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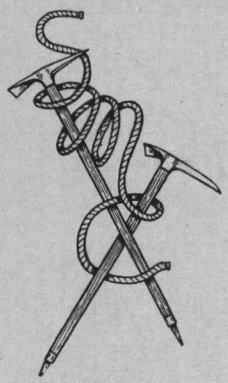
THE SCOTTISH MOUNTAINEERING CLUB JOURNAL

EDITED BY J. H. B. BELL



THE SCOTTISH MOUNTAINEERING CLUB
SYNOD HALL, CASTLE TERRACE, EDINBURGH, 1

Agents: EDINBURGH, Douglas & Foulis; GLASGOW, Wm. Porteous & Co.

PRICE TWO SHILLINGS AND SIXPENCE NET

EASTER MEET, 1941

It has been necessary to change the location of the Meet from Fort William to Aviemore. Members should make their own arrangements with the Cairngorm Hotel, Aviemore. There has, of course, been no reservation of the Hotel, in view of uncertainty as to the number likely to attend.

J. L. AIKMAN, Hon. Secy.

EDITORIAL NOTE.

WE are glad to be able to publish this number of the *Journal*, and we have hopes that we may be able to bring out the next one. Articles of interest are now scarce, and the "Notes and Excursions" have, temporarily we hope, vanished. We trust that members and others will be able to keep things going.

"Rock Climbs on the Cobbler" (price 1s. each from the usual sources) has been a great success and is almost sold out.

All Notices for the November Number should be sent to the Hon. Editor, Dr J. H. B. BELL, THE KNOWE, CLACKMANNAN, as soon as possible, and not later than 20th September 1941.

5th Jan. 1941

CLOUD HORIZONS
(Ben Cruachan, middle left distance, and Ben Starav, right)
from the summit of Clachlet

J. D. B. Wilson

THE SCOTTISH
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VOL. XXII. APRIL 1941. NO. 131.

NIGHT UP THERE.

III.—THE ADVENTURES OF PAST-PRESIDENTS.

By Messrs W. N. Ling, Harry MacRobert, and P. J. H. Unna.

(1) W. N. Ling's Experiences.

MY records show only one complete night-out in Scotland, though there have been many belated returns. I shall never forget that lovely night in May, twenty-five years ago. George Sang and I had crossed from Invercannich to Shiel Bridge by Loch Duich, collecting two tops on our way. It was a hot morning and Sang was not well, so that we went very slowly with many halts. Our goal was the summit of Sgùrr nan Ceathreamhnan, and we were to spend the night at Benula Lodge. We dawdled along, bathing, making tea, and sleeping on the grass by the stream, and it was not until after 5 P.M. that we really started the ascent. We wended our way by the side of a beautiful burn with waterfalls up to a sloping moor, where more and more mountains came into sight.

It was just before 9 P.M. when we reached the summit. The sun set, and as the ball of fire sank from sight over the Kinlochewe hills, the view was magnificent—the Loch Maree and Loch Carron tops, then the jagged ridges of Skye, the peaks of Rum, Sgùrr Fhuaran standing up finely, and faintly to the south the giants of Glencoe and the Ben beyond the shapely tops round Loch Hourn. The note of the snow bunting was heard, and by the summit lay feathers left by the golden eagle: the fading

glow struck a small lochan and made it shine like a cairngorm.

On the northern side of the hill snow still lay deep, and down this we ran for 1,000 feet, and then down grass slopes into the long Glen a' Choilich (1,400 feet), and 10 P.M. The moon and the light in the sky helped us on our way, and at 11 P.M. we found a convenient boulder by the side of which we bivouacked. The sky was beautiful with stars, and to the north a rose light still lingered. At 1.30 A.M. it began to lighten again and the colour deepened gradually. At 6 A.M. we were up and moved on to the foot of the glen at the head of Loch Lungard. We were now in the full light of the sun and it was quite warm. We stripped and plunged into the loch, whose waters were stimulating, then made tea and breakfast, after which we walked on by the string of lochs to Benula Lodge. There we were hospitably received by Mr Finlayson, who had been puzzled by our non-appearance the night before. He produced chops and eggs and other dainties—a fitting close to an enjoyable adventure. This is the only night-out I have spent in Scotland.

Abroad, nights out under the stars or otherwise have been frequent, voluntary and involuntary, so a recital would be lengthy and monotonous. My first experience, on my first visit to the Alps in 1899, was on the Weisshorn with Glover, before the hut was built. We sent a porter ahead with blankets and wood to a small platform with an overhanging shelf of rock, and followed him up, followed in turn by our guides. It was a glorious moonlight night, and the views from our eyrie at 9,400 feet were splendid. We were up at 1 A.M., started at 2 A.M., and duly completed our climb.

This was a comfortable night; others have not been so comfortable. After a long day on the Viereselgrat of the Dent Blanche, Harold Raeburn and I reached the summit at 5.30 P.M. and continued to carry on with the descent by the light of a spectacular afterglow and a declining moon till 11 P.M., when we found a rather exposed *gîte* near the top of the Wandfluh. I removed my boots and socks and sat on them, but they froze and

April 1911

BEINN FHIONNLAIDH (ULA)
(from Benula Lodge)

A. W. Russell

had to be thawed by the cooker in the morning. The most unpleasant night I remember was when Raeburn and I were traversing the two Dru's and were caught on the descent of the Little Dru by snow and darkness. We had to stand on a ledge, wet through and cold, for nine hours, but we were no worse for the experience.

Another memorable night was when Raeburn and I made the first British guideless ascent of the Zmutt ridge of the Matterhorn. We took two porters to carry blankets and food up to a bivouac from which we proposed to send them back and abandon our blankets. One of them had anticipated his reward in the form of brandy, and in the event we had to carry most of his load. We had to keep under the shelter of our overhanging rock as stones were flying down, often invisible as they buzzed past, and it was not until evening that we were able to creep warily out in order to get water. It was a fine night, and the view of the Dent Blanche was impressive. We started at 4 o'clock next morning and had a hard climb of eleven hours up the icy rocks to the summit, followed by a heavy thunderstorm and glazed rocks down to the Italian hut.

In the Caucasus we naturally had to spend many nights out. On some of our climbs we were able to take light tents. On the ascent of Ullar Choch we were only able to find space to erect one. Three of us had to sleep in holes in the rock. On the ascent of Tschantschachi Choch we had two nights out. The first one on the moraine of the Twilisa Glacier was tolerably comfortable, as we had taken down quilts, and even at 10,700 feet were not unduly cold. On the descent we were lucky to find a platform at a height of 13,700 feet at 10 P.M., where we were able to rest till 4 A.M. Then we resumed the descent. It was fairly cold; my boots and socks were frozen, so that I had to thaw them out with the spirit lamp and got one foot slightly frost-bitten.

On Ushba we had two nights out. The first was on the North Peak at a height of 13,000 feet. It was bright moonlight and starlight, and a lovely dawn. We left at 4.45 A.M., but after a determined assault we were defeated,

and after a strenuous day we regained our tents at 2.30 A.M. next morning. The second one was on the South Peak. After a long day of strenuous effort Raeburn and I had again to admit defeat. On the descent we found a sheltered corner where we stayed from 5.45 P.M. until 4.45 A.M. We had a marvellous view and a beautiful sunset. Sunrise on Elbrus was a wonderful sight and amply repaid us for any discomfort in the night. We were back at our tents by 9 A.M.

On the ascent of Elbrus we rested from 7.30 P.M. till midnight, when, by the light of the full moon, we continued the ascent. This time we had carried up wood and were able to light a fire, so that we were fairly comfortable. On the whole I have been fortunate. The only night I would not care to repeat was the one on the Dru. We found that two Shetland-wool sweaters and two pairs of Shetland socks mitigated the hardships very much, and I can strongly recommend their use to any guideless climbers who are likely to be benighted.

(2) Narrative of Harry MacRobert.

My only involuntary night-out on the Scottish hills was in Skye in 1911. After a perfect summer the weather broke as we arrived at Sligachan towards the end of August. Day after day the rain came down unceasingly until at last a lovely morning tempted us to start for Glen Brittle by way of Coruisk and the Dubhs. Our spare rucksacks were sent by pony over the Bealach a' Mhaim, and we started off at 10.30 A.M., a ridiculous hour. My companions were J. R. Young and W. G. Macalister. We were completely out of condition, and much time was wasted in photography. Eventually we started up the slabs of Sgùrr Dubh Beag at 3.15 P.M. in a fierce gale, followed soon by torrential rain on the summit. In dense mist and foul conditions we had difficulty in getting down the steep drop, and arrived at the col at 6.35 P.M. We passed over Sgùrr Dubh Mòr at 7.40 P.M. and groped our

[*Note.*—See *Journal*, Vol. 12, p. 77, "The Unseen Corrie," by J. R. Young.]

way to Sgùrr Dubh na Da Bheinn at 8.10 P.M. The darkness and the mist combined made a complete black-out, and it was actually impossible to see one's hand in front of one's face. We had one small candle for our lantern, and with the help of this we found ourselves at Lochan Coir' a' Ghrunnda at 9 P.M. For nearly two hours we searched in vain for a route down the slabs, or for the alternative over Bealach a' Sgumain, but at 10.45 P.M. we decided that further action was hopeless and that we must "stay put." A slightly under-cut boulder was found, under which two of us squeezed, while the third man sat outside.

It was the night of 30-31st August, and a full gale from the south-west was blowing into the corrie, bringing with it, as it seemed to us, not only lashing rain but spindrift from the western ocean! Some idea of the conditions may be gathered from the fact that on the morning of 31st August the heavy coast traffic from the Clyde resorts was at a complete standstill owing to the wild conditions.

For the first and last time I found myself on a mountain without either spare food or clothing. It was a wretched position and entirely our own fault. We gradually grew colder and colder in spite of our intermittent physical jerks and almost continuous singing and shouting, so that in the early hours I at least had most violent shivering fits. Even at that early age I had bad attacks of lumbago, and Young was really concerned as to what would happen to me in the near future, always supposing that we survived the immediate perils. As a matter of fact this experience seemed to dispel the lumbago germ, and it was at least fifteen years before I had another attack!

It might perhaps have been wiser to abandon the boulder shelter and to have taken more exercise in the open, but we were very tired, underfed, and not really in a condition to stand up to the full blast of the storm without some shelter.

However, the dawn did at last come, but not accompanied by better conditions. The feeble light was, however, sufficient, and in a little over an hour we found

ourselves safely on the moor at 6 A.M., and in another hour at Glen Brittle, none the worse of our unpleasant experience.

A very different night-out was one spent alone in upper Glen Sannox at midsummer. The object was to obtain a photograph of the north-east face of Cir Mhòr at sunrise. A ground-sheet and a "cooker" enabled me to spend the short night in complete comfort, and the photograph taken the next morning now adorns (I hope) the pages of the "Islands Guide."

The Editor says that I may refer briefly to incidents outside of Scotland. One of them was an ordinary bivouac near the head of the Italian Miage Glacier with Stuart Cumming. Our site was among some small boulders actually on the ice and with a good wood fire; we thoroughly enjoyed ourselves. I remember watching the stars sloping slowly to the west—if I may use the hackneyed and somewhat equivocal phrase—while one, Vega, I think, appeared to trip along the ridge of the Trélatête like some super lantern in a climbing party.

As a counterblast to our misfortune in Skye, I might, in conclusion, refer to the good fortune which attended an almost similar party (R. E. Workman in place of Macalister) on the French side of the Col de Miage. It was our first day out, and we had left the train at Le Fayet about 2.30 P.M., hoping to reach the Miage chalets that evening and cross over the col into Italy next day. Unfortunately, a dense white mist came down, and about 7 P.M. we found ourselves on an endless steep slope of grass in a tropical downpour of rain. As darkness fell we stumbled on a tiny wooden hut, a lean-to against the steep slope. It was just big enough for the three of us to crush in, the remaining space being occupied by firewood! A turf fireplace, with a hole through the ground for the chimney, completed our little paradise. We spent a delightful night cooking, eating, and sleeping, all in more or less complete comfort. Next morning we left, still in dense mist but with deep new snow, not for the col but valleywards to the flesh-pots of Chamonix, where for two days we suffered continuous sleet and snow.

(3) P. J. H. Unna's Story.

The wind was strong and my matches were damp,
And I could not light my candle lamp;
But I wouldn't have missed a night in bed,
If I'd had an electric torch instead.

And the other advantage of a torch is that it can be pointed downwards. In fact, I can still clearly remember starting at 00.15, towards the end of August 1903, for a ridge wander from the Fuorcla Surlej to the Sella pass, and struggling into Pontresina at 23.15, after a not too modest supper at the Roseg restaurant. In our innocence we forgot that the very simplest of snow mountains may carry rock upon its other side; and so, after admiring the lights of St Moritz at about 02.00 from the top of Corvatsch—still my earliest peak—we got held up on the ridge beyond. I quote this incident because it occurred before the days of torches, and clearly shows where the folding lantern fails. Lowering ours on an axe disclosed no bottom, so we had to sit and wait; and we were none too pleased when the moon, rising from behind the Bernina range, lit up the scree not more than 4 feet lower down. That, however, is rather by the way, for I intend to record a night out which does not raise the question of lanterns versus torches. Although it also happened before the days when torches were in common use, we had no lantern.

