THE SCOTTISH MOUNTAINEERING CLUB JOURNAL

EDITED BY J. H. B. BELL



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

New Climbs.—Please report all 1958 rock routes before New Year, and all winter routes by end of January or *immediately* if done in February. Thereafter, no guarantee of inclusion in 1959 *Journal*.



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1956-1957

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The illustration overleaf, typical of the many panoramic photographs in the book, shows Mount McKinley in Alaska. In the foreground the McKinley River flows through forests of pine trees.

THE PEAKS AROUND CHOGO LUNGA

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American exploits receive special emphasis in the new 1956–57 volume of what is already established as the most outstanding and authoritative of publications on mountaineering. Bradford Washburn writes on Mount McKinley and his article is illustrated with some of the most spectacular mountain pictures ever printed. Sheldon Brooks covers the first conquest of University Peak, Alaska, until 1955 the highest unconquered mountain in America.

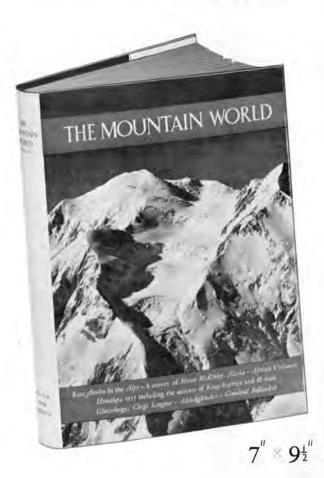
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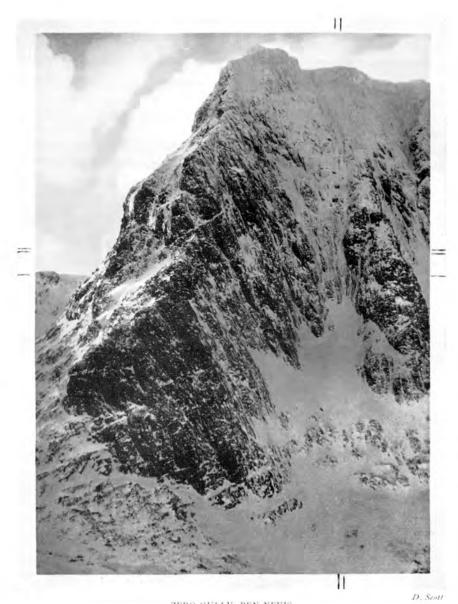
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64 pages of illustrations, including double spreads and fold outs.

200 pages of text

255.



ZERO GULLY, BEN NEVIS

The position of the climbers is visible at the intersection of lines joining marks on the margin

THE SCOTTISH MOUNTAINEERING CLUB JOURNAL

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THE ZERO GULLY AFFAIR.

By Tom Patey.

"STILL plenty time to get up before dark," observed Graham Nicol. It was two o'clock on a February afternoon, and he was gazing wistfully at the 1,000 feet of vertical ice which constitutes Point Five Gully on Ben Nevis.

On such occasions there is nothing for it but to humour my fellow Aberdonian's enthusiasm. These brain storms only occur periodically. A well-thumbed copy of Anderl Heckmeir's "Derniers Problèmes des Alpes" is ever on his bedside table, and on the night before a hard climb he is accustomed to search for inspiration in selected readings from the text.

An hour later the argument was renewed. I had climbed the first 100 feet of 70 degree snow-ice and been swamped by several powder-snow avalanches before taking advantage of a sheltering bulge of green ice to insert a peg and rope down. As a consolation I diverted him round the foot of Observatory Ridge for a brief inspection of Zero Gully, also unclimbed, vertical, and bulging with overhanging ice. It formed the perfect counterpart to Point Five.

Between them these two gullies had aroused more interest among post-war climbers on both sides of the Border than any other ice climb. Zero had always seemed the more likely of the two to go, if only because Point Five was so seldom in climbable condition. A mere sprinkling of fresh powder in the upper *couloir* of Point

Five would fill the vertical lower cleft with choking clouds of spindrift—the latter a virtually uninterrupted ice-pitch of 500 feet. We had visited Ben Nevis six times in recent winters with intentions on Point Five but had not succeeded in leaving the ground. Always there was the threat of avalanche. The only serious attempt had been made by a Rock and Ice party, and this had ended in a spectacular exodus from the gully when the leading pair were held at full stretch by the last man on the rope.

Zero Gully, on the other hand, had survived several attempts, although the upper 500 feet had often been climbed by parties engaged on the winter ascent of Observatory Ridge. The real problem is the direct ascent of the lower icefall, and on the most successful attempt by Bell and Allan in 1936 this had been avoided by an excursion towards Slav Route on the left. A further tour de force by an O.U.M.C. party in 1950 ended in disaster. They were near the top of the difficult section when the leader fell, ripping out several ice-pitons and dislodging the second. By a miracle they both survived the 400-foot fall. Subsequently Zero Gully became linked with the name of Hamish McInnes, of whom more anon. The climb had now withstood several McInnes blitzkriegs: numerous ice-pitons and an ice-axe marked the site of the battle. Perhaps inspired by Hamish, the Creag Dhu entered the lists in 1956 with summer ascents of both Zero and Point Five Gullies. They found neither gully a satisfactory summer climb. There was far too much unreliable rock, but no one doubted that in winter conditions they would provide ice routes of unique length and difficulty.

"Sans compétition pas de sport" wrote Alain de Chatellus. Perhaps that explains why no less than a dozen climbers from Aberdeen and Glasgow were due to congregate at the Clark Hut that week-end in quest of Zero and Point Five Gullies. There had been a mutual agreement among all the interested parties. Nicol and I had inadvertently broken faith by arriving one day in advance, thanks to an impromptu lift in a cement lorry. We had therefore to await the main body with patience

despite all Nicol's protestations. His argument that the premature bagging of Point Five would leave us all free to concentrate on Zero was hardly adequate.

Len Lovat was the first on the scene next morning—quite out of breath after a furious chase up the Allt a Mhuilinn. We had written him to say we might be a day late, but his jubilation had turned to dismay on finding fresh tracks in the snow. There followed at a more leisurely pace a succession of the Glasgow "faithful"—Malcolm Slesser, Donald Bennet, Douglas Scott and Norman Tennent.

The cast was complete, but the stage was not yet set. Ben Nevis is notoriously temperamental on important occasions, and a strong south-west wind was already whipping the spindrift off the Observatory and drenching the north-east face in dense white clouds. A gully climb was out of the question-to-day at any rate. Len joined forces with Nicol and myself, while the other four set off towards North-east Buttress. We watched them proceed smoothly up Slingsby's Chimney to the First Platform, and then transferred our attention to the left-hand flank of the Buttress which fronts Corrie Leis. Bill Murray had drawn our attention some time before to the possibilities of this fine 1,000-foot face. Although a rock climber's midden in summer, like many similar faces it seemed to offer glorious winter climbing-a miniature Scottish Brenva, in fact. We picked the easiest route, a central line up a long snow couloir. This ended about 600 feet up, below some overhanging ice, where a long traverse rightwards involving a 120-foot lead-out provided the highlight of the climb. All the party were in good fettle, and we reached the top in three hours from the corrie floor. The Cresta Climb seemed to be an apt name for the new route, in view of the Alpine nature of its environment. During the descent we observed that another and more exacting line existed between our couloir and the edge of North-east Buttress. It could provide one of the longest ice routes in Britain.

Back in the hut we had visitors—two climbers, whose characteristic patois, coupled with a distinct air of

authority, stamped them as members of the Creag Dhu Club. They were, in fact, Johnny Cunningham and Mick Noon. They mentioned casually that they expected to climb Zero Gully on the morrow, without apparently noticing the disquieting effect this had on the rest of the company.

We remarked upon the absence of Hamish McInnes. "He doesnae ken we're here, and furthermore we're no tellin' him," said Cunningham. However, he had apparently underestimated Hamish. Scarcely were the words out of his mouth when the door crashed open and the self-appointed guardian of Zero Gully stood before

us in a state of wild disorder.

The news of our arrival had reached him at Steill Hut, where he was acting as instructor on a Mountaineering Association course. He had set off immediately across the Carn Mor Dearg Arête, delaying not even to collect provisions for the trip. (Hamish makes a habit of travelling "light.")

It was impossible to remain indifferent towards such a man: his appearance alone invited controversy. A great rent extending the whole length of one trouser leg had been repaired unsuccessfully with string. In his hand was the famous all-steel hammer-pick, named affectionately by the club "The Menace."

Cunningham challenged him gruffly, "Just where do you think you're goin'? "

"Zero Gully, of course."

" Solo ? "

"I suppose I might allow you two along as well."

"That's very generous considerin' we're goin' anywav."

So the composition of the party was settled to the chagrin of the rest of the company, who had not allowed for such formidable competition. We reflected sulkily that there was always Point Five.

Around midnight some conscientious person drew attention to the fact that the North-east Buttress party were "rather late back." With some grumbling a search party was organised, but before we could leave the four absentees staggered in, mumbling excuses about "Two feet of ice on the Man Trap." It was easy to commiserate with them on their misfortune, as they would now be unable to rise from their beds before noon, certainly too late for serious climbing.

Nicol and I were up at crack of dawn, but only in time to witness the departure of the Creag Dhu who had already breakfasted. "It's a great day for avalanches," Hamish declared enthusiastically as he opened the door to a full-scale Ben Nevis blizzard.

At other times I would have returned to sleep with an easy conscience, but Graham Nicol was bursting with impatience and would brook no delay. The distant roar of avalanches was a sufficient contra-indication to an attempt on Point Five, and we left without any fixed intentions. A momentary clearing in the mist revealed our rivals at the foot of Zero Gully, where a minor altercation seemed to be in progress. The tall figure of Hamish kept pointing insistently skywards.

I don't know why we finally selected Comb Gully. It would seem in retrospect to have been a most inappropriate choice. Not only did it enjoy a considerable reputation for difficulty, but we had just witnessed a fair-sized powder avalanche issue from the gully. However, Graham inclined to the view that all the unstable snow must now be swept clear, and we scuttled up the first three pitches with great abandon. Despite the blizzard and a steady stream of spindrift we could not complain about the quality of the snow. It was ideally suited to step cutting, with a fine hard crust as a legacy of the recent avalanche.

Along came the crux, a 30-foot vertical ice-pitch, above which the angle appeared to relent. It was not a pitch to linger over, as the streaming drift found its way into our windproofs, rapidly numbing wrists and fingers. I crouched for a minute's respite in the lee of the top overhang and knocked in two ice-pitons for security. The next few feet were the worst. At this point the falling spindrift met a violent upblast of wind going straight up the gully, and the result was a regular

maelstrom. Eyes crusted over and holds refilled as fast as they were cut. I fought for breath, almost choking with the snow going into my mouth. There was little finesse in the climbing, and I was extremely thankful to get out of the place without literally suffocating. Above this there were no further difficulties as the cornice had come away in the avalanche, and we reached the top in little

over an hour after starting the climb.

We cut our way down North Gully of Creag Coire na Ciste, feeling very pleased with ourselves at disposing of Comb Gully in such a short time, and returned to the hut in time for a second breakfast. We were soon followed by the Creag Dhu who had turned back with reluctance in the face of several avalanches. The weather had now deteriorated further, so Cunningham and Noon decided to return to Glasgow on the motor bike that evening. Before he left Johnny asked us about our plans for to-morrow. We had been offered a lift back to Banff by Norman Tennent and it seemed too good an opportunity to miss. "But what about Point Five?"

"It'll wait." I replied.

"It'll no wait for ever," he countered with a grin.

"Neither will Zero, come to that," rejoined Nicol.

Hamish suddenly came to life. "Are you guys interested in Zero to-morrow?"

Fate was obviously taking a hand, and I recalled that the best climbs usually arrive unexpectedly. Leaving Aberdeen that week-end we had spoken little about Zero Gully; our hopes were all for Point Five. I thought for a moment of Norman's cosy van and vielded. "O.K. It's on." In vain did Johnny remonstrate with Hamish to keep it in the club. Hamish was unvielding. It was his climb, he pointed out; and it was his gear that was on it. Indeed, few men would dispute his ownership. He had earned it, if only by reason of a recent solo winter ascent of Observatory Ridge, undertaken merely to inspect Zero Gully! We parted with good wishes on both sides, but it was satisfying to deduce from the heat of the argument that the climb must be in excellent condition. The other five were remaining an extra day,

and Len Lovat was undecided whether to join us; but the prospect of a possible benightment and the absolute necessity of returning to Glasgow for the following afternoon tempered his enthusiasm.

Next morning we rose at 6 A.M. to find a clear sky and hard frost. Over breakfast Hamish disposed of the climb as if conducting a business transaction. "You can lead the first four hundred feet and above that it's just a steady slog. I've led it once, so I'm satisfied. It took six and a half hours," he added as an afterthought.

"Then why didn't you get up?" I inquired.

"There was a wee avalanche."

Probably quite a large one, I thought, if they had decided to retreat so high up.

We ploughed up to the foot of the cliffs through 3 feet of new snow. Our luck was in. The recent powder had failed to adhere to the almost vertical snow-ice of the gully and conditions were ideal. It was Zero hour.

Whoever christened it a gully was an optimist. For 400 feet it is no more than a vertical corner bulging with overhangs, but Hamish's eye of faith could detect a route. The first pitch was obvious. A shallow trough ran up the centre of the 85-degree wall for 100 feet to peter out below a fair-sized overhang. By cutting handholds on the side wall of the trough it would be possible to climb in balance despite the extreme angle. A line of steps terminated abruptly at 20 feet. I looked at Hamish inquiringly.

"That's where Long John got hit on the head with some ice," he answered. "It's a pity because he was going fine."

My fears that I might emulate Cunningham were unfounded. For once Ben Nevis was tolerant of Hamish's presence and no débris fell. It was a model ice-pitch and the security astonishingly good despite the exposure. I straddled the side walls of the trough, unable to resist a morbid satisfaction in noting that the rope hung absolutely free from my waist to the two at the bottom. They seemed strangely remote and not very interested in my progress, though Hamish would occasionally stir

himself to shout "Straight on up" whenever I stopped for a rest.

I halted below the overhang with 120 feet of rope run out and still no stance worthy of attention. "There's a bit of nylon cord sticking out of the snow here." I velled.

Hamish was delighted. "It's attached to Hope's ice-axe," he roared. "That's your first belay."

I ventured to say that it was "quite steep up here." "Don't worry about that. You've done the worst bit

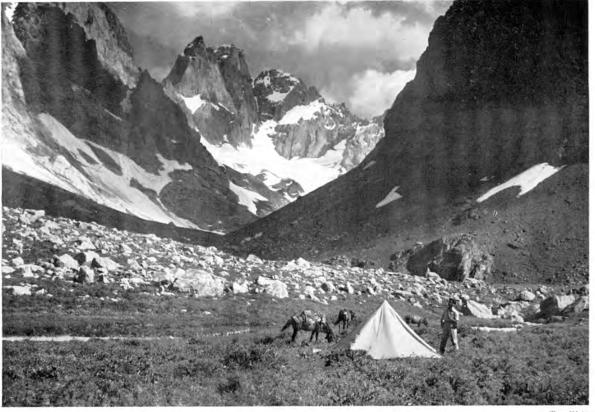
and it's just a doddle now."

Leaning backwards on the frozen cord to inspect the overhang I came to the conclusion that Hamish was either a superlatively good climber or a fanatic. Watching him climb neatly up the first pitch I decided that he was probably a bit of both. Nicol, not to be outdone, came up with equal nonchalance, but spoiled it all by dropping his axe at the top. It plummeted down without striking the face and impaled itself in the snow at the bottom. Fortunately for him we now had a spare axe. This had been left by Hamish and Bob Hope when they ran out of ice-pitons during the disastrous retreat of the previous month. On that occasion Hamish had made the dramatic entry in the hut log book-" This climb is not possible in one day."

I started on the overhang with some misgivings, convinced that the best route lay to the right, hard in by the corner: but Hamish assured me that he had tried this himself and the overhang was the only way through. Fortunately the ice was deep enough to take pitons, and for 20 feet I was very glad of their assistance. The technique is to take tension through an ice-piton placed as high as possible above the climber until the next few handholds have been cut. Then, hanging on with one hand, a higher piton is inserted and the one below removed for further use. This is all very delicate work, as any outward pull on the piton will have the maximum result. The other two inclined that I would profit from a couple of étriers, but I assured them without any real conviction

that I was quite happy.

Half an hour later I crouched in another miserably



Tom Weir

CAMP IN MIA HVARA GLEN WITH GELIASIN IN THE BACKGROUND Showing massive, unclimbed 4,000 foot face. Party climbed the mountain from the East

cramped stance above the overhang. I couldn't find Hamish's ice-piton which was buried somewhere in the vicinity, but had hammered an ice-axe well in, using the "Menace" for the purpose. Its owner now had nothing to assist his progress. He dispenses with an axe on ice climbs and only uses the hammer-pick. At last a shout came from below. "Keep the rope tight and I'll come up on the *Prusiks*." At another time I would have enjoyed the joke, but I was beginning to realise the range of this man's enthusiasm.

"Stop!" I roared, as he prepared to launch out into space. There followed a short pause and the rope started hesitantly to come in.

Hamish appeared to be rather disgruntled. He claimed we had lost a full three minutes. Personally, I couldn't see the importance of this as we had already put 300 feet behind us in one and a half hours, and this section had taken four hours on the earlier attempt.

Now the route went rightwards towards the corner, at the point where it bends out of view as seen from the foot of the gully. The traverse led along a narrow strip of high-angled snow between two overhangs, with some quite superb exposure. For the first time we could progress without the constant support of a handhold or ice-piton.

At the end of the traverse I stepped on to an easy snow slope running back at 50 degrees into the face. This was the limit of the McInnes-Hope tentative. It was difficult to conceive how they had considered themselves above all difficulties, even allowing for the prevailing snow-storm and limited visibility. For the next 80 feet the route had some of the characteristics of a gully climb, hemmed in by smooth ice walls. Then a gigantic ice-pitch soared up vertically for 100 feet seeming to seal off all access to the upper gully.

From round the corner came the familiar shout, "He's up—no bother at all now."

I smiled sardonically. This joker must be held to his

^{*} Prusik Knot technique for climbing up a fixed rope, held from above, used in Alps for rescue from crevasse, etc.

promise. "Hamish, it's your lead-there's still a wee pitch left."

Nicol and I belayed at the foot of the wall to two ice-axes and three ice-pitons. On the right an easy snow shelf led on to Observatory Ridge, but since any avoidance of the direct line would amount to sacrilege, nobody dared draw attention to it. In went the first icepiton, and with a violent heave Hamish got a crampon level with where his nose had been. The only indication of his passage was a large bucket hold every 6 feet. The urgency of his climbing indicated that this pitch was to be a vindication of the use of crampons for the benefit of the tricouni-favouring Aberdonians. However, we were satisfied to observe that his initial impetuosity soon waned, and presently the rope came to a dead stop. All that was now visible of Hamish was the soles of his boots outlined against the sky-an apparent contradiction of the laws of gravity, until you realised that his weight was supported by the angled spikes on the front of his crampons.

"Let's sing him a song to cheer him up," suggested Nicol. He broke into the traditional New Orleans funeral march, "Oh, didn't he ramble." I joined in on the chorus, which ends triumphantly with the line, "Yes, he

rambled till the Butchers cut him down."

Hamish, whose preference is for chamber music, was rather nettled. "There's a lot of loose stuff up here and some of it's going to come down."

Nicol failed to heed the warning and jerked his head back in time to catch the full force of the avalanche When the débris cleared he was bleeding from a cut above the eyebrow, but otherwise intact as his spirited rejoinder demonstrated.

More and more snow came down as the minutes ticked past. Hamish was now out of sight, and we wondered if he was tunnelling the overhang. Every now and then we heard a gasp, "Thank God for a piton," but that was all. Two hours elapsed before the signal came to follow on.

I won't attempt to estimate the difficulty of the pitch. as I did most of it on a tight rope, and the steps seemed designed for a Yeti. Suffice to say that it was quite up to anything else on the climb, which indeed had seldom varied below Very Severe. Hamish was satisfied with his "shift" and prepared now to rest on his laurels. "It's the interesting stuff that gets me, I'm afraid. I'm not much of a hand at the step bashing," he said, indicating the rest of the gully with a lordly gesture.

It was true. We had at last penetrated the forest of ice overhangs, and the way was clear to the top cornice. All the pent-up energy of the last two hours exploded in a frenzy of activity. We moved together, the pace of the party (contrary to the textbook) dictated by the fastest member. Nicol was the most exhausted; he carried the pitons. The slope eased off all the time, and the few minor pitches passed almost unnoticed. Fifty minutes later and five hours from the start of the climb we emerged into the warm sunlight of the summit plateau.

Nicol's yell of ecstasy was intercepted by Tennent and Slesser, who were completing the second ascent of the Cresta Climb. They shouted their congratulations, and the knowledge that a lift home was still in the offing completed our jubilation. We wished Len Lovat had been with us, but he too had enjoyed an excellent first winter ascent of No. 5 Gully Buttress in company with Donald Bennet. It was one of those rare days on Ben Nevis. Everyone satisfied, perfect climbing conditions and an unlimited vista as far as Sutherland and the Western Isles.

"A great climb!" Hamish declared, "Up to Raven's Gully standard."

"In fact, it might even hold its own on Lochnagar," added Graham with patriotic fervour. They were still arguing as we reached the hut.

The sequel to that eventful week-end merits a full article.

How Cunningham and Noon, thirsting for revenge, attacked Point Five Gully in appalling thaw conditions and almost carried the day against all odds till the collapse of 20 feet of waterlogged ice enforced retreat. How Hamish returned alone to the Ben, dragging 600 feet of Alpine line which he attached to an ice-axe at the topand descended the gully till the rope gave out, dangling like a vo-vo over the abyss. His climb back to the top, unaided by the rope, left much less virgin snow for future pioneers.

But these are stories that will be better told by Hamish or John Cunningham when they finally succeed in their campaign, as I have little doubt they will.

TWO HUNDRED KILOMETRES ON SKI IN THE JOTUNHEIM.

By Theo Nicholson.

MANY British climbers know the attractions of the Jotunheim area of Norway in the summer, but few ski mountaineers have explored the glaciers and mountains in early spring. Einar Bergsland, the Norwegian Ski Federation president and for long a warm friend of Britain, decided it was time some British skiers came over to experience for themselves the Norwegian way of ski-ing, and this was made possible by the generosity and hospitality of the Norway Travel Association.

Thus it was that early in April 1957 I found myself with Kenneth C. Smith, Walter Kirstein and Eric Lewns aboard the M.V. "Blenheim," sailing from Newcastle to Oslo. We were all members of the Ski Club of Great Britain and the Alpine Ski Club. Kenneth Smith is president of the latter, and he and Walter Kirstein are

also Alpine Club members.

The trip over in the "Blenheim," like the return in the "Braemar," was an enjoyable experience. ships are fine modern vessels, most comfortably furnished and equipped from 1st-class cabins down to "Group" accommodation in the fo'c'sle. Their steadiness and lack of vibration are also welcome features to those who don't take kindly to sea passages.

In Oslo we were joined by our four Norwegian companions led by Einar Bergsland, and motored out about 3.30 P.M., travelling N.W. through Fagernes and on to spend the night at the comfortable Grindaheim Turist Hotel. Next morning a short run brought us to the road head at Tyin, where another simple but modern "Turist Hotel" is situated at the south end of Lake Tyin. Here we put on our Norwegian skis and rucksacks and by 11 A.M. were on our way across the frozen and snow-covered lake and up into the hills on its eastern side. The sun shone from a deep blue sky, whilst on all sides the untracked snow-fields lay in dazzling white. A light breeze blew coolly from the north. Indeed, in the weather forecasts friske brise became a familiar term, and often came as a bitingly cold north wind sweeping across the glaciers. This first day, however, it treated us kindly. and as we made our way through the hills we stopped several times in sheltered places to enjoy the full warmth of the sun.

The hill tops were about 1,300 feet above the lake and the slopes were for the most part smooth and gentle. It was, in fact, not unlike a walk through the Perthshire hills, and as we wound in and out amongst them we experienced ascents and descents of approximately equal distance. We were quick to appreciate the wax on our skis which enabled us to climb easily, to ski on the level and to run downhill without interruption. Our day ended 12 miles on at Tyinholmen Turist Hotel at the north end of Lake Tyin. This approach to the Jotunheim from the south was deliberately planned to show us some of the lower hills first, and, no doubt, to work up our muscles before we started to cross the glaciers.

Next day, lightly loaded, we skied N.W. across rough country to the Uranos Glacier which we climbed to its top. Worsening weather and mist discouraged our climbing the Uranostind (7,010 feet) which rose on our left as we ascended the glacier. I consoled myself by climbing instead the little Uraknotten (6,350 feet) on the east side of the glacier. Thereafter we enjoyed a non-stop run of about 21 miles: the upper part of the glacier was

somewhat rough owing to sastrugi, but lower down the going was sheer bliss. And so, after perhaps 18 miles and 3,000 feet of climbing, we returned to Tyinholmen for the night.

During the next two days we skied on northwards, stopping overnight at the Olavsbu mountain hut owned by the Norwegian Touring Association. The hut has Dunlopillo-mattressed bunks for ten and is well equipped with blankets, cooking utensils and fuel. The key is obtainable from any of the Turist Hotels in the area. It is finely situated at 4,550 feet, standing amidst rock peaks with the rugged Raudallseggi towering above it. On the second evening, after some enjoyable downhill runs and some less enjoyable cross-country work, we arrived at the Krossbu Turist Hotel at 4,119 feet. This is situated on the mountain road from Lom in the east over to Sognefjörd in the west. The road is closed each winter till June, but the hotel usually opens at Easter. Einar Bergsland, however, had persuaded them to open for us two weeks earlier than usual, and how well we fared! Like most of these mountain hotels, Krossbu was simple -without running water-but was spotlessly clean, comfortably furnished, with the rooms all well heated by wood-burning stoves, while the catering was simply magnificent. We were sorry our stay was limited to only three nights. During our two days on ski in the area, we climbed an unnamed peak at 2,098 metres to the eastabove the Leirbreen (breen = glacier)-and on the second day made a tour, cut short by the weather, on the Leirbreen.

