vol. I.

July, 1895.

Mo. 5.

#### THE

### Cairngorm Club Journal.

EDITED BY

ALEX. INKSON M'CONNOCHIE.

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THE CAIRNGORM CLUB.

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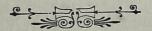
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LOCH AVON FROM THE SHELTER STONE.

### Cairngorm Club Journal.

Vol. I.

JULY, 1895.

No. 5.

#### DISTANCE OF THE VISIBLE HORIZON.

By THE REV. ROBERT SEMPLE.

Height in Feet.	Distance in Miles.	Height in Feet.	Distance in Miles.	Height in Feet.	Distance in Miles.
1	1.2+	100	12.2	1900	53.3
2	1.7	200	17.3	2000	54.7
3	2.1	300	21.2	2200	57.4
4	2.4	400	24.5	2400	60.1
5	2.7	500	27.3	2600	62.4
6	2.9	600	30.0	2800	648
7	3.2	700	32.4	3000	67.1
8	3.4	800	34.6	3200	69.2
9.	3.6	900	36.7	3400	71.4
10	3.8	1000	38.7	3600	73.4
20	5.4	1100	40 6	3800	75 5
30	6.7	1200	42.4	4000	77.4
40	7.7	1300	44.1	4200	79.3
50	8.6	1400	45.8	4400	81.2
60	9.4	1500	47.4	4600	83.0
70	10.2	1600	49.0	4800	84.8
80	10.9	1700	50.5	5000	86.6
90	11.6	1800	51.9	6000	94.9

THE exact relation between the height from which an observation is made, and the distance of the visible horizon not being generally understood, a few words regarding I. U

this point may prove interesting, besides tending to prevent waste of time, and not a little disappointment arising from vain seekings to perceive the invisible.

The distances given in the foregoing table are tangential, and make no allowance for refraction, the amount of which varies with the state of the atmosphere,\* and its effect is to increase the range of vision. Refraction makes the sun and moon visible before they have actually risen above the line of the horizon and after they have sunk below it. In the same way, by the bending of the light rays, terrestrial objects are elevated into visibility. In many cases objects far below the horizon have been clearly seen. Thus, the French coast, with its cliffs and villages, has been seen from Hastings, although the distance is such as to place it beyond the range of ordinary vision.

The distance visible from any height may be readily calculated if it be borne in mind that heights are proportional to the squares of the distance of the visible horizon. Thus, if at a height of one foot above a perfectly level plain, that is, a plain every point of which is equidistant from the earth's centre, one can see a distance of 1.2 + miles; at a height of 2 feet one would see  $\sqrt{2} \times (1.2)^2$  miles  $= \sqrt{2.88} = 1.7$  miles; at a height of 3 feet, one would see  $\sqrt{3} \times (1.2)^2$  miles  $= \sqrt{4.32} = 2.1$  miles. To find the distance of the visible horizon, therefore, multiply the square of 1.2 + by the height, and extract the square root.

To find how far two heights are visible from each other, the distances visible from each must be added together. Two hills of the same height may be seen from each other twice as far as the horizon is seen from either. From this it follows that while the horizon is seen only 30 miles away from a height of 600 feet, yet two heights of 300 feet above sea level may be seen from each other though more than 40 miles apart. A lighthouse 200 feet above sea level is visible 17 miles to an eye at the sea level, but if the eye be raised 6 feet the light will be seen at 20 miles;

<sup>\*</sup> Refraction has been observed to vary from  $\frac{1}{16^{14}}$  to  $\frac{1}{9^{14}}$ ; mean  $\frac{1}{12^{16}}$ . There is least refraction during the middle of the day.

though the addition of 6 feet to the lighthouse itself would add only about a quarter of a mile to the range of visibility.