Before starting my story I should explain that I would not write at all if the Editor had not asked me to draft a counterblast to a paper on Nights Out, which I have not seen, but which, he says, he has received from an ex-President who may soon arrive at those years of indiscretion when getting back in time for tea or beer is regarded as a condition precedent to the success of any expedition. Nor would I agree to write on this particular subject if I got no pleasure from gassing about what I do not understand, for it is one on which I have not got much experience. And when I think of Mr Kirkpatrick, and how he might enlighten us on what he and the late Mr Philip Hope seemed to delight in regarding as unintentional Nights In, or of the late Captain

MacCarthy, the leader of the Mount Logan expedition, and how he put his principle that the correct way of dealing with bad weather was to sit it out into practice on his first and I believe only visit to the Alps, and how he knocked out three first class guides in doing so, or of yet another member of the Alpine Club who might be grateful for a chance of refuting the allegations that he once left Mauvoisin after lunch for Chanrion, a few minutes ahead of his wife, who next saw him twenty-one hours later on, as he arrived back at his point of departure after a night on the Giétroz glacier, and that on another occasion he set out from Zermatt for Arolla accompanied by a chance Italian acquaintance, and after two nights out fetched up at Ferpècle, I cannot help feeling that there may be many with more authoritative views than mine.

But I have a genuine excuse for complying with the Editor's request, for my tale relates to Scotland. It starts in 1904, when I was working at Grangemouth, and could sometimes see Ben Ledi from the office window, with Stobinian and Ben More standing out behind. I persuaded a colleague, one Prescott Brounger, later killed in France, to try his hand at climbing. Our first expedition was in February of that year, in perfect weather, and with snow line and high-water mark in one. We caught the night mail to Callander, and by way of Stank we reached the top of Ben Ledi under a full moon and starlit sky at 04.00 on a Thursday morning—my second earliest top—and then knocked up the Dreadnought Arms for bath and breakfast in time to get back to work, but feeling rather mondayish for the middle of the week.

Brounger's second climb was Ben More and Stobinian, a month or so later, and in a howling gale, which prevented us from keeping to the summit ridge; and I think it must have been his fifth that started up the Ben on Saturday, the 30th of December, 1905. We had arrived at Fort William the day before, and happened to meet Wigner in the street, and he persuaded us to stay at his hotel, the now defunct MacSomething Arms, at 6s. 6d. a day. As I had to catch the 15.15 train south on that Saturday afternoon,

I suggested the North Castle gully. I had easily caught the same train the New Year but one before after climbing this gully with Robert Parr, a Winchester don who would undoubtedly have become a prominent member of the Club if he had not died quite young. What I did not reckon on, amongst other factors, such as a persistent late starter in the party, was that skating at Fort William can mean a lot of ice above.

To cut a long story short, we got to the foot of the gully and found the snow as hard as Scottish snow can be; and as we had not too much time to spare, we merely scraped the tiniest of nicks. Then we were somewhat delayed by a slab, perhaps 15 or 20 feet in height, coated with an inch of quite clear ice. Above this all went well, until we found a pitch at the very top completely bare of snow, and as completely clothed in ice. To climb it was quite impossible, at all events for us; and so was the icy traverse to the Castle Ridge, certainly so with the time at our disposal. That made me wonder whether I *would* catch my train, when someone pointed out that as it was time for tea it must have already gone. And unfortunately Wigner had an inefficient cooker in his sack. The upshot was that tea in the cave was not finished till well after half-past five.

The next problem was to get down again, and the method adopted was to lower me a rope's length at a time, so that I could cut decent steps upwards. That worked quite well except for falling stones, small ones it is true, but I distinctly remember that one man got two cuts on the wrist which had to be tied up. Why these stones should have been coming down, I do not know, but they seemed to do so each time we heard the noise of wind above. At a later stage we arrived at the slab, and I lowered the other two, hoping they would not forget to come and fetch me in the morning. However, I still had a few matches to spare, and found a stone firmly frozen in a tiny cave above, and round which it was possible to pass a rope. Then, as the snow below the slab was not so steep, I imagined that our troubles would be over, but I had still to learn that while it may be

quite easy to thread a way up glazy scree in daylight, to get down again in darkness can be another story. So with quite a lot more ice on the traverse to the lochan, it was, as far as I can say, getting on for 04.00 by the time we reached the Half Way hut, not long since abandoned at the closing of the Observatory. However, as there was still a stove, and also broomsticks and other rubbish for a fire, and as Wigner unearthed a store of stale sandwiches left over from previous ski-ing near the hut with T. S. Muir, we ate and slept till daybreak, for the pony track was also badly iced. And when we reached Fort William at about 9 o'clock on Sunday morning our landlady correctly thought that two loin chops as well as three eggs would not be too much with unrationed breakfast bacon. She had sat up, ready for our supper, till 3 A.M.

And when I left Fort William on the Monday, just forty-three hours late, I felt fully satisfied with the night's events; for while I dislike missing a train by more than half a minute not less than I hate catching one with more than that to spare, I feel that it is no good worrying in a hopeless case like this.

THE LOWTHER HILLS.

By J. Rooke Corbett.

Green Lowther, 2,403 feet; Lowther Hill, 2,377 feet; Dun Law, 2,216 feet; Steygail, 1,875 feet; Well Hill, 1,987 feet; Ballencleuch Law, 2,267 feet; Queensberry, 2,285 feet.

Maps.—One-inch O.S. (Regular Edition), Sheets 9, 10, 15, 16. One-inch O.S. (Popular Edition), Sheet 84. Half-inch Bartholomew, Sheet 4.

THE region described extends from the Pass of Beattock, which carries the main road and railway, on the east to Nithsdale on the south-west and the Crawick Water on the north-west. None of the hills reaches a height of 2,500 feet, but the O.S. map marks sixteen tops of 2,000 feet or more, the highest being Green Lowther (pronounced *Loathe-err*), 2,407 feet.

The district is well supplied with roads and railways. On the east the main road and railway rise to a height of over 1,000 feet between Beattock and Elvanfoot, and give travellers a good view of the type of country of which these hills are formed. On the north a branch railway from Elvanfoot runs up to Leadhills and Wanlockhead, where the stations are approximately 1,400 feet above sea-level. On the south-west Nithsdale contains the main road and railway from Dumfries to Kilmarnock, but these do not rise so high or give such a near view of the hills as the routes on the north and east.

Of the road passes the most important is the Dalveen Pass. This road, which is used by omnibuses between Edinburgh and Dumfries, leaves the Beattock road at Elvanfoot and climbs gently beside the Potrail Water to a height of over 1,050 feet. It then turns to the right and descends the Dalveen Valley, through some of the finest scenery in the district, to join the road from Kilmarnock at Carronbridge.

Farther west a road southward from Abington, with a branch from Elvanfoot, passes through Leadhills and Wanlockhead, and descends by the Mennock Water to join the Kilmarnock road 3 miles east of Sanquhar.

On the western boundary a road which leaves the Glasgow road at Crawfordjohn and rises to a height of 943 feet follows the Crawick Water down to Sanquhar.

There is no road pass between Beattock and Dalveen, but a road runs westward into the hills from Beattock which is practicable for motors as far as Kinnelhead. The junction between this road and the main road has recently been altered and is now on the south side of the bridge which takes the main road over the Evan Water.

The principal centres from which the district can be explored are Leadhills, which claims to be the highest village in Scotland, Crawford, Moffat, Thornhill, and Sanquhar. Particulars of accommodation at all these places are given in the "Guide to Scottish Holiday Resorts," published by the L.M.S. Railway Co. This guide is not sold on the bookstalls like the corresponding guide for England, but can be obtained on application to the Passenger Superintendent at Central Station, Glasgow.

There is no rock climbing on the Lowther Hills, and the slopes are generally easy except in some of the steeper and deeper cloughs on the Dumfriesshire side, for, contrary to the usual rule among British hills, the north slope is the more gentle and the finest scenery is on the south. The vegetation is chiefly grass, but there are considerable patches of ling and peat in the hollows. These maintain enough grouse to make the shooting valuable, and the hills should therefore be avoided during the breeding and shooting seasons.

The highest hills are in the central area between Leadhills and Dalveen. Green Lowther (2,403 feet) is visible from Leadhills station and within an hour's walk of it. The way lies through the lead workings on the hill-side above the station and past the reservoir near the head of the Shortcleugh Water. If it is desired to include Dun Law (2,216 feet) the road to Elvanfoot may be followed to within 100 yards of Hass Cottage, and the path followed from there up Shortcleugh to Windgate Foot.

The second summit of the group, Lowther Hill (2,377 feet), is about 1 mile south-west from Green Lowther. It may be reached from Leadhills direct by following the track to Enterkinhead. This track will be found by proceeding up the high road or the railway from Leadhills about half a mile and turning to the left up the hill-side. From Enterkinhead it is an easy ten minutes' walk to the cairn, and the view in fine weather is exceptionally good, extending to the Pentlands, Arran, and the Cumberland Hills.

Steygail (1,875 feet), the steepest hill in the district, may also be approached from Leadhills by way of Enterkinhead and over the south spur of Lowther Hill, but a more picturesque approach to this hill, and to Lowther Hill also, would be from Carronbridge railway station either by the Dalveen road or by the parallel by-road and footpath into the upper Enterkin Valley.

To the north-west of Leadhills the hills are comparatively low, the highest points being Stood Hill (1,925 feet) and Wanlock Dod (1,808 feet), both of them close to Wanlockhead; but between Dalveen and Beattock a long ridge extends round the southern angle of Lanarkshire, and for a distance of nearly 10 miles the watershed never falls below the 1,500-foot level. The highest points on this ridge are Queensberry (2,285 feet) and Ballencleuch Law (2,267 feet), which are 4 miles apart.

Near Dalveen, Well Hill (1,987 feet) is separated from this ridge by a pass 1,300 feet high through which runs the Well Path. This is an old road now only used by pedestrians. Its history is lost in the mists of antiquity, but the road is so well engineered that it is hard to believe that it is really very ancient.

The easiest approach to Queensberry is by the road from Beattock to Kinnelhead, but more picturesque routes are to be found from Thornhill, either up the Capel Burn or up the Cample Water and over Gana Hill. Ballencleuch Law and the other tops north-west of Gana Hill may also be approached by this last route, but most of them will be reached more easily by the Well Path, or from the Dalveen road.

Paths.

This district, like other mining districts, is well supplied with footpaths. The two most important of these are the Well Path and the Enterkin Path, both of which have already been mentioned.

The Well Path leaves the road from Edinburgh to Dalveen about 1 mile north-east of the county boundary, expands into a carriage road at Durrisdeer, and rejoins the Dalveen road within 1 mile of Carronbridge railway station.

The approach to the Enterkin from the north has already been described. From Enterkinhead the path slants gently down the west side of the glen, crosses the burn three times in the clough to the west of Steygail, and then climbs on to the ridge between the Enterkin and the Carron Water. It gradually develops into a road and joins the Dalveen road within half a mile of Carronbridge railway station. There is no path down the valley to Enterkinfoot.

In the eastern part of the region a useful path starts from Burn, 1½ miles north-east of Thornhill railway station, and follows up the Cample Water and Tansley Burn to the head of Thick Cleugh and so down to Daerhead and Elvanfoot. Where the path forks on the steep bank above the Cample Water take the lower and narrower track. The other is a dead end leading to a disused quarry.

Another crossing to Daerhead from the south, involving a much longer walk, is up the Capel Burn, which may be approached from Closeburn railway station. There is a fine clough under the west face of Penbreck, but the path avoids this and keeps to the west of Earncraig.

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ELECTRIC STORMS.

By J. H. B. Bell.

ALPINE literature contains a number of accounts of the experiences of mountaineers during electric storms on the high peaks and ridges, but it is not so generally recognised that our own Scottish hills can afford equally striking phenomena upon occasion. "An Experience on the Hills of Ey," by Edred M. Corner, in Vol. 9 of our *Journal*, is of exceptional interest, for the party encountered frequent *brush* discharges on the top of Socach Mor, which culminated in a temporary inversion of the compass, resulting in the victims descending northwards to Glen Ey instead of returning to the south-east towards Spittal of Glenshee, as they had intended. Two other Notes are in the *Journal*, one describing an experience on Beinn a' Ghlo in April 1907 and the other concerning Cruachan in May 1931, as well as one on Cairn Lochain, Cairngorms, by A. L. Cram. A short note by Harry MacRobert gives a brief summary of the usual phenomena in such cases. (See references at the end of this paper.)

