might have. The leader fell some 30 ft. and carried away the Second, with the result that both were knocked senseless for an hour or two and had to go to bed for a day or so. When questioned as to the cause of the leader's fall, the Second replied that he did not see; he was belaying the rope at the time. As likely as not, he flicked his man off in so doing.

In descending, belaying is of even more importance than in ascending, and in traversing, making lateral progress across rocks, most important of all. Sometimes, especially on difficult traverses, it may be advisable to climb up a foot or two for the sake of a good belay over which to hitch the rope.

Threading the rope is another great safeguard. This process consists in passing the rope behind a securely jammed stone or boulder from beneath. Where the

stone is small, this can be done easily enough, but in the case of a big rock the rope is often exasperatingly obstinate. Properly speaking it ought to submit to be pushed up behind the stone and should then fall over the outside. When the perverse humour is on, it will first of all catch on the way up, then fall back on the climber's head, and eventually coil itself contentedly on the top of the chockstone, far out of reach. When the rope has been threaded, the leader climbs up till he has reached good anchorage, the Second taking in the rope steadily over and behind the stone so as to constantly check the leader in case of a slip. The rest of the party then unrope whilst No. I draws the rope up behind the stone and lets it down again clear, when they tie on and he plays them up.

In a difficult descent it is advisable, if possible, to thread the rope in this manner so as to secure the safety, as far as may be, of the last man. In all cases, when this method is adopted, the Second must exercise the greatest care in manipulating the rope, so as to take it in evenly. The slightest jerk may quite easily twitch a leader off.

Our No. II, as has been seen, is anything but careful, and in the very next hitch he allows the rope to catch in the rock whilst the leader is ascending, and nearly brings him down. As a matter of fact, he was looking at the scenery instead of attending, with all possible concentration to his duties. This kind of thing is criminal. No. I can stand no more of it, and, being in command, calls on III to take II's place. II resents this, but he knows enough about climbing to recognize that *the leader's word is law* (except, of course, where an expert is coaching a novice from behind) and sulkily obeys with some loss of temper. Such a rebuke ought to have cured him, but some men are incorrigible. Such Nature generally takes in hand. The next pitch is an open chimney, with a good deal of loose material in it. I and III negotiate it without dislodging any, but the deposed II, during the latter's ascent, again allows the rope to catch. This time it

brings away the obstacle, a bit of rock the size of a fist, which falls on II's inattentive head, and knocks him sillier than he was before for the time being, and, it is to be hoped, knocks sense into him for the future.

Let us suppose, however, that the whole party have done their duty with the rope well and truly on rock faces, traverses, *arêtes*, in gullies, chimneys and cracks. There are plenty of climbers who can do so, but it does not follow that they are masters of the rope. In Great Britain, even on easy rocks, it is the custom for the climbers to move only one at a time. In fact, except on traverses, it may be said that if once the leader is secure, the safety of the entire party is assured. Now if this principle were adopted on the great mountains, many of the peaks would remain unascended simply through want of time, unless the party elected to sleep out three or four nights in succession (*see* p. 19).

On easy and even moderately difficult rocks a party of mountaineers can move all together with comfort and safety—in fact they must if they are to complete a considerable expedition within a reasonable time —and to be able to do so they must have had practice. I may be wrong. It is possible that many of the parties of our cragsmen might be able to get along all at a time in masterly fashion. I may be wrong, but I do not think I am. Generally climbers make haste to unrope at the earliest possible opportunity with as much alacrity as an officer getting out of the King's uniform into the *mufti* of the despised civilian, but occasionally they keep on the rope when moving from climb to climb. I seem to recollect having heard on such occasions some such expressions as these :— 'I say. Hold hard. The beastly rope has gone and caught itself round a stone,' or 'twisted itself round my legs.' Caught itself! Twisted itself! Indeed, and indeed, and whose fault is that I should like to know? I may be wrong, but I very much question whether, if some parties were to rope up and move all together, say, along Crib Goch, or the High Level on

the Pillar, or up some of those broken acclivities that overhang some of the Lakeland tarns, they would find the rope an unmixed blessing. It may not be necessary to put on the rope in such places—in fact it is not—but I do think beginners would find it to their advantage to do so. As I have said above, I do not see how the art of moving together when roped can be acquired without practice. To quote Doctor Claude Wilson :—' It is probable that the beginner's movements are too spasmodic, that he uses his hands too much and his feet too little, that he does not test the holds sufficiently, that he jerks the rope both in front and behind, that he is never quite certain of not slipping, that he would be pulled over if one of his companions fell, and, last but not least, that he dislodges loose stones with his hands, with his feet, and with the rope. Great practice is required to overcome these faults, but progress will be much more quickly made if they are borne in mind. . . . A beginner will be wise to count his proficiency as a rock-climber not so much in relation to his agility, as to his power of climbing hour after hour on average rocks without dislodging stones.'

Great practice is required to overcome these faults, and how they are to be remedied by the deliberate methods adopted by the large majority of the younger school of British climbers I cannot conceive.

When moving all together each man should carry a small loop of rope in his hand ; so as to allow a little play. This helps to prevent jerks. Also remember when passing from moderate to easier rocks, either in ascending or descending, not to increase your pace. Recollect that the man behind you is engaged on the same difficulties you have just negotiated.

Rotten rock is an abomination, I admit, but it exists. In Britain it almost always can be avoided and almost always is avoided. In the Alps and elsewhere it frequently forms the only way up or down, and how a man is to be qualified to deal with this most difficult and dangerous branch of rock-climbing, unless he has had previous experience, is not easy to suggest. Of

course I know it is hard to give up a delightful climb on splendidly sound rock for a tame scramble with the rope where no rope is needed, or the danger and discomfort of rotten rocks, but if the beginner wishes to become the complete rock-climber, such sacrifices *must* be made. In dealing with rotten rock disposition of weight is of first importance. The weight must not be thrown on any one particular hold, but distributed as much and as evenly as possible.

Understand that I am not disparaging British crags-

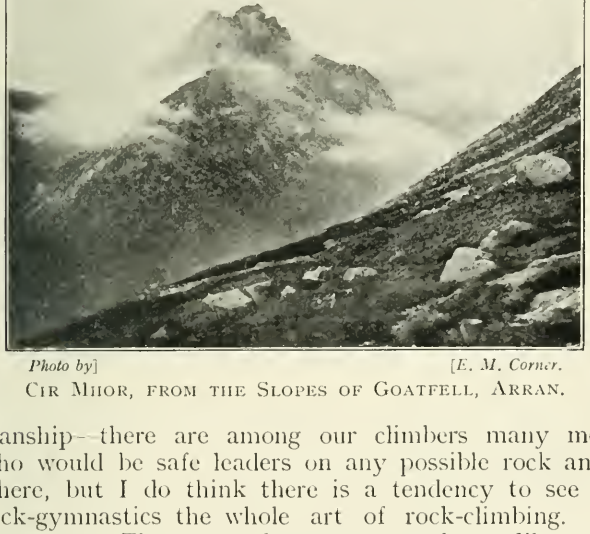


Photo by] [*E. M. Corner.*

Cir Mhor, from the Slopes of Goatfell, Arran.

manship—there are among our climbers many men who would be safe leaders on any possible rock anywhere, but I do think there is a tendency to see in rock-gymnastics the whole art of rock-climbing. It is not so. The man who can proceed steadily and safely over easy rocks, moving with his party, is a better climber than a brilliant rock-gymnast, greatly his superior as regards mere feats, who cannot.

I think, too, that there is a tendency to rely too much on the leader. There are places in the Alps, to quote

Mr. Reade (*see* p. 19), where each member of the party has to look after himself and where a bad slip simply must not occur. Of course, on a really severe climb the best man should invariably lead, but on easy rocks every man should take his turn. I know of climbers who have never led a course in their lives, and the difference between leading up or following down, and any other position on the rope is immense.

'In calculating one's ability to do a lengthy rock-climb, the question of endurance is not so much to be reckoned with as may be imagined. I allude merely to physical endurance. . . . The longest climb of extreme and sustained severity that I am practically acquainted with, the Crowberry Ridge on Buchaille Etive, close to Glencoe, is not long enough to tire the body, though the continual strain of new problems and new dangers on the leader's mind must be acute. In fact, the practical difference between our exceedingly hard little climbs and a big one in the mountains is a psychological difference ; and, unfortunately, the training adapted thereto is scarcely to be enjoyed in Derbyshire, where you can get only hints as to the right management of the rope, and the art of feeling at ease on a dangerous face.'

Bouldering enthusiasts would do well to make a note of these last few lines. The point, however, I want to emphasize, is that the difference between a practice climb and a long climb is *largely* psychological. I have already commented on the fallacy that the difficulty of a climb is in no way affected by relationship to its height. Since writing the lines on p. 98, I have had opportunity of discussing the question with a man whose nerves are, I fancy, made of wrought iron. He put the case in a nutshell. 'I take it,' he said, 'you often walk upstairs without touching either the wall or the banister. Now supposing that staircase were 600 ft. high, and there was no wall on one side and banister on the other, I reckon you would find yourself moving pretty carefully.' Let us have done with such nonsense ! You may be quite

sure that when the leader's skill and strength are taxed at any considerable height, the strain on his nerve is not less severe, however calm he may appear. For instance, one trifling fact cannot help presenting itself on such occasions, viz. that, whereas, in the event of any other member of the party slipping, he will only come on the rope and not hurt himself, in the event of the leader slipping, he will almost certainly come on the rocks and hurt himself badly.

Besides which he is the responsible individual, and if anything goes wrong, he will assuredly be *held* responsible unless it is shown that it was out of his power to prevent it. He is in charge. It is for him to decide whether to advance or retreat, to find the route, and to clear the holds so as to render the ascent as safe as possible for the rest of the party.

'The decision of the leader should be final; and another climber should never essay the attack where he has failed.' Thus Mr. G. D. Abraham in *The Complete Mountaineer*. I venture to suggest that the latter part of the sentence should be modified thus:—'another climber should never essay the attack if he has pronounced the state of the rocks dangerous.' My reasons are as follows (I may say, incidentally, that I would never even look at a pitch that had turned George Abraham), that on practice crags—and I take it my experience is a common one—I know of one or two problems that I can master without excessive effort, but which some climbers, much my superiors in the art, find exceedingly difficult, and I have also had the questionable pleasure of seeing a man, who was certainly no better climber than I, romp up a bit of rock that invariably gives me serious pause. In the event of mere difficulty, then, I think the leader is justified in asking any other member of the party to go and have a look at the place, provided he knows him to be a safe climber.

It has been written that it often shows more courage to retreat than to advance, and, though this is not the kind of courage one cares to be credited with possessing

to a shining degree, the saying is a true one. If the leader decides to take a slight risk himself, he must be *absolutely sure* that the rest of the party is *absolutely secure.* If the risk is serious, he is bound to retreat. The courage required to advance under such conditions is the courage that is born either of the fear of being thought to fear, or of most selfish vanity ; the courage to retire is the courage that refuses to do what is wrong.

It is intolerably bad form for any of the party to remonstrate with the leader if he decides to retreat. Make a point of never climbing with a man guilty of such an offence.

I am afraid that route-finding is hardly practised at all on difficult rocks.[1] One reason is that many of the standard courses are blazed all the way up with nail marks, so that the way is unmistakable, and, as the majority of climbers make for nothing but these courses, it follows that they cannot acquire much of the art of route-finding or even of clearing holds, for a number of these climbs are literally swept and garnished. A visit to some neglected, if less attractive, cliffs would repay one in useful instruction what one would forfeit in pleasure. Eel Crags, in Newlands, which we reconnoitred on pp. 68–75 would be a happy hunting-ground for work of this kind. There is no fear of not getting practice in clearing holds there, as on all rocks that finish up on earthy slopes, every fresh shower washes down little bits of soil and pebbles, etc., etc., and these have to be removed. This requires care, not only in keeping one's position, but in so disposing of the loose material as to avoid risking injury to any of the party below. A small pebble is quite capable of inflicting a nasty crack, as any one who has stopped one that has come down sixty feet or so can testify. Moreover, on these unfrequented grounds, there are things more formidable than pebbles. I was once scrambling on these very crags with two of my friends, when a stone the size of my fist was dis-

[1] Of course there are brilliant exceptions. I mean that route finding is not practised as a rule, or anything like as a rule.

lodged between One and Two (it was neither of their faults, because they both said so). It jumped clean over No. Two and attacked No. Three as he was backing up a chimney, smote him on the knee, and crippled him for a week. I was No. Three, so I remember the occasion. Not only men, but the rope may be damaged in this way, and, as the rope can't speak for itself, whereas a man can and usually does—volubly, under such circumstances—the utmost vigilance must be exercised by every member of the party where there is much loose rock about.