Krossbu is ringed by glaciers and peaks: nearly all the former and some of the latter are accessible on ski, and particular mention should be made of the shapely Fanneraaki peak (6,721 feet) lying about 7 kilometres away to the S.W. A meteorological observatory is on its summit and the ascent on ski is made up the S.E. ridge, during which one must carry skis for part of the way.

Leaving Krossbu regretfully, we climbed S.E. over the top of the Smörstabbreen at 6,100 feet, passing close under and south of the rock peaks of Kalven and the

Store Björn. Then followed a long and steepish descent which took us down to the valley of the Tverrbytty and so up and round to the quite unique and very modern Leirvassbu Turist Hotel at about 4.650 feet.

We were expected and warmly welcomed by the proprietor and his wife, in spite of extensive alterations still in progress. These were to be finished by June 1957, and the hotel will then house 100 persons. Hot and cold water is in all rooms; there is central heating and all modern conveniences. The bedrooms are cunningly constructed in wood and are fitted with overlapping double bunks like a ship's two-berth cabin. The combined lounge and dining-room is an outstanding feature and. through the artistic and skilful use of natural wood, retains all the charm, warmth and character of the original wooden house whilst providing all the space and comfort we moderns think we need!

Leirvassbu is about three hours' journey from Otta on the main Oslo-Trondheim railway. A bus journey of about two hours takes you to Elvesaeter (where the hotel belongs to the same proprietor) and thence you travel by modern Snowmobile to Leirvassbu.

We would have liked to spend some days exploring the peaks and glaciers around the hotel, but our time was drawing to a close, and next day we skied over the pass. N.E. and down to the old Turist Hotel which, with its annexes and outhouses, constitutes Spiterstulen. This hotel, like Leirvassbu, is easily reached from the north. Röysheim is the debussing point for Spiterstulen and, as it lies a few miles nearer to Otta than Elvesaeter, Spiterstulen may be considered the most accessible of the Iotunheim mountain hotels. It lies in a deep valley at about 3,600 feet and almost midway between Norway's two highest peaks-Galdhöppiggen to the west and Glittertind to the east.

During our brief stay at Spiterstulen we enjoyed a fine day on the Stygge Glacier and up to the Porten at 7,233 feet, and another day to the top of the Tverraa Glacier at about 6,400 feet. We were disappointed not to reach the top of Galdhöppiggen but, having followed a party whom we wrongly supposed were making for the top, we found ourselves with insufficient time to return over our tracks and then climb the 1,000 feet of the N.E. ridge. So we consoled ourselves by descending the Pigg-grove which is the route of the annual downhill race. This we found entertaining and at times exciting, as parts were steep ice!

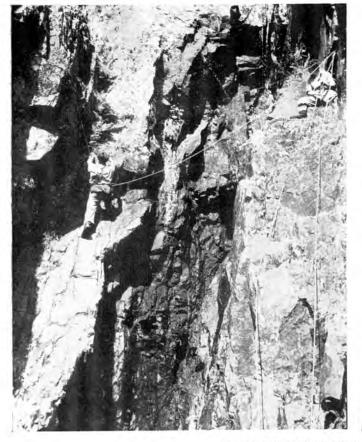
The following morning we were due to return to Oslo, so, after an earlier than usual breakfast, we said our farewells to our good Norwegian friends and skied away down the 12-mile track to Röysheim where we arrived within two hours. A car was waiting to take us down to Otta where we joined the train which brought us to Oslo early in the evening. Thus ended a thoroughly enjoyable

and enlightening expedition.

When I started this tour it must be confessed that I was somewhat sceptical about the joys of the Norwegian way of ski-ing. I had tried before-for a few days onlyand had not been impressed. This time I became convinced of the advantages of Norwegian equipment and of the waxing technique. Indeed, I enjoyed the whole tour so much that I feel the main points should be summarised and thus help others to enjoy ski mountaineering in Norway as much as we did.

1. EQUIPMENT—(a) Skis.—Although the usual Swiss or Austrian steel-edged slalom skis will serve for "lift" centres, no one can fully enjoy Norwegian cross-country ski-ing without using the much lighter and narrower Norwegian ski. We used Gresviks "Splitkin." My pair weighed about 10 lb. complete with bindings. They were made from laminated beech and hickory, and edged by compressed hardwood strips-a German patent. After ten days, including some hard use on icy surfaces, little wear was noticeable on the edges.

(b) Gresvig Kandahar type bindings were used with the cables hooked right forward. Occasionally, when starting a long or steep descent, we would alter the inner cable to the middle position. We rarely, if ever, skied with both inner and outer cables in the middle position, and never used the rearmost hooks. We were thus able





THE GREAT BARRIER PITCH, DALNESS CHASM

Tom Weir

D. Boston below bulge of overhang at 40 feet; Marshall on right wall;

Lovat's rope comes down on left

Marshall above overhang on the Cracked Slab. He must still climb 50 feet to a stance. Very Severe pitch throughout

always to lift our heels. The boot toes were secured in adjustable flanges; these are great time savers with the lighter type of boot. My heavy Austrian pair were too stiff to permit the toes to bend or the boot heel to rise freely, so after two or three days I removed the flanges and substituted the usual toe straps which made level going and uphill work much more comfortable. When running down little if any loss of control was noticed by using these bindings in the safe forward positions.

(c) Sticks.—These were at least 6 inches longer than my usual steel pair and were made of bamboo for lightness. We doubted their strength and durability at first, but they gave trouble-free service. The extra length was a great advantage in increasing thrust from the arms.

- (d) Skins.—These are never used by Norwegians, and as a result, the rhythm of walking on the level or uphill is much improved. The irritating and sometimes cold delays for "skins on" or "skins off" were totally avoided.
- (e) Waxing.—This didn't turn out to be such a problem as expected. The "Klister" from tubes is messy in application, and I found no advantage from it in comparison with the hard waxes in tin containers. A small box of four or six varieties provides a wax for every snow condition. As temperatures in the morning were below freezing point throughout our tour, we usually applied a coat of the appropriate wax at the start of the day. We put plenty under the sole and rubbed or smoothed it in with the hand. This is best done in the warmth of the house. If we had to climb steeply and the initial waxing was insufficient to prevent slip, a short stop to re-wax was made. A thicker coat would then be applied under the sole only and lightly smoothed. Thus waxed, we could climb as steeply as we wished, and certainly no less steeply than with skins. For cross-country touring, even when climbing two or three thousand feet, I consider waxing in the Norwegian way to be the most satisfactory method and to be a useful time saver compared with skins.
- (f) Boots.—As already mentioned, the best boots for Norwegian conditions are much lighter than the Swiss or

Austrian types. I believe the typical "dual purpose" boot with "Commando" sole, of British production, would suit well provided the sole will not buckle under

the pressure from the Kandahar cable.

(g) Ice Axes and Ropes.—These are not normally carried on the ski-ing glaciers until June. Most glaciers in April are smooth and provide safe and easy ski-ing. Nevertheless, one rope and axe per party should be carried on glaciers in case of bad weather or other unexpected events.

(h) Clothing.—Full winter equipment is necessary even in April. We experienced strong winds and temperatures down to minus 20° C. Windproof overtrousers and blouses or anoraks are essential, and warm underwear to the user's taste should be taken. Gloves and overgloves, sun goggles, glacier cream, warm hat, etc., are all essential.

(i) Snow Shovel .- A useful article, which can be obtained with a short removable handle and aluminium blade, weighing 1 lb. It might be useful in case of emergency to "dig in." One per party suffices.

(j) Sundries.—All the usual mountain extras are necessary: e.g., whistle, compass, maps, torch, line, string, repair outfits, spare cables, ski tips, first-aid

outfit, etc.

2. TECHNIQUE OF CROSS-COUNTRY WALKING.—If you watch a skilled Norwegian ski-ing across level ground you will observe the easy rhythmical movement of the hips. The weight goes forward on the advancing ski and coincides with a strong thrust from the opposite stick. The stride is not uncomfortably long, but the arm and shoulder thrust give forward slide. So it continues and the knack is not difficult to acquire. The body weight should be well forward, whilst the angle of the sticks to the ground changes little. On a slight down gradient one may stop walking and thrust with both sticks simultaneously, bending low to get extra drive and straightening the legs by thrusting the skis forward (weight on heels).

An experienced skier will easily average 5 m.p.h. for

a long time over hard snow and more or less level ground, and when once acquired there is a particular pleasure to be had from the movement and rhythm. When leading across a snow-covered lake I always felt the exhilaration that one might have in the bows of a ship surging through a trackless sea. The absence of skins enables the rhythm to be maintained on gentle up gradients, and only when the ground steepens does one lift each ski and shorten stride, sometimes to a quicker shuffle, whilst increasing the pressure on the sticks.

3. TERRAIN.-Much of the country, including the outlying hills of the Jotunheim, consists of tops from 4,900 to 5,900 feet and valleys between 2,000 and 3,300 feet above sea-level. The hills are often rounded and

resemble many of the Scottish mountains.

The Jotunheim mountains are often very rugged and are intersected by many glaciers of which most are smooth and form excellent ski-ing ground. The highest peaks rise to about 8,000 feet and as much as 4,000 feet may be above the nearest valley. Tree line is at about 2,600 to 3,000 feet, so most of the central mountain valleys are barren. The glaciers descend to about 4,600 to 5,000 feet, and so there are many enjoyable glacier runs of up to 2,600 feet of vertical descent. In general the slopes are less steep than in the Alps, and as the elevation is less so one becomes acclimatised very much more quickly than if ski-ing at around 10,000 feet in the Alps. On the other hand, being about a thousand miles farther north, it should be remembered that the cold can be more acute.

4. MAPS.—The 1 in 50,000 are good, but to British eyes need a little time to get used to. The retraction of glaciers frequently causes inaccuracies on the map. magnetic variation at present is about 7° west. Norway Travel Office in London stocks an excellent selection of maps at moderate prices, and so complete tours may be planned in detail before leaving Britain.

5. TIMINGS.—Generally, life is much more comfortable than in the Alps. You take a leisurely and excellent breakfast, and if you leave at 10 A.M. you can enjoy a

fine eight-hour day and be back three hours before dark,

in April.

6. Weather.—We enjoyed nine out of ten days of almost uninterrupted sunshine, but suffered eight days of more or less *friske briser* from the north, bringing temperatures down at times to minus 20° C. Prior to our arrival reports stated that there had been fourteen days of fine warm weather with powder snow which didn't melt. Presumably therefore, the wind was light, the sun hot, and the air cold enough to keep the powder snow dry. At some intermediate date there must have been a short thaw followed by colder weather, for until we had our snowfall at Krossbu we were ski-ing always on hard, frozen snow.

As to wind, there was certainly some wind crust and sastrugi on exposed mountain slopes but not as much as might be expected. In general, the mountains are certainly not as windswept as in Scotland. March is said to be the best month for ski-touring, but we can also

vouch for the excellence of April!

Finally, my outstanding impressions of the tour were. firstly, the delightfully carefree atmosphere, due perhaps to the complete absence of worries about hidden crevasses. in glaciers, slopes liable to avalanche, or the length of the 9 A.M. Seilbahn queue. Secondly, I remember the wide smooth folds of the glaciers, whose untracked snow-fields lay glistening in the sun, and the rugged serrated rock ridges guarding and enfolding the softer lines of the glaciers. For ten days we skied through this country and, apart from the Turist Hotel people, we did not meet a soul till the ninth day! No one should consider his ski-ing education and experience complete until he has enjoyed a tour in the Jotunheim-the home of the giants -and in the land where people were ski-ing 2,500 years ago. Go in the spring, but avoid the Easter week-end. because you will find about half the population of Norway will have got there before you!

THE FIRST ASCENT OF DALNESS CHASM: CENTRAL PRONG.

By Tom Weir.

In describing the ascent of the Dalness Chasm, accomplished as long ago as 1955, it might be thought there must be a dearth of more up-to-date material when such ancient history is being refurbished. This is not the case. I write it at the request of the Editor, who has had several suggestions more than a year ago that the pitch-by-pitch description published in the 1956 Journal should be expanded into an article. This appeared to be called for, considering the attention that this biggest chasm in Scotland received at the end of the war from members of the Creagh Dhu, the Lomond M.C., the J.M.C.S. and S.M.C.

My own connection with the gully was nil, nor was I enamoured by what I saw of it on 14th August 1955 when L. S. Lovat and I went to look at it. We were unkind enough to say that it was more likely to appeal to tree-climbing monkeys than climbers looking for clean rock. This view shocked some of the pioneers, notably J. F. Hamilton, who alleged we must have been in the wrong gully. His description of the "Great Barrier" which had stopped all previous parties despite extensive pitoneering was eloquent, and his vehemence in stating that we were dismissing what would prove to be the greatest climb in Scotland sent us back the next week-end to see if we were mistaken.

Hamilton had climbed some very hard pitches in the 1,000 feet of rock up to the "Great Barrier," but MacKenzie advised us not to waste our time in climbing what had been climbed before, and simply to traverse in from a point where the gully divides with the left fork, both branches offering another thousand feet of climbing. John Cunningham and Hamish McInnes (C.D.M.C.) had climbed the left fork, and we knew their opinion of it. McInnes graded it Hard Severe in rubbers, but

reckoned it was too loose and vegetatious to be recommended. We were prepared to be wrong about putting the Central Prong in the same category, for Hamilton, MacKenzie and MacKinnon had abseiled down from the top and were united in the belief that it would give a superlative climb. MacKinnon reckoned it would take all of 2 days to climb, and judging by the many hours that had been spent in the past hammering pegs into the Great Barrier there was some foundation for this belief.

It happened that week-end of our second visit that the weather was dry and we were fit-so fit that we climbed the Chasm of Buachaille Etive Mor by the Devil's Cauldron in 21 hours on the Saturday evening. Lovat had just returned from Chamonix, I had been in the Atlas Mountains, and although neither of us are lovers of strenuous climbing we felt in good shape for grappling with the Dalness Chasm. Teed up for the climb, we were suddenly joined by J. R. Marshall, A. H. Hendry and D. Boston, all back from Chamonix and bursting with energy. It was decided we would join forces next day and see what we could do in this gully of gullies.

Despite the drought there was still a flow of water in the Chasm, and we had to admit it was a cleaner place than we thought when we were faced with our first pitch. 60 feet of water-worn rock leading to the foot of the famous barrier. Pegs jutting out of the right wall leaning greasily over our heads were signs of past warfare. In a quick inspection Marshall climbed to within 12 feet of the top, but not wishing to drench himself in the spraying water, returned to look for a drier route. The choice was between the left edge guarding entrance to the gully, and the smooth slabs of the back wall rising 40 feet to an overhang and then continuing without break in a further 60 feet of repulsive-looking rock hung with ferns and moss.

Without hammer or pegs but wearing the rope, he climbed 40 feet on small holds and paused beneath the dark bulge of overhang, showing us the soles and heels of his kletterschue, for the only friction was on the extreme points of the toes. Meantime Lovat, seeing the leader was precariously placed, went up on his own rope by the left edge of the gully to be in a position to give some help for the descent if required.

Those who think that the modern climber bangs in a piton the moment he comes to a difficulty should take note that Marshall spent 20 minutes here working out every possible combination of moves to see how that overhang could be climbed without hammering in a peg. Then he climbed down the severe slab unaided, gave his pronouncement that he could see no way without using a piton as a direct aid over the bulge, and Boston as the visitor from south of the Border was given the ironmongery while Marshall climbed up on the right wall.

The situation was now as follows. Boston was roped to Lovat on the left wall and to Marshall on the right wall, so that if a slip occurred the leader would hang across the gully like a piece of washing on a line and not fall to the floor below. Thus secured, Boston climbed the slab, hammered in the peg, but found himself unable to continue. He abseiled down and Marshall took over again. This time there was no man on the right wall. In minutes he was up the cracked slab and stood poised with one hand on the piton. Then with the flat of his boot on the holdless wall he eased his body out, and with a quick press-up was over the bulge and had mantelshelfed himself up to transfer his foot to where his hand had been on the piton. Standing comfortably, gardening moss and bracken with one hand, one would hardly have known he was on Very Severe rock after completing a most complicated manœuvre.

Very slowly he moved up the open corner above the overhang where it merged on a wall. This vegetatious section must have been horrible to lead, nor was there any respite at the top of it, where a rightward traverse has to be made from a small and insecure tree up the final wall of the pitch. Both piton and tree sections are Very Severe.

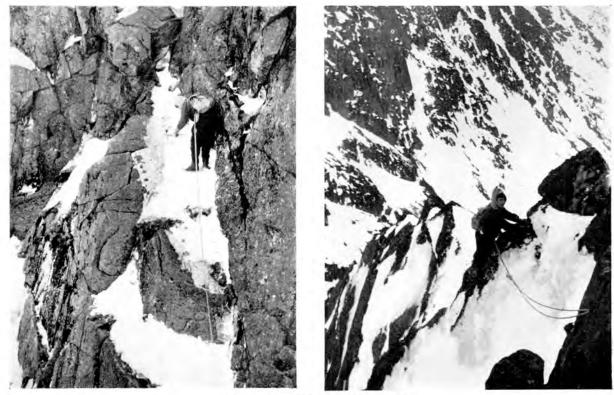
Lovat's position had been valuable for Marshall's negotiation of the overhang, but now he was faced with the unenviable alternative of descending steep and

insecure rock or asking me to join him in an attempt to climb the barrier pitch by his own variation. He did not favour descent: so I joined him, and with a toprope from Marshall we made a rightward traverse on a horrible mixture of steep rock and earth to the final Very Severe wall on which the small tree was a vital factor in our ascent.

In reconnaissance and climbing the five of us had spent some 2 hours on this barrier pitch of 100 feet. Assembled at a black pool of water above it we looked at the next obstacle where the gully loomed vertically overhead. Tom MacKinnon had reckoned, from his experience of double-roping down the gully, that this pitch would be excessively hard. We found it easier than it looked, and made two routes up it. Marshall's party climbed the left side by a vertical chimney, while we took the easier right side on an inclined shelf. Grades were Hard Severe and Mild Severe respectively on good, grev, water-worn rock.

Nothing very imposing loomed ahead, and gradually our feeling became one of disappointment as one little pitch succeeded another with no feature of awe-inspiring scale to capture the imagination like the Converging Walls of the Chasm. Not that the climbing was uninteresting: it was good and varied with plenty of pitches of fair difficulty, but we had the feeling that the gully was giving up, not closing round us to make us fight as does the other Chasm of Buachaille Etive.

This feeling of the gully petering out was emphasised when we came to a break in the continuation from which a false gully goes on, but the water of the true gully is on the right. Lovat and I made the mistake of taking the wrong gully and only rectified the error by a severe and unnecessarily dangerous traverse. There is a fine section here above the junction, where the water pours over a cave and an arête of exposed rock leads up on good holds. This exhilarating pitch was, unfortunately, the last, for the gully suddenly became shallow and easy, and we found we had climbed the whole Central Prong in 5 hours.



BLACK SPOUT PINNACLE, LOCHNAGAR (First Winter Ascent Direct)

Jerry Sn ith on the first pitch. It is actually V.S. though it doesn't look it!

Jerry cutting up the Crest below the Summit of the Pinnacle

In a nutshell we found the Dalness Chasm something of an anticlimax, considering the reputation it had acquired. This is not to belittle its difficulty. It is harder than the Buachaille Etive Chasm, but it has nothing of its magnificence or tension of increasing difficulties. What it gave us was a lot of fun, as it must have given its original explorers; and our only sorrow was that none of them had accepted our invitation to share the ascent. No one has yet, to my knowledge, climbed the whole 1,800 feet of gully from bottom to top—an expedition to be reserved for a fine sunny day following a drought.

In character the Dalness Chasm is more akin to Clachaig Gully than any other gully I know. The right prong has yet to be climbed, and it should give a fine old-fashioned route with plenty of dirt and fun. Those who shake their heads sorrowfully over the modern school of climbers should take heart from the fact that only one

piton was used in the whole ascent.

THE PINNACLE AGAIN.

By W. D. Brooker.

THE Black Spout Pinnacle was the last of the great Lochnagar buttresses to be climbed. Its first ascent by D. A. Sutherland and myself in 1949 had marked the beginning of a surge of rock-climbing exploration in the Cairngorms. Our original route has long since fallen into the "easy day for a lady" category, but for me, at any rate, the Pinnacle has always proved a fertile field both for conjecture and activity.

The towering 600-foot wall of the Pinnacle is cut at about one-third height by the Springboard ledge system. Above, the buttress rises in two sections. The left flank is a curving sweep of slabs, easing off towards Pinnacle Gully 1 and curling round beneath the Springboard to form a steep smooth barrier extending to the Black Spout. The right half is a very steep wall rising from the

Springboard and narrowing to an overhanging nose from which an arête leads to the summit. This wall is sharply terminated on the right by the huge gash of the Black Spout and left-hand branch and had remained untouched until Tom Patey's Route 2 was made, traversing across the face, 100 feet beneath the Nose, to reach the slabs of the left flank. The original line, Route 1, follows the roof-like curve of the left-hand slabs and then breaks back to the right to join the summit arête. The bottom 200-foot girdle of slabs was unclimbed until Jerry Smith made his Pinnacle Face Route late in 1955. This climb has a high reputation for difficulty and interest and slants left until it is possible to traverse back to join Route 1 about 100 feet above the Springboard.

However, the Pinnacle, I felt sure, had even more to offer the inquiring climber; and was not its choicest prize

of all, an ascent in winter, yet to be awarded?

To the small band of worshippers who seek their Nirvana on the winter cliffs of the Cairngorms, the start of each season brings a hubbub of armchair discussion on the prospects and possibilities of the coming months. Optimistic waves of debate sweep to and fro across the tables of cafés and saloon bars; angles recline, cornices shrink and calloused fingers trace improbable straight lines on glossy photographs. For the moment enthusiasm reigns, for memories of last winter's sojourns on insecure icv stances have been washed away by weeping summer skies. So dawned the 1955-56 season, and hopes were high, the winter sanctity of some of the most promising of Lochnagar routes being, as vet, inviolate. Week-end after week-end the faithful congregated at their shrine, and time and time again they were denied their communion. It was not until the 4th of March that Parallel Buttress, the most illustrious and sought after of the "icv virgins," yielded to persistent wooing.

The following Sunday saw Jerry Smith, Dick Barclay and myself toiling up the snow slopes leading to the Black Spout Pinnacle. Conditions had changed since the ascent of Parallel Buttress the previous week-end.

The large quantities of powder snow had shrunk to crisp frozen sheets lying on the ledges and holds. Steep rock surfaces were bare and dry; ice gleamed cold and grey in cracks and was smeared here and there like black varnish. As I slowly worked the treadmill of the Black Spout slopes in my usual position well to the rear, I was galvanised into action by the need to field a rucksack, which came bounding towards me, disgorging various items of food, clothing and less respectable implements of the climber's trade. Heavily laden and bursting with reprimands, I joined the others below the first pitch of Route 1.

Jerry had already donned the rope and was making a few tentative swings with his axe. He moved easily on to the initial slab and worked his way towards its upper margin. Here he stopped. I could appreciate his problem: 8 feet above him lay a recess, which was topped by a slight overhang leading to an upper sheet of slabs. To gain the recess he required two sets of footholds, handholds being lacking. The slab was really a kind of shelf with an enclosing wall on the right. Close to this wall the ice on the slab was thick and satisfying, but farther away it thinned and petered out. The footholds could not be placed in the thick ice because the wall was too close to allow the retention of balance. Carefully Jerry chose a spot where the ice had thinned to about half an inch, delicately carved a pair of slender notches and eased himself upwards. For a critical moment his centre of gravity teetered on the precarious limit of stability, his anorak rasped slowly up and across the wall and with an audible sigh he stepped up to the recess. This recess is an insecure place, even in summer, and the climber savouring its grudging amenities cannot even stand in balance. I did not envy Jerry's position as he extended a gloved hand beyond the roof and pushed a piton into a crack. With its aid, he cleared a large hold of ice, grasped it and swung on to the upper slabs and the comforting security of two good footholds, previously prepared in ice nearly two inches thick.

At this point Barclay raised his head from his hands,

blinked a bloodshot eye and announced that, to his great regret, the effect of his carousals the night before would prevent his sharing our day's sport. Jerry rested for a moment and began to hack a line of holds diagonally leftward towards a bulging nose of rock. Beneath the bulge he encountered exactly the same problem as on the slab below and, very carefully, employed the same tactics.

It was my turn and, with the dubious comfort of a sympathetic glance from Barclay, I set off on the stimulating journey to Jerry's stance, extracting the piton *en route*. We were on a ledge crowned by a wave of hard snow. From the head of an ice-axe plunged into its crest, I launched on to a 6-foot wall and clawed my way ungracefully through a tiny cornice to the blissful security of the Springboard.

In our position we enjoyed the transitory warmth of the sun, shortly to disappear behind the upper battlements of the Pinnacle. The air sparkled with just sufficient frost to keep the crust on the snow. Stately galleons of cumulus sailed across a blue sky and the snow-flecked winter moorland rolled away from the shores of the frozen loch to the Deeside forests. Previous attempts on the Pinnacle in winter had failed on the first pitch, and we felt sure that the hardest part of the climb lay beneath us; at any rate we nursed the hope that nothing quite as hard lay ahead. Our spirits rose to the extent of lobbing an enormous icicle into the Black Spout in the hope of rousing Barclay from his torpor.