It is pertinent to ask whether thunderstorms are more frequent and violent amongst the mountains than over the plains or the ocean, and it may be of interest to explore the theory of the subject sufficiently to distinguish the cases where the results are mild and innocuous from the more dangerous variety. Mountaineering fatalities due to lightning are certainly comparatively rare. These considerations must serve as sufficient excuse for the incursion into an unsavoury and tedious mixture of statistics and theory which is as well beloved by bureaucrats and scientists as it is alien to the sporting side of mountaineering.

Firstly, as to the geographical distribution of thunderstorms; generally speaking, the higher the latitude the fewer the storms. From extensive records the annual frequencies run as follows: Edinburgh 6·4, London 10·7, Paris 27·3 *—whereas in the tropics such storms may be a

* Average annual number of thunderstorm days.

daily occurrence. Temperature is a most important factor which is reflected in the seasonal and diurnal fluctuations. Taking the statistics for Edinburgh, the monthly minimum is for December with a figure of 0·8; from October to March the average is 1·3; the maximum is 28·2 for July, and the average from June to August is 22·7.* There is an average daily maximum between the hours of 2 P.M. and 4 P.M. and a less defined minimum between midnight and 6 A.M. Intensity statistics are much less available; there are more deaths from lightning in the country than in towns, but this reflects the greater exposure of the people and their occupations. In the U.S.A. the distribution of storms is not according to latitude; there are several regions of greater activity than others, ranging from Florida to the Rockies. In the Rockies, storms are very frequent, but the Pacific coast is almost immune. On the ocean the maxima occur in the tropics. Thunderstorms at sea can be very awe-inspiring, for the ship itself with its tall masts acts as a lightning conductor and, in certain cases by night, a luminous brush discharge known as St Elmo's fire can be seen as a flame or glow. The same reason holds generally for mountainous districts, the result being that the valleys are, to a great extent, protected, and the storm effects are localised on the peaks and ridges.

Thunderstorms.

The usual summer thunderstorm develops gradually out of a blue sky with the building up of small pillars of cumulus or wool-pack clouds with sharply defined edges. These expand gradually, both horizontally and vertically. In as short a period of time as one hour they may develop into a mass of towering thunder clouds with a dull yellow glow around them. There is usually a central crest of storm pillars, as flashes of lightning begin to dart amongst the cumuli. The central crest may be as high as 20,000 feet and there are flashes within the separate cloud formations, and perhaps from the cloud to earth. When the

* Average percentages of the annual total of thunderstorm days.

upper air is cold and the lower air strata are warm, the conditions are favourable for thunderstorms. Such conditions are most usual and prolonged during close weather in summer, more especially towards the end of a hot spell. It may be that a hot and cold current of air meet, so that much rain or hail is precipitated. The usual thunderstorm travels about the rate of 25 miles an hour, although it may be much faster. It is a fallacy to suppose that a thunderstorm, once past, will return to the same place. This is almost certainly due to another storm following closely on the first. If the storm has really cleared the air there will be a fall in temperature, otherwise more may be expected.

The lightning flashes may occasionally be photographed. The most common appearance is a crooked line of light which frequently develops into a curious type of branched or ramified discharge. In summer nights, or even in winter time, sheet lightning or " wildfire " may be seen. This is merely the reflection amongst the clouds of very distant lightning and is unaccompanied by thunder. It is often most persistent throughout an Alpine night, even if the weather is set fine. Other forms of lightning are much less usual in our country: such are meandering flashes which travel in a long, crooked, aimless path, a peculiar kind of rocket lightning which moves very slowly across the sky, and lastly that remarkable variety known as ball-lightning or fireballs, which may float slowly through the air quite near the ground in the form of luminous globes, seldom as large as a man's head. This may even appear indoors after a lightning discharge: it may be very destructive or quite innocuous, but it hardly concerns us here, and there is still much mystery concerning its nature and origin.

Atmospheric Electricity.

There has been much experiment and research on the electrical state of the atmosphere since the days when Benjamin Franklin flew a kite during a thunderstorm and drew sparks from a key at the end of a wetted string

attached to it. This was a bold thing to do, when one considers that a flash of lightning may be as much as 1 mile in length! Nothing much further was done till near the end of the nineteenth century, and then it was our advance in the knowledge of radio-activity which enabled the scientists to understand the way in which dry air becomes an electrical conductor. Of recent years our knowledge has been mainly advanced by the researches of Professor C. T. R. Wilson and others, who have devised and used very delicate appliances for the measurement of atmospheric electric fields and potentials. Many of the facts have been elicited by balloon explorations in the stratosphere, by experiences incidental to flying, and research into the theory of transmission of radio-waves in the upper atmosphere.

Only a very short summary of the conclusions will be attempted in this article. It has been established that the surface of the earth is, as a whole, permanently negatively charged with reference to the upper atmosphere. At a height of about 50 miles there is a perfectly conducting stratum called the Kennelly-Heaviside layer, which is responsible for the downward reflection of radio-waves and for the possibility of wireless transmission at great distances over the surface of the globe. The high conductivity is due to the splitting up of the air molecules into positive and negative carriers of electricity called ions as a result of the action of a highly penetrating radiation. At first this was believed to originate in outer space, so the term cosmic rays was introduced; but the matter is still *sub judice*, as it is now suggested that the thunderstorms themselves may have something to do with the manufacture of these rays and ions. The conductivity is very great even at a height of 9 miles, and the air at this height is at a positive potential of 300,000 volts with reference to the surface of the earth. This normal state of affairs prevails in fine weather, but, as the conductivity is less near ground-level, so the rate of increase of voltage or potential is greater than it is higher up. At ground-levels the penetrating radiation has become much less effective owing to absorption by the

atmosphere above, and the conductivity is mainly due to radio-active radiation from minerals in the soil and the earth's crust. Only over the oceans is the radiation from above wholly responsible. The net result is at ground-level a potential gradient of about 100 volts per metre in fine weather. Even at a height of 1,500 metres (or 5,000 feet) there is calculated to be a positive potential of over 100,000 volts in normal conditions. Over the whole surface of the globe there is an average steady current of about 1,000 amperes between the Heaviside layer and the earth.

In disturbed weather, and especially during thunderstorms, conditions are very different and change with extreme rapidity. From a gradient of a few hundred volts per metre during a fine drizzle of rain the intensity may increase to over 50,000 volts under a thundercloud, and the direction of the field (sign of the electrification) suffers frequent and rapid reversals. Even a rainstorm without lightning, or a snowstorm, will normally be accompanied by considerable electrical stresses. Raindrops usually show a positive charge (as high a figure as 300 volts has been found) and snowflakes are usually negative, but reversals are frequent, according to the part of the cloud from which they fall. It has been asserted that large snowflakes are usually positive and small ones negative. I have always found the small flakes to prevail during electric storms on the mountains. It is obvious that if there are lightning flashes within a cloud the one part must be oppositely charged relative to the other.

Lightning Flashes.

It can be shown with recording instruments that most lightning flashes take place within the cloud and that comparatively few reach the ground. The flashes are, on the average, between 1 and 2 miles in length, with a difference of voltage which may amount to 1,000 million volts at the opposite ends of the lightning channel. The energy expenditure of a lightning flash may amount to a million kilowatts. Whenever a flash occurs, the cloud

is momentarily discharged, but it builds up its charge again at such a rate that another flash is possible or likely after an interval of about 20 seconds. The average lightning channel is quite narrow, perhaps only 2 to 4 inches broad. The light is due to the recombination of the ions which are momentarily produced by the disruption of the air molecules. A lightning flash is not quite instantaneous; individual flashes last only a few thousandth parts of a second, but the eye integrates the effects of several consecutive flashes, so that the complete stroke may last a second or more. By means of experiments, using a revolving camera, it has been found possible to distinguish the successive components of the stroke and to show the successive branchings, and it has been found that the channel extends itself at a speed of about one-tenth of the velocity of light. Sometimes the observer may see in the track of a lightning flash certain individual spots, both brighter and more persistent than the rest of the flash, making the whole thing look like a string of luminous beads. This is due to the integrated effect of such parts of the channel as lie along the line of sight.

The mechanism and causation of lightning discharges are not yet completely elucidated, but the main factor is undoubtedly the separation of positive and negative electricities between the larger and smaller droplets of water, because of their different rates of falling in the strong ascending currents of air which accompany the storm, and also the separation of electricities due to the breaking up of water droplets when these air currents exceed a certain velocity. Whenever this occurs the droplets become positively and the air negatively electrified. Where a branched lightning flash occurs it seems nearly certain that the principal branch or trunk of the flash comes from the positively electrified region. This is the opinion of Dr G. C. Simpson, one of the chief authorities on the subject. It has a certain degree of significance, as, if the trunk starts from the earth, then the whole power of the discharge will be localised over a very small area with destructive results, which would

not be the case if only the finer ramifications reached the ground. This latter is the more usual course of events.

Thunder is, of course, due to the explosion wave of the sudden discharge through the lightning channel. The heat wave becomes a sound wave and the resultant reverberations are due to three separate causes: (1) the difference in time of reception of the sound from the more or less distant parts of the channel, (2) echoes from hills, and (3) echoes from clouds or layers of air at different temperatures. It is therefore natural to expect a greater degree of reverberation in valleys between high hills, and also a shorter and sharper peal of thunder on the hill-tops or ridges.

On the Mountains.

Most mountaineering experiences of electric storms do not directly involve lightning strokes, or there would not be such a low casualty rate. The usual effects are a gentle hissing or singing noise from metal points or ice-axes, occasional mild shocks, hair standing on end, and prickly sensations on the skin. All these are the usual characteristics of the *brush* or *glow* discharge. The metal parts or points are at a different potential from the surrounding air, and the free electricity discharges itself gradually by a convection current or stream of electrified air. In darkness a bluish or violet glow would be visible, similar to St Elmo's fire on ships. It may sound alarming, but experiments have shown that the brush discharge only commences when there is a motivating difference of potential of nearly 30,000 volts. It is the quantities of electricity that are so small as to make the discharge harmless. As similarly electrified bodies repel each other, the individual hairs of the head, if dry, stand on end and spread out.

From the foregoing theory it is clear that such results are very probable upon exposed mountain ridges. The ridge itself is at zero or earth potential, but the atmosphere on a level with it, and some distance away horizontally,

will be at a very high potential indeed, so that if we consider a set of surfaces on each of which the potential is constant (equipotential surfaces) then these will all be equally spaced and horizontal above the plains, but they will be sharply bent, arched, and crowded close together over mountain peaks and ridges. This will result in an enormous increase of the potential gradient over mountain ridges, from a few hundred volts per metre up to tens of thousands. It is just like stretching a thin piece of india-rubber over a smooth, rounded surface, at one part of which there is a protruding sharp edge. The pressure due to the elastic rubber is very little over the smooth surface but very great over the edge. Electric pressure or voltage behaves in much the same way over a sharp edge or point or a mountain ridge. Of course, while the brush discharge proceeds quietly it is a kind of safety-valve against more violent developments, but there is no guarantee of continued safety.

It is quite true that most lightning flashes take place within the clouds, but this generalisation has been arrived at from experience in flat country: the mountain tops and ridges are frequently themselves within the clouds, or very close to the cloud fringe. It may also be maintained that no particular bit of ridge, except the summit perhaps, is more likely to be struck than any other, but if the direct flash were to strike the ridge near at hand there is often a group of indiscriminate inductive discharges which take place in the immediate neighbourhood. The late Sir Oliver Lodge worked out the theory for this form of discharge, which is extremely dangerous. He showed that the ordinary lightning conductor might not avail to protect a building from its destructive effects. Induction flashes are liable to take place when a low secondary cloud intervenes between the earth and the cloud which is the source of the primary lightning flash. It is therefore not enough to descend a few feet below the ridge level during a severe storm, and still less to remain content with discarding the ice-axes alone. Where there is so much uncertainty the only safe course is to give the danger area as wide a berth as possible.