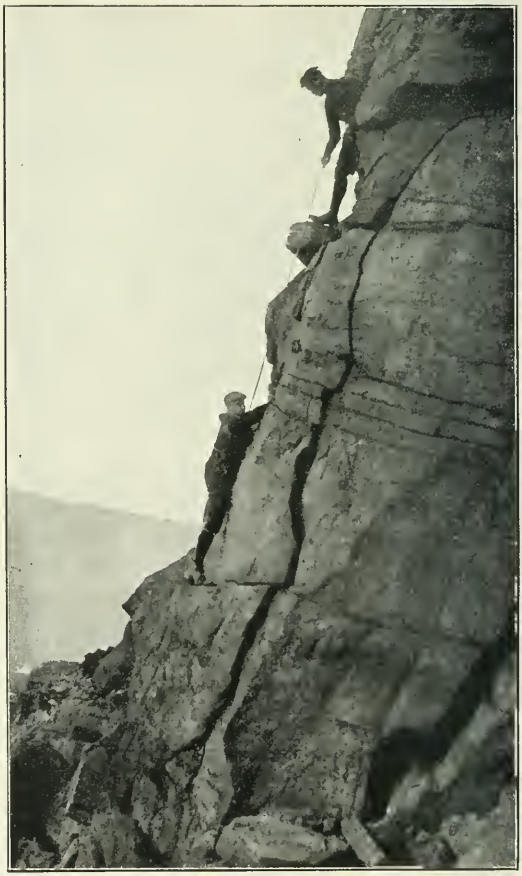
A propos of the rope dislodging loose stones, I take this opportunity of introducing a sentence from a letter from one of our greatest mountaineers, who, with others, has been most kind and generous in helping me with this book. 'In ascending, the leading man should *never* go out with a longer rope than is necessary, but should *always* get No. Two to come on when there is a good place for him.' And I may add that even on garnished climbs beginners should avoid any courses that entail a long run out of the rope. It is hard to fix a limit, but I question whether 30 ft. should be exceeded.[1]

A skilful leader will manœuvre so as to hold the rope from a point directly above the man below him. The reason of this is that a very little moral assistance from one side or the other will suffice to twitch the climber off, and a lateral swing off on the rope is an unpleasant experience.

A good Second is a good thing. His duty is to assist the leader in every way he can, especially in the matter of saving his strength. To this end he must be prepared to offer his shoulders, or even his head unflinchingly to the nailed boots of his chief. It may be that

[1] Sixty feet is a good useful length for two. I am strongly averse to a short rope. Had the rope been of adequate length the accident to Messrs. Sprules on Pillar Stone *might* not have taken place, and that to Mr. Evans on Lliwedd would assuredly not have occurred. For a severe expedition it is well to take a spare length.

the first six feet or so of a pitch can be climbed with difficulty. A shoulder would make them easy, and a



PLAYING HIM UP.

shoulder therefore must unhesitatingly be given. Sometimes a third man is called in to assist, but of this practice

I cannot approve. Again, he may have to reach up a hand to steady the leader's foot. This should be done with extreme care, both in placing the hand and taking it away, otherwise he may fetch his man down. Sometimes he is called on to back up. This is not the same as back-and-foot or back-and-knee work. It consists in following close behind his leader up the rocks, ready to give assistance when required. Occasionally such aid is required in rather tight places, where any mistake on the part of the Second would be fatal to both, so that the position is one which should only be taken by a capable climber.

It is also his duty on descents to 'shepherd' the leader down, and here he may be able to give very real help with advice. He may also be able to assist the leader with his tongue in ascents, though this faculty should be exercised with discretion. In descents he has been over the ground immediately before, and therefore is in a position to speak; in ascents he can very seldom judge of what the exact difficulty encountered is. Few things are more aggravating than the man who is prodigal of gratuitous suggestions.

Some people put the weakest man last, and in a party of three this is his place. If the number exceeds three, he should be last but one. The last man has often important duties to perform. In case of a retreat he has to find the way down, and to judge where to halt. So much of the climbing is done in gullies with guiding walls on either side, and great chockstones at convenient intervals on which the climbers can foregather, that this is generally not a very difficult task, but finding a route down a face is a very different business, and the place of the last man (who then goes first) is only a degree less important than that of the leader, who, of course, has to follow down (*see* also p. 132).

On traverses, it is almost a question whether the best man should not go last. Anyhow, the second best man should take that place, and he must be a good man too. The last man, no less than the leader, should he slip, must inevitably swing the whole length

of the rope between him and the next man, or the next hitch, and on some traverses this simply must not occur. On all traverses the value of hitches cannot be over-estimated, and every possible one, big or little, and, in fact, good or bad, should be utilized.

Finally, the last man may have to perform the useful office of sweep. There is no one below him to hurt, and so he can and should kick or throw down all loose material he comes across so as to leave the climb in good order for other parties.

From June to the end of September are the best months for beginners, and the earlier month should be avoided if possible, as very often a good deal of ice remains in the gullies, especially in those which have a northern aspect. At Whitsuntide, a party on Scafell may find themselves one hour toiling perspiringly up Brown Tongue, which is the next hottest place to Black Sail, which is the next hottest place to Jehannum, and the next hour they may be shivering in the depths of Moss Gill, whilst the leader's axe is sending little chips of ice down their defenceless necks, and all around is the drip, drip, drip from slowly melting snow-patches, than which nothing is colder. In the north of Scotland it must be remembered that the snow lasts far longer into the year, and that even in the middle of June conditions almost Alpine may be found prevailing. It is often, however, then or never, for the land of brown heath and shaggy wood is also the land of the thrice-sacred deer-forest.

I have been asked to give a graduated list of courses. I am not going to do so. The advantages and disadvantages of such a list have been well set forth by Messrs. George and Ashley Abraham (*Rock-climbing in North Wales*) :—'Such a scheme has its disadvantages. It has been urged as one that it tends to concentrate the attention of climbers on a certain select number of climbs.

'This may be so ; but in the parallel instance of such a list of courses (that in Mr. Jones' book on the Lake Climbs) the effect, which we have observed very closely,

has been a directly opposite one. Many novices have come to Lakeland and, starting at the beginning, have worked steadily through the list, stopping short only at some of the end courses, by which time their novitiate would be passed and their ability on rocks be found to compare favourably with that of a second-rate, and in some cases first-rate, Swiss guide. The greatest disadvantage such a list possesses is that there are those who will learn from it which are the most difficult climbs in the district. . . . These men straightway acquire the localities of the reputed most difficult climbs and attempt their ascent, thus incurring grave and unjustifiable risks.' In other words, in the hands of a sensible sportsman a graduated list is most valuable; in the hands of a fool it is dangerous. My reason for withholding such a list is that I fear the attractions of the difficult standard climbs may seduce the beginner from the study of less fascinating but equally important branches of rock-work I have endeavoured to indicate.

CHAPTER VII

WINTER CLIMBING

WINTER climbing in the British Isles progresses with the advance of the season from the disagreeable to the delightful. It may be that I am guilty of heresy in applying such a term as 'disagreeable' to mountaineering at any time in any form, so I will substitute 'as disagreeable as it is possible for British mountaineering to be.' All the same, a glance at my invaluable friend and companion, the Thesaurus, assures me that there are many other adjectives, also commencing with D, I have heard spoken concerning the hills and the rocks in late November.

The first few falls of snow serve to reduce the mountains to the condition of an Italian spring—

> Vere novo gelidus canis quum montibus humor
> Liquitur.

Pace, the youthful scholar who translated this, 'I know well when the cold dog is left on the mountains by way of a joke,' *humour* has hardly an apposite sound in connexion with that abominably cold, omnipresent moisture that drenches the hills from base to summit.

In the warm valleys one would naturally expect the early snow to melt, but at an elevation of a thousand feet or thereabouts it ought to lie—and it does. That is the cause of all the trouble.

Everywhere below that line the fallen snow has melted, and is present in the form of running waters. Every runnel has become a brawling beck, every beck a raging torrent, and every valley a placidly moving lake. I have never taken the temperature of this water, but

were it not for the fact that it is liquid, I should be disposed to say that it is considerably below freezing.

Now it is not pleasant to wade along the roads over one's ankles and sometimes up to one's calves or knees ; it is not pleasant to toil up a steep slope composed either

Photo by] [*Rev. A. E. Robertson.*

BEN NEVIS IN WINTER.
(Note the Cornices.)

of rapidly moving streams or standing slush ; but it is when one reaches the snow that discomfort really sets in.

The thin veil is just deep enough to conceal all inequalities of the ground. It is quite impossible to say what you are going to tread on next, sound rock, firm grass, yielding heather, but that is not the worst of the trouble. The best climbing boot ever yet built cannot prevent the snow ' balling ' on the sole and heel. First it col-

lects, then it hardens into ice, then it picks up more which again hardens, till after a very short tramp you find yourself some three inches above your normal height. Unless, however, the snow is removed you will also quickly find yourself descending with extreme rapidity to a less dignified attitude. It is not much good trying to wrench away these balls; they adhere very firmly, and it requires a considerable effort to pull them off, to say nothing of making your fingers numbingly cold. They can either be kicked off against a handy stone, or picked off with the axe.

Worse than the high road, worse than the watery slopes, worse than the fresh snow are the rocks. They retain too much of the heat they have absorbed in summer to permit of the snow remaining on them, and consequently it melts on contact. This process entails a sudden radiation of heat from the rocks which leaves their surface so cold, so intensely cold, that it is really painful to keep the hand on them. Added to which they are always and everywhere streaming with scarcely warmer water. Very little climbing is possible under such conditions.

I know of no time of year when steep grass slopes are more dangerous. They are bad enough in summer, and they are worse in late winter and early spring, but in early winter they must be treated with even greater care. After a fall or two of snow the surface soil freezes, and so you have a steep, exceedingly slippery slope, covered by a light layer of snow, which itself has as yet no grip on the ground, but is ready to slide away almost of its own accord.

Later in the year, when winter has asserted its reign, mountaineering becomes far more pleasant, if excessively toilsome. It is written, 'those bold innovators who first dared to break through the pale of custom and to visit North Wales or the Lakes in midwinter were richly repaid for their audacity; for there is hardly any time of year at which a trip to Lakeland is more thoroughly enjoyable.

'In the first place there is no crowd. You can be sure

that you will get a bed, and that the people of the house will not be, as they too often are in the summer-time, too much overworked to have time to make you comfortable, or too full of custom to care much whether you are comfortable or not. Out of doors there is the same delightful difference. You stride cheerily along, freed

Photo by] [*E. A. Baker.*

WASTDALE IN WINTER.

for a time from the din of toiling cities, and are not harassed at every turn by howling herds of unappreciative "trippers." The few who do meet on the mountains are all bent on the same errand and "mean business"; half-hearted folk who have not quite made up their minds whether they care for the mountains or not, people who come to the Lakes for fashion's sake, or just to be able to say they have been there, are snugly at home coddling themselves before the fire. You will have no companions but lifelong lovers of the mountains, and robust young fellows whose highest ambition is to gain admission to the Alpine Club, or having

gained it, to learn to wield, with some appearance of dexterity, the ponderous ice-axes which are indispensable to the dignity of their position. Then what views are to be had through the clear frosty air! How different are the firm outlines of those distant peaks from the hazy indistinctness which usually falls to the lot of the summer tourist! What sensation is more delightful than that of tramping along while the crisp snow crunches under foot, and gazing upwards at the lean, black crags, standing boldly out from the long smooth slopes of dazzling white. There is no great variety of colour, for the rocks, though a few are reddish, are for the most part grey in varying shades; yet there is no monotony.'

I endorse every word of this, that is, almost every word. I agree that there are few sensations more delightful than trampling along while the crisp snow crunches under foot; but I would add that there are few experiences more fatiguing than toiling along when, as sometimes happens, the snow is not crisp and you go plunging in knee, and even waist deep at almost every step. In addition to the chance of twisting your ankle or bashing your shin against a rock, the labour of dragging leg after leg, step after step out of the snow is most tiring. Under these conditions it is advisable, so to speak, to walk on one's shins and knees, as well as on one's feet. Normally, when walking, the foot reaches the ground with the leg almost straight and at an obtuse angle to the body, the forward swing then brings it perpendicular, and then to an obtuse angle behind the body. Now in deep snow the latter obtuse angle has to be cultivated and exaggerated. The resistance of the snow will hold the leg in a position nearer to the vertical than is natural or convenient, and the foot has to be lifted almost straight upward and dragged through the snow, instead of following with an easy swing. By sinking gently forward as the foot goes down, a natural trough will be formed at an angle that will permit of the foot being drawn along the surface of the snow, not pulled through it. Still,

no amount of practice or enthusiasm can ever make wading through soft snow anything but wearisome and unpleasant.

Another feature that may detract from the joys of mid-winter mountaineering is the prevalence of blinding snow-storms and the extreme violence of the gales. I shall have to allude to these, however, later on, *see* pp. 192–196.

'At times,' writes Doctor Wilson, 'snow is met with so soft and deep as to make the hill-tops practically inaccessible.' If this be true for walkers, climbers will do well to remember that snow, ice, and frost may make an easy climb not only exceedingly difficult, but absolutely impracticable. Beginners who make an intelligent use of the graduated lists of rock-climbs may have worked their way through the Easy to well on in the Moderate, and even to the Difficult Courses under summer conditions, but it does not follow that because they can with safety tackle, say, the Pavey Ark Gullies in July, they are fitted even to attempt, say, the Central Gully on Great End in January. On the other hand, deep snow may make a climb so easy that it is no climb at all, as in the case of Deep Gill on Scafell in 1887, when two gentlemen walked from bottom to top over both the pitches without having to cut a step. A thick layer of snow, too, may bring within easy reach holds it would have required a considerable effort to work up to under summer conditions. Ice may prove a friend where insecure holds and loose stones abound, morticing and binding them firmly to the mountain. Indications of a route given by the white lines of snow led to the conquest of one of the most unconquerable of Welsh climbs. Generally speaking, however, snow and ice must be regarded as enemies, our friends the enemy, it is true.

