

THE SCOTTISH MOUNTAINEERING CLUB JOURNAL

EDITED BY J. H. B. BELL



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THE SUMMIT OF STUC A' CHROIN
(How low back lighting brings out the texture of the snow)

D. J. Fraser

THE SCOTTISH MOUNTAINEERING CLUB JOURNAL

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PHOTOGRAPHY FOR MOUNTAINEERS.

By Douglas J. Fraser.

Cameras.

NOWADAYS the mountaineering photographer will in all probability carry a small roll-film camera that adds little to his burden. No longer is it necessary to bear a load consisting of a solidly built field camera, a supply of plates in dark slides and a substantial wooden tripod. Modern equipment will, with little trouble, give results which, if no better, can at least stand comparison with the work of the pioneers. Inferior results are usually due, not to equipment, but to lack of care and thought when making the exposure.

Any type of camera can be used for mountain photography, although some are more suitable than others. Probably the most desirable virtues are lightness, robustness and simplicity of action. A specially fast lens is not needed; one with an aperture of $f/4.5$ should cover all normal requirements. A coupled range-finder is of little advantage, and a number of refinements can well be dispensed with; though one that is perhaps worth having is automatic film transport, or other means of preventing double exposure. It is good to know that there is no risk of spoiling a picture which cannot be repeated by taking another shot on top of it. An eye-level viewfinder showing clearly the exact boundaries of the picture is an essential. The "brilliant" type perched above the lens of a folding camera is of little use. A limited range of shutter speeds is all that is needed—say $\frac{1}{100}$, $\frac{1}{50}$,

$\frac{1}{25}$ sec. and time. Fast speeds are not required except for action shots of ski-ing—a rather specialised subject; and slow speeds are not of much use unless a tripod is carried.

In this connection it is well to remember that violent or sustained effort makes it more difficult to hold a camera steady. The heart will be beating rapidly and the whole body may be trembling, so that exposures of more than $\frac{1}{10}$ sec. with camera held in the hand are unlikely to be sharp. The lack of sharpness may not be obvious in a contact print, but becomes painfully evident in an enlargement. If $\frac{1}{100}$ sec. rather than $\frac{1}{50}$ sec. can be given, so much the better; even at $\frac{1}{100}$ sec. it is surprisingly easy to achieve camera shake. When the camera is held at eye-level both hands must be gripping it firmly, so that it should either have a body release for firing the shutter or a long cable release should be fitted. The short cable releases sometimes issued with cameras are useless.

Probably the most useful size of picture is $3\frac{1}{4}$ by $2\frac{1}{4}$ in. This means that the camera gives eight exposures on the popular 120 or 620 film, and it need not be very bulky to do so. Contact prints of this size are satisfactory to view, held in the hand or mounted in an album, and the dimensions are right for making full-size lantern slides by contact. Some cameras give twelve or sixteen exposures on $3\frac{1}{4}$ by $2\frac{1}{4}$ in. film. Twelve exposures mean a $2\frac{1}{4}$ -in. square picture, which is unsatisfactory for landscape photography. Mountain views tend to be either long or upright in shape, so that to get the best result part of the square picture usually has to be trimmed off. In other words, part of the film has been wasted. Sixteen exposures on $3\frac{1}{4}$ by $2\frac{1}{4}$ in. film give a useful size of picture, similar in relative dimensions to eight exposures on 127 or "vest-pocket" film ($2\frac{1}{4}$ by $1\frac{5}{8}$ in.). The sixteen-exposure set-up has two advantages over the eight-exposure—cheapness, and the fact that twice as many shots can be had before the film needs to be changed. This is sometimes an important consideration on expeditions when time is short or when it is too cold for gloves to be removed for long. Pictures of 127 dimensions or smaller do not

satisfy as contact prints, especially if they are scenic views. The users of these sizes will therefore have to be prepared to make or obtain enlargements from all worthwhile negatives. Sixteen exposures on 127 film give a frame little bigger than that obtained on 35-mm. perforated ciné film, and a photographer wishing to work in this size is probably better to use a 35-mm. camera, which has a number of advantages.

The precision miniature camera, which has been designed to use 35-mm. ciné film, is well suited to the mountaineer, and many experienced mountain photographers use it exclusively. Its chief advantages are: The camera is small in size (though not specially light in weight). When a focal plane shutter* is fitted, lenses of different focal lengths are readily interchangeable. Up to thirty-six exposures can be made on one length of film. Some of the best types of film are at present available only in 35-mm. size. (This applies particularly to colour film.) Miniature lantern slides can be made by contact, and special projectors are made for showing them. Film strips (*i.e.*, positives made by contact on 35-mm. film) also provide a convenient means of projecting pictures on the screen.

Against these advantages must be set the fact that the miniature camera is expensive, since everything has to be made to a fine degree of precision. This is because the negative is so small that large degrees of magnification are required to give a print of any size. For the same reason, the photographer's technique in taking and processing must be first-class. His negative must be dead sharp, correctly developed to avoid grain and free from blemishes. Further, the subject he wishes to show must fill the frame as far as possible, and this is where the interchangeable lenses come into play. Long-focus

* A focal plane shutter is an arrangement of blinds as close as possible to the film, the exposure being made by a slit between two blinds travelling across the frame at a speed determined by the setting of the shutter. These shutters usually have a very wide range of speeds. Ordinary folding cameras have their shutters fixed between the components of the lens.

lenses with a narrow angle of view allow selection of one portion of the landscape—bring it nearer, as it were. Short focus, wide-angle lenses permit inclusion of features from which it is impossible to stand farther away and which the lens of normal focal length would cut off.

Coupled range-finders are incorporated in many miniature cameras and on some larger makes also. These devices give a split image in the view-finder, which must be adjusted till the images coincide in whatever plane is required in sharp focus. This automatically focuses the camera correctly. For the average run of mountain subjects this is not necessary, though it can be useful for close-ups of climbing.

Reflex cameras, either single or twin lens, have the disadvantage to the mountaineer of being bulkier than other types. Their advantage is that the image of the view is projected by a mirror on to a ground-glass screen right way up (but reversed left to right), so that the composition can be carefully studied before exposing. They usually give a square negative, as the finder can be used conveniently only in the upright position. The single-lens reflex, which almost always has a focal plane shutter, shares with the miniature the advantage of interchangeable lenses, and it is worth noting that its ground-glass screen shows the field of view of any lens fitted, whereas the miniature requires an elaborate adjustable view-finder for this purpose.

In a review of cameras the fixed-focus box camera must not be forgotten. It has the advantages of simplicity and cheapness. Its disadvantages are that it is bulky, its lens is usually of poor quality and its one-shutter speed is too slow to be sure of avoiding camera shake. However, used carefully and with a knowledge of its limitations, it can give satisfactory results.

To sum up: The average photographing mountaineer will probably do best with a simple folding camera of sturdy construction giving eight or sixteen exposures on $3\frac{1}{4}$ by $2\frac{1}{4}$ in. film. The expert mountaineering photographer (who can afford it) may prefer a miniature camera because of its greater adaptability.

Accessories.

Whatever the camera, it should be kept in a stout case when taken up the mountains. Some climbers keep their cameras in light purses or waterproof bags, so that they can be slipped into a pocket. That may be all right for hill walking, though there is always the risk of a knock. For rock climbing the camera should be in a case, and if the lens is not protected when the camera is closed, a lens cap should be fitted.

A lens hood should be carried and used on all occasions. Its function is to prevent light outside the field of view from reaching the lens and setting up unwanted reflections that will degrade the image. The light source that will do this most spectacularly is the sun itself, so that it is essential in "against the light" shots to shield the lens from its direct rays. Whatever the direction of the view relative to the light, it is advisable to use a hood, which should have a dead-matt black interior and should mask as closely as possible to the edge of the field of view without cutting off the corners of the picture. It should be possible to fit both the hood and a filter over the lens at the same time, bearing in mind that it is just as important to keep unwanted light away from the filter as from the lens.

Filters are an important part of the landscape photographer's equipment, though their value can be overrated and, used wrongly, they can do more harm than good. Their principal function is to correct the oversensitivity to blue from which normal photographic emulsions suffer. The film renders the blue of the sky (or anything else) too light in tone, and the print is apt to have that "bald-headed" appearance which spoils so many otherwise good pictures. The filter darkens the tone of the sky to correspond more with its visual appearance, with the result that any white clouds present stand out boldly. Usually, quite a pale yellow or green filter will give all the correction necessary; if an orange or red filter is used indiscriminately over-correction will result, with the blue of the sky printing unnaturally

black and the slightest cloud formation giving the effect of an impending thunderstorm. The modification of tones, of course, affects all parts of the picture, though it is most noticeable in the sky. The extent of modification depends both on the type of film used and on the length of exposure. Filters also have "haze-cutting" qualities owing to the fact that water vapour (so abundantly present in the Highland atmosphere) scatters a good deal of blue and ultra-violet light. The stronger the filter used the less this light affects the film, with the result that distant detail may be rendered more clearly; but the sense of distance may be largely lost through the lack of "aerial perspective." Therein lies the chief danger in the use of filters when an artistic result is desired.

Correct exposure is essential for satisfactory negatives, and there are various means of arriving at it. First, there are exposure calculators, by which it is easy to work out, for any given camera stop and for the type of film used, the exposure required according to time of day, month of the year and type of subject (*e.g.*, open landscape with light foreground). Used intelligently, these calculators can be most satisfactory and have the advantage of being cheap and weighing next to nothing.

Exposure meters may be visual or photo-electric. The visual type usually consists of a wedge of graded density through which the subject is viewed. There may be a series of numbers, and the last visible one gives the exposure according to camera stop and film speed. The only snag with these instruments is that the human eye accommodates itself to the light. Thus, a person entering a dark interior could read a much higher number after a few minutes than when he first entered. In practice, however, the mountaineer is likely to be in much the same lighting conditions all the time and such meters can be very helpful.

The photo-electric is the most accurate, the most expensive and the most delicate type of meter. By means of the cell incorporated in it, light is converted into electricity, and the intensity of the light is indicated by a needle moving over a scale. It is thus a really scientific

instrument, but its readings have meaning only when it is properly used. It registers the average amount of light from all objects within its field of acceptance. Point it at the ground and it will give one reading; turn it up to the sky and the needle will bound upwards. Perhaps the scene consists of a dark rock face near at hand and a distant landscape of mountains and clouds. Which is to be brought out? The rock may require ten times the exposure of the landscape, but the meter will give one average reading. In fact, it does not guarantee correct exposure automatically, but has to be used intelligently. Monochrome film has a good deal of latitude, but colour film not nearly so much. A photo-electric meter is therefore almost essential for the colour worker, but not so much for the monochrome photographer. It must also be kept in mind by the mountaineer that a knock or rough treatment can easily upset the delicate balance of the needle.

There are numerous gadgets of all kinds for use by photographers, but the mountaineer is well advised to leave them behind. If he is not prepared to carry a steady tripod (and it is a waste of energy to carry one that is not really steady) he might find a small clamp with a ball-and-socket head useful. This can be used for fixing the camera to the head of an ice-axe, and it is possible to take panoramic views in this way.

Films.

All types of film produced by the well-known manufacturers are of excellent quality. The monochrome types useful to the mountaineering photographer are orthochromatic and both medium and high speed panchromatic. Orthochromatic film is insensitive to the red end of the spectrum. Panchromatic films incorporate dyes which make them red-sensitive. Theoretically, therefore, panchromatic film will give a more truthful rendering of colours, but as all rendering of colour in black and white is to some extent a convention, the point is not very important in practice. Some photographers swear by "chrome" film and consider

that it gives results with more punch than does "pan" film. One disadvantage is that filter factors are higher. For example, a yellow filter might require double the exposure on pan film but three times on chrome film. Red filters cannot be used with chrome film, as they pass only that light to which the film is insensitive. Chrome film is, generally, rather faster but coarser in grain than medium-speed pan film, being similar in grain to the still faster high-speed pan film. The question of grain, however, is of interest only to the miniaturist.

Medium-speed pan film is fast enough for exposures of, say, $\frac{1}{100}$ sec. at $f/8$ with a light-yellow filter for normal landscapes in summer and spring. It can give very fine grain, high resolution, faithful colour rendering and good contrast. In winter the photographer who does not wish to or cannot work at a larger stop than $f/8$ may be better to use high-speed pan film to avoid the risk of camera shake at slower shutter speeds. This film does not possess to the same degree the virtues attributed above to medium-speed pan film but it has more latitude; that is to say, mistakes in exposure are less likely to be disastrous. As a rough guide it can be taken as being two to four times as fast.

Lighting and Composition.

Armed with his loaded camera and accessories, it only remains for the mountaineer to decide what to photograph. The answer at first seems obvious—mountains; but it has to be remembered that the visible world manifests itself by the way in which it reflects light from its surface. So the lighting is as important as the subject. The light comes from one source—the sun, which is constantly changing its position. It may cast hard shadows on a clear day, or soft ones when the light is diffused by water vapour; or the light may be so diffused by cloud as to cast no shadow at all. Now shape is revealed as much by shadow as by light, so that a dull day when, as we say, the sun is not shining is usually unsuitable for landscape photography.



ON THE CARN MOR DEARG ARÊTE
(Looking to the Mamores ; the effect of a figure on a mountain landscape)

D. J. Fraser

The problem, then, is to be in the right place at the right time and in the right lighting. Given Highland weather, this would be a pretty hopeless proposition were it not for the fact that there are a great many right places among the mountains. Although a photographer might go again and again to a particular spot without ever finding conditions right, in suitable weather plenty of opportunities for photography will arise. These unexpected chances, caused by the often rapidly changing mountain weather, have to be seized as soon as they are presented; for a particular light effect may last only for seconds. Therefore, the camera should, whenever possible, be carried so that it can be brought into action at once; if it is buried in a rucksack the chance may be lost. The very uncertainty of mountain weather makes for striking effects, and it is sometimes worth while making more than one exposure to capture the best of these dissolving views.

Although suitable days for photography may occur at any time of the year, springtime is the season when they are most likely to be found. In spring there are fewer hopeless days. Even when a day starts badly there is the chance that the clouds may break at any moment. So the camera should not be left behind just because the morning is bad. Moreover, in spring the snow on the tops makes photography easier, since it picks out distant peaks clearly and adds dignity to the most ordinary summit.

There are three types of lighting—frontal, side and back. When the sun is behind the photographer's back it is shining frontally on the subject which thus shows very little shadow. This is apt to give an uninteresting result without much sense of distance. A side lighting is the most generally useful type, as it gives an equal amount of light and shade and shows the maximum of detail. When the camera is pointed into the light the subject is mostly in shadow with the edges illuminated. This subdues detail and gives good recession of planes, so that back lighting is sometimes useful for pictorial effects. It gives a dramatic rendering of clouds,

which appear dark with a silver lining. Care must be taken that the lens is shielded from the direct rays of the sun.

Of course there are an infinite number of variations between these main types of lighting. The sun can be high, giving a top lighting with little shadow, or low, when it throws long shadows. It follows that morning and evening give more interesting results than noon. Often mountain sides and rock faces will be lit by the sun only at certain times of the day, and this should be kept in mind by the photographer when planning an expedition.

When snow is present in the foreground or middle distance, particular care should be taken to see that the light reveals its texture. Without sunshine or with a flat, frontal lighting the snow areas will appear as blank, grey or white patches on the print, giving little suggestion of snow. Low side-lighting will give good detail and back-lighting will give even better, since each surface grain will appear dark with a halo round it. Snow can be invaluable in lightening foregrounds and keeping the total contrast range of the subject within the limits of the printing paper.

The problem for the photographer is to give the impression, on the surface of a small rectangle of paper, of a view that may extend for many miles in depth. This can be done by perspective, by recession of planes and by the lines of the picture. If a tree or a house is included we can judge the distance by its relative size in the picture, but many mountain views contain no objects of easily recognisable scale, so that we depend largely on recession of planes. This is the gradual flattening out of tone contrasts into the distance, due to the presence of atmospheric haze. This "atmosphere," so prevalent in the Highlands, is therefore a valuable ally in picture-making. Its absence explains why, sometimes, Alpine peaks of much larger size do not look as impressive as our own mountains. The line of a stream or a road running into a picture will help to give an effect of depth, as will the inclusion of a prominent object, such as a rock or a

human figure in the foreground. Care must be taken, however, not to dwarf the distant mountain if it is the main subject of the picture.

The photographer should not be too obsessed with so-called rules of composition, but arrangements of subject matter that are awkward should be avoided. Lines leading the eye out of the picture and straight lines cutting right across it should be avoided. That is why views across a loch from a low level are difficult to compose. The centre is the weakest point in the picture space and should not contain the centre of interest. Intersections of thirds are considered the strongest points. The horizon should not divide the picture into equal areas of sky and ground; one or other should predominate.

As regards the vexed question of the inclusion of the human figure in mountain landscapes, this is largely a matter of personal taste. Some feel that a figure is an intrusion on the solitude; others that it provides a link with the everyday world. Compositionally, a figure can be very useful, though, wrongly placed, it can ruin the picture. The "human interest" should never, if at all close at hand, face the camera, or the result is a portrait. He should not be too near the camera nor be placed right in the centre, but to one side or other. On a sloping hillside, where the eye tends to slide out of the picture a figure can provide a useful stop. It is well worth while to study the photographs of that great pioneer, Vittorio Sella, as his use of figures in mountain landscapes has never been surpassed.

Action photographs of climbing, of course, come into a different category; here the figures are the main interest of the picture. The problem on a rock climb is to make the figures show up. They will be more prominent when wearing light clothing. On snow climbs this difficulty does not arise. As a general rule, the photographer should be on the same level as the climbers he is taking: pictures taken from above or below seldom come off except as stunts. This means that the photographer has to be in a separate party or perhaps on a separate climb

from those he is photographing. If he can catch the figures silhouetted against the sky or the distance he will often obtain an effective result. Another method of securing striking results is to photograph climbers on a pinnacle isolated from the main mass of the mountain. When in a roped party the keen photographer must always remember that his first duty is rope management; and photographs can be obtained only when he is not supposed to be doing something else.

General.

Once the latent image has been impressed on the film it has to be developed, fixed, washed and dried. From the negatives thus obtained prints can be made, either by contact on gaslight paper or by enlargement on bromide or chloro-bromide paper. Alternatively, lantern slides can be made either by contact or enlargement. Excellent treatises on all these processes can be obtained, and there is no point in going further into the matter here, since the technique is the same for the mountaineer and the plainsman. Of course, all processing can be done professionally and done well, but anyone who wishes to achieve the finest results will do his own. Only so can he impress his own individuality on the results he produces. The beginner is advised to standardise his technique as much as possible, using one type of film and one developer until he knows how to produce the results at which he is aiming.

The lantern slide is a particularly suitable medium for the mountain photographer. A small rectangle of paper seldom does justice to the original landscape, but a large picture projected on a screen can give a very satisfying impression, especially if it reveals the long range of tones which it is possible to obtain by transmitted light, but which cannot be reproduced on paper. The art of good lantern-slide making is at present at a low level, but anyone who takes the trouble to master this field of photography will find his reward not only in his own satisfaction but in the pleasure he gives to others.

Colour Photography.

Colour photography is a specialised branch that is constantly increasing in importance and will continue to do so as technical advances are made. Though colour film can now be obtained in larger sizes, most of it is on 35-mm. stock and colour photography is principally the field of the miniaturist, partly because the expense is considerably greater than that of monochrome photography and is apt, in larger sizes, to be prohibitive for the amateur. Also, colour film is considerably slower in speed than monochrome and is therefore suited to the miniature camera with its relatively larger lens apertures. Besides being slower in speed, colour film has considerably less latitude, so that quite small errors of exposure affect the result. Anyone meaning to go in seriously for colour work is therefore well advised to obtain a photo-electric meter. He should also make sure that his lens is fully colour-corrected, otherwise he may be unable to obtain sharp results.

Unlike its black-and-white counterpart, colour film is not intended to produce a negative, but is manufactured and processed so as to produce a positive transparency without any further stage being required. There is a variety of makes, each of which has its special characteristics which the photographer must find out for himself, also the effects of over- and under-exposure and the use of filters. In general, under-exposure produces a dense transparency with degraded colours, over-exposure a thin one with bleached or faded colours.

The principles regarding arrangement of subject matter apply as much to colour photographs as to monochrome, though photographers are apt to forget this in the first flush of enthusiasm. It is the case, however, that subjects which would be very dull in monochrome may be quite acceptable in colour, and the process is, in many ways, ideal for recording scenery. The subject which is a riot of colour is not always the best, and snow scenes, which might be thought peculiarly the domain of the monochrome worker, can make beautiful colour

pictures with all their delicate shades of blue and green.

The colour transparency is seen at its best when projected on to a screen. All that is required to make a lantern slide is to bind the transparency between two cover glasses. Special projectors with their wider-angle lenses are better for showing miniature slides than lanterns intended for the larger size of slide. As illustrations for a lecture a set of good colour slides cannot be surpassed, and the Club is fortunate in having a number of members whose technical skill and artistic feeling enable them to produce colour pictures of outstanding beauty and interest.

Albums, Books.

Many mountaineers will wish to mount their photographs in an album, and it is worth while giving some thought to the arrangement of the prints on the page. A pleasing variety in arrangement and titling should be aimed at, with upright and horizontal prints mixed. Mounting should always be done invisibly on the back of the print; fancy corners ruin the appearance of an album. A loose-leaf album permits a much better arrangement of the contents when later additions come to be made.

There is a large library of books dealing with all aspects of photography, and a great deal of time can be spent studying its theory. One day's intelligent practice, however, will teach a great deal more. Mountaineers wishing a textbook are advised to refer to "Mountain Photography," by C. D. Milner. This is an admirable volume covering all aspects of the subject, and is likely to remain the standard work for a long time.

THE FORGOTTEN CORRIE AGAIN.

By C. M. Dixon.

SINCE the war many new climbs have been made in the Cuillins, and some of these routes are beginning to gain the popularity they deserve. Such routes as Double Doom, Integrity, Deep Gash Gully, Cioch Grooves, as well as some of the fine routes of the 1930's like South Gully of the Slabs and Amphitheatre Wall, to mention only a few, are being visited more often by climbers and are now becoming as popular as the more classic routes of Skye.

My article in the 1952 *Journal* drew attention to the impressive cliffs of the Coireachan Ruadha, and the routes of Fluted Buttress, Crack of Dawn and Hourglass Crack have been visited quite frequently since then. Last year this area yielded some more fine routes to Tom Patey and Bill Brooker, who climbed the buttresses of Sgurr na Banachdich which faced into the Coireachan Ruadha, and also visited the "Bealach Buttress" cliffs, making a route (Thunderbolt Shelf) which skirted the huge "unclimbable" wall of this buttress which towers over Rotten Gully. Their routes, which were described in the 1954 *Journal*, have added greatly to the climbing interest of this area and have opened up hitherto untouched buttresses—fine exploration as well as fine route-making.

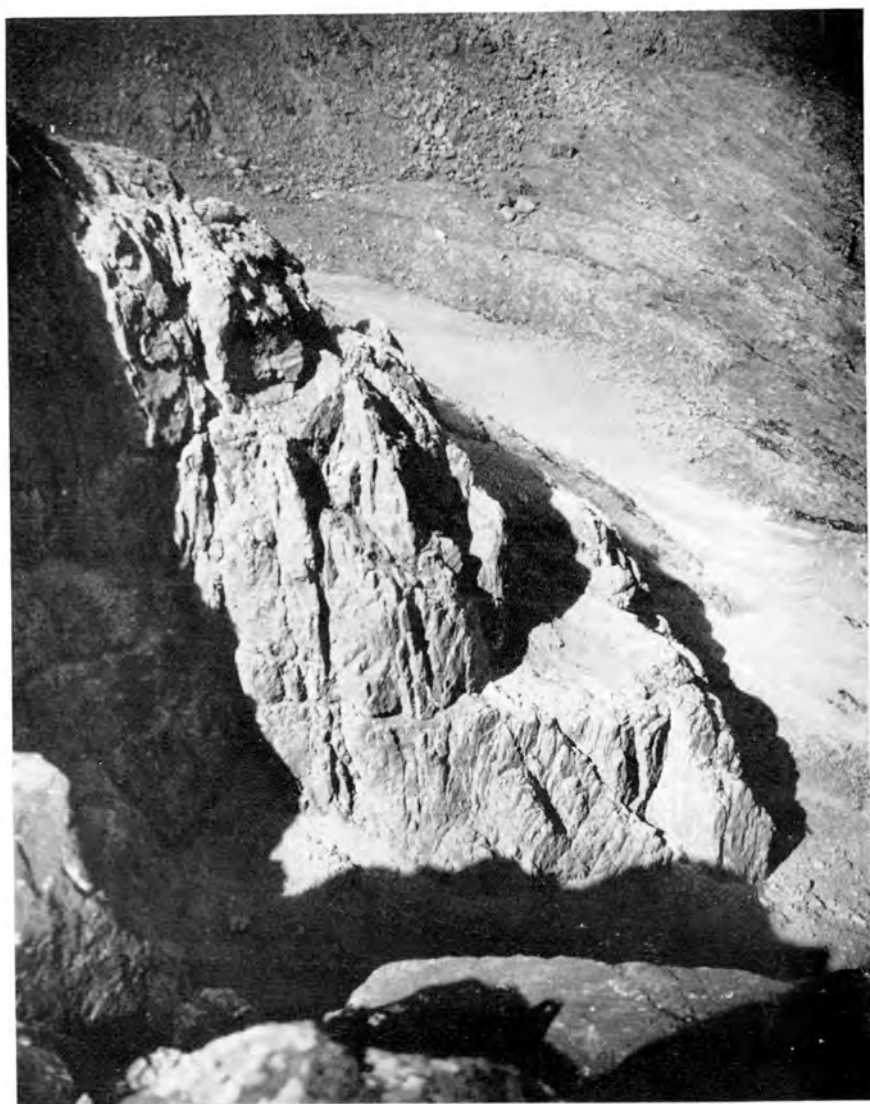
In June 1954, after a long spell of climbing inactivity, I spent five days of glorious weather in Glenbrittle, and was able to visit the Coireachan Ruadha on three of these days, with results which, due to a combination of good luck and glorious weather, were far beyond my expectations.