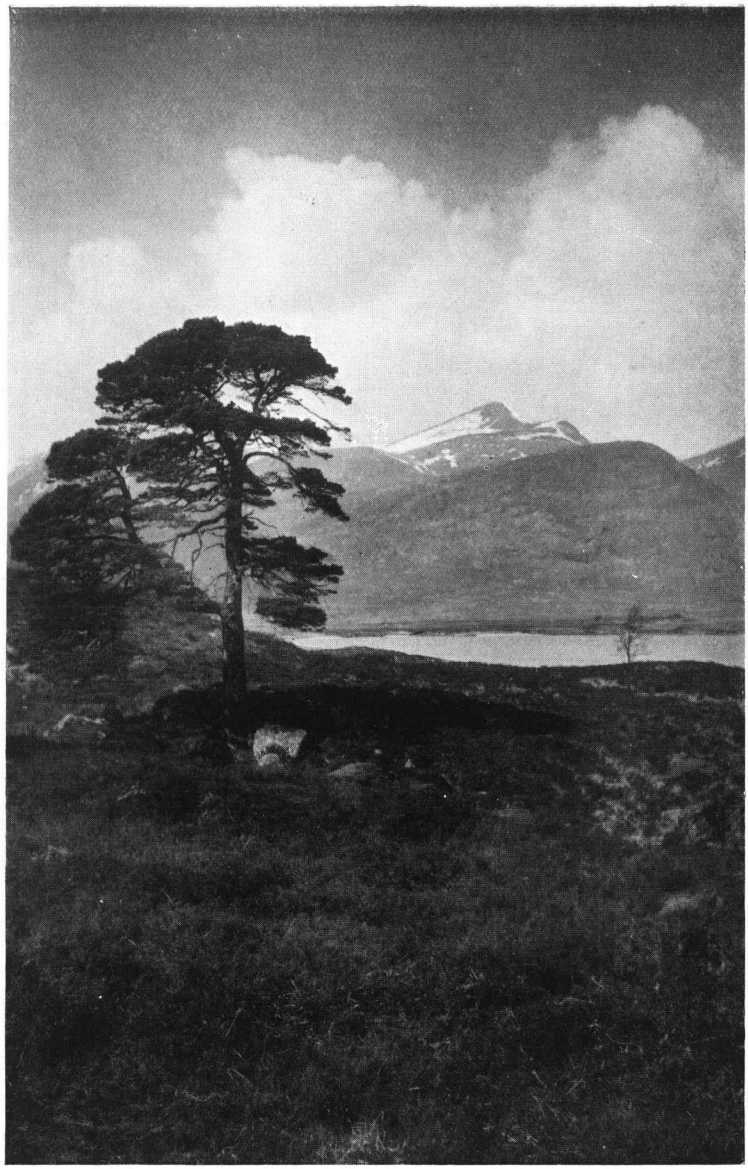
Alpine Experiences.

My most vivid Alpine experience of an electric storm was during the ascent of the Jungfrau by the north-east face in July 1925 in the company of F. S. Smythe. It was our first climb of the holiday and certainly too ambitious for a beginning. We had left the Guggi Hut about 3 A.M., spent a lot of time on the Kühlauenen icefall, found the condition of the snow soft and bad farther on, and had been compelled to go over the summit of the Gross Silberhorn. This is composed of a long, narrow, corniced snow ridge, and we were just about the middle of it when the storm enveloped us; our ice-axes hissed and sang, we had pricking sensations all over, and each of us felt some mild shocks. But what impressed me most was the mental effect. The ascent had been so fatiguing that I was in a dull, apathetic, enervated condition, and the electric discharge freshened me up amazingly. It kept me going at an excellent pace till near the summit of the Jungfrau. On one other occasion, on the centre peak of the Aiguilles Rouges d'Arolla, was I involved in a similar but less direct experience. It was an all-S.M.C. party in July 1926, consisting of D. Mackay, C. W. Parry, the late Malcolm Matheson, and myself. I had a wholesome respect for electric storms in the Alps by this time, and we could see more of it coming along from the Dent Blanche, so that we gave up the idea of the South Peak and retired by the way we had come.

Later on in the 1925 holiday I was indisposed for a day at the Strahlegg Hut. It happened that two S.M.C. friends, Alexander Harrison and C. K. M. Douglas, had arrived the previous day, so that Smythe joined them for an ascent of the Schreckhorn by the south-west ridge. They left about 3 A.M., I could not say exactly, as I slept on until awakened about 8 A.M. by a terrific thunderstorm. There was a lull afterwards and then a worse storm succeeded by others until after 11 A.M. One party returned to the Hut about 11.30 A.M., having retreated from a little way below the Schreckjoch. They had seen our party high up on the ridge but already coming downwards.

About 1 P.M. another party came in from the Lauteraarhorn—a garrulous Frenchman with two guides. It appears that he had persuaded the guides to carry on during the first storm and wished to proceed during the second one as well, but the guides insisted upon a retreat. It was not until 4 P.M. that Smythe, Harrison, and Douglas returned. They had had a terrible time of it. They had turned back about 8.30 A.M. when little over an hour short of the summit of the Schreckhorn. I should say that Smythe and I had ascended the Schreckhorn by this route two days before, so I was familiar with the lie of the land. From the bergschrund on the upper glacier a long, steep shelf cuts into the south-west ridge and gains the crest very high up at a wide notch in the skyline. When we ascended the peak we had a certain amount of step-cutting to do on this stretch, but most of the way was over good hard snow. The whole of this stretch is overhung on the right by tremendous cliffs. The storm rushed upon the party in the twinkling of an eye, and the whole of the steep shelf was badly iced on the descent. There were several rockfalls from above, fairly close to them. Smythe sustained a severe electric shock, as one of the lightning flashes struck fairly near. This caused him to slide off and he was held by the others. They assured me that if one of the storms had lasted several minutes longer the party would have been lost, as in such a *tourmente* they were overcome by numbness, and movement out of their steps was impossible. It was 3 P.M. before they recrossed the bergschrund and came on to easy ground. Smythe's fingers were nearly all frost-bitten, but he recovered fairly soon. I think this can be taken as a characteristic example of the dangerous and indiscriminate type of induction discharge, for the party was not on an exposed ridge at the time.

There is, nevertheless, a certain degree of selectivity in the incidence of lightning strokes on the mountains. In the Arolla district the Mont Brûlé derives its name from its liability to lightning discharges, and Alpine climbers will readily recall numerous instances of the scarred and burned appearance of the summit rocks as well as crosses



April 1936 *Percy Donald*

STOB COIR 'AN ALBANNAICH AND LOCH DOCHARD

and other metal objects on mountain peaks. Rock summits are much more liable to attack than snow peaks, and if there is selection among rock peaks it may perhaps be due to the nature of the rocks and the possibility of radio-active elements emitting radiation, which increases atmospheric conductivity and so attracts the lightning.

I have experienced only one thunderstorm at close range in the Caucasus. Two of us were bivouacking at a height of about 10,500 feet on the north face of Tiktengen (15,300 feet), above the Shaurtu glacier. This is a rock face, and a terrific thunderstorm sprang up about 2 A.M. We were quite secure from any risk of falling stones, and although we were fairly well sheltered we had an unimpeded view to the north across the glacier basin. Half-way through the storm a rift appeared in the sea of cloud before us; the rays of the full moon shone down on to the glacier, and beyond it the snow peak of Salynan Bashi shone brilliantly in the untroubled calm of a perfect summer night. Behind us the lightnings continued to flash at intervals amongst the rocky turrets of Tiktengen. Except for a short shower of hailstones we were able to enjoy this unparalleled spectacle in contemplative comfort.

Scottish Experiences.

On 21st April 1932 I had my first Scottish experience of an electric storm of the milder variety whilst ascending Stob Coir 'an Albannaich in the company of H. M. Kelly. This peak has a beautifully curved snow ridge on the south, which was our line of approach from Loch Dochard, and the traverse of the peak along with Meall nan Eun makes a most delightful expedition from Inveroran. We reached the summit at 3.5 P.M. The sun shone brightly on the Cruachan peaks, but a dark storm cloud was rapidly drifting over from the direction of Clachlet. At first little snow fell, and the air grew dark and silent. I was sitting on the cairn and had the sensation as if small flies were buzzing in and out of my hair. Kelly sat at my feet, and I suddenly saw his hair begin to stand on end, individual hairs rising up 2 inches and more—

straight upwards. Then a gentle sizzling and hissing began. We held up our hands, and at one point the discharge was so intense that our hands began to feel so hot that we had to drop them. There was no bare rock about, and the best effects were in evidence when we stood near the edge of the cornice. Properly speaking there were no shocks, not even mild ones, but just a continuous hissing noise from our upstretched hands, which became a loud singing note if we held them up in a particular way with both hands close together or joined at an angle. Then snow began to fall and the wind rose. For half an hour the electrical manifestations continued, then gradually died away as the storm blew over.

On the 20th April 1935 Colin M. Allan and I were climbing in a more fully developed type of storm on Bidean nam Bian in Glencoe. We had just climbed Raeburn's Buttress on Stob Coire nan Lochan and were proceeding to the top of that mountain when we became enveloped in the usual type of electric storm with good hair-raising manifestations and singing ice-axes. This storm was approaching us from the Clachlet. At first there was an interval of about eight seconds between lightning flash and thunder, but a second and more violent storm reached us just as we were on the summit of Bidean. Just after leaving the cairn there was a brilliant flash in the form of a long, branching, crooked line of violet light, with bright white discs of light at the kinks in the line. The thunder followed instantaneously. During all this time fine dry snowflakes were falling, but this changed to hailstones as the storm passed over. The experience was intensely interesting and, no doubt recklessly, we continued on our way over Stob Coire Sgreamhach and Beinn Fhada through a succession of storms of lesser violence followed by drenching rain.

I have had one hill experience of an impressive midnight storm. This was on the 6th August 1933 when bivouacking in sleeping sacks with T. A. Lumsden above Lochan na Lairige, near Ben Lawers. The thunderstorm approached us against the prevailing wind, and quite suddenly a brilliant flash lit up the deep defile

of Lochan na Lairige, so that we packed up quickly and ran down to our Baby Austin car for shelter; not a moment too soon. A deluge of rain burst upon us, a gust of wind nearly swept the car off the ground, and for the next quarter of an hour the whole valley was lit up by bright violet flashes of lightning at intervals of fifteen to thirty seconds. Several of these were beautifully branched in the form of an inverted tree, the positive end being therefore in the clouds. It was the finest display of lightning I have ever seen. The storm subsided as suddenly as it began. A deep silence followed which was broken by a steady hissing noise, which obviously proceeded from exposed parts of the car. Probably the rain was highly electrified. The rest of the night was cool, and clear.

In connection with the destructive effects of lightning on mountain summits the following note which has been kindly sent to me by the President, Mr Robert Jeffrey, is of great interest:—

> "One week-end last May (1940) my wife and I were climbing in the Carn Mairg group on the Saturday. Late in the afternoon the sky became very overcast and we heard thunder and saw lightning in the distance beyond Carn Gorm. On the Monday we climbed Stuchd an Lochain from Cashlie in Glen Lyon, and on reaching the summit we saw what we imagined were some of the results of the electrical storm of the Saturday.
>
> "Near the cairn there was a small crater out of which stones and earth had been hurled in all directions, and leading from the crater there was an irregular trench some 8 inches wide by about 8 inches deep running for a short distance in a semicircular direction following the curve of the hill, then taking the form of a wriggly snake until it gradually petered out in the heather and stones. From the crater to the tail of the snake would be about 20 yards. At another point of the summit there was a similar phenomenon on a smaller scale. Unfortunately the weather was so gloomy that I could not get a photograph."

Mr J. A. Parker writes to say that, on climbing Beinn Odhar Mhor on 20th May 1931, he found a dead eagle lying beside the summit cairn with one of its sides damaged. The keeper at Glenfinnan, when interviewed, said there had been a thunderstorm a week before, and gave it as his opinion that the bird must have been struck by lightning when perched on the cairn.

In conclusion I should like to refer again to that interesting former article in the *Journal*, " An Experience on the Hills of Ey." On the summit of Socach Mor Mr Corner's party observed the unusual phenomenon of a temporary inversion of the compass. There was a continuous brush discharge going on in the neighbourhood. Indeed, the glow discharge and a rattle of vicious, short and sharp peals of thunder several times a minute were highly impressive. Hail fell with a cold wind, and it was the end of July. The inversion of the compass could only be explained if the brush discharge was intense and localised to one side of them. The resulting convection current of electricity would then act on the compass needle according to Ampere's rule, and would perhaps be strong enough to counteract and reverse the earth's directive action. I regret that I have never myself made any compass experiments during electric storms on the mountains, so the explanation is mere conjecture. I fancy that a positive conclusion would only result under exceptional circumstances.

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DIRRIE MORE ROUNDABOUT.

By J. McCallum Young.

MOST hillmen, for the sake of a good ridge walk or a breath-taking view of cliff and glittering stream, will put up with all sorts of bogs and broilings in the preliminary stages, but when they know that they have to trudge a score of miles infested with loose and tarry granite chips in order to reach their particular paradise they are apt to jib. In this connection the Dirrie More has always been my *bête noire*. Not being a modern Jehu I had to discover a way of by-passing it that would keep whole the tender skin of my feet. This appeared to involve a dive into the mountains at Strathvaich, gradually working one's way towards the Coigach coast, and from there, having enjoyed the delights of the Summer Isles and Gruinard sea water, moving over to Dundonnell, losing oneself south of the Teallach heights and trusting to luck and the honour of the O.S. map to keep a rendezvous at Achnasheen.