To the rock-climber snow first reveals its obstructionist character through his finger-tips. Clearing holds of fresh snow is abominably cold work, and much as I detest climbing in gloves, on such occasions they are most welcome. It is pleasant, too, when you find that your leader has, by standing about on that longed-for

handhold, converted the snow that originally lay on it into viscous ice. It calls for a fine exercise of patience to stand patiently shivering whilst the leader's axe rains down chips of ice on your undefended head. Most exasperating of all is it to find yourself badly checked at the end of a climb by an unreliable edge or a cornice. A cornice is a projecting eave of frozen snow that is formed, I believe, by the action of the wind. I confess to a dislike for cornices. Some people profess to find pleasure in burrowing through them as an exciting finish, but I fancy their enjoyment is tempered enjoyment. I have seen a cornice, perhaps a hundred yards long, by ten feet wide and three times the depth, go thundering down the face of Saddleback, and it seemed to me that, had I been in the line of fire, I should not be here now. About a hundredth part of it would have sufficed to knock me off my feet. I do not think you can *ever* rely on a cornice, or part of a cornice not coming away unexpectedly, and that is why I regard them with mistrust. When walking the fells in the winter it is well to assume that every edge you come to is corniced and to give it a wide berth. Few mountains are better known to the summer tourist than Helvellyn. They stream to the top from Thirlspot, Wythburn, Grisedale Pass, and Patterdale, and such as have steady heads go to the edge and look down on the two Edges and the Red Tarn, and generally repeat the hackneyed lines of Scott. Now, in winter this would be a risky performance—I do not mean repeating the poetry ; at all seasons that ought to be really perilous—but standing on the edge. I have seen very large cornices on this face, and it would be quite easy for an unsuspecting rambler to walk right out on one, whilst he fondly imagined he was on solid mountain. Then, if the cornice gave—well, Helvellyn is just over 3,000 feet high, and the elevation of the Red Tarn is 2,356, and I do not think the man would stop much before he got to the tarn.

In some gullies the snow silts up at the exit so as to form a vertical and sometimes overhanging wall of snow, more or less relable, generally less. It is impossible

to foretell with accuracy what the consistency of the snow on the summit will be from the condition of the snow in a gully, and even that varies continually; a gleam of sunshine may soften one patch, the cold shadow of a rock may harden another, a spring of water may convert the next stretch into ice. The art of judging, even approximately, by sight what the surface of snow will probably be like is a study in itself—and one that can only be learned from the snow itself. To return, however, to the head of the gully, and to relate a circumstance that has come under my own cognizance. A party were ascending a climb, where this formation frequently is found, by an easy turning route—the direct route would not go—and leader had just stepped into the gully bed above all difficulties, when a portion of this silted snow gave way, without warning or provocation, and swept down on him. He had no time to escape, so his companions braced themselves firmly to hold him with the rope, and he drove his ice-axe deep into the hard snow at his feet and held on. Of course it was only a little, miniature, bijou, insignificant avalanche, but it shifted him gently with it with such force that it snapped the shaft of the axe to which he was holding. He was brought up by the rope, and soon emerged in perfect safety and considerable confusion. Had the whole party been in the gully, I doubt if they could have held their ground, and it is a long way to the bottom. After this incident it was proposed by all present, and carried unanimously, that serious climbing under such conditions was out of the question.

When snow lies at such an angle that it is impossible to walk on it, steps have to be made. When the snow is not too hard it is simplest and quickest to kick them. 'When the snow is soft,' writes Doctor Wilson, 'the step is less likely to break away if the foot be driven home with some force and kept quite stationary till it is withdrawn.' I would add that it is not unwise, unless you are quite sure of the depth of the snow, to give two kicks, one tentative, and the other hard. I say this because once, when I drove my foot home with consider-

able force, there was an unsuspected rock about two inches below the surface.

When the snow is too hard to allow of steps being kicked, they must be cut, and the cutting of steps entails the use of the ice-axe. Now an ice-axe is a great and solemn thing to write about, and all students are referred to the *Badminton* for all information and instruction thereanent. One sentence particularly appeals to me as embodying the whole teaching of step-cutting; it is to the effect that the art of cutting steps cannot be learned from books. Of course it cannot, any more than the art of casting a fly or making a stroke at billiards. Practice, under the personal supervision of an expert, is the only teacher.

Nevertheless it is necessary to say something about it, or rather to make a short *précis* of what authorities have said. I need hardly state, as a preliminary, that as in every other sport where manual dexterity is required, e.g. golf or cricket, everything you are naturally inclined to do is wrong. As no beginner was ever known to play, uninstructed, with a straight bat, so has no novice ever intuitively used an axe properly.

The principles of step-cutting are the same generally as those of rock-climbing:—deliberation, the sacrifice of speed, in fact, of everything to safety, and the sparing of the arms.

Step cutting commences as soon as the snow slope is too hard to admit of steps being kicked. If only just too hard, a modified form of cutting may be used, and steps may be scraped with the corner of the axe-head. How is this done? How does a good gillie gaff a salmon? With a firm, quick, steady draw. There is no haste, no flourish. None of

> The wily Tim with dexterous gaff
> Tries hard to cut the line in half.

Much in the same way should steps be scraped. When the snow hardens, steps have to be cut, and, it is important to remember, on ice the pick must always be used.

Before attempting to teach the unteachable art, I should like to make a suggestion on a point that I believe is sometimes overlooked. On a long slope of snow in bad condition, after cutting a series of unsatisfactory steps, in constant discomfort and no little danger, a party may be disposed to give up. Where advance is dangerous, this is the wise, right, and courageous thing to do, which is something of a consolation, but *mens conscia recti* is no specific against the disappointment of turning back. A great deal of heart burning might occasionally be saved if the leader would clear away the snow and see if there is ice underneath. In this case steps not only may, but ought to be cut into the ice itself. It is not always necessary to clear away the snow, cutting a little deeper is all that is required. It is a tedious business, but it may just make the difference between victory and defeat, or even disaster. Moreover, in the Alps, this will *have* to be done time and again, and so the sooner one learns how to do it the better.

Now for the step-cutter. His legs must be motionless. Their business is solely to keep him in his place. He may lean his knee against the slope if he likes, and often it is advisable to do so, but his legs must take no active part in the process of cutting. His body, on the other hand, must do as much of the work as possible with the ever important object of sparing the arms, and the blow must be delivered with the swing of the trunk and shoulders. The hands should be a convenient distance apart, the one placed lowest being, so to speak, the hitter, whilst the upper guides. Consequently it is obvious that the step-cutter must learn to be ambidexterous. Some people advocate sliding the upper hand up and down the shaft after the manner of a blacksmith using a sledge hammer, and, though this method is condemned by a high authority, it certainly saves the arms. I have been told by A.C. experts that it is good to cut over the shoulder, i.e. to swing the axe back over the shoulder nearest the slope of the mountain when traversing, but, as in all

the pictures and photographs I have seen of step-cutting in the Alps the man is cutting over the other shoulder, I have come to one of three conclusions, viz. either that experts do not get taken cutting steps, or that they keep the method for home consumption, or that they do not always practise what they preach. Nevertheless there is much to recommend this way of using the axe, if only that it makes the balance of the body easier.

I need hardly say that the swing should be deliberate. By deliberation slowness is not always implied, though some people seem to think so. Harry Vardon's swing when he is driving off the tee is deliberate, but no one could call it slow. It is only not hurried. *A propos* of golf, the step-cutter may borrow two golden maxims from that game.—Do not ' press,' and always keep your eye on the ball.

The number of strokes required to cut a step may vary from two or three to twenty or thirty or double the last number, and in exceptional cases to double that number. It is important to remember that a step is a step, not merely a slight foothold, that it should be large enough to hold the foot, and that the floor should slope inwards. The first stroke or two should be light. Then the whole swing of the body is put in till the step nears completion, when the force is lessened. Too hard a blow at the finish may ruin the work of twenty strokes. Steps must not be cut too far apart, everything must be sacrificed to safety, and three steps within easy distance of each other are safer than two involving a stride. One must learn to cut steps up and down and across slopes, and in cutting up and down, the steps should be in a zig-zag, with an extra large step, big enough for both feet at the turn.

' The proper method ' (of stopping after a slip on steep, hard, icy snow) ' is to grasp the metal head of the axe firmly with both hands, and holding it about the level of one's chest, lie face downwards against the slope. A slight turn of the wrists will enable the

climber to "brake" with the head of the axe gradually but surely' (*The Complete Mountaineer*, G. D. Abraham).

On easy ground the axe should be carried with the head tucked under the arm and the spike pointing downwards in front of you. In crossing, descending, or ascending slopes of grass, scree, etc., it may be used in the same way as a fell-pole, the point being kept above one, and the head held in such a manner that, in case of a slip, neither oneself nor anybody else should be injured. If the choice has to be made, it is preferable to fall on the blade rather than the pick, but neither is to be recommended.

GLISSADING (an ideal position).
By Permission of Messrs. George Bell & Sons.

The ice-axe is sometimes a necessity, sometimes a nuisance, and for one purpose, glissading, a delight. Glissading is merely sliding downhill and using the axe as a rudder and a brake. All experts agree that the axe should be held about hip high, almost at right angles to the body, with the point cutting into the snow, that the knees should be straight, and the feet close together. Illustrations, however, have led me to the same distressing conclusions as those respecting cutting over the shoulder. As a matter of fact, provided a man can go steadily and safely, I think he may be entrusted with the care of his own legs and feet without printed regulations, and the same is true of the position of his hands on the axe. Sitting glissades

are generally deprecated, though there is no form more common amongst beginners except that on the broad of the back.

A glissade should never be indulged in unless it is quite certain that in the event of the glissader being unable to stop himself no accident can possibly happen to him.

On rocks an axe is a nuisance. When it is not required, it is slung by the head from the wrist, whilst, the spike seeks every opportunity of steadying itself in some portion of your anatomy. There, is generally speaking, no such thing as ' form ' in step-cutting whilst rock climbing. You simply hold tight with one hand, and hit with the other. The worst of it is, that in winter an axe is a necessity. The summer climber will know that most of our climbs are composed of rock and moisture. In winter the rock remains, but the moisture has changed to ice, and that ice has to be treated. If it is thick, steps may be cut in it ; if only a film, it has to be cleared from the holds ; if it takes that most objectionable form, frozen moss, it should, I think, be ruthlessly shattered. Still, this frozen moisture has proved a friend often, and, if I am not mistaken, it was to its presence that the first conquest of the most difficult of Welsh climbs was due. I conceive that, for patience and endurance, this ascent constitutes a British record, as the rate of progress over the difficult portion was on an average something under two yards an hour.

In summer the ice-axe occasionally proves a valuable ally to the climber. The head is sometimes used as a foothold, whilst the Second holds the shaft steady, but this method is not to be recommended ; it contains an element of danger. The head may also be used to give the struggling leader a gentle push withal from below and so to supply that extra ounce, or more, required to get him up. Again, the shaft may be so to speak ' threaded,' i.e. pushed up behind a rock so that the spike end provides a handhold, or rather a hand-steadier, for the leader as he reaches round or over.

Of crampons I have had no experience. Some first-class men swear by them, some do—not. I know, however, that three good men and true found that they could walk up, down, and across slopes of ice of 50 degrees with the pattern alluded to on p. 38 and that two of them made the traverse of the Meije with their aid, and, so far as I can gather from the account, the ice-axe was seldom used ; in fact, that during the descent

CRAMPONS (descending an ice slope of 46 degrees).

only one step was cut, and that was to assist one of them, who had lost his axe, over a *pas* that required nice balance (see *Climbers' Club Journal*. Vol. ix., No. 36).

Finally, to all mountaineers, please, please give yourselves plenty of time to get off the rocks before dark, so as to arrive at your quarters in reasonable time. It is not only safer, but it is cruelly selfish not to do so. The non-arrival of a party invariably causes anxiety. It is especially unkind to be late if you have any of

your womenfolk at the hotel. They may pretend when you arrive that they were not anxious, because they do not wish to take away any of your pleasure, but, I, who have seen them, know better. And to well-intentioned beginners I would just hint that the rope frequently freezes, and that a frozen rope, or even a wet one, takes a lot of unknotting. Time should be allowed for this, and other contingencies. Again you may not only cause anxiety, but trouble, in the shape of rescue parties being organized. Now, even in winter there is always time to get in all the climbing a reasonable man requires and be back at reasonable hours. A late start is often the cause of the trouble. That is a peculiarity of the British climber. Personally I like to breakfast at eight and be off as soon as ever I can, but, generally speaking, it is a gigantic task to get the keenest enthusiast even on to the road by ten, and then he reminds one of the schoolboy

> With shining morning face, creeping like snail
> Unwillingly to school.

Start early!