Full of eagerness, I began to climb up the right hand of the two lines of weakness that slant up to the left above the Springboard and was abruptly brought to a halt by a vindictive little chimney, which jeered derisively at me from beneath its armour of grey ice. Three times it bested me, and in the end, hot, bothered and very snowy, I worked past it by a zig-zag movement on some small ledges to the right. From a sizeable recess I summoned an impatient Jerry and despatched him round a corner to the left, with simple instructions to traverse down a flake to a chimney in the other line of weakness. He

disappeared, and after a short silence came a disturbing series of curses and protestations, tinged with strong disbelief. I insisted, and after some rope tension, accompanied by most alarming scraping noises, the rope ran out steadily and I heard the pleasant hiss of pieces of snow and ice on their way to the corrie floor. I moved round the corner to find the familiar flake buried beneath a substantial bulge of ice, and the downward traverse an exciting creep on my edge nails.

Jerry's stance was at the spot where in 1949 a small incident had nearly brought my climbing career to a premature end! Above him an inset corner had to be climbed, a good coating of ice rendering the swing up on to its left wall a straightforward and satisfying movement. Immediately above this came a short steep wall, and after a tentative inspection I made all secure at a handy belay and invited Jerry to join me. He solved the problem by an extremely gymnastic movement, which I later found myself quite incapable of emulating, and worked his way along a great flake to the right.

At this point a pleasant diversion from the exigencies of our climb occurred. A large caravan appeared, working its excessively cautious way across the snow slopes beneath the central cliffs. From our eyrie they looked like ants crawling across a flat white sheet. One of them slipped and rolled towards the loch. Now slowly and now swiftly, he inexorably neared the outcrops above the loch, and we took a sadistic interest in his progress, even making a hurried wager as to whether he would reach the foot. Just short of the outcrops he came to a halt, upside down on the snow, and from the leader of the caravan a stentorian command, "Everyone stand where you are!" echoed round the corrie. I looked up at Jerry inquiringly, but he reassured me that we were not included.

From the end of the flake an awkward mantelshelf rises from a recess to a sloping turf ledge. This is a mauvais pas which I am accustomed to pass by means of a shoulder, for a succession of desperate knees have long since removed all turf from the lip of the ledge, exposing

a depressingly naked sheet of granite. Jerry, however, has the Englishman's abhorrence of combined tactics and had ostentatiously belayed well away from the recess. Resignedly I cleared away large plates of snow, studied the obstacle and optimistically notched a handhold in the thin lower tongue of turf, which grudgingly offered its support. I kicked a foot as high as possible and pulled. The hold snapped off and my stomach experienced a disturbing sensation until I re-established myself on the flake. In the end, I swung high and hard with the pick of my axe and rapidly performed what is known in some mountaineering circles as "a Knubel" to gain the ledge above. From here I climbed a wall and a heavily iced chimney, through which ran a vein of sustained difficulty, making me oblivious to everything except the task of worming my way through those joints in the upper armour of the Pinnacle. At length I became aware of the heavy drag of the rope and of the fact that I hadn't seen a belay since leaving Jerry. A troublesome gusty wind sprang up and gave me some concern, as I edged along a delicate icy traverse with my chest pressed to a wall and my heels projecting over a 400-foot downward plunge of roof-like slabs. My 120 feet of rope just allowed me to reach easier ground and reel in an impatient Ierry, half frozen by his long wait.

A few more feet brought us to the crest. The ensuing 100-foot arête to the summit was delightfully airy and just hard enough to demand our concentration. In many respects it had been a unique climb for, although we had had five hours of sustained difficulty, sometimes reaching Very Severe level, the perfect conditions and the fact that the first pitch is normally the crux, had resulted in a climb largely free from the mental and physical strains usually inseparable from climbing of this type. We shook hands and grinned happily, for the holiday spirit had truly been abroad that day; the Pinnacle had bestowed its finest gift and we had been its fortunate recipients.

PEAKS AND PASSES IN KURDISTAN. By Tom Weir.

IN Turkey Douglas Scott and I were grateful for our tough Scottish upbringing in bothies and camps, for we needed all our resources, whether sleeping out the hours of darkness in the back of a lorry while the road, swept away by landslide, was repaired; or being dumped somewhere in the wilds at 2 A.M. to await further transport 5 hours later. With a total expedition kit squeezed into four kit-bags and two rucksacks it was no trouble to extract airbeds, sleeping bags, primus stoves, food and make ourselves at home, either beneath the stars or below the lorry out of the sun. Patience is not so much a virtue as the lesson experience teaches. The dust, the flies, the fleas, the bed bugs we could not quite ignore. Unfortunately there is no space in this article to tell of the highlights of our journey from Istanbul across Anatolia to the remotest mountains of Asia Minor which form the wild frontier of Irak, so long closed to European travellers. It is a region where exploration was easier in the nineteenth century than the twentieth, so we felt lucky to have a political permit in our possession, giving us authority to explore wild mountain peaks which have been sacred to the Kurds since the dawn of history.

Thanks to Polunin who had botanised here, we knew we could get public transport to Lake Van in Turkish Armenia, but thereafter we would be dependent on lorries going east towards Persia or into the gorges of the Great Zab which are Himalayan in austerity, where this main tributary of the Tigris roars between sheer rock walls. Thirteen days out from Glasgow it was a great thrill when the Cilo range burst upon us.

It was the morning of 5th July when we left the village of Hirvata. The local Governor and frontier officials had been more helpful to us than we knew by procuring two Kurdish guides and four horses. We had expected to walk. Now mounted on horseback and feeling like millionaires, we climbed to 9,000 feet up a hillside of flowers, great red poppies and multicoloured vetches at first, until we crossed a ridge and came on to a rolling upland of sparkling snow-fields with gurgling streams and meadows of blue and yellow primulas scenting the cool air.

We were on a Cairngorm table-land scarped by a rock wall running along its length and blocking further view. The horses, overjoyed to be on the flat, galloped towards a "U" cleft which was the only gap in the skyline. The name for that cleft is "Demirkapu," meaning the "Iron Gate." We had no hint of the drama of the view that was to meet us as we pushed through it. One moment my horse was nodding up a snow slope, the next it was hanging over a sheer drop, and I looked into a canyon walled by red crags and shining glaciers—a mountaineer's dream of towering rock needles falling vertically to velvet green meadows ribboned by streams discharging from the ice.

It was the most perfect vision of mountain form we had ever seen, all the more wonderful for its surprise, for the only pictures we had seen of the Cilo range made it look arid. Three thousand feet down we camped by a spring of clear water on a sward of alpine flowers, conscious that we had never had a more exciting situation for a base, ringed on every side by fantastic pinnacles and Dolomitic walls.

The grass was hoared with frost when we went out in the morning to get water for the porridge, and walking was a joy as we headed up the main glacier draining the highest peaks less than 2 miles away. Oh to be a botanist here, especially on the edge of the streams where primulas were in mauve and yellow profusion, while pink crocuslike flowers actually pushed blooms up through the snow! Ortolan buntings, snowfinches, black redstarts, rock nuthatches, crag martins, sandpipers, red-billed and alpine choughs caused us many a halt, but we were in no hurry since this was a day of reconnaissance.

We had a map with us, made by Dr Hans Bobek's

party who made the first survey of these mountains only 20 years ago. Our map was a photographic copy taken from a scientific journal, but it was adequate for our needs. It did not show the way up the mountains from the north, however, for Bobek's party had done their pioneer climbs from the south. The first agreeable surprise of these uncompromising-looking peaks was to find the glacier firm and safe, even where it had been getting hours of sun. This prompted us to consider a snow gully leading up for 2,000 feet to a steep rock ridge, which held possibilities provided we could surmount the steeper sections. The peak corresponded to the Eckpfeiler 3,700 metres on our map.

The big event of this day was seeing our first snow-bear, to us a legendary animal with about as much foundation as the Abominable Snow Man. But here it was, an unmistakable bear loping across the glacier, its massive head turning towards us now and then as it climbed at amazing speed on all fours, humpback thrusting forward at each push with its thick hairy legs and arms. We were elated at seeing this most exciting beast of any mountain journey, but had no wish to see it any closer, for we had been warned that their natures are unpredictable. We were soon to have an adventure with

one that amply brought this point home to us.

A weird red sky with rain and low clouds banished the thought of climbing next day, so we had a fine alternative by descending the gorge beneath us to a Kurdish encampment of black tents perched 1,500 feet below in the throat of the ravine. With the greeting of "Merhaba," hand touching the breast, they bade us welcome and invited us into their tents, squatting down beside us in their loose colourful clothing and wool boots. They had the open look of frank men, and we looked at them with interest, conscious that we were speaking to semi-nomads of the fiercest and most ancient race in the world, an independent people who have resisted change and survived the passing of all the invaders of this most ancient part of the ancient world.

The Kurds are mainly a pastoral people whose

livelihood is in animals, goats, sheep and cows. Right now the yoghourt was being shaken up in a skin bag while a tall, beautifully dressed woman in baggy trousers and white blouse organised a big cooking job. She was queen of a host of not so distinguished-looking women and in due course placed before us a large tray containing delicious new bread and butter, fried meat and voghourt, round which we all sat and dipped in as we felt inclined. No plates here-when you have had enough you withdraw to make room for someone else. A return gift of sugar, some sweets, chocolate and raisins was much appreciated, and no one was forgotten in the share-out, even a very small baby who fairly enjoyed its first bite of Cadbury's.

The threat of storm did not materialise that day, so next morning we paid less attention to weather and made off on another reconnaissance, to look over the great wall west of the camp and see what lay on the other side. There was plenty-a frozen loch and a huge barrel peak called Kisara, 3,670 metres. But it was a Stack Polly ridge called the Seespitze which took our fancy, inviting us to try a complete traverse of its 3,460-metre crest by going up the north ridge and down the south. We soon found that it was a place for cautious route-finding, for the drop beneath was considerable as one bristling pinnacle gave way to another. So we chose the walls rather than the crest, seeing a wall-creeper at one point as it fluttered past with a flash of red butterfly wings, my favourite bird of high mountains.

On a peak like this every tower bristling against the sky seems like the summit, so it was a relief to climb one steep pinnacle and see ahead what was positively the last, crowned by a little cairn. We looked 3,800 feet down on our tent from the top, a tiny speck of orange on the green glen. From here the Eckpfeiler south ridge looked much steeper than we expected, but we thought it would "go," especially when we were able to force a way down the formidable-looking south wall of our mountain so quickly that we were back in camp by 4 P.M.

Next morning we went for the Eckpfeiler and in one hour reached the glacier, just a little disturbed because



THE MOUNTAINS OF CILO (Prox. GEELO) FROM THE DEMIRKAPU PASS. The big peak on left of this superb horseshoe is the Eckpfeiler, $3,700~\mathrm{m}$.

Tom Weir

of a bear which galloped ahead of us, disappearing behind a rock guarding the entrance to our *couloir*. The question was, had it or had it not gone up the gully? We looked for traces on the snow, but the surface was so well frozen that it was no reassurance to find none.

We started up and soon forgot the beast in the rhythmic work of kicking and cutting a staircase. Suddenly there was a loud angry growling, and from the rocks rushed a bear, straight towards us. We did not have time to be frightened, for it shot across our path, slithering as it went, not stopping until it was 30 feet away. Then it took a swift look round, pointed ears up and mouth open, and showed us how you climb a gully using claws in lieu of an ice-axe. We hoped we had seen the last of it and shouted and blew a whistle to keep it moving, for we had no wish to take it by surprise again, since this is when a bear is most likely to attack.

The couloir took us into a dazzle of flowing snow-fields curtaining a great cirque of rock, so jagged on its crest that nowhere in sight was there a ridge offering easy traverse. Our reconnaissance paid its dividends in that we were able to choose a line which admitted us to the summit tower in 1,000 feet of rock climbing. We did not play safe now that the top was in sight but took a knife-edged ridge of red rock rising 400 feet, where one heel projected over the precipices of the west side and the other over the equally sheer east face. Unfortunately this classic arête was not too sound and we advanced only one at a time to step on to the summit at 1.30 P.M. and laze away a marvellous half-hour.

We were above the junction of the two main glaciers with a horse-shoe of peaks on each side of us—the Geliasin to the east, the Suppa Durak to the west. In every other direction were grey gorges of Turkey, heat-hazy ridges of Irak frowning down on Mesopotamia, snow peaks of Persia; battle grounds of Biblical races, but now so sparsely inhabited, thanks to war and murder between Armenians, Kurds and Nestorians, that its population even at its densest is less than one person to the square kilometre.

There were plenty of signs of these extinct peoples in the mountains, from rock carvings of Stone Age men with bows and arrows to strange hill-top writings and churches of the Christians who lived here when Rome was still pagan. The Kurds destroyed the Nestorian Christian cultivators and sacked their villages, but the terraced fields still grow crops of fruits and vines which in autumn are harvested not by people but by the bears.

That afternoon as we descended to camp, after a magnificent glissade down the couloir, the meadow where the tent was situated was a blaze of light with the tents gleaming orange on a sward of vellow alpine buttercups, and the huge west wall of the Seespitze a luminous shadow with stray sun rays filtering between its pinnacles. Warm in the afternoon light and blocking the whole head of the glen, the 4,000-foot wall of the Geliasin challenged us with the greatest unclimbed rock we had ever seen, but we were too faint-hearted to try it. Instead we decided to move our camp round to the east side and look for an easier line up it. To do this meant crossing back over the Demirkapu Pass and travelling for two days parallel to the main range by slopes chest-high in flowers, then up a glen to a snow pass leading into the huge defile of the Telgui-Savi.

It was threatening rain and misty as we sat on the pass looking into a tumble of black and grey precipices rising out of glacier ice squeezed between pinnacles jutting out at all angles. What we saw was a long summit ridge at an easy angle defended by a solid wall of cliff seamed with snow couloirs, none of them leading to the ridge-top. However, we were looking at it en-face, and our hope was that the 2,500-foot wall was easier in angle than it looked. A drop of 3,000 feet and we were among the moraines, looking for a site among the stones as heavy rain battered down, continuing into a dismal afternoon. We spent it making pancakes and watching a mother bear with her two cubs rooting amongst the stones, pulling up large boulders as if they were pebbles, to lick beneath them or pick up the stones to lick them as if they were ice-cream wafers. The half-grown cubs

bickered continually, biting at each other acrimoniously even when they were scrambling on dangerous rock. This species is the Syrian or brown bear—the same that begs for buns at the zoo.

Our two Kurds were optimistic about the weather. They said it would clear, and sure enough it did at sunset; so we made preparations for an early start in the morning and were away by 4.30 A.M., attacking the crag immediately above us where it rose as a grey boss tapering to a pinnacled ridge. Straight away we were balance-climbing on polished rock, so scanty of belays and unsound that we did not wear the rope until considerable exposure and a steepening angle forced it on us. Luckily the rock quality improved with steepness and our spirits went up as we spiralled round a series of gigantic pillars, gaining more confidence as one unlikely place after another was vanquished.

Our fear was that we would find ourselves on top of the next pinnacle and unable to proceed because of some impassable chasm, but always there was an exciting way of by-passing the next spire, until with joy we saw the way clear to the summit ridge in 4 hours of rock climbing. Ahead of us now rose a black tooth of rock marked 3,750 m. on our map, and since it lay on our path we took it in. It gave one hard pitch and there was no cairn on top. Easy ground lay ahead along a twisting ridge flowing without break, dipping down and rising again for a mile to a beautiful ice-cap, then bending north-west to the summit.

The ridge was deceptively innocent, because so many of its ups and downs were hidden, and before we were half-way along it we felt that the grind of putting one foot in front of the other would never cease. Always there was another lump, another bit of snow cornice requiring care above a plunge down pink walls to green ice and crevassed glacier. Then at 1.30 P.M. we were up, over the top, looking down the vast precipice of the North Wall on to our old camp spot below the "Iron Gate," thinking how often we had looked up to this most inaccessible point of Asia Minor.

Blissfully we reclined on the snow, trying to take in the vast panorama spread below: rock needles plunging to lonely valleys of terraced fields where houses perched; escarpments of mountains, ridge upon ridge, and savage ravines of rock and ice, many of them unpeopled except by bears, ibex, wolves, marmots, perhaps panthers; deserts, rivers, mountains of the Bible. The overcast sky gave a curious brooding quality to the scene and we reckoned we had never been in a wilder place.

Neither of us felt inclined for the ups and downs of that long ridge again; and the route of descent decided upon was back along the ridge for a kilometre, then south-eastward into a great snow-bowl parallel to the main ridge, where we could strike over at a convenient point to tackle the rock wall above the camp. The route was good until we reached the ridge and took a new line down the face that had cost us 4 hours in the morning. The new way was chosen because it had much snow on it: but it hung like wall-paper on rotten rock, demanding constant vigilance from us in step-cutting, testing the rock, watching for falling stones, always on the alert to check a slip. We tried to banish the thought that somewhere out of sight might lie an unclimbable section, forcing us back the way we had come.

It was a battle with the clock as we moved one at a time in the difficult places. Then as the daylight ebbed away we saw that nothing could stop us unless we fell into one of the crevasses and huge holes which were potential traps here. Dusk was drawing to darkness as we got to the foot of the last snow *couloir*; there was light enough to see two bears scuttle across our path, so we made plenty of noise to warn any others that might be asleep in the neighbourhood, as we had no wish to tramp on one.

Luckily we had a torch with us to help over the moraines and look for the crags which we knew were beneath us. It seemed we should never get to camp, traversing boulders and snow gullies, when suddenly we saw a light and heard a whistle . . . the tents. Even as we were fumbling, trying to remember the lie of the



UNNAMED PEAK 3,900 M. ABOVE GELIASIN GLACTER
Douglas Scott in foreground



Tom Weir

THE SEESPITZE 3,460 M. FROM THE MIA-HVARA GLEN

The party traversed the bristly summit ridge from north to south. The peak
rises about 1,100 m. above the camp

rocks, a shape materialised out of the night, not a bear but Memhet the Kurd who had climbed up to our flickering torch to help us down. In minutes we were in camp, where Bahri had the primus going and tea on the boil, seizing our hands in his joy at seeing us safely home.

We thought the world of these Kurds, who endeared themselves to us more and more as time went on. A great quality is their dislike of disappointing you. A good example of it was when we proposed following the gorge of the Rudbare Sin to penetrate the Sat Dag. They knew it would be fly-ridden and uncomfortably hot, that the horses would suffer and that travel would be slow and

difficult; but they did not try to put us off.

The Rudbare Sin is a huge gorge that splits the Cilo range from the Sat Dag. It cleaves a way to Irak in 4 miles of rock walls where villages perch like swallow's nests. They took us down, let us sample its furnace heat and hellish flies, then saved the day by swimming the horses across the cataract and forcing a route straight up the wall of the gorge over a dying glacier of stones and ice into the heart of the Sat Dag. Here we found superb mountaineering on splendid rock above a snowbowl containing two frozen lakes. The Sat group is lower than the Cilo, but the routes are steeper and more difficult, as we found when we took a direct line on the much-pinnacled Cia Dis, 3,360 metres, and found hard granite as black as coal offering a multiplicity of routes and abounding in overhangs. The spiry peaks and aiguilles leaping out of every glen around us here made us long for another month in this mountaineering paradise.

But our money and food was running low. Stupidly we had left our main supply of cash over 200 kilometres away—a course of action prompted by the possibility of being robbed by smugglers known to operate in this border region. All we had time for now was an interesting route into the Reka Gapiri by a pass that proved to be the most exciting of the trip for the men and horses, on steep snow and bouldery crags cut up by streams churned white in the force of their rapid descent from the highest and shapeliest of the Sat peaks at the head of the corrie—

a savage place in which we would have lingered. We did climb one small but interesting rock peak.

From these mountains it is only two marches to the Gevar-Ova plain, which is a marsh as striking in contrast as Rannoch Moor to Glencoe. But the Gevar is 6,000 feet, with Persia one march eastward and the gorges of the Great Zab pointing the road home westward. We spent 53 days away from Glasgow to get 15 days in the mountains, the remainder of our time being occupied by forced delays or travelling. None of it was wasted, excepting 2 days each when we were laid low by dysentery. I regard this region as the most rewarding of any in which I have travelled, and I long to go back. In terms of £ s. d. the trip cost £500 for two of us, but this could be reduced considerably by travelling overland all the way. Application for permits to travel in the Hakkari region, which includes the Cilo and Sat, is made direct to the Foreign Secretary. Plenty of advance notice must be given. I would like to see the north face of the Geliasin go to a Scottish party.

NOTES.

Weather.—In July we found the weather settled. Clouds seldom meant rain. Frosty at night but not really cold for camping. Very little wind.

Equipment.—As for Scotland. No crampons were taken nor did we find a need for them.

Food.—Chocolate and sweets should be taken from Britain, likewise packet soups and jam. Other supplies can be bought in the town of Van, 200 km. away. Sheep may be purchased from the Kurds, likewise yoghourt and cheese.

Photographic.—No film is available in Turkey, so all supplies must be taken. No customs difficulties.

Rate of Exchange.—Seventeen Turkish liras to the £. Costs work out about same as in Europe, but much cheaper as you go east to more primitive conditions. Kurds cost £3 a day for two men and four horses, which is very reasonable.

Transport.—Railway goes to Kurtalen. Bus goes to Tatvan. Boat operates to Van. Lorries go periodically to Hakkari. Permits needed to travel east of the Euphrates.

Cost.—Of £500 mentioned as cost, more than half was spent in fares. Also we paid an interpreter from Istanbul £6 per week as well as his fare. We flew back to Scotland but went out on the Orient Express.

PITONS.

By John B. Nimlin.

In stating one's views on the subject of rock-climbing techniques, it is perhaps best to begin with the backgrounds and attitudes that shaped them. We therefore go back some thirty years to a time when the established routes on the Scottish hills were relatively few. Many classic lines of ascent were still untried, and possible minor classics abounded. With such a wide choice there was a less competitive approach than one finds to-day, and a climber had less compulsion to push an attempt to the limit when there were often many equally attractive and untried lines of ascent nearby. Nevertheless, certain climbs were made which demanded a degree of skill and determination exceeding the expectations of their time, and some of them still hold a high place in the standard rating of to-day.

As for the attitudes of that time, it was a cardinal principle that one took the crags as one found them, sculptured by time for recreation and delight. It was permitted to clutch them, rasp them with nails and build small cairns on their ledges, but never to add projections or make holes in them. Any departure from this usage, like Professor Collie's earlier stone-carving feat in Deep Ghyll, was regarded as an isolated prank. Perhaps we were extremists in our climbing circle, for we observed certain disciplines not strictly recognised by some of our contemporaries; one being the determination to shun the roped reconnaissance of projected routes.* The nature of British mountains gives many opportunities for roped reconnaissance, but we held that this tactic could not be used on the greater mountains abroad, and

^{*} The history of English rock climbing presents several examples, many of which resulted in the discovery and execution of first-class natural routes, one of the most noteworthy being Central Buttress of Scawfell, first climbed in April 1914 by Herford and Sansom.

was therefore bad training and an artificial inversion of true practice. Nowadays, roped reconnaissance is fairly common and seems to arouse little comment. Our resolve to shun the least hint of artifice is best shown in our approach to "combined tactics." It was regarded as the leader's privilege to stand on the second's shoulders or head and make sustained surveys of the problems above, punctuated by as many leisurely sallies and retreats as were deemed necessary for a final successful advance. The wide use of vibrams has taken some of the sting from this ancient torture. Our resolve was to use combined effort only as a last resort, and on many a pitch where a shoulder was advised we proved it unnecessary. Two of the many places where combined operations were dispensed with are the cave above BC Rib of Cir Mhor and Pitch 4 of Raven's Gully. When a shoulder seemed really necessary, humble apologies accompanied the request.

The effect of these prohibitions was entirely satisfactory. The rules were few and simple, and no man had the advantage of his fellows in the possession of gadgets contrived to elevate him above the rest. Pitons. stanchions, cables and ladders were used in the Alps, but only as the breadwinning tools of the professionals or on routes where time saving was necessary to overcome the objective dangers. Again, they were used on the Himalayan peaks to compensate for the limitations imposed by high-altitude conditions. It has been claimed that pitons are necessary time savers on certain long routes in Scotland, but unless one simply must be home for early dinner or before dark, this looks like exaggeration. The days are twenty-four hours long, and often the dark part of the climber's day is the most memorable. bringing forth a magic unknown to the hours of light. Certainly the climber who extends his operations into the night should do so only by intention or by foreseeing the event and carrying the necessary equipment, otherwise he finds himself in the humiliating state of benightment. Lastly, if "The hours on a mountain are as the hours with one's beloved," why seek to shorten the experience?

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Before coming to the piton era, it is time to study the last great principle of free-climbing practice and consider how the advent of the piton has changed the whole ethos of British mountaineering. The principle: that if one failed in an attempt on a new route, one retreated and left an open field for a more determined attempt. history of climbing has shown how the abortive route of one period has become the open highway of a later one. Sometimes a decade or more had to pass before the right men appeared to prove that rock climbing is progressive and not bounded by a ceiling of impossibility. The impossible routes were later to become the Very Severes and later still were liable to be downgraded to Very Difficult. The study of the past is often a fair guide to the trends of the present and their implications for the future. To-day the piton user resorts to that aid when he considers a route to be beyond his capabilities; if the piton had been in use in Britain fifty years ago climbers, by the same logic, would have used them on routes which are to-day graded as Very Difficult without pitons. Let us trust that the early pioneers would have stuck to freeclimbing principles, pitons or no, but let us be thankful that pitons were not listed in the catalogues of that time. Certainly it meant that another generation or two could enjoy free-climbing and never doubt the fitness of its principles.