When the horizon consists of land, then, in judging as to the possibility of seeing two places each from the other, the height of the intervening land above sea level must be deducted from the height of both places, if the elevation occurs at the common horizon. From a hill (A) 1747 feet high, the visible horizon is 51 miles, and from another (B) 313 feet high, it is 21 miles. These heights would, therefore, be reciprocally visible at 72 miles; but if a height of 200 feet occurred at the common horizon, then the one would be invisible from the other. For as (A) would now be 1547 feet and (B) 113 feet, the distances visible respectively from each would be 48 miles and 13 miles—a total distance of 61 miles. Not more than a few feet of either height would be visible from the other even if the mountains were 10 miles nearer. Refraction would aid the observer to some extent. But when the possibility of seeing the cairn on a hill top is based on mathematical calculations, the observer may discover a further illustration of the subtlety of that science. The point he hoped to see may thoroughly satisfy Euclid's definition by having position but not magnitude.

The greatest distance yet seen is 183 miles, but this was by heliograph, from Mount Uncompander (14,418) in Colorado, to Mount Ellen (11,410) in Utah. Under the favourable atmospheric conditions which exist there, a party waited a week in September, 1894, and then the welcome "flash" came. It had the appearance of a bright red star, and by the aid of telescopes the signals from the distant station were read by the experts in charge with the utmost ease. In this case the "flash" was almost a communication between invisible points, the two mountain tops not being properly in the same horizon, and it was only for a brief hour that refraction in the morning and evening so bent the ray from the distant mirror as to lift it over the curving globe between.

#### CADER IDRIS.

#### By W. J. Jamieson, M.A.

It is a far cry from the Cairngorms to Mid Wales; but the climber who loves the one region can hardly fail to be fas-The Welsh hills, it is true, are not so cinated by the other. lofty as Ben Muich Dhui and his neighbours, but, on the other hand, they can generally be depended upon to afford finer and more varied prospects. Cader Idris is not preeminent in height even among his Welsh compeers, though he does derive his name from a giant; but for quality and style, if not for altitude, he can hold his own with the best of them. Cader (pronounce Cadder) Idris means the chair or seat of Idris, who, according to the Cymric legend, was a sort of Titan, combining the attributes of warrior and of The summit can be reached by many routes, the most usual points from which the ascent is made being Barmouth (via Arthog), Towyn, and Dolgelly. When I paid my first -not, I trust, my last-visit thither, I decided to start from Dolgelly, and had no reason to repent my choice.

Dolgelly, the capital of Merionethshire, is assuredly one of the quaintest little towns to be found anywhere in these islands. The name is locally spelt Dolgelley or Dolgellau, and is pronounced Dolgetly, or, with a suspicion of the aspirate, Dolgethly. It nestles in a little basin among the hills, and its old-world houses are jumbled together in most picturesque disorder. There is nothing like a regular street in the place, and for windings, twists, and unexpected nooks and corners, it is only to be matched by the most character-

istic specimens of our Scottish fishing villages.

Having spent the previous evening in rambling through this deliciously unconventional little place, I started next morning to walk to Barmouth by way of the crest of Cader. There is an easy pony track to the summit, which is taken by the majority of tourists, and another, termed in the guide books the Aran route, which is recommended to more energetic pedestrians. The most direct and most sporting

ascent, however, from the Dolgelly side is that known as the Foxes' Path, and this last was the one I selected. The road from Dolgelly to Towyn is followed for a couple of miles or so to a small wayside inn, having behind it a solitary little loch called Llyn Gwernan. Here we quit the high-road, and turning sharp to the left follow a more or less distinct track through an undulating, hilly stretch of ground, not at all unlike the upper part of Glen Callater. A mile and a half of this, with a burn or two to cross, brings us to Llyn Gafr, a very small pool, and here the real climb commences. Bending now to the right, an ascent of some hundred yards, fairly steep, discloses to the view another lonely lochan, Llyn-y-Gader, a typical mountain tarn, lying at the foot of a bold, semicircular corrie, and reminding the north-country visitor forcibly, by its situation and surroundings, of the gloomy little sheet of water that gives its name to Lochnagar. The Foxes' Path proper starts near the edge of this tarn, and to the eye is merely a streak of lighter vellow in the left or north-eastern segment of the corrie. There is no path in the strict sense of the word, nothing more than a sort of hollow in the scree; and the thousand feet or thereby to the summit forms a rather fatiguing scramble, as the loose stones, lying as they do precisely at the angle of repose, give way under one's feet at every step. In spring, no doubt, this track forms the bed of a water-course, but the stones are not rounded or pebble-shaped, but flat and angular like fragments of rough tiles or slates.