I had intended, on my first day out, merely to visit Bealach Buttress and perhaps climb Hourglass Crack again, but once under the cliffs I was drawn irresistibly to the foot of the gigantic black chimney which divides the climbing cliffs of Bealach Buttress from the sheer wall flanking Rotten Gully on the north. I had tried the

chimney four years ago on a cold rainy day, had been repulsed on the first steep section and had retreated to climb Hourglass Crack instead. Now, despite the dry conditions, it still looked black and forbidding, but after viewing the route carefully from a few different angles I estimated "one hard pitch near the foot, perhaps another hard bit above that, then the rest will be interesting, but only about very difficult standard." Three hours later John Monk and I climbed out of that chimney with a different story—pitch after pitch of hard, exacting, strenuous and impressive climbing, with steepness of the kind that looks deceptively "only vertical" until, face to face with it, you find that it overhangs. Relying on tricounis I climbed all but the last pitch: then, faced with a really steep and smooth chimney, I exchanged my boots for my companion's vibrams before I led it. Even then the pitch was hard enough and probably the crux of the climb, and although it would have "gone" in nails, I was happier in the more reassuring grip of vibrams. We named the climb "Black Cleft," a truly descriptive title.

Elated by our success and the continued fine weather, John and I returned to Bealach Buttress the next day. Our objectives were the two main faults still unclimbed on the buttress, two huge fissures which sprang from the Arrowhead at the foot of Hourglass Crack and crossed each other half-way up the face. Warned by our underestimate of the previous day, we realised that neither of these routes would yield easily, and we picked the easier-looking one for our first attempt—The Bow. The names had already forced themselves upon us, for the curving line of one fault was like a bow-arched back, with Hourglass Crack as its bowstring, while the other—Lost Arrow—seemed like an arrow which the archer had placed across the bow and then let slip out of its place on the bowstring.

The Bow proved a really enjoyable climb, on pleasant rock and (as all the best guide-books put it) "with some fine positions." The steep overhanging crack gave some fine technical climbing, delicate and strenuous at



1951

THE CLIFFS OF BEALACH BUTTRESS

(Coireacinn Ruadha, Skye, taken from ridge south of 2595-foot col)

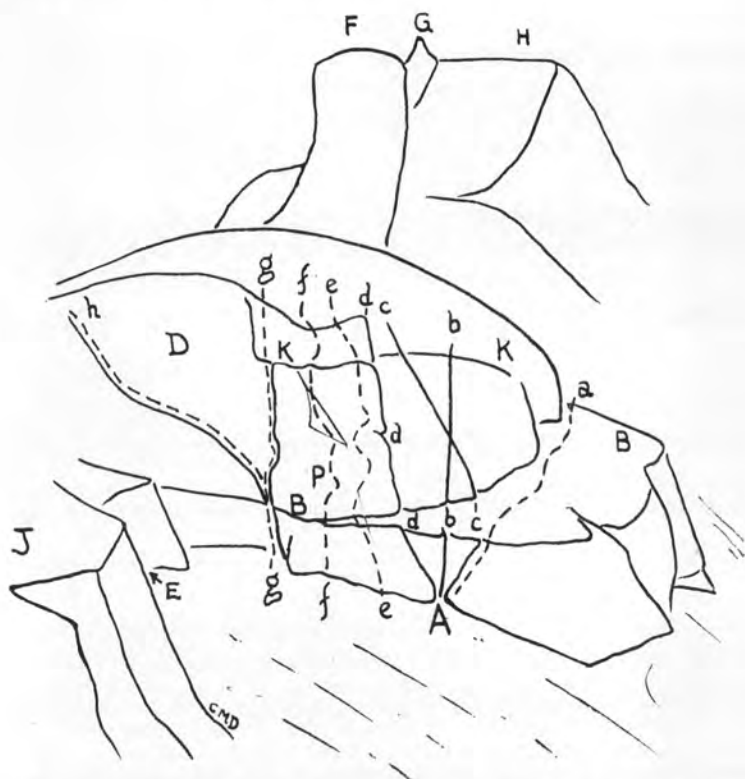
C. M. Dixon

the same time. It was not won easily. Once more I borrowed John's vibrams for this pitch, and he followed in gym shoes. Above the overhang the crack continued up the corner of the large clean slab which had attracted our interest from below, and soon led us to the Upper Terrace, with the deep recesses of Hourglass Crack on our left. This route completed, and the day not yet spent, we returned to the foot of the buttress and tried the other crack. It was growing rather late, but our muscles had been stretched by the last route, and we raced up Lost Arrow—although the route was no easier than the previous ones on the buttress.

It did not take long to climb the section below the Lower Terrace, then up and across The Bow below its hard pitch, to where the chimney reared steeply above us. It looked difficult and I had half decided to turn back, but something kept us going. Sixty feet up this steep part, after a pitch that was no walk, we found ourselves in a little mossy cave behind a massive jammed block, shaped like a huge arrowhead, which barred the way above and projected outwards into dizzy space. I saw that we would have to climb down and out between the walls of the chimney, and somehow get on to the projecting point of the block, then climb up and over it, back into the chimney above. This I did not relish, nor did we wish to retreat. I saw a small hole behind the block at the top of the cave, offering a slim chance of escape. I was not slim enough, however, for the through route, but I managed to thread a loop of our rope through the hole so that it hung down outside the block. Then, by climbing down, out, and below the block, I was able to reach this loop and tie on to it, to have its protection while I surmounted the chockstone. The rope manœuvres had been difficult, the position was spectacular, swinging past the block over airy space, but the climbing itself, fortunately, proved fairly easy.

The pitch above, leading out of the steep chimney to escape on the left, was hard, with a series of moves culminating in an awkward pull-up over a block, which John regarded as the hardest move he had ever made,

although I personally felt that some of the pitches on The Bow and Black Cleft had been harder. Even in these dry conditions there was some grease in Lost Arrow, and I was glad to wear nails throughout the climb. John,

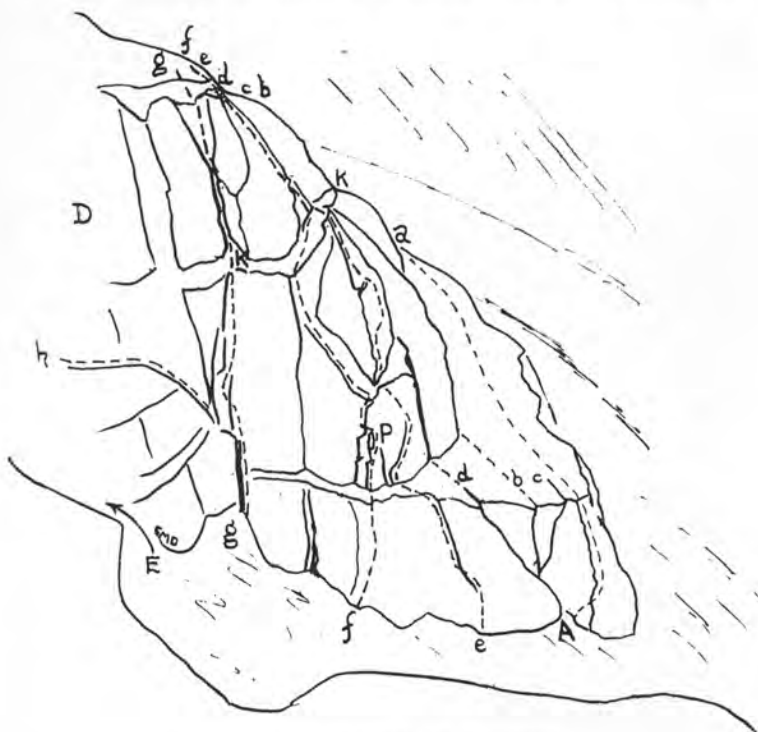


THE ROUTES OF BEALACH BUTTRESS FROM SGURR COIRE AN LOCHAIN.

(See key.)

in vibrams, had less fun. The finding of the huge arrow-headed chockstone, and our rope tactics in surmounting it (faintly reminding us of that American epic ascent of The Lost Arrow), confirmed our choice of a name for this climb. How often are climbers fortunate enough to find three different reasons for giving a route one particular name?

On the third day some members of the Climbers' Club had arrived, and I beguiled one of them, Roger Cra'ster, over the ridge to Bealach Buttress with the promise of



THE CLIFFS OF BEALACH BUTTRESS.

Taken from a point on the ridge of Sgurr MhicCoinnich, just south of the 2,595-foot col. (See key.)

The photograph is taken from the main ridge of Sgurr MhicCoinnich, from a point just south of the 2,595-foot col. (Taken in 1951 by C. M. Dixon.)

One diagram is a tracing of this photograph.

The other diagram is copied from photographs taken from Sgurr Coire an Lochain, and is, in effect, an enlarged portion of the diagram of "The Cliffs of Coireachan Ruadha from Sgurr Coire an Lochain" in the 1952 *Journal* and the 1954 "Skye" Guide.

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|--------------------------------------|--|
| A, The Arrowhead. | aA, Line of approach from Bealach Coire Lagan. |
| BB, The Terrace (Bealach Buttress). | Abb, Lost Arrow. Very Severe. |
| D, The "unclimbable" wall | Acc, The Bow. Very Severe. |
| E, Screes below Rotten Gully. | Add, Hourglass Crack. Very Severe. |
| F, An Stac. | ee, Gemini. Very Severe. |
| G, Inaccessible Pinnacle. | ff, Pinnacle Face. Severe. |
| H, Summit of Sgurr Dearg. | P, The Pinnacle. |
| J, The Terrace (Sgurr MhicCoinnich). | gg, Black Cleft. Very Severe. |
| KK, The Upper Terrace. | gh, Thunderbolt Shelf (Patey and Brooker). Very Difficult. |

The above key applies to both diagrams.

some pleasant, not-too-exacting climbs for the first day of his visit. We turned to the broad, flat, fairly steep buttress which lies between Black Cleft and Hourglass Crack. Closer inspection showed that this buttress is divided into two by a shallow central gully, and we were attracted by a pinnacle half-way up the left section of the buttress. The result was Pinnacle Face, a very enjoyable climb, and not too "serious." The next climb we tried—Gemini—lay up the steeper right-hand section of the buttress, and proved to be a much more serious undertaking than we had bargained for; it was enough to make us feel content with our day on Bealach Buttress.

The next day was spent on an unsuccessful attempt on a route elsewhere, followed by a long ridge walk, so that on the last day—spent on Sron na Ciche—I reached the top of Cioch Direct exhausted. The fine weather had given us no break, and I was tired out by the previous days of continuous climbing. In contrast, I returned to Skye for a week in early August and, despite ambitious plans, never set foot on the hills because of continuous rain.

Technical Notes on New Climbs on Bealach Buttress, June 1954.

Black Cleft (400 feet, Very Severe).—The route follows the deeply cut crack or chimney which separates the other climbs of Bealach Buttress from the "unclimbable" wall on the left. Start from the screes at the foot of the cleft, below the Terrace (which is almost non-existent on this part of the cliff). The first 80 ft. gives easy scrambling with a little chockstone pitch leading to a platform. Climb the steep narrow awkward chimney above, passing a chockstone at 25 ft., to a ledge at 50 ft. The chimney above is steep, but climb the broken wall on the immediate left. Steep, delicate climbing on loose rock for about 50 ft., then follow an easier section which steepens after 40 ft., going over an awkward slab in the chimney to the foot of a small chockstone overhang. It is possible to escape from the cleft hereabouts, towards the Upper Terrace on the right, but once embarked on, the upper section allows no escape. Climb the O.H. above to a jammed block belay, whence another short strenuous O.H. is surmounted. Continue up the chimney over a large doubtful jammed block to a chockstone in the recesses of the cleft. A final

steep 60-ft. pitch goes straight up the steep chimney ahead until it is possible to climb out on the left wall and up to the top. A strenuous and exacting route. Every pitch has interest and severity. Climbed in dry weather in boots and vibrams in $2\frac{1}{2}$ hours by C. M. Dixon and J. E. Monk, 3rd June 1954.

Pinnacle Face (450 feet, Severe).—A very pleasant route on clean rock. The climb aims for a pinnacle on the face of Bealach Buttress. Start at a cairn on the screes, half-way between the foot of the Arrowhead and Black Clef. A hundred feet of easy climbing, following a shallow small crack leads to the Terrace. Climb the clean crack in the face above, runners available, then traverse rightwards across the foot of the Pinnacle to a stance in its right corner. From the top of the Pinnacle, step back left into the crack and up it to a ledge, then up the easier face of the buttress above, across a grass patch and up the short steeper wall behind, climbing to the right of a basalt fault. This leads to the Upper Terrace, after about 200 ft. of climbing from the Pinnacle. The steep wall above is not climbed direct, but its edge about 40 ft. to the right gives pleasant climbing to the summit slopes. Climbed in dry weather in vibrams in $1\frac{1}{2}$ hours. R. Cra'ster and C. M. Dixon, through leads, 5th June 1954.

Gemini (500 feet, Very Severe).—Start immediately to the right of a shallow broken groove on the flat face to the right of the Arrowhead recess. Cairn. Pleasant climbing up the slabby face to the right of the groove leads in 150 ft. to the Terrace, with belays at intervals. Cross the Terrace, to use an inserted chockstone belay in a crack in a corner. Start climbing 15 ft. to the right of this crack, following an obvious rightward rising traverse, then back leftwards to a small terrace, after 100 ft. of severe climbing. The next 100 ft. is the most exacting section. From two shaky pinnacles step on to the face and climb to the foot of a steep groove; traverse right on to twin cracks (visible from the screes below) on the steep section of the face. Climb the right-hand crack with difficulty to an easier section, then up the left-hand crack to a belay on the left. A good 60-ft. pitch follows. Climb the pinnacle immediately above the belay to its top, then up the face beyond to the top of the right hand of twin pinnacles and up over another pinnacle to the Upper Terrace. A hundred feet of easy climbing up the buttress above leads to the summit slopes. Clean, rough rock. Climbed in dry weather in vibrams in $1\frac{3}{4}$ hours by C. M. Dixon and R. Cra'ster, through leads, 5th June 1954.

Hourglass Crack (the next route to the right).—The original ascent used the centre crack of the Arrowhead to reach the Terrace. As this crack is not structurally a part of Hourglass Crack, but is really a continuation of Lost Arrow, and is now used for the start of that climb, it would perhaps be better if the easier crack on the left were used to start Hourglass Crack, as geologically this left-hand

crack is part of the fault of Hourglass Crack. Other parties who have climbed Hourglass Crack report it as Very Severe. Perhaps it was undergraded in my 1952 Journal account, and the grading should be raised.

Lost Arrow (350 feet, Very Severe).—There are four main pitches—all serious. (1, 80 ft.) Climb the centre chimney of the Arrowhead, past a few awkward chockstones, and climbing the final few feet on the left wall. Cross the Terrace to the same fault which continues as an easy grassy, broad crack for about 80 ft. Cross The Bow, until a belay in a wet cave in the steeper chimney above is reached. (2, 60 ft.) Up the chimney, usually mossy and wet, to a belay in a cave below a large pointed chockstone. (3, 30 ft.) Climb down, out, and round the chockstone, and over it to the foot of another overhanging section. (4, 50 ft.) Climb the O.H. above on the left and continue to the top of the crack. The fault-line finishes on the grassy Upper Terrace near the start of the easy crack at the top of The Bow. It is possible to finish by climbing this, or to climb the face straight ahead. This gives some good climbing on friable rock with some unexpectedly awkward moves. Scrambling leads to the summit. A route of character, Needs dry weather. Climbed in nails, dry conditions, in 1½ hours. C. M. Dixon and J. E. Monk, 4th June 1954.

The Bow (350 feet, Mild Very Severe).—Start—the right-hand crack of the Arrowhead. (1, 60 ft.) Pleasant climbing using the crack and slab on the right. Walk across the Terrace to the right hand of two faults which cross the cliff above. (2, 40 ft.) A short steep chimney—greasy. Follow the fault, crossing Lost Arrow, to where it becomes an overhanging crack which bifurcates higher up and leads to a large isolated slab. (3, 50 ft.) Climb this crack. Hard. (4, 70 ft.) Continue pleasantly up the slab by the crack in its right corner, which steepens near the top. (5, 100 ft.) Scramble to the Upper Terrace, with the deep-cut section of Hourglass Crack nearby on the left, passing a weird rock bridge on the left. (6, 150 ft.) Climb the broad easy-angled crack above the Upper Terrace to the top. A pleasant route as a whole, with one very exacting pitch. Climbed in dry weather in vibrams in 2 hours. C. M. Dixon and J. E. Monk, 4th June 1954.

Approaches.—Despite the note in the 1954 "Skye" Guide about the approach from the 2,595-ft. col via Rotten Gully, I definitely do not recommend this approach. It is far better to leave the main ridge at the true Bealach Coire Lagan, 2,655 ft., and scramble down loose grass and boulder slopes, passing many outcropping basalt dykes, descending first rightwards (southwards) then back left (northwards) and down a 6-ft. rock wall on to a scree fan. From the ridge do not follow the actual screes, as they lead one too far under An Stac. Once on the scree fan, traverse southwards across scree, under broken

rocky slopes, descending gradually until on the Terrace which sweeps round Bealach Buttress. From here climb down to the foot of the Arrowhead. I give this in detail, as, if adhered to, this is a good approach, whereas any others are awkward.

The Upper Terrace is a grassy band which crosses the cliff, rising from the Terrace and sweeping up leftwards to end at Black Cleft. It is possible, but not advised, to descend from the Upper Terrace by following it down to the right and finally descending over much steep loose stuff to the Terrace.

The best climbing is found on the band between the Terrace and the Upper Terrace, but all the routes on the buttress follow natural (usually structural) lines which continue through both the Terraces.

NOTE.—Fluted Buttress, Sgurr Mhic-Coinnich. Most parties who have climbed this route regard it as very severe instead of the original hard severe, and find the first overhang to be the crux. On our first visit Bill Brooker and I were so overawed by the character of the cliffs themselves that we must have failed to notice the technical difficulty, hence the undergrading. [What matter: can anyone be sure? Remember the fate of the Grépon—an easy day for a lady!—ED.]

ATTEMPT ON USHBA

(From the unpublished Diaries of Harold Raeburn.)

FOREWORD BY THE EDITOR.

WE are delighted to be able to include in this number of the *Journal* one of the most dramatic accounts of the many distinguished mountaineering expeditions of that famous guideless partnership consisting of Harold Raeburn and W. N. Ling. After Raeburn's death in 1926 his diaries were left in the keeping of his friend. In any case, the *Journal* did not print climbing articles outwith Scotland. Now the diaries, since Ling's death, have been left to the Club, and this story can be told in the pages of the *Journal*.

The partnership climbed in the Caucasus in the summers of 1913 and 1914, but the expeditions of the latter year were cut short by the outbreak of war. In 1913 there was a third S.M.C. member in the party, J. R. Young, and also a young Russian, Martinson, who took part in the Ushba climb. A brief note of the 1913

expeditions will be found in the *Journal* (13, 47). The travel, that year, extended over 300 miles; seven mountains were climbed and many passes crossed. Five of the mountains were first ascents and some were very difficult—Tur Choch, Ullar Choch, Tschantschachi Choch (which took 45 hours) and Nuamquam (three peaks). After the attempt on Ushba they climbed Elbrus, the highest Caucasian peak (18,500 feet), which, being made of lava and not granite gneiss, was relatively easy. In 1914 they climbed four new peaks.

It should also be remarked here that when Raeburn draws comparisons between the difficulties met with on Ushba with those on certain Alpine peaks, he knew from previous experience exactly what he meant. Ushba, though only 15,400 feet in height, is an extremely formidable mountain by any and every route. Its climbing history proves that. The interested reader may refer to R. L. G. Irving's "Ten Great Mountains" (Dent, 1940), which devotes a chapter to Ushba. There is good reason to believe that, since 1930, at least one all-Russian party has ascended it, but very little is known of its more recent history.

It is a double-headed peak, the north and south summits, nearly equal in height, being linked by a snowy saddle. The north peak was first climbed by J. G. Cockin with Ulrich Almer in September 1888 by the steep snow and ice couloir leading up the east face to the snow saddle. They were fortunate in getting good snow conditions. There were about twenty unsuccessful attempts on the south peak before 1903. In July of that year W. R. Rickmers led a guideless party to the assault (W. R. Rickmers, H. Ficker, his sister and A. Schulze). The ring of cliff guarding the summit slopes between the south-east and south-west angles was so severe and formidable that three nights were spent out, and the subsequent retreat was enforced by a serious accident to Schulze who was leading. The others got him down, however.

Another German party followed on (Helbling, Reichert, Schuster and Weber). Schulze, now recovered,



USHBA FROM THE SOUTH-WEST

(North Peak (left), South Peak (right). The Raeburn-Ling party were climbing on the wall *behind* the North Peak. The glacier in photograph is the Ushba Glacier)

went with them. They gained the summit by the route which he had pioneered. They, too, were forced to bivouac high up on the descent.

It was a famous year on Ushba. Yet another German party came along in early August 1903—Messrs Pfann, Leuchs and Distel—intent on traversing both Ushba peaks in one expedition! And they actually succeeded, but had to bivouac on four consecutive nights. On the third day they gained the summit of the north peak. The next day was nearly all taken up with the traverse of the alleged snow saddle between the two peaks, in the course of which Leuchs dropped the provision sack. The difficult south peak was climbed next day on a small ration of chocolate, and they then descended by Schulze's route, which was well marked by abseil slings.

A 1929 German-Russian party, one of whom I later met, told me that they were forced to bivouac three nights, and that the climbing was exceedingly difficult.

It was not too easy to decipher parts of Raeburn's diaries, written partly in ink and partly in pencil. Ling wrote a brief account of the achievements of the 1913 expedition for the *Alpine Journal*, but it contains very little detail of the Ushba attempt. The version here given is necessarily condensed, and the Editor is much indebted to Mr J. F. A. Burt for most of the work. Here and there he has relaxed the austerity of the summary and included more of the diary—for it is certainly a dramatic story, even if they did not succeed in climbing Ushba.

ON the 12th of August 1913 the party reached Betsho, the local centre of government. On the following day we engaged Muratbi—now somewhat old-looking . . . yet a tireless walker, whose "guide's book" went back to the early nineties, and included the names of Caucasian pioneers, personal friends of our own—to act as porter as far as a bivouac below Ushba. Young elected to remain, on photography bent, at Betsho; so the climbing party consisted of Raeburn, Ling and Rembert Martinson, an

18-year-old Russian. On the 14th we set off, accompanied by Muratbi and two horses. The walk along the main valley, and up the steep, tree-clad banks of the Gulba glacier stream to the highest hamlet, Gul, (6,370 feet) was pleasant but uneventful. We were entirely unloaded: our horses, on a good track, easily took everything. The one and, I think, the only drawback to guideless climbing is the necessity of carrying loads.

Presently we arrived at a small grassy flat where slight walls of stone and the marks of many fires made it unnecessary for Muratbi to inform us that it was the usual camping place whence two successful assaults and the other twelve or fifteen unsuccessful ones on Ushba had been delivered.

At 2 P.M. we reached a suitable site for a bivouac, the top of a little scantily grassed ridge just under the high left moraine of Gulba Glacier where a merry little trickling stream prattled down. The height was 9,200 feet. The tent was set up, our three days' provisions unloaded, and Muratbi sent down with the horses, to return two days later. He emphatically refused our chaffing offer to take him with us, although (or because ?) he had once spent a night with Herr Ficker at nearly 14,000 feet on the south peak. In the afternoon I climbed to a height of about 10,200 feet on the rocks of Gulba to reconnoitre.

Ushba, from the south-east, takes the shape of a great cathedral with two towers of equal height at either end. A couloir, surely one of the greatest in the world, of very steep snow with a hanging glacier extends between the huge buttresses of the towers, which are connected some 500 to 800 feet below their tops by a narrow corniced arête, mostly ice. A more unpromising and frightfully dangerous access to a peak than this couloir I have never seen. At this hour the whole space between the peaks was almost ceaselessly alive with falling stones and ice-avalanches. Moreover, from the ominous glitter of the steep slopes, it was obvious that the greater part was composed of bare ice. It would have meant days of step-cutting to ascend it, and for most of the time the party would have been exposed to almost certain

destruction. An attack at this season on the couloir route was wholly unjustifiable.

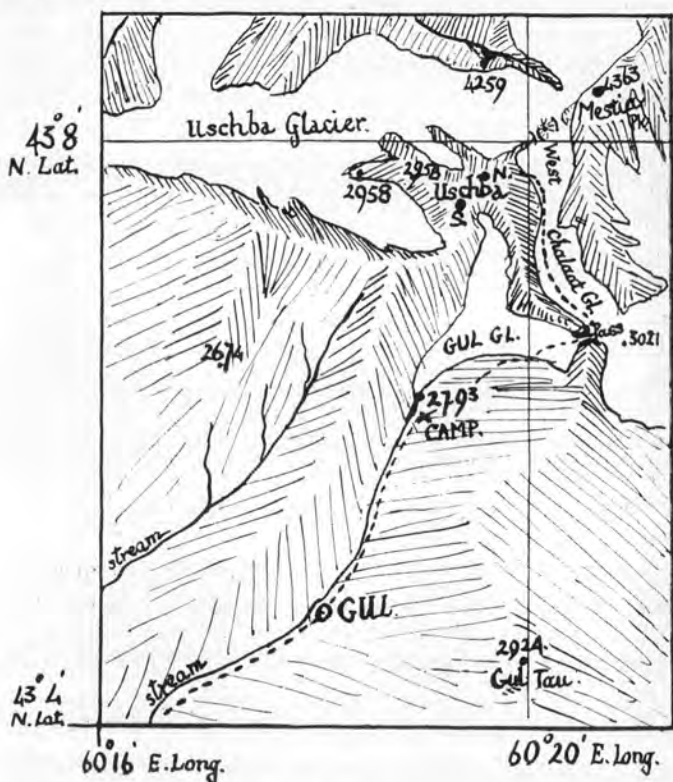
The only successful ascent of the north peak of Ushba from the south-east was made by this couloir on 28th September 1888 by J. G. Cockin with Ulrich Almer. It was after a prolonged spell of bad weather with heavy snowfall succeeded by frost. The climb to the col under these conditions was long and hard, but not difficult or dangerous. Now conditions were very different and the face of the mountain was almost black. Former snowbeds were now steep rocks and scree or sheets of glassy ice. Falling stones brought cataracts of followers with them right down to the glacier. There was, of course, another route—that by which Herr Schulze led some of Rickmers' party on the first ascent of the south peak in 1903. I had studied this from a description and now had it before me. Its lower part, at any rate, would present no serious difficulty, though long, steep and quite probably dangerous climbing.