CHAPTER VIII

EXCEPTIONALLY SEVERE COURSES—MOUNTAINEERING IN SYKE—MOUNTAINEERING FOR LADIES

EXCEPTIONALLY SEVERE COURSES

'THESE fancy bits of rock-work,' wrote Mr. Charles Pilkington, with great truth, 'are not mountaineering proper.' Of course I expect to be told that experience and familiarity have proved many of the courses he undoubtedly had in his mind to be not so very formidable after all—are they not constantly ascended by parties of only moderate strength? and that skill in rock-climbing has advanced during the past few years by leaps and bounds. I very much question both contentions. Many of our noted British climbs are becoming, owing to natural causes, including climbing boots, decade by decade, one might almost say year by year, appreciably easier. I doubt whether those gay young fellows who ascend the North Face of Pillar Stone 'in two hours and find the rocks very easy,'[1] would not, had they anticipated the historic ascent by Messrs. Hastings, Slingsby, and Haskett Smith, 'have descended Pillar Stone in two minutes and found the rocks very hard.' These fancy bits of rock-work are not mountaineering proper, and I have had considerable hesitation as to whether I should not omit all reference to them as not in consonance with the purpose of this book. Having decided that I ought to say something on the subject, I shall only touch on them very lightly, and then chiefly for the purpose of warning people off. I do appeal, though I sorrow to say, with little

[1] According to a well-known note in the Wastdale Head Book.

confidence, to a certain—and, happily, a limited class of climbers not to interpret this warning as a challenge. They may dub me ' old crock,' if they will. I shall not deny the soft impeachment. I will cheerfully concede their entire superiority as cragsmen, but I would venture to suggest that a brilliant young batsman is not always a good judge of cricket, and that it behoves mountaineers to play the game throughout conscientiously.

A party that is justified in essaying these exceptionally difficult courses should consist exclusively of first-class climbers (I emphatically protest against novices being taken up them) in first-class condition, led by a man who has not only absolute confidence in his strength, skill, stamina, and steadiness, but who has commanded in men competent to judge a like confidence in these qualities and in his prudence to boot.

One word ! My protest against taking novices up climbs entirely beyond their powers is that they are likely to be misled into forsaking rock-climbing for rock-gymnastics. At the same time there is no doubt that a man may learn a lot by being steadied up a very difficult bit by a rope from above, even to the lesson of coming off, which has sometimes a salutary effect on a head that is tempted to swell.

Difficulty is, of course, the primary constituent of an Exceptionally Severe Course, and, I think, for the climb fairly to come under this category, the difficulty should be sustained : there is a tendency to classify as a ' climb ' what is only, after all, a bit of overgrown bouldering. The difficulty may be concentrated in one or more pitches of extreme severity, or it may be almost continuous throughout the entire course. A fair leader might be perfectly justified in leading any one of certain severe pitches did it occur on a climb of moderate difficulty ; but when crux succeeds crux without stay or pity, the course should be left alone by all but such parties as I have indicated above. On some of these climbs, in addition to ' the technical difficulties,' it may become necessary for the leader to run out a

great length of rope before he can secure adequate anchorage; 80 ft. is not an unknown length, over severe going, and I know of one course on which the leader has to take out a 120 ft. I am of opinion that the former length, and I am quite, quite sure that the latter, exceeds the bounds of legitimate climbing. The presence of vegetation in the shape of not too stable heather or grass ledges presents a most formidable obstacle, and it behoves a leader in dealing with these to be very sure that he does not incur the heavy responsibility of passing 'the line which separates the difficult from the dangerous.' Worst enemy of all is treacherous rock, rock that may be adequately sound one week and dangerously unsound the next. Only a man of great experience can possibly detect such danger in time, and, in my opinion, climbs that combine this feature with great technical difficulty should be reckoned unjustifiable.

I have never essayed any of these exceptionally difficult courses, neither do I intend to, though I have had more than once a kindly offer to be taken up one. Fit and well I believe, I could have compassed the climb without excessively obtaining the moral support of the rope, perhaps without straining it at all. I should very much like to have yielded to the temptation, but it would not have been playing the game. I do not suppose any one cares what I do or what I do not do, but *I might conceivably have set a bad example*, and that is a risk I would rather not undertake.

MOUNTAINEERING IN SKYE

I am devoting just a short separate section to Skye, because the mountaineering there is of a somewhat different character to that found elsewhere. Every peak of the Black Coolins (Cuchullins) is a true peak, and has to be 'climbed,' not walked up. Consequently much of the advice as to rambling and scrambling given in Chapters III and IV would have to be modified. I do not think any inexperienced man would be justified.

in wandering alone on the Coolins even in fine weather, or that an inexperienced party should attempt their ascent except under favourable weather conditions. I suggest that it would be a wise precaution even for ramblers to take a rope with them.

Would that Skye were more accessible. The Coolins 'offer finer mountain scenery, richer colouring, and

Photo by] [*Rev. A. E. Roberts.*

SGURR ALASDAIR, SKYE.

better rock-climbing than are to be found elsewhere in the United Kingdom; for they are rugged peaks, with splintered ridges and deep clefts, quite different from the rounded hills found in other parts of these dominions.'

Skye is indeed a rock-climber's Paradise. Elsewhere in the British Isles it is generally necessary to tramp up one or two thousand feet before you get

to the foot of the climb; in Skye you can start right away almost from sea level, and consequently you get rock courses of a length comparable with those to be found on the great mountains. It must not be forgotten that a stiff English or Welsh climb of about a thousand feet or less may take a strong party four hours and more, and when you consider that the Skye climbs are not a whit easier than these, and that there is all that extra rock-work to do, it is not surprising to hear that a good half day of twenty-four hours has to be allowed for at least one of the courses there. If possible, a beginner who is inclined to rashness should be taken to Skye early. On a Skye climb there is no necessity to impress caution; the mountain does that for you and very effectively. When you are five hundred feet up, you are five hundred feet *up*, and there is nothing at all between you and *down there* to distract the eye by any pleasing illusion but the thinnest kind of nothingness.

The 'gabbro,' of which the Black Coolins are mainly composed, is magnificent climbing material. It is of comparatively recent formation, and, though it has weathered grandly, has not become polished. It is the roughest rock in the islands, and is covered all over into the bargain with accommodating little finger-holds and toe-scrapes that make passages feasible, which would be impracticable on the crags of the mainland, with the possible exception of millstone grit; and I am inclined to think that even that must yield the palm. If gritstone is 'a petrified chunk of glorified sand-paper,' gabbro is glorified grit.[1]

It is well to remember that magnetic rocks are not uncommon in Skye, that compass readings are therefore not to be implicitly trusted.

MOUNTAINEERING FOR LADIES

Place aux Dames. And I hope the 'place' I have selected for them will not be imputed to me for discourtesy. As a matter of fact, it was not my doing; it selected itself. I need hardly say that all I have

[1] *See*, however, p. 121.

hitherto written with regard to Rambling, Scrambling, Climbing, etc., is intended for them just as much as for men. I would suggest, moreover, that ladies should make *a special study of the art of tieing knots*, and also of the proper management of the rope. I have heard it rumoured—that some lady mountaineers of repute are moderately helpless in these respects, especially in the former.

Dress. *Hat.*—A tam-o'-shanter or soft motor. In summer, however, this may prove hot, in which case a small sailor hat is the most suitable wear. Whichever is chosen, great care must be taken that it is securely fastened on.

Shirt.—An ordinary cotton or flannel shirt (according to temperature) is the best, in my opinion, and with a nice collar and tie always looks neat. Some ladies wear a kind of modified Norfolk jacket, which looks workmanlike. Whatever is worn should be loose, especially round the throat and shoulders. For rock climbing a *golf-jersey* should be taken in addition. It is warm and light (it can easily be carried in the rucksack) and should be slipped on at the foot of the climb. It is economical, for it saves the garment beneath, and does not easily tear, itself. Navy blue or some dark colour is preferable, as white soils so easily.

Covert-coat.—A short one should be taken, however fine the weather prospect. It is often cold, even in midsummer on the mountain-tops, and the weather may break up at any hour. If there is no room in the rucksack, the coat can be easily strapped to the waist (one ordinary umbrella strap round the coat, and another passed through it and round the waist). It will save many a cold and chill, and much discomfort.

Silk Handkerchief.—One should be taken, see Chapter II, p. 32.

Skirt.—The skirt should be quite short, *at least* five or six inches from the ground. The best material is a good serge, not too heavy. Some advise having the edge trimmed with leather to save it getting torn whilst struggling through ling, etc., but leather has the disad-

vantage of being heavy, and of getting hard when wet. As to colour, navy blue is very neat, but it does show stains, and the same disadvantage applies to sundry lighter colours. Some dispute this, but I know that my only hesitation about getting a blue serge suit is that it stains so. Dark pepper-and-salt is both neat and serviceable. There must be no superfluous fullness about the skirt, and it must be as light as possible, if only out of consideration for the man with the rucksack, for into that it *must* go at the foot of the climb. Some ladies cling insanely to the artificial trammels of society, in the shape of a skirt when climbing. It is perfectly futile, perhaps a little dangerous, and the skirt will certainly cling insanely to the rocks and quite probably get irremediably torn off.

Knickerbockers.—The best material is the strongest dark-blue linen, such as tennis-skirts are made of. It is durable, and does not easily tear, and is not so hot as tweed or serge. For this reason, however, the latter materials may be found more suitable for winter wear. They should be well cut, and very loose.

Puttees should be worn. They save the shins on the rocks, and, if wound high, as they should be, the knees. Fox's Spiral are the best.

Boots.—There seems to exist a foolish impression that ladies who go in for mountaineering do not require so elaborate a boot as men. There is *only one kind* of boot for the mountains, especially for rock-climbing—the very best. See Chapter III, p. 25 *et seq.*

Gloves.—Loose woollen gloves should be taken in case of cold. For winter climbing, climbing gloves should be used. See Chapter II, p. 32.

Satchel.—A small waterproof school-book satchel is a great convenience for odds and ends, e.g. safety-pins, which should always be taken.

Finally, my dear lady, please, please, please, do remember, that because you are doing something foolish people consider unconventional, it is wholly unnecessary to make a guy of yourself. Some men do, and succeed. They seem to glory in a collarless, un-

shaven, unbrushen, Weary Willie appearance—and no one thinks any the more of them for such eccentricities. Do not, I entreat, imitate these. *Start* neat, at any rate. Whether you return neat is in the lap of the gods.

When a lady takes to mountaineering seriously, she generally does so successfully. I think women, as a rule, have a nicer sense of balance than men, and I surmise that, structurally, balance comes easier to them. Moreover, I understand that they are built for mountain-walking ; they have little weight to carry, and all their strength in the right place, besides which, though less muscular than men, they can climb rocks very well. Their greatest weakness in this respect is generally want of power in their arms. Therefore, I would specially recommend to their study all I have written about sparing the arms, and I would advocate their doing all in their power to strengthen them. They are, moreover, handicapped by their reach being shorter than the average man's, and have to accommodate their methods accordingly. It is really delightful to see how skilfully a good cragswoman uses her feet, and there are few better lessons for the rock-gymnast of the pull-and-grab school than to watch a lady expert at work. She will sometimes literally walk up a climb that has cost him a certain spell of hard labour. I recollect a little boulder problem on which man, proud man, used to play fantastic tricks, straining arms and fingers, till a lady came along and neatly ' massacred ' it (to quote the words of an indignant, but admiring boulderer). In this way we may learn a good deal from the weaker sex.

I use the term ' weaker sex ' advisedly, because women are not so strong as we are, and they *must* remember it. Overfatigue has not infrequently permanently impaired the health of a strong man, and women are more susceptible to a similar distressing experience.[1] Their

[1] Since writing this, it has been remarked to me ' A woman who has *once* overwalked herself seems doomed to be more or less of an invalid for life,' and ' Doctors, in this age of feminine athletics, are constantly having girls on their hands who have overdone it, and will never be quite the same again.'

organism is more delicate and complicated. Do not, I beseech you, fair reader, interpret this either as a slur or a challenge, and the next time you are out, set about showing us that you can go just as well as we can, and a bit better. No imputation on your powers of endurance is implied. All I ask you to do is not only to admit when you are tired, but to declare it.

Now I myself am not a bad walker on the whole. I once took in a good many of the Cumbrian peaks between sunrise and sunset (in June). I never calculated the exact distance to a nicety, but it was somewhere about half a hundred miles, and the aggregate thousands of feet ascended ran well into double figures. Very well! Supposing some one told me I was not as strong as Doctor Wakefield (I may say, parenthetically, that one of his legs is about as strong as my entire body) and that I could not equal his gigantic fell-walk, in which he covered some ninety odd miles, and his ascents totalled up to the height of a Himalayan giant. Supposing I forthwith started to show I was not so weak as suggested, and knocked myself up for the rest of my life in the attempt (as did one of the companions of the early record-makers), what would you call me? Should you consider it unladylike to name the word I suggest, that a noun-substantive containing two vowels and commencing with the sixth letter of the alphabet would be appropriate? Now, I hope I have made myself clear, and that I may be permitted to make some suggestions.

At the end of the day, especially after a climb, there is a tendency to hurry home. You do not wish to give in, partly because you admire pluck, and like to show it yourself, and partly because you hate to be a drag on the party. You are quite right to admire pluck, but remember there are two kinds of 'courage' —the courage to overtax one's strength and risk doing wrong, and the courage—like that of the careful leader who is not afraid to turn back—to say one is tired, and do what is right. And you, O man, be careful. Leave the ladies to set the pace, and never hurry them. On

the contrary, keep on them a watchful eye. A general symptom of fatigue is not lifting the foot high enough, and so stumbling very slightly. If such a stumble be followed by an increase of pace and an unconvincing laugh, you may be *quite sure,* and the rate of going must be *unostentatiously* slackened. Unostentatiously, because under such circumstances, ladies detest being made a fuss over. Moreover, if you suggest that they are tired, you are making them feel exactly what they especially do not want to feel, that they are a drag on the party. Personally I, in my position of hardy man, never hesitate to let it be known that I am tired, and if the party do not choose to accommodate their pace to mine, they can go on to the inn—or anywhere else—without me. A man who risks his mountaineering future by over-fatiguing himself, except there is a 'need be' in the case, is a fool, and the woman who does the same is the lady-like equivalent.