Once at the top of the corrie, a very gentle ascent brings us to the cairn, whence, if the weather be at all clear, the view is magnificent. I was fortunate enough to enjoy a fine September day, cool and bright. Facing north, the gazer sees, just as it seems at his feet, the estuary of the Mawddach, while away in the distance lies the Snowdon range, the various peaks of which can readily be distinguished by the glass. To the right are the Arans, the highest point, Aran Mawddwy, being 2972 feet above sea level, 43 feet higher than Cader itself. Turning round to the south, we have a panorama of hill and valley as far as

the eye can reach, with the bulky mass of Plinlimmon, the cradle of five rivers, on the horizon. But it is the western view that is the glory of Cader; and in this respect the mountain bears a closer analogy to Ben Cruachan than to any of the Cairngorm range; and the prospect in some respects excels even that from Cruachan. The estuary of the Mawddach, as has been said, lies on the one hand; on the other, at a somewhat greater distance, is that of the Dovey; while all in front stretches the blue expanse of Cardigan Bay, with the Carnarvonshire coast framing the picture to the north, and Pwllheli sands shimmering far away in the sunlight. Here we might well linger contentedly a whole golden afternoon; but the declining sun warns us that it is time to be once more on the move.

The easiest way down lies, in the first instance, rather to the south of west; but the most direct descent is right down the slope of Cyfrwy, the saddle of Cader, where, in the words of a recent tourist, there are "rocks, rocks, rocks, loose and rooted, living and dead, in millions and millions of tons, stone to pave all the cities of the world, lying about ready quarried". This, of course, is the exuberant outburst of the unsophisticated lowlander, unused to such scenes: but the ground is rugged enough nevertheless, for the stones and boulders are smaller and sharper than those, say, on the upper slopes of Ben Muich Dhui. Arrived at the foot of the declivity, we begin gradually to ascend again over a stretch of green turf forming the eastern shoulder of Tyrau Mawr, a summit bearing to Cader Idris very much the same relation that Cairn Taggart does to Lochnagar. Tyrau Mawr, however, on the northern side, has rather imposing corries and precipices of its own, from the edge of which the view is, if anything, finer even than from the top of Cader. Here we may profitably recline for half an hour on the grassy sward, and survey at leisure the glorious prospect of mountain, sea, and river, stretched out around and below.

The descent to Capel Arthog may be taken either very gradually, or at as steep an angle as is found convenient. Arthog Hall Hotel, which nestles among trees at the foot,

seems at first glance more like a private country house than an inn; but welcome refreshment can be had there for all that, and a pleasant spot it must be to reside at for a summer holiday. The writer, after expressing this conviction, ventured to remark to the bright and decidedly intellectual-looking daughter of the Principality who was in charge, that, charming as it was in the summer months, Arthog was probably rather bleak and dull in winter. "Not a bit of it", came the quick reply. "We have a lovely winter climate here; sometimes we have roses growing in the open air at Christmas. No, not Christmas roses either". There is a little railway station at Arthog, and a train coming up opportunely, I availed myself of it for the short run of two and a half miles to Barmouth.