Although this happened a few years before the name of Woolton was held in awe, we had a fairly rigorous system of rationing in force. Shops did not see us for well over a week; consequently hard tack reinforced by farls of oatcake were the order of the day. Our shelter each night was the "Mullac," * a veteran bivie that has bumped between our shoulder-blades for nigh on thirteen summers. Right at the start we were in luck. The factor of the Ardross estates—since the time of which I speak drowned, alas, in a vain attempt to rescue a stray lamb at the shearing season—provided us with the "open sesame" to all the lodges west of Wyvis, so that we never writhed under the odious feeling that we were intruders, nor had we to contend wordily or otherwise with stalkers.

* This variety of tent did not originate in the Isle of Mull, nor is its etymology discoverable in the lexicons of the British Museum reading-room. The inversion of part of the author's middle name is the key.

Strathvaich was the branching of the ways. It is a green, open glen, and when we remarked on its lushness, the reason came out: grass and even clover were rejuvenated by a top dressing of fertiliser; small wonder that in the gloaming the river bank was crowded with hinds.

Level ground hereafter is practically non-existent, for the Freevater and the Ben Dearg forests commence, and in their fastnesses wild cats have many lairs. It is Cattick * country, and at Deanich we had our appetite whetted to be in at the kill when we fondled the mottled fur and knobby tail of one of eight that had fallen foul of traps during the previous week. After that sight one at least of the party would not compose himself for slumber without closing every airhole in the tent and slipping a sheath knife under his pillow! The next encounter with wild life, however, did make our blood run a trifle colder. Stepping out across the watershed between Oykell and Rhidorroch among tussocky grass and heather, when my eyes were riveted on the plum-coloured hills of Corriemulzie, a hiss like that of escaping steam burst out right at my feet. I stopped dead, to be confronted with a sizeable adder, tail coiled ready, head reared up, and orange-black colouring vivid against the burnt-up herbage. Too close to use my stick I kept motionless, and the reptile vanished out of sight in a trice. The hills were crawling with them, for the same day, with a small burn to cross, I judged to make use of three flat stones in midstream. The noise of my approach must have disturbed two others which slithered into the water with only their heads showing, but this time, with the promptitude of the boy David, two stones from the brook put one out of action and sent the other, its back broken, drifting downstream.

The journey at this point was chiefly remarkable for the strong but warm wind that blew from the scraigh of rosy dawn until dark, accounting, no doubt, for the dryness of the bogs that at every point were hard as bricks, so

* The term " Cattick " has been heard in conversation to apply to the country of the wild cat in Ross and Cromarty.

that when it came to washing and shaving, a cupful of water had to suffice. Here the 2-mile-long precipices of Seana Bhraigh were constantly before our eyes, offsetting the lower lochan-pitted plateau on our right. Turning south at Ullapool we caught the honey breath of western heather, and we were sorely tempted to loiter. Three days later we were facing the red battlements of the Teallachs. In the cup-shaped hollow where the scattered hamlet of Dundonnell hides its roofs behind a thicket of pine and birch the first Highland rain in six weeks began to descend. Ghostly vapours filled the gap between the green aisles of the forest. As we lay snugly in the Mullac that night, cascades awoke to life on the open screes above the Measach Falls. In the freshness of new-fallen rain we breasted the rise and came within striking range of a score of Munros.

South were the Fannichs, south-west the seldom visited Ben Dearg, a finer-looking peak than its better-known namesake, but the gem in the picture was Strath-na-Sheallag, winding close to the bare, lonely hill shoulders, with its meadows and its vanished crofts. The trail took on the look of a trek into the wilderness. We skirted broken rock faces polished well-nigh white with erosion. At 1,200 feet we began to cast around for a hut. At first we had no success, then a red corrugated roof with mossy walls sunk in rushes indicated the whereabouts of Faenasheen, the bog of rain. It did not belie its name. There we had twenty-four hours of it, and as there was nowhere else to smoke or stretch our legs we poked about in the old cottage. Seeing some yellowish paper protruding under the eaves, I pulled out an old magazine. It wasn't at all familiar; even less so were the fashion plates it proved to contain—the *Lady's Journal* for 1891! My lady of that chimney-corner had not left it yesterday.

A late start through driving mist brought us over a lump of a hill with the longest name in the tables, Mullach Coire Mhic Fhearchair, into a perplexing world of ups and downs which almost baffled us. There was Slioch, but where was Loch Maree? Not once but many times

we crossed the River Tanagaidh hopefully, each time to the detriment of our hard-worn uppers, until finally, with bootlaces twined around our feet, we reached the Heights of Kinlochewe, there to meet a shepherd who was also a cobbler, and a road that knew where it was going.

To the sceptic who asks bluntly, "Why not go in comfort by the Garve bus to Ullapool?" our answer is:—

> "*We are what suns and winds and waters make us:*
> *The mountains are our sponsors and the rills*
> *fashion and win us with their smiles.*"

Note.—The journey described in this article commences on the main road about one mile east of Aultguish Inn, proceeds via Meall a Chuaille and Strathvaich to Deanich, then on by Glen More, Alladale Lodge, Croich, the Blackwater valley westwards to Duag bridge on the Corriemulzie River to Loch an Daimh, Rhidorroch and Ullapool. The route now goes by ferry to Dundonnell, across to Strath na Sheallag and Loch an Nid. Faenasheen ruined bothy is a mile south-east of this. The party then crossed Mullach Coire Mhic Fhearchair and down the southern slope of Ben Bheag and An Groban to the Heights of Kinlochewe and the main road.

THE LONE CLIMBER.

No one to hustle you,
No one to bustle you,
No one to whustle you,
"Hey Johnnie Cope."
Just your own road to take,
Just your own pace to make,
Just your own spur or brake,
Up the steep slope.

J. S. M. J.

May 1927

LOCH LUCHD CHOIRE, CREAG AN DUINE
(from near summit of Seana Bhraigh)

Jas. A. Parker

1st June 1936

LOCH ETCHACHAN

I. M. E. Bell

A VISIT TO THE CAIRNGORMS IN 1875.

By Walter A. Smith.

(*Reprinted by kind permission from the "Scotsman" of 17th August* 1875.)

(*Continued from p.* 239.)

WE were on the granite beach at the head of the loch before 7.30, and crossed the stream that enters it about 200 yards above its mouth. This point is directly below the "Shelter Stone," which lies up the slope a good bit, under the shadow of the sharpest and most striking crag above the south-east end of the loch. A rough and hardly discoverable path leads up through the immense boulders with which the slope is strewn, to the "Stone," which may perhaps be best recognised from the burnside by three large patches of a greyish brown colour on its great flat face. Arrived at our "lodge in this vast wilderness" we soon got a good fire lit, and the coffee was boiled in an old tin can in which the writer had heated some soup only two years ago! Soon after supper, as the long dark lake below began to look cold and very desolate in the gloamin', we turned in under our plaids, and made ourselves as comfortable as possible on the dry heather on the floor of the "Shelter." But the night was not to pass without adventure. After various pretences at sleep, we were roused from our dozing condition about 12.30 A.M. by the startling sound of distant voices, and then of footsteps scrambling up towards the entrance. They drew nearer and nearer, and then ceased. There was a few moments' silence, during which a hundred wild conjectures were made as to the origin of the sounds, and (must it be owned?) "Young Farquhar's" solemn warning occurred to one of us at least:—

"Yet still at eve or midnight drear,
When wintry winds begin to sweep,
When passing shrieks assail thine ear,
Or murmurs by the mountain steep;
When from the dark and rocky dells
Come eldritch cries of wither'd men,
Or wind harp at thy shelter swells—
Beware the sprite of Avon Glen!"

We shouted out—"Who's there?" A low mutter in Gaelic was the only response. Then someone seemed to creep cautiously into the "Shelter"; but we first became certain of the presence of our intruder by his beginning to strike vigorously with a flint and steel. We shouted out again, but no answer was made until the stranger managed to light an old end of candle, which he immediately held up and revealed to our blinking eyes a large, red, hairy head bound up in a white handkerchief. On seeing us the head gruffly answered to our queries that it had come up from Speyside in the afternoon, and then disappeared, but returned immediately with two men much younger than its owner. They all expressed great astonishment at seeing us, but did not seem at all desirous to enter into conversation, and were soon apparently fast asleep at our feet. But sleep with us now seemed impossible, so we stept out about 2 A.M. over the prostrate bodies of our strange bedfellows, and were surprised to find it such a brilliant night. The stars were bright and numerous, and although the moon was concealed by the great crag immediately above us, it was evidently shining with a strong soft light that cast sharp shadows of the cliffs upon the loch and the opposite rocks. There was an indefinable air of wild romance about the place, as seen by this strange soft light—a romance not lessened to us by the remembrance of the recent mysterious interruption to our repose. We went in again for an hour or so; but day began to break soon after three, and the three strangers and ourselves were astir by the half-hour. It seemed on further conversation they had come up to fish in the loch—a proceeding, of the strict legality of which we have grave doubts. However, as they lighted a fire for us we shall not pursue the question. Spiced beef, hot coffee, and scones don't make a bad breakfast when you are on a mountain at 4 A.M. And then the sunrise over the lower mountains at the foot of the loch rivalled in beauty and colouring effect the sunset of the evening before. It sent a great flood of light right up the lake, transforming its surface into a blaze of brilliancy, and, striking on the precipices above, lit them

up with a glow of delicately-coloured splendour. It was on these precipices, by-the-by, that the Ettrick Shepherd had that marvellous adventure with the eagles which he is made to relate in such graphic and thrilling language in the "Noctes Ambrosianæ." We did not see the eagles, though doubtless some are still about the place. It was a little past five, after an invigorating plunge into the lake, that we started for the top of Ben Muich Dhui. Climbing up by the first cataract that falls into the south side of Loch Avon, we reach in an hour's time the shore of the small mountain tarn—Loch Etichan—lying peacefully in the bright morning light below its snow-capped cliffs. Crossing the hollow in which it lies, just where the burn escapes from the loch to flow down the Corrie Etichan into Glen Derrie, we see gradually ascending the side of the steep slope opposite the well-marked track from Braemar to the summit of Ben Muich Dhui. This, of course, we got on to as soon as possible. It sweeps in a south-westerly direction round the heights above the south side of Loch Etichan, and passes along the verge of the columned cliffs at the head of Glen Lui Beg. From here a grand view of the Lochnagar mountains is obtained, as well as of the distant wooded basin in the Dee valley in which Braemar lies so beautifully. The track now bears round to the right, and gradually turning almost due north leads past the roofless sappers' hut to the topmost cairn—the second highest point in the United Kingdom.

We sit down on the summit at 8.30, a time when many people are beginning to think of getting out of bed. A morning's work like this teaches us what a large and most beautiful part of these summer days we regularly waste. Could not people get up at four, and go to bed at nine? It would save no end of candles, and be so much more pleasant and wholesome. We proved how much we were impressed by the desirability of this reform by breakfasting at Mrs Grant's at *nine* next morning! The view from the desolate plateau of grey granite which forms the summit of Ben Muich Dhui is of the same magnificent character as that from Cairngorm, only more

extended to the south and south-east, the principal object of interest in the former direction being the grand group of the domes of Ben-y-Gloe. The near view across the Larig Glen of the great corries and rough bald ridges of Braeriach is also imposing to a remarkable degree. Leaving the cairn we go gradually down the northern shoulder of the mountain to a depression of considerable extent, from which issues a double-headed stream that descends rapidly to the Larig burn, and joins it not more than two miles below the "Wells of Dee." * Round the sources of this stream, whose headlong career we are to follow, are large beds of the most beautiful Alpine mosses. They form soft damask cushions among the rocks of the most brilliant colours imaginable. Light and dark green, red and purple, show side by side in striking contrast. This descent, which is made on the *right* hand side of the stream, is very steep and rough. Great part of the way we have to scramble down over large loose rocks lying on the steep slope, and if a slip is made a bad sprain, if not a broken leg, is pretty sure to be the result. We loosened some boulders as we climbed, and they went thundering and crashing down before us, making ever higher leaps into the air as they acquired velocity in their descent.

The Wells of Dee are reached about eleven. The "last of the scones" is here produced, and divided solemnly by the Professor into three equal portions, after which he takes a nap in a comfortable after-dinner sort of fashion; the Artist and I occupying the interval by a bathe in the ice-cold waters of the second well. The path from here through the defile to the Alt Dru Glen, whose waters flow down to the Spey, is of the very roughest description, and several times seems to lose itself almost entirely in a sea of rocks and stones. It gradually improves, however, as we descend the wild narrow glen towards Rothiemurchus. The distance from the "Wells" * to the Aviemore station on the Highland

* The author refers to the "Pools of Dee" situated at the top of the Larig Ghru Pass and about 9½ miles from Aviemore.—ED.