Again, in rock-climbing it is important to master easy climbs first, as I have endeavoured to insist in previous chapters. To attempt too great difficulties at first is discouraging and entails a risk of overtiring or overstraining oneself, thus, perhaps, spoiling the holiday not only for yourself but for others, and running the grave risk of permanently injuring the constitution.

As a last bit of advice, it is most important that you should keep warm—anything like chill should be carefully avoided—and dry, if possible. *If wet, get dry as soon as ever you can,* see also Chapter X, p. 210.

It is of first importance to take it easy for the first day, perhaps the first day or two of a holiday, and the same is true of individual expeditions. Some people start off as if they were walking for a wager, and thereby risk spoiling the greater part of the day for themselves and others. Wherefore, go slowly to start with, and steadily throughout (spurts and halts are bad hill-walking) and always allow a liberal margin of overtime so as not to have to scurry home. The Italian proverb, '*Chi va piano, va sano, ed anche lontano*' [1], is an excellent

[1] He who goes quietly, goes safely, and also far.

maxim for mountaineers. Remember *Badminton* that :— if you stop every half hour to admire the scenery you are going too fast, and if you halt to adjust a bootlace already perfectly fastened you are going much too fast.

CHAPTER IX

DANGERS OF MOUNTAINEERING

We Islanders, it is said, take our pleasures seriously. This may or may not be true; generally speaking, I have not observed it. There is one pleasure, however, and that the grandest of all, mountaineering, that must be taken seriously, or not at all.

It has been suggested that the dangers of British mountaineering might all be comprised in the one word 'folly,' and this is largely true. It is also largely true of the dangers of mountaineering all over the world. Carelessness is folly, and criminal folly at that. Ignorance is folly; no one but a fool would indulge in a sport that entails a certain risk to life and limb without endeavouring at any rate to master the first principles, to thoroughly acquaint himself with the 'rules of the game'; and the man who deliberately breaks or disregards those rules is a wicked fool. For there is danger, real danger, on the hills. The fact that a man may break his own worthless neck is not of much consequence, but that fall may break valuable, tender, loving hearts.

> The heart which may be broken. Happy they,
> Thrice fortunate, who of that fragile mould,
> The precious porcelain of the human clay,
> Break with the first fall. They can ne'er behold
> The long year linked with heavy day on day,
> And all that must be borne and never told.

I have witnessed such things, and they are most distressing, even to recall. A dear friend of mine, a man of rare character, was accidentally killed on our mountains. The shock of his death was almost immediately fatal

to his mother, and, though less swift (and less merciful), not less mortal to his sister. Decline set its inexorable hand on her, and, though she lingered for some months, she never rallied. I appeal to you, you young climbers. You are generous, humane men ; you are superior men, or you could not love the mountains. Do not, I beseech you, in the pursuit of your pastime, rashly risk the infliction of such bitter suffering. Accidents must, I fear, sometimes happen. Let it be your business to see that no selfishness of yours is the cause of one.

Most of the dangers connected with British mountaineering are unjustly debited to rock-climbing. This is a mistake, and a mischievous mistake. It not only tends to throw discredit on a very fine sport, but it may impress on pedestrian mountaineers, if such a term be admissible, a careless sense of security.[1] Prior to the fatal accident of September, 1903, on Scafell, which resulted in the death of every member of what may fairly be described as an exceptionally strong party, there had been no 'climbing' accident, properly speaking, yet the death roll of the British hills up to that date, though happily small, was by no means negligible. 'Fatal accidents,' I repeat, in spite of having been misconstrued in the past, 'are not so common as they ought to be.' Season after season our hills are visited by scores of tourists without knowledge, without proper equipment (map, compass, or provisions), with boots ill-nailed, or with no nails at all, who wander around as gaily and recklessly as if our mountains were as innocent of danger as Primrose Hill. One trembles to think what would happen to these helpless creatures if they were overtaken on a rough mountain by really bad weather. We had a very good lesson quite recently, when two ladies were thus caught on Skiddaw. They were out for thirty-six hours and, when rescued, were almost exhausted with hunger and exposure. In such a case 'almost' might very easily read 'quite.' And Skiddaw, much as I respect and love him (I have stood on his dear old head more than a score of times) is the

[1] *See* also p, 3, 63, 197.

mildest old sheep of a hill of his altitude in broad England. Had such a mischance happened on, say, Scafell Pikes, or the Glyders, or An Teallach, the story might have had a less fortunate ending.

I propose to divide mountaineering dangers into two classes.

(*A*) Those to which pedestrians and cragsmen are alike exposed.

(*B*) Those peculiar to rock-climbing.

(*A*) Want of proper equipment. Wind. Snow. Mist. Silver thaw. A slip. Falling stones. Cornices.

(*B*) Incompetence of one or more of the party. Climbing alone. Dangers connected with the rope. More than one party on a climb.

Want of proper equipment.—It will be remembered that in Chapter II I insisted that the first and most important item of a mountaineer's equipment was condition. Want of condition will sometimes bring on extreme exhaustion very suddenly (just as you may see a man 'go weak' in a bout with the gloves). A climber in this state is a danger to the whole party. He is quite sufficiently troublesome on an ordinary ramble, as I can testify. It took me two hours to get a man down about four miles of valley. A memorial in Ennerdale at the foot of Pillar Fell is a silent testimony of the danger of solitary rambling when not 'fit.' There was no accident. The man succumbed to exhaustion simply. Also one should never be without map, compass, provisions, and properly nailed boots. Other articles from the list given may be taken according to the requirements of the expedition contemplated.

Wind.—I do not think those who have not experienced it have any conception of the violence of a mountain gale. It is impossible to describe, even in the language of the learned. The late Professor Tyndall has recorded that once, when walking over Helvellyn, he had to incline his body considerably from the perpendicular to resist the atmospheric thrust. This is a fearsome saying, but the wind could only have been a summer breeze to some I have met. A first-class fell-side squall

would—unless Professor Tyndall had changed the inclination of his body from the angle indicated to one prone and parallel with the ground—have laid him supine with great suddenness and no little violence. As an example:

Three quarrymen, a father and his two sons, were returning over the top of the famous Honister Crag, when they heard the wind coming. They immediately did the right and only thing, flung themselves flat, and held on to the ground. The gust came on them, picked up the father, who was lying between the two sons, and whirled him over the precipice, which is many hundreds of feet in height, leaving the others where they were uninjured.

It is unnecessary to multiply examples. This one, I submit, sufficiently demonstrates that a mountain storm is an enemy to be reckoned with. The summit of Fleetwith (Honister Crag) is, under ordinary conditions quite safe for women and children, and the men were, I gather, an appreciable distance from the edge of the cliff.

'I do not think it possible,' says Mr. Justice Wills, 'for any one who has not felt it to have any idea what very bad weather means in high places, even in places by no means the highest, or to imagine the rapidity with which, under unsettled atmospheric conditions, the destructive forces of nature can be raised, and the worst assaults of the elements delivered.' It is this consideration, amongst others, that leads me to rule out of bounds such exposed and difficult climbs as the Eagle's Nest Ridge on Great Gable. Mountains make their own weather, as more than one sad boating accident on mountain lakes testifies: squalls come along almost without warning, and a comparatively slight gust would blow the strongest leader off that exposed *arête* like a fly.

To the pedestrian these 'bolts from the blue' are not very formidable. Though they advance with great velocity, they always trumpet out their approach, so that he has plenty of time (which the climber may not

have) to make himself perfectly safe. If there is any possibility of danger, his correct course is to lie down *quite* flat, and hold on. A hands and knees posture is not always safe; and I cannot but think that the unfortunate victim of Honister Crag may have relied on this position. In case it should be thought I am exaggerating, I will give an example. The Blencathra hounds were out, and a party of keen followers were anxious to get in at them. To do so it was necessary to cross the summit of Grisedale Pike, a broad ridge, with an apology for a wall running along the centre. There were no bolts from the 'blue' that day. A fierce westerly gale was blowing in pistol-shots. To attempt to cross the ridge in the attitude natural to dignified man would have simply meant a terrific descent, *à la* Professor Baldwin of parachute fame, but without his parachute, to the Coledale Pass, some two thousand feet below. The slimmer members progressed under the shelter of the wall (which was only a few inches high) as if the primaeval curse had fallen on them, despite the fact that every now and then an extra fierce gust would rend away a bit of the shattered coping, and send it tumbling down the fell-side. But the last man was not slim. I should say he weighed not less than twenty stone, and, as his principal development was fore and aft, he was ill adapted for crawling. Crawl, however, he had to. He once or twice attempted hands and knees, only to clap down again as close to the ground as his formation would permit. At length he came to the lowest part of the wall, and here the wind got a purchase on that portion of his person which protruded above it and nearly shifted that mighty mass of avoirdupois. For a minute there was a stern struggle between an irresistible force and an immovable body, till after a while the wind lulled, and before another gust could come, a scrambling roll had taken the dalesman under the lee of the peak.

For some reason, possibly the conformation of the hills, these mountain gales frequently blow, so to speak, in patches, a good, solid hurricane, punctuated by squalls

of greater violence, which sometimes cease as if they had been cut off mechanically, and are momentarily succeeded by an interval of perfect calm. Now the gusts are bad, but the calms are, if anything, worse. It is easy to understand that if you are bracing yourself against the onslaught of the wind, and it suddenly ceases, you are exceedingly likely to fall into the calm ; and, if there is nothing but nothingness on that side to sustain you, the consequences are likely to be unpleasant.

When the wind is accompanied by driving rain or hail, the effect is very confusing, and the pedestrian would be well advised to seek shelter and either wait for the storm to pass, or else study out the safest way off the mountain and make for it. The buffeting of a winter gale will wear down even a strong man in a few hours, and when it is accompanied by drenching, cold rain, I think ' the better part of valour is discretion ' (which, by the way, would seem to be the correct quotation, though we have only Falstaff's authority to go on).

Still, there is something peculiarly exhilarating in a ramble over wild mountains in wild weather. The onrush of the wind, the weird orchestration of the tempest, seem to harmonize with and emphasize the grandeur of the surroundings. Nevertheless, it is as well to remember one little trick of the wind. Every one who has pored upon the brook that babbles by must have noticed how the swiftly running water curves over the stones that obstruct its course. In the same way, the wind strikes the face of the mountain obstacle, shoots up and curves over, leaving a comparatively windless space above and beyond, that is so say on the ' mountain ' side of the edge of the precipice. In this space the hurrying rambler, who has been butting his way in the teeth of the gale, plunges headlong, and the resistance of the wind being gone, may have hard work to stop himself from going right on over the cliff.

It is quite worth the beginner's while to go out on a fine day in a moderate gale and study the cadences of the wind. A little practice will enable him to detect the presence of precipices by ear alone, and this accom-

plishment may prove valuable some day, or night. It is impossible for me at any rate to describe the sound. A gust comes along in a low moan which rapidly rises to a fierce hoot, but there is a peculiar break in the sound of a steady wind which must be heard to be understood.

Snow. Mist.—There is only one thing more confusing than mist, and that is a snowstorm. It blinds and chills you so long as it lasts, and when it is over, it leaves the landscape so transformed, that it is often difficult to recognize the most familiar landmarks. Nevertheless, to an individual properly equipped, a reasonable snowstorm should present little danger of accident, and mist less; to a party neither should present any danger whatever. The chief thing to be feared is exhaustion resulting from fatigue and exposure. Of course, when a violent *tourmente* is raging, no one but a lunatic would think of going on the mountains alone. Parties occasionally do so, and allege that they acquire skill in the use of the compass under difficult conditions, and that it is a good test for the nerve under trying circumstances. It is hardly an experiment, however, to be commended to beginners.

Silver thaw.—This I consider the most serious and unavoidable of all the dangers of British climbing. It chiefly affects cragsmen, though the rambler is not exempt, if he happen to be caught on rocks. It happens when the thermometer is below freezing, and the rain comes down. The moment the water touches the cold rocks, it freezes, covering them with a thin film of ice (*verglas*), which may make them quite impracticable even for the best cragsmen. The situation of even the strongest party overtaken by a silver thaw on difficult rocks would be most perilous.

A slip.—For the pedestrian a slip means a slip of the foot, and is due to almost always, I might say always, carelessness. On easy slopes this matters little, but where there is the chance of trouble resulting, it matters much. How to avoid a slip? The answer is: —'Deliberation. Lift your foot well; put it down

steadily; transfer your weight.' There is one rather complicated kind of slip which I have known result in a nasty tumble, fortunately only on grass, and that is when a man crosses his legs and falls over himself. I will try and explain what I mean. Supposing a rambler is hurrying across a slope with his right side towards the mountain. In stepping out, he plants his right foot in front of and a little below his left. It slips, through treading on a loose stone, or for some reason, and the left leg, swinging forward, catches up against the right, somewhere below the knee. The result is to throw the body right outwards, much as if one were taking a header left shoulder first, and the consequences, especially if there is any rock about, e.g. on scree, may be very serious. I should not be surprised if the recent fatal accident to Mr. Caine on Great Gable were due to a slip of this kind.