But our expedition was not for the purpose of following in other parties' footsteps. Why not try it by an entirely novel route, from a glacier hitherto unvisited and by a face looked on as hopeless—by the north-east face, from the Chalaat Glacier?

The top part of this face, at least, is shown in one of Mr Wooley's photographs, and we had seen it two days before, though only partly on account of mist. This face is enormously large and is steeper than that of any great mountain hitherto climbed, the Meije not excepted; a much more formidable climb than the Matterhorn by the Zmutt.

There was still another way of attaining the summit of the north peak: by ascending the Ushba Glacier on the west and getting on to the north side of the peak from its head. This had already been followed by the party led by Herr H. Pfann, who traversed both peaks, also in 1903. This party were four nights out and had four days of climbing. As the mountain was now very icy, there might be quite an impossible amount of step-cutting on this route.

A point which further decided in favour of an attack upon the north-east face was that it ought to be freer from stones and avalanches owing to its aspect, and that the early morning sun would be largely kept off it by the high peak of Chatuintau or Mestia, on the other side of the great Chalaat Glacier.



15th August: *To the North-east Face of Ushba.*—We were up at 2.30 A.M. and away at 4.15 on a still and perfect morning. We ascended moraines and crossed a small glacier in the direction of the dip in Gulba ridge immediately south of that peak. Dawn came as we neared the col. On the rocks above, and quite within shot, a party of six tur appeared; one was quite a small kid, not yet very agile on the rocks. We gained the col

(10,550 feet) at 5.30 A.M. We were rather disappointed to find that there was a big drop (1,300 feet) to the Chalaat Glacier. Down steep but easy ribs of rather crumbling rock and a good snow-couloir, we gained the glacier at 6.30. This was the West Chalaat branch, which had never been trodden by human foot before. Its upper part pours down in huge, steep icefalls below the vast wall of Ushba's north-east face and the shapely peak of Mestia.

This Chalaat Glacier is a large ice stream of a peculiar shape. Owing to its steepness and the depth of its snow reservoirs it descends lower, in spite of its southerly aspect, than any other Caucasian glacier, finishing nowadays at about 5,200 feet. We were on the western branch. The pass at the head of the Chalaat Glacier, between Ushba and Mestia peak, is interrupted by a little rock peak which may be called Little Ushba. On each side of this are passages looking very forbidding but not impossible. Starting generally southwards, the glacier, after flowing past Gulba, makes a right-angled bend and flows slightly north-east to join a larger ice stream from beyond Mestia peak, and then flows south-east to almost join the Leksur Glacier (the longest Caucasian glacier). At no distant date these glaciers did probably join.

Our aim was to reach a good sleeping-place as high up as possible on Ushba's N.E. face, and start early on the final climb. We had first to find our way through a very broken icefall which stretched right across the glacier. At first the glacier was flat and almost free from crevasses. There had evidently been a tremendous rockfall recently from the cliffs of Gulba, just above us on our left. Great blocks weighing many tons had been shot nearly half-way across the glacier, here nearly a mile wide. We kept well out till past this place. It cost us four hours of hard ice-work before we won through the icefall. The crampons proved of great service. Turning left and crossing a rather difficult bergschrund and ascending a further ice slope, we reached the rocks of the north-east face at 11.55. The climbing for the rest of the day was varied and interesting; never excessively difficult, it was continuous, and, I judge, like that met on the Brenva

face of the Aiguille Blanche de Peuteret, but with everything on a bigger scale and at a steeper angle. Owing to the aspect, the icy parts were still covered with snow, rather inclined to avalanche, and requiring great care. The leader often took out 60 feet of rope before the others moved. We spent a long time over lunch, on comfortable ledges over which water ran, enjoying the pleasant sun, which we should soon lose.

Then on again at 1 P.M., and at length we came to a place which offered an ideal spot for a bivouac, as far as safety was concerned (5 P.M.). The height was just 13,000 feet. We were almost on a level with the col to the north of us, between Ushba and Little Ushba. A mass of rocks jutted out from the face; in these a cleft floored with ice and stones formed the only space level enough for three to lie down upon that we had seen for hours. The rocks overhung it in a penthouse solid enough to divert anything falling from above, and the sleeping-berth had an inward tilt that would prevent anyone from rolling off in his sleep—very necessary, as a stone flung out from the edge of the bed touched nothing for 200 feet, and did not come to rest for 2,000. But it was quite a difficult climb to get into this bedstead!

The great feature of the upper regions of Ushba is a belt of real, and not in the sense often employed, *precipices*, which almost girdle both peaks, and give them their tower-like form. Their height at this point was roughly 1,000 feet, and for a long distance they seemed quite impossible, soaring almost straight up in dark-red slabs of granite or protogine, smooth, flawless, and more forbidding even than those upon the north face of the Petit Dru. Below the cliffs a sloping band slanted upwards to the north, and gradually the cliff broke down to meet it in that direction. Not far from the head of the West Chalaat Glacier a steep snow-covered edge came down to meet the band. We hoped to be able to work along till we gained this rib of snow-covered rock and ice, which obviously led up to the possible slopes of the upper peak. The crux lay in a great couloir floored with ice, which lay between us and the snow-edge beyond.

There was also a minor couloir which cut across our route, nearer at hand.

A few minutes after we gained our shelter there was a loud rushing sound, and, with a thunderous roar, an avalanche swept down the channel. Though we were in no danger, the rush of air reached us in our snug letter-box, nearly carried away our hats, and covered everything with chilly snow-dust. The precipice above was some protection to us from anything falling from the steep ice slopes of the summit cap. Any snow avalanches from there were dispersed in dust before they reached us; any stones or blocks of ice flew over our heads.

We had a good supper, arranged things for the morning and then lay down at 7 P.M., watching the fading of the light. This bivouac stands out as the most romantic and impressive I have ever known: it was not for its wide views; the outlook was rather restricted. The nearest to it I recollect was on the Zmutt arête of the Matterhorn. The outlook thence is comparable in kind, though not in quality: the same trinity of elements, rock, ice and snow alone composing the landscape. Nothing else is visible. Here the scale was greater, the horizon narrower. Our sleeping-place actually projected from the face of the mountain, which was invisible for 100 feet below us owing to the overhang. One had a curious hesitation, in spite of the gigantic size of the blocks of which our residence was built, in going too near the edge lest the whole mass should be started off on its inevitable plunge to the glacier, whose wide crevasses were now reduced to almost invisible threads far below. Daylight at last faded; the planets shone and the stars sparkled in a cloudless moonlit sky. Ling and I dozed or turned uneasily on our stony beds, but young Rembert, who had carried a heavy load, and been as sure-footed and steady as a veteran, slumbered peacefully and soundly. O happy privilege of tired and healthy youth!

16th August: Defeat by the Demon Bowlers of Ushba.

A perfect morning: after a good breakfast we got away at 4.45. It was impossible to start before daylight: the climbing was too difficult, only one man being able to

move at a time. We crossed the avalanche-couloir nearby, and were disgusted to find that even at this height and on this aspect the snow was in bad condition: even at 13,500 feet it was already quite warm. At length (9 A.M.) at 14,000 feet we arrived at a point where it became necessary to consider very carefully the choice before us. We had come up a long slanting gully partly filled with snow and ice, which led northward up the base of the great precipice girdling the summit, now greatly reduced in height; we could see the edge of the cliffs and the ice-cap about 300 feet overhead. Unfortunately, the crack diminished and died out in an expanse of granite slabs. The immediate surroundings resembled the cliffs and slabs above the Cioch on Sgumain, in snow and ice conditions. The steep rocks were not iced, and their quality was little if at all inferior to the best of Skye or Norway gabbro. For heavily laden men without *kletterschuhe* at above 14,000 feet the slabs were impossible. We were, however, now level with the lower part of the ice-arête leading up to the summit ice-cap: this gained, our chief difficulties would be over.

Between us and this Promised Land, as we clung to the slabs of our Pisgah, stretched a couloir, a canyon rather, pitched at a very steep angle (lower down, almost vertical) and floored with polished rock and glistening ice. This was, in fact, the bowling-alley of the Jötuns of Ushba. The game had just begun, and the fun soon waxed fast and furious. Missiles of rock and ice hurtled and crashed against the sides and against each other: masses of snow slid hissing down the groove, or overflowed high up on the surrounding slabs. The Marinelli Couloir on the Macugnaga face of Monte Rosa is a tame and feeble place by comparison.

The falls were not continuous. We timed the intervals, gazing with longing eyes at the short distance which separated us from the peaceful security of the steep ice-arête beyond. After an hour's debate, we were forced to the reluctant conclusion that the dice of the Ushba demons were too heavily loaded against us. It is no use playing with Jötuns if the game is skittles, and you are

the skittles. Though the distance could have been run across in five minutes, the terrain was so difficult (smooth worn rock and ice at the maximum angle), that it would have taken 30 to 40 minutes to effect a passage even if nothing had been coming down.

We considered another place, where snow and rock débris was coming down. Probably the falls would stop in the early afternoon, and we might get over. This would mean spending the night on the summit. The weather was extraordinarily good, but there was the food difficulty. Enough remained for one day, but not for two. Ling and I could go on little or nothing for a day or two. We had, however, to consider young Martinson. Big, strong, active and heavy, though looking 24 he was only 18 years of age, and required more food than we did. He could hardly be expected to climb at over 15,000 feet on air, fine though it was.

We began the descent at 10 A.M. It went very well; all moved carefully. With so many places where we had to move one at a time, it was hours before the glacier seemed to get perceptibly nearer. We passed the sleeping-place at 3 P.M. Lower down, where the angle eases off a little, the route of ascent was rather hard to follow. We stopped on some warm slabs, where water was running, made tea and had a good meal, reserving merely a few fragments for later emergencies.

On the lower slabs I noticed little of the distant sunset-flushed snows; every faculty was strained to pick up the landmarks noted on the ascent, to watch every footstep of the men in front, and to look after the rope. The route on the slabs low down was difficult to follow. We had to avoid the line of least resistance. At one point it led us to a cliff, 200 feet high and overhanging. Where the route was doubtful the cairns I had erected the previous morning helped us. We hit on the exact place where the wall above the schrund had been passed. Much of the snow had gone, and it was necessary to jump the last 10 feet.

At last, at 7.45 P.M., we reached the glacier but failed to find our tracks (mere crampon traces) through the

icefall. The sun had set, but a glorious full moon made the lanterns unnecessary. We failed to pick up the track and were forced by enormous crevasses to make for the lower rocks on Ushba. Here was an absolute *impasse* and, after some search, we found a long *bowsprit* of ice which came within jumping distance of a good ledge. We crossed by this and descended the rocks which, though steep, had good ledges and were still warm from the heat absorbed during the day. Our hands, chilled with handling snow-sodden rope, became dry and comfortable. Lower, we descended into a water and stone channel between rocks and ice and actually through tunnels in the ice—and so down the last great gash of the icefall, finally climbing a steep ice-arête on to the crisp surface of the lower glacier, all danger and difficulty now behind us.

We had just passed the scene of the great rockfall, moving between the outermost great boulders on the flat glacier. The scene was most impressive at this midnight hour. High overhead soared the glorious southern moon, glittering on the mighty ice-clad face of Ushba and the vast ice cataracts of the Chalaat Glacier. Still, nothing but rock, ice and snow hemmed us round. Suddenly the profound silence was broken by a low rumbling growl, gradually swelling to a prolonged and deafening roar, thrown back by the steep walls of Mestia, and the icefalls of the glacier. The very glacier trembled. The solid earth itself seemed to quiver. The first thought that flashed through my mind was—an earthquake. It was, however, a rockfall on a scale appropriate to the scenery. From the cliffs of Gulba a great mass of the mountain had peeled off and was hurtling and crashing down on to the glacier. Lightnings played about in the midst of the falling mass as rock struck rock and flamed out. The dull, even, earth-shaking roar was pierced through ever and anon by louder, shriller notes from the bursting of errant blocks. From the *débris* a great cloud arose, canopying the glacier and blotting out the moon. Gradually the noise died away and the serene moon sailed out of the slow, drifting earth-cloud. We stopped to eat our last bite of food and take off the ropes which had been

on us for 20 hours. Had we not been wet and chilly we would hardly have faced the long pull up to the Gulba Col, but lain down on the first rocks we came to. However, setting "stout hearts to a stey brae," we climbed the 1,300 feet to the col and reached our tent again at 3 A.M., after an absence of 48 hours. Muratbi was delighted to see us safely back. There was not much to eat, but we had a cup of tea and a snack, and turned in, to sleep soundly and dreamlessly till the sun awakened us in the morning.

[Next day Muratbi and Martinson went down to Betsho, the former to recruit his strength among the fleshpots, the latter to fetch up food supplies to enable Raeburn and Ling (who remained at the bivouac, "eating air") to try the south peak by the couloir leading up to the Ushba-Mazeri col. Next morning they set out, and made their way, by climbing which Raeburn describes as "very severe by Lake District standards," to the col; but, though they spent a night there and made another attempt the next morning, the face of South Ushba, in the prevailing conditions, defeated them, and they had to retreat to the bivouac and to Betsho. From there they set out on the journey to Elbruz, which they successfully ascended some days later.]

FIRST AID AND MOUNTAIN RESCUE.

By A. I. L. Maitland, F.R.C.S.(Ed.).

AN accident is an unfortunate event which takes place outwith one's foresight or expectation. It can happen to anyone at any place at any time, but when it occurs in the mountains the special circumstances surrounding such an occurrence add great difficulties which may be illustrated by the following comparison. A young man trotting down his office stairs slips, falls and breaks his leg. In an hour he can be in hospital, X-rayed and under treatment for his fracture in ideal circumstances. If, however, the young man sustains the same injury on the upper

slopes of Ben Macdhui in the Cairngorms it will almost certainly be twenty-four hours before he is in a place where the same facilities are available, and these intervening twenty-four hours will have been packed, if not with incident, at least with unremitting arduous toil for approximately a dozen people. The first case would only require a telephone call, a short stretcher journey of a few yards, and a ride of possibly a mile in an ambulance. In contrast, the second case would involve a 9-mile walk to give news of the accident, a similar walk for the rescue party bearing the stretcher and other equipment and lastly the traverse of the same 8 or 9 miles of difficult country by the party with a loaded stretcher before the ambulance was reached. This illustration will perhaps provide the background to the difficulties of mountain rescue and stress the need for prevention of accidents on the hills.

Mountaineering is an arduous and exacting sport and, if it is to be undertaken safely, good physical condition is essential. It has been shown that, most commonly, mountain accidents are caused by insufficient technical experience for the climb attempted and poor training. Other factors which contribute are improper or inadequate equipment for bad weather or for safe passage over slopes of hard snow or ice in winter. A sudden change for the worse of the weather may change a delightful summer's day on the tops in the Highlands, within ten minutes, to conditions which are not vastly different from those found on the same mountain in early spring or late autumn. In winter such a change may produce conditions before which the toughest party will retreat. Other avoidable causes are traversing a mountain by a moderately difficult route with too large a party, or starting too late in the day and getting caught by nightfall while still on a tricky part of the descent. Lastly, lack of food may cause a weakening of a party or a person in the party and thus precipitate an accident. An examination of these causes will show that, with one exception, they are all within the control of the party themselves, and so preventable.

Physical condition varies considerably from day to day. A busy doctor or the young father of a teething child may

be grossly under-slept on the three preceding nights, although otherwise in the pink of condition. Bearing such factors in mind, an expedition should be planned within the powers of the weakest member of the party on that particular day. Each member should be properly equipped at all times and should carry an adequate supply of food, preferably of the easily digestible type such as well-laden jam sandwiches, raisins or the luxurious tin of fruit; also clear indication should be given to others where the party is going and when it is expecting to return. If these simple general rules are followed, the possibilities of an accident occurring are reduced to the minimum.

If an accident does occur, the injured person should at once be made sheltered, comfortable and safe. The greatest single danger to an injured person lying out in the open is loss of body heat, and this must be conserved in every possible way. Extra clothing, preferably dry, should be put on the victim; and if his injuries prevent this being done he should be wrapped in all available spare clothing, keeping windproof garments to the outside. Dry gloves, if they are available, should be substituted for wet; boot laces should be eased an inch or two, garters slackened, his feet placed in a rucksack and a balaclava helmet put on his head. In winter these attentions to the extremities are absolutely essential if frostbite is to be prevented. If it is anticipated that he is likely to lie out on the hill for some considerable time and the position is exposed to the prevailing winds, some attempt to obtain shelter should be made, either by dragging him, if this is possible, into a sheltered place behind a rock, or alternatively building a small wind-break of stones to protect him from the weather. In winter a considerable conservation of warmth in the injured may be obtained by making a snow hole, in which he is placed, or by surrounding him with a wall of snow. He should also be secured in such a way that, if he returns to consciousness before adequate help is available, he cannot undergo further injury by another fall. This may entail belaying him to the rock quite firmly. Lastly,

the place should be clearly marked and located by reference to a prominent landmark and accurate cross bearings taken. The latter is essential in winter, as drifting snow or a fresh fall may obscure or alter apparently prominent landmarks and render identification of the spot extremely difficult if not impossible. If numbers permit, one of the party should remain with the injured member while the remainder go for help.

These are the precautions necessary to take when the injured person is not in a fit state to move by himself. It is, however, desirable never to lose sight of the fact that if a man is fit for bringing in by his own party this should be attempted whenever possible as, by this means, much time and trouble are saved and he can be brought to skilled treatment much earlier.

The results of a mountain accident may vary from trivial cuts and bruises to fractures or internal injuries of great severity. The first-aid treatment of wounds depends on the amount of bleeding. This is unlikely to be severe and, in general, the safest procedure is to cover them either with an adhesive dressing, if this is available, or a clean handkerchief, with the least amount of handling, as this will do no good and is likely to introduce infection. If bleeding is considerable, a bandage should be made of a clean handkerchief and firmly bandaged over the wound. If direct pressure is not sufficient to stop the bleeding, or it is coming in jets, then and only then should a tourniquet be applied to the wound. When a tourniquet is used it should be released after 15 minutes and only if bleeding continues severely, re-applied. An injury to the head is invariably followed by a short period of unconsciousness, which may be succeeded by a period in which the person is not responsible for his actions. This can occur in the absence of apparent severe external injury. In this phase a person could be a danger to himself or the party, and it may be necessary to secure him in order to obtain control of his actions. For this reason, cases of head injuries which are too severe to come in under their own power should be strapped to whatever form of stretcher is used for their transport.

Fractures of the spine or of the neck may not be obvious at the time and, in fact, may not be diagnosed until an X-ray examination is made. When an injury to the neck or back is associated with loss of power or severe pain in the arms or legs, a fracture of the spine should be suspected and the individual kept as still as possible until he is fixed to the stretcher which will take him to the ambulance. If the injury is to the neck, the injured person is kept on the back with the head firmly supported by oblong, firm pillows on either side of the head. If it is lower down the spine, the person may be carried either on the back or face-down, whichever is more comfortable. When the former position is used, the normal curve of the lower back should be maintained by a pad about 3 in. thick. In the latter position the chest and pelvis should be supported and the back allowed to sag between these points.

As a general rule, in all cases of injury of this type, the patient should not be moved except on a Thomas or other type of rigid stretcher, unless the weather is severe, when every attempt should be made to avoid benightment of the injured.

Fractures of the arm and forearm should be treated by removal of the outer jacket, taking the good arm out first. The injured arm is then fixed firmly to the chest by a scarf or similar article and the jacket, with the sleeve of the injured side pulled outside in, replaced and buttoned tightly up. A fractured collar-bone is treated in a similar way but, in addition, three handkerchiefs are used as follows. Two are looped, one round each shoulder. The third is used to pull these loops very tightly together across the back, thus pulling both shoulders back and the ends of the broken bone into position. The arm may be placed in a sling only, but greater comfort is obtained by fixing it to the chest as well.

In most cases, if the ground and weather conditions permit and the injured person is not severely shocked, such victims may be brought in by their own party with assistance and care, without the use of a stretcher. This may not be possible, however, if the ground is very rough,

the position where the accident occurs is exposed or snow conditions are unsuitable. In such a case it is much safer to wait until a proper rescue party is organised.

Fractures of the thigh, leg or ankle may be conveniently and fairly comfortably fixed by tying the legs together. The bands should be applied around the feet, above the ankle, below and above the knee and just below the buttocks. Extra rigidity can be obtained by incorporating an ice-axe or similar article in the lashings on the outer side of the injured leg or thigh. The boot lace on the injured side should be generously loosened but the boot left on. Fractures of these bones, and of the pelvis, must be transported flat on a stretcher.

In cases of suspected severe abdominal injury, every effort must be made to get the injured man to hospital with the utmost speed. In such cases the rapid transport to skilled treatment is the only sure way of averting tragedy, and every minute saved means a better chance for the victim.

These simple first-aid measures will ease the comfort of the injured until such time as a properly organised rescue party can arrive, if such is required. If the circumstances permit, additional comfort may be obtained for the injured by giving him adequate quantities of hot, sweet tea and a meal of bread and jam, provided that you are quite certain he has no abdominal injury. Alcohol should never be used on any account.

The original equipment at mountain rescue posts was provided by mountaineering clubs from their own funds. This responsibility is now that of the Department of Health for Scotland. The organisation of these posts is still undertaken by the Mountain Rescue Committee, which is a charitable trust whose income derives mainly from voluntary subscriptions donated by mountaineering clubs and other interested bodies. Seventeen posts are maintained in Scotland at the sites listed in Appendix II. The equipment they contain is available when required on application to the warden in charge of the post by the person responsible for reporting the accident and organising the rescue. He should also give the name of the

injured and the circumstances of the accident to the warden for record.

There are, as well, depots of equipment belonging to the R.A.F. Mountain Rescue Service at various Police Stations. This equipment and the help of the R.A.F. Mountain Rescue Service is obtained through the police officer in charge.

The equipment available in both instances is comprehensive, and with it any injury which may be met with on the hill can be dealt with in a satisfactory manner. It is hoped that those who read this article may never require to use it. The avoidance of accidents in mountaineering depends on observing the advice given in the first part, but even more on maintaining at all times an awareness of the relationship between the party climbing, the state of the mountain being climbed at the time and the weather. It is from this awareness that safe climbing springs.

APPENDIX I.

List of Authorised Equipment.

- | | |
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| 1 mountain stretcher (Thomas type). | 1 folding glacier lantern. |
| 1 eiderdown bag with waterproof cover. | 1 monitor paraffin stove with spare solid fuel and accessories. |
| 1 balaclava helmet. | 2 thermos flasks. |
| 6 domette bandages—6 in. | 2 rucksacks. |
| 1 roll 1 in. by 10 yds. adhesive plaster. | 1 Thomas splint. |
| 4 rolls 3 in. by 1 yd. elastic adhesive bandage. | 6 triangular bandages. |
| 1 ball of string. | 2 straight arm splints. |
| 1 angular arm splint. | 1 container sulphonamide powder. |
| 1 bottle tincture of iodine. | 2 shell dressings. |
| 1 packet gauze. | 1 packet cotton-wool. |
| 1 pair scissors. | 2 dozen safety pins. |
| 1 pair dressing forceps. | 6 candles. |
| 1 pair Spencer Wells clamp forceps. | 2 kettles. |
| 1 reel linen thread. | 3 hot-water bottles. |
| 2 straight surgical needles. | 3 cups. |
| 1 jar of cube sugar. | 1 spoon. |
| | 1 jug. |

APPENDIX II.

List of Authorised Posts.

MOUNTAIN RESCUE COMMITTEE.

1. The Police Station, Crianlarich.
2. Clachaig Hotel, Glencoe.
3. Glenbrittle House, Glenbrittle, Skye.
4. Sligachan Hotel, Sligachan, Skye.
5. Marshall and Pearson, West Highland Garage, Fort William.
6. Charles Inglis Clark Hut, Allt-a'-Mhuilinn.
7. Mr Macdiarmid, Achnagoichan, Rothiemurchus.
8. Lui Beg, Braemar.
9. Police Station, Braemar.
10. Spittal of Muick, Glen Muick.
11. Police Station, Succoth (Arrochar).
12. Police Station, Brodick, Arran.
13. Glen Doll Lodge, Angus.
14. Dundee (Grampian M.C.).
15. S.M.C. Hut, Lagangarbh.
16. Police Station, Garve.
17. Ski Club Hut, Ben Ghlas Col.

ON DISAPPOINTING SUMMERS.

By Professor Gordon Manley.

THIS past summer of 1954 has evoked much comment. As far as Britain is concerned the most notable feature has been its unusual coolness, arising from the prevalence of breezy, unsettled "westerly weather" almost throughout. Reasonably representative averages of temperature are available since about 1700, which go to show that the temperature of this last summer, represented by the means for the three months June, July, August combined, ranks it about fourteenth in order of coolness. It also appears from the available data, that in 250 years twenty-four summers have occurred in which the three months combined fell below the overall average by 1.8° F. or more (2.3° in 1954, taking comparable figures); that is, about one in every ten. The point about 1954 is that no such consistently cool summer has occurred for

thirty-two years past, since 1922; 1909, 1907, 1892, 1890, 1888 and 1879 were others which some may yet recall, and five of these seven were on balance cooler than 1954. Taken as a whole, most of the springs and summers from 1879 to 1892 and 1902 to 1920 were cooler than those of the last twenty years. This helps to explain the prevailing impression from older S.M.C. members that there was a greater springtime and early summer accumulation of snow on Ben Nevis in the earlier years of this century.