Then came the piton. Unlike his predecessors, the new climber did not retreat from the impasse and leave the field for a better man. He hammered in a piton and thus implied that if he could not advance without one, neither could his successors. He implied that no better man than he existed or was yet to be, and he sought to cover his sin by announcing that a fine new route was open to one and all, thanks to the little metal pin which opened the door. A presumption of no small order!: A statement which cannot be disproved at the time, but which, in the light of climbing history, can be disproved in the future. Certainly there is a strong temptation to put a climb in the bag, regardless of the means employed, especially if the struggle has been hard and success is

close. But once the climber accepts that his personal limitations are not applicable to all climbers, he is in duty bound to shun mechanical aids and leave the problem to a free-climbing solution.

It cannot be denied that many piton enthusiasts have reached a very high standard of performance, but, looking ahead, one sees in the development of mechanical aids less need of natural climbing ability and a decided advantage to those with the physical capacity to hoist themselves from one rope-stirrup to another. Furthermore, if piton techniques are essential to safety in modern climbing, and safety as an end in itself must be sought to the utmost limits of any situation, the fullest application of these techniques should involve no more risk than one would find in the operations of a canny steeplejack. In some Clyde shipyards, where wooden staging is still used in preference to modern tubular scaffolding, there are squads of stagers whose daily job is to scale 60-foot poles made from the entire trunks of pine and larch. Their method is to drive iron pins into the wood as hand and footholds, by one-handed operations on an angle as near to the vertical as the natural taper of a tree. Men like these, were they sufficiently rewarded, could put up a great show on most crags, but union rules would demand time and a half rates for Saturdays and double time for Sundays.

It remains to be seen whether piton-climbing will establish its own rules, or whether it will bring what is literally a no-holds-barred situation. It is already clear that many young climbers of to-day accept mechanisation as the right method and, having known no other, will use it exclusively. And if we accept the argument that pitons are used when an obstacle is beyond a man's free-climbing powers, there is nothing to forbid the newcomers the use of pitons, even on low-grade climbs, if they choose to rate their powers at a sufficiently low level. Signs of this anarchy have already appeared. Pitons have already been used on routes originally ascended by free-climbing methods. One instance is Raven's Gully, where a piton

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was inserted by the third successful party four years after the first ascent.*

Another point for consideration is the use of pitons solely as belays. Some climbers who otherwise deplore pitons are in favour of using them for anchorage; but in the light of free-climbing principles I find it hard to see any moral distinction between a portable anchorage and a portable hold, whether removed or left *in situ*. I do not hereby suggest that free-climbing should enter a new realm of derring-do: on the contrary, the safeguards of free-climbing are experience, prudence and steady practice as against the hazard of a flaw in a piece of metal.

If there is any justification for piton-climbing, it is possibly in the purely mechanistic and gymnastic conquest of places like protracted overhangs; places which were not meant to be climbed, where the most brilliant free-climber of to-day or tomorrow would be at a total physical disadvantage. This, I think, is the one branch of escalatory indulgence in which free-climbing principles need not apply.

We have seen a splendid progress of mountaineering standards over the years and, as has been noted, there was nothing to show that free-climbing had reached any limit when pitons appeared. It was merely that some climbers came to possess pitons and, having all the weakness of human kind for labour-saving devices and easy solutions, it wasn't long before the pitons possessed them. Who, with a pocket full of pitons, would spend an hour or two hours tentatively advancing and retreating from an obstacle when a piton could solve the problem in minutes? Yet, in the denial of such expedients is the

^{*}Other noteworthy examples are as follows—(1) Crowberry Ridge, Abraham's Traverse. Piton used by party in June 1939 and later removed (See J., 22, 151); (2) Rannoch Wall, Route I. No pitons used on first ascent in 1934. A piton was found inserted at the crux by another party in 1936; (3) Slav Route, Ben Nevis, Original party used two pitons in first ascent, September 1934, in stormy conditions. Both were removed as unnecessary before 1940.

spirit of mountaineering revealed. It is by accepting the hills on their own terms, by using no advantages other than those won by the hard training of mind and body, by imposing a discipline of usages in line with sound principles that climbers find their deepest satisfaction. There is surely an inner conviction that these principles represent an absolute value; and one seems to detect in the half-apologetic, half-defiant claims of the pitonist a sense of transgression. The more one considers piton technique, the more it appears as a check to progress. The whole concept of free-climbing is based on increasing standards of performance with no foreseeable limits, whereas piton-climbing imposes a definite limit and offers a future strictly related to the development rate of appliances.

So this critic has little to say in favour of mechanisation on British mountains, yet this cannot hide a deep admiration for the resource and skill so obviously possessed by many piton exponents of the day. It is certainly within their ranks that I would seek the men to redress the situation. I would call on them to act as the vanguard of the "League of Mountaineering Purists"; a body dedicated to the removal of all pitons from British crags. This task would demand a skill even greater than that used in the placing of the pitons, and high honour would go to those with the largest collections of sawn-off pitons. Thereafter there would be more peace on the crags and less need of moral sermons in climbing club

journals.

ROCK CLIMBS IN GALLOWAY.

By A. G. Waldie.

THE disconsolate climber, enervated by the balmy climate of Galloway and preserving his nails on its lush vegetation, might well consider selling his rope to the Solway boatmen. But while tramping the moors in search of good trout fishing his eye should alight on a fair number of rock outcrops of promising aspect. Between the Merrick massif and the Rhinns of Kells lies a chain of granite hills which are worthy of exploration.

To the south of Loch Doon outcrops on the east face of Mulwharcher give many short scrambles. At Loch Neldricken the sandy shore provides good camping and a good base for Craignaw and Dungeon Hill. Two 80-foot climbs of Difficult standard have been made on Snibe Hill, 1 mile south of the summit of Craignaw. On the east face of Dungeon Hill is probably the best rock wall in Galloway. This can be approached from Loch Neldricken by the Nick of the Dungeon or from Downie's Shiel, the old cottage at Backhill of Bush, still

in good repair.

The following climb was made by J. Simpson (J.M.C.S.) and Miss J. Ratcliffe in September 1955: Cooran Buttress, 350 feet, Very Difficult. The buttress is seen in profile from the Nick of the Dungeon. The route starts at the lowest point of the buttress where steep smooth slabs are broken by a chimney (cairn). chimney is climbed until it narrows. Move left to a detached block and up to a ledge (30 feet). A wall with large holds finishes at a heather ledge (30 feet). From the left side of this ledge an arête is climbed for 20 feet, then moving to the right, continue up the wall (30 feet). A thin crack in the wall is climbed until easier slabs are reached (30 feet). The slabs lead to a broad heather ledge on which a detached pinnacle is standing (60 feet). The pinnacle can be turned by traversing to the left and climbing the corner of the wall before returning to the slabs above the pinnacle (50 feet). Deep-cut slabs now



- A 150 FT EASY B 150 FT EASY C 300 FT POD. D 130 FT EATY
- COORAN BUTTRES

lead to a final wall (60 feet). This wall is climbed on the right and the pitch finishes on easier rocks (60 feet).

Craigencallie, the rock face on Cairngarroch, lies near the end of the road on the west bank of Clatteringshaws Loch. This face offers a fine challenge to experts on greasy granite as they pass below it on their way to Loch Dee. One (80 feet) Very Difficult climb has been made on one of the walls, which if climbed throughout would give 200 feet of hard work. Some shorter routes of Moderate standard have also been made here. Moving southwards, one finds a fair number of scrambles and gullies in the eastern recesses of Cairnsmore of Fleet. Its southern arm, the Clints of Dromore, near Gatehouse of Fleet Station, consists of several granite faces on which a number of Moderate to Difficult routes of 50 to 120 feet have been made.

The woods near Dalbeattie contain some granite outcrops, the finest being the Lion's Head in Ramshaw Wood, I mile north of Palnackie, on which are four Difficult climbs reminiscent of Shepherd's Crag in Borrowdale, though lacking the catering amenities of the latter. The coastal cliffs yield some good climbs at Ravenshall, west of Gatehouse of Fleet, and at the Mull of Galloway, near the lighthouse.

Farther inland, 10 miles north-west of Thornhill, in the valley of the Scar Water stands a modest and moderate Buachaille—Glenwhargen Craig. This has five routes of Easy to Difficult standard and 50 to 300 feet in length on clean, sound rock which lies at a pleasant angle. A tricouni nail was found here; so the rocks have probably been given some attention by a previous generation. The Whangie of the Dumfries school, however, is Clifton, 1 mile west of Caulkerbush and half a mile inland from the coastal road between that village and Dalbeattie. This 80-foot wall commands a fine view over the Solway and overlooks the old Southwick Churchyard. Sixteen routes of Easy to Very Severe standard give every type of climb one expects on granite.

Two scrambles of nearly 500 feet give good climbs under winter conditions. These are Ben Inner Gairy near Carsphairn and the ridge between Upper and Nether Coomb Craigs of Swatte Fell, 6 miles from Moffat. The latter climb provides the most interesting route up to the White Coomb—Hart Fell plateau.

The climbs in these notes were made by C. G. M. Slesser, I. G. Cumming, J. Simpson (J.M.C.S.) and the

writer between 1953 and 1957.

EVALUATION OF A RISK.

By I. G. Cumming, J.M.C.S., and C. G. M. Slesser.

APPENDIX

These should be read in conjunction with the text, S.M.C.J., Vol. 26, p. 133, 1957.

IT has been shown in the laboratory that nylon mountaineering rope can absorb an impact kinetic energy of 0.235 ft. lb./foot length per lb. tensile strength.

Consider case of Fig. 1.

Potential energy = Wh(2 + E).

Actual strain energy absorbed = 0.235hT,

but Therefore Potential energy = strain energy.

W(2+E) = 0.235T,

 $\frac{T}{W} = \frac{2 + E}{0.235}.$

What will the value of E be if we assume a linear stress/strain relationship?

Then

 $\frac{1}{2}\text{TEh} = 0.235h\text{T}$

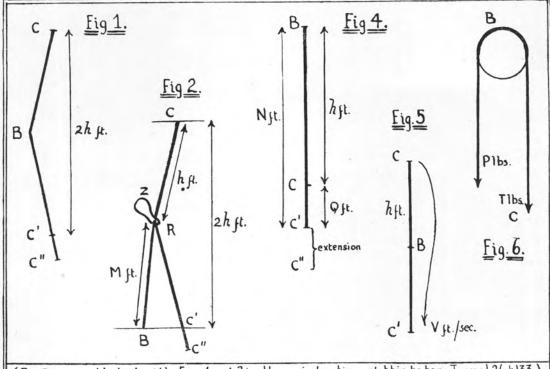
E = 0.47, i.e., 47 per cent.

A. General Case.

Consider a rope from a belaying man at B to a climber at C, h feet vertically below him. Let there be N feet of rope and Q feet of slack so that N = Q + h (Fig. 4).

Let the climber's weight be W lb., the strength of the rope T lb., the extensibility E expressed as a fraction.

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(Fig 3. was published with Figs. 1 and 2 in the main portion of this paper. Journal 26, p. 133.)

Assume the climber falls off to C'. What, then, is the retarding force P lb. that the belaying man at B must develop to hold the rope without slipping, *i.e.*, to create a static belay?

The retarding force = stress on the rope.

Therefore Extension of rope = $EN\frac{P}{T}$

if we assume a linear stress/strain relation for the rope. Therefore

Loss of potential energy, P.E. = W (change in height)

$$=W\left(EN\frac{P}{T}+Q\right)$$
 . . (1)

The strain energy absorbed by rope $=\frac{1}{2}$ stress × strain

$$= \frac{1}{2} P \left(\frac{ENP}{T} \right)$$

$$= \frac{1}{2} EN \frac{P^2}{T} (2)$$

Since 1 and 2 are equal and opposite we have

$$W\left(EN\frac{P}{T}+Q\right) = \frac{1}{2}EN\frac{P^2}{T}$$
or
$$2ENP + 2QT = \frac{E}{W}NP^2,$$

$$i.e., \qquad 2P + \frac{2QT}{EN} = \frac{P^2}{W}$$
or
$$\frac{P^2}{W} - 2P = \frac{2QT}{EN} . \qquad . \qquad . \qquad (A)$$

B. Man falling from Above.

If C is h feet above B and there is no slack, this is equivalent to saying h=N and Q=2N=2h, we have

$$\frac{P^2}{W} - 2P = +\frac{4hT}{Eh} = +\frac{4T}{E}$$
 . (B)

i.e., the height of the fall does not affect the stress developed.

C. Man falling from Above: Minimum necessary Strength of Rope.

Here we take equation (B) and let P = T.

Then
$$\frac{T^2}{W} - 2T = +\frac{4T}{E},$$
 i.e.,
$$\frac{T}{W} - 2 = \frac{4T}{E}.$$

Let T/W be a factor k,

then
$$k = \frac{4+2E}{E}$$
 . . (C)

or
$$T = \frac{4W}{E} + 2W$$
 . . (C1)

Therefore the rope strength required is a function only of weight of man and extensibility of rope.

D. Force developed in a Fall.

Consider Fig. 5. Let climber's velocity of fall be V feet/second, h the height of fall below B.

$$h = \frac{1}{2}gt^2$$
 and $V = gt$,

therefore

$$V = 32 \sqrt[4]{\frac{2h}{g}} = 11 \cdot 3\sqrt{h} \qquad . \tag{D}$$

Let d be the applied deceleration, then the retarding force $P = md = \frac{W}{g}d$. Since the gravitational acceleration is g, the net acceleration is d-g (when negative there is a residual acceleration).

$$V^2 = U^2 + 2(d - g)s$$
 . (D1)

Where s=distance body slides (after ropes tighten) before coming to rest. If s is length of free rope, then U gives the terminal velocity at the point the rope runs out. If body is brought to rest, U=zero.

E. Running Belay.

Consider climber C of weight W lb. who climbs to Z and puts on a runner of length R feet, so that the karabiner

hangs at R (Fig. 2). Let BR = M feet. The climber ascends a height h feet above R to C and falls to C'. What is the minimum necessary strength of rope, assuming the runner is of equal strength to the rope and the karabiner is adequately strong?

Take coefficient of friction between rope and karabiner as 0·19. Let R and C be vertically above B. Then when C falls to C' the angle BRC' will be 180 degrees or π radians. Then the stress P developed on the rope BR is less than in RC', due to friction, so that $T = Pe^{\pi \times 0.19}$, whence P = 0.57T.

Then P.E. lost in fall

=W(height lost + extension in RC' and extension in BR + extension in R).

$$= \mathbf{W} \bigg(2 h + \mathbf{E} \big(h + 0.57 \mathbf{M} \big) + \mathbf{E} \times \frac{1.57 \mathbf{R}}{2} \bigg).$$

S.E. = $\frac{1}{2}$ (stress × strain in RC' + stress × strain in BR + stress × strain in R)

$$= \frac{1}{2} \! \left(\text{TE} \textit{h} + 0.57 \text{T} \times \frac{0.57}{\text{T}} \text{TEM} + \frac{(1.57)^2 \text{ERT}}{2} \right)$$

(since R has two sides each taking half total stress)

$$=\frac{1}{2}TEh + \frac{1}{2} \times 0.57^{2}TEM + \frac{1}{2} \times 1.23ERT$$
 (1)

But P.E. = S.E.,

therefore

$$TEh + 0.325TEM + 1.23ERT$$

$$=2W(2h+Eh+0.57ME+0.785ER),$$

i.e.,

$$Th + 0.325TM + 1.23RT$$

$$= \frac{4 \mathrm{W} h}{\mathrm{E}} + 2 \mathrm{W} h + 1 \cdot 14 \mathrm{WM} + 1 \cdot 57 \mathrm{WR},$$

$$T + 0.325 T \frac{M}{h} + 1.23 T \frac{R}{h} = \frac{4W}{E} + 2W + 1.14 W \frac{M}{h} + 1.57 W \frac{R}{h},$$

therefore

$$\mathrm{T} \; \left(1 + 0 \cdot 325 \frac{\mathrm{M}}{h} + 1 \cdot 23 \frac{\mathrm{R}}{h} \right) = \mathrm{W} \! \left(\frac{4}{\mathrm{E}} + 2 + 1 \cdot 14 \frac{\mathrm{M}}{h} + 1 \cdot 57 \frac{\mathrm{R}}{h} \right)$$

Let E = 47 per cent.,

then

$$\frac{T}{W} = \frac{10 \cdot 5 + 1 \cdot 14 \frac{M}{h} + 1 \cdot 57 \frac{R}{h}}{1 + 0 \cdot 325 \frac{M}{h} + 1 \cdot 23 \frac{R}{h}} . \qquad (E)$$

F. Friction Effect.

Consider a load T lb. at C. It is held by a rope round B and applies a retarding force P lb. Then from the Laws of Friction (Fig. 6)

$$T = Pe^{\mu\theta}$$

where μ is the coefficient of friction and θ is the number of radians the rope is wound round B.

NOTATION.

W=weight of man, lb.

E = extension of rope at break, expressed as fraction.

T = breaking strength of rope, lb.

h = height of fall, feet.

P=retarding force, lb.

Q = feet of slack rope.

V = velocity of fall, feet/second.

U = terminal velocity of fall, feet/second.

d = deceleration, feet/second².

 $g = \text{value of gravity, feet/second}^2$.

NEW CLIMBS. CAIRNGORMS AND LOCHNAGAR.

Lochnagar.

Black Spout Pinnacle, Grovel Wall.—This 500-foot Severe route was made by T. W. Patey and W. D. Brooker on 20th April 1957, and lies on the eastern flank of the Pinnacle, close to Pinnacle Gully No. 1. Its prevailing character is of short walls topped by turf ledges, and hence it is not a route for the purist.

Start from the Mound, working up the face to reach a large, clean-cut recess (80 ft.). Exit upwards on the left wall, using combined tactics or a piton. Go up a crack on the right to a large open corner. Sloping ledges lead to a hanging block of doubtful security 40 ft. up the left wall. Now move right, past the foot of a short crack (crux) and climb a semi-detached flake to a stance. Above this the angle eases and the existing route on the edge above Pinnacle Gully No. 1 may be joined or one may slant rightwards to join the upper part of Route 1.

Polyphemus Gully.—During the second ascent in full winter conditions by A. G. Nicol and W. D. Brooker on 24th February 1958 the following variation was made, mainly in order to save time.

At the top of the easy snow section, 100 ft. below the V-groove which forks left and formed the crux on the first winter ascent, the left wall was climbed for 150 ft. An up-and-down traverse right, beneath a vertical wall, led across the head of the V-groove and back to the gully at a large block (80 ft.). This is the original summer route, and a party finding the V-groove impossible should use it. Conversely, if the snow cover is very heavy and the wall impossible, the groove should be feasible. The gully was poorly banked with snow, but ice was plentiful with a thick and variable layer of wind-plastered snow both in the gully and on the walls. This snow was rather treacherous although covered by a very hard crust, and proved most time-consuming—nearly 9 hours, in fact. A route of fairly continuous difficulty and also insecurity, exuding atmosphere. Under the conditions it takes a very high place among winter ascents in the Cairngorms.

Glen Clova, Red Craig, N.W. Buttress.—The following three routes were made by W. K. Divers and K. A.

Sturrock. The High Level Traverse referred to in Zig-Zag was climbed about 1949-50 by I. Sutherland and D. Watt, grade Very Difficult. It starts about 30 feet left of Hanging Chimney. One climbs to the top of slanting crack before traversing across the face.

 Dander.—Hard Severe, August 1955. Start is marked with paint, about 50 ft. to the right of 20-minute route. Proceed up fault for 50 ft. to tree belay. Climb 20 ft. overhanging chimney to grass ledge (piton). Climb into recess on left, turn corner and climb

about 50 ft. up face to the finish (crux).

2. Wander.—Very Severe in rubbers. Climbed 16th June 1957. Start 6 ft. to left of Dander. Climb crack for 50 ft. One can rest midway. Climb fault to left, with tree at foot of it, and surmount the overhang. This was the crux and pitons were needed. Continue to belay beside tree at 35 ft. Finish by climbing overhang above tree for 20 ft.

3. Zig-Zag.—Very Severe in rubbers. Climbed 15th June 1957. Start at paint mark about 40 ft. left of High Level Traverse (which traverse was used as middle pitch of this route). Climb straight up to small overhang and directly up this to a point where piton is used for running belay. Then continue up crux on small holds to the crack leading up to High Level Traverse. Cross this to piton and then finish for 50 ft. up a chimney.

Parallel Gully A, Variation Winter Finish.—Climbed on 18th March 1958 by A. G. Nicol (Aberdeen U.M.C.) with Tom Weir and N. Tennent (J.M.C.S.). Owing to the small amount of snow in upper gully below final cirque the snow couloir out to left was unattainable.

Above a small ice-pitch a chimney was seen on the right in the angle between the right-hand wall of the gully and the wall which blocks the direct line of the gully. This was climbed for 110 ft. to a piton belay, being very severe under prevailing conditions. From the piton 110 ft. of climbing, slanting rightwards over hard snow and ice-covered rocks, led to the cornice near top of Parallel Buttress. This right-hand variation should only be attempted if left exit is impossible owing to poor snow conditions. It upgrades the route from 3 to 4. The chimney may not be very hard in summer but possibly loose.

Cairngorms.

Beinn Mheadhoin, The Shuttle.—300 feet, Very Difficult, is the highest and most prominent of the small

buttresses overlooking Loch Avon and was climbed by R. H. Sellers and C. Annand on 7th April 1957.

Some avoidable cracked slabs are followed by a chimney and a diagonal terrace leading right to some woolsack rock formation (stance and piton belay). Continue horizontally right to a slab topped by a crack behind a flake. Climb shelving, smooth slabs to a short wall, split by a crack which leads to easier ground.

Carn Etchachan Face, Revelation Arête.—450 feet, Mild Severe. This was climbed by R. H. Sellers and C. Annand on 16th June 1957, and follows the line of an imposing arête separating False Scorpion and Castle Gully. This peters out downwards before reaching the screes of Castle Gates.

Start as for Castle Gully, but immediately trend left to arrive at a large pink slab 200 ft. up (stance and belay). Climb the groove on the right-hand side of the slab and then traverse left on small holds to a crack behind a large block. Surmount this to gain the arête which is followed to another crack with a chockstone belay (60 ft.). Climb the crack and, where the arête forms a vertical step, pass left to an inset corner (piton belay, 50 ft.). Traverse down to the left round a sensational corner and then up an overhanging wall to regain the arête (80 ft.). Continue up for 40 ft. by the crest and over a slab to join Castle Gully route 40 ft. below the plateau.

Shelter Stone Crag, N.W. Face, The Citadel.—This 800-foot Hard Severe route was made in June 1957 by K. A. Grassick and A. G. Nicol, using through leads, with J. G. Lillie (time, 5 hours). The Shelter Stone Crag has two facets, a north-east and a north-west. Sticil Face route lies on the former and the latter, presenting the highest and steepest stretch of rock in the area, survived several attempts before it was climbed successfully.

The route may be divided into three sections: (1) The lower slabs; (2) a line of weakness going diagonally right (the upper part of this fault is used by Clach Dhian Chimney); and (3) the upper face, where the high angle forced the party to the right.

Start up an open, slabby gully on the right of the lowest rocks. At 100 ft. the gully overhangs, so traverse left for 20 ft. (piton runner) to a 1-in. wide crack set in a corner. This 35-ft. crack and the ensuing 12 ft. traverse right form the lower crux (two pitons). Easy ground leads to the terrace which is continuous with the north-east face. Work diagonally right for over 300 ft. by ledges and then by a fault.

Where the fault begins to merge with the cliff, strike up a deep 30-ft. chimney in the face above. A traverse left to a wall and open crack with a loose block lead to a narrow ledge (upper crux). A short left catwalk is followed by an obvious trend right to a wide ledge on the right edge of the face. Directly above is an enormous rectangular block which juts out to mark the edge. Traverse the ledge for 30 ft. and ascend the right wall of a deep crack which reaches the plateau in 90 ft. This last almost coincides with the finish of Clach Dhian chimney.

Shelter Stone Crag, N.E. Face, Sticil Face.—700 feet, first winter ascent on 24th December 1957 by K. A. Grassick and A. G. Nicol, using through leads (time, 9 hours), Grade V. The general line of the summer route was followed; a lengthy right traverse to the foot of the trough at the left edge of the Central Slabs, up the line of the trough, a second lengthy traverse on ledges leading right, high on the face and a final steep wall to the plateau. The ledges and cracks held hard snow and ice, the latter predominating in the trough, while the upper part of the climb had an additional heavy cover of crusted powder snow.

The trough featured three main ice pitches. The first was turned on the left by snow-covered rocks. The second was a 70-ft. ice-fall and was passed by a 100-ft. runout up a V-groove on the left and regaining the trough above. The third was the crux, an ice-choked chimney climbed direct by using two pitons. Above this the long right traverse was made along ledges above the Central Slabs to a ledge below Patey's 100-ft. crack. A 15-ft. wall led to the foot of the crack and a traverse right was then made on powder snow beneath an overhang. Combined tactics were used for the ensuing 12-ft. wall above which an arête of hard snow led to the plateau.

Loch Avon Cliffs, Devils' Delight.—This 500-foot Hard Severe route was climbed in rubbers by R. H. Sellers and G. Annand on 4th August 1957. It lies on Hell's Lum Crag between Deep Cut Chimney and Kiwi Slabs. The start is at an obvious gully to the right of the large expanse of slabs (cairn).