In rock-climbing parlance, the term 'slip' is used with a wide restriction. It signifies the failure of hand, foot, knee, etc., either separately or in combination, to retain position on what I may call the functional hold or holds, thereby throwing on the other supports a strain they cannot withstand, the result being a fall. A slip may be caused by carelessness, over-confidence, overtesting one's powers, fatigue, or bad rock (hand or foothold giving way unexpectedly), and always means bad climbing. A slip on the part of the leader is a very serious matter and may prove disastrous to the whole party, in spite of all appliances and means to boot. It was such a slip that brought about the terrible catastrophe on Scafell of 1903, and, though that climb has been justly condemned on account of the insufficient anchorages and absence of belays, yet there are many popular courses on which I think a party would be put to it (and more) in the event of a heavy fall on the part of the leader. If any one else comes off, it does not matter much (but *see* p. 157) as he will be held by the rope, except on a difficult traverse, when a slip on the part of any member may bring about an accident. On ice a slip by any one is dangerous, by the leader most dangerous. Such mishaps are

due either to bad step-cutting, or not standing properly in the steps. A slip on grass is the most common of all. It is due to carelessness almost invariably. The climb is over, the party unrope, and then comes trouble. I believe that up to date we have been spared this in our islands, but abroad the roll of offerings to the grass demon is terrible.

Falling stones.—This term generally means stones that fall naturally owing to the process of disintegration of the rock, but active agencies may also dislodge them. Of course the most dangerous beast is the bottle-chucking, stone-throwing tripper, but a sheep or a dog may quite easily start the mischief. As an instance, taken from the Blencathra Hunt again. The hounds had 'bielded' their fox on a rough fell-side, and were moving around the 'whoal,' waiting for human assistance. One item of human assistance came hurrying up the slope directly below the 'whoal,' which was very foolish. When he was about three hundred feet from the hounds a stone was dislodged by one of them, covered the distance in about three hops, took him on the shin, and sent him to bed. It is as well for ramblers to be on the look-out for little incidents like this. A sheep, collie, or fox can set a stone going as effectively as a hound. For this reason, too, I always look on gullies that terminate in scree slopes at a high angle with considerable suspicion. There are some climbs which are exposed to falling stones 'proper,' and these should not be attempted except in winter and when the stones are frost-bound.

Cornices, see pp. 64, 170.

CLASS B

Incompetence of one or more of the party.—I quote from Doctor Claude Wilson who, in his turn, quotes from *Temple Bar*. 'No chain is stronger than its weakest link. The men are roped together to give the proverb point. As the security of the whole is the protection of each, so, conversely, the false step of one is the jeopardy of all. Too much caution cannot be

bestowed on picking your comrades.' The false step of one is also the jeopardy of the individual, as any one will appreciate who has followed a man 'who leaves no stone unturned' in his efforts to climb a gully.

Climbing alone.—'Sound reasoning appears to be quite lost on those who seem bent on climbing alone. They are worse than the kleptomaniac, who knows it is wrong to steal, yet cannot help stealing; for they know that they are doing wrong, can help it, and still do it' (Doctor Claude Wilson).

Dangers connected with the rope.—Besides those already alluded to, there is one danger connected with the rope that seems to be coming into fashion, that is, of tying on huge caravans. Not so very long ago a party of *thirteen* attacked a gully notorious for rotten rock. Naturally, one of them got badly injured, and was some weeks in bed with a fractured skull. I do hope all climbers who have the interest of the sport at heart will join with me in protesting against folly of this kind. It is not foolish only; it is inconsistent with the dignity of mountaineering. 'Whatever number is right, two is unquestionably wrong.' Thus the *Alpine Journal*! But we must remember that the ruling applied to Alpine expeditions. There are plenty of courses in Great Britain which two competent climbers are perfectly justified in undertaking without incurring the gravest charge that can be brought against any mountaineer, that of wilfully breaking the rules of the sport.

More than one party on a climb.—No two parties should be on the same rock-climb at the same time. I plead guilty in this respect myself. We had watched the first party out of sight, and had given them, as we thought, ample time to get safely away. We had reckoned, however, without a rest and a smoke on their part at a kind of half-way house. Consequently, soon after we started, they, far out of sight above our heads, started too. A few minutes later I saw a stone about the size of a hat-box coming straight for my head. I believe a falling body travels 16 feet the first

second, 32 the next, 64 the next. I reckon that stone was about 112 feet up when I first sighted it, and the next three seconds were the longest I have ever spent. For the information of psychologists I may say that I did not review my past life: the situation was sufficiently unpleasant without that. However, it missed me, and I have never regretted it. I also made up my mind never, never, never to be such a fool again.

Before quitting the subject of dangers, I should like to say that a fall is not always an unmixed evil provided the consequences are not very serious. I have already endeavoured to show how terrible the results may be. There are, however, as it seems to me, some fellows who never will learn to climb properly, that is, carefully, until they have had their tumble. This is a super-sensitive age, I know. A master may not give a cheeky schoolboy a hiding without being summoned for assault, and consequently an ever-increasing number of unlicked young cubs are being added to the ills of the nation. It is impossible for subalterns to take an officer who has been disgracing his regiment, and give him a rough lesson that he is not to do it again, by shoving him, bed-clothes and all, into his bath, without wild shrieks in the Press from men who would be obviously all the better for similar treatment. But Nature has no such nonsense about her, and when a man plays impertinent tricks, she gives him to understand that it is not safe to do so. Kindly she is, and seldom exacts the full penalty at first, but if trifled with, she will at last strike and spare not. Now a fall, even from a few feet high, is a shattering experience, and one that the hardiest would not wish to repeat. I know of more than one young fellow who has had his lesson, with the result that he has come on in skill, as much as he has (save the mark!) fallen off in brilliancy.

Let me conclude with the words of the late Charles Edward Matthews, when addressing the Climbers' Club in June, 1900. Let no self-sufficient, self-confident gymnast disregard them (*see* also p. 16). He was one of the founders of the Alpine Club, President of the Alpine

Club, and President of the Climbers' Club, and you are bound to listen and give heed.

'Gentlemen, I am addressing you from this chair for the last time, and I tell you that there is no tone deep enough for regret, and there is no voice loud enough for warning. Remember, you hill-climbers in England and Wales, that 100 feet of difficult rock, in Snowdonia or Cumberland require as much care, and as much prudence, and as much precaution as 1,000 feet in the Alps. Remember, that if these fatalities continue, our craft cannot fail to be discredited in all impartial eyes. I am speaking now not of one catastrophe, but of catastrophes in general. It may be that I am only a voice crying in the wilderness, but I implore you, the mountaineers of the future, to do nothing that can discredit our favourite pursuit, or bring down the ridicule of the undiscerning upon the noblest pastime in the world.'

CHAPTER X

MEDICAL HINTS

INJURIES in climbing accidents are caused in two ways—

1. By falls.
2. By falling bodies.

The nature of the injuries received differs in no way from injuries received in the ordinary walks of life.

We will deal with the injuries in the following order, beginning with the least serious :—

1. Contusions and cuts.
2. Sprains, fractures, and dislocations.
3. Internal injuries.

At the end of the article will be found a few words on the subject of frost-bite.

It is, I am afraid, impossible to give illustrations, which would materially assist in making clear some of the methods of applying splints and bandages, so I have to rely on description. For those of my readers who wish a clearer insight and knowledge of the subject, I should recommend the reading of a small book published by the St. John Ambulance Association, entitled *First Aid to the Injured*,[1] which is well and clearly illustrated.

CONTUSIONS OR BRUISES

as a rule, require no treatment : if at all severe, hot fomentations will relieve pain ; should the pain be

[1] To be obtained at St. John's Gate, Clerkenwell, London, E.C.

intense and throbbing, the injured part should be raised and kept at rest—e.g. the arm carried in a sling, or the leg kept at rest on a couch or chair, while hot applications are persevered with.

The after-effects—stiffness—may be relieved by rubbing with one of the numerous forms of embrocation.

CUTS

The danger of a cut lies in the possibility of poison getting into the wound and causing blood poisoning, or of some blood-vessel being injured, and causing serious haemorrhage or bleeding.

To prevent the wound being poisoned, it should be thoroughly cleansed with pure water (water such as is found in mountain streams is sufficiently pure for this purpose, but if the accident has happened in the neighbourhood of human habitations, where the water may be contaminated from a variety of causes, the water should be boiled before being applied to an open wound). The wound, having been cleaned, should be covered with a piece of clean dry linen or other dressing to exclude dirt and micro-organisms, which are the cause of blood poisoning.

The essentials are to clean, and keep clean.

HAEMORRHAGE OR BLEEDING

is described as arterial, venous, or capillary.

Arterial, from an artery or vessel which is carrying blood from the heart to all parts of the body.

Venous, from a vein or vessel which is carrying blood from all parts of the body to the heart.

Capillary, from the small vessels which form the communication between the arteries and the veins.

Capillary bleeding is the least serious ; it is such as is caused by a scratch or graze, and may be stopped by bathing in cold water or by bandaging with a pad of lint or linen.

Venous bleeding is more serious. The blood is a dark red colour and keeps welling up from the wound. A pad

of lint or linen dipped in cold water should be applied to the wound, and tied on by a bandage or handkerchief. If the bleeding still continues, the limb should be bandaged on the side of the wound *away* from the heart. The limb must be raised, and not allowed to hang down.

Arterial bleeding is the most serious, as unless it is stopped, the patient will rapidly bleed to death.

The blood is bright red, and spurts from the wound in a jerky jet, being driven forcibly with each pulsation of the heart.

To stop it the following methods must be employed :—

Apply firm pressure to the wound by thumb or fingers, or by tying a pad tightly over the wound ; if this fails, pressure must be applied to the bleeding artery *between* the wound and the heart, at a point where the vessel passes over the bone : this may be done effectually by—

1. Pressure with the fingers.
2. A pad and bandage.
3. Some form of tourniquet.

Methods 1 and 2 require special knowledge of the position and course of the arteries, which it would take too long to describe in this article ; there are, however, two useful ways of improvising a tourniquet, means for doing which are nearly always at hand.

(1) A handkerchief, neckcloth, or piece of rope. One or other of these may be used in the following way :— Tie loosely round the wounded limb at some point between the wound and the heart, pass a stick through the loop and twist it up until the pressure is just sufficient to arrest the bleeding ; then with another handkerchief tie the stick to the limb to prevent its becoming untwisted.

(2) An elastic belt or elastic braces, which should be applied as follows between the bleeding point and the heart. Put the elastic on the stretch, and then bandage tightly round the limb, taking care that one turn lies exactly over another, drawing each tight until the

bleeding ceases ; fix the bandage by tying a bit of string or a handkerchief tightly over it.

SPRAIN AND FRACTURES

These injuries are caused by either direct or indirect violence, e.g. a bone may be broken by a rock falling on it and breaking it at the point struck—direct violence, or it may be broken by a fall, the bone snapping at its weakest point by reason of the strain of the weight of the body suddenly brought upon it—indirect violence.

A joint may be sprained by a force insufficient to break a bone, but sufficient to stretch and tear the ligaments which bind together the bones forming the joint. It is a matter of the utmost importance to keep a sprained joint at rest ; if at all severe, splints should be applied, to ensure that absolute rest which is necessary for the repair of the ruptured ligaments, and for recovery with a strong joint.

The pain of a sprain, which is often great, may be relieved by bathing the part in hot water, or by fomentations, if hot water cannot be obtained, the *continuous* application of cold water may afford relief. The sufferer must not, however, be constantly changing from hot applications to cold, and in either case the application must be continuous.

When the acute symptoms—pain, swelling, and tenderness—have disappeared, rubbing with a stimulating liniment, such as hartshorn and oil, will assist in strengthening the joint.

The limb must be kept elevated, on chair or sofa.

FRACTURES

The following classification is usually adopted to indicate the nature and severity of the injury :

1. Simple : in which the bone is only broken and there is no injury to other parts.

2. Compound : in which, beside the broken bone, there is a wound in the skin which communicates with the end of the broken bone.

3. Comminuted: in which the bone is broken into several pieces.

4. Complicated: in which, in addition to the injury to the bone, there is more or less serious injury to neighbouring structures such as blood-vessels, nerves, muscles, etc.

I here give in a tabular form the signs of fracture, and in a parallel column the signs of dislocation of a joint, as it is important to distinguish one from the other, as, of course, the treatment will depend on the nature of the injury.

Signs of Fracture	Signs of Dislocation
1. Loss of power in the injured limb.	1. Loss of power; the injured joint is fixed instead of movable.
2. Pain and swelling at seat of fracture.	2. Pain and swelling at joint.
3. Deformity in length of limb.	3. Deformity at the joint.
4. Gentle pulling restores limb to natural shape; but distortion reappears when traction ceases.	4. Gentle pulling does not restore limb to natural shape.
5. When gently handled there is found to be movement in the shaft of the bone, where it ought to be rigid, and at the same time a grating sensation (crepitus) may be felt as the broken ends of the bone rub one against the other.	5. No crepitus, the limb is rigid.
6. If the bone is near the surface, irregularity may be felt.	