Barmouth, or Abermawddach, to give it its full Welsh title, is a delightful little watering-place, which is rapidly coming into prominence as a fashionable resort. houses, tier on tier above one another, seem hewn out of the steep hill which rises abruptly behind the town; and there is a magnificent sandy beach. "The Riviera of the United Kingdom", the inhabitants fondly call Barmouth, and it is not wholly unworthy of the comparison. Of the various attractions it possesses this is not the place to speak, but reference may be permitted to its crowning and particular boast - the railway viaduct and passenger promenade stretching for half a mile across the mouth of the Mawddach firth, from which there is an exceptionally fine view up the river on the one hand, and out to sea on the other. In the foreground, looking up, is a curiously serrated ridge, closely resembling in outline a cock's comb, while beyond to the right rises the long ridge of Tyrau Mawr and Cader. I can confidently recommend any members of the Cairngorm Club, who may have the opportunity, to pay a visit to this part of Wales. They will not find any heroic climbing, but for varied natural beauties the district can hardly be surpassed by any in the kingdom.

#### THREE DAYS IN SKYE.

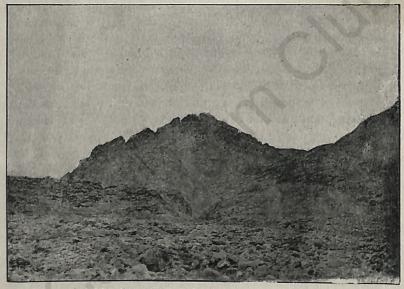
#### By DAVID CROMBIE.

SKYE has many natural features standing out with remarkable prominence, but possibly the one which provokes most comment from, and causes the greatest discomfort to, the tourist, is its climate, which seems to be always saturated with moisture. When it is stated that the mean annual rainfall at Sligachan is 92 inches, as against 26 to 30 inches along the Firth of Forth, and 32 inches at Aberdeen, the drawbacks to mountaineering in the Isle of Mist can be readily understood. Meteorological reports show April to be the driest month of the year in Skye, and May is not a bad second. We were fortunate, however, in our Skye holiday of last August, only one of our three days being wet.

We set out from Sligachan Hotel for Sgurr nan Gillean on a rather unpromising morning. Excellent centre for the Coolins as that hotel is, it has a very bare and solitary appearance, with only a few stunted bushes around to relieve the monotony of the desolate moor on which it stands. Starting at 11.0 we followed a bee line across the moor for the shoulder and the corrie on the east side of the hill, whence we were to make the top of the ridge. An hour's tramp brought us to the corrie, and we commenced scrambling, but on rising to the 1000 feet line the mist became so dense that nothing could be seen beyond a few The ascent of this corrie is comparatively easy, notwithstanding the steep scree slope, in climbing which it is well for a party to keep together. The fine rain which was now descending was so penetrating and cold that it made the ascent extremely uncomfortable, especially with the howling wind blowing up the corrie. It was, therefore, with no small degree of pleasure that, on reaching the top of the ridge, which culminates in a narrow edge dipping rapidly to the west, we gained some shelter from the storm by descending a few yards on the western side. The ridge

runs almost due north, terminating in Sgurr nan Gillean, and rises gradually till nearing the summit, where the ascent is very steep and rough, necessitating the use of hands as well as feet. Along the top of the ridge, boulders, varying in size from a Sussex pea to a crofter's hut, are strewn about in a most heterogeneous fashion, making progress slow and difficult. The mist had become so thick that great caution had to be exercised, but judging by the time and the stiff work in front, we inferred, unless we were much out of our reckoning, that the summit could not be far away. We continued climbing over very rough ground, which is hard on the hands unless well gloved, and were rewarded in a short time by gaining the cairn (3.0). Here the atmospheric conditions were exceedingly depressing, and little calculated to inspire the most ardent climber with enthusiasm, for there was, of course, no view, and we were thoroughly soaked. The top is conical, and about twelve feet across, with steep, and, in some places, almost precipitous sides. The short neck which connects the main ridge with the summit is very narrow, and, as the wind was so strong, it was considered advisable to negotiate it on all fours.