Climb the gully for 50 ft., move left along a small ledge on the slabs and then up a crack and rib to a corner (piton belay, 120 ft.). Climb the corner and a crack above to finish on a sloping rock glacis (50 ft.). Move left to a 10-ft. block beneath a crack which is climbed

by layback and jamming with a delicate mantelshelf exit (piton belay, 80 ft., M.S.). Climb two short walls to a triangular niche and leave by a strenuous, overhanging, 15-ft. wet crack which leads

to a prominent grassy ledge.

From here follow three fine pitches. Climb up cracks for 20 ft. and then by a recess to a stance beneath a bulge (piton belay, 90 ft.). Scale the wall on the left and swing into a crack in the bulge (H.S.), continuing to a second bulge, where one either traverses 5 ft. right to another crack or goes over the bulge (H.S.) to a chimney recess behind a huge 30-ft. detached block (90 ft.). The angle now eases and the route is completed by going straight up, first by a crack and then by a staircase (90 ft., cairn).

Hell's Lum Crag, Loch Avon, Deep Cut Chimney.— First winter ascent by T. W. Patey and D. Holroyd on 19th January 1958, Grade IV. A fine ice route climbed under exceptionally unfavourable conditions. Two feet of recent powder snow lying over ice. Blizzard and much spindrift.

Summer route followed. Introductory slabs covered. First three pitches all of sustained difficulty and possibly Very Severe at the time. The recessed part of the chimney was relatively straightforward as there was some excellent underlying hard snow at the back. Future parties should await ideal conditions of continuous ribbon of hard snow at the back of the chimney, otherwise the frozen vegetation on the first three pitches will present considerable difficulties. The climb bears some resemblance to Comb Gully, Ben Nevis, but the difficulties are more sustained. Time, 3 hours. This same blizzard was the worst in the north-east for several years

Hell's Lum, Loch Avon Basin.-Grade III.

This is described in the last edition of the "Cairngorms" Guide as unclimbed. It has, in fact, now been ascended on at least three occasions. On the first ascent (spring) a snow take-off allowed the party to overcome the smooth, wet second pitch which had turned previous parties. Higher up there was much loose rock, and the gully is, in fact, much more suited to winter climbing. It carries a number of small ice pitches in the upper section, and has been found in excellent condition when all other routes in the vicinity have lost their snow. The first ascent in winter was made by G. K. McLeod and party (Journal, 26, 152), but no details were given. T. W. Patey climbed it alone in February 1958 in half an hour, finding it an excellent short climb of 300 ft. 150 ft. hard snow led up to the first ice pitch of 25 ft.; above this there followed quickly two further ice steps of 30 and 20 ft., topped by a very steep but secure exit on the right of the main cornice. Recommended.

Cairn Gorm, Coire an-t Sneachda, Fiacaill Couloir.—Grade III, 400 feet, climbed by T. W. Patey on 17th January 1958. Fiacaill Buttress, a recent climb, lies in the inmost recess of Coire an-t Sneachda up against Fiacaill Ridge. The Fiacaill Couloir is the curving gully which bounds the buttress on its right and terminates at the short neck at the top of the buttress.

It has not been climbed in summer but is more suited to winter climbing and gives what is probably the most refreshing ice climb in the corrie. It may be much easier with a heavier snow deposition. Main difficulties were a 20-ft. ice pitch at the start, and the last pitch below the neck. Here the gully is blocked by an overhang, but this was overcome by means of a good snow take-off. In between there were several minor ice pitches of interest. Conditions beyond reproach. Time (solo), 45 minutes.

Cairn Lochan, Central Crack, Coire an Lochain.— First winter ascent by T. W. Patey (solo), Grade III, February 1958.

Step-cutting all the way apart from the first two pitches which might present considerable difficulty if more heavily iced. It is a genuine winter route, often in good condition, and the climbing is not too hard, though quite exposed. There are several alternatives in the upper section. Time taken, 30 minutes.

Braeriach Coire Bhrochain, Ebony Gully.—The first winter ascent was made on 28th December 1957 by J. Y. L. Hay and Miss H. Rose in $3\frac{1}{2}$ hours.

The lower section to the foot of Ebony Chimney presented little difficulty with only one short ice pitch. Above the junction the climbing difficulties were continuous, though not of an extreme nature. The crux was the same as for the summer route—a smooth overhanging snow and ice groove (V.S.). The summit cornice was easily passed by a convenient break. Later in the winter with a good bank up at the crux the cornice may prove the main difficulty.

Braeriach, Coire Dhaidh; St Andrews Climb.—Climbed by L. W. Morris and W. S. Yeaman (through leads) on 31st March 1957. To the right of the Dee Waterfall is a great buttress split by an inset corner. Immediately to the right of this Great Cleft is a smaller inset corner. This is the line of the route. This route

is very close to Boomerang by Sellers and the height is probably about 500 feet.

Start up a rib between these two right-angled grooves to a small cave. Climb the right-hand groove and traverse left into the Great Cleft at 80 ft. and then 20 ft. on the right wall back to the smaller groove. Move right, round a corner, and then up the wall and round a corner to an overhang (50 ft.). Swing left round the corner back into the smaller groove (piton) and up the groove to a ledge 30 ft., S.). Up the groove for 80 ft. Climb to an overhang, turn it on the right and go straight up (three pitons, 20 ft., S.). Go straight up the ridge for 100 ft. and then follow the easiest line, trending right, to the top of the buttress.

NORTH WEST REGION.

Beinn Eighe—Sgurr an Fhir Dhuibhe, N.W. Face.— This face, to which there are no previous references, was explored by T. W. Patey on 2nd August 1957. The quartzite cliffs are 300 to 400 feet high and take the form of a series of crazy pinnacles and arêtes. However, the ledges dip outwards, and the large number of rickety loose blocks would be a potential hazard to a roped party. The rock is very shattered.

The climb was conveniently included in a traverse of the main ridge (west to east) by traversing horizontally along from the col between the above peak and Sgurr Ban. (It is hardly worth an independent outing.) Patey traversed below the first promising arête, very steep in the lower section, and selected the next arête along, characterised by a patch of red rock at mid-height marking a recent rock fall. The narrow arête of 350 feet needs no description and was of Difficult standard, finishing a few yards west from the summit cairn.

Coire Mhic Fhearchair, Central Buttress, Left Hand (East) Face Direct.—350 feet, Hard Severe. Climbed by T. W. Patey on 2nd August 1957. Approach from East Buttress by Broad Ledge (see "Northern Highlands" Guide) to join East Central Gully above the lower sandstone. Here the gully bifurcates—take the right-hand fork and climb 200 feet or so to where the branch gully peters out below the shallow depression on the vertical

east wall of Central Buttress (a watercourse in wet weather). The route on the wall followed the next feasible line up to the left of the watercourse. From below it appears as an undeviating direct line up the wall—thin cracks to mid-height and continuing as a prominent, long, V-shaped groove capped by an overhang at the very top. A small cairn marks the start.

Two pitches of 50 ft. lead to the crux, a smooth wall pitch of 40 ft. This was vertical and strenuous on a few small incuts. The angle eased on the next pitch, a wide chimney with a flat "card table" on the right at mid-height. The start of the V-groove ahead proved rather awkward, so a crack on the left was followed instead, traversing back right into the groove after 40 ft. From here the V-groove was climbed direct to the top in 100 ft., turning the top overhang on the left (cairn). The 350 ft. of climbing on the wall is all about Mild Severe standard and exposed. Time from the screes to the top, 14 hours (solo).

Patey considers that the above route is to the left of Leonard Lovat's face climb (see J., 25, p. 354) and to the right of Gully Rib. He did not find any cairns although looking for them, and considers that his route follows a rather good, natural, direct line. The description should, in any case, avoid any ambiguity or confusion.

Beinn a' Mhuinidh—South Buttress.—This buttress, mentioned in "Northern Highlands" Guide as offering scope for routes, was investigated by T. W. Patey. The possible routes are all very hard and offer no more than 120 feet of climbing. The most attractive feature was on the left-hand part of the crag where there is an obvious crack set in a corner and overhanging slightly throughout its whole length. Unfortunately the middle part of the crack had to be avoided, creeping via a small tree to the left and regaining the crack below its top overhang by a thin ledge. The pull up over the overhang was made on excellent holds. 120 feet, Severe. Proximity to Kinlochewe is its only virtue.

Stack Polly—Pinnacle Basin, The Virgin Pinnacle.—60 feet, Severe. Climbed by I. Clough and D. Pipes (Kinloss Mountain Rescue Unit) on 7th July 1957. This slender pinnacle, rising almost 100 feet above the screes

in Pinnacle Basin, was referred to as the "Madonna and Child " in an article by Frank Cunningham in the 1951 Journal.

The Pinnacle was climbed in continuous drizzle by an obvious crack on its shortest side (nearest the mountain). The ledge below the crack was reached (artificial) and the crack was climbed by artificially inserted chockstones to the gap between the two summit blocks. In good conditions the crack might "go" by layback and jamming giving a Very Severe pitch.

Suilven-N.W. Buttress, Rose Route, 460 feet, Mild Severe. Climbed by Alasdair Smart and Archie Mitchell (through leads) on 18th July 1957. Start at the foot of the N.W. Buttress, right of the prominent central rib which is the line of Portcullis Route (Parker's) and just left of the conspicuous black waterslides which are clearly marked on the illustration on page 119 of the Guide. Cairn. (Inch co-ordinates of this point, reading right and then up from the bottom left-hand corner of the illustration, are 3.0; 3.0.)

(1) 40 ft.-Climb a steep 8-ft. wall and turn a steeper one on the right, to reach the foot of a fine red slab. Climb obliquely upwards to the right over this for 20 ft. to the ledge above it. Dubious flake belay.

(2) 40 ft.—Go up 8 ft. from the ledge and traverse left round a nose to the foot of two narrow slabs, the right set back from the left. Climb 20 ft. up between them to a large ledge at the edge of the nearest

waterslide. Jammed stone belay.

(3) 30 ft.—A spectacular and exposed (but not technically hard) traverse left round a corner and along ledges more secure than they look (about 3.0; 3.5) leads to the broken ledges of the Terrace, directly below the south edge of the main buttress. The remainder

of the climb more or less follows this edge.

(4) 65 ft.—Start at the obvious corner of the buttress (2.8; 3.8) fifteen paces left of the grass in Ramsey's Gully. This corner is taken throughout as being the edge of the buttress, as against a lesser corner farther right (cairn). Climb 12 ft., and then over or round a large block. At 25 ft. a small slab leads to a mantelshelf movement on to a flat block on the right. Traverse right, to the buttress edge, and go up 20 ft. farther to a notable stalactite belay at the foot of a small chimney.

(5) 85 ft.—Climb the chimney and by-pass a small wall on the right leading back to a dark corner on the left at 35 ft. Traverse right, round a projecting block (hands above feet beneath) to a good

ledge, again near the buttress edge; 30 ft. of easier climbing leads to a broad ledge above which the angle obviously lessens (about 2.8; 4.5).

(6, 7, 8) 200 ft.—Three long runouts over more broken rocks lead to the top of the climb, some distance from the top of the buttress. The climbing is easier and variation possible. It is not, however, as easy as it looks.

Grading.—Pitches 1 and 2 up to Severe; 3 to 5 up to Very Difficult; 6 to 8 up to Difficult. The rock is sound and the climb, which is a good one, is always steep and generally exposed.

Fionn Loch Area — Carnmore Crag.—" Lizard," 250 feet, Severe. J. G. Burns and D. Leaver leading through. June 1957. On the overhanging grey wall below and to the right of the great corner of Carnmore Crag. The route starts on the left of the face, traverses right above the first overhang, breaks through the second overhang and traverses right again below the third overhang to finish up easier rocks.

60 ft.—Follow the obvious traversing line rightwards to a large block beyond an overhanging crack.

60 ft.—Climb the crack 15 ft., follow the sloping ledge to the right, then break back to the left on to a triangular platform.

80 ft.—Climb the steep rib on the right of the platform, step round on to the shelf on the right and traverse along this.

 $^{\circ}$ 50 ft.—Traverse right round ribs, step across a gap and finish up an easy groove.

Fionn Loch Area—Eagle's Crag.—" Consolation," 160 feet, Severe. J. G. Burns and D. Leaver leading through. June 1957. The line of corners and shelves to the right of Rainbow Corner.

80 ft.-Climb to a glacis.

80 ft.—Climb the steep wall above, keeping to the right of an obvious overhang. Finish up a corner to the ledge above Rainbow Corner.

BEN NEVIS.

Pinnacle Buttress of the Tower.—Winter ascent by Donald J. Bennet and A. Tait on 17th November 1957.

From the Garadh ascend by the left up a shallow snow gully for about 150 ft., then to the right along an easy snow-covered ledge. Above this the crest of the buttress rises in a very steep ridge with easier rocks on either side. The route went to the right of the crest over snow and ice-covered rock, probably only of moderate difficulty in summer. For about 60 ft. a snow-filled groove was climbed. Then a right traverse of 40 ft. led to another groove which was followed straight up until easy rocks led leftwards to the top of the buttress, below the Great Tower. This part goes up midway between crest of Buttress and Glover's Chimney. Climb was not very difficult, not more than subsequent ascent of Tower by Eastern Traverse.

Staircase Buttress.—By D. Haston and J. Stenhouse (both J.M.C.S.). The steep lower section was icy with glazed rocks (piton used in the crack). Thereafter powder snow and ice. Pinnacle, turned by the left, proved a difficult problem. Time approximately 4 hours, probably Very Severe.

Italian Climb.—By J. R. Marshall, A. MacCorquodale and G. J. Ritchie. This gave an excellent ice climb, with two major pitches (60 and 80 feet) of Very Severe ice work in the gully. Thereafter a face climb over ice and snow to the crest of Tower Ridge. Time approximately 4 hours.

No. 2 Gully Buttress.—First winter ascent by J. R. Marshall, L. S. Lovat and A. H. Hendry on 23rd March 1958 gave an interesting climb in exceptionally hard-frozen conditions.

The line is clearly seen from the corrie. The lowest iced rocks led to a gully narrowing to a steep ice-pitch at about 50 ft. The gully continued above to the final rocks where a short break-through was made on ice-bound rock to easy ground leading to the summit. Ice-pitch was Severe and time taken about 2 hours.

S.E. Face, N.E. Buttress, Frostbite.—Climbed by I. Clough and D. Pipes (leading through) with J. M. Alexander, P. A. Hannon and M. Bucke (Kinloss Mountain Rescue Unit). This route is on right-hand section of face on line suggested by T. W. Patey in his

account of Cresta climb. It joins crest of Buttress 60 feet below the Mantrap.

Start up a bay of snow 150 yds. right of Cresta and left of steep rocks, followed by Eastern Climb, which project below Central Spur. Up steep snow to ice groove landing one below large snowfield ascended for 400 ft. to below Central Spur rocks. Traverse up right to reach crest of rock ridge below steepest part of spur. Descend 40 ft. on other side to a gully, which ascend 100 ft. Rising traverse right on snow; then, owing to bad snow ascend shallow gully to left and up a 100-ft. ice-pitch followed by icy slabs up to right for 100 ft. to regain ordinary N.E. Buttress route at 60 ft. below Mantrap. Time, $5\frac{1}{2}$ hours under good conditions to this point.

Carn Dearg, Summit Buttresses.—Climbed by same party, M.R. Unit. Three gully climbs made between four buttresses below summit of Carn Dearg form an interesting continuation from near the top of Ledge route. From this descend left into large hanging corrie from which climbs start.

(1) Arch Gully, 700 ft., climbed 8th April by Clough and Nicholson. This separates middle two buttresses, steep and straightforward snow climb. (2) Calando Gully, 800 ft., is steep and winding gully to left of Arch Gully. Climbed on 12th April by Clough and Pipes. (3) Surprise Gully, 600 ft., climbed on 12th April by Clough and Pipes, is to right of Arch Gully. It is shallow with a broken rock rib splitting lower section, and is straightforward for 400 ft. Then 100 ft. of scrambling to final rocks which are climbed by an icy groove.

Polldubh Face, Hangover Buttress, Routes 2 and 3.— Climbed on 31st August and 1st September 1957 by I. Clough, R. C. Mason, P. Hannon and O. S. Cook, all of Kinloss Mountain Rescue Unit.

Route 2 is a Hard Severe starting above and right of start of ordinary route, immediately below left corner of "very prominent," large overhang. Climb directly to overhang and semi-hand-traverse under it for 20 ft. Finish up groove above. Route 3 is a 60-ft. Very Severe. Farther to the right and slightly higher is a large and sustained overhang, climbed direct with pitons.

Polldubh Crags, Scimitar Buttress, is the middle of three buttresses lying 300 yds. right of Pinnacle Ridge. It lies back about 300 yds. from the road and has a 15-ft. sharp pinnacle at its foot.

Nutcracker Chimney, 50 ft. (S.), climbed on 8th April by R. Wilkinson and D. Pipes, is left of buttress. Diagonal Crack 60 ft. to right of Nutcracker Chimney is artificial, using 7 pitons.

Creag Meaghaidh—Coire Ardair, Crescent Gully.—Climbed on 17th February 1958 by J. Clarkson (J.M.C.S., Edinburgh) and R. J. Tanton. This gully curves round the left side of the extreme right-hand buttress of the north-east face, which lies immediately left of the Window.

Climb a shelf of snow leftwards to two ice pitches—the first 70 ft. at an easy angle, and the next 50 ft. steep and at one point nearly vertical. A snowy amphitheatre leads to the cornice.

SKYE.

Sron na Ciche, Eastern Buttress.

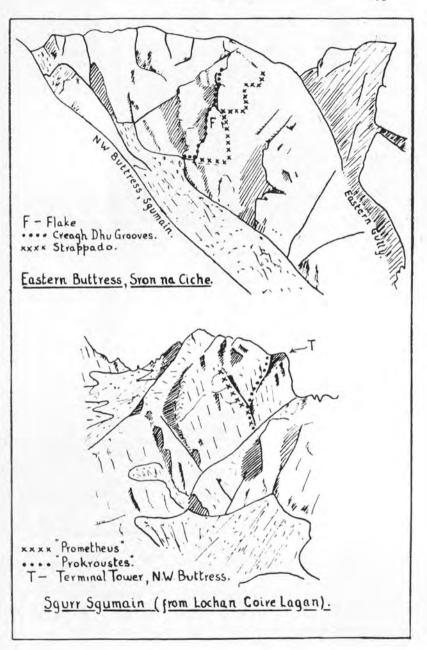
Jack o' Diamonds.—330 feet, Severe. First climbed (unreported) in July 1953 by D. Leaver and C. E. N. Wilson (J.M.C.S., Edinburgh), and repeated September 1957 in order to improve description. The route starts in Eastern Gully, slightly above level of Terrace and directly below foot of Pitch 4 of Chimney Route.

(1) 110 ft. Climb directly to grass ledge at foot of chimney.

(2) 70 ft. is the crux. Up steep wall left of chimney. From mantelshelf at 15 ft. follow steepening groove to conspicuous diamond-shaped block (well seen from Cioch). Move right, across face of this and up to top by a short crack. (3) 110 ft. Follow line of blocks and grooves directly above to foot of the final V-chimney.

(4) 40 ft. Climb the chimney to join Eastern Buttress direct route at the shoulder below penultimate pitch.

Kinloss Gully.—170 feet, Severe. Climbed by I. Clough and R. Wilkinson (alternate leads) and M. Denton (Kinloss Mountain Rescue Unit) on 4th August 1957. Some 100 feet higher up the Sgumain Stone Shoot than the start of Zig-Zag Route is a remarkable great smooth slab some 200 feet high, crowned by an overhang on its right. The start is up the corner crack of the large bay immediately left of this slab.



(1) 60 ft. Climb the crack (usually wet) to the scree-filled bed of the gully proper. Much loose material lies in the bed of the gully, and care should be taken not to dislodge anything while people are below. (2) 80 ft. Up overhanging chock and up the cracks above to a cave. (3) 30 ft. Traverse out on right wall and climb up over bulge using three pegs (one in place) to a crack and flake which land one on a rake. Either the top or bottom of the buttress is easily reached by this rake.

Creagh Dhu Grooves.—This and the following route Strappado are indicated on the uppermost diagram. The first was climbed by H. MacInnes and I. Clough and rated Hard, Very Severe. The second was climbed by same persons along with A. Marsden on 8th June 1957 and rated Very Severe. Kinloss Gully is also on this face.

C. D. Grooves.—Start on prominent ledge above beginning of Zig-Zag. Ascend obvious chimney behind huge flake (marked "F" below). Chock belay 100 ft. up chimney. Severe for 60 ft. to large ledge above flake. Immediately above chimney is 40-ft. crack bearing slightly left. Climb with direct aid (expanding bolt belay) to small stance. Climb continuation of crack, using chockstones and pegs. Two bulges are interesting. Belay on ledge on left, 40 ft. up. Traverse across crack to right edge and climb to broad ledge (H.S.) 40 ft. to good belay. Another easy 40 ft. to top.

Strappado.—Start on ledge on opposite side of flake from C. D. Grooves. Ascend three pitches for 150 ft. to top of flake (M.S.). Traverse horizontally right to exposed ledge (S.) on steep wall of Eastern Buttress (assorted belays). Artificial climbing for 40 ft. up fault. Where dyke joins small fissure on slight overhang traverse right (sling and étrier on bollard). Attain ledge and do tension traverse from piton (removed). Move on right to ledge (belay). Climb wall direct on small holds to join direct route.

Schadenfreude.—245 feet, Mild Severe. Climbed by H. MacInnes, R. D. Hinds, H. D. Parker and J. D. Small. Start on the terrace, 50 feet to the right of zigzag (cairn). Climb either of two cracks leading to upper ledge from which slanting gully starts (30 feet).

Go 20 to 30 ft. to right. An arrow marks the start of next pitch. Ascend awkward crack for 40 ft. to belay on left on big ledge (V.D.); 30 ft. of easy climbing to large flat-topped stone (belay). Facing wall on right is a fault up the face. Climb this for 40 ft. to belay (M.S.). Continue up, bearing left on sloping ledge, till one gains a dyke at the top, which climb to belay on ledge above at 65 ft. (M.S.). Above the spike belay a sharp arête rises, climbed to the top in 40 ft.

Amphitheatre Wall, Prolepsis.—650 feet, Very Severe. First ascent: Hamish MacInnes, T. Marsden. Upper section: Hamish MacInnes, J. Haswell, R. E. Hinds. (No date given.) The bottom section of this climb, which is the hardest, can be climbed by using chockstones. From the terrace up the climbing is only Severe. Start at arrow a few feet right of Amphitheatre Wall (cairn).

(1) Climb smooth slabs for 100 ft. passing loose blocks en route to ledge. This section bears slightly right. (2) Climb overhanging crack, artificial, 40 ft. to small terrace. (3) Ascend slightly overhanging cracks by upward traverse from left round corner; another ledge 50 ft. up. (4) A crack widening to a chimney breaks the face above this ledge. Climb this direct to where crack meets bulging chimney and traverse left under overhang for 20 ft. Then ascend slightly right to corner and belay, 70 ft. (5) On exposed edge west of belay a crack leads to another small ledge; crack continues up overhang-runner on flake on ledge. This pitch is artificial; 50 ft. leads to small ledge with a thread belay above. (6) 60 ft. up easy rock leads to low terrace. (7) 40 ft. of climbing leads to main terrace. (8) Some 18 ft. from where the climb gains the terrace a cairn and arrow indicate the continuation of Prolepsis. Climb diagonally left, gaining two ledges. On the second ledge climb broken left-hand side to reach large ledge with flake. (This may be the same ledge as Amphitheatre Wall.) From the terrace to this point it is approximately 40 ft. (9) Climb corner at back of ledge direct and gain sloping shelf below overhang by awkward move (runner). Climb overhang direct and gain good ledge. This pitch is easily identified by loose triangular flake at top of the overhang in the left chimney 40 ft. (10) Continue leftwards for 70 ft. to large block belay at start of gangway. (11) 90 ft. of easy climbing up gangway leads to the top.

Ghrunnda Face, South Crag; Intermediate Traverse.—350 feet, Severe. Climbed by A. D. Marsden and M. McNamara on 1st April 1957. The start is 100 yards left of foot of Stony Rake and immediately left of a large overhang, 100 feet up.

Up an easy foot-wide dyke-line is a wide, diagonal fault (90 ft.). Go up this 20 ft. Traverse right and round base of overhang for 120 ft. Undercut holds here. Go up rib on right for 60 ft. to a ledge. A number of easy ways lead to Stony Rake in 40 ft.

Sgurr Dearg.

Upper Window Buttress Route.—400 feet, Mild Severe. Climbed by A. D. Marsden and R. Redfirn on 19th July

1957. About 150 feet above the Pinnacle on the normal route, easy scrambling to the left leads to a grassy rake. The climb starts about 40 yards along this, the route following the most obvious weaknesses in the Upper Buttress of the mountain.

Go up steep wall leftwards for 90 ft. Easy right traverse 40 ft. Then ascend obvious crack for 90 ft. Continue up the crack, turning a chimney delicately on the left. Steep wall climbed by undercut crack on left (90 ft. in all). The final 90 ft. goes up the steep, broken wall on the right.

South Buttress, Styx.—260 feet, Very Severe. Climbed by H. MacInnes. Start to right of Central route on grassy terrace (cairn, and well-marked chimney).

Climb chimney with hidden stream behind rock, artificial first pitch, very strenuous using one piton; several chockstones necessary. In 60 ft. attain a ledge on left with belay above (V.S.). Follow arrow to dyke, which climb 200 ft. to top (D.).

Sgurr Sgumain and Sgurr nan Eag.