The persistence of disturbed westerly weather, the result of a long succession of vigorous eastward-moving depressions, which have often tended to retain their energy and to follow tracks south of that to be expected in the majority of years, has had one very characteristic result—excess of rain on all our westward-facing uplands. There is reason to believe that parts of the English Lake District have had their wettest year since 1792. South-west Scotland, however, was wetter in 1928; and farther north 1923 and 1877 rank very high. In 1954 the fact that a number of the rain areas have moved to the southward has meant that the northern Hebrides, and Sutherland sometimes, lay in the easterly air stream for a day or two; so that, to date, Stornoway is the only notable reporting station to have enjoyed slightly more sunshine and less rain than in an average year. It may be noted that northern Norway and also parts of Iceland, in contrast to much of Western and Central Europe, enjoyed a decidedly fine summer.

Even with us, vigorous west-wind weather gave a good allowance of sunshine in Eastern Scotland in July, September and November; and, taken as a whole, there have been several duller years, many with greater persistence of snow, many with a harsher spring. Yet, the incursions of cool northerly air behind the depressions brought some unusual events in the Highlands. Snow covered the Cairngorms above 3,500 feet on 4th and 5th July; such a late cover can be estimated as likely to occur once in fifteen or perhaps twenty years. Temperature in the screen fell to 29° in Dumfriesshire on

6th July. In this respect, however, the record is held by West Linton, which in 1926 had a July minimum of 28°. More remarkable was a minimum of 28° on the Braes of Glenlivet on 17th August. Late in September fresh snow lay persistently on the higher summits and there was hard frost in the valleys, but records were not quite broken; and after this, autumn was generally stormy and mild.

Without doubt there have been many worse years in the past. The shocking harvests of 1782, 1799 and 1816 in Scotland, not to speak of the more recent 1879, are a feature of many local records. Moreover, just before the Union, and just outside the range of instrumental records, Scotland had very bad seasons in 1695 and 1698. The latter gave one of the latest and coldest springs of which we have any knowledge; while 1695 was the summer in which ice was seen round the entire coast of Iceland, the worst year on record in this respect. Indeed, the characteristic feature of each of the above-named years was the late cold spring, and in 1954 we were at least spared that. The outstanding feature has rather been the repeated incursions of Atlantic air, cool in summer and mild but very stormy in autumn, from late May to mid-December; and these have affected the greater part of Western and Central Europe. South of the principal tracks, France and Switzerland had a brief spell of great heat late in July, but this warmth never crossed the Channel.

It is broadly true that the conditions leading to disturbed summers in Britain generally affect all the mountain districts of Europe, from the Pyrenees and the Alps to Central Norway. Moreover, cool summers appear to be the principal factor leading to glacier advance. Most mountaineers are familiar with the evidence for decided retreat of glaciers since about 1925. Indeed, such retreat first began to prevail as far back as 1895 but did not become conspicuous until another generation had passed. From the Alps to Norway and Iceland the fluctuations of the glaciers have a broad resemblance. In Norway the maximum advance was,

attained about 1750; in Iceland that around 1850 may have been slightly greater; in the Alps, at least in Savoy, the maximum about 1820 and that about 1640 were of much the same magnitude. Professor J. D. Forbes of Edinburgh commented on the 1820 advance (in "Travels in the Alps," 1843); after his time there were re-advances in the fifties and eighties, and a slight advance about 1920, of which our relatively cool summers in 1919, 1920 and 1922 were the accompaniment. Indeed, it becomes very interesting to observe that if we smooth out the effects of single months and group our temperature records in the form of "decadal * running means" over the past two centuries or more, the trends shown by British and Dutch summer temperatures display a marked agreement with the general behaviour of glaciers.

It has been observed that such slight tendencies on the part of our summer averages to swing upward or downward show no regular periodicity. But they do give an impression of fluctuations of irregular length varying between about fifteen and thirty years. The resemblance of such curves to the irregular pattern of waves of varying length displayed, for example, by a turbulent mountain torrent, is quite notable; and forecasting the trend of the seasons is much like trying to estimate the course of a piece of wood cast into such a stream. Yet, E. Schulman (in the "Compendium of Meteorology," 1952, published by the American Meteorological Society) has pointed to like tendencies in the irregular fluctuations in width of successive tree-rings in marginal areas. The fact that the current, or recent, amelioration of spring and summer temperature over much of Western Europe has now gone on for nearly thirty years has therefore led some meteorologists to emphasise the need for caution with regard to its continuance. It is possible, therefore, that 1954 represents the first stage in a "recession" which, if continued, will be likely to lead to a resumption of glacier advance.

* Averages of temperatures for individual months over 10-year periods, taken year by year, *e.g.* 1801-10, 1802-11, 1803-12, etc.

Some meteorologists, indeed, have produced tentative suggestions that such a tendency might prevail until about 1965. In western North America a downward tendency has been recognisable for some years; and in this country there are those who, having noted that 1949 taken as a whole was the warmest year for upwards of two centuries, may be tempted to see hints in subsequent events. First, there was the long succession of cool unsettled months from December 1950 to June 1951, which led to such remarkable persistence of snowdrifts on Scottish and even on English and Welsh mountains. To quote one example: what one may call "John Dalton's Snowdrift" (*cf.* an article in *Weather* for July 1952) on Helvellyn lasted until 15th July. Then in 1952 there was the unusually cold September, the coolest since 1807 and quite out of pattern with recent experience. The cool summer of 1954 is by no means unprecedented, and may be part of a general trend restoring the balance after the warmth of 1945, 1947 and 1949. After all, within the past twenty years we have had the warmest March ever known (1938) and the second warmest (1948); several unusually warm Novembers (1938, the warmest since 1818; and 1939, since 1881); the warmest and driest August (1947), the second warmest September (1949), the warmest June since 1858 (in 1940), the warmest April since 1865 (in 1943); the warmest December (in 1934) and the equal-warmest February since 1869 (in 1945); added to which a number of other unusually warm months could be named. It is, of course, to be remembered that in some parts of Britain other months in other years may come in by a decimal point or two, but this will not upset the general picture.

And what of the future? If this is the beginning of a recession, in the next few years we should expect an "old-fashioned" April such as the present generation does not know; more like April 1922, or the appalling cold April of 1917, so well remembered on the Western Front. It is also a very long time since we had a really cold October, or a succession of wet summers such as

1922 to 1928 or 1872 to 1879. To observe the cycle of the seasons, as shown by long records such as those provided by Alexander Buchan and Robert Mossman for Scotland, goes far to remind us that in the past there have been many disturbed seasons which could owe nothing to atomic explosions or other human agency.

The poor summer of 1931 in England, which was, incidentally, relatively good in northern Scotland, was blamed by many of the public on "all this wireless," an excuse which was soon forgotten when the magnificent summer of 1933 came along. Atomic explosions are not known to send up anything like as much fine dust as a big volcanic eruption; they do not, as far as we know, provide the right kind of nuclei for condensation and the development of cloud; lastly, the weather has not been the subject of complaint everywhere. Scotland, for example, appears to have had a much worse time in 1784, following the violent ash-eruption of Laki in Iceland which darkened the skies as far away as France, and caused appreciable ash-deposit on the fields of Caithness.

Rather it appears that the cause must be sought in the behaviour of the "upper westerlies," which at levels above 18,000 feet or so in temperate latitudes form a vast sinuous stream of air girdling the earth poleward of latitude 40°. In recent years, with the growth of Atlantic aviation in particular, we have learnt a great deal about this upper air flow, which, viewed in plan, appears to develop a series of "waves." During much of last year a northward-jutting "crest" of warmer air lay over northern Canada, a "trough" of cooler air lying farther east than usual near Europe; the upper-air flow over the Atlantic was, in other words, more from north of west than usual. Hence the upper air above Britain, colder than usual, gave more tendency for instability. There is a growing notion that these variations in the round-the-world wave pattern of the upper westerlies, which in turn affect the movement and vigour of surface pressure systems, are related to the behaviour of solar radiation impinging on the earth's outer atmosphere; but what relationship exists, if any, with visible manifestations of

solar disturbance such as sunspots is not at all clear. We, after all, inhabit and think in terms of small patches of the bottom layers of the atmosphere, which has been described by one meteorologist as "a structure of staggering complexity." We have a very great deal yet to learn about what happens to the solar radiation at much higher levels; this may fluctuate in ways that we do not yet know about. Inasmuch as even the largest-scale terrestrial catastrophes, such as exceptionally violent eruptions, do not appear to affect the temperature noticeably for more than a few months, it seems rather unlikely that man's comparatively slight efforts should be able to do so. Viewed against the pattern of the seasons, 1954 or something like it was overdue.

Yet, if we are to have a recurrence of summers in which the damp, cool, maritime air is repeatedly driven far into the Continent, the mountain districts in particular will suffer. Temperature falls off with altitude more rapidly in what we commonly call maritime-polar air—air from an original cool source, approaching us over a warmer sea. Between Fort William and the top of Ben Nevis the fall averages about 16° F.; in a maritime-tropical air stream in winter it may be only 9° , and in an anticyclone there may even be occasions when the top is warmer than the bottom. But, given a fresh north-wester on an April afternoon it may be up to 25° colder on top than at the bottom. Multiply such differences to allow for the greater height and it becomes easy to see why the worst enemy of the summer climber in the Alps is the strong north wind from the distant North Atlantic, sweeping down behind a depression which has moved into the Continent. At 12,000 feet temperature, even in July, can fall to 10° ; and the wind, forced over the ridges and up the faces, can easily reach gale force. No wonder that the memorably bad summers in the Alps are those when the north wind blew too often; summers like 1888 or 1912, to which 1954 can fairly be added.

Perhaps a brief note of personal experience may be of interest. Whatever the hotel-keepers say, my own impression is that in most summers a brief spell of broken



SUMMIT OF NORTH RONA
(Looking south)

E. W. Hodge



WHITEN HEAD, SUTHERLAND
(From an old print)

E. W. Hodge

weather will occur which will bring a snow-cover down to the higher resorts at 6,000 feet. In eight summer fortnights in the Alps of which I have notes, this has happened to me six times. For example, 1949 was in general very warm; but we hit the broken spell in mid-August. Cool air from near Jan Mayen missed Scotland, but deposited an unwanted August snow-cover round the huts in Jotunheim; a day or two later it reached the Tyrol, and on 13th August Ober Gurgl (6,400 feet) was snow-covered; snow, indeed, lay for a time down to 5,000 feet. On the next three days sleet showers fell at Vent, and one could very greatly appreciate the way in which those who live in the highest Alpine villages fear the occasional cloudy, cold summer in which the snow scarcely disappears from the higher pastures.

Such are the climatic risks faced by these highest valley-dwellers, which go far to explain why there is no evidence that there has ever been permanent settlement in Scotland much above its present limits. Meanwhile, those who climb in Norway, in the Alps and even in Scotland may well find considerable food for thought in the next few years. In order not to be too depressing, perhaps it should be pointed out that even in the worst sequences of years each decade commonly contains at least one season of opposite character. In the midst of the wet 1820's, 1826 gave one of the hottest and driest summers on record; likewise 1921, which was proverbially dry and hot in the south, fell in the midst of a string of wet years, whereas 1852, which was excessively wet, fell amid a run of dry years. Whatever be the outlook, we are still only at the beginning of any attempt to foreshadow any trends; and there will be many sceptics who will justifiably declare that they prefer to wait till 1965 and see.

WE SAIL AGAIN.

By E. W. Hodge.

THE purpose of this article is to put on record some observations made on a trip to the Hebrides by yacht in last August, and to deal with a few queries raised by correspondents regarding the "Islands" Guide. References are to page numbers in the last-named.

One reviewer has blamed me for interpreting the interest of mountaineering too widely. Let me say candidly I do not regard a mountain as merely a collection of climbing routes "made" (as the quaint phrase goes) and still more quaintly named by various individuals, but as an affair of a few billion tons of rock; I like to view its shape from below, above, and the flanks, and to know what lives on it, what it is made of, and its place in the life of the countryside. I agree, therefore, with W. H. Murray that the heart of mountaineering lies in exploration. Mountains also come in very handy for exercise. The trouble with yachting is that, like camping, it is almost a job in itself; and I hope this will be some excuse for our not being able to tell of more personal exploits ashore. The yachting part of the trip was extremely efficiently managed by F. Alan Evans, and despite bad weather, we landed at about two dozen bits of wild mountain country, besides necessary evils like Stornoway. Obviously there was only time for scouting, and not for much exploitation. Perhaps it is the mark of a well-spent holiday, that one wishes one had had twice as long.

One of our main objectives was North Rona. This isle, in some ways, has been very much described already, though about as hard to get to as Abyssinia. It proved not nearly as cliff-bound as we had expected, and much more grassy. Its coasts are, of course, everywhere rocky, but it is the ocean swell that makes it inaccessible, not its own profile. Apart from a few places at inlets or

"geos," * the cliffs are mostly quite low. The biggest are on the middle of its west side, facing northerly, and these are too near vertical to climb. The two most striking features were the "storm-beach," where the boulder-slope is on top of the 70-foot cliffs instead of in the usual place at the bottom; and the fine caves on the west near the island's waist. The wind-made noises from these, of about the same compass as a human voice, actually caused two of us to disbelieve each other's denial that they were singing. A long afternoon, and the usual gale warning forced us to tear our ornithologists away.

At Eriboll, in Sutherland, we widened our experience of the difficulties of coastal approach. Bouncing about in an egg-shell dinghy on a 5-foot swell over unseen rocks is not fun, so we could not examine the big sea-caves near Whiten Head. The Waterfall Cave ("Northern Highlands" Guide, pp. 140 to 141) was easy enough to land at, and its scenery delightful, but it does not go in for more than about 60 yards. Where I had only glimpsed one cave-mouth from the cliff above, we found four interconnected portals. But farther out towards Whiten Head one must have calm weather. Mòl Mòr is like some Lulworth Cove with 400-foot walls of steep rock, but at the back one could scramble down into it on steep grass. Climbing is no doubt available, in various grades. Close inshore a little farther, where the coast turns east, stand the Sisters, two pillars of quartzite, 180 and 160 feet high. The higher looks unclimbable; the smaller, which shows in profile from about Rispond, may be a little easier. At Bodach Dearg, a pyramidal lump, the rock changes to Moine. Cleit an-t Seabhaig (the name means Hawk's Cliff, like the Gaelic name of the Stack of Handa †) is a precipitous-sided ridge running out from the mainland cliff and rising steeply at the seaward end

* Norse in origin, may be spelt "geodh" or "geodha" or even "gio" in maps, meaning rift or inlet.

† Just as "Buachaille" is used of an isolated rock higher than its fellows (like a shepherd) so it seems that "Seabhaig" may indicate an isolated and noteworthy rock, not necessarily higher, as a hawk hovers against the face of a cliff.

to a sharp little top about 450 feet above the sea. The 1-in. map can only indicate its shape inadequately. It should give some good scrambling.

Handa (p. 122) was another isle we landed on, and can recommend as a viewpoint. But there can be no climbing, as the Torridonian sea-cliffs are quite vertical. One tremendous wall is nearly 400 feet high and hundreds of yards long, without any major weakness at all, hardly a bird-ledge. The same goes for the Stack of Handa, which sits in an angle of the main cliffs. Its base is cut by intersecting tunnels, so that one may say it stands on four legs. One can probably scramble down to its base by a rather noisome gully opposite it, but a companion with a rope would be needed. The mainland cliffs next to Handa are quite a different proposition, being gneiss, but are unimportant. It is probably quite safe to say that Am Buachaille, the conspicuous sandstone stack to the north, is unclimbable, but there should be some good scrambling or climbing on the gneiss stacks at Cape Wrath itself.

From Handa a long and very uncomfortable night took us to the Shiants. But we could not land, and fell back on the consolations of a Sabbath in Stornoway. Incidentally, I find that the height of Eilean Mhuire, in the Shiants (p. 121), just fails to put it in my list of 300-foot islands. The steep ground at the foot of Loch Seaforth (p. 161) really does not amount to anything as climbing, being neither very steep nor continuous rock. It is just the mixture of slabs and grass of which there is so much in Lewis and Harris, although no doubt good exercise and fun for the scrambler.

Lianamul and Arnamul, off Mingulay (p. 127) were another main aim. We had a good look at the cliffs both from the land and from the sea, but it was too rough to land on these stacks, both of which are only a few yards from the main island. The scenery of cliffs, sea-lanes, and arches was fascinating and unique. What we saw of Lianamul fully bore out its old reputation as a hard climb. The only possibility of climbing it would appear to be from its south-eastern corner, trending left. The

north ridge of Arnamul would only be a scramble, and landing there slightly less exposed, but perhaps on only one summer day in three would it be possible. The Barra people told us that in old times men used to take up sheep, tied on their backs.

Barra itself has no scrambling, but, across Castle Bay, Muldoanich is easy to reach, by arrangement with a lobsterman. The west side, which is in view, is uninteresting, but the east side is much steeper and would probably give a long climb.

We tried to do our duty this year to several large islands which, in the *Guide*, I confess I took for granted. We walked the whole length of Colonsay and Oronsay. The rock is much contorted and schistose, but would be nice to scramble on where it is sufficiently continuous. In their variety of scenery and vegetation these isles are charmers. Coll's hills are mere moorland, but there is said to be very good scrambling on the hills at the south end of Tiree.

At the Treshnish Isles (p. 97), off Mull, we had hoped to set foot on the stack of Dun Cruit, by unfair means if possible. But when I wrote the *Guide* my recollection had not been very good, and the distance from cliff-top to the stack was found to be 19 feet. So some very cumbersome ironmongery was taken back to Edinburgh, unused. By climbing down a few feet to a tiny platform, the distance is only about 12 feet, but the landing on the stack there is not good. There are enough driftwood spars lying about these islands to build a bridge if one had the time. We then had a look at the north side of the stack from sea-level, and thought a good climber might manage here if only he could surmount the first few feet of holdless sea-worn rock. Any attempt would therefore need to be made at the top of a spring tide.

On Mull we identified without difficulty from the sea the famous fossil tree (p. 92), and again climbed Ben More by night. The best way to enjoy the basalt sea-cliffs appears to be not to try to climb them, but to make a high traverse of them, on their natural stratification; those on the west of Ardmearach should give an

impressive ramble. On the south coast we thought the Carsaig arches no better than dozens of others we have seen, but we noted a large waterfall, nearly 400 feet high in all, which we should like to visit, at the bay about a mile west of Malcolm's Point. One could easily descend to its foot, from the cliff-top.

North of Mull we visited the little twin-peaked Carna in Loch Sunart which offered some nice but too short scrambling, and its half-tide neighbour Oronsay. The well-constructed but nearly disused road from Drimnin to the former ferry-slip at Doirlinn, with its early nineteenth-century mileposts, puzzled us. Obviously it had once a place in a more than merely local system of communication, but what? Was it meant to save the Moidart people the voyage round Ardnamurchan or to serve the busy mining area of Strontian, or as a way south via Lochaline and Oban, avoiding the rigours of Rannoch Muir and the several ferries of Lochaber and Appin?

I am grateful to correspondents for pointing out possible improvements on what I wrote about Rum and Eigg. The worst slip is on page 100, where Steamer Point should read Schooner Point. Harris Lodge (p. 99) has been reoccupied as a farm since I was there. It is pointed out that the path by Loch Long will serve to reduce the distance from Harris to Kinloch Scresort (p. 101). A contributor to the *Scottish Field* seems rather sceptical about the time allowance I give for the round trip of the main ridge (p. 101). This, however, was Munro's time, and (years ago) was my own. The summit cliff on Sgùrr nan Gillean (Rum) proves disappointing on nearer view. The sheep are of course back (p. 100), so the Alpine plants will suffer.

On Eigg, it is pointed out that one cannot descend directly north from the summit point of the Scur, as will be seen from the photo between pages 112 and 113. By going a little west, however, easy slopes on the north are soon reached. The population of Eigg is now 100, not 200. Even in the Hebrides, things change, and it is a terrible area for a guide-book editor to get around and keep up to date with. On South Rona, the Lodge is reoccupied, but there is no change in the savagery of the midges or in the slightly sinister quality of the topography. On Raasay, the direction "by the Post Office" on page 119 is no longer valid.

The grand range of high cliff of Jurassic rock forming the east side of the middle part of Raasay is virtually unbroken, from

Screapadal (where there is a colossal block of slipped rock) to the Cadha Càrnach ("Cairn Pass") a little south of Dùn Caan. The cliffs look slabby and steep, and I cannot say whether they would offer climbs. Does anyone know whether there is climbing anywhere else in Britain on rocks of this age?

Mr Scott Johnstone quite justifiably criticises my expressed evaluations of some areas in Harris. But if I have been rather sanguine about places stated to be unexplored, this was in order not to discourage anyone where a possibility has been reported, if there was a chance that exploration would yield something. Contrariwise, the descriptions of Strone Scourst and of the original route on Strone Ulladale, stem from a certain obstinate modesty on the part of the pioneer. I felt sure they would not mislead anyone who saw these crags.

I have received from the Sheffield University Mountaineering Club their *Cave Bulletin*, No. 2, which contains good descriptions and plans of the Uamh Tartair system and other caves near Inchnadamff, mentioned in *Northern Guide*, p. 131. I would be glad to lend it to anyone interested.

NEW CLIMBS.

CAIRNGORMS AND LOCHNAGAR.

Creag an Dubh Loch.

Bower Buttress.—350 feet, Very Difficult. L. Lovat and T. W. Patey; W. D. Brooker and C. D. Thomson, 17th April 1954. Route on upper cliffs lies on face which forms left wall of the Hanging Garden. It follows the left of two lines of weakness and is close to the prominent edge of this wall. After a succession of short pitches, at mid-height the left end of a lofty terrace paved with granite rock plaques is reached. Along this and right up a short wall to a grassy ledge. Hidden chimney leads to easier ground and choice of routes. Adequate belays and fine situations, but somewhat vegetated.

Vertigo Wall.—T. W. Patey, G. MacLeod, and A. Will climbed this very severe route of 450 feet on 10th October 1954. Situated on the right-hand wall of Central Gully and much lower than Sabre Edge, this is probably the hardest route in the Cairngorms and requires dry

conditions. On the first ascent cold and wet rocks enforced the use of four pitons for direct aid: in dry weather none should be needed.

Start about 200 ft. up Central Gully where level grass ledge goes on to the face to the right, beside a large block in gully bed. Looking up, a dark chimney (often wet) is a prominent feature of the route. Go straight up for 20 ft. from near end of ledge. Traverse right along top of slab overlooking ledge, to gain a grassy groove, which peters out below a 20-ft. vertical, severe crack climbed with aid from a piton. Above, two recessed overhangs of red rock threaten, so move right and up to large detached block. Traverse 10 ft. right to safe recess. Climb short wall on left to steep, grassy shelf, continuing up slabs to foot of dark chimney. This was streaming with water, and two pitons, otherwise unnecessary, were used. Overhangs impend above, so make a 30-ft. exposed traverse right and ascend a few feet, crossing back left on slabs above overhangs and so to pile of boulders in huge recess. Avoid heathery exit up to left, but above boulders take horizontal ledge on to great wall on right. Pass precarious flake 30 ft. out, and then move up steep inset corner (shaky piton), followed by a delicate ridge traverse to right. Good holds (but use with discretion) allow a vertical pull to large ledge. This is a very severe 80-ft. run-out from the boulders. Scrambling for 100 ft. ends at the top.

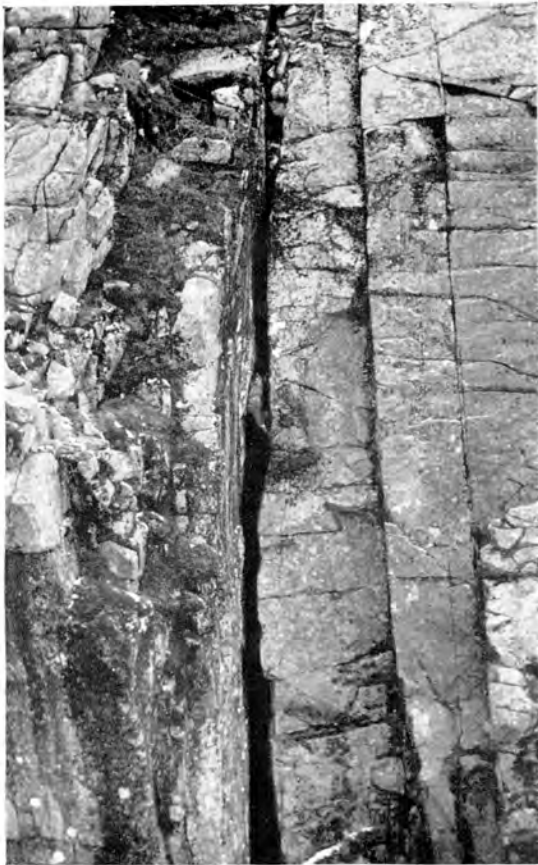
Lochnagar.

Shadow Chimney.—F. Malcolm and D. Ritchie made a first winter ascent, taking 7 hours, on 22nd November 1952.

Shadow Buttress B.—T. W. Patey and A. Will made a first winter ascent on 23rd January 1955. In good snow and ice conditions Bell's route followed, using piton at crux (as on original ascent). Steep lower section was continuously severe for 200 feet, owing to ice. Upper section was straightforward with cutting in hard snow.

Raeburn's Gully.—Winter variation, climbed by Patey and Will, 23rd January 1955. They used the steep, right branch 200 feet below the cornice; thus giving a more interesting finish in good snow conditions. An initial 30-foot ice pitch and then a 60-degree snow slope. The route was previously climbed in summer by Brooker, Bates and Hay in 1954.