Only a few minutes were spent on the top. When the ridge had been re-traversed for some time, the difficulty of knowing when to turn sharply to the east in order to reach safely the Sligachan valley confronted us; but, fortunately, a few bearings had been taken during the ascent, and a careful note of the time; and although the huge rough boulders presented quite a different appearance returning, yet we were lucky to strike a corrie very near to the one by which the ascent was made. Emerging from the clouds, a thrill of pleasure ran through the party, for the view was most charming; Glen Sligachan seemed from the height to be covered with a network of miniature lagoons, connected with each other by tiny canals, all running towards the River Sligachan. The valley was quickly gained, and, to vary the route, we forded the river in order to reach the track leading from Loch Coruisk to Sligachan, which, however, turned out to be no advantage, being longer and no better walking than the peat and heather. The hotel was reached at 6:30, five hours having been spent in mist so dense that nothing could be seen outside a radius of a few yards. It was a small grain of comfort to learn that Mackenzie, the guide, who had set out soon after us with a party, to make the ascent by the Pinnacle Route, had not ventured beyond the third pinnacle.



SGURR NAN GILLEAN, SHOWING PINNACLE ROUTE.

Camasunary was our goal for the next day, the proposed route being by the Bhasteir ridge, Lota and Harta Corries, Druim nan Ramh (Drumhain), and Loch Coruisk. Leaving Sligachan at noon, we followed the course of Allt Dearg Beag almost to its source, a track which affords magnificent views of the surrounding scenery, and some excellent scrambling with a "chimney" here and there. The climb up the corrie between Sgurr nan Gillean and Sgurr a' Bhasteir was somewhat tedious, owing chiefly to its want of difficulties, though the surface is bad enough, consisting largely of considerable boulders. But the view from the saddle (Bealach a' Bhasteir) fully repaid us, for here an unequalled panorama surrounds us. The sun shone forth

brilliantly, and lit up the whole landscape, revealing Portree away in the north, with the Old Man of Storr standing like a huge obelisk against the sky, and Raasay, with its verdant hills, towards the north-east. On the east are Glamaig and Marsco, with the Ross-shire mountains of a most lovely deep blue colour fading away in the distance, whilst immediately above is Sgurr nan Gillean wearing a most forbidding aspect. To the south the view beggars description. Yawning below is Lota Corrie, like the remains of a huge extinct volcano, with its steeply sloping, and in some places perpendicular, sides, and crowded with climbing possibilities; whilst westwards might be seen Sgurr Thuilm and Sgurr a' Bhasteir with the Atlantic beyond.

We found it impossible to reach Lota Corrie from this point of the ridge, here very narrow, without making a drop of about a hundred feet, and as no one felt inclined to indulge in acrobatic feats, this necessitated a detour of the Tooth. Before again arriving at the ridge, the weather suddenly changed and the mist came down so thick that everything outside a radius of a few yards was entirely obscured, and caused us some little anxiety in deciding which of two corries that now presented themselves should be taken.

It would seem that from this point there is only one route leading to Lota Corrie, by descending the steep scree slopes at the foot of the precipice of Bhasteir, formed by a fault in the rock. The descent is, however, tolerably easy, the scree affording excellent footing. We now began to experience how much pain and discomfort might have been avoided had we followed the advice regarding the use of gloves given in a previous number of the Journal.

When nearing half-way the climber would do well to keep to the burn which flows out of the rocks, and he will have little difficulty in reaching the bottom, and will also meet numerous pretty bits of scrambling. This advice is offered because we made a serious mistake at this point, involving the loss of valuable time, and subsequently proving fatal to our plan of reaching Loch Coruisk that day.

Thinking time would be saved by not descending to the foot of Lota Corrie, a straight line was taken for Drumhain, but after scrambling for about an hour we reached a precipice of a few hundred feet of smooth rock, leaving no alternative but to retrace our steps. The ordinary track appears to lead across the face of a beautiful waterfall, tumbling and roaring over an enormous mass of rock, worn smooth by the action of the water. It was now 6:0, so the idea of crossing Drumhain had reluctantly to be abandoned.