Upper West Face of Sgurr Sgumain.—The following two routes ascend the steep wall above the easy gully rising from the screes above Lochan Coire Lagan to the nick where the upper arête of the West Buttress of Sgumain abuts against the N.W. Summit Tower. The lower diagram shows the approximate location of the routes done by H. McInnes, F. O. Alexander and I. Clough.

Prometheus.—First pitch Very Severe. Climb rotten overhang at base of gully by left-hand scoop, using three pitons. Continue up small chimney on left to large ledge at junction of two gullies (good belays at 70 ft.). Continue up main gully fault and pass large chockstone on left (M.S., with belay at 20 ft.). Continue up gully on good rock for 50 ft. to easier ground, with scrambling to top.

Prokroustes.—This is the right-hand branch of the gully from the fork, and is Severe. Climb 60 ft., using expansion bolt belay, up greasy rock to good belay above pointed chockstone. Easy scrambling 60 ft. Climb narrow chimney to steep top section (stance). Climb out and up overhang (large blocks). Crawl under converging overhangs and ascend thin crack to chockstone. Two difficult pitches to top of final Tower of Sgumain.

Sgurr nan Eag.—To the left of the Chasm is a line of cliffs about 200 yards long, over 300 feet high and nearly vertical. The following two routes (the first on this face) are at its right-hand end and were climbed in September 1957 by E.U.M.C. members.

Chasm, Left Edge.—350 ft. (V.S.), by R. Smith and H. Kindness. The route goes up the clean-cut edge above the left wall of the Chasm, a good line like Doom Rib on Sron na Ciche. For 100 ft. climb edge to broken rocks and poor belays on left. Then 130 ft. up, just left of the edge, to a small ledge. Traverse 20 ft. to an overhung nook and piton belay. Finally for 120 ft. return to edge and climb it to easy rocks.

Ladders.—360 ft. (V.S.), by R. Smith. Start in the second corner and about 80 ft. to the left of the Chasm. Gain a line of holds at 12 ft. on left wall of corner (shoulder useful). Up and swing left to outjutting platform. Climb steep wall above to join corner crack at nose projecting from right wall and follow crack to broken terrace (100 ft., block belay up on right). From just left of start of second pitch of Chasm, Left Edge, traverse 30 ft. left and up to bottom of shallower of two trap dykes. Follow this back and up to right and come out near small ledge on the edge. Then traverse 15 ft. left to the piton belay (130 ft.). Finally traverse 15 ft. left to narrow trap dyke chimney which climb to top (130 ft.).

GLENCOE AND ARDGOUR.

Buachaille Etive Mor.

Great Gully Buttress, East Face—Ledgeway, Final Variation.—80 feet, Severe. L. S. Lovat and C. G. M. Slesser. 30th June 1957.

In finishing the second pitch a left traverse is made to the large pointed flake belay. Instead of traversing, climb the obvious crack which springs up from the right-hand end of the grassy ledge (i.e., as an alternative to the pitch above the flake belay).

Great Gully Upper Buttress—Façade.—140 feet, Severe. L. S. Lovat. 30th June 1957.—Some distance along the east face proper there is an open corner at the base, to the right of May Crack (see Journal, 1953, p. 161).

Start up the wall to the immediate right of the corner and take the line of least resistance for about 70 ft. to a long horizontal fault below overhangs. Aim right for a breach in the form of a vertical groove. Climb the groove and trend left on the steep wall above to finish in a further 70 ft.

Cuneiform Buttress.—First winter ascent (by ordinary route). J. R. Marshall, D. N. Mill and G. J. Ritchie. December 1957.

This provided a good climb with hard snow on the lower slabs, and powder snow and iced rocks higher. The summer crux and the shelf at the west finish were the main difficulties and were about Severe. Time taken, 4 to 5 hours.

Cuneiform Buttress.—First winter ascent (by Long Chimney). R. Smith and D. Leaver (both J.M.C.S.). December 1957.

This ascent was made on the same day as the one above. The party moved into the Long Chimney (see *Journal*, 1956) after the summer crux of the ordinary route. Difficulties and time similar to the ordinary route.

North Buttress, West Face—Bludger's Route, Direct Finish.—100 feet, Very Severe. J. R. Marshall, J. Griffin, G. Adams and R. Marshall. July 1957. This finish connects Bludger's Route to the start of Revelation (see *Journal*, 1957). It cuts out the long leftward traverse below the overhanging section.

Move left along the rock ledge to the corner. Instead of going round the corner and traversing, climb the corner for 5 ft., traverse left into a vertical crack and follow this to a ledge and corner; move round the edge on to the wall and climb on excellent slabby rock, finishing by a left move on to the belay of Revelation.

North Buttress, East Face—Bogtrotter.—75 feet to Bottleneck Chimney. Unclassified. E. Taylor and W. Smith (C.D.M.C.). August 1957.

This route follows the cracked arête between Mainbrace Crack and White Wall Crack (see *Journal*, 1956) about 6 ft. left of the latter. It goes to the ledge on White Wall Crack below the big overhang and then traverses rightwards into the arch of Bottleneck Chimney. Eleven pitons were used in shattered rock with a belay arranged on

a poor stance below the flakes of the overhang after an awkward leftward move was made. The route is almost entirely artificial and cannot be graded, but what little free climbing was involved was severe.

Central Buttress.—First winter ascent, North Face Route. J. Stenhouse and R. Marshall (both J.M.C.S.). January 1958.

On this ascent there was much powder snow and ice. Difficulties were sustained, particularly above Heather Ledge. The climb was Very Severe. Time taken was approximately 7 hours.

Collie's Route, Waterslide Gully Face, Pegleg.—270 feet, Very Severe. J. R. Marshall and G. J. Ritchie. Septemer 1957. Start approximately 100 feet left of the scree below Waterslide Gully at the point where a distinctive, reddish, clean-cut rake leads up to a saddle on Collie's Route to the left.

Climb easy rock on the wall above for 30 ft. to a ledge and belay. Go up slightly right on steep, water-worn rock and make an awkward mantelshelf on to a ledge-hold. Traverse hard left (crux; a piton runner was used here) to gain a ledge and piton belay at 40 ft. Climb the steep groove above, then traverse right to a crack. Climb it to reach the top of a large flake at 80 ft. Easier rocks lead to a steep crack, which is climbed to finish the route.

Stob Coire Nam Beith.

No. 3 Buttress, Crack Climb.—350 feet. First winter ascent. L. S. Lovat and N. G. Harthill. 12th January 1958.

On this ascent the whole route was plated with good snow and ice. Difficulty was sustained and occasionally Severe. Time taken was 2 hours. (The route had been climbed during winter months several times, but not in true winter conditions throughout.)

No. 4 Buttress, The Sphinx.—450 feet. First winter ascent. J. R. Marshall and I. Douglas. 12th January 1958.

The buttress was well plated with snow and ice. The standard was Severe and difficulties were sustained. Time taken was $3\frac{1}{2}$ hours.

No. 4 Buttress, The Pyramid.—300 feet. First winter ascent. J. R. Marshall and I. Douglas. 12th January 1958.

Excellent conditions were present on this ascent and the standard was about Very Difficult. Time taken, $1\frac{1}{2}$ hours.

No. 3 Buttress, Central Gully.—Climbed on 12th January 1958 by J. Clarkson and J. Waddell (both J.M.C.S., Edinburgh).

This is a natural winter line following a shallow gully to the left of centre route. Avoid a large ice-fall on left and move right over iced rocks into gully. Some short easy pitches are followed by two longer difficult ice-pitches of 35 ft. each. Avoid a thinly iced slab at the narrows by rocks on right and re-enter gully, later climbing snow to the top.

Stob Coire Nan Lochan.

Twisting Gully, Right Fork.—First winter ascent. J. R. Marshall and I. D. Haig. January 1958.

The right fork was followed throughout to join the original route high up the face. The main pitch was a difficult iced chimney with an awkward bulge at the top.

Pinnacle Buttress (see Journal, 1954).—First winter ascent. L. S. Lovat and N. G. Harthill. 5th January 1958.

The line taken was the groove springing up from the foot of the gully on the east face of the buttress. Much snow. Severe. Time taken, $1\frac{1}{2}$ hours.

Gearr Aonach, Glencoe Face.—J. R. Marshall, L. S. Lovat and G. J. Ritchie climbed a route (450 feet, Severe) on the very steep face some distance to the right of Chimney and Face Route in the centre of the Glencoe Face (see *Journal*, 1950). Details will be available later.

Garbh Bheinn.

Pinnacle Ridge, South Face, Blockhead.—210 feet, Very Severe. R. Smith and V. Burton (E.U.M.C.). March 1957. A dark crack runs up the middle of the south face of the lower pinnacle of Pinnacle Ridge.

Start at a pillar (15 ft.) just right of the crack. Climb the pillar by the edge to reach a recess above it where there is a belay (S.). Descend 2 ft., step out left, and climb the shallow scoop above for 30 ft. to some small flakes. Move left a few feet to a stance and climb the open corner above. Break out from under an overhang to a good flake hold on the right and pull leftwards round a loose block to reach a recess where there is no good belay (V.S., 65 ft.). Continue up the slab on the right to a good block belay at 20 ft. (V.D.). The last pitch of 90 ft. (also V.D.) follows the exposed arête to reach a huge block belay.

Arrochar District.

Creag Tharsuinn, S.E. Face, Solo Buttress.—250 feet, Very Difficult. R. D. B. Stewart. June 1953. Follows the buttress at foot of Rake.

Climb crack near left end of buttress to within 15 ft. of overhanging slab, then traverse right to a deep gully which leads to grass expanse below second tier of rock. A descending leftward traverse to foot of second tier is followed by ascent of wide-bottomed gully, keeping to right branch where it divides. Where gully debouches on a shelf, traverse right to end of shelf, then climb up and left round projecting block to face of buttress which is crossed by an easy ledge to a 15-ft. wall. Climb wall and traverse left to finish by a small prominent gully.

Ben Ime, N.E. Face.—Direct start, Ben's Fault. 100 feet, Very Difficult. R. D. B. Stewart, S. Horn, A. Kidd, A. N. Other. February 1957. This is a direct ascent of lower part of fault, and covers the section which was by-passed on the first ascent.

Ben Ime, N.E. Face, Airy Ridge.—300 feet, Very Difficult. R. D. B. Stewart and R. R. Shaw. 30th June 1957. Follows extreme angle of main crag to right of Ben's Fault.

(1) 100 ft. Start near lowest part of ridge and climb by grass ledges to boulder belay directly above. (2) 70 ft. Climb a gully to a grass patch. (3) 60 ft. Move to right end of grass patch and climb the leftward of two grooves to wide grass ledge. (4) Climb right along ledge to top of section. (5) 60 ft. Climb arête on left-hand side of final rock mass.

Cobbler, Glueless Groove.—180 feet, Very Severe. Climbed by R. Smith, Edinburgh U.M.C., in June 1957.

Route is on west face of South Peak between Dicer's Groove and Ithuriel's Wall.

Climb a tapering groove with a crack curving slightly right, and then straight to ledge along which Ithuriel's Wall route escapes

leftward off the face. Above is a short steep wall.

(1) 100 ft. Climb groove to stance and belay on right. (2) 40 ft. Swing back into groove and climb to ledge. (3) 40 ft. Climb wall above, going slightly left for 20 ft. to below quartz blotches, then back right along an overhung shelf to finish near the top of Gladiator's Groove.

In Memoriam.

SIR JOHN STIRLING MAXWELL.

WITH the passing of Sir John Stirling Maxwell on 30th May 1956, Scotland lost an outstanding citizen, and the Club their Hon. President and constant and generous friend.

He was a man of amazing versatility and ability, a Member of Parliament, Chairman of the Forestry Commission, of Paisley Abbey Restoration Committee, an outstanding gardener, an amateur painter of more than average ability, one of the founders of the National Trust for Scotland, and donor of the first property gifted to it (Crookston Castle), an enlightened and publicspirited landlord, and always a generous and understanding supporter of countless good causes in the public interest

There is no need here to write a full obituary for that has been so well done at the time of his death by those well fitted to do it, and the fine appreciation by Sir James Ferguson in the Glasgow Herald of 1st June 1956 ends with these words: "Sir John Stirling Maxwell will long be remembered for what he did, but still longer for what he was."

As for the S.M.C., Sir John was our Hon. President from 1943 to 1956; he was ever helpful in our negotiations with landowners for our Meets, and in June 1933 he lent

us his lovely lodge of Corrour for a memorable week-end of glorious sunshine, staffing it specially from Pollok. He will indeed be long remembered with gratitude and admiration.

J. S. M. JACK.

ARTHUR G. MURRAY, 1898-1957.

ARTHUR G. MURRAY died in July of this year. Overwork contributed to his death at a comparatively early age. He joined the Club in 1931 with useful qualifications which included not only climbing in Scotland but three seasons in the Alps. He was a regular attender at Meets and climbed consistently in Scotland throughout the year. When Dr Macphee was revising the Ben Nevis Guide Book Arthur Murray took part in many of his expeditions to verify old routes and to explore new ones. He was a steady and reliable climber. I had the privilege of climbing with him in the Engadine, Pennines and Mont Blanc area. It had always been one of his ambitions to climb the Matterhorn. This he achieved by ascending the Hörnli Ridge, descending by the Italian side and recrossing to Zermatt the same day by the Furggioch. I well remember his boyish joy in having accomplished this on a perfect day.

He served on the Committee of the Club from 1945 to 1948 and as Vice-President from 1953 to 1955. He joined the Alpine Club in 1951. He joined the Scottish Ski Club in 1931, a year after it was restarted. He was a very competent skier with a good eye for the country, and as he was always under control he was deceptively fast. He normally visited Switzerland about Christmas time and was often accompanied by some of his younger relatives.

His outside interests were so varied that without a reference to them this note would be incomplete. Following the example of his father he became a member of Glasgow Town Council in 1945, giving special

attention to housing and planning. He became a bailie and in 1952 was Senior Magistrate of the city. He retired owing to ill health in December 1956. The rough and tumble of municipal politics was not specially congenial to a man of his sensitive nature, but his sense of duty made him inflexible in his course, and his honesty of purpose won him the respect and even affection of those who did not always share his views. He had an intense interest in art, music and literature, and for many years was on the Executive Committee of the Scottish Orchestra, latterly as Chairman. He was lay Vice-President of the Glasgow Art Club and was for some years on the Committee of the Royal Glasgow Institute of Fine Arts. For a number of years he was on the Committee of the Royal Scottish Automobile Club and was Chairman from 1953 to 1954. He was a member of Prestwick Golf Club.

To take part in an expedition with a man of such wide and varied interests, which he combined with a keen mind, could not but be an exceptional pleasure, and we who had that privilege will always remember the days we spent together.

ALEXANDER HARRISON.

ERIC P. BUCHANAN, 1888-1957.

IT was Eric Buchanan's father who introduced him and his elder brother, J. H. Buchanan, to the hills early in their lives. Eric's father died when he was quite young, but his love for the hills continued to develop during holidays in Speyside and elsewhere in the Highlands. As they became older the two brothers frequently went on the 4 A.M. train to the Highlands to spend day holidays in the mountains. Up to this point they had mainly done hill walking, but friendship with the late Charlie Inglis Clark led to their taking up rock climbing and climbing under snow conditions. The late A. C. McLaren who

lived at Crianlarich was a frequent companion and they also were fortunate in learning from Harold Raeburn the dividing line between safe climbing and unjustifiable risks.

Buchanan joined the Club in 1910 and up to the time of the 1914-18 War spent much of his time in the hills. He joined up and obtained a commission, but was rejected for foreign service. When he returned he found that he was not fit for long days but continued his interest in the Club, acting as Assistant Editor of the *Journal* in 1920 and as Editor from 1921 to 1924. He maintained the high standard set by William Douglas and F. S. Goggs in spite of having to do most of his editorial work late at night or early in the morning, after a hard day's work. He was responsible for developing and increasing the advertising revenue of the *Journal*. He also expressed his love of the hills in his water colour studies.

In his latter years his main interest outside his business was his garden. By profession he was a Law Agent and at the date of his death was senior partner of Steedman, Ramage & Co., W.S., Edinburgh, specialising in commercial work and company law. He had a large circle of friends who will remember him particularly for his kindness and his steadfastness.

ALEXANDER HARRISON.

DANIEL McKELLAR.

THE sudden death of Dan McKellar came to all who knew him as something more than the conventional shock. It was almost unbelievable that such a vigorous personality could so soon be silenced.

Dan joined the Club in 1945 and was scarcely known to any of the members at that time; but very soon the name of McKellar was heard wherever West of Scotland climbers gathered. He was a tough, vigorous climber without being brilliant, but it was not his climbing skill that arrested one, it was the personality of the man. To climb with him once or even to be in his company for a

few minutes was sufficient to imprint him indelibly on one's mind. He appeared larger than life.

During the war, McKellar climbed with the Commandos in Wales and later in the Lebanon. After the war he was to be found on Scottish hills during most week-ends. He spent several seasons in the Alps both climbing and ski-ing. He never kept himself in any sort of training should he be away from the hills for a time; he would go out to the Alps, and from the outset of a holiday would drive himself as fast as the fastest man in training. This effort must certainly have placed a great strain on his heart and may well have contributed to the accident at his home that led to his death.

He undertook long and difficult ski tours that might have been considered beyond his skill, but he absorbed his punishment like a punch-bag, and laughed and roistered his way ahead. There were times when his boisterous zest was hard to tolerate, and anyone who heard McKellar at some unearthly hour of the morning turn out of his bunk and roar out in his sergeant major's voice "Stand by your beds!" must have wished that Dan had turned his attention to some other sport.

He had a wonderful way with old people and with children, who adored him. He left a widow, having married not long before his death. Dan had no meanness in him and could well deserve the title of "Happy Warrior." He will live always in the memory of those who knew him.

A. M. MACALPINE.



THE CÀRN MÒR DEARG ARÊTE Looking across Glen Nevis to Sgùrr a'Mhaim and Stob Bàn

PROCEEDINGS OF THE CLUB.

EASTER MEET, 1957—GLENSPEAN AND C.I.C. HUT.

AT one time it was feared that petrol rationing might prevent many people from coming to the Meet, but an increase in the ration solved this problem. The main centre was at Glenspean Lodge, but others were at Roy Bridge, Spean Bridge, the Hut and at Fort William. There was a good deal of visiting, and Dr Berkeley delighted those at Glenspean Lodge by bringing Ian Charleson, who does not appear to have slept anywhere, and J. S. M. Jack, who stayed at Fort William but managed to get round to most of the centres, for an evening's visit.

The weather was fine with little rain, and there were glorious views from the tops. Everyone seemed to have found their habitation comfortable, while the party at the Hut combined climbing with hard work on the fabric.

At Glenspean Lodge: W. B. Speirs (President); P. H. Armour-Brown, W. J. Bannister, I. M. Campbell, M. H. Cooke, Arthur Dixon, R. R. Elton, J. F. M. Frew, R. R. S. Higgins, R. M. Gall Inglis, A. W. Laughland, G. G. Macphee, D. H. McPherson, R. W. Martin, Theo. Nicholson, C. R. Steven, T. E. Thomson (members); with J. J. A. Armour-Brown, J. S. M. Blair, J. S. Blair and J. G. Speirs (guests).

At Roy Bridge: J. W. Baxter, D. L. Campbell, J. B. Home, J. R. Marshall, G. M. Smith, R. D. Walton.

At Spean Bridge: W. C. Carmichael, J. N. Ledingham, M. Morrison, F. R. Wylie.

At the Hut: P. H. Armour-Brown, D. J. Bennet, J. E. Proom, C. G. M. Slesser, A. G. Waldie (members); and J. J. A. Armour-Brown and R. Shepherd (guests).

The following expeditions were reported:-

Friday, 19th April.—Proom and Shepherd up No. 2 gully and down No. 5 on Nevis; Spean Bridge party on Stob Choire Claurigh, Stob Coire an Laoigh, Sgurr Choinnich Mor; Inglis, Thomson and Home traversed the Grey Corries; M'Pherson, Elton and Cooke were on Stob a' Choire Mheadhoin and Stob Coire Easain; Speirs,

son and J. S. Blair traversed the Aonach Eagach; Campbell and Martin were on Chlianaig; the Armour-Browns on Buachaille Etive Mor.

Saturday, 20th April.-Spean Bridge party did Carn Dearg and Beinn Bheoil from Loch Pattack (J. N. Ledingham completing his last two Munros on the mainland); the Armour-Browns inspected the Parallel Roads; Proom climbed the Douglas Boulder; Slesser and Waldie having worked at the hut, climbed the Tower Ridge and assisted in the recovery of a dead member of an English party at the Little Tower; J. S. M. Jack walked to the hut and helped the working party; Walton and Baxter did Stob Choire Claurigh, Stob Coire Gaibhre, Stob á Choire Leith, Stob Coire an Laoigh, Caisteal and Stob Coire Cath na Sine; D. L. Campbell and Smith were on Chno Dearg, Meall Garbh and Stob Coire Sgriodain; Higgins and I. M. Campbell on Beinn a' Chaoruinn, Laughland and Gall Inglis were with them and included Creag Meaghaidh; Elton and Macphee were on Aonach Mor, M'Pherson, Nicholson and Cooke were with them and continued to Aonach Beag; Dixon and Bannister on Beinn a' Chaoruinn; the Speirs and J. S. Blair were with them and went on to Creag Meaghaidh.

Sunday, 21st April.-Carmichael, Morrison and Wylie climbed Stob Coire Sgriodain, Meall Garbh and Chno Dearg; Armour-Brown and son climbed to the Great Tower; Slesser, Waldie and Bennet, having worked in the hut, were joined by Charleson and did the Castle Ridge, the first three descending No. 4 gully; Walton, Home, Baxter and Marshall did An Cearcallach, Meall Coire Choille-rais, Puist Coire Ardair and Creag Meaghaidh; D. L. Campbell and Smith were on Stob Coire an Laoigh, Stob Coire an Easain and Sgurr Choinnich Mor; Inglis, Martin, I. M. Campbell and Higgins represented the Club at church, and the two latter with Frew included Sgriodain; Bannister and Dixon did three tops on Creag Meaghaidh; Nicholson and M'Pherson were on Sgurr Thuilm and Sgurr Coireachan; the Speirs, J. S. Blair, Laughland and Campbell Steven were on Stob a' Coire Mheadhoin and Stob Coire Easain; Elton, Macphee and Cooke on Stob Ban and Stob Choire Claurigh.

Monday, 22nd April.—Nicholson and Steven were on Stob Ban where they met Morrison, Wylie and Carmichael; Elton, Thomson, I. M. Campbell and Cooke were on two tops of Creag Meaghaidh; the Armour-Browns began the N.E. Buttress of Nevis and finally reached the summit by the arête; Home and Marshall were on Chno Dearg, Meall Garbh and Stob Coire Sgriodain; Walton and Baxter were on Stob Coire Easain, Stob a' Choire Mheadhoin, Meall Cian Dearg; Slesser and Waldie climbed Route 1 on Carn Dearg, then descended Tower Ridge to the gap and then Observatory Gully; Bennet crossed from the hut to Kinlochleven over Binnein Mor, Na Gruagaichean and Stob Coire a' Chairn.

NEW YEAR MEET, 1958—CRIANLARICH AND GLENCOE.

THE main centre of the Meet was at Crianlarich Hotel, where thirty-three members and five guests were present: four other members are recorded to have stayed at Lagangarbh, though others are thought to have visited or even to have stayed a night. The weather, stormy at first, became very cold and clear at New Year and then overcast with mist and drizzle, turning into snow showers on the last day. Several members showed considerable ability in a very happy hogmanay celebration, some going on to first-foot their friends at Inverarnan. The Meet was energetic, breakfast was served at 8 o'clock each day and the Club precedent of late starts was consistently broken. The hotel, as usual, made us very comfortable, and our thanks are due to Miss Kilpatrick and her staff, to E. C. Thomson for lending us his projector and screen, and to him and other members for showing their slides; and we must not forget Jack's poetry.

The following were at Crianlarich: W. B. Speirs (President); P. D. Baird, J. W. Baxter, J. H. B. Bell, W. C. Carmichael, E. S. Chapman, I. G. Charleson, M. H. Cooke, W. M. Docharty, C. V. Dodgson, G. J. F. Dutton, R. R. Elton, A. H. Hendry, Ross Higgins, R. M. Gall Inglis, J. S. M. Jack, A. W. Laughland, L. S. Lovat, J. E. MacEwen, W. M. Mackenzie, T. D. Mackinnon, D. H. McPherson, R. W. Martin, R. W. B. Morris, W. H. Murray, T. Nicholson, F. E. O'Riordan, G. Peat, G. S. Roger, E. C. Thomson, H. S. Thompson, T. E. Thomson, F. R. Wylie (members); with C. M. Allan, N. A. Baird, G. Little, K. Macrae and W. M. Prentice (guests). Members visiting the Meet were: W. L. G. Duff, R. Grieve, J. C. Henderson, J. Marshall, C. Rose, A. D. R. Scott, G. R. Speirs and J. Wilson.

At Lagangarbh: E. S. Chapman, J. E. Proom, C. G. M. Slesser and A. G. Waldie.

There was not much snow on the mountains, and the iron-hard frost made it a pleasure to traverse the moors

on the lower approaches, though incautious rapid descents of apparently easy slopes might well be penalised by unexpected slides over masses of ice thinly dusted with snow. About midnight on Hogmanay there was a brilliant display of aurora, with periodic flashes of crimson streamers on the east side of the pole. Two parties ascended the central gully of Ben Lui and another (consisting of Wilson, MacEwen and Roger) climbed the upper couloir of Stob Ghabhar in little over an hour. Another (Weir, Brooker, Patey) ascended it also, even much more quickly! The only rock climbing reported was on Lagangarbh Buttress by Charleson, Hendry and Peat, and the East Ribs by Rose and Marshall.