In examining the injured part very great care must be exercised, or a simple fracture may be converted into a compound one by the sharp ends of the broken bone penetrating the skin, or the injury may be complicated by damage to blood-vessels or nerves from the same cause. If, there is any doubt in a case, do not maul the unfortunate sufferer about in an endeavour to get 'crepitus,' but treat at once as a fracture; you are

then on the safe side, and your patient is protected from further injury.

In case of a dislocation, do not attempt to reduce it : this requires special knowledge and considerable practice and skill. You should merely put the limb in the most comfortable position, and take the case to a doctor : the arm should be placed in a sling, the leg should be fixed by bandages or straps, in such a position that the patient may, if possible, be free from pain.

SPECIAL FRACTURES

Fracture of the skull.—Patient is probably unconscious, and there may be bleeding from the ears, nose, or mouth.

Keep patient perfectly quiet, in recumbent position.

Fracture of the collar-bone or clavicle.—There are the usual signs of fracture, and in addition we may notice that the patient has his head bent over to the injured side, and he is supporting the elbow of the injured limb with the other hand.

Put the arm in a sling, and bind so as to fix the elbow to the side of the body.

Fracture of humerus or arm-bone gives rise to the usual signs of fracture. The arm should be fixed with splints applied on the inner and outer side of the arm so as to prevent the broken fragments from moving ; the splints must be secured by handkerchiefs or bandages tied firmly round the limb on either side of the fracture. Having secured the splints, put the arm in a sling.

Fracture of the forearm presents the usual signs of fracture if both bones are broken. If only one bone is broken, the sound bone acts as a splint and keeps the fragments in place, so there is no marked deformity, and the other signs of fracture are less obvious. Splints should be applied in this way : First flex forearm to right angle on the arm, keeping the thumb uppermost ; place one splint on inside and one on outer side of fore-

arm, and tie securely in their place: put the arm in a sling.

Fracture of ribs.—There is great pain in breathing, the sufferer taking short, jerky breaths. A broad bandage should be applied tightly round the chest, or the coat may be drawn tight round the chest and fixed with pins.

Fracture of thigh-bone.—Typical signs of fracture. A long splint extending from the arm-pit to ankle, on the outer side of the limb (for this purpose an ice-axe would do admirably); it must be fixed by bandages or ropes tied firmly round the chest, the hip-bone (not the stomach), and round the legs (above and below the fracture); and, lastly, tie the legs together.

Fracture of legs.—Apply a splint on the inside and outside of leg, fix with bandages on either side of the fracture, and tie the legs together.

As mentioned above, an ice-axe will form a useful splint; besides which, sticks may be used, the legs of a camera tripod, a stocking stuffed with earth and tied at the top and above the ankle, or the stocking may be filled with moss, grass, hay, or straw; pieces of wood; a knapsack wound round the limb, especially if a cane back.

If a hard substance be used for a splint, care must be taken to pad it with some soft material, the clothes may be used for this; a coat or an empty rucksack may be wrapped round the limb.

Whatever splints are used, they must be firmly fixed to the limb by means of bandages applied round an uninjured part; when bandages are unobtainable, the splints may be secured by handkerchiefs, neckties, boot-laces, strings, strips of cloth, straps, etc.

N.B.—Put the limb in as natural position as possible before fixing the splints.

Never attempt to move the patient until the fractured limb has been fixed in splints, or in some other way so as to prevent the broken bone from moving.

If there is arterial or venous haemorrhage, the bleeding must first be stopped, the wound dressed, and the fracture attended to.

INTERNAL INJURIES

Generally indicated by pain, collapse, or shock.

Patient complains of pain in the injured part, becomes pale, pulseless, with cold extremities, and may be only half-conscious.

He must be kept perfectly quiet, and should not be moved, if it can be avoided, until medical assistance has been obtained.

In this article one can no more than give a vague idea of what should be attempted in case of certain injuries. To obtain a really useful knowledge of what should be done to render efficient first-aid to the injured, I should recommend those who have the opportunity to attend one of the ambulance classes held in most parts of the country under the auspices of the St. John's Ambulance Association.

FROST-BITE

General effects of cold: Body temperature is lowered; person exposed becomes stiff, pale, sleepy, and very cold. The extremities—the fingers, toes, nose, and ears—become numbed, shrunken, and a pale bluish colour. If no help is given, insensibility and death follow. A person in this condition must on no account be taken near a fire, nor into a warm room.

He should be taken into a cold room, and rubbed well with snow, or washed with cold water, or even placed in a cold bath, and then by slow degrees brought into a warmer atmosphere, rubbed with dry, warm flannels, and, lastly, may have a little weak, *cold* stimulant.

Generally in this country it is only the local effects of cold we have to deal with. Fingers, toes, ears, or nose become stiff, cold, and numb, and blue-looking. Try to restore the circulation gradually by rubbing with snow or bathing in cold water as above; if warmth or heat be applied, the reaction is so violent that the circulation is arrested and gangrene results. When the circulation is partly restored by above means, wrap the part in flannel.

To the above admirable paper, for permission to reproduce which I am indebted to the courtesy of Mr. E. C. Daniel M.B., I should like to add a few suggestions of my own. I may say at once I know nothing about medicine, and have nothing but my own limited experience to go on.

Pains in the head.—Unless caused by over-exertion, walking in the mountain air will frequently cure a headache, but in this case no serious work should be undertaken, unless the pain has quite gone and a good lunch has been eaten. Immediate relief may often be obtained by rubbing the aching part with spirit, or hartshorn (lightly), or Scrubb's ammonia, which also forms an excellent substitute for smelling salts. A little effervescing saline mixture does no harm. *Never, under any circumstances, attempt a mountain walk and, still less, a climb, if you have resorted to any kill-pain drugs, such as aspirin, phenacetin, etc.* Their effect is to lower the vitality, and they may cause exhaustion at a critical moment. In case of exhaustion from any cause, there should be no hesitation about going to bed at once. It is worse than folly to persist in keeping up: you may not only spoil your holiday, but impair your health.

Blistered and raw feet.—I am a great believer is boracic lint. A small piece should be put on the sore place and fastened in position with plaster. If the skin has been already rasped off, the lint will protect the wound from further abrasion, and the borax will help it to heal. Some people prefer lint, or rag, covered with homocea, and I can conscientiously recommend such treatment. Homocea is also a useful remedy for a painful complaint that sometimes attacks climbers in the early days of a holiday. It will also sometimes give relief in case of shooting pains in the face or head if well rubbed in.

Always get out of wet clothes as soon as possible. Do not stand about in them. A bath is always welcome and often necessary after a day's climbing. If you have to wait, it is best to take the blankets from your bed and wrap yourself in them. A cold bath is better than none, but a hot bath is preferable. It should, however, in-

variably be followed by a cold sponge over, unless you can get some kind friend to upset the water-jug over you. This last advice may seem hardly to come under the head of medical hints, but I think I am right in saying that many a cold, and a serious cold at that, has been caught through standing about in wet clothes, waiting about in the passages for a bath, insufficiently wrapped up, or coming out of a hot bath into a cold passage without the preliminary precaution of a cold *douche*.

Any one who has any symptom of heart trouble should consult a doctor before taking up mountaineering, in which case I should recommend him to see medical etiquette to its own place, and if his own doctor is not a mountaineer, to consult one who is.

RAMBLING CENTRES IN ENGLAND, SCOTLAND, AND WALES

THE compilation of this list has been really hard labour, owing to the extreme difficulty of getting information about districts with which I, personally, was not well acquainted. I wish to express my warmest thanks to those few gentlemen who have kindly assisted me.

ENGLAND

AMBLESIDE (Railway Station: Windermere, 5 miles).—Fairfield, Red Screes, Caudale Moor, Ill Bell. Some climbing on the east side of the hills. The Langdale Pikes are also reasonably accessible (*see* Langdale).

BUTTERMERE (Keswick, 9 miles).—The Buttermere Fells, with Dalehead, Hindscarth, Robinson, and Grassmoor. Climbing abundant and suitable for all grades. The Pillar Stone and Gable Crag are also easily accessible.

CONISTON (Coniston, or Torver).—The Coniston Fells. The Bowfell Range is easily accessible, as are the Langdale Pikes, though somewhat remote for climbing. Dow Crags give first class sport to experts. There is a good deal of promiscuous work, however, to be found.

ENNERDALE (Rowrah, 4 miles).—The Pillar Range and the Buttermere Fells (q.v.). Climbing for all grades on Pillar Stone, Gable Crag, and the Steeple.

ESKDALE (Boot).—Harter Fell, Hardknott, etc., the Bowfell, and Scafell Ranges and the Screes. Climbing abundant, but the better known courses are somewhat distant. There is room for exploration. The Screes are for experts only.

GRASMERE (Windermere, 9 miles).—Helvellyn, Fairfield Range, the Langdale Pikes, Steel Fell, etc. Some climbing on

the east side of the Fairfield and Helvellyn Ranges. For the Langdale Pikes (*see* Langdale).

KESWICK (Keswick).—Skiddaw, Saddleback, the Grassmoor and Newlands Fells, north end of Helvellyn Range. A fair amount of scattered climbing accessible.

LANGDALE (Windermere, 15 miles; Coniston, 9 miles).—The Langdale Pikes and the Bowfell Range. Climbing abundant. A happy hunting-ground for beginners. There is also high-class work to be had.

MARDALE (Shap, 12 miles, or Penrith, 19 miles).—High Street Range, Harter Fell, Thornthwaite Crag, etc. A good deal of work to be found and one or two high-class climbs at least.

PATTERDALE AND HARTSOP (Penrith, by coach and steamer, 13½ miles; Troutbeck, coach, 8 miles).—Helvellyn, Fairfield, and High Street Ranges, Caudale Moor, etc. There is plenty of climbing here, but it is not well known. There is good work on Dollywaggon Pike.

ROSTHWAITE (Keswick, 6 miles).—Glaramara, Great Gable, the Newlands Fells, High Raise, etc. First-class climbing and work suitable for all grades—Great End, Great Gable, Glaramara, Sergeant Crag, etc.

WASTDALE HEAD [1] (Seascale, 13 miles).—Pillar Range, Scafell Group, Great Gable, and the Screes. Climbing abundant and suitable for all grades. The best centre in England.

The following centres are close to good practice grounds:—Bakewell (Gritstone); Crowden (Gritstone); Deepcar near Sheffield (Gritstone); Edale [2] (Gritstone); Hathersage (Gritstone); Hayfield [2] (Gritstone); Ilkley (Gritstone); Leek [2] (Gritstone); Matlock Bath (Gritstone); Pately Bridge (Gritstone); Sedbergh (rock climbing and rambling); St. Ives, for Pendeen and Land's End stations; North Cornwall (granite cliffs); Weeton, between Harrogate and Leeds (Gritstone).

WALES

ABER.—One station short of Bangor on the North-Western, and a useful gateway for the many ridges and miles of mountainous upland between the Carnedds and the sea. One fairly good inn.

ABERGLASLYN.—A few miles from Portmadoc railway station. This rocky gorge leads to Beddgelert, where the traveller enters the valleys round Snowdon.

ARANS (the).—Between Bala and Dolgelly. A mountain generally neglected by climbers, although it has a fine eastern face.

BALA.—A good-sized town at the junction of the lines from

[1] Ambulance and surgical appliances kept at the *Wastwater Hotel*.
[2] Permission to visit rocks required; difficult to obtain, especially in autumn.

Dolgelly and Festiniog, continuing to Ruabon. Is in close touch with the Arans and Arenigs, and is on the shore of a glorious lake, whence flows the 'sacred Dee'.

Bangor.—Climbers can waste their time delightfully at the *George Hotel* at Bangor Ferry, and look at the tide racing through the Straits between meal-times. But they would do better to take the first train to Bethesda or Carnarvon and get away up the hills.

Berwyn Mountains are gentle hills in Merionethshire, full of archæological interest, but nothing else.

Bethesda.—Lord Penrhyn's quarrying village, station 6 miles south of Bangor. The best approach to the north side of the Glyders, Tryfan, and Carnedd David, all within two hours. One good inn.

Bettws y Coed.—A charming place of hill, wood and stream; the train drops you there in three-quarters of an hour from Llandudno Junction or takes you past it to Blaenau Festiniog, as you will. A paradise of tourists, useful to others as being on the road to Capel Curig, Pen y Gwryd and Ogwen. By leaving the train at Llanrwst, an excellent way can be found over the moorlands to Capel Curig (5 miles).

Capel Curig.—This village lies on Telford's road to Holyhead, just where the road to Pen y Gwryd, Llanberis, and Beddgelert strikes off to the south. *Cobden's Hotel* and the *Royal*—both luxurious—harbour many fishermen and a few climbers, who can roam over Moel Siabod on the one side or find harder work on Tryfan or the Carnedds on the other. Snowdon has a grand outline seen from Capel Curig.

Crib Coch.—A delicate *arête*, possessing pinnacles. It ends the long spur of Snowdon which dominates the upper part of Llanberis Pass. In high wind men have been known to revert to the quadrupedal form on its ridges. The western hollow contains two or three steep rotten gullies and one first-class face climb.

Cader Idris.—On the north side there are no nearer inns than at Dolgelly (*Ship* and *Lion Hotels*), which means nearly three miles of road. At the right end of these miles, and almost due north of the climbs leading to the summit, lies Llyn Gwernan, but the hotel at the lake-side was closed this year, which is much to be regretted. On the south side there are good quarters at Tal y Llyn.