The Clam.—This short route of character, 250 feet,



THE CLAM, LOCHNAGAR
(From top of Tough-Brown Ridge)

G. H. Leslie



March 1954

DOUGLAS GULLY, LOCHNAGAR
(The 200-foot upper wall from the top of Eagle Ridge)

Adam Watson

hard severe, was climbed on 27th September 1954 by T. W. Patey, J. M. Taylor, F. R. Malcolm, A. Thom, G. H. Leslie, and M. Smith. It is the narrow, formidable slit in the right (Scarface) wall of Raeburn's Gully, just above the jammed blocks forming the winter crux. Immediately above the slit a steep branch gully breaches this right wall. The climb was done after a frosty night. It is likely that the rocks, especially near the bottom, would normally require careful handling.

Huge piled blocks filling lower part of slit, are climbed for 60 ft. to square recess on right and thence by a short wall into base of slit. Pass inwards up steep floor of slit to innermost recess. Traverse out by back and foot towards ledge on left wall at outside edge. Flake belay 6 ft. up a slab on outside. Return from flake inwards to slit by a hard traverse to a thread belay at back. Gain top of hanging chockstone and surmount the last chockstone to a stance on left. Then scramble up. The last 80 ft. afford remarkable climbing. (See the illustration in this number.)

Beinn a' Bhuird.

Mitre Ridge, Garbh Choire, East Wall, Winter Route.—500 feet (at least Severe). Climbed by T. W. Patey and A. G. Nicol, 31st March 1954.

On the left of the east face of Mitre Ridge an obvious 500-ft. shallow gully (South-east Gully) leads straight up to the finish of the ridge. The route follows this gully for 200 ft., an additional 120 ft. of the gully being obliterated by the heavy snowfall, then graduates right to join the ordinary route at the top of the second tower (start of level section of ridge). A fine winter route, under any conditions at least severe. Initial 80-ft. pitch on snow ice, then easier slopes to second pitch. A sudden thaw at this point forced the party to leave the gully for a direct ascent of the right wall. To right, over indefinite ground to foot of ice couloir. (A chimney to col between first and second towers looked too hard and was passed.) The couloir gave 60 ft. of severe ice to a belay just beyond an awkward tilt. Twenty feet higher a break in the right wall led to an exposed nose. Beyond this a 12-ft. descent revealed a wide 20-ft. chimney, not iced but severe. Above, broken ground to top of second tower and ordinary route. Three hours.

Mitre Ridge, East Wall Direct.—600 feet, Mild Severe. Climbed by T. W. Patey on 29th August 1954.

This route combines the ascent of the great lower sweep of slabs with that of the upper couloir, followed by the East Wall winter route. It is almost a straight line from start to final tower of ridge.

Start left of lowest rocks, midway between S.E. Gully and Direct start, below the most useful crack in lower slabs. Rock is steep, with good holds for 50 ft. Then angle eases and crack not difficult to follow up the slabs to a line of short overhangs. Here, gain a lodgment in a deep crack splitting the overhangs above the lower crack.

It is defended by a smooth slab, but can be reached by awkward straddle from a minor crack on right. Ascend deep crack and continue, following a line of grassy chimneys with good side-holds. Straddle for the wider chimney above. Here one can escape to right behind detached block and by an easy terrace to the midway shoulder of normal route: but the party pursued the direct upward line instead, with some minor deviations, climbing to left of central rocks of the Mitre. Some 200 ft. of mixed climbing, hard to describe, led to the foot of the *winter couloir*, and 60 ft. up to a block belay (just difficult in summer). The *winter* exit, 20 ft. above, seemed hard without the aid of a snow bank. Climb the rib on the left, passing just left of overhangs which ring the top of the couloir (very difficult). An easy gully on right leads to the final gap, but the best finish was straight ahead by continuing on a rib to the top of the final tower.

Garbh Choire, Back Bay Gully.—The first winter ascent was made by T. W. Patey, J. M. Taylor, G. B. Leslie and A. G. Nicol on 31st March 1954. It took 45 minutes. There were no pitches, but slope steepened to 70 degrees at top. The exit was on the left of cornice.

The Trident; Coire na Ciche.—300 ft., Severe. A. Thom and Miss E. Gordon; F. Malcolm and Miss S. Anderson, 28th June 1953. On the most southern end of the cliffs; cairn. Climb rib set against wall to sloping platform tapering to right, to wall (8 ft., crux) climbed with piton safeguard by combined tactics. A slab is now climbed for 20 ft., then left traverse to flake belay. Directly up from belay, using pressure holds, to vertical wall: traverse to right to 30-ft. slab of easy angle then 75 ft. over tumbled blocks.

Polybody Groove; Coire an Dubh Lochain (cf. S.M.C. "Cairngorms" Guide, p. 240).—J. Hay, 28th March 1954. First ascent in winter conditions. Three and a half hours. Lower portion filled with old hard snow. Above the ledge the route followed a series of snow-covered ledges to an ice pitch (30 ft.) leading to a snow patch on the left of the summer route. The top 100 ft. of May Day route was not climbed because of a thick covering of brittle ice, an exit being made on snow to the left of the cornice. Excellent snow conditions.

Ben Macdhui and Cairngorm.

Creagan a' Choire Etchachan; The Bastion.—A note appeared in New Climbs last year (*Journal* (1954), p. 246) of a severe variation of the original route on this cliff. To avoid confusion it has now been named Corridor Edge Route. The Corridor is the wide gully which separates the Bastion from the main cliff on the right or north side. The Corridor was recently climbed by A. Malcolm and A. Thom in winter, a very fine ascent as it seems almost impossible in summer at the top pitch. At the left-hand or southern edge of the Bastion is a moderate route, now named Quartz Vein Edge (reported in *C.C. Journal*, 1953), mentioned in our *Journal*, 1954, p. 251, as probably identical with Bastion Wall, there described. According to T. W. Patey the routes are entirely separate, the Bastion Wall route being from a quarter to one-third of the way northwards across the cliff towards the Corridor, but all the routes more or less parallel and straight up the cliff.

Apparently the Original Bastion Route has not been described in the *Journal*. It is a 450-ft. mild severe route, climbed by D. A. Sutherland and K. Winram on 1st April 1950, and is the most enjoyable route on the crag according to T. W. Patey. The Editor with Mrs Bell and L. M. Hill climbed it in May 1954, and was unable to identify it until Tom Patey revisited the crag and cleared up the topography. All four routes will be properly described in the forthcoming Rock Climbing Guide to the Cairngorms. Here it is sufficient to say that the Original route starts from the lower rocks at the right side of the Bastion or by a traverse left from the foot of the Corridor. It goes up rather leftwards towards left end of an overhanging wall at 150 ft. A fine slab pitch rounds the corner of the wall to a pedestal. Another 50 ft. of wall and the route trends rightwards with a short chimney to a platform. Now take the left hand of two chimneys, then some sloping ledges and a final, long V-groove to easy ground. A striking quartz vein provides a line of good holds in the upper part. It certainly seems to be a natural route from start to finish. No doubt traversing left would land the climber on easier rock.

Carn Etchachan; Loch Avon Face.—The three routes described are on the upper belt of crags above the Main Terrace. Four ill-defined depressions are visible on these crags to left of terminal gully of Scorpion.

Proceeding along Terrace from Loch Etchachan end, the first route, a precipitous wide chimney or gully called Equinox is seen. Skylined on the right is a great overhanging tower. In the shallow depression next on right is Boa route, the final vertical crack being well seen on right wall of the great square tower. A spur of pink rock separates this depression from the next, even less defined. Python route is on the spur. The depression has no routes, but an obvious long crack with mossy overhangs cleaves the centre, inclining rightwards. The next spur, with some pink rock, leads to a more broken fourth depression containing the moderate Battlements route, not described here. Then the Main Terrace merges into the face.

Equinox.—250 ft., very severe, was climbed by T. W. Patey and L. S. Lovat on 2nd October 1954 (named after an earlier attempt). The wide chimney is not as hard as Python, but rocks are greasy. The first 100 ft. of indefinite climbing from Terrace to a huge block at foot of gully proper. Climb groove a few feet. Step right and continue up shelving slabs on right. This line is too steep at 60 ft., so return upwards into gully to a block belay. Climb vertical corner on right, continuing directly up very steep rock for 70 ft. (very severe), to obvious dark chimney with constricted exit, to comfortable platform above. Final 20-ft. chimney on left.

Boa Crack.—250 ft., severe, climbed by T. W. Patey, F. R. Malcolm and A. Thom on 25th September 1954. The final crack has magnificent situation. Scramble up to wide chimney in right corner of recess and on immediate left of foot of spur of pink rock. Chimney uninviting. Slant up leftwards by ledges and corners towards easier ground in upper recess. Move left to foot of 100-ft. crack on left wall. It is vertical with a hanging chockstone at 70 ft. Very exposed outward movement from jammed position is necessary to pass chockstone, but rock is excellent.

Python.—250 ft., very severe, climbed by T. W. Patey and L. S. Lovat on 2nd October 1954. The difficulty is sustained and strenuous. Pass below spur and start on far side (to west), aiming for huge detached flake, high on face of spur. A few feet up a 20-ft. slanting cleft cuts a wall of red rock, with a platform on the right at the start. Jam up this severe cleft to a mossy platform and jumble of blocks. Ascend on the right 50 ft. to reach the huge flake. An initial very severe and strenuous layback and another very severe pull up over an overhang to the crack behind the flake, which climb astride. Walk left below smooth wall to the east side of spur, opposite Boa Crack. Climb first chimney on right to reach a large platform on

spur at 80 ft. A great fang of rock above is the finish, climbed by the severe 60-ft. central chimney.

Coire an t-Sneachda, The Runnel.—This winter route was climbed on 1st January 1955 by L. Lovat and Tom Weir and also by Tom Patey, J. Hall and Miss N. Welsh. It is in the left-hand part of the large fluted buttress lying between Aladdin Buttress and the lowest part of the corrie rim. It is the best defined gully to split the buttress, steep and narrow above a lochan in the corrie floor. Steep easy climbing on hard snow to fork, 120 ft. below the top. Left fork used with a steep 60-ft. chimney to final slope, and no cornice.

Edinburgh U.M.C. Journal (July 1946).—A note appears on Coire an t-Sneachda, Aladdin's Mirror, 400 ft., on west side of Aladdin Buttress, rather discontinuous and disappointing, with a possible fine ice pitch on left edge of dog-leg, in good conditions. Trident to west of the Buttress (right). An easy snowfield tapers to a point 300 ft. beneath summit plateau. Three narrow fingers now extend upwards, each a good gully climb; left one very easy; central one is best climb in corrie, narrow and steep, easing off near top where there is usually a heavy cornice; right one is a good climb, less heavily corniced.

Braeriach.

Garbh Choire Mor, She-Devil's Buttress.—400 ft., Very Difficult. K. Winram and M. Smith, 24th May 1953. This buttress forms the right retaining wall of Great Gully. Start at foot of long tail of slab ribs forming low wall. Easy but delightful for 150 ft. to steep main section at spearhead of rock set under the lower of two vicious-looking high-angled slabs. At the top of spearhead climb left-hand crack on lower slab till it peters out on the smooth face over Great Gully. A delicate long stride to left followed by an upward move to easier rock leads to a crack between the two slabs. This crack leads to a magnificent eyrie with table-top block belay. The wall behind is vertical and very difficult. At first good footholds, but sketchy handholds. Trend to left into a groove where difficulties ease, with belay in 30 ft. Then to open corner on left, over Great Gully, and wet slab back to crest and easy rock.

Egyptian Fantasy.—350 ft., Difficult. K. Winram and C. Petrie; G. R. Greig and M. Smith, 14th June 1953. Sphinx is bounded on left by a narrow gully climbed by A. Tewnion in 1940. To left of this gully is a tapering buttress divided by a huge, slabby, right-angled recess. The left side is composed of ribs and shallow grooves. The route lies on a sheet of slab on the right, with a curving crest. Start slightly to right of recess, straight up for 40 ft., then right traverse and exposed upward move to crest over gully. Easy to platform of piled blocks below vertical wall at head of recess. Choice of routes to top of wall. Either a severe exposed move out to left with long

stride followed by crack, or little chimney on gully wall. Then steep moderate rib for 80 ft. to plateau.

Coire Brochain, Azalea Rib.—250 ft., Difficult. K. Winram, C. Petrie and M. Smith, 28th June 1953. Small buttress forming left wall of West Gully. Route follows line of least resistance, up lowest rocks to right on smooth slabs to platform and belay. Then left traverse and high step to shelf on right side of buttress, narrowing to difficult mossy corner. Double back up grassy gully to nick in ridge, then on slabs on left of buttress to final very steep wall. Short descent to left and narrow chockstone chimney.

NORTH WEST REGION.

Beinn Eighe, Coire Mhic Fhearchair.—The following three routes were made by L. S. Lovat and Tom Weir, alternate leads, in June 1954; the first on 9th June and the others on 12th June.

East Central Ribs, 350 feet, severe, follows the crest of three prominent quartzite ribs, just west of East-Central Gully of Triple Buttress. The ribs are steep, narrow and exposed and are bordered by the gully on the left and a narrow cleft on the right (see photograph facing p. 39 of new "Northern" Guide).

The first rib is 150 ft. high, somewhat above Broad Terrace. Start in cleft on right for a few feet and traverse by short, very difficult overhang to crest, which follow for 90 ft. and get to the right edge. The crux follows. Traverse on to right flank into groove and up for 10 ft. to large ledge on crest. After 50 ft. the crest leads to narrow arête connecting with the second rib. Start at left corner and traverse with difficulty to the crest. Climb this 100 ft. to a belay and 30 ft. more to the top. The final 70-ft. rib is straight ahead. Climb an overhanging chimney on left for 20 ft. to platform. The vertical wall above leads to a very difficult bulge at 30 ft. and another 20 ft. finishes the climb.

Central Buttress; East Wall.—330 feet, Severe. There is a large rock tower level with the junction of Broad Terrace and East Central Gully. Above it, easy ground leads to start of the route which goes directly up the middle of the face. High above the starting cairn is another obvious tower.

Traverse left to large block lying against the face and climb up right of edge so formed. Severe overhanging rock leads up rightwards

to a block with broad ledge beyond at 30 ft. Traverse right to vertical right-angled corner, affording access to base of steep part of tower. Climb corner and traverse up left round base of tower. Cross notable white slab and climb up to foot of prominent right-angled chimney at 80 ft. Straddle up this till it thins to a crack, and climb overhanging right wall with awkward exit to easier ground beyond at 60 ft. Now, moderate rock for 60 ft. to recess topped by large block. From left edge of recess springs a small buttress, with belay at foot of wet chimney where it projects. Traverse left to crest of buttress and climb 100 ft. on good holds, giving a delightful exposed finish.

Far West Buttress.—200 ft., Mild Severe. This lies west of West Buttress and, farther west still, is another of less interest. Start at obvious corner left of centre. Climb steep rock for 40 ft., then horizontally left for 15 ft. on large poor holds to belay below right-angled corner. Easy rock to the corner which climb (mild severe) to easy rock at 20 ft. The buttress steepens ahead with much variation possible. The left edge gives the best finish with an overhang at 40 ft. and easy scrambling above it.

Creag Dionard.—Two new routes were made on these cliffs—Central Buttress and North Ridge—in June 1954. Access is along Strath Dionard by a two-hour walk from the Durness road. From the shore of Loch Dionard the principal features of the crag are (from right to left) the North Ridge, the Central Buttress with north face (climbed by party), a huge wet recess and the south face. The base is skirted by a great belt of slabs running up to the right at an easy angle (called *pavement* in "Northern" Guide, with photograph of Creag Dionard). Then a great ridge at an easy angle, of which the north face is steep and fissured; a great slabby buttress with a big overhanging part, separated from previous ridge by a grassy corrie drained by a prominent waterfall. The rock is quartzite.

North Ridge.—1,000 ft., very difficult, climbed 18th June by L. S. Lovat and Tom Weir. Start at lowest rocks beyond large highly coloured outcrop. Slabby moderate rock gradually steepens. Climb fairly direct by a short wall to foot of recess with a tree above. Climb left wall to tree and mossy overhang. Continue up interesting rock, variation possible. About 300 ft. below summit of ridge rock is broken and easier. Other routes no doubt possible but with similar grading.

Central Buttress.—350 ft., severe, climbed on 15th June by L. S. Lovat, Tom Weir and A. D. S. Macpherson. The length is from top right-hand end of pavement of slabs at base, gained by

easy scrambling. Climb to water-sprayed ledge and follow it upward to right to an awkward, severe traverse round a bulge to heather ledge. Climb vertical wall above on good holds to belay at 70 ft. Route now improves, trending left to prominent groove, bounded by left wall, the edge of which forms a sharp ridge topped by semi-detached pinnacle. Straddle the groove until one can traverse left on to exposed, exhilarating arête, which climb to top of pinnacle. Continue on crest to the easier ground at top of buttress.

A'Cheir Gorm.—The north-east extremity of this long spur of Foinaven is conical and graceful. Approaching from Creag Dionard two fine ridges are seen, converging on the summit and divided by the Summit Gully. These two ridges were climbed on 17th June 1954 by Lovat and Weir with Macpherson on the first only. The rock is quartzite.

North Ridge.—550 feet, Difficult (the right-hand ridge).—The start is marked by cairn somewhat right of lowest rocks. Climb two pitches of insecure rock to belay at 150 feet below prominent grey overhang. Traverse right, round nose, and climb steep wall. Continue on exposed rock to foot of formidable overhanging tower. Start left of its nose and traverse right, along ledge to nose. Climb steep exposed edge of tower on good holds to an easier arête. Keep on the crest and finish shortly under summit cairn.

South Ridge.—600 feet, Very Difficult (Lovat and Weir only).

The start is marked at lowest rocks where an avoidable 50-ft. wall leads to a vertical wall, climbed to easy ground at 60 ft. The rock steepens in another 60 ft. to a vertical rib, climbed on rather insecure rock. Continue on the ridge crest and finish below summit cairn.

Fionn Loch, Beinn a' Chaisgein Mor, Carn Mor Buttress.—This route, up left-hand side of buttress and about 600 feet in length, was climbed in April 1954 by a party from the R.A.F. College. It was named *Poacher's Route* and classified very difficult.

A wide expanse of slab extends at the foot of the buttress on the left. Climb this up right side to sloping grass terrace at 200 ft. From right end of this climb the rocks above, first right and then left



A CHEIR GORM
(On Summit Gully, North Ridge)

Tom Weir

to another terrace beneath the conspicuous line of overhangs. Turn these on right by a steep wall to narrow ledge. Then traverse right into narrow gully and climb 150 ft. to the top. (Communication from C. J. S. Bonington, London J.M.C.S.)

Maoile Lunndaidh (Monar), Creag Toll a' Choin, Mica Ridge.—300 feet, difficult, was climbed by Adam Watson and A. Watson (sen.) on 15th May 1954. From the floor of the corrie rises a steep, continuous, vegetatious cliff on the left. The route is up the first definite ridge to the right of this wall. Keep on crest or near it. Traverse by steps and ledges on the steep right side, then lone groove to exposed corner. Go left to crest and up it to a knife edge. There was a snow comb and big cornice at the top. The steep sections were clean schist.

Adam Watson examined other crags in this area. Most are broken, with much vegetation, *e.g.*, Sgurr na Muice. The face of Sgurr na Fearstaig, farther north, was steeper and cleaner. On Toll a'Choin no faces were free of vegetation.

BEN NEVIS: Carn Dearg.

Sassenach.—800 feet, very severe, was climbed on 18th April 1954 by J. Brown and D. Whillans, who led pitch 2 which is the crux. The route goes direct up the buttress between "Evening Wall" and "Route 2" by the obvious corner. Below and to the right of the corner there is a large slab of rock leaning against the face. Start just to the left of this.

(1, 80 ft.) Climb the sloping mossy ledges for 20 ft. until it is possible to step right on to a nose. Traverse left to the foot of a crack. Climb this to stance and belay at the top. (2, 60 ft.) Continue up the corner, with the aid of slings, to the overhang. Traverse left, then up the grooves above, moving leftwards, to stance and belay. (3, 30 ft.) Up easily to the bottom of the corner. (4, 50 ft.) Climb the chimney. A large detached flake at 20 ft. requires delicate handling. (5, 60 ft.) Up the corner. (6, 60 ft.) Up the corner to a grassy terrace. (7, 50 ft.) Continue up the terrace to the foot of a V-groove capped by an overhang. (8, 110 ft.) Climb the groove for 30 ft. until it is possible to step left on to a ledge. Continue up the crack above to the foot of another groove. Stance and belay. (9, 40 ft.) Climb the groove by the corner crack. Step out right at the top. (10, 11 and 12, 280 ft.) Climb the groove above.

ARDGOUR.**Sron A' Gharbh Choire Bhig.**

Leac Bheag Buttress.—This is the most prominent buttress in Coire Beag; easily seen from the Coire Mor. The main feature of this slender buttress is a large grey slab topped by an overhanging belt of rock; the resemblance to the third tier of the Leac Mhor, if on a lesser scale, is noticeable. Two routes and a variation have been climbed.

Dexter.—485 ft., Mild Severe. L. S. Lovat and C. Ford, 4th July 1954. Start at the lowest rocks at a very obvious arête near the right-hand edge of the Buttress. Climb the arête for 50 ft. followed by a 30-ft. wall to a stance below an overhang. Surmount the overhang (crux) and climb directly up to a belay at 25 ft. near the right edge. Follow the edge for some distance and then trend leftwards to the base of the overhanging belt. Traverse rightwards along the base to gain a recess at the extreme right edge. Good holds lead into an obvious groove and to a belay, 110 ft. The groove continues, but superior climbing is found on the right wall until a broad grassy rake is reached, 120 ft. Thereafter scramble for 150 ft. to the top of the buttress.

Left Edge Variation of Dexter.—190 ft., Mild Severe. C. E. Wood and W. Harrison, 4th July 1954. Start about 30 ft. left of Dexter to the right of and below a vertical nose. Climb a steep wall, trending left to a poor stance and belay in a small right-angled recess just below and to the right of the nose, 30 ft. Climb on to the nose by the left wall of the recess, rather awkward, and then scramble on rock and grass to a large belay at 70 ft. More indifferent scrambling for 30 ft. near the left edge to belay below overhanging belt. Traverse hard right by two parallel cracks below overhang for 60 ft. to the belay at the extreme right edge of Dexter below the overhang. Thereafter follow Dexter.

Sinister.—400 ft., Very Difficult. C. E. Wood and W. Harrison, 4th July 1954. Leac Bheag Buttress is divided by a gully. The part of the Buttress left of the gully is set back at an angle with the right-hand part. This route goes straight up the left-hand part of the Buttress and has not much character. Begin at the lowest rocks near the centre. Very difficult in places, and after 250 ft. or so develops into scrambling to the top of the Buttress.

Garbh Bheinn.

Great Ridge, Anathema Gully.—600 ft., Mild Severe. L. S. Lovat, 23rd May 1954. This rather unpleasant slabby gully lies on the flank of the Great Ridge to the left of South-East Chimney. The final chimney, finishing about 50 ft. below the summit of Garbh

Bheinn, is easily seen from some distance up Coire Mor. The beginning is vegetatious and steep, but the angle soon eases on slabby rocks. There are several steep but mainly short pitches, frequently mossy, which require care. The water can normally be avoided. The pitch below the final chimney is a big wet overhang. Avoid the overhang on the right by a very difficult climb up a steep groove. Walk to the foot of the final chimney, which is about 40 ft. in height, vertical, with various loose flakes and edges. Climb it to directly below its overhanging capstone and make a strenuous exit on to the right wall and pull round the corner. The exit is the crux.

North-East Buttress—Leac Mhor, Route II.—It has now been finally ascertained that the Guide Book description of the portion of this route above the capstone therein referred to is inaccurate. The pioneers in 1939 climbed to the right from the capstone to reach the "Turret" referred to in D. D. Stewart's variation reported in *New Climbs, 1953 Journal*. In fact, the latter "variation" appears to be the true original route, at any rate as far as the main overhang which tops the whole slab. Until the issue of the second edition of the Guide Book, the following variations should be noted. (Naming and certain other details are omitted.)

Variation (a).—Severe in rubbers. L. S. Lovat and D. C. Hutcheson, Douglas Scott and Miss E. Stark, 23rd May 1954. Above the unstable capstone climb 20 ft. to a recess and stance with no belay. Above is an overhang split by a narrow crack with a chockstone out of reach. Climb grey slab to the left of the recess, trending leftward on small holds to its exposed crest. Make a delicate traverse left into a groove (crux). Follow groove for 50 ft. to a narrow ledge and finger belay. Traverse left a few feet and climb steep rock to the foot of a prominent and steep right-angled chimney on the left flank of the main overhang. Climb the chimney and so directly up steep and interesting rock to the third terrace.

Variation (b).—Severe in rubbers. C. E. Wood, J. M. Johnstone and A. S. Dick, June 1954. Follow Variation (a) to the recess. Embark on grey slab and then strike back when possible into the crack above the recess. Follow the crack and so directly up to the main overhang. Traverse hard left for some distance to rejoin Variation (a) at the finger belay. Thereafter follow Variation (a).

Variation (c).—Severe in rubbers. D. Goldie and J. Dunn, June 1954. Follow Variation (a) to the recess. Move on to grey slab and climb it on small holds, thus following a line between Variations (a) and (b). Traverse left to the finger belay and follow Variation (a).

Variation (d).—Very Severe (vibrants).—G. Shields, T. Low and W. Nelson, 15th August 1954. As far as main overhang, this route follows, from the capstone, the original route and D. D. Stewart's "Turret Variation." From the nose of the overhang, traverse on to the face by a right traverse and climb parallel to the overhang for 20 ft. to the crux, close to the overhang. Use a minute side hand-hold and make a long upward step on to a sloping hold and complete the move by a pull-up. Higher, traverse on to the nose again and an excellent belay at 60 ft. The climb continues on a fine steep arête and so up the rocks above.

GLENCOE.

Buachaille Etive Mor.

Staircase Buttress.—First winter ascent. L. S. Lovat, C. E. Wood, 20th February 1955. Started with arête of East Chimney Variation of Rehabilitation Route and then a horizontal rightward traverse followed the latter. Conditions varied: verglas in interior of the three parallel cracks but groove to right of Diamond Slab held ice. Crux was right traverse above the gap, which was severe (*i.e.*, pitch below Diamond Slab). Buttress can be climbed by many lines, and sufficient snow and ice will ensure a sporting line, but steep walls will seldom hold snow. Time, 1½ hours.