Most parties put in strenuous days on the hills, often long traverses. As a result of some discussion at the Meet it was decided that it would be sufficient to record the main hills climbed and leave it to the individuals concerned to recall their own parties and performances. The following groups of hills were climbed at one time or another:—

- Beinn Chabhair, An Caisteal, Beinn a' Chroin, Beinn Tulaichean, Cruach Ardrain and Stob Garbh.
- 2. Beinn a' Chleibh, Bens Lui, Oss and Dubhchraig.
- 3. Ben More, Stobinian, Stob Coire an Lochan.
- 4. Beinn Chaluim, Beinn Cheathaich, Meall Glas.
- Bens Dorain, Dothaidh, Achaladair and Chreachain.
- 6. Meall nan Eun, Stob Ghabhar, Stob a' Choire Odhair, Meall a' Bhuiridh.
- Ben Lawers, Ben Ghlas, Meall Corranaich, Meall a' Choire Leith, Meall nan Tarmachan.

The record also shows some peaks such as Ben a' Chasteil (Auch) and Beinn Odhar which are beneath the approved Munro level.

Annual General Meeting.

THE 69th A.G.M. of the Club was held in the St Enoch Hotel, Glasgow, on Saturday, 7th December 1957, at



NOVEMBER MORNING, STRATHFILLAN Looking to Ben More and Stobinian

Iom weir

5 P.M. Mr W. B. Speirs, President, occupied the chair, the attendance being about one hundred members, but seating accommodation somewhat less. A brief summary is appended of the main points of office-bearers' reports and of subsequent business. The list of office-bearers, committees, etc., appears elsewhere.

Hon. Treasurer.—Credit balance at start of year £65, 15s, 4d, and at end of year £23, 16s, 4d. Noticeable points were as follows: Net cost of Journal borne by funds, £188, 16s., similar to last year; printing costs and postages (including list of members, £50, 4s.) up by £35, 5s.; cost of A.G.M. functions less; Edinburgh district expenses less by £30 and Glasgow slightly greater. Both districts acquired new projection screens. The Funds showed an increase, owing to the fact that no new Guide Book has been published recently, but all are selling. The increase is therefore earmarked for new publications. The Commutation Fund has not gained from any new life membership.

The Hon. Secretary reported the deaths of four members—D. McKellar, E. P. Buchanan, A. G. Murray and G. M. Wood. At the October meeting of Committee five new members were elected and the Club extends a cordial welcome to these—William D. Brooker, Ian G. Cumming, Nigel M. Orr, Hugh Stirling and Horace S. Thompson. The present membership total stands at 332. He then commented on the more notable climbing activities of members.

Hon. Editor.—Size of No. 148 issue (1957), despite economy of space, increased to 104 pages; printing number of 900 would appear to be just low enough. Costs about £390, similar to last year; net return on advertisements about £21; sales revenue over £94; net cost to Club per member approximately 12s. W. H. Murray raised the question of a return to two issues per year. The Editor, pointing out that he would retire after editing the 1959 issue, asked that a sub-committee might be appointed to recommend a successor in time for working along with himself on his final number. Both the aforementioned proposals were passed on to the Committee for consideration.

Hon. Guide Books General Editor.—" Skye" would be published early in the year, price 9s. 6d. W. M. McKenzie was thanked for his work. "Glencoe," in two volumes (Buachaille, and the rest), should be ready by Easter. For this work L. S. Lovat was thanked. It was hoped that "Arran" might be ready in 1958. "Cairngorms" would be produced as soon as possible after receipt of the manuscripts from Malcolm Smith. Income from sales during the year had been extremely satisfactory, whereas expenditure (on binding only) was moderate.

District Conveners.—In the East eleven lectures were held with an average attendance of forty-seven. Members attended bus meets with the J.M.C.S. and E.M.C. R. W. MacLennan is the new Secretary.

In the West search continues for a more convenient Club Room, and assistance from members would be welcomed. The usual informal car meets have taken place along with the I.M.C.S. The lectures were of high standard. The Committee complain of members who retain library books too long. J. C. Donaldson is now Convener and J. M. Johnstone Secretary.

The London Convener finds, alas, little support from members in the area.

Library and Slide Collection.—The Hon. Librarian has circulated a list of additions to the Library since those reported in the 1957 Journal. Thanks are due to E. C. Thomson for two copies of "On Climbing" by Charles Evans, and to B. H. Humble for two books of press-cuttings dealing with reports of mountain accidents over the previous thirty years. The Hon. Slide Custodian noted fewer requests for slides, but more emphasis on the 2-in, collection, which continued to grow by donations from members, with especial thanks due to Douglas Scott and Scott Johnstone. Storage of the older, larger slides presented a growing problem.

Huts Sub-Committee.-The C.I.C. Hut showed a small decrease of hut-nights, with only ten members using the hut. Coal (61 tons), paraffin (120 gals.) and a Romesse stove were installed. The hut was broken into twice, but damage has been repaired. Reserve fund, owing to expenditure, has been reduced by about £200. The Ling Hut was again most popular about Easter. Coal has been delivered to the hut direct, by the voluntary help of Hector Cameron with the Coulin Estate tractor. Hut-nights at Lagangarbh increased by 14 per cent. Our members accounted for 14 per cent., J.M.C.S. for 35 per cent. Wm. Bennet and his helpers have carried out repair and maintenance work-kitchen-living room partition has been removed, a Calor geyser installed, the byre floored with concrete and skylights fitted, so that it now provides simple overflow accommodation. L. S. Lovat, after five years of devoted service as Custodian, has retired and was replaced by C. G. M. Slesser.

First-Aid Sub-Committee.—In Speyside the rescue kit, formerly at Coylumbridge, is now at the house of the Nature Conservancy Warden, Mr Macdonald, at Achnagoichan, near the locked gate at the junction of Einich, Larig and Loch an Eilein roads. During February Dr Duff ran a course of instruction in mountain rescue at Fort William. Thanks are due to the R.A.F. Mountain Rescue teams and all others who have helped in search and rescue operations.

Meets.-The following 1959 Meets were fixed: New Year at Newtonmore and Lagangarbh; Easter at Ullapool, C.I.C. and Ling Huts.

Election of Office-bearers, etc.—The Committee nominations were accepted by the meeting. The 1958 A.G.M., Reception and Dinner was fixed for Saturday, 6th December, at Edinburgh. Tom Weir was deputed to represent the Club at the inquiry on the proposed flooding of Glen Strathfarrar by the Hydro-Electric Board.

After a humorous discussion the Club decided to oppose the proposal to erect a chair-lift up Ben Nevis, but to support the Fort

William Town Council in their efforts to preserve Glen Nevis.

Reception and Dinner.

The Annual Reception was held in the St Enoch Hotel on the afternoon of Saturday, 7th December 1957. The President and Mrs Speirs received 150 members and guests. They were later entertained by Douglas Scott, who showed a selection of his finest slides of Scottish scenery and was enthusiastically applauded.

The Annual Dinner was held after the meeting, at 7.30 P.M. The President, W. B. Speirs, presided over a gathering of 117 members and guests, including representatives of the Alpine Club, Cairngorm Club, Fell and Rock Club, Grampian Club, J.M.C.S., Midland Association of Mountaineers, Moray M.C., Scottish Ski Club and Yorkshire Ramblers. The President outlined the year's activities and Dick Brown gave the Club Song before Bill Murray proposed "Our Guests and Kindred Clubs." Sir John Hunt replied for the Guests and Basil Goodfellow of the B.M.C. for the Kindred Clubs.

Later, the informal part of the meeting was signalled by a vocal effort by Len Lovat and Stanley Stewart—the words rather unintelligible but the import perfectly clear.

THE JUNIOR MOUNTAINEERING CLUB OF SCOTLAND.

Annual General Meeting.

THE A.G.M. and Dinner of the whole Club was held in the Grand Hotel, Fort William, on 15th February 1958, when a very successful meeting was attended by some forty-five members from Lochaber, Glasgow, Perth and Edinburgh.

The business consisted of Secretaries' reports, from which it appeared that all the sections were fairly active, and the alteration to the rule concerning Associate Members. Associate Members may now vote at all J.M.C.S. meetings, provided that they do not exceed 25 per cent. of all members present, but they may not hold office in section committees. Other business discussed was the proposed erection of shelters on Ben Nevis and the possible objections that could be raised if the Hydro-Electric Board continued with their scheme in Glen Nevis and flooded Steill Hut.

After the meeting, members scattered to many parts of the country, and hills visited on the Sunday by various people included the Mamores, the Grey Corries, Creag Meaghaidh and the tops at the head of Glen Finnan. Two of the Glasgow "tigers" even went on an expedition to Mallaig! The weather in all cases was cold and windy, with snow squalls on high ground.

Edinburgh Section.—For a second successive year 21 new members have been admitted. Fourteen members have either resigned or been removed from the list for arrears of subscription, and the present membership stands at 83, with 8 associate members.

During the year 13 successful bus meets have been held, the places visited being Glencoe, Kinlochleven, Fort William, Linn of Dee, Aviemore, Ardgour, Kintail and Loch Laggan. The average attendance was 32. Unfortunately, the weather at bus meets was often bad. Indoor meets consisting of a talk or slide show have been held monthly, and a notable occasion was in April, when Myrtle Emslie gave a slide show describing her trip to New Zealand and Australia. Evening meets have also been held at Salisbury Crags in Edinburgh.

Members from Edinburgh are now ranging far afield, and have been seen among the Cornish sea cliffs, on the grim rock faces behind Montenvers and on the cliffs of Llanberis. On most summer week-ends there is a collection of tents at Gunpowder Green under Buachaille. Notable climbing events of the year from Edinburgh have included a new winter route on the north-east face of Carn Dearg by H. Brunton and J. Clarkson, the S-crack on the Cobbler led by R. Smith in damp conditions, many of the Very Severe climbs on Buachaille led by R. Smith and an ascent of the south ridge of the Aiguille Noire de Peuterey by R. Smith and J. Clarkson.

Finances remain sound, and the annual subscription is 10s.; the sum of £5 has been allocated to start a library of climbing guide books. Honorary officials are J. Russell (President) and

R. MacLennan (Vice-President). The President is J. Bell and the Secretary is J. Clarkson, N.C.R.E., St Leonard's Hill, Dunfermline.

Glasgow Section.—The Glasgow Section has on the whole had a successful year, and the usual hard core of members have been steadily active. The Club has managed to remain solvent and even shows a slight profit. Membership has fallen slightly, and although there were 15 new members these have been offset by resignations, and the total membership at the end of 1957 stood at 125.

Fifteen meets were proposed, of which 13 took place and were well attended. During the petrol shortage 4 bus meets were organised and were well supported, but later the buses were abandoned in favour of cars. Ten lectures and a photographic competition were organised in conjunction with the Western District S.M.C. and were all of the usual high standard. Special mention may be made of Dr T. Patey's lecture on the ascent of the Mustagh Tower. The Annual Dinner was one of the best in recent years, when some 45 members and guests assembled. J. Cunningham of the Creag Dhu M.C. was the guest of honour.

Proposed Hut in Skye.—An important step was taken when the Section agreed to administer the proposed climbing hut on the shore of Loch Scavaig, which is being built by Messrs Monro and Drummond-Smith in memory of their sons who were killed in a climbing accident on Ben Nevis. The hut is partially built and should be completed in 1958.

Journal.—The Section started a new venture by publishing their own independent journal to record their activities, and present articles of mountaineering interest. This first edition was an outstanding success.

Several members were abroad in the summer, but most of their activities were seriously curtailed by bad weather.

Office-bearers.—Hon. President, J. Nimlin; Hon. Vice-President, J. S. Stewart; Hon. Member, W. H. Murray; President, J. Dunn; Vice-President, K. Bryan; Hon. Treasurer, D. Barclay; Hon. Secretary, C. R. Ford, 8 Hillfoot Avenue, Bearsden, Glasgow.

Perth Section.—During the past year the membership of the Club has increased to 42, and our financial standing is still very good.

We have run the bus each month with varying success, which in the end worked out at an average of 22 members per journey.

The hills visited covered those within a range of 90 miles from Perth, this being our limit for a day's run. We also had a week-end outing to Derry Lodge which was highly successful in all respects.

Apart from the outings various parties from the Club spent holidays in some of the remote hills in Scotland, and though we cannot claim new climbs for our members, there have been some very good rock climbs recorded. Our Annual Dinner on this occasion was held at Lochearnhead Hotel and was well attended. The change of venue was necessitated by the Spittal Hotel being burned down.

The office-bearers comprise Hon. President, J. Anton; Hon. Vice-President, J. Proom; President, A. Brown; Secretary and

Treasurer, J. Grant, 37 Burghmuir Road, Perth.

Lochaber Section.—The membership of Lochaber Section stood at the end of 1957 at 30. Club activity has increased over the past year and a number of meets have been organised this winter. Members have been turning out to assist the police in mountain rescues in the area, and it was to increase the efficiency of these rescues that Mr Duff and Dr Berkeley arranged five lectures last spring, to which the police were invited.

As a result of the loss of life on Carn Dearg at Christmas 1956, £100 was offered to anyone willing to build shelters in the area. The Section agreed to erect two shelters, one on Carn Dearg and one near the Observatory on the Ben. One of these shelters has now arrived and will be erected soon. The shelters, which are made of heavy-gauge corrugated steel on a framework of channel steel, measure 8 by 8 ft. and have a doorway 3 ft. by 3 ft. 4 in. They cost £71 each, and the Section hope to bear part of the cost.

There is a possibility that the Section may lose Steill Hut during the next year or so if the area round the Hut is used for a hydro-electric scheme. The Section is prepared to lodge a claim as soon as official notification is received, and it is in contact with the Rights of Way Society over the possible loss of the path from Glen Nevis to Rannoch,

owing to the same scheme.

The Annual Dinner was held in December, when T. Mackinnon (S.M.C.) gave an illustrated talk on his climbs in the Alps and Himalayas. There was a record attendance of over 65 at this Dinner.

The office-bearers comprise Hon. President, J. F. Hamilton; Hon. Member, J. Ness; President, M. Hutchison; Vice-President, D. McDonald; Treasurer and Hut Custodian, J. Sutherland; Secretary, J. Cameron Phin, Royal Bank of Scotland, Fort William.

London Section.—The London Section has had a successful year and there are signs that attendance at Club Meets is improving. Membership consists of 53 members, there having been during the year 2 transfers, 3 resignations and 5 new members. Fourteen outdoor meets have been held, located as follows: Sandstone rocks 6, North Wales 5, Cheddar and Avon Gorges 2, Surrey (a walk) 1. The distance from good mountaineering country has been the main difficulty, as week-ends in North Wales mean travelling both ways by night. Indoor meets have been held in conjunction with the Mountaineering Section of the Camping Club.

Recently the Section has taken over the administration of Linneraineach as a climbing hut, and have purchased some basic equipment. The Section hopes that this will strengthen their ties with Scottish mountaineering. They also wish to acknowledge their indebtedness to Mr Drake the lessee.

Many members have visited the Scottish hills during the year, and one member on his way back from Scotland stopped off in North Wales to traverse the Welsh three-thousanders in under 12 hours. There was no official Alpine Meet this year, but members visited the Dauphiné, Arolla, Zermatt, Chamonix, the Stubai, Gross Glockner and Ortler groups, and achieved a number of good climbs. One member was in a party which is claiming a new route in the Massif de Chambeyron.

The office-bearers comprise Hon. President, R. G. Folkard; Hon. Vice-President, E. R. Zenthon; President, K. R. Cox; Vice-President, R. G. Cornish; Secretary and Treasurer, K. N. Reed, Ardenlea, 61 Shawley Way, Epsom, Surrey.

The Hut Custodian of Linneraineach, the cottage beside Loch Lurgain, Coigach, is K. R. Cox, 78 Salisbury Road, Bromley, Kent. For this arrangement the Section is indebted to Mr Drake the lessee, the administration having been taken over from the trustees of the Munro-Drummond Smith Memorial.

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

Africa and Alps, Account by A. L. Cram.

Although the Mau Mau rebellion faded away many parts of Kenya remained closed to climbers, but my wife and I were able to have a comfortable number of hunting and climbing safaris from 1955 to 1957. In April 1955 we walked up Kilimanjaro (19,350 ft.) and found a probable new route up the west face of Mawenzi (ca. 17,000 ft.), reaching two tops of over 16,000 ft., which may have been first ascents. Several other new routes were prospected, hampered by heavy snowfalls. We made several visits to the Turkana district, in the north of Kenya, from Isiolo and climbed Shaba (5,322 ft.) and Gakha Bute (3,510 ft.)-a dolomite-like tower of red rock, with access to top by two easy chimneys-a first ascent. In August we paid several visits to Southern Masailand and climbed Olempoti (ca. 8,000 ft.) and Olembarasha (ca. 8,000 ft.); also Ngitu and Marwe and a number of smaller hills. In September we went to the Belgian Congo and ascended Muhavura (13,547 ft.), the highest point of the Bafumbiro volcanoes, the gorilla sanctuary, a horrid ascent through dense bush and then over lava in pouring rain. We explored also the Ancholi volcanoes, the Ruwenzori foothills and other ranges in western Uganda.

In January 1956 we spent some weeks in the Northern Frontier Province and visited several outposts. From Maralal we went up to the great plateau (8,304 ft.) and walked over Losiolo (8,404 ft.),

Kurugi (7,649 ft.), Nabilogoyu (7,090 ft.) and Moridjo (7,120 ft.), a fine ridge walk, complicated a little by game. From Wamba we explored the longest range in Kenya, the Matthews Range. This is thickly covered with dense bush and infested with rhino, elephant and buffalo, besides being rocky and made tedious by the need to carry a loaded, heavy rifle. There is a rhino in every acre of bush. Sometimes they ran and sometimes we ran. It was thirsty work in a hot sun. We had the advantage of local skilled guides who never failed to find wild honey for us. We scrambled up the highest point, Uraguess (8,820 ft.), also Tipito (5,000 ft.), Lomolok, Ol Doinyo Lengiyo (7,792 ft.), Loweragoi (5,186 ft.) and Lolokwi (5,500 ft.). Probably some of these were first ascents by Europeans. It is a rough refreshing place, hard on clothes and tempers, and two or three thousand years removed from this modern age. We went on to Marsabit (21° N. lat.) beyond the Kaisut Desert and visited Lake Paradise, and saw some marvellous tuskers in the hills. We walked up several points, but others were too much for us, either from heat, lack of water or sheer distance. We went up Gof Sagorte Guda (3,061 ft.), attempted Lodernath (4,657 ft.) and Losai Peak (3,841 ft.) where we found an old lake bed and a vast accumulation of stone implements. The rock of the peak is polished and may have been used as a refuge long ago. In March we attempted Longido (11,000 ft.) and Namanga Mountain (9,000 ft.), but were halted by dense bush and immovable herds of big game.

In July, August and September we were in the Alps and attempted to pass from end to end using a trailer caravan as a base. We left Cap Ferrat at the end of June and began in the Monte Viso group where we had a number of ascents from Pieno del Re. The snow was still too deep. From there we went up to the group round Uja Cimarella and had some good days; one on the Punta Maria was distinguished for fine weather. We spent a long time in the Val d'Aosta. The Gran Paradiso gave us the finest day of our trip, but it rained dismally on the Grivola. From Courmayeur and the Torino Hut we made attempts on Mont Blanc but the weather and conditions were poor. We tried from the Col du Midi, from the Grands Mulets and from the Aiguille du Goûter, but were rather put off by the fantastic number of accidents on 5th to 6th August. Half of the members of the hut left, it seemed, never to return. In appalling weather we were forced to walk from the Aiguille du Goûter Hut via Les Contamines, Les Balmes to Courmayeur over the Col du Bonhomme and Col de la Seigne, which we accomplished in less than 48 hours to find car and caravan untouched in a field after 14 days' absence. From the Gamba Hut we went up the Innominata. It was as loose as any volcano in Africa.

Another visit to the Torino Hut convinced us that the weather was beyond hope and we went on to Madonna di Campiglio in the Brenta Dolomites. The weather continued bad but we scrambled hopefully in Scottish conditions in the Cima Sella and Cima Grosti,

etc. From the Bedole and Mandrone Refuges we had more ascents in bad weather in the Pressanella group and climbed the Adamello in a race with a snowstorm from the Rifugio Caduti di Adamello. In September we were in the Wilder Kaiser and Watzmann Spitzen (Berchtesgaden) and later visited the Black Forest Hills and Vosges.

In April 1957, to our regret, it was raining once more, even in the Suk Desert in Kenya, and we could do no more than prospect the rough-looking Suk Peaks. In August we explored the gigantic east face of Mawenzi (ca. 17,000 ft.), not only unexplored but even yet beyond reach. This is a fantastically wild chain of dolomite-looking towers and needles set far above forest and square miles of dense giant heath. After cutting through the forest and heath we reached about 13,500 ft. on the S.E. ridge. In October we cut for three days towards the central ridge which might be the key to the east face and reached about 15,000 ft. Every drop of liquid had to be carried from base. It would be fatal to be bushed in the heath which is seamed with giant ravines, and a paper trail and blazes must be left. But we have at last seen into the inner sanctuary of the mountain and proved a 10-year-old theory to be correct.

The Alps.

L. S. Lovat and J. R. Marshall went to the Dolomites in mid-July and enjoyed a successful season, finishing up at Courmayeur. Lovat tells the story.

We went first to the Contrin Hut and climbed the south wall of the Marmolada, the weather breaking in the afternoon with heavy rain and snowfall. Next day we climbed the Pic Ombretta, Marshall taking one rotten ridge and I another. Now to Canazei and the Sella Hut. We climbed the north ridge of Il Pollice in rain. When this turned to snow we decided against doing anything more. Next day we went up a few hundred feet of the S.E. wall of the Sasso Levante and then found that the last of the very difficult pitches required pitons and étriers. Relying on the silence of the guide book we carried none. Roping down we made for the Forcella between our peak and Cinque Dita (Fünffingerspitz) and traversed the latter in thick mist and light rain. Next day the N.W. ridge of the 2nd Sella Tower provided a fine climb. From the col we took in the 1st Tower also. The last day we climbed the 3rd Sella Tower by the west face, the weather again breaking in the afternoon with heavy snowfall next day.

We now made for Cortina and so to Misurina and the Locatelli Hut. When we reached the S.W. face of the Cima Piccola (Kleine Zinne) of the Tre Cima del Lavaredo we saw that this route was hanging with ice in places, so we went up the ordinary route. On the following day we went up Comici's Spigolo Giallo of the Cima Piccola, a remarkable line and certainly the most difficult route of the holiday. We finished in this group by climbing the N.E. ridge

of the Cima Grande and went back to Cortina that day. We concluded the Dolomite part of our holiday by climbing the Via Dimai of the Torre Grande d'Averau, a short climb but a sweet one. It should be mentioned that the climbs on the Sella Towers, the Spigolo Giallo and the Torre Grande all involved some artificial technique.

It was a great contrast to arrive at Courmayeur two days later. In glaring heat we made for the Noire Hut and next day climbed the south ridge of the Aiguille Noire de Peuteret, reaching the summit in 11 hours from the hut, and getting back to the hut in the evening; although we certainly found the descent of the east ridge complicated but uninteresting. We next walked up to the Torino Hut, having enough food for one day's climbing, before reaching Chamonix. The sacks, sent up by télépherique were mislaid, arriving late next morning. So we had to abandon our target, the south face of the Géant, with liberal abuse on those responsible. My time ran out, but Marshall with a few extra days climbed the Roc-Grépon traverse with Mortimer Smith of Manchester before the weather broke again.

Several of our members, including the President, were at the Centenary Meet of the Alpine Club at Zermatt from 18th to 31st August. The Alpine Club dinner and the raclette party at the Riffelalp were greatly enjoyed. W. B. Speirs, G. G. Macphee, I. H. Ogilvie and C. Warren, as well as G. G. Freeman, A. K. Rawlinson and I. Hobhouse were on the Dent d'Hérens from the Schönbühl Hut (though Speirs did not finish as this was his first day, and the weather deteriorated). After the Riffelalp party on the 20th of August, George Roger and A. Robinson (J.M.C.S.), G. G. Freeman, Dr Macphee, W. B. Speirs, I. Ogilvie and Warren went to the Bétemps Hut and climbed the Nordend, Monte Rosa, on the 21st. On the 22nd Speirs, Warren and Ogilvie traversed the Lyskamm (west to east) while the others did Castor. Speirs followed with four climbs on the Riffelhorn with Emil Perrin, and then went home. Freeman, Roger and Robinson then climbed together as recorded by the first named.

G. G. Freeman, Helene Cade, Rafe Cotton and John Mawson, with Joseph Wolfart of Galtür as guide, enjoyed a period of excellent weather in the Silvretta from 25th February to 9th March. From the Heidelberger Hut above Ischl, they climbed Piz Larain, Piz Davo Sassè and Piz Tasna on ski. They climbed Breite Krone en route to the Jamtal Hut, from which Augstenberg, Gemsspitz and Jam Spitz were ascended. From the Wiesbadener Hut, Piz Buin, Silvrettahorn and Schneeglocke were climbed, the latter on the way to the Madlener Haus. From this hut they made a final excursion to the head of the Bieltal before descending to Galtür.