Carnedd David.—North of and close to Ogwen Lake, near to which, in Ogwen cottage and farmhouses, good quarters can be found. But on that side the mountain presents only steep slopes of grass and scree, running up to well over 3,000 feet, and a little rock work. Starting from Bethesda and leaving the road on its left side, a couple of miles out, Cwm Llafar can be got at, which is crowned by the fine precipices of the Black Ladders. Good climbing.

Carnedd Llewellyn.—Beyond Carnedd David to the east and connected by a high ridge, this fine mountain extends nearly to the Conway valley. Principally slopes; but the climber will find some happiness in the Cwm Eigiau, lying northward; which he can also reach from Tal y Cafn station on the Conway.

Carnedd Ugain.—The true name for the so-called Crib y Ddysgl summit of Snowdon. Easy cliffs.

Devil's Kitchen.—The heart of the semicircle of precipices surrounding Llyn Idwal, which forms the curtain of rock connecting the Great Glyder with y Garn. Notorious for casualties to climbers, most of them fatal. A stream from the swamps round Llyn y Cwn has worn out the softer rock, and a short climb from below brings the climber over a couple of pitches to a rock chamber, with vertical walls, continually wetted by a 60-foot fall. One crack on the left wall, followed by a horizontal ledge, is the only outlet. It has been shown to be possible three or four times, therefore it is almost too much to hope that men will leave it alone.

Elidyr Fawr.—The ridge, 3,000 feet about, stretching north from the Llanberis slate quarries. No climbing on it except a pinnacle described by J. M. A. Thomson in 1900. The writer has spent some enjoyable hours in trying to find it, and it is certainly *there*.

Festiniog.—The large village of quarrymen at the head of a beautiful valley running down to Portmadoc, which is traversed by a railway of 20 or 24 inches gauge. Hills of moderate height are clustered round it, there are one or two inns, and the climber can get away from it by train either to Bala or Bettws y Coed in about an hour.

Glyders, Big and Little, or Vawr and Vach in Welsh. Pen y Gwryd is sheltered under their southern slopes. Ogwen Cottage is at the foot of their steeper northern sides. Half of the beautiful pass of Llanberis belongs to their western cliffs, and they are rich in buttress and gully work, most of it within the powers of the moderate climber. The stacks on the top of the little Glyder are remarkable and will yield some athletic amusement.

Gorphwysfa.—At the head of the Llanberis Pass. A well-kept inn frequented by boots and very high-class climbers who own them. Full of old oak furniture and other agreeable surprises. Geographically perfect. Dress optional. Can sleep all who come—nominally about twenty. Five miles to get there from Llanberis, five weeks to get away, if you have any taste for the mountains, and for good society.

Llanberis.—Station 9 miles from Carnarvon. Several good inns, and within 3 miles' walk of the Pass, which offer the mountaineer on both sides scrambling and climbing of every degree.

Lliwedd.—The famous group of cliffs on an eastern spur of

Snowdon, which give many climbs of the highest order on their 800 feet of height. To be taken seriously.

Moel Siabod.—A fine hill touching Capel Curig, just under 3,000 feet, with the best view of the Snowdon range. Some good cliff scrambling on the eastern side.

Moelwyn.—This mountain of about 2,600 feet, lies about midway on a fine walk from the Festiniog valley to Nant Gwynant. Three or four miles east of Snowdon as the crow flies.

Ogwen Cottage.—At the lake side, about 5 miles from Bethesda station and 4 from Capel Curig in the opposite direction. Beds for six to sixteen according to taste, and homely comfort. The cottage is close to good climbing on Tryfan and the Glyders, and to wide stretches of mountain walking, much of it over 3,000 feet on the Carnedds. The ill-starred Devil's Kitchen is just above it. There is a good ambulance outfit placed here by the Climbers' Club.

Pen Helig.—The head of a lesser spur of the Carnedd Llewellyn. Pass over it into Cwm Eigiau for the grand climbing on Craig yr Ysfa.

Pen y Gwryd.—Mecca of many a British mountaineer. Possesses a long history faithfully chronicled by the late C. E. Mathews and others. Now remarkable for its interior comforts and other changes, all for the good. Sleeps twenty-five or thereabouts. Lies 4 miles beyond Capel Curig, 6 from Llanberis station. Excellent point for the stony sides of the Glyders, and within an hour of Lliwedd and other good climbs on Snowdon and in the Llanberis Pass.

Quellyn Lake.—Station on Narrow Gauge Railway from Dinas Junction. Ten miles south of Carnarvon. *Snowdon Ranger Inn.* One and a half hours' walk from Snowdon summit. On Garnedd Goch, a mile or so across the valley, some face and gully climbing may be found.

Rhyddhu.—Station on same railway. Two and a half miles from Beddgelert. Starting-point to explore south side of Snowdon, including Cwm Clogwyn, where there is cliff scrambling and moderate rock work.

Snowdon can be reached from Quellyn Lake, Rhyddhu, Beddgelert, Pen y Gwryd, Gorphwysfa or Llanberis, all places offering comfortable quarters to the mountaineer, but the mountain is best approached from the east and north, i.e. from Pen y Gwryd or Gorphwysfa. On those sides are all its best features.

Tal y Cafn.—A station on the railway from Llandudno Junction to Blaenau Festiniog, which is a good starting place for Carnedd Llewellyn or for crossing the ridges to Capel Curig in three or four hours.

Tal y Llyn.—Six miles by road from Towyn station. There are two good little inns on the lake-side, and thence, in an hour and a half, Llyn y Cae, on Cader Idris, can be reached,

and the climber finds himself under the grand cliffs of Craig y Cae and the Pencoed Pillar. The summit of Cader, if he wants to get there, is within about an hour of the lake.

TRYFAN (or Trifaen, three headed).—Connected only with Glyder Vach by a short ridge, this mountain towers over Llyn Ogwen. Its south-eastern side is impressive, rising in a great rock cliff for several hundred feet. There is good sound face climbing, and there are three or possibly four gullies, the central being the longest. Two or three pitches are fairly hard, especially the lowest one in the south gully. The other side facing Nant Francon has some rock on its upper part; altogether Tryfan is one of the best of the Welsh hills.

SCOTLAND

APPLECROSS.—Applecross Mountains. Rambling and rock work.

ARDLUI.—Ben Vorlich. Rambling.

ARROCHAR.—The Cobbler, etc. Rambling and a little climbing.

AVIEMORE.—The Cairngorms. Rambling and climbing.

BALLATER.—Lochnagar. Rambling and climbing.

BANAVIE. Ben Nevis. *See* Fort William.

BLAIR ATHOL.—Ben-y-Gloe, Killiecrankie, Blair Atholl Forest. Rambling.

BRAEMAR.—Cairngorms.

BRODICK.—Arran. Splendid Rambling.[1] The climbing is somewhat unsatisfactory and not suitable for tyro mountaineers.

CALLANDER.—Ben Ledi, Ben Venue, the Trossachs. Rambling.

CORRIE.—Arran. *See* Brodick.

CRIANLARICH.—Ben More and Stobinian. Rambling.

DALMALLY.—Ben Cruachan. Rambling and climbing.

DALWHINNIE.—Ben Alder. Rambling.

DUNDONNELL.—Teallachs.[2]

FORT WILLIAM.—Ben Nevis, etc. Rambling and first-class rock work.

GARVE (or Alguish Inn).—Fannich Hills and Ben Wyvis. Rambling and peak bagging.

GLENCOE.—Rambling and first-class climbing. The best centres are Ballachulish, Clachaig, King's House.

GLENFINNAN.—Rambling.

INCHNADAMPH.—Suilven, Ben More of Assynt, etc. Good rock work and hill climbing.

INVERCANNICH.—Mam Soul, Carn Eige, etc. Rambling and peak bagging.

[1] The A'Chir ridge is for mountaineers only.

[2] These mountains are not for beginners, and most certainly not for solitary ramblers. The difficulty is very often not so much in getting to the summit as in getting down.

Inveroran.—Black Mount Forest. Hill climbing and rock work.
Inversnaid.—Ben Lomond. Rambling.
Killin.—Ben Lawers. Rambling. Climbing on the Tarmachan Mountains.
Kingussie.—Cairngorm Mountains. Rambling and scrambling.
Kinlochewe.—Ben Eighe and Liathach, Torridon.[1]
Kinloch Rannoch.—Schiehallion. Rambling.
Laggan Hotel.—Corrie Arder. Rambling and rock work.
Loch Awe.—*See* Dalmally.
Loch Earn Head.—Ben Voirlich, Stuc a chroni. Rambling.
Lochinver for Suilven.—Delightful rambling and good rock work.
Pitlochrie.—Ben Vrackie, Schiehallion, etc. Hill climbing.
Sligachan.—Skye [1] (*see* pp. 9 and 181). Splendid rambling and climbing.
Spean Bridge.—Aonach Range. Rambling.
Spittal of Glen Shee.—Rambling.
Strathcarron.—Sgurr Ruadh, etc.
Strathpeffer.—Ben Wyvis. Also Garve, q.s.
Taynuilt.—Ben Cruachan. Rambling and scrambling.
Tummel Bridge Inn.—Schiehallion. Rambling.
Tyndrum.—Ben Lui, etc. Rambling.

[1] These mountains are not for beginners, and most certainly not for solitary ramblers. The difficulty is very often not so much in getting to the summit as in getting down.

GLOSSARY

Anchorage : A ledge or other resting place on a climb where a climber can stand or sit with safety, and, if necessary, hold another on the rope.

Arête : A sharp narrow ridge of rock, ice, or snow, at any angle from horizontal or vertical. 'Often used in expressing an ascent up the exposed outside edge of a buttress or pinnacle' (*Rock-Climbing in North Wales*, G. D. and A. P. Abraham).

Avalanche : A considerable mass of ice, snow, or rock sliding or falling down a mountain side.

Backing up: Back-and-foot and back-and-knee work (*see* pp. 138–141. 'A method of ascending chimneys with the back against one side and the foot or knees against the other' (G. D. and A. P. Abraham).

Backing up the leader : Following close behind him and giving such assistance as may be necessary.

Bealach (Gaelic) : 'A pass—generally the lowest part of a ridge connecting two peaks' (G. D. Abraham, *The Complete Mountaineer*).

Belaying Pin or Belay : A projection of rock behind or round which the rope can be passed for greater security. **To belay :** To so secure the rope.

Bink (Cumbrian) : A grassy ledge on a precipitous face.

Bwlch (Welsh) : A pass. (*See* **Bealach.**)

Cache : A hiding-place where equipment and provisions may be left.

Cairn : A heap of stones, built in order to mark a summit, to indicate a route over the hills, or various points on a rock climb, including the commencement.

Chimney : A narrow, more or less vertical fissure in the rocks, wide enough to admit the human body.

Chockstone : A mass of rock that has become wedged between the sides of a fissure. A possible derivation is choke-stone, inasmuch as it chokes the gully, arresting the débris coming down from above. A cave is thus formed below the chock stone.

Clogwyn (Welsh) : A cliff or precipice.

Col (French) : A pass. (*See* **Bealach.**)

Combe : A rounded upland valley enclosed on three sides by a hill or hills.

Cornice : An eave of ice, snow, or rock.

Corrie, Coire (Scotch) : An upland hollow, somewhat resembling a combe, but better defined.

Couloir (French) : A furrow on a mountain side, and very generally a stone-shoot.

Crack : A fissure in the rocks not wide enough to admit the human body.

Crampons : Climbing-irons for the boot. (*See* p. 38.)

Crib (Welsh) : A ridge.

Cwm (Welsh). (*See* **Combe** and **Corrie**.)

Dore (Cumbrian) : An opening between walls of rock.

Edge : In the Lake District, a narrow ridge ; in the Pennines, an escarpment, generally of gritstone.

Face : A precipitous stretch of rock.

Gendarme : A rock tower on a ridge, which bars the way.

Gill : A mountain stream ; a steep ravine or gully.

Glissade : A method of sliding down snow slopes, either standing or in a sitting position. (*See* p. 175.)

Gully : A steep ravine.

Hitch. (*See* **Belaying-pin**.)

Jammed stone : A small variety of chockstone (q.v.) Very often, however, it does not ' choke ' the fissure.

Man : A cairn on a summit ; a summit not necessarily the highest point on the mass. The terms ' High man ' and ' Low man ' are not uncommon.

Nose : ' A buttress of rock, generally slightly overhanging or very steep in its lower part ' (G. D. and A. P. Abraham).

Pitch : ' A comparatively short, steep rise in the rock-bed of a gully, often crowned by a chockstone. Used rather widely to define any serious difficulty that is met with on a climb ' (G. D. and A. P. Abraham).

Piton (French) : A ringed iron spike, sometimes used as a belay. (*See* p. 40.)

Rake : A natural vertical or diagonal passage on the face of a cliff, affording a way to the top. (The fundamental idea being ' reach.')

Rucksack : A form of knapsack. (*See* p. 36.)

Scree : A bank of loose stones lying at a high angle ; the debris of cliffs.

Slack : The loose rope between two climbers. Also, in the Lake District, a depression between two elevations.

Threading the rope : Passing the rope through a space between a chockstone or a jammed stone and the main rock or through a hole in the main rock itself. (*See* p. 151.)

Traverse : Lateral passage across a rock face or mountain slope. The ascent of a mountain by one route and the descent by another.

Verglas (French) : A thin glaze of ice on rocks.

INDEX

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