The following three routes were climbed by P. Walsh and C. Viganò (C.D.M.C.) by alternate leads in the summer of 1954:—

Pedlar's Groove.—135 ft., Severe. This is a buttress about 400 ft. left of the top of Lagangarbh Buttress. Start in a gully at the left edge of the Buttress, climb 10 ft., then left round a corner and follow steep walls for 45 ft. to belay. From belay step down and move rightward round corner into a groove, which climb for 80 ft.

Hawker's Crack.—100 ft., Severe. Right of Pedlar's Groove is an obvious crack. Two pitches of 40 and 60 ft. involving an awkward move at 25 ft. in first pitch. Intermediate belay to left of crack.

North Buttress, East Face—Brevity Crack.—125 ft., Very Severe. Start 10 ft. left of Shackle Route and climb 10 ft. on easy rock to a thin undercut crack and running belay. Go straight up on small holds with a mantelshelf on to a sloping ledge and up to a belay level with the belay above the crux of Shackle Route at 60 ft. Step on to the belay and climb steep but easy rock for a further 65 ft.

Lady's Gully, Left Fork.—30 ft., Difficult. D. Goldie, R. Goldie and J. Dunn (J.M.C.S.), September 1954. This had been climbed in winter when banked with snow, but there was no record of a summer ascent.

Bidean nam Bian.

Diamond Buttress.—Winter ascent. On 6th February 1955 J. Clarkson (Edinburgh J.M.C.S.) and F. King ascended the Diamond Buttress under snow and ice, following generally the line

of the North Route, by a series of chimneys and shallow gullies. As far as the summit arête the climbing was very difficult, and the climb took slightly over 5 hours.

Diamond Buttress.—Winter ascent. L. S. Lovat and W. Harrison (latter J.M.C.S.), 13th March 1955. The route chosen followed the line of a scoop on the west face near the start of the North Route for about 220 ft. and there joined North Route to the summit. The scoop begins at the very lowest rocks and swings rightward on to the face. It is steep and eventually overhangs where it cleaves a projecting spur. An arête to the right was climbed and a short steep horizontal traverse made round a corner into another scoop. Snow-covered slabs and an awkward crack (severe) led to a platform above the overhang of the original scoop. A left traverse was then made to the crest of North Route, followed without difficulty to the top. Essentially a winter route. Time, 2½ hours.

The Church Door Buttress—Crypt Route, Gallery Variation.—180 ft., Very Difficult. I. G. Norris, A. N. Other and P. R. C. Barker (J.M.C.S.), 15th July 1952. Follow the Through Route to the second cave and then climb into another chimney in the same fault leading to a third and smaller cave. Enter the "Gallery" above this—an eyrie 6 ft. wide, 4 ft. high and 20 ft. long. Descend 4 ft. from the "Gallery" floor and, facing out, traverse 50 ft. rightward to a point where it is possible to climb up to the foot of the Arch. Then join Flake Route.

East Face of Gearr Aonach.—There is a steep 100-foot crag low down on the flank of Beinn Fhada, just south of the level part of the Lost Valley. The section of the Gearr Aonach face immediately opposite this has its lower half divided by horizontal terraces, and above this its upper half is a steep continuous wall rising 300 feet from a broad grassy alp to the summit ridge. The rock on which the following routes on the upper half were made is clean and sound. The lower half can be climbed by many lines.

Left of a spring on the broad alp an obvious route on light grey rock slants leftwards: *Mome Rath Route*—310 ft., Very Difficult. Climb up the light grey rock to a flat grassy eyrie at the foot of a steep exposed chimney on the left of the large overhangs three-quarters up the cliff. Thus far, only difficult. The harder chimney above leads to the top of the Wall.

Outgrabe Variation.—Very Difficult. Is a fine exposed finish from the eyrie up two steep pitches just to the left of the chimney.

The Wabe.—300 ft., Very Difficult. A few yards right of the start of *Mome Rath Route* is a cairn. Go up by a flake and groove to stance

below a small overhang. Over this left to a slab with pock-like holds, then right to stance and belay in corner. Traverse left on to the wall and climb 100-ft. pitch to large square block. Traverse right and up a recessed panel, just on right of large overhangs, to stance on the rib to the right. Cross left to slab on the roof of the overhang and straight up to the top of the Wall. A fine direct route combining great exposure with good holds.

The above climbs were explored by G.U.M.C.: *Mome Rath Route*—J. S. Stewart, Mrs M. A. Stewart, Miss C. B. Stewart, 16th May 1954. *Outgrabe Variation*—J. M. Brockway, J. S. Orr, 17th May 1954. *The Wabe*—J. M. B., J. B. Baxter, J. S. O., 15th May 1954; D. J. Parlane, J. B. B., 17th May 1954.

Stob Coire nam Beith—Red Caves Gully.—650 feet (total rope-lengths). L. S. Lovat and W. J. R. Greaves, 13th February 1955. This narrow twisting gully on the west flank of the mountain affords a route in winter only. To reach it (in fact, to see it), walk up towards the west flank beyond a large rock island guarding the entrance to the upper corrie, which is between west flank of Stob Coire nam Beith and the ridge between An t-Sron and Stob Coire nam Beith. From above the island the gully can be seen on the left.

Sixty feet of snow led to a 15-ft. overhang of red rock above a cave. The steep left wall was climbed on ice-bound rock and snow-ice. Ninety feet of easy snow ended below another red cave, avoided on the left by a very short steep section on ice and snow-ice. Variable snow with occasional ice led, with gradual increase in angle, in 300 ft. to a saddle above a rock rib in the middle of the gully. Above, the gully steepens consistently and narrows; 70 ft. of good snow was followed by a 10-ft. severe overhang giving access to a chimney. A short distance above this a vertical rock rib divides the very narrow gully into two narrower exits. Back and foot tactics on hard snow led to the foot of the rib and thereafter it was necessary to creep leftwards round the rib into the left fork on steep powder snow. The left fork is a long, slanting, open chimney with a vertical finish. It involved careful back and foot work on powder snow. From the chimney above the 10-ft. overhang to the top of the gully required 110 ft. of rope. There was no outstanding difficulty, but the climb was fairly continuous and strenuous. A plastering might make the climb easier and softer conditions might make it dangerous or impossible. Time, 3 hours.

Stob Coire nan Lochan, Summit Buttress—Scabboard Chimney.—410 ft., Severe. L. S. Lovat, I. D. McNicol and A. Way, 30th May 1954. The route lies just to the right of the original Summit Buttress

route and follows the line of a 300-ft. (approx.) chimney to the right of the steepest part of the Buttress. Beginning mainly as a crack, the chimney widens as height is gained.

Climb a short steep chimney and walk up a short way on grass to the foot of a crack. Climb the slab on the right of the crack (very difficult) to a belay at 70 ft. Entrance is then gained to the chimney proper by a crack. Straddle the chimney until penetrating into a "sentry-box" with belay and stance at 100 ft. (very difficult). Chimney narrows to a short crack in the roof of the "sentry-box." Emerge from latter on to rib on right and climb up and left back into the crack. Follow the crack (crux) to a large block belay at 40 ft. (A rather easier route after moving on to the rib is to traverse 3 ft. further right into a right-angled groove, climbed to block belay.) Chimney continues for 100 ft. at an easier angle to a shoulder of the buttress above Broad Gully. Strike up left for 100 ft. to the top of Summit Buttress. No definite line suggested for last pitch, but care necessary on typical loose columnar rocks; the rest of the route is sound.

Aonach Dubh, North Face—Shadbolt's Chimney.—First winter ascent. D. Goldie and R. Goldie (both J.M.C.S.), 13th February 1955. Route icy but not snow-plastered. The 150-ft. chimney was severe, with ice on the left wall. Thereafter, with the exception of the 30-ft. chimney which was severe, the route continued without much difficulty to the "Corridor." Then 100 ft. of hard steep snow led to the left wall used as finish. The final pitch of 100 ft. was very severe, involving clear ice and use of frozen turf. A piton was used as a belay. Time, 7 hours.

Aonach Dubh, East Face—Adam's Wall (variation of Drain Pipe Corner in 1953 *Journal*).—225 ft., Very Severe. J. Cullen and C. Vigano (C.D.M.C.), May 1954. First pitch as for Drain Pipe Corner. Then 20 ft. of second pitch followed by traverse on right wall to belay at 55 ft. Now climb an irregular crack, very steep with good holds for 60 ft. to large block belay jammed below final wall. Ten feet to the right the overhanging wall is climbed (crux, very strenuous), followed by scrambling for 60 ft. to terrace.

Basin, Final Arête.—100 ft., Severe. P. Walsh and J. Cullen (C.D.M.C.), May 1954. The arête is easily found to the right of the wall above the Basin. Start in a gully at a tree to its left and gain the arête in 15 ft. A further 50 ft., awkward at start, leads to large ledge at 65 ft. Then climb the left edge, steep but easy, for 35 ft. A very severe variation, 8 ft. to left of last pitch, was also made up a very steep wall passing a small spike.

The Brack (Arrochar) Elephant Gully.—J. B. Nimlin and R. Grieve made a winter ascent on 1st January 1953 in excellent snow and ice conditions; most interesting throughout.

In Memoriam.

HARRY MACROBERT,

1880-1954.

IT has fallen to me to write in our *Journal* of Harry MacRobert, who died at his home at Kilmacolm on 25th August 1954, and gladly I pay tribute to my lifelong friend, fearing only that I may fail in doing justice to one so beloved and respected by young and old.

To deal very briefly with his life and work outside climbing, his business career began in the Local Government Board, but after a few years he changed to Chartered Accountancy, and, training in the office of McLelland, Ker & Co., he took his diploma with honours. Soon after he became a partner in the firm of Wyllie, Guild & Ballantine, and worked in it till he was laid aside by illness a year or so before his death.

When the First World War broke out he was in the Alps on the Italian side with Ling, Sang and Arnold Brown, and had to get home by a boat (of sorts), and with a motley assortment of passengers from Genoa. Then he enlisted at once in the Glasgow Chamber of Commerce (H.L.I.) Battalion as a private. Soon he was commissioned, and later on was given a staff appointment, in which his flair for map-reading and compass work found ample outlet and was of great value.

His climbing began as a boy of 12 on the Arran hills in 1892, and from then on there is his fascinating photographic record (in six volumes) with its crisp short notes, up to New Year 1945, a record over which many of us have pored with enjoyment. This is supplemented by a list of his climbs year by year, and what a list it is, roving all over Scotland, with odd excursions to the Lakes and Wales, and several seasons in the Alps. So far as I know he never set out to bag all the Munros, but climbed and re-climbed his favourites—Ben Nevis,



HARRY MACROBERT

first by the path in April 1903, with 10 feet of snow at the top, and the Observatory in operation, and forty-four times in all by every ridge and gully; The Cobbler twenty-two times; Ben Lui, fourteen; Goatfell, thirteen; and so on down the list recorded with loving care.

He joined the Club in 1905, and worked constantly for it—on the Committee, as Trustee, Vice-President, Treasurer (1914 to 1927), Editor of the "Ben Nevis" and "Central Highlands" Guides, and Joint Editor of the "Skye" Guide, exploring, climbing and verifying to enable him to do the job well; and from 1932 to 1934 he was our President—outstanding, admired and beloved.

His first season in the Alps was in 1907 when he was out with J. C. Thomson and did the Matterhorn and the traverse of Mont Collon; and he was out in 1910, 1912, 1913, 1914 and 1924 when, from the chief centres, he did most of the standard climbs, many of them guideless even in 1907. One 1913 expedition that he particularly cherished was a first for the year crossing of the Col de Miage with Stuart Cumming, guideless, from a gîte on the glacier above Courmayeur. His chief companions in the Alps were J. C. Thomson, Stuart Cumming, Arthur Russell, Ling and Arnold Brown, but there were many others.

He joined the Alpine Club in 1914 and was elected Vice-President in 1943.

Ski-ing had now come in as a friendly rival to climbing. As far back as 1911 he was over Carn Dearg and Carn Ban on ski, and from then "on ski" is marked against many a Scottish hill including Ben Nevis. He joined the Scottish Ski Club in 1911, and was one of the prime movers when the Club was restarted after the 1914-18 war, and he was Vice-President from 1935 to 1950. Then came Switzerland for ski-ing—February 1922 the Elsinghorn, February 1929 the Wildhorn, and from then on as often as he could manage it, with his wife and daughters as they grew up, and a cheery circle of friends including the Walkers, the Jeffreys and Willie Ling.

But when all has been said about what he did in all the spheres of his many activities, ever outstanding is

The Man; quietly efficient, painstaking, cheerful in all situations, full of humour and friendliness, beloved by young and old and enshrined in our memories to the end.

Say not of him that he is dead
But simply, he's gone on ahead.

J. S. M. JACK.

WALTER BARROW,

1867-1954.

WALTER BARROW, one of our oldest members, died last June at his home in Worcestershire at the age of 87. He joined our Club in 1894, and the Alpine Club in the same year. He took a great interest in Midland and Birmingham University Mountaineering. He climbed a great deal with his brother Harrison, who died a year before and whose obituary (written by his brother) appeared in our last number. It would therefore be sufficient to refer readers to that account for their joint climbing achievements. It is also a very long time indeed since Walter Barrow took any active part in Club affairs.

He was always interested in our doings, however, and ready to assist the Hon. Editor, as when he contributed an account of the historic 1897 yachting meet for the Jubilee number of the *Journal*. His mountaineering (apart from Scotland) extended over the English Lake District, the Alps and Dolomites and Norway. He was still climbing on the Alps with his daughter when well over 60 years of age.

He was a solicitor by profession, but he had also considerable business interests. From 1917 until his retirement in 1935 he was a managing director of Cadbury Brothers Ltd., and for a period Vice-Chairman. He took a large part in the public affairs of Birmingham, for a long period as Governor of King Edward's School, President of the Birmingham Law Society, President of

the Birmingham Chamber of Commerce and a Life Governor of Birmingham University. In 1933 he became Pro-Chancellor of the University, and during his six-year period of office was the principal agent in the establishment of the new medical school. He also took a great interest in social and charitable work and associations.

It is pleasant to record that he enjoyed good health in his retirement, and that he informed the writer a year ago that he still climbed a little: in his own words, "I have a good orchard and my only climbing nowadays is picking cherries."

It is good to reflect that the Scottish mountains have drawn such a man to become one of us.

J. H. B. BELL.

STAIR AGNEW GILLON.

SHERIFF GILLON, who died recently, aged 76 years, joined the Club in 1902 and was a most active climber in the years preceding the 1914-18 War, in which he served in France and Gallipoli and was mentioned in despatches. He attended Club Meets regularly for a good many years, but there is only one record after that war, in 1921. He still climbed then, however, and refers in an excellent obituary article on his close friend (John Buchan), Lord Tweedsmuir, to happy post-war scrambles on the Letterewe hills and in Mull.

In Vol. 8 of the *Journal* there are two articles from his pen, one entitled "Random Musings," on the Scottish hills, which is exceedingly well written, and another on the Cluanie Hills in February.

He climbed in Norway every summer from 1904 to 1908, sometimes with our member J. W. Burns, and sometimes with a guide. He ascended the Romsdalshorn, Store Skagastölstind and other Jotunheim peaks, also from Oie a number of peaks.

He was an advocate by profession, educated at Moffat and Haileybury, with an Oxford B.A. and an Edinburgh LL.B. From 1919 to 1942 he was Solicitor to the Inland

Revenue and thereafter Sheriff-Substitute of Dumfries and Galloway. In his earlier days he was for a time private secretary to his friend John Buchan.

We regret also to record the death of the following three members—**J. Walter Buchan** of Peebles who joined the Club in 1906 (the brother of John Buchan, Lord Tweedsmuir), **J. C. Maclaurin** who joined us in 1924, and **R. T. Sellar** of Huntly who joined us in 1925 and served on the Committee during the recent war. Mr Sellar did most of his climbing with the Cairngorm Club, and a full obituary will be found in the next issue of the *C.C.J.*

OPENING OF THE LING HUT IN GLEN TORRIDON.

ON Saturday, 9th April 1955, thirty-two members and guests, among them being representatives of the L.S.C.C., Cairngorm Club, J.M.C.S., and O.U.M.C., were present for the official opening of the Ling Hut at Lochan Iasgaich, Glen Torridon, by Mrs G. T. Glover, who had come up from Carlisle specially for the occasion.

In asking Mrs Glover to perform the opening ceremony, the President paid tribute to Willy Ling and George Glover, two great friends through whose generosity the hut has been established in the area where they did so much of their pioneer climbing. He also thanked all those who had worked towards this occasion, notably George Peat, George Roger, Paddy Heron, and the members of the work parties, together with Mr Arnot, representative of the Wills Trustees, who have leased the cottage rent free, and Mr Cameron, the keeper on the Coulin Estate.

Mrs Glover thanked the Club for the pleasure the invitation had given her, and then entered the hut to sign the visitors' book, followed by all present. A toast "To Absent Friends" was drunk, Stuart Jack read one of his poetic gems, and coffee was served.

PROCEEDINGS OF THE CLUB.

EASTER MEET, 1954—FORT WILLIAM.

THE meet was most enjoyable. Delightful sunny weather prevailed, the Sunday being an especially fine day, but snow conditions were disappointing for this time of year. The Palace Hotel fully maintained the reputation for hospitality which we have come to expect there.

The following members and guests were present at Fort William: The President, Dr G. Graham Macphee, Messrs A. E. Anton, W. J. Bannister, T. Graham Brown, M. H. Cooke, A. Dixon, D. G. Duff, R. R. Elton, C. C. Gorrie, A. Harrison, E. W. Hodge, R. M. Gall Inglis, J. S. M. Jack, G. Murray Lawson, R. W. Martin, D. H. McPherson, A. G. Murray, T. Nicholson, I. H. Ogilvie, F. E. O'Riordan, G. Peat, W. B. Speirs, C. R. Steven, E. C. Thomson, T. E. Thomson and R. D. Walton (members); J. T. Austin, J. Barnard, A. Evans, R. A. Gerstenberg, K. James, K. Macrae and J. G. Speirs (guests).

Climbs and other expeditions during the meet included:—

Thursday, 15th April.—Macphee, Inglis, O'Riordan and James: Coire an Lochain, Binnein Mor and Na Gruagaichean. O'Riordan and James continued over Stob Coire a' Chairn and Am Bodach.

Friday, 16th April.—Martin, Macrae and O'Riordan: Sgurr nan Coireachan and Sgurr Thuilm from Glenfinnan. Walton: Traverse of Meall na Teanga and Sron a' Choire Garbh from Achnacross to Laggan Locks. Ogilvie and Gorrie: Aonach Beag by north-east ridge from Spean Bridge to Fort William. Brown and Inglis: Carn Mor Dearg. Cooke, Nicholson and Barnard: Stob Ban by a snow gully, Coire a' Mhail, Sgor an Iubhair, Am Bodach, Stob Coire a' Chairn, An Gearanach and An Garbhanach. The following climbs were done *en route* to the meet. Harrison, Lawson and Murray: Traverse of Aonach Eagach. E. C. Thomson: Ben More. Anton and Gerstenberg: Carn Liath.

Saturday, 17th April.—Macphee, McPherson, Jack, T. E. Thomson, O'Riordan, Brown and Martin: Mass assault on Garbh Bheinn by various routes. Harrison, Murray and Ogilvie: Binnein Mor. Ogilvie continued over Sgurr Eilde Mor. Elton and Nicholson: Aonach Mor, Aonach Beag and Carn Mor Dearg. Cooke and Barnard

and also Inglis, Macrae and Austin: Carn Mor Dearg, the latter continuing over Ben Nevis. Anton and Gerstenberg: Ben Resipol. Hodge and Evans: Meall na Teanga and Stob a' Coire Odhar. W. B. Speirs and J. G. Speirs: Stob Choire Claurigh, Stob Coire an Laoigh and Stob Coire an Easain. E. C. Thomson, Dixon and Bannister: An Gearanach, An Garbhanach and Stob Coire a' Chairn. Walton: Gulvain.

Sunday, 18th April.—T. E. Thomson, Inglis and Lawson: Rois-bheinn from Loch Ailort. Jack and Brown: An Stac from Loch Ailort. Macphee and Bannister: Carn Mor Dearg by north ridge returning by C.I.C. Hut. Walton and Dixon: Sgurr Choinnich Mor and Beag. Walton continued over Stob Coire an Easain. The following parties were climbing on Ben Nevis: Speirs, Nicholson, Cooke, Barnard, Harrison and Murray: Castle Ridge. Ogilvie, Peat and Austin with A. H. Hendry from the C.I.C. Hut: Douglas Boulder direct and Tower Ridge. Martin and MacPherson: Tower Ridge.

Monday, 19th April.—Nicholson, Steven and Austin: Grey Corries. Martin and T. E. Thomson: Stob Coire Sgriodain and Carn Dearg. Ogilvie: Beinn na Lap. Harrison, Lawson, McPherson and Murray: Buachaille Etive Mor by the Curved Ridge.

The following members and guests were in the C.I.C. Hut: D. J. Fraser, A. H. Hendry, A. Horne, G. J. Ritchie, W. A. W. Russell and J. D. B. Wilson (members); D. Ross (guest).

Friday, 16th April.—Russell, Ritchie and Hendry: Douglas Boulder direct and Tower Ridge. Horne and Fraser: Tower Ridge.

Saturday, 17th April.—The whole party climbed the North-east Buttress.

Sunday, 18th April.—Horne and Fraser: Castle Ridge. Ritchie, Russell, Wilson and Ross: A combination of the North Trident and No. 5 Gully. Hendry again did the Douglas Boulder direct and Tower Ridge with Peat who had come up from Fort William. Wilson and Ritchie went down to Fort William. The rest of the party after enjoying dinner in the Hut left on a rescue expedition, arriving back next afternoon. This spoiled what would otherwise have been a delightful week-end.

NEW YEAR MEET, 1955—KILLIN

CONDITIONS were bright and dry, although the sky was inclined to be overcast and the sun shone only fitfully. A cold easterly air stream did not encourage any lingering on the tops. The hills wore grey caps of frozen mist

crystals, but only patches of snow remained in the corries. It was disappointing that the snow which had fallen only a fortnight previously had disappeared rapidly in consequence of the mild weather prevailing during the last few days of the old year. The hotel was very comfortable and provided excellent fare, but unfortunately was unable to accommodate the whole meet, so that several members had to live out. The advent of the New Year brought with it the usual sounds of revelry, but the stirring notes of the pipes were missing on this occasion.

The following thirty-nine members and five guests were either staying at Killin or climbing in the area: *Members*—The President, E. C. Thomson, and G. Arthur, D. S. Anderson, R. L. Beveridge, M. H. Cooke, I. G. Charleson, W. C. Carmichael, J. Dow, W. McK. Docherty, C. V. Dodgson, R. R. Elton, A. Geddes, A. H. Hendry, R. R. S. Higgins, E. W. Hodge, B. H. Humble, R. M. Gall Inglis, J. S. M. Jack, R. Jeffrey, A. W. Laughland, J. N. Ledingham, R. W. B. Morris, W. H. Murray, J. Y. Macdonald, T. D. Mackinnon, W. M. Mackenzie, G. Graham Macphee, D. H. McPherson, I. H. Ogilvie, F. E. O'Riordan, G. Peat, W. A. W. Russell, A. H. Read, G. J. Ritchie, G. S. Roger, W. B. Speirs, H. W. Turnbull, D. G. Turnbull and J. M. Thomson. *Guests*—C. G. Macdonald, G. Morris, D. Ross, J. White and J. Weir.

Thursday, 30th December.—Ogilvie arrived at Killin having walked from Callander over Stuc a' Chroin and Ben Vorlich.

Friday, 31st December.—George Arthur visited Unna's grave at Oban. Jeffrey and Jack with Mrs Jeffrey and Mrs Tousey (guests from L.S.C.C. Meet at Crianlarich): The Tarmachans from Lochan na Lairige. Dow and Beveridge: Ben Lawers from Lawers Hotel. Ogilvie, Cooke and the Turnbulls: Traverse of the Tarmachans from Creag an Lochain over Meall nan Tarmachan to Creag na Caillich. J. Y. and C. G. Macdonald: Creag Mhor.

Saturday, 1st January.—Carmichael and Ledingham *en route* climbed Meall an t-Seallaidh from Kirkton Glen. The President (suffering from a severe cold), Jeffrey, Jack, Cooke, Inglis and Charleson: Garbh Mheall from Lochs. Geddes, O'Riordan, Higgins, Laughland and White: Carn Gorm, An Sgor and Meall Garbh; Higgins, Laughland and White adding Meall a'Bharr, Carn Mairg and Creag Mhor to complete the traverse. Murray (west to east

traverse), Peat, Ritchie, Hendry (east to west traverse), Macphee, Elton, Russell and Ross: The Tarmachans. J. Y. and C. G. Macdonald: Beinn Oss and Beinn Dubhchraig. H. W. and D. G. Turnbull, Ogilvie and Read: Central Buttress of Buchaille where they got clear of the mist and enjoyed bright sunshine. Dow and Beveridge: Three tops of Beinn nan Oighreag, Beveridge continuing alone over Meall Ghaordie to Glen Lochay.

Sunday, 2nd January.—Dow, Beveridge, Inglis, McPherson, Anderson, R. W. B. and D. Morris: The Tarmachans. Macphee, Cooke and O'Riordan: Beinn Ghlas and Ben Lawers. Jeffrey accompanied them to the top of Beinn Ghlas. Higgins, Laughland, Dodgson, Ledingham, Carmichael and White: Schiehallion. Mackinnon, Roger (east to west), Mackenzie, Humble and Weir (west to east) traversed the complete Lawers range. Ogilvie, Read, D. G. Turnbull and Charleson: Ben Lui, where they found sufficient hard snow in the Central Gully. Elton, Speirs, Peat, Hendry and Ritchie: Stob Ghabhar but found very poor snow conditions in the couloir.