Freeman was also in the Alps as a guest at the Alpine Club Meet at Zermatt from 16th to 31st August. With A. K. Rawlinson and John Hobhouse he climbed Pointe de Zinal from the Schönbühl Hut,

following Sir John Hunt and his daughter on the first rope. Freeman then joined forces with G. S. Roger and A. Robinson (J.M.C.S.). After the Alpine Club's raclette party at Riffelalp, they ascended to the Bétemps Hut and climbed Nordend (following Dr Macphee's rope) and Castor on successive days. From Fluhalp, the S.W. ridge of the Rimpfischhorn and the Strahlhorn were ascended. Returning to the Bétemps Hut, the party climbed the Dufourspitze and Signalkuppe in indifferent weather on successive days and spent a chilly night at 14,965 ft. in the Margherita cabane. This, however, gave them a flying start for their final expedition, the traverse of Lyskamm from east to west, in excellent weather and snow conditions.

Dr G. Graham Macphee writes that, during his training period, he took with him a complete novice. Then, going over to Italy, he had bad weather, getting only one peak in a full week. However, he enjoyed the Alpine Club Dinner at Zermatt and took part in a futile search party. His total achievement finally added up to 17 tops, of which 13 exceeded 4,000 m. The list runs as follows:—

Crossing of Theodule Pass in soft new snow; Breithorn and Klein Matterhorn (soft snow); Pollux; Theodulehorn; Monte Rosa tops included Dufourspitz, Zumsteinspitz, Signalkuppe and then the Lyskamm; Dent Blanche (guideless, with D. Butterworth); Mont Dolent; Aiguille de Rochefort and Dôme de Rochefort with descent of S.E. ridge; Grandes Jorasses including Ptes. Walker and Whymper. (From the Dolent to Jorasses the ascents were guideless with Albert Naef); Aiguille de Triolet, with Iain Ogilvie and Donald Reynolds; Dent d'Hérens with I. Ogilvie, C. Warren and W. B. Speirs; Nordend of Monte Rosa.

A. G. Waldie was with J. M. Johnstone's party in the Oberland and climbed the Blumlisalphorn before the onset of bad weather which drove him to Lago Maggiore. On 23rd July he went to Macugnaga, traversing thence the Pizzo Nero and Pizzo Bianco and crossing the Monte Moro to Saas Fee. He crossed to St Niklaus by Hutteggen and Hannigalp, and then climbed the Schwartzhorn on the way to Gruben by the Augstbord Pass. On 27th July he crossed to Zinal by the Forcletta Pass, attempting the Roc de Budri which proved too rotten. Next day he climbed the Diablons with Francis Tardent, but a traverse was not possible owing to bad snow conditions. From the Tracuit Hut, with a large party, he climbed the Bieshorn. From the Mountet Hut a couloir in the wall of the Bouquetin gave a fine climb on to the Pigne de la Lex, finishing at the Moiry Hut. On 2nd August he crossed the Col de Couronne to Les Haudères, finishing at Arolla. On his last day he crossed the Pas de Chèvres, descending the Val de Dix to the Glacier des Ecoulaies, ascending this and crossing the Col de Severeu to the Val de Bagnes and Fionnay.

The original Oberland party consisted of G. J. Ritchie, J. M. Johnstone and A. G. Waldie (S.M.C.), with G. Sutherland and M. Thom (J.M.C.S.). The Blumlisalphorn, their only climb in a very bad season, was made on 14th July. The others descended by the route of ascent, but Ritchie and Thom proceeded to traverse the Weisse Frau with poor visibility and enormous cornices, and then went on in the direction of the Morgenhorn, descending in mist what appeared to be a feasible route from the col. It proved to be exceedingly difficult, with snow overlying ice, and a succession of enormous schrunds, one at least being overcome by leaping down in the classic style. A rucksack also leapt into space but was recovered later, with contents of money and passport. From the Italian Lakes Ritchie returned to Chamonix, finding impossible conditions once more, and concluded his holiday by storming a few passes.

At the end of July, Robin Smith and Jim Clarkson (J.M.C.S., Edinburgh) went to Chamonix. After an abortive attempt on the N.W. face of the M. on a miserable day, there was a week of perfect weather. The Mayer-Dibona route on the Dent du Réquin was climbed and Smith climbed the Mer de Glace face of the Grépon with B. Thompson (Chester M.C.). After the N.N.E. ridge of the M. the Col du Géant was crossed to Courmayeur. From Courmayeur they climbed the south ridge of the Aiguille Noire de Peuterey with an exciting bivouac in a thunderstorm. After that the weather broke. Clarkson left for home and Smith only got one more climb, the west face of the Albert on a foul day.

Gordon Burns (E.U.M.C.) and Donald Mill, at Courmayeur, for what was probably this season's only week of good weather, did the following: Traverse of the ridge from the Tour Ronde to Col de la Fourche; Mont Maudit by the Frontier Ridge; South ridge of the Aiguille Noire with one bivouac at the summit. Bad weather then drove them to pay a short visit to the delightful rock peaks above Lecco, on Lake Como.

D. Goldie (S.M.C.), along with J. Dunn, T. Shepherd and D. Mollison (J.M.C.S.), were in the Cevedale and Ortler Alps during the first half of August. Arriving at Innsbruck on 3rd August they went over the Stelvio Pass to Bormio and San Caterina on the 4th and up the Val Gavia to the Bernasconi Hut (3,100 m.) on the 5th. On the 6th they traversed Pzo. Tresero (3,602 m.), P. Pedranzini (3,596 m.), Cma. Dosegu (3,555 m.) and Punta San Matteo (3,684 m.). Descending to the Col d'Orsi and down the Forno Glacier they had to stay put on the central moraine as one of the party fell into a huge crevasse and it took some time to extricate him. The 7th of August was passed in the Branca Hut. On the 8th they ascended Monte Cevedale (3,778 m.) and went down to the Pizini Hut. On the 9th they ascended Piz. Graglia (3,391 m.), traversed the ridge to Cma.

Solda and so down to Casati Hut. Next day they went down to the Val Solda and up to the Payer Hut (3,020 m.), from which they climbed the Ortler (3,899 m.), descending to Solda and proceeding by bus to Pradh and spending the night there. On the 12th they went through to Austria, to Solden, and stayed the night there. Owing to lack of sleeping accommodation, two members of the party had to sleep on the veranda of a partly constructed house, while the other two made do with a narrow single bed. On the 13th they went to Ober Gurgl and up to the Karlsruher Hut. On the 14th it snowed all day, but on the 15th they climbed the Hochweilder (a fine mountain). Returned to Innsbruck on 16th to end the holiday.

G. J. Dutton, with another convert to the springtime Alps, James Russell, was in the Silvretta group for the first fortnight in April. With a guided ski-mountaineering party the following peaks were climbed: from the Heidelberger Hütte, the Spitz d'Ursanna (2,885 m.), Larainfernerspitze (3,009 m.), Piz. Davo Sassè (2,792 m.), Piz. Tasna (3,179 m.), Breite Krone (3,079 m.) and a (very) abandoned attempt on the Schnapfenspitze (3,219 m.) in deep new snow; from the Jamtalhütte, the Hinterer Jamspitze (3,156 m.) and Dreiländerspitze (3,197 m.); from the Wiesbadnerhütte, the Piz. Buin (3,312 m.); and from the Madlenerhütte, the Hennebergspitze (3,000 m.). Seven passes over 2,600 m. were also crossed. Many peaks were reached by a scramble, easy in spite of the local bearleading rope technique. Weather was brilliant between heavy snowfalls and both members now understand the high casualty rate from Austrian avalanches.

Dutton was also in Corsica during July with his wife and the Slessers. Because of sloth and the warm Mediterranean, only two hills were sampled in that fascinating island. From the Grotte des Anges, in reality a goat bivouac, an attempt on the magnificent Paglia Orba (2,523 m.) was dissolved in a S.W. gale of rain and mist; Monte Cinto (2,710 m.) was reached from the same noisome base, over miles of molten scree and burnt-out ridge. Wonderful hills, whose only disadvantage is their proximity to a still more wonderful coast.

Glasgow University Expedition to Langjokull, 1957.

The expedition sailed to Reykjavik, Iceland, by the weather ship "Weather Recorder" on 12th July 1957. There were eleven members and the aims were as follows:—

(a) To collect botanical and entomological specimens for Glasgow University. (b) To obtain physiological data for the Physiological Department of the University. (c) To take meteorological readings at the Ice Cap summit and at Base Camp for two weeks. (d) To conduct ornithological studies in the region of the Hagavatn and Sandvatn (south of Ice Cap region). (e) To establish a camp on

the summit of the Ice Cap for two weeks. (Actually two days short of this was attained.) (f) To survey Hagavatn and to study "dust cones" on the ice. (g) To climb various rock peaks in the district.

During a stay of three weeks and one day in the area, all the above aims were successfully achieved. Return was by M.S. "Gullfoss" on the 10th of August. The leader was J. Dobbie, the

organising secretary, R. D. B. Stewart.

A base camp was established on a col on the West Jarlhettur Mountains (to the south of Hagavatn and north of Sandvatn in the region south of the West Ice Cap). Two-thirds of a ton of food and equipment was carried to a dump on the foot of the East Hagafell Glacier. By sledge this was taken to the summit by two parties of four in three days. The camp was established on one of the lower summits of the West Langjokull. The highest summit was reached by R. D. B. Stewart, L. Carlile and H. M. Gross by 64 miles of difficult snow four days later. Four days afterwards a three-day blizzard was experienced.

Climbing activities from Base Camp thereafter were as follows:-960-m. peak of Jarlhettur Mountains. East summit by first ridge prominent from Far River, and when approached from west by river. 400 feet, V.D. R. D. B. Stewart and Heino, 27th July.

634-m, peak north of Einifell and south of Hagavatn. Einifell lies on West Jarlhettur Mountains. North ridge, 600 feet (technically)

Severe. R. D. B. Stewart and H. Mayor Grosse.

817-m, rock peak (lies near larger of two lakes lying between Hvitavatn and Hagavatn). Lower summit climbed by east ridge -a scramble. True summit not gained owing to impassable gash.

R. D. B. Stewart and R. R. Shaw.

Two expeditions to Hlodufell from Base Camp, of three days and of one day, by G. McCallum and R. R. Shaw, and Heino and R. D. B. Stewart respectively were unsuccessful. We later learned that the mountain has already been climbed. Sledge parties to the summit were: J. Dobbie, F. Lonsdale, T. G. Walker, S. Kermack, and A. Currie, R. D. B. Stewart, L. Carlile, H. M. Grosse. S. Kermack and T. G. Walker returned to Base Camp via

Geitlandsjokull region.

The following notes on dust cones may be of interest. These are often found on the glaciers of Iceland. They are cones of pure ice, coated with a layer of black or yellow dust, of sizes from 6 inches to 10 feet in height and quite distinct from the rest of the glacier. A suggested explanation of their origin is that former dust storms started the process, surface drainage concentrating the dust in certain areas. Exceptional absorption of solar heat would result in excessive melting of the snow-ice under the dust to form ice of a more stable nature than that of the uncovered glacier. As ablation proceeded the more stable dust areas would be raised above the neighbouring surface level so as to form dust cones.

Notes.

NOTES.

Scottish Mountain Accidents, 1957-58.

11th March.-Ivor Armitage (23), Marine Commando. injury. Ben Nevis, Gardyloo Gully.

26th March.-Mrs Mnew (20), Leeds University M.C. Arm and

leg injury. Sgurr a'Mhaim (Mamores).

5th April.-James Gibson (20), Falkirk M.C. Loss of three fingers. Pulled abseil stone on to fingers. Ben Nevis.

8th April.-Harry Slimming, Bolton. Collapse; brought down

by stretcher. Goatfell.

14th April.-James Cowan (24), Edinburgh. Novice. Fatal. Climbing Dead Man's Groove, Cobbler, alone.

20th April.-William Hubbard (28), Leeds. Fatal. Hold came away on Tower Ridge, Ben Nevis.

20th May .- Ronald Daykin (20), Stockton-on-Tees. Head and

chest injuries. Water Pipe Gully, Cuillin.

20th May,-Ismail Khan (20), Pakistan. Collapse on summit of Ben Macdhui, in blizzard conditions. Recently arrived from Pakistan.

14th June.-Olga George (24). Injuries unspecified. Coruisk side of Sgurr Mhic Coinnich.

16th July .- Thomas Cumberland (12), Glasgow. Died of injuries.

Ardgour. 17th July .- J. Slade (24), Wealdstone. Spinal injury, Meall

an't Suidhe; missed path on tourist descent of Ben Nevis.

24th July .- Aloysius Reid (26), James Turnbull (42), Dundee. Out from Braemar Youth Hostel. Benighted on Beinn a' Bhuird. Large search parties out.

4th August.-David Knowles (18), Bradford, Fatal. King's

Chimney, Sgurr Mhic Coinnich.

7th August .- Davis Eastcourt, Manchester University M.C.

Injury unspecified. Water Pipe Gully, Cuillin.

7th September. - John Rix (25), collapsed and died. J. McInally, D. McQueen and B. Tulloch admitted to hospital. Ben Nevis Race. Severe weather.

22nd September.-Mrs Smith, Leeds, dislocated elbow. Mrs

Arives, Leeds, fractured forearm. Glencoe.

29th September .- Dr James Hughes. Leg injury. Ben MacDhui. 21st October.-John Lillie (23), Aberdeen University M.C. Shoulder injury. Lochnagar.

16th November.—Andrew Currie (20), Glasgow University M.C.

Shoulder injury. Stob Coire nam Beith.

January 1958 (day of month unknown).-Peter Brassington (24), Lieutenant, Royal Navy, Wearing vibrams, Fatal. Sgurr Choinnich Mhor.

2nd February.—Peter McKelvie (28), Edinburgh. Wearing vibrams. Head and arm injuries. Bidean nam Bian.

4th February.—William Bonthrone (23), Aberdeen University M.C. Injury unspecified. Buachaille Etive Mhor.

17th February.—Marjory Blythe (19), Glasgow University M.C. Wearing vibrams, Fatal. Carn Mor Dearg Arête, Ben Nevis.

10th March.—Edward Wise (25), Southsea. Fatal. Carn Mor Dearg Arête, Ben Nevis.

In this list of accidents it will be noted that the victims have been almost without exception young; that of the seven incidents known to have occurred to members of mountaineering clubs, six involved members of university mountaineering clubs; lastly, the first four accidents of this year involved climbers who were wearing vibrams. This indicates the danger of this type of sole when underfoot conditions are ice-bound,

Stob Coire nam Beith Buttresses in Winter.—David Stewart has described the following routes, though they may not be novel, they were hard and most enjoyable and deserve to be better known. They are judged to have been of Very Difficult standard.

R. D. B. Stewart and R. R. Shaw climbed No. 2 Buttress on 4th January 1958, going up prominent chimney on left of buttress, with steep ice and rock traverse as the crux at 100 ft., leading to snow slope on chimney arête at 250 ft. Succeeding two buttress steps were taken direct.

No. 1 Buttress was climbed by same party on Sunday, 5th January 1958 (through leads). On the Arch Gully flank a steep, prominent 500-ft, chimney was climbed for 250 ft., followed by an iced traverse on to snowy chimney arête. Steep, 70 degree, snow-ice and ice was encountered continuously in the chimney. Above this the second part of the buttress was climbed by a route well up to the right.

Stob Beinn a' Chrulaiste (opposite Lagangarbh).—This is a convenient exercise ground for short rock scrambles. R. D. B. Stewart climbed two pleasant routes in March 1957—The Three Pitches, 150 ft. (V.D.) and The Strip, 300 ft. (D.). Details are not acceptable for the "Glencoe" Guide Book.

Rosetta Boulder, Rosa Pinnacle, Cir Mhor, Arran.—This was climbed in May 1957 by D. N. Mill (with a top rope for protection only) and was then led by R. Smith (E.U.M.C.). The boulder is close to the col between the Pinnacle and the top of Cir Mhor. The long slab on the west flank was climbed by the left edge, Very Severe and delicate.

Campsie Fells, Slackdhu (west end of face).—Dog Paddle, 220 ft. (V.D.), was climbed in January 1957 by R. D. B. Stewart and N. Orr. The route starts left of scree fan near foot of Coffin Gully

Buttress. Climb gully with tree at top, then climb gully to right. Then move right and climb chimney, left of narrow ridge. Follow ridge to 20-ft. pitch below overhang. Wedge up and finish along ledge to left or by going right and up a short chimney.

LIBRARY, BOOKS AND JOURNALS.

Library Additions (to 26th March 1958).—The starred items have been received as review copies or (in one case, "Selected Poems on West Penwith") presented by the Author:—

Abode of Snow. By Kenneth Mason. (Rupert Hart-Davis. 25s. 372 pp., 21 plates, 16 maps and diagrams.)

Mountain World. Swiss Foundation of Alpine Research. (Geo. Allen & Unwin. 25s. 280 pp., 68 plates, 11 maps and sketches.)

*Great True Mountain Stories. Edited by E. V. Corbett. (Arco Publications Ltd. 18s. 227 pp.)

*Selected Poems on West Penwith. By A. W. Andrews. (A. W. Andrews, St Ives. 5s. 59 pp.)

*First Ascent of Mont Blanc. By Graham Brown and Sir Gavin de Beer. (Oxford University Press. 70s. 460 pp., 15 plates. 11 figures.)

High Arctic. By Mike Banks. (J. M. Dent Ltd. 25s. 276 pp., 25 plates, 9 maps.)

*Mountaineering in Britain. By Ronald Clark and E. C. Pyatt. (Phœnix House Ltd. 45s. 288 pp., 73 plates.)

*Selected Climbs in Range of Mont Blanc. Edited by E. A. Wrangham. (Geo. Allen & Unwin. 18s. 224 pp., 63 diagrams.)

Gervasutti's Climbs. By Giusto Gervasutti. (Rupert Hart-Davis. 30s. 201 pp., 15 plates.)

Ski Runs of Switzerland. By James Riddell. (Michael Joseph. 35s. 360 pp., 46 plates, 28 maps.)

*Out of the Night. By Hugh Merrick. (Robt. Hale. 10s. 6d. 158 pp.)

*Dictionary of Mountaineering. By R. G. Collomb. (Blackie & Son. 12s. 6d. 175 pp., 52 diagrams and line drawings.)

*Mountains and Memsahibs. By Members of Abinger Himalayan Expedition. (Constable. 21s. 198 pp., 17 plates, 2 maps.)

We have also received a considerable number of Journals of Kindred Clubs, many of them on an exchange basis, for which we must express our thanks in brief as we have no space for comment or appreciation. Our review space is necessarily restricted to books having some bearing on Scottish Mountaineering or of special interest to our readers. Mountaineering in Britain. By Ronald W. Clark and Edward C. Pyatt. (Phænix House. 45s. 255 pp. text, with appendices, bibliography, list of clubs and journals, key to illustrations. The latter are 104 in number and include seventy-two full-page ones.)

This comprehensive book is arranged chronologically from the beginnings of English rock climbing about 1880 until the middle 1950's. The first part ends with the position at 1914. Another stocktaking of achievement is discussed as at 1939 and a final valuation before publication.

Scottish readers will find that much research and scholarship has been expended in the compilation of the book, especially in the English and Welsh chapters, but also in the earlier development of Scottish mountaineering. There is an obvious reason for this. In England the mountains are fewer, and smaller, nor do they offer so much scope for severe technical problems in winter climbing. Hence the emphasis as regards England is on improvements and specialisation in rock-climbing technique, in which Scotland has lagged behind for two reasons—fewer climbers and much more mountain country to explore.

There is therefore a ready explanation for the fact that Scotland occupies only forty-one pages approximately of the 254 text pages and twenty-two full pages of illustrations. Many of the latter have great historical interest, but it cannot be said that they do proportionate justice to the Scottish mountains, or even to the grandeur of the rock and ice problems which they pose to the mountaineer. Again there is a reason. As already stated, the English historical development is regarded as a progress, and this is the main connecting theme of the book, which must present British mountaineering achievement as a progress in rock-climbing technique. It would, from the Scottish point of view, have been better perhaps to have dealt with Scotland in a series of geographical rather than chronological sections for the whole of the period following the initial phase which saw the founding of our own Club and the Cairngorm Club. One might well ask, even from the rock-climbing standpoint, how many large rock faces in the Scottish Highlands still remain to be "opened up" for the rock expert. Such events can still happen. One need only mention the immediate post-war developments in Glencoe, and the sudden wealth of new climbing (rock and snow and ice) in the Cairngorms and Lochnagar only a few years later. History is a curious thing, not amenable to rules. Early explorations and climbs in the north-west (Ling and Glover and a few others), and a casual visit by Pigott's party to Coire Mhic Fhearchair of Beinn Eighe in the early twenties, did not give the stimulus to any rapid development in that area, which must still hold a wealth of latent climbing routes, if only the right team search persistently in the right places. And this is saying nothing about the commonest and least amenable Highland rock, the Moine Schist, which is the backbone of the whole system,

This book is, none the less, a portent. The first edition of "Mountain Craft," by Winthrop Young, in the early twenties, in its latter chapters on the scope for mountaineering in diverse countries, dismissed the Scottish mountains in a very few words indeed, making some casual mention of sea cliffs after some remarks on the Cuillin and Ben Nevis. Towards the end of the twenties Haskett Smith also succeeded in ignoring the possibilities of mountaineering in Scotland. Now we are at least securely placed on the map and may look with confidence to an enlarging sphere of importance in the progress of British mountaineering.

Quite a number of mistakes and perhaps several misplacements of emphasis might well have been avoided if some competent Scottish mountaineers had been accorded facilities to review the text of the Scottish sections before going to press, but these are minor blemishes on a comprehensive work. A few other points may now be mentioned.

In the later chapters there is surely far too much emphasis on the so-called progress achieved by mechanised methods in rock climbing. On long Alpine climbs of great difficulty such may be necessary. Their use is at least doubtful in sporting climbs on our own relatively small cliffs. Is it that we are now becoming mentally mechanised and over-competitive?

It is rather curious that Caving receives hardly any notice. Here, surely, mechanised technique is essential and there are other sporting risks unknown to climbing above ground—darkness and flood. Is caving not as much entitled to rank as an affiliated sport to mountaineering as the solving of overhang problems on small cliffs with the aid of pitons, *étriers* and rock drills? What about ski mountaineering, certainly practised in Scotland although not on any large scale? And lastly, it would have enhanced the value of the book if a complete chapter had been allocated to the consideration of accidents and rescue work. Here there has certainly, of recent years, been an alarming increase, which is an important historical fact. One aspect of this ought surely to stress the semi-Alpine nature of winter climbing on the greater Scottish mountains and the inadequacy of a purely rock-climbing training to meet all the resulting risks and problems.

First Ascent of Mont Blanc.—It is difficult to comment on this valuable and scholarly work. Dr Paccard's real part in the first ascent of Mont Blanc has hitherto been overshadowed by the suppressions and distortions of Jacques Balmat. The object of this work is to present the true facts and to vindicate Dr Paccard's name. Being, in effect, a comprehensive record of considerable and diligent research, this book is most useful as a work of reference.

Great True Mountain Stories.—This is basically a personal anthology of mountaineering literature extracted from previously published works. It ranges from Hannibal's crossing of the Alps to

recent Himalayan expeditions. The selection covers a wide field and includes many of the mountaineering epics.

Selected Climbs in the Range of Mont Blanc.-This is a mountaineering guide book with descriptions of over 100 routes, selected as the best from the much larger number described in the "Guide Vallot." The routes are of all grades of difficulty and include many of the most modern and severe expeditions. The Alpine Climbing Group are to be highly commended for making this information available in English in a compact form.

Mountains and Memsahibs is an account by four women of their expedition to the Kulu-Spiti-Lahoul area of the north-west Himalava.

Out of the Night is a comparatively short story of the return of a mountaineer to his former haunts, as a cure for the effects of many years of urban activities and failing health.

Selected Poems on West Penwith is a pleasant little collection of verse of the mountains, sea and open air by a veteran living in Cornwall-a sincere little book.

Dictionary of Mountaineering.-It is somewhat doubtful if our sport requires a dictionary of its own. The book is compact and handy in form. Perhaps the British Mountaineering Council would be the most suitable body to sponsor such a book and to decide what to include and what to leave out.

J.M.C.S. Journal, 1957.-We wish to compliment the Editor and the enthusiastic group of supporters on the first issue of this Journal. In twenty-eight quarto pages it provides a lot of meat. W. H. Murray writes on snow and ice technique, L. S. Lovat on his climbing in the Dolomites, Martin Thom on the Oberland and C. M. Dixon on the Lake District.

It is not so easy to describe the other articles where we enter the domain of humour and belles-lettres, but an article on "Why this Journal should never have been Published " tells the S.M.C. some home truths, and especially THIS Journal. Well, it is no use flogging a dead horse-you'd better read it for yourselves.

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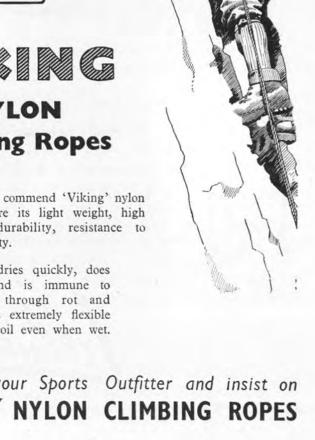




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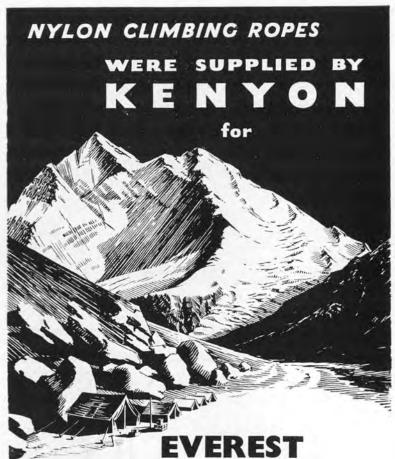
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