Railway is about thirteen miles. A shorter route from the top of Ben Muich Dhui to the same place is to keep along the top of the mountain ridge until you are above a point perhaps a little more than a mile from the head of the pass over to the "Wells." A snow-bed lies here between two cliffs, and a track slants down from it to join the path by the burn side. But this route avoids the Wells of Dee, which are most interesting and curious phenomena. About two miles down the Alt Dru, where the glen begins to broaden out a little, the path bears considerably away to the right of the stream, gradually coming back to its old companion, however, as the outskirts of Rothiemurchus forest are entered. It then keeps on the top of the wooded bank above the watercourse, and not long afterwards is crossed by a cart road. We turn to the *left* along this road, which a very little way farther on bears to the right across a small oasis of meadow land in the forest, along the west side of which flows the now "softly purling brook." A footbridge is here seen crossing the water, but this should *not* be gone over. Continuing on the road and shortly after re-entering the wood we come upon a second footbridge, which *must* be crossed. The cart road should now be forsaken for a footpath that follows the course of the stream, a little way from its left-hand bank, and in little more than an hour the traveller should once more find himself among his fellow-creatures and their habitations at Aviemore. The paths through the great Rothiemurchus forest are rather perplexing, so we have thought it important to describe thus particularly this route, as the probability of meeting anyone from whom to ask the way is very slight indeed. We got down to Aviemore station in time for the afternoon train north to Nethy Bridge, where Mrs Grant expressed great satisfaction at seeing us all safe back again; the Artist being regarded with special interest as "the gentleman who put all the hills into pictures."

These few hints as to routes, etc., we trust may be useful to future explorers of this grand mountain region, and yet still one other route we would recommend as full

of interest and beauty. From the north-eastern shore of that loveliest of little lakes, "Loch-an-Eilan," about four miles from Aviemore, ascend the steep wooded conical hill directly above it, and proceed along the ridge to the summit of the peaked mountain above the west side of Loch Innich. The view from this point (called, as far as we can find out, "Scorgiel") is equal to, if not finer than, that from the higher mountains above spoken of; and, being a sharp rocky peak, it is a most satisfactory mountain to ascend; it cannot be much under 4,000 feet in height, and it has magnificent precipices that fall sheer down from below its summit to the shores of Loch Innich, which is enclosed on the other side by the western slopes of Braeriach. From the ridge of Scorgiel, above a point in the Innich burn about a mile below its exit from the loch, a descent may be made into the glen, and on the east or right-hand side of the stream there is a good path which goes all the way back to Aviemore.

THE END.

[*Note*.—An error occurs in the footnote to the first instalment of this article, which appears on p. 240. Professor Alexander Kennedy was Professor of Engineering at University College, London, and not at Dundee as there stated. To those readers who have not taken notice we may now admit that this excellent article has already appeared in the *Journal*, Vol. 14, p. 224.]

SOME NEW CLIMBS IN THE CLOVA DISTRICT.

By J. G. Ferguson and G. S. Ritchie.

Corrie Fee, Glen Doll.

The Comb and Slanting Gully.

TWO apparently new routes have been made in this little-visited corrie. Few climbs of any length are to be had owing to the broken nature of the rocks, but further exploration should yield a number of short routes. On 28th May 1939 J. G. Ferguson and W. S. Scroggie ascended a fine buttress, high up in the south-west angle of the corrie, which they named **The Comb**. It gave 250 feet of good climbing on sound rock, some pitches being of a difficult standard.

The lower rocks were much broken up, and the climb proper started from a platform at the foot of a steep wall (cairn). The crest of the ridge was followed as far as possible. A short wall with awkwardly placed holds led to a smooth, steep groove, finishing at a good belay. A corner to the left was climbed and the crest of the ridge followed, over a pinnacle, to a wide gap. On either side of the gap an easy gully led off the buttress. An impressive arête lay ahead. This proved impossible direct, but was turned by way of a ledge, which gave out on the slabby eastern face. The crest was regained by climbing straight up on adequate holds. There was easy scrambling above this.

Slanting Gully.—This gully lies on the north side of the corrie, about a mile from the entrance. It cannot be seen until one is almost directly beneath. In length it is about 400 feet, very difficult, with bottom probably severe. The first ascent was by Messrs G. S. Ritchie, James Brown (Grampian Club), A. Powley, and E. Urquhart on 4th June 1939. The first pitch in the direct ascent of the gully has, so far, not been climbed. It starts from a rock platform and is 100 feet in height. Steep water-worn rock leads to a vertical 30-foot chimney, just too wide for comfortable foot and back work.

On the first ascent this pitch was avoided by a 70-foot gully on the right. It looked deceptively easy, the rock being loose and the holds few. The gully was rejoined above the unclimbed section.

A short wall led to a damp section of 70 feet enclosed by smooth walls, with a chockstone, followed by a horribly slimy cave. The chockstone was passed, but the cave defeated the best efforts of the party. A point was reached just below a large bolster-shaped mass of rock which completely blocks the gully above the cave, but no further progress could be made. An escape from the gully was made to the left along a ledge to a place where a rib of rock led to a thread belay on a level with the top of the bolster-shaped mass. A very difficult 12-foot chimney led back to the gully. At this point the bed of the gully was very loose and care was necessary. The general angle eased, and there followed a succession of short wall-and-corner pitches, the climb finishing on the upper slopes of the hill-side.

Red Craig, Glen Clova.

Red Craig lies on the east side of Glen Clova, half a mile below Braedownie. The crag is very evident, quite close above the road, a few hundred yards short of the large quarry which is a convenient parking place for a car. This constitutes, to a lazy man, one of the signal merits of these excellent climbs. Amongst the jumble of large boulders below the crag will be found a large cave, both useful and attractive in bad weather. Red Craig consists of three buttresses—North-west, Central, and South-east—with intervening gullies. The North-west buttress is divided into upper and lower sections by a broad terrace.

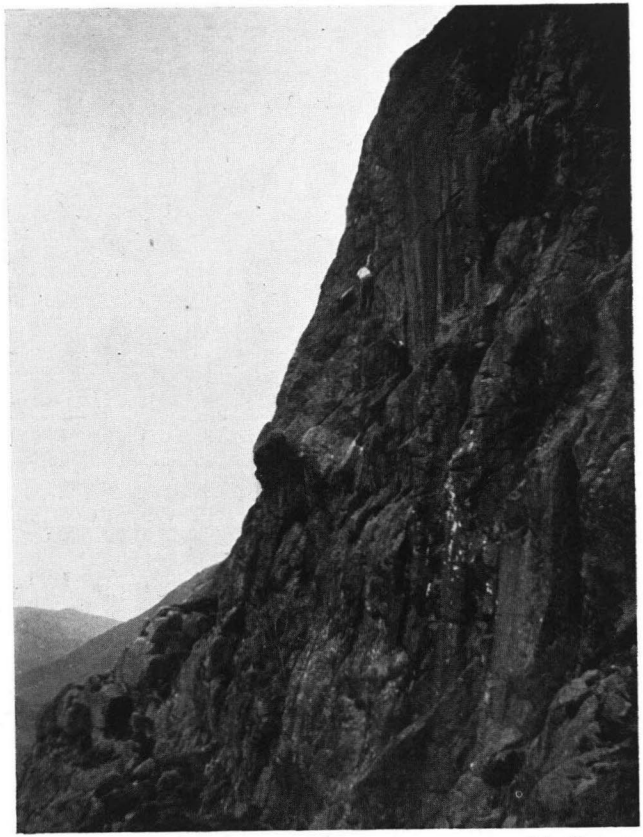
North-west Buttress.

Twenty-minute Route.—Lower section, 150 feet. Moderate. First ascent, J. Nisbet and J. G. Ferguson, March 1939.

The route follows a rib of rock in the centre of the buttress, by a succession of short, interesting pitches, finishing with a severe crack which may easily be avoided.

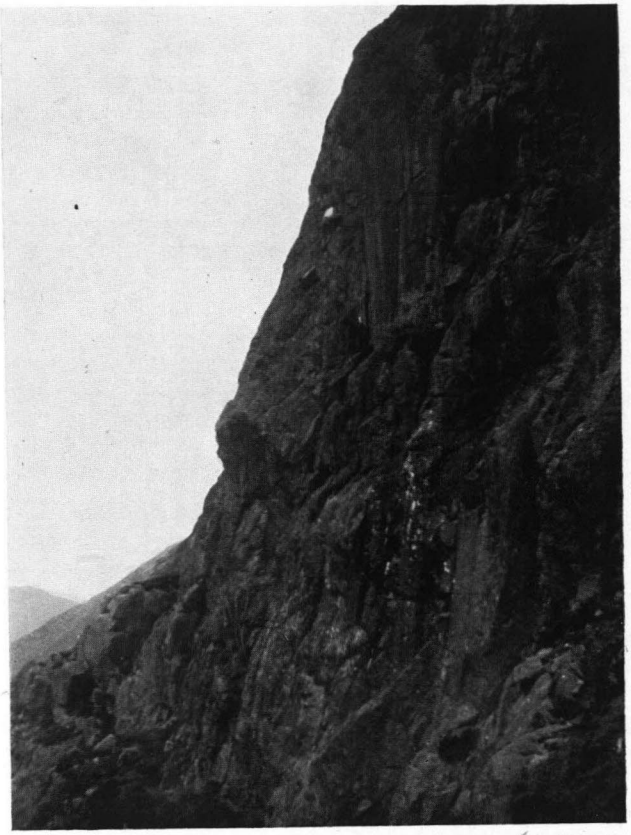
The Hanging Chimney.—Upper section, 150 feet. Severe. First ascent, W. H. Ward (Climbers' Club) and J. G. Ferguson, 27th August 1939.

The climb starts up a narrow 20-foot chimney to the right of a very obvious rake (cairn). A traverse is then made to the right to a large flake. Above this a rowan tree affords a belay, while the



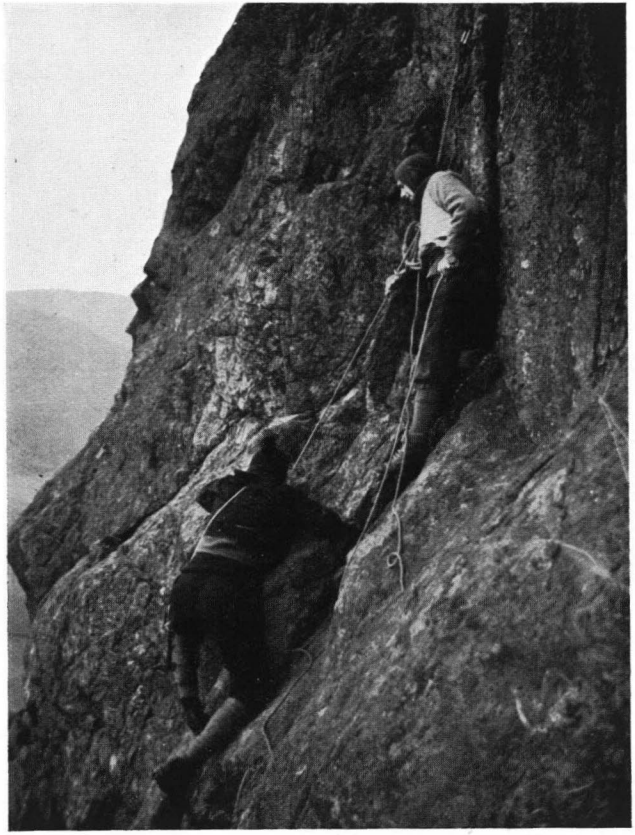
John Ferguson

RED CRAIG, CLOVA—THE PARAPET
(1) The leader moving out from stance below the Red Slab



John Ferguson

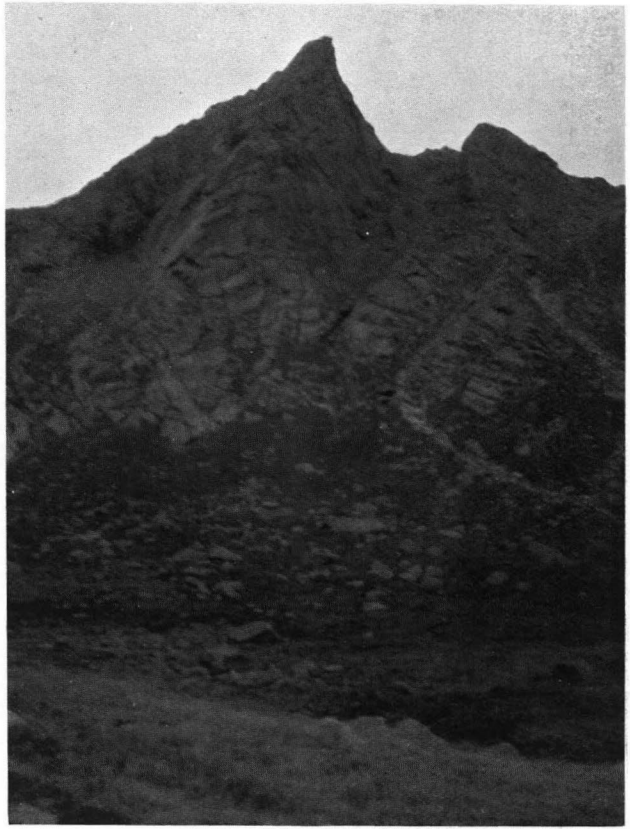
RED CRAIG, CLOVA—THE PARAPET
(2) The leader has moved higher



John Ferguson

RED CRAIG, CLOVA—THE PARAPET

(3) At piton belay below the big Red Slab, above the severe chimney
(The leader is Mr G. S. Ritchie, the second is Lieut. Van Hooff)



Sept. 1940 *J. F. Hamilton*

THE SOUTH RIDGE OF ROSA PINNACLE, CIR MHOR
(Towards observer)

leader endeavours to find lodgement in the Hanging Chimney. The lower part of the chimney is very strenuous, but the difficulty decreases as the climber works upwards.