Monday, 3rd January.—H. W. and D. G. Turnbull and Read: Beinn Ghlas. Elton and Cooke: Meall Corranaich. McPherson: Sgiath Chuil. Carmichael and Ledingham: Meall nan Tarmachan. J. M. Thomson, Docherty, Dow, Dodgson, Beveridge and Higgins: Stuchd an Lochain.

Annual General Meeting.

THE 66th A.G.M. of the Club was held in the Adam Rooms, George Hotel, Edinburgh on Saturday, 4th December 1954, at 5 P.M. Dr G. Graham Macphee, President, occupied the chair, and over seventy members were present. Office-bearers' reports, already circulated, were accepted after brief discussion.

The *Hon. Treasurer*, on revenue account, reported a credit balance of £58. 10s., a considerable improvement, wiping out a debit balance of £32. 10s. at the close of the previous year. Printing showed a reduction—*e.g.*, because members' list is not printed every year. The *Journal* position was improved. Rent for Glasgow Clubroom, owing to change of premises, was increased, but a further sum was received from fittings. One member only had joined the Commutation Fund.

The *Hon. Secretary* reported the death of six members—Walter Barrow, Walter Buchan, W. N. Ling, H. MacRobert, J. Neill Orr and R. T. Sellar. Three members resigned and two were removed

from the roll. Twenty-seven new members; seventeen of whom came from the J.M.C.S. (and of average age 35) were elected. The membership now stands at 325.

The following new members are accordingly welcomed to the Club: Messrs George K. Armstrong, George Baillie, John Carswell, Edward S. Chapman, George T. B. Chisolm, Geoffrey J. F. Dutton, Frederick A. Evans, John Ferrier, Kenneth Graham, Patrick L. J. Heron, Louis M. Hill, Iain C. Lees, Robert W. MacLennan, Ian D. M'Nicol, John A. Mallinson, Donald N. Mill, Denis Moore, Tom W. Patey, George H. Smith, Malcolm Smith, James M. Taylor, Alex. Wallace, Adam Watson, James A. Watt, James M. Wight, Charles E. Wood, Frank E. Yule.

The *Hon. Editor* reported on the issue of No. 145 of the *Journal* which showed a total cost of £300 for printing 1,000 copies. On the receipts side advertisements produced about £87 and sales to date £103. The latter figure may yet be added to. On balance the cost to the Club is about £120 (allowing for proportion of index), equivalent to about 7s. 9d. per member. The J.M.C.S. took 263 copies. Members and J.M.C.S. were invited to take up spare copies of back issues at reduced rates from Mr MacFarlane.

The *Guide Books General Editor* reported the publication last summer of the "Arrochar" and "Nevis" Guides. This completes the issue of the main Guides, and there remain to be issued the rock-climbing editions of "Skye," "Cairngorms," "Arran" and possibly "Northern Highlands." The steps taken to stimulate sales have been successful, showing an increase of nearly £500 to set off against a heavy capital outlay, and still leaving a debit balance of £380 which would be expected to decrease progressively.

Convener, Huts Sub-Committee.—The C.I.C. Hut showed 364 hut-nights for the year, with balance at credit up by £64. The hut is sound and weatherproof but requires pointing. Estimates are being obtained for making it burglar-proof. Mr Sinclair of Rhu Mhor (guest-house) has been helpful in looking after keys.

The Lagangarbh Hut showed 720 hut-nights and an increased credit balance of £50. It has been well used by many kindred clubs. The hut is in sound condition, calor-gas lighting now extending to the common room. Further painting is proposed and some trees have been planted outside. Thanks are due to William Bennet for his work and to Mr Cameron as caretaker.

Coulin Cottage at Lochan Iasgaich, Glen Torridon, has been leased to the Club and is to be known as the Ling Hut. It has three rooms and there is a byre. It has been repaired and equipped. There are six beds. The hut will be officially opened at Easter, 1955. Any inquiries and preliminary bookings should be made to George Peat, Conon Bridge, Ross-shire (Hon. Custodian).

District Conveners' Reports.—In the east, ten lectures were held in the R.S.G.S. Lecture Hall. There were two film shows in the theatre of the Edinburgh Ciné Society. The average attendance over

the season was forty-nine. The usual successful bus meets were held in collaboration with the J.M.C.S.

In the West the Glasgow Club Room was used regularly, keys being made available to all members through the District Secretary. The room is used regularly on prearranged dates by the J.M.C.S. and the L.S.C.C. The library is housed there: many books were borrowed and several presented. The lectures in Rowan's Smoke Room were most successful, the average attendance being not much below sixty. Bus meets were not uniformly successful, but members were active on the hills. The usual joint Photographic Competition was arranged with the J.M.C.S. Only fifteen prints were submitted but there were ninety entries of excellent colour transparencies.

The London District Convener reports a full programme, in conjunction with other clubs, and a full turnout, but few of our own members. Messrs Humble and Weir addressed two of the meetings.

Reports from Hon. Librarian and the Slide Custodian.—The use of the Library seems limited to the same few members. Thanks are due to W. H. Murray for two copies of his book, "The Story of Everest," presented to Edinburgh and Glasgow Libraries; to Denis Pilkington for his father's maps and water colours of Skye; and for the bequest from W. N. Ling.

Nine requests for slides were met during the year, including three from the new two-inch collection. The collection is in good order and has been increased by the legacy from W. N. Ling, of slides of Alps and Caucasus. The two-inch (2 in. by 2 in.) collection grows slowly, and many more donations are required from members. There are now 115 slides of this sort. Thanks are due to W. H. Murray for a donation of two guineas for this object.

The *Convener, First-Aid Committee*, reported changes in location of first-aid posts as follows: Cairngorms Kit moved from Coylum Bridge to Achnagoichan (house of Warden of Nature Reserve); Arrochar Kit to Police Station at Succoth, head of Loch Long; R.A.F. Kit at Callander Police Station for Ben A'n. The Scottish Ski Club intend to provide a kit for Meall a' Bhuiridh, and the Aberdeen U.M.C. for Lochnagar. The National Trust has completed the Coe bridge below the meeting of the waters. The annual accident report appears later in the *Journal*.

The 1956 meets were fixed as follows: New Year at Glencoe, Clachaig, Kingshouse and Lagangarbh; Easter at Glen Affric, C.I.C. and Ling Huts, together with a nearer meet centre at Clova.

The committee's nominations for office-bearers, committee vacancies and sub-committee changes were accepted and will be circulated to members in the 1955 Members' List.

A proposal by W. H. Murray that the pages of the *Journal* be opened to articles on climbing on mountain ranges outwith Scotland, subject to the editor's discretion, was debated by the meeting and passed by a majority. A proposal by L. S. Lovat, that the rules of the Club be altered to allow of a twice-yearly election to membership, was debated but not passed by the meeting.

The 1955 A.G.M. was fixed for Saturday, 3rd December at Glasgow.

Reception and Dinner.

Both functions were held on 4th December at the Adam Rooms. In the afternoon 171 members and their guests were received by the President and Mrs Macphee. Mr F. Spencer Chapman gave a talk on climbing in the Pyrenees, illustrated by excellent slides.

The Dinner was held at 7.30 P.M., and was attended by 140 members and guests. The President proposed "The Club" and Ian Charleson proposed "The Guests and Kindred Clubs," to which Lord Halsbury and Sir Edwin Herbert replied. Mr Spencer Chapman, in proposing "Mountaineering," put forward a plea for support in establishing an Outward Bound mountaineering school in Scotland. Messrs Spilsbury and Hirst gave entertaining interludes of song.

THE JUNIOR MOUNTAINEERING CLUB OF SCOTLAND.

Annual General Meeting, Dinner and Meet.

THE Meeting was held on 19th February and, as hosts, the Glasgow Section selected Bridge of Orchy Hotel as the most convenient centre. All Sections were represented and 39 members enjoyed the excellent Dinner, while considerably more than 50 attended the Meeting. Over 30 members came from Glasgow, several from Lochaber and Edinburgh, and it is believed that one London member was present. Perth Section, in particular, are

to be congratulated on turning out 12 members to both Dinner and Meeting.

A. A. Thrippleton, President of Glasgow Section, took the chair and, in the general air of relaxation following the Dinner, conducted the business with comparatively little opposition. Reports from all Sections except London were read, and most of the items on the Agenda were despatched quickly. The only item which gave rise to much discussion was a proposal by Edinburgh Section, seeking to make the election of Section Committees more democratic. This was voted down. Lochaber Section, tenacious as ever, produced large quantities of the J.M.C.S. badge and conducted a sale, with some apparent success.

This was Glasgow Section's first official Car Meet, and the Meeting was broken up, even before the expiry of the late licence, by the cries of drivers in search of passengers. Members then made their ways to camp, howff, hut and hotel.

Sunday was an excellent day overhead, but snow conditions were variable. Members, however, climbed everywhere from Tyndrum to Glencoe with most of the activity centred on the Buachaille Etive Mor. The next A.G.M. is to be organised by Perth Section.

Edinburgh Section.—Nineteen successful bus meets were held with an average attendance of 16, although the activity of the Section was not limited to these. The S.M.C. lectures continue to be well attended. Informal meetings in Milne's Bar on Thursday evenings are proving popular, and once again a successful dinner was held at the Peacock, Newhaven. The Committee was depleted during the year by the President and Secretary leaving Edinburgh and by the Vice-President and Treasurer being elevated to the S.M.C.

The membership is 64 with 8 associates. Honorary officials are G. J. Ritchie (President) and A. H. Hendry (Vice-President). The President is J. Tinkler and the Secretary G. Sweetman, c/o 38 North Castle Street, Edinburgh, 2.

Glasgow Section.—On the whole, this was not a successful year. Of 22 bus meets planned, 11 were cancelled due to lack of support, and only 2 buses were financially successful—those to Derry Lodge and to Ardgour, both being a departure from previous routine. Members were still active, none the less, but used private transport, and it has been decided to accept this position by concentrating in

future on Car Meets. Since the last Section A.G.M., 12 lectures were held in conjunction with the S.M.C. These were well supported, the average attendance being over 40. The Photographic Competition was held jointly with the S.M.C., and colour slides predominated over the Print Section. Several members went abroad to the Alps and the Pyrenees and climbed or failed to climb as the weather permitted.

The Section, although still solvent, incurred a considerable loss over the year, due to bus subsidies, printing costs, and other expenses. As a consequence the annual subscription has been increased to 15s. The membership stands at 231, 67 of whom had not paid their subscriptions before the Section A.G.M. (many have since done so). There were 33 applications, 7 resignations and 5 transfers. The Honorary Officials are W. Bennett (President) and J. Donaldson (Vice-President). During the year the President, D. McCalman, resigned and A. A. Thrippleton took office. This was confirmed at the A.G.M. The new Secretary is W. Harrison, 136 Weirwood Avenue, Garrowhill, Baillieston, Lanarkshire.

London Section.—Activities during the past year included the usual meets at the Kent outcrops and, despite our scattered membership, small parties got together for meets in North Wales and Skye. Twenty-two members attended the Annual Dinner, where the display of photographs was small but interesting, largely due to the efforts of one of our members, Mr H. Wells. It is proposed that new members will in future be asked to confirm that they are interested in actively supporting the Section. Activities in the coming year will include one or two lantern lectures in London and an indoor meet every six weeks, which may include an occasional informal dinner.

Better liaison is to be established between members travelling abroad and an Alpine sub-committee is being formed. We should appreciate contacts from other Sections who have members going to the Alps. Those of our members who are going to Scotland this year would also appreciate contacts from Scottish members who may be on holiday at Easter, Whitsuntide or early in August.

The honorary officials of the Section are Charles Gorrie (President) and Angus Smith (Vice-President). The Section President is Ted Pyatt and the Secretary is G. R. Cornish, 20 Tuns Lane, Slough, Bucks. The present membership is 69.

Perth Section.—Once again the Perth Section has had a successful season, this being our Silver Jubilee, which was celebrated on 17th October in the Spittal of Glenshee Hotel. Forty members and guests attended the dinner. Out of the original 5 members, only Chris. Rudie managed to attend, but messages were received from the other 3 survivors.

Throughout the year we held 14 meets, which were well attended,

Glencoe and the Cairngorms being the favourite centres. We also held several film shows, and our Hon. President lectured in the town. The Everest lecture by A. Gregory was a great success, our members taking the opportunity to meet this very fine climber. Our membership figures have now passed the 30 mark, and we hope to enrol more. The honorary officials are W. H. Murray (President) and J. Anton (Vice-President). The Section President is A. Darling and the Secretary J. Grant, 37 Burghmuir Road, Perth.

Lochaber Section.—No report received.

S.M.C. and J.M.C.S. ABROAD.

Arthur H. Read writes: "During August I made an expedition into the Purcell Range of British Columbia with a party from Harvard University. We left Invermere in the Columbia valley on 6th August and used horses to pack supplies up to the head of Farnham Creek. For the first week we were blessed with beautiful weather. We made ascents of Mount Cleaver (10,500 ft.) and Mount Commander (10,950 ft.), both of which rise out of the Commander Glacier just to the east of our camp site. We then established a high camp in the western cirque of Mount Farnham, and from it we climbed Mount Farnham (11,342 ft.) and Mount Sir Charles (11,002 ft.). Mount Farnham is the highest peak in the Purcells and we believe that only two previous ascents have been made. We planned next to climb Mount Jumbo, the highest of the peaks which rise from the Commander Glacier, but bad weather set in. After waiting for some days John Noxon and I decided to move to another part of the range. This entailed a two-day pack march and a difficult crossing of Horsethief Creek, which is the main river draining into the Columbia from our area. The crossing was finally made on a tree which we felled across the river. Our new camp was sited on the gravel flats high up Horsethief Creek. Unfortunately the weather was still bad. We made an expedition into the high valley to the east of Mount Commander, a valley which contains the beautiful Lake of the Hanging Glaciers with its many floating icebergs. The ridge which forms the southern and eastern containing wall of the valley looked highly inviting, but the weather never improved, and when one morning we awoke to find the floor of our leaky tent practically awash we decided to beat a retreat to Invermere. A brief visit to Lake Louise in the hope of climbing Mount Victoria was also spoilt by bad weather."

J. Stanley Stewart writes: "My wife and I spent three weeks in August exploring the Colorado Rockies. Exploring is the word as good maps are rare and the local guide-book seems the work of a

practical joker. We climbed Long's Peak and three other mountains in the Front Range; then Mount Princeton in the Collegiats; and then moved to the San Juans in the south-west part of the state where we ascended Mount Stewart (an obvious choice), Mount Sneffels, and a couple of others. The peaks named are all over 14,000 ft., the others slightly less. Despite their height these mountains are Scottish rather than Alpine in character, with little snow, hardly any glaciers, and always a tourist route. The lower slopes are densely forested, but they are penetrated by numerous old mining roads for which our jeep was ideal. Where the timber ends, about 10,000 ft., the meadows give splendid camp sites, where one meets nobody but chipmunks and from which a 9 A.M. start is early enough.

"Later we had a couple of week-ends in the Catskill Mountains of New York State. These are acutely frustrating, being covered with thick deciduous forest and scrub right to their 4,000-ft. tops. If one leaves the beaten trail a compass is necessary no matter how fair the weather."

C. G. M. Slessor was from July 1952 to August 1953 with the British North Greenland expedition in the Queen Louise Land area of North-east Greenland. Quite a lot of useful experience was gained in glacier travel but very little climbing was done. Mountains were, in general, unattractive, but there were some fine tors up to 2,000 ft. in height. He was on the top of several virgin scree humps from 4,000 to 6,000 ft. in height.

In January 1954 he was in the Oetzal Alps with A. G. Waldie (J.M.C.S.) and enjoyed a pleasant but easy rock climb in winter conditions on the Furgler (3,000 metres).

R. Jeffrey writes: "My wife, my son Ian and I spent a month in Norway from mid-June to mid-July, dogged by broken weather and low mist throughout. From Oslo we went by car to Elvesæter in Jotunheim, intending to climb Galdhøpiggen. Neither the jeep road to the Juvvashütte nor the hut were open, so we could only walk up the steep snow slopes and large scree to the hut. We moved on to Turtagro where I had climbed in 1910, but found everything under deep new snow, so betook ourselves to the Sogne Fjord and by stages to Nordfjord where, on our one really good day, we crossed the Oldenvand to the Bixdalsbrae. The glacier has much receded since 1910, and it was a problem to gain the ice from the smooth slabs at the side.

"Our next move was to Oie in Søndmøre, where we climbed Slogen by the south-west ridge on a fine sunny day, but we could see nothing from the top owing to the mist. Thence we drove to Andalsnes in Romsdal, aiming for the Romsdalshorn, but in 4 days the mist never cleared. Despite disappointment in climbing weather we did enjoy the magnificent and ever-changing scenery and met many nice Norwegians."

J. M. Johnstone writes as follows: "I was in the Pennine Alps from 18th to 30th July along with A. S. Dick, W. C. Harrison and C. E. Wood, all of the Glasgow J.M.C.S. We were blessed with fine weather for 90 per cent. of our holiday. We left our car at Zinal and went to the Mountet Hut, next day traversing the Mont Blanc de Moming as an *apéritif* to next day's classic traverse of the Zinal Rothorn which occupied 29 hours! The north ridge, in bad condition, took 11 hours. We gained the summit at 6 P.M. On the descent conditions were rather dangerous and it was 8 P.M. when we reached the Gabel. Lower down, on the rocks above the couloir, we decided to bivouac on a ledge which we enlarged by hacking down a boss of ice. Two pitons, driven into a rock bulge above, secured the party. The night was fine and calm, and all slept quite a bit despite the cold at 13,000 ft. Apart from stiffness caused by cramped situations, we felt fit next day as we descended to the Rothorn Hut, where we slept most of the day.

"Harrison and Wood traversed the Trifhorn on the way back to the Mountet, whereas Dick and I went over the Wellenkuppe to the Obergabelhorn. We intended to descend the Arbengrat but, owing to the slowness of a guided party of three French ladies, we descended the north-north-west ridge which, though not recommended in the guide-book, went well enough, with a fine attractive snow arête to start with.

"As the Vierseelgrat was in ferocious condition we went to Randa and then on to the Hörnli Hut. As the Zmutt Ridge seemed out of the question we used the ordinary route both ways for the Matterhorn. Returning to Randa, Dick and I went to the Weisshorn Hut, but were delayed a day by weather before climbing the Weisshorn by the East Ridge, the rocky part delightful but the snow arête very hard work, as we had to cut steps under much powder snow. The North Ridge, as seen from the summit, was fantastically corniced, so we returned by the same route."

George J. Ritchie was at Chamonix for two weeks from 25th July in violently changing weather. In the intervening fine spells the following climbs were done. With J. Marshall (J.M.C.S.) and A. H. Hendry, the Aiguille du Peigne by the south-west ridge. With A. H. Hendry the Aiguille d'Argentière. With J. Marshall the Ryan-Lochmatter route on the Aiguille du Plan which provided many most satisfactory problems capable of solution without undue expenditure of energy. With J. Marshall the Old Brenva route on Mont Blanc (the second ascent this year). Despite being ahead of schedule at the foot of the ice arête the party took 10 hours to the summit and had several hundred feet of ice cutting below the *séracs*. They descended at once before the start of the three-day storm which caused several fatalities to other parties.

G. Scott Johnstone, Mrs Johnstone (L.S.C.C.), A. G. Waldie (J.M.C.S.) and M. Price (O.U.M.C.) were around Chamonix

during the last week of July and the first week of August, in perfect weather. From the Albert Hut, they climbed the Aiguille du Tour and next day attempted the traverse of the Aiguilles Dorées. The unacclimatised Johnstones gave up at the Col Copt; the others continued and were eventually forced to retreat by a snowstorm. Prevailing difficult conditions delayed them and forced a bivouac in a snow dug-out near the Col Supérieur du Tour. A search party led by Donald Bennett, Dennis Moore and Loic Bonnier (with the Johnstones) discovered the party at 3.45 A.M., whereupon the frozen ones went down to the hut for sleep. The Johnstones and Bonnier set off for the Grande Fourche which was intractable under fresh snow, so all went down to Chamonix for food.

With three days' food the party went to the Couvercle and, in successive days, climbed the Aiguille du Moine by its south-west *arête* (much preferable to the ordinary way and with some useful pitons), the traverse of the Courtes, and the Nonne (starting as a simple scramble but interestingly varied by the crest of the Moine-Nonne ridge, traversed to a crowded "dress circle" on the ordinary route).

The party, mistaken as to the food reserve, now went to the Réquin Hut where, as the guardian failed to waken them, they had to spend an off-day. On the scantiest rations they climbed the Aiguille du Plan next day and again retired to Chamonix for food. That evening the weather broke down and it is reputed to have rained ever since.

Early in September R. Anderson (writer), Currie Henderson (S.M.C.) and Leslie Duff (J.M.C.S.) were in Zermatt. Weather was unsettled but from the Rothorn Hut with Emil Perren they did the Trifthorn and Wellenkuppe. They were treated to lightning views of Monte Rosa at night and a green dawn with saffron clouds. Henderson and Duff climbed the Pointe de Zinal from Zermatt and back in a day while Anderson visited the Decima Triennale at Milan and ascended Il Duomo. From the Z'Fluh all climbed the Rimpfischhorn in conditions reminiscent of Scottish Spring climbing, with spectacular clearings at times on the top.

Iain H. Ogilvie writes: "In September with W. H. Ward (Climbers C.) I joined a Swiss party in the Bernese Oberland. From Engelhorn Hut on 5th September, with a large party, we climbed the Frochkopf. We then went by train to the Jungfrauoch and on 7th sledged provisions and survey equipment to the Konkordia Hut. On 8th September, Ward and I climbed the Weissnollen and on 9th with Hans Rötliberger and Paul Stern traversed the Faulberg and the Kamm, a rock climb of 4,000 ft. After surveying on the glacier next day we climbed the Jungfrau on 11th September, most of the way on ski. Then the party moved down to Rieder Furka, after which I made off on my own at lower levels. I traversed the

Wildstrubel from the Violettes Hut to Lenk and returned to the Valais across the Sanetsch Pass on the 17th September."

G. G. Freeman was a member of a Climbers Club party in the Bernese Oberland based on Blatten in Lötschental, from 8th to 22nd August. There was much bad weather and new snow on rock ridges. Stephan Blötzer of Ferden (guide), Freeman and M. Dowler with several other C.C. ropes climbed the Ebnefluh from the Lötschen-Hollandia Hut and descended to the Concordia Hut. From the old Oberaletsch Hut, John Clegg, F. Fitzgerald and Freeman crossed the Beichpass to the Lötschental. Fitzgerald, Freeman and Lewis Sancha failed to complete the ascent of the Lauterbrunnen Breithorn by the west ridge from the Mutthorn Hut but enjoyed an excellent climb on snow-covered rock. Finally, Bartlett and Freeman followed a party led by Eugen Kalbermatten of Eisten (guide) up the ordinary route of the Tschingelhorn from, and returning to, Blatten.

J. H. B. Bell with Mrs Bell were with a Grampian Club party in early August at Göschener Alp in poor weather with constant south to south-west wind, very few fine days, rain and new snow. The whole party of eight climbed the Sustenhorn, including Eric Maxwell, ex-President and veteran of the party. Most climbed the Lochberg and a few the Moosstock. Two parties climbed the Schyn and one the Gwächtenhorn. Göschener Alp will soon have its excellent hotel submerged by a hydro-electric project. It is an excellent centre for rock climbing. One has only to mention the Salbitschyn and, more recently, a fine south ridge of the Schynstock over ten rock towers (neither of which we were able to attempt). But my wife and I can recommend the north-west ridge of the North-west Blaubergstock, the ascent of which raised us somewhat in the estimation of the local climbers, and we thoroughly enjoyed the south ridge of the Fleckistock and regretted a last day defeat owing to storm on the north-east ridge of the Hinter Sustenhorn.

James Russell, C. L. Donaldson and R. W. MacLennan (J.M.C.S.) were in the Reichenspitze Gruppe, Austria, the last fortnight in August. From Zittauer Hut they climbed the Gabelkopf and Mannalkarkopf, then, from the Richter Hut they were on the Richterspitze, Zillerspitze and the Zillerschartespitze. Conditions were not good, with new snow down to 2,000 metres. It rained seven days out of twelve.

Tom MacKinnon was in the Alps with Roger, Armstrong and Kerr. After crossing France successfully by Land Rover the party was washed out of Chamonix. Proceeding to Zinal they became snowbound in the Mountet Hut. They found little improvement in weather while touring the Italian Lakes and finished the holiday at

Montreux. MacKinnon then proceeded to the Dolomites where he joined friends at St Christina. The weather improved sufficiently to climb the Adang Chimney and two routes on the Sella Towers. On the way home he stayed in Chamonix for three days in perfect weather, but high mountains were "out" because of snowfall. With Gilbert Blanc, guide, he climbed the south-west ridge of the Aiguille des Pèlerins.

C. R. Ford (J.M.C.S.) writes: "I was in the Pyrenees with R. A. Foster in late September. From Pau we travelled up the Gave D'Ossau to Soque and climbed the Pic du Midi D'Ossau by the Col de Suzon and the normal route, an easy scramble. Then we crossed into Spain and walked through Sallent and Panticosa over the Col de Tendeñera to Bujaruelo. The only mountain frontier pass open to mountaineers being the Port de Gavarnie, after a day spent in the Val de Arazas, we crossed this Port to Gavarnie. When in Spain we were continually stopped by the Frontier Police who, though courteous, applied their frontier regulations very strictly. From Gavarnie we climbed up to the Brèche de Roland by L'Échelle des Sarradets and back via the Vallon des Tourettes. The next day we visited the Refuge de Tuquerouye by the Hourquette d'Allans, dropped down to Lac Glacé and, after climbing Pic d'Astazou, returned over the Col d'Astazou. From the refuge Baysseleance we climbed the Vignemale by the glacier D'Ossoue, and crossed to Cauterets by the Vallée de Gaube. We had perfect weather."