A good belay is available above the exit.

Central Buttress looks either impossible or too broken up to give any good climbing.

South-east Buttress.

This buttress gives excellent climbing and several good routes have been made.

Three J Chimney.—Forty feet. Very difficult. First ascent, J. Scott, J. Scroggie, and J. G. Ferguson, July 1938. The chimney is situated close to the left edge of the buttress and is distinctly awkward in its upper part, where a flake projects from the back, forcing the climber out on to the left edge.

Fifty yards to the right of this climb is a shallow gully, bounded on the right by a small buttress, above which a narrow terrace crosses the crag, ending at the gully. An imposing face rises above. Two climbs on this face start from the terrace, namely, The Flake Route and the Parapet Route. The small buttress below gives an interesting climb of 100 feet (cairn at foot), and makes an ideal approach to these climbs.

The Flake Route.—120 feet. Severe. First ascent, W. H. Ward and J. G. Ferguson, 27th August 1939. The route makes for an overhanging block on the left, above which a detached flake, seen prominently from certain angles, leans over the shallow gully. The climb continues over steep, sound rock to the crest of the buttress, with one short excursion to the left.

The start is up a 15-foot chimney at the left end of the terrace, after which a groove on the left leads to a perch (no belay). A threaded belay loop (line only) may be used to safeguard the exposed movement when surmounting the overhanging block above. From a good stance at the Flake the crux of the climb is tackled. Fifteen feet up the wall behind, an awkward step must be made to the left round a nose. It is then a simple matter to move off the face, but a fine top pitch should be added by bearing right over steep rock, the last

part of the climb being the top section of a prominent fault which splits the face from top to bottom.

The Parapet Route.—180 feet. Severe. First ascent, J. G. Ferguson and G. S. Ritchie, 1st September 1940.

Ten feet to the right of the Flake Route lies the start of the above-mentioned fault. The Parapet Route follows this fault for 15 feet, before diverging to a grassy ledge below an overhanging chimney (no belay). Above the overhang the chimney narrows to a crack, which runs up a huge vertical slab. At this point the crack must be abandoned. It is rejoined above the slab, after an exhilarating move first to the left then back to the right. The crack ends behind a large flake and the finish goes up an arête to the highest point of the face.

The overhanging chimney proved severe. In the absence of a belay at the stance above, a piton was fixed in the great slab. From a small ledge to the left of the stance, a very steep wall is climbed obliquely to the left on small holds. In 20 feet a groove is reached, and for some distance the climbing is easier to a second piton. A short but delicate traverse to the right leads back to the crack, which is then climbed to a good stance behind the flake mentioned above.

NEW ROUTES ON THE NORTH BUTTRESS OF BUACHAILLE ETIVE.

By Henry W. Grant (Lomond, M.C.)

The following climbs are all on the Crowberry Gully face of North Buttress of Buachaille Etive. This face is cut by a grassy gully, which, for convenience, we called "Green Gully," and which slopes towards Glencoe. The lower half of the face is steep, and in character rather like the Rannoch Wall. Above Green Gully the angle generally is less steep, but overhangs slightly at the foot, and is inclined to be slabby in parts. All four climbs were done in rubbers. The party consisted of Miss Drummond, Mr P. L. McGeoch, and the author, and the lead was shared between the two men, the author leading the second and fourth routes. The ascents were made on the 11th and 12th June 1940. All the routes are at least "very difficult."

Crack and Groove.

The narrow crack at the extreme right of the face is followed until a large spike belay within the crack is reached. Above this the crack narrows and the left wall is climbed to a grass ledge. Easier ground leads to Green Gully. Directly across Green Gully a black bulge of rock provides a strenuous start to the second part of the climb which continues up a black water-marked groove. This groove finishes at a short, steep wall leading to the easy rocks of the North Buttress ridge. (Approx. 300 feet.)

Slanting Groove.

This climb starts some 15 feet to the left of the Crack and Groove Climb. The face is climbed for a few feet, then a steep sloping groove to the left is followed to a small ledge. A direct ascent is then made to a large block belay. The route goes to the right to a flake, avoiding an overhang, then continues direct to Green Gully. Some 20 feet from the top of Green Gully a small crack is climbed, leading to black, slabby rocks. Near the top of these rocks a slight traverse is made to the right, the route following a steep rib to a small rock ledge below a shattered overhang. This overhang is avoided by climbing a rib to the left which leads to steep, slabby rocks, overhanging a little in places, and thence to the ridge of the North Buttress. (Approx. 350 feet.)

North-east Zig-Zag.

This can be made a variation to the first section of the Slanting Groove Climb. Starting from the left of a rock ledge near Crowberry Gully, the climb goes up left, traverses round the corner, then straight up to grass tuft. A short traverse is made to the right and up to a grass ledge. Avoiding an overhang by going to the right, a steep awkward wall is climbed to the large block mentioned in the Slanting Groove Climb. A route is then taken to the left, finishing on a steep wall approximately at the end of the Slanting Groove. (Approx. 150 feet.)

Judas Rib.

From the top of Green Gully a prominent rib of rock curving to the left is climbed on small holds to a good spike belay. A few feet above this belay the climb turns slightly to the right into a shallow groove which slants up left for some 70 feet to a grass ledge. Easy rocks then lead to a large grass ledge below the ridge of the North Buttress. A long slanting groove is now followed to a small rock platform. A small chimney at the left-hand corner of the ledge is climbed, the overhang at the top being surmounted on good but somewhat awkward holds. Easier ground leads to the ridge of the North Buttress. (Approx. 225 feet.)

SOUTH RIDGE, ROSA PINNACLE, CIR MHOR, ARRAN.

By Jas. F. Hamilton.

This ascent, which took about seven hours and provided about 800 feet of fine slab climbing on perfect rock, was effected by Messrs J. F. Hamilton and G. S. Roger (J.M.C.S.) on 9th September 1940. The granite slabs are perfectly sound and about as rough as gabbro. The start is at the lowest rocks and the route proceeds up easy slabs until the steepening face of the Pinnacle forces a divergence to the right. The first traverse leads to an awkward corner and the removal of boots.

A short steep pitch leads to a good stance, then upwards to the left to the foot of an imposing crack, which was turned on the right. It should go direct next time, as the route is now known higher up. Once round a corner, 15 feet of steep rock led to a grassy gully, climbed for 30 feet, and leading by the left to a broad ledge. A crack now led to a terrace, which was traversed to the left to the foot of a right-angled corner. The crest of the ridge was attained by steep slabs and a delicate traverse. Two chimney pitches now brought the party to the terrace dividing the Lower from the Upper Pinnacle.

Slabs now led to an obvious chimney, at the top of which an easy ledge and a steep slab returned the party to the crest of the ridge. An airy sloping ledge and a mantelshelf now led to easier rocks from which the top of the Pinnacle was reached. The latter third of the route was climbed in heavy wind and rain, but was nevertheless most enjoyable.

FAN RIB, FAN CORRIE, SGORAN DUBH.

By Messrs K. M'Laren and J. Scott (Corrie Club, Dundee).

From No. 3 Buttress on Sgoran Dubh we traversed into the gully-cum-waterfall between this buttress and No. 2, and when we had passed the steep, wet rock face on our right we noticed two ribs of rock which curve up between Diamond Buttress and Bachelors' Buttress. We ascended some easy slabs towards the two ribs, but the one nearest Diamond Buttress looked so broken up that we decided the other would offer better sport. The climb starts steeply on cracked and rather holdless slabs, then narrows into a well-defined narrow arête of piled-up granite blocks giving exhilarating climbing on firm rock.

About two-thirds of the way up, a short difficult chimney barred the way to evidently easier ground and a traverse had to be made to the left. From a good stance at a thin flake belay, an awkward step round an exposed corner landed the leader on a small platform on the left wall of the Rib. The solution to this traverse is a crack on the floor of the platform.

The next pitch was short and the most difficult of the climb, a strenuous pull-up enabling the leader to land on the top of the intervening slab between the chimney and platform. From here the angle of the rocks eased off; the rest was easy, and the top of the Rib finishes almost level with that of Bachelors' Buttress.

The climb is about 350 feet long and of moderate difficulty. The start can be seen from the remains of the Upper Bothy, curving round behind Bachelors' Buttress. The authors effected the ascent on 6th October 1940.

ARROWHEAD BUTTRESS, NARNAIN.

This little buttress climb of 55 feet or so, barely in the very difficult class, was first done in August 1940 by Messrs R. L. Plackett, W. L. Rankin, and W. Campbell. The buttress is that one immediately to the north of Narnain Buttress, with a scree slope between. The start is a couple of yards up the scree on the north side.

A slight overhang leads in 15 feet to a platform. From this, by the right, one ascends a crack at the back of the platform. Just below the top a traverse to the left avoids an overhang.

PROCEEDINGS OF THE CLUB.

NEW YEAR MEET 1941—CRIANLARICH.

THE 1941 New Year Meet was held at Crianlarich from Friday, 27th December 1940, until Thursday, 2nd January 1941. The President, 16 members, and 7 guests were present at one time or another, and the Meet was, as usual, comfortably housed at Crianlarich Hotel. The weather was, on the whole, fairly good, with the exception of foul conditions on Monday, 30th. There was not very much snow, but it was good weather for long expeditions. One or two people were able to climb a few days longer. They enjoyed good weather and hard frost. On New Year's Day Professor Turnbull's party enjoyed a marvellous distant view from Ben Lui and Ben Oss, the Cuillins being clearly visible. This was also the case from Bidean nam Bian on the Thursday. Two parties climbed the Y Gully on Cruach Ardrain (the Turnbulls and A. G. Murray on the 30th, Arthur and Aston on the 2nd), the Turnbulls and Murray also climbing Lui by the centre gully on New Year's Day, when they were obliged to cut steps quite low down in the corrie. A long expedition was the ascent of Creag Mhor via Inverhaggernie Burn by Arthur, Elton, Gulland, Osborne, and MacEwen, although Gulland and Osborne were compelled to turn before reaching the top in order to catch the evening train.

The numbers on the hills on the various days were as follows: Saturday, 3; Sunday, 5; Monday, 6; Tuesday, 12; Wednesday, 15; and Thursday, 8. The hills ascended were as follows: Stob Garbh, 3 men; Cruach Ardrain, 13; Bheinn Chaluim, 5; Ben More, 8; Beinn a' Chroin, 3; the same along with An Caisteal, 3;

Creag Mhor, 5; Bens Lui and Oss, 3. J. E. MacEwen and J. D. B. Wilson (guests) and the Editor were on the Bidean nam Bian ridges on Thursday; Wilson and the Editor proceeded to Ben Nevis on Friday, spent a night at the C.I.C. Hut, climbed the Tower Ridge on Saturday, and finished off with the Clachlet peaks on Sunday, 5th January. There was hard frost, clear sunshine, and a magnificent sea of clouds lapping round all but the higher peaks.

On Sunday evening Messrs W. H. Murray (J.M.C.S.), R. G. Donaldson (C.U.M.C. Treasurer), and G. R. B. McCarter (O.U.M.C. Treasurer) (all J.M.C.S.) dined with the S.M.C. On New Year's Day telegrams of greeting were interchanged with the L.S.C.C. Meet at Killin.

On New Year's evening the police informed the hotel that the Observer Corps had seen two men high up in the Ben More Gully about 4.30 P.M., and that they had hardly moved at all for about two hours. Arthur organised a search party led by Elton, which left the hotel by car about 10.30 P.M. for Ben More farm. Fortunately, just as the party was setting off for the climb the two climbers returned, and on the return to the hotel about 11.30 Arthur suitably addressed the two men, who, though experienced, had got held up by difficult conditions in the gully.

The members and guests present at the Meet at one time or another included the following: The President, Mr Robert Jeffrey, and Messrs Allan Arthur, J. H. B. Bell, R. R. Elton, T. H. Gibson, Norman L. Hird, K. K. Hunter, R. M. G. Inglis, J. S. M. Jack, W. N. Ling, G. Graham Macphee, Harry MacRobert, R. W. B. Morris, A. G. Murray, J. G. Osborne, E. C. Thomson, and Prof. H. W. Turnbull (members), and Messrs A. G. Deans, J. M. Gulland, Hutson, J. E. MacEwen, Tennent, D. G. Turnbull, and J. D. B. Wilson (guests).

ANNUAL GENERAL MEETING, 1940

The 52nd Annual General Meeting was held at 4 P.M. on 7th December 1940 in the Club Room, Synod Hall, Edinburgh. The President, Mr R. Jeffrey, was in the chair, and there was a fair attendance of members, nearly 20 of whom dined together later on in the Princes Street Station Hotel. Immediately following the business meeting the President entertained the gathering with a beautiful series of coloured slides of his own taking, starting off with the Alps, following on with a fine selection from the Canadian Rockies, and finishing with our own Scottish hills. Mr Allan Arthur also showed some slides.

The Hon. Treasurer mentioned that 27 members on service had availed themselves of the Committee's resolution making payment of subscriptions optional for service members. The Commutation Fund was satisfactory and the Jubilee Fund remained intact as a reserve. It had been decided to invest some surplus funds in Government loans. Mr Aikman reported that 3 new members had been elected, 1 had resigned and there had been 9 deaths during the year, leaving the membership at 292. The meeting approved the sending of a message of goodwill to the 50 and over serving members. The Hon. Editor stated that the *Journal*, which would be continued as usual, had now been reduced in size as far as was practicable. Copies of " Rock Climbs on the Cobbler " reprint, as well as of the Index to Vols. 11 to 20 and of the Jubilee Number, were still available for sale. Mr Elliot reported on the Library and Slide Collection. The report of the Hut Custodian showed 325 Hut nights for the year, a good result. The Hut was in good repair. Rev. A. E. Robertson reported 776 " Guide Books " sold for the year, in spite of the ban on visitors to certain areas of the north-west. There were still ample stocks in hand, but no prospect of publishing the " Southern Highlands Guide " until after the war. The Office-bearers and members of Committee were re-elected for a year. It was decided to hold the New Year Meet at Crianlarich from 27th December to 2nd January, and the Easter 1941 Meet at Fort William, and if accommodation were lacking, then at Aviemore. The Chairman and the Office-bearers were thanked for their services.

The Officials, Committee, and members desire to extend a welcome to the following new members: Dr. R. L. Beveridge, Capt. J. M. L. Gavin, and Mr T. Harry Tilly.

THE S.M.C. AND THE WAR.

Alterations and Additions since List in November 1940 *Journal*.

Member's Name.	Rank.	Unit.
J. E. Bothwell	Trooper	Lothians and Border Yeomanry (R.A.C.).
A. L. Cram	2nd Lieut.	R.A.
J. Campbell Davies	Major	H.L.I., M.C.
T. C. Donald	Lieut.	R.N.V.R.
J. M. L. Gavin	Major	R.E.
D. R. A. Hotchkiss	2nd Lieut.	Cameronians (S.R.)
D. W. Howe		O.C.T.U.
D. M. Isles		
J. W. Levack	Major	R.A.M.C.
R. M. McIntyre	Gunner	R.A. (Coastal Defence).
Rev. A. E. Robertson	Chaplain	H.M. Scottish Command.
Campbell R. Steven	Lieut.	Intelligence Corps.
E. A. MacL. Wedderburn	Captain	Royal Scots.

REVIEWS.

The Alpine Journal. November 1940. 126 pp. 40 illustrations.

In this number Mr G. Winthrop Young discusses modern climbing under the title, " Should the Mountain be Brought to Mahomet ? " A seven-week expedition in Kulu and Spiti, which cost only £10 per head, contrasts with " A First Visit to Chamonix," which must have cost about six months at the Kulu rate. Other articles are an extremely useful historical account of attempts on Mont Blanc from the Innominata Basin, by Prof. Graham Brown, and an account of the Sierra Nevada de Santa Marta. E. A. M. W.

Cambridge Mountaineering, 1940.

This is an excellent number of 55 pages, edited by C. F. Rolland. Scottish articles are " Ben Nevis in June " and an account of an Easter Meet there. There are several entertaining Alpine articles, as well as Meet Accounts from Lakeland, Wales, and the Alps. Amongst new routes are mentioned the late H. I. Ogilvy's Nevis and Glencoe routes and a new route on Sgoran Dubh, of which the record is somewhat imperfect.

The Cairngorm Club Journal, Vol. XV., No. 81. 1940.

Expeditions to three widely separated localities are described in this number: Lochnagar, the Wicklow Mountains, and Mount

Huygens in the Moon! J. A. Parker tells how the Life Preservers' Society keeps the " Old School " in good trim, and the ascent of his thousandth 1,000-footer is recorded as evidence. Accounts of the various Meets and walks testify to the continued activity of the Club.

Climbers' Club Guide to Cwm Idwal Group. 1940 Edition. 144 pp.

This revised reprint is now published with routes marked in photographs and two new climbs and two new variations.

Appalachia. December 1940.

Not such a good number as usual, but containing an interesting history of " Artificial Aids to Mountaineering."

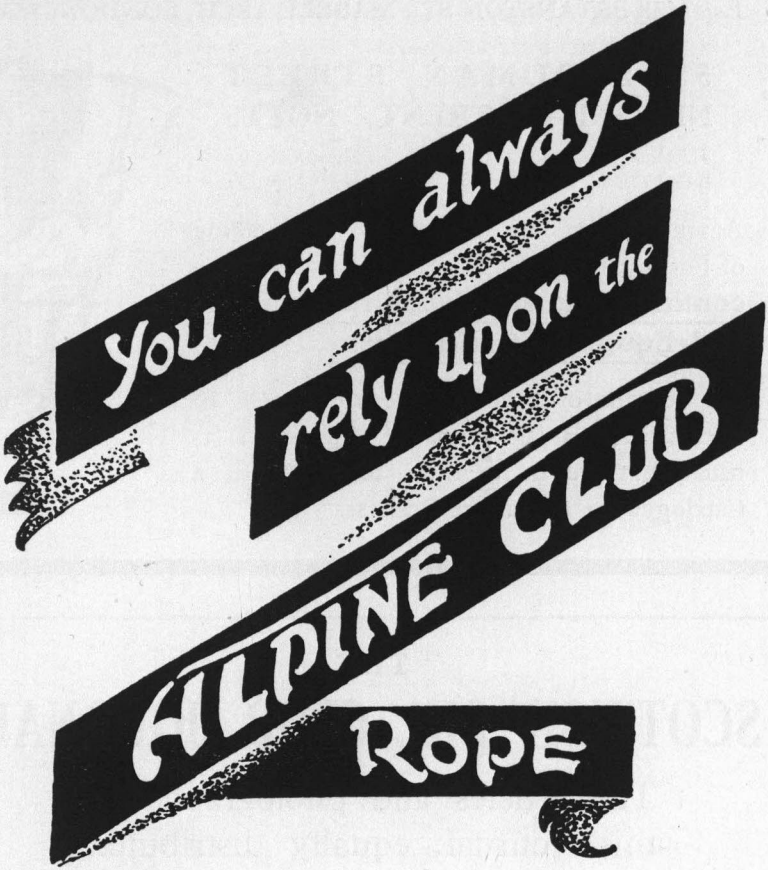
Mazama. December 1940.

A good number, containing many interesting articles and accounts of new first ascents.

British Ski Year Book, 1940.

A very interesting issue containing, among topical articles, a long review of Smythe's " Edward Whymper," which in itself makes good reading.

Other Club Journals received: *Camping*, *L.S.C.C. Record*, 1940, *Les Alpes*, *Nos Montagnes*, *Sierra Club Bulletin*, *Tararua Tramper*.



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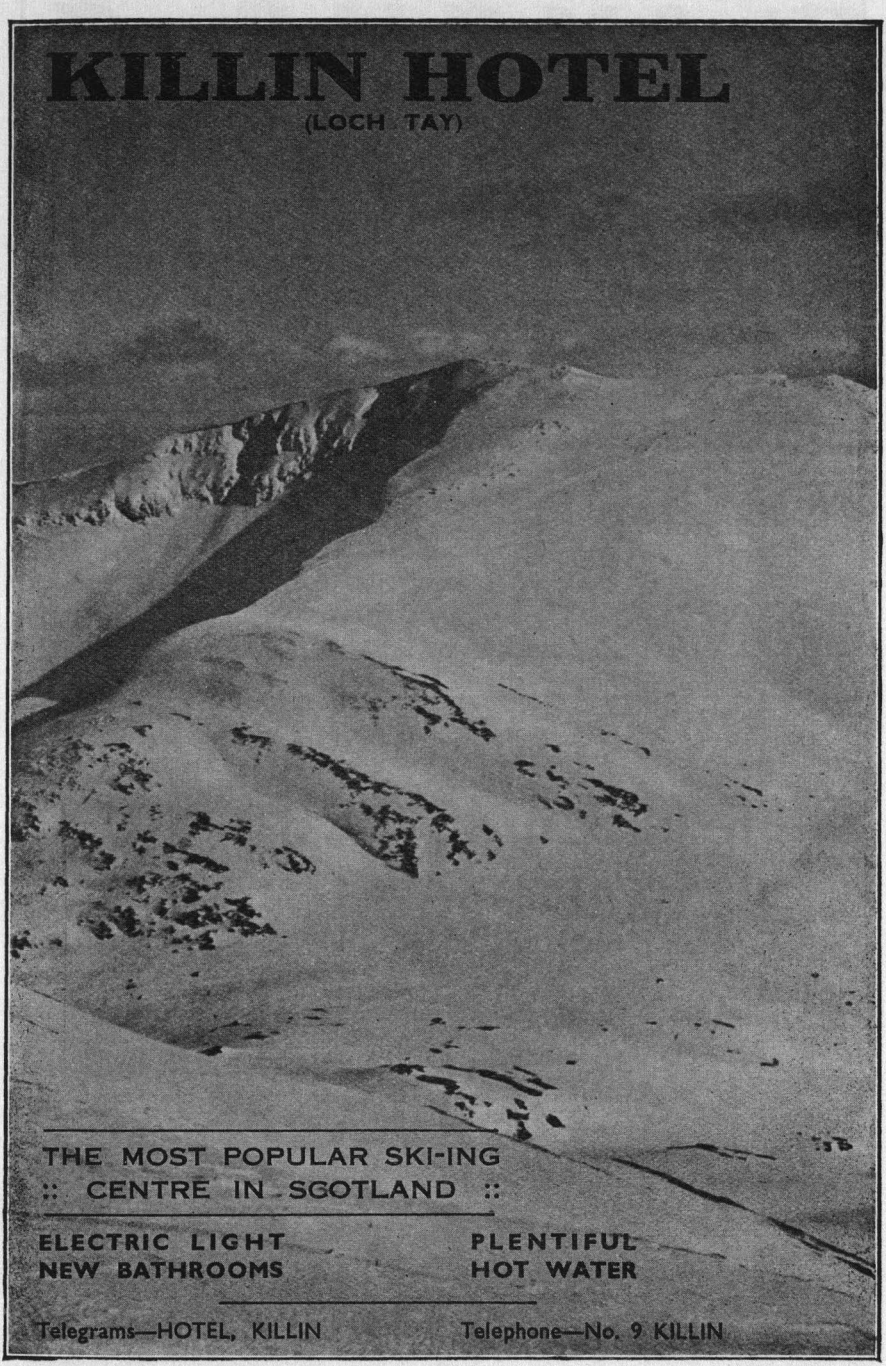

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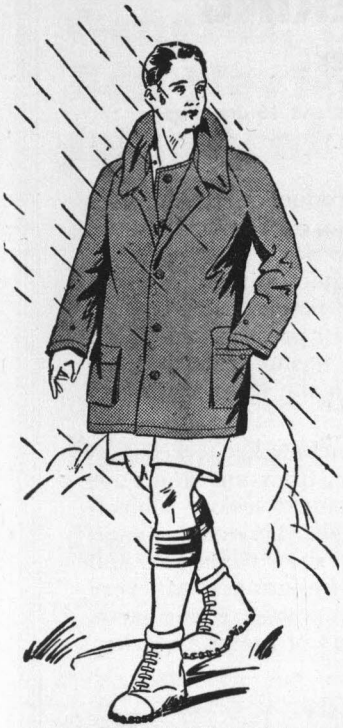

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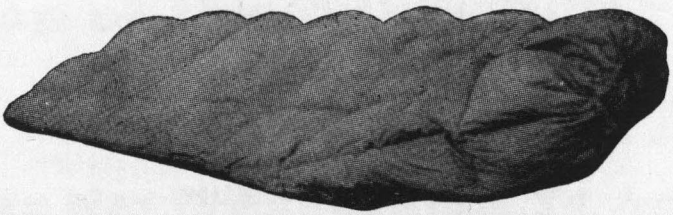

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