Barclay S. Fraser writes as follows: "During a non-climbing holiday in Spain we visited Hecho, a picturesque Pyrenean village in Upper Aragon, north-west of Jaca. My daughter and I failed through lack of time in a scramble up the north side of the Peña Forca, the most impressive of a limestone group about 9 km. north of the village. Later I did it solo from the south side. There was no difficulty, though parts of the rocky ridge were pleasantly exposed.

"As there seems to be a complete lack of information about the head of the Hecho Valley I add some details. Though no British climber would make it his main objective, anyone motoring between Pamplona and Jaca could profitably devote a day or two to it; the scenery is reminiscent of the celebrated Val de Arazas, though on a smaller scale. There seems to be no map available to the public, but a hurried glance at a tracing of an official map indicated that the higher tops were just under 8,000 ft. and the valley bottom about 2,000 ft. At La Hoza where the road ends, 11 km. north of Hecho, there is a wooden hut which would serve as a base for scrambling. For serious climbing on the extensive cliffs on the north side of Peña Forca it would be better to camp above the tree line or use a shepherd's hut there. The rock I encountered varied from very good to very bad. The surrounding hills seemed to offer pleasant mountain exploration but less rock climbing. The frontier hills lie a few miles to the north,

and only there do police restrictions apply. I met no climbers, and saw few signs of any. On 8th September there is a fiesta in Hecho when regional costumes are worn."

Denis Moore was in the Alps with members of the Edinburgh U.M.C. They traversed the Aiguille de Chardonnet by Forbes arête from the Albert Hut. They traversed the Grivola, ascending the east ridge and descending the south face. They ascended the Gran Paradiso from the east (Cogne) side of the mountain. Douglas Cameron (J.M.C.S.) was in the party on the first and last of these and Dr Glen Dobson (E.U.M.C.) on all three.

D. D. Stewart (J.M.C.S.) had a disappointing season with one notable reward—the ascent of the Dent Blanche by the west ridge, a first ascent for the season. He also climbed the Chardonnet by Forbes ridge, the Purtscheller by the west ridge and a new route on the Aiguille du Tour along with J. Emmerson.

Richard Brown visited the Twelve Bens of Connemara (Eire) in July with some members of the Belfast Section of the Irish Mountaineering Club. Much rain fell during the week. He climbed the Carrot Ridge of Ben Corr with J. Kennedy. The rock is quartzite. Holds are small and plentiful but there are few belays. Much remains to be done in this area.

(A very late entry, but surely of great interest to members who may wish to visit a little-known district with moderate peaks, many of which can be ascended by a lone climber.) Professor Gordon Manley writes of a 1951 holiday with his wife at the highest permanent settlement in Europe, the hamlet of Juf (6,990 ft.) at the head of the valley of the Averser Rhein. They stayed at Cresta (Avers), 6,440 ft. (higher than Obergurgl). The Hotel Heinz is much to be recommended, small, rather old fashioned and moderate in price. It is at the bus terminus from Thusis-Andeer. There is also a small *pension* at Juf and an even smaller at Purt. The climate is the sunniest and driest in Switzerland, hence the height of permanent settlement. On account of the risk of frost no crop will mature except a few vegetables—not even potatoes. The flowers are late. The valley is almost treeless and subsists on its grass slopes and cattle. The people are German-speaking and Protestant, the result of a seventeenth-century migration; lower down the valley they are Catholic and Romansch. Ski-ing is said to be good. The peaks are between 10,000 and 11,000 ft., and many are pleasant scrambling with some tougher routes and with grand views of Bregaglia and Bernina groups. It is north of the main watershed, but Professor Manley experienced a remarkable storm with persistent thunder and heavy rain for over 30 hours. This was one of the most damaging summer floods known in the Ticino Canton. At Cresta it was followed by

a change to north wind (from the Atlantic) and heavy snowfall. All the cattle had to be collected at once—one of the drawbacks of high Alpine settlements!

Dr R. L. Mitchell was at the Fafler Alp with a Swiss geologist. From the Hollandia Hut they went up the Ebnefluh in a gale, complete with guide and porter to carry specimens. Later, from St Niklaus and with Toni Biner they only visited two huts, owing to the appalling weather.

During the last three weeks of July J. Clarkson, W. MacLeod and H. R. Woolley (all Edinburgh J.M.C.S.) visited Champex and the Valais. From Champex they traversed the Aiguilles du Tour, ascended the Tête Crettez of the Aiguilles Dorées and the Aiguille du Chardonnet by the Arête Forbes. At Zinal they climbed the Aiguilles de la Lé and the North Ridge of the Grand Cornier, which was the first ascent of the season. After climbing the North Ridge of the Zinal Rothorn, they crossed the Pointe de Zinal to Zermatt. The last week of the trip was spent at the Dom and Täsch Huts, with ascents of the Täschhorn, Lenzspitz-Nadelhorn-Stecknadelhorn traverse, the Rotgrat of the Alphubel, and the Rimpfischhorn. The weather was generally fine and settled, though icy west winds were troublesome during the last week.

NOTES.

Scottish Mountain Accidents, 1954-55.

14th March.—Samuel Thomson (23) fell and was killed when climbing alone on Buachaille Etive Mor.

4th April.—Howard Jones fell on Crowberry Ridge, Buachaille Etive Mor; bruising and head injuries.

7th April.—Florence Stoddart (18) and Margaret Baird (21) left Braemar for Lochnagar without map or compass; descended to Glen Clova by mistake. Mountain Rescue Unit and other search parties out.

11th April.—Michael Barling and Alan Balch (Moray M.C.) were climbing Chockstone Gully of Angel's Peak, Cairngorms. Barling fell at ice patch, leaving axe behind, and dragged down Balch, both falling about 500 ft. Barling had slight fracture of sacrum, Balch compound fracture of both legs. Barling reached Corrour Bothy and sent for help to Derry Lodge. Stretcher and R.A.F. parties out.

14th April.—Six skiers lost way on Ben Macdhuì. Search parties out. Skiers got down safely next day.

17th April.—Dr J. B. Stevenson (24) fell and was killed on South Peak of Cobbler, Stretcher party out.

18th April.—D. J. Cameron fell in Clachaig Gully, Glencoe; fractured ribs.

19th April.—Elizabeth Emery (39) (Ladies' Alpine Club) fell and was killed on Tower Ridge, Ben Nevis (roped party). Rescue unit out. She had done *guided* Alpine climbing. Exceptionally difficult rescue, victim hanging on rope.

24th April.—Audrey Webster (22) fell in Gardyloo Gully, Ben Nevis, when with roped party. Rope broken.

24th July.—Bryan Nixon (16) fell on Aonach Eagach, Glencoe; lacerations.

25th July.—Three climbers from Kingussie Youth Hostel got into difficulty when climbing Aladdin Buttress, Coire an t'Sneachda, Cairngorm. One descended to Glenmore. Instructors from there and R.A.F. Unit to the rescue.

27th July.—Margaret Nisbet (62) attempting Ben Loyal alone, lost way in mist, spent night out, and got down next day. Search parties out.

23rd August.—George Waters (51) killed on Cruach Hill, dislodged boulder when descending. He was in charge of camp of forty boys near Ardlui.

10th September.—Michael Farmer (23) lost way on tourist path of Ben Nevis in mist. Rescued at daybreak.

19th December.—Five members of R.N. party, descending from summit of Ben Nevis to Carn Mor Dearg arête, lost control and fell to Coire Leis. All killed. R.A.F. Rescue Unit out.

21st December.—Col. Sinclair (39) set off from Glenmore Lodge to visit detachment of Edinburgh University Training Corps camping in Coire na Ciste, Cairngorm. Lost route and died of exposure.

30th December.—Geoffrey Ramsden and Archibald Mitchell climbed Observatory Ridge of Ben Nevis. The former collapsed after the climb. Rescue party out.

1st January 1955.—W. C. McGeachin (30) lost control when glissading and was killed in Coire nan Lochain, Glencoe.

4th January.—(—) Mills, Paratroop Regiment, Manchester, fell on path near C.I.C. Hut, Ben Nevis.

14th February.—Nine Sandhurst cadets in occupation of C.I.C. Hut. One party of three climbed No. 5 Gully, intended to descend No. 4 Gully, but by mistake descended steep scoop between South and Central Trident Buttresses *unroped*. One, Jones, fell to Coire na Ciste but suffered only minor injuries, with shock. In a confused state he reached the hut. Another, Credland, injured his head seriously. He was rescued by the local and R.A.F. Rescue Units and the others available. He died in hospital eleven days later.

Another party of three set out to climb South Gully, Creag Coire na Ciste, met with much difficulty, and spent the night in ice steps below final cornice, completing climb next day. One of them had severe frostbite on a foot, and R.A.F. Unit carried him down to Fort William. This cadet party was young and inexperienced.

6th March.—Two Portree climbers, Gray and Meldrum, ascended Sgurr Alasdair by the Great Stone Shoot. After descending a considerable way they tried a roped glissade and lost control on the icy surface. Meldrum fell on Gray and carried him down. Gray had a fractured femur, and Meldrum, though injured as to chest and ribs, reached Glen Brittle. A large local rescue party reached Gray at midnight. R.A.F. Unit got to Glen Brittle at 5 A.M., joined first party, and got back to Glen Brittle 8.30 A.M.

INFORMATION.—Any member or reader having first-hand details of a climbing accident is requested to communicate with the First-Aid Convener, Dr A. I. L. Maitland, 20 Mirrlees Drive, Glasgow, W.2.

The R.A.F. Rescue Unit, manned by volunteers, has earned the cordial thanks and appreciation of climbing clubs, local rescue teams and the whole body of mountain lovers and climbers, for their never-failing and prompt assistance after climbing accidents.

The Cairngorms Nature Reserve.

In July 1954 the Nature Conservancy declared the central Cairngorms a Nature Reserve. Access for climbers and walkers is not affected, and the Conservancy says that it does not now contemplate imposing by-laws on access. By-laws on the gathering of specimens and picking of plants may prove necessary, but it is hoped that they will not. The proprietors of the land retain most of their previous rights, including such legal rights as they previously had to prohibit access. In practice, as climbers know, they have taken a liberal attitude in recent years.

The reserve itself includes the summits of Ben Macdhuì, Cairntoul, Braeriach, and Sgoran Dubh. The Conservancy hopes to negotiate an extension of the reserve round Loch Avon and reaching to the summit of Cairngorm. The reserve would then have a common boundary with the existing Glenmore National Forest Park.

When the reserve was first planned, the Conservancy considered seeking the help of climbing clubs to provide voluntary wardens (as has been done on Kinderscout in Derbyshire). This project was later abandoned, and two full-time wardens have been appointed by the Conservancy. They are Mr A. MacDonald on the Rothiemurchus side and Mr M. Douglas on the Linn of Dee side.

The primary purpose of the reserve is to keep the area in its wild state. It is also to be used by the Conservancy for further research on natural regeneration of the Old Caledonian Pine and for projects connected with the Arctic-Alpine plants and animals of the area. The Conservancy is determined to resist any proposals for building motor roads into the reserve or otherwise altering its essentially remote character.

ALASTAIR HETHERINGTON.

(Interested readers will find an article on this subject in the *C.C.J.*, 1954, No. 89, p. 21, and also two notes, pp. 48, 49. We are indebted to the Hon. Editor (*C.C.J.*) for the use of the block for the map of the Nature Reserve reproduced here. It will be observed that the S.M.C. is a member Club of the Consultative Panel.)

Cuillin Main Ridge Traverse.

On 12th September 1954, during a Mountain Rescue Training Course in Glen Brittle, Isle of Skye, twelve Royal Air Force personnel, climbing in pairs, traversed the Cuillin Main Ridge. Conditions were not good, as heavy rain fell during the morning and the mist did not clear until well after midday. All wore boots with moulded rubber soles. All the parties roped at the Thearlaich-Dubh Gap and on the Bhasteir Tooth, and several also at King's Chimney and the Inaccessible Pinnacle. Times were taken from the summit of Gars-Bheinn to the summit of Sgurr nan Gilleann, and all the parties travelled in this direction except the last-named pair, who travelled from north to south. Instructors' names are given first:—

J. Emmerson and N. Miller, 10 hrs. ; G. Batty and F. Hewitt, 9 hrs. 30 mins. ; I. C. Lees and I. Miller, 8 hrs. 50 mins. ; W. Kelsey and W. Croasdale, 8 hrs. 23 mins. ; J. R. Lees and R. Larter, 7 hrs. 50 mins. ; D. D. Stewart and A. W. Hay (both instructors), 6 hrs. 51 mins.

Back Numbers of Journals.

Back numbers of certain Journals are available and may be had from Mr P. E. MacFarlane, 217 Crofthill Road, Glasgow, S.4. Price 2s. 6d. each. Orders for twelve, or more, 1s. each. Copies available: Nos. 64, 65, 67, 68, 70 to 83, 85, 93, 96 to 100, 102 to 108, 110 to 119, 121 to 125, 127 to 134, 136 to 142. (Nos. 135 and 143 for years 1944 and 1952 are out of print.)

Visibility of the Cuillin from the Cairngorms.

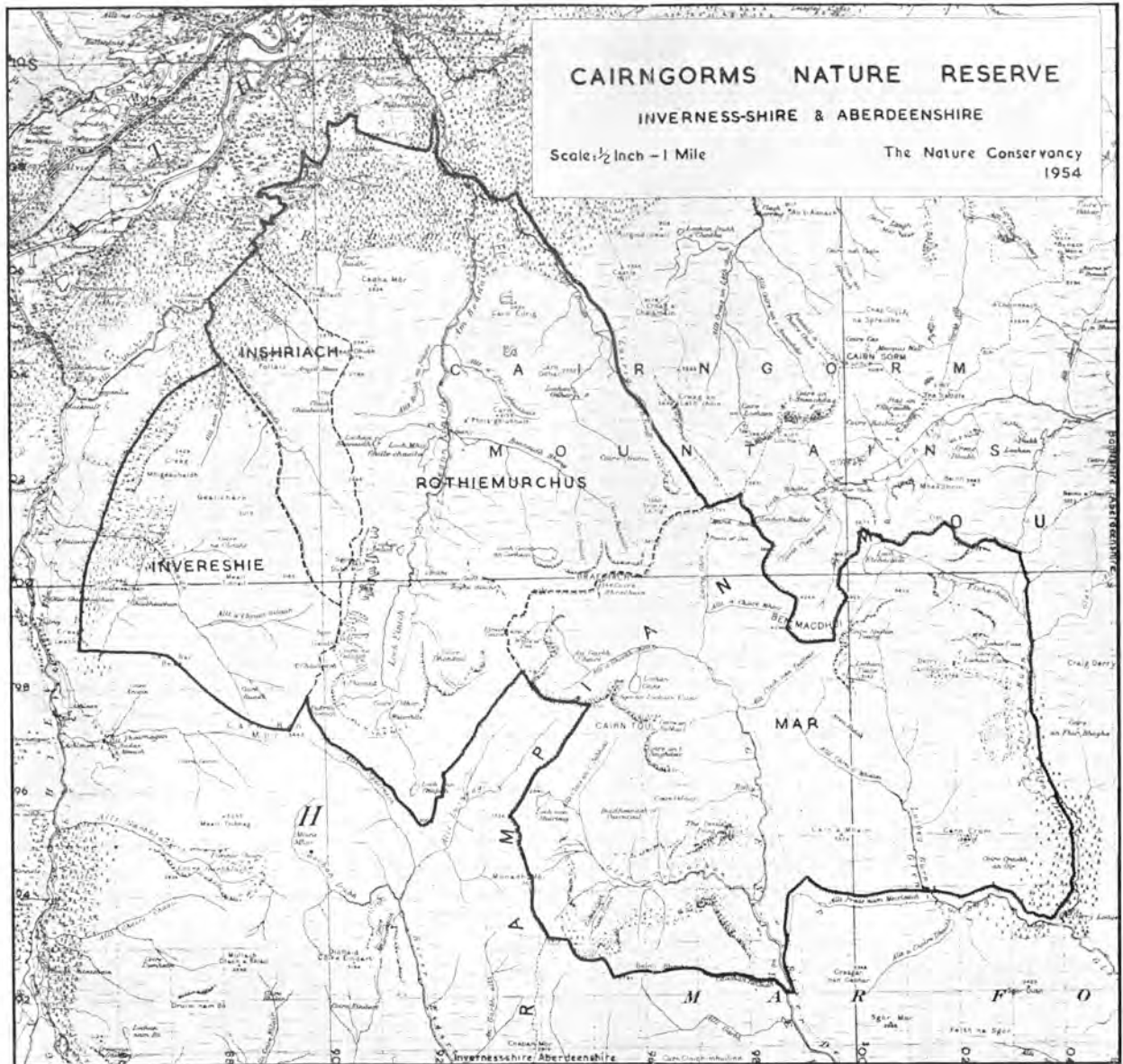
In our 1952 issue we invited members and readers to report on any personal observations bearing on this question. Dr Guy Barlow has now made an investigation on theoretical grounds and has established that, in the absence of abnormal atmospheric refraction, it should not be possible to see any part of the Cuillin from Ben Macdhui, from the summit of which a serrated Cuillin outline was claimed to have been seen in October 1947 by J. D. B. Wilson, looking through the Glen Shiel gap. Dr Barlow points out that a part of the Cuillin ridge north of Sgurr na Banachdich should,

CAIRNGORMS NATURE RESERVE

INVERNESS-SHIRE & ABERDEENSHIRE

Scale: $\frac{1}{2}$ Inch = 1 Mile

The Nature Conservancy
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however, in perfectly clear atmospheric conditions, be visible from the summit of Cairn Toul or a shade south of it. An article with his analysis of the problem will appear in the 1956 *Journal*. Data on abnormal refraction are very scanty, so we again invite readers to be on the lookout and report any positive findings either from Cairn Toul, Braeriach or Ben Macdhuì to the Editor.

The Munros and Tops.

We congratulate ex-President Macphee who, after completing the Munros last year during his term of office, has now completed the Tops as well, finishing at the recent Eastern Meet with several An Teallach tops and one on Liathach.

The Carn Mor Dearg Arête of Ben Nevis.

We refer our readers to a *Note*, "Midwinter Ice and Boots," in last year's *Journal*. In it Dr Duff emphasises the danger of the upper part of this arête to descending parties under icy conditions. He has now got a number of direction posts, so placed that descending parties may proceed with greater safety and assurance by keeping to the right of the posts.

Alpine Articles, etc., for the Journal.

Readers will note from the A.G.M. Proceedings that such articles may, at the Editor's discretion, be accepted for inclusion in the *Journal*. The general character of the *Journal* and its main concern with our own Scottish mountains is, in no way, altered.

The S.M.C. Abroad Notes already occupy considerable space, so it will only be possible to publish a few outstanding articles on expeditions outwith Scotland. They may deal with districts little known or frequented, with new routes or those of outstanding length or difficulty. The Editor requests that, in order to avoid needless trouble, the author should first submit a brief précis of the subject matter. Good writing and interest are most desirable qualities in the finished article.

LIBRARY, BOOKS AND JOURNALS.

WE list below the recent additions to the Club Library and express our thanks to publishers who have sent us review copies. Unfortunately we have very little space to do more than draw our readers' attention to them. We also thank kindred Clubs who have sent us copies of their journals in exchange for our own. In this connection we should like to thank the editor of the *Cairngorm Club Journal* for allowing us to reproduce New Climbs items appearing in their journal and area. We offer them a like service in return when desired by them.

Mountain World, 1954, edited by Marcel Kurz. (Swiss Foundation for Alpine Research. Geo. Allen & Unwin, 224 pp., 64 plates, 12 maps, etc.)

The Ski and the Mountain, by Thomas Paynter. (Hurst & Blacket, 212 pp., 20 plates.)

South Col, by Wilfrid Noyce. (Heinemann, 303 pp., 4 col. plates, 48 plates, 5 maps, 16 drawings.)

Nanga Parbat, by Karl Herrligkoffer. (Elek Books, 254 pp., 9 col. plates, 65 plates, maps, etc.)

Drove Roads of Scotland, by A. R. B. Haldane. (Nelson, 266 pp., 16 plates, 1 map.)

Report of Nature Conservancy (to September 1954). (H.M.S.O., 56 pp.)

Mountains of My Life, by Ashenden. (Blackwood, 210 pp., 28 plates.)

Mountains of New Zealand, by Rodney Hewitt and Mavis Davidson. (A. H. and A. W. Reed, Wellington, New Zealand. 128 pp., 136 plates.)

The Untrodden Andes, by C. G. Egeler and T. de Booy. (Faber & Faber, 203 pp., 32 plates, 9 figures.)

Introduction to Mountaineering, by Showell Styles. (Seeley Service, 15s., 159 pp., 8 plates, 17 figures.)

As a technical book we might offer some comments. It is ambitious for its size, covering British mountaineering (with very little indeed on Scotland) and also Alpine technique. It recommends the indirect shoulder belay for steep snow and refers to "Climbing in Britain" (B.M.C. Penguin). There the text prescribes a direct belay with rope running over a driven-in axe and the illustration a tied-on shoulder belay. (The illustration was, in fact, added later without consulting the author of the text.) Yet the belay on ice shows correct procedure, as originally commended by Raeburn for both snow and ice. It is hard to see how the diagram on page 118 for rescue of a climber from a crevasse can be applicable for a party of two. Abseiling

with the rope passing through a snap-link may be easy. Swiss guides do not use it, as being very bad for the rope. Eight-point crampons, though used by Hope and Kirkpatrick in Alpine history, are not advisable for difficult Alpine climbs, as the front points are seldom far enough forward. For a beginner in winter climbing, No. 4 and not No. 3 gully of Ben Nevis is the easier. Are there really 538 Scottish mountains above 3,000 feet, or only tops? Still, it is a pleasantly written little book even if somewhat inadequate for the extent of its field.

Epistle to Tom Mackinnon.

BIG TAM, they tell us ye're awa'
Tae taps o' everlastin' snaw,
Whaur snell winds get ye in a claw
O' hellish grip,
An' fearsome draps beneath ye fa'
Frae icy lip.

It beats me fair whaur lie the joys
In contemplatin' sic-like ploys,
But, aiblins, it's the wee black boys
Dae a' the wark;
They humph the muckle bags—nae noise,
It's jist a lark.

Ah, Tam, "hadst thou but been sae wise"
As stuck tae hills the Campsie size,
An' no' gang dodgin' up a rise
Micht gie ye a toss,
Ye still could chow your chips an' pies
At Mulguy Cross.

But, Tam, ye ken we're fu' o' pride
Tae think ye're picked frae auld Clydeside,
Tae jink up Kanchenjunga's side
Wi' ins an' oots.
Nae wee Greek god wi' fancy glide
Can beat *your* boots.

So when ye're in your wee cloth biggin,
Or watchin' heathen Sherpa jiggin',
Or drappin' pills amang their riggin',
Jist gie's a thought.
For oor belief in Tam—nae friggin'—
Is quick—an' hot!

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S.M.C. Abroad.—Please depute one person to report to the Editor for the party concerned and get it done by October when the details are still fresh in the memory. There are many accounts, so please keep it short, and use BLOCK CAPITALS for proper names and foreign place-names, always.

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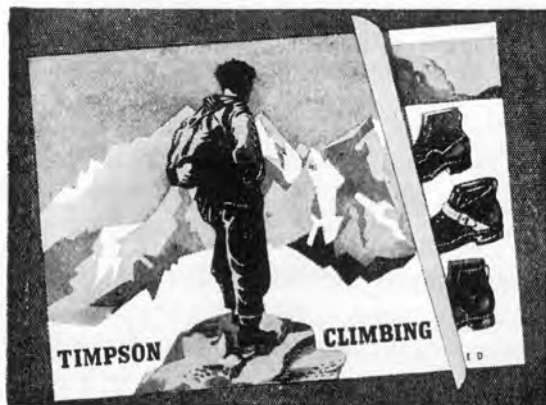
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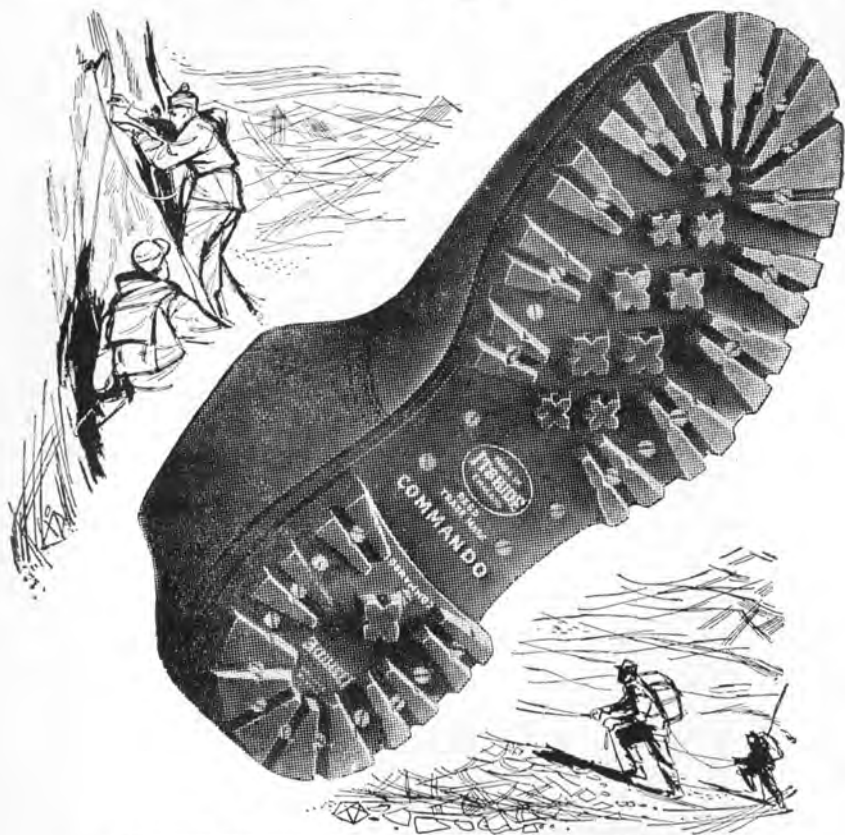
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