Harta Corrie, which is simply a continuation of Lota Corrie at a lower level winding eastwards, has nothing of deep interest beyond the Bloody Stone, famous for some ferocious deed in days when lives were not considered of much value. On arriving at Loch Dubh (7·30), at the head of Glen Sligachan, the track leading to Camasunary was struck, and turning almost due south we skirted the western rugged slopes of Blaven (Blath Bheinn) in all its magnificent grandeur, with its beetling crags towering above, whose gorgeous colouring was enhanced by the ruddy glow of a western sky. Camasunary, a well-built farm house, was reached at 9·0.

It stands on a little strath on the east side of the head of Loch Scavaig, and forms an excellent centre for visiting Loch Coruisk or climbing Blaven. It is matter for regret that its comforts can only be counted upon by the belated climber. The easiest and quickest route, and that adopted by most tourists, for visiting Loch Coruisk is by boat; but a very rugged and well-worn track along the shore, devoid of any excitement until we reach the "Bad Step", of which one hears so much, leads to Coruisk in an hour. With ordinary care, the "Bad Step" can be easily negotiated, although a person of nervous temperament would doubtless regard it with a certain amount of trepidation, and consider it impracticable. It is about thirty feet long, is made by a very narrow cleft in the rock, which rises at a sharp angle and dips about thirty feet perpendicularly into the sea. Loch Coruisk is probably the wildest and grandest in our isles, and forms a noble arena to the sombre, rugged, encircling hills, whose deep shadows lend a most gloomy and weird aspect to the scene.

The path from Camasunary to Strathaird House, where it strikes the high road from Broadford to Elgol, is well defined, and rises rapidly for 500 feet on leaving Loch Scavaig, after which it is easy walking across Strathaird, whence we have noble views of Loch Slapin and its varied beauty. The high road is, like all the main roads in Skye, well made and kept in excellent repair. At Faodean a ferry across to Torran saves a long walk round the head of Loch Slapin. Torran is a township of considerable size, but the majority of the crofters' huts are of the most wretched description.

There is nothing of particular note along Strath Suardal except the site of St. Bridget's Chapel and Cill Chriosd (Kilchrist), with its surrounding graveyard, which we found in a very untidy and dilapidated condition. We arrived at Broadford Hotel, a most comfortable house, at 7.0, all sorry to have reached the last stage of our tour, and the busy world with its stern realities of life.

#### MOUNTAIN MEASUREMENTS.

#### III. - TRIGONOMETRIC METHODS.

#### By J. C. BARNETT.

In former papers the measurement of heights by means of barometers, hypsometers, and thermometers was described, and now, in conclusion, it is intended to sketch briefly the methods used by the officers of the Ordnance Survey, first for fixing the exact position of the mountains, and second for determining their elevation above sea level. The principle is simple, but the working, so as to obtain perfectly reliable results, is difficult in the extreme, and requires great care, patience, manipulative skill, and the power to solve some rather abstruse problems in mathematics.

If we were walking on the sea shore, and wished to determine the distance of a ship riding at anchor in the bay, it would not be necessary to pay a visit to the vessel, as its distance could be calculated from certain data easily obtainable on the shore. We would measure carefully a line on the beach, say 200 feet long, and place a staff at each end of it. Then we would, by means of a theodolite or compass, determine the angles which lines drawn from each end of our base to the ship would make with the measured base itself. This drawn to scale would show the relative positions of the base line and ship, and with care the ship's distance might be determined geometrically. But the problem may be solved also by trigonometry. sides and angles of any triangle are directly proportional to each other, and so the dimensions of any triangle can be calculated whenever one side and two angles, or two sides and one angle, are known. It is plain, therefore, that if an accurate base line has been measured, and the angular distance of a point from each end of it has been determined. then the distance of that point from each end of the base line can be calculated by the use of trigonometrical formulæ. These calculated distances may be used as base lines for the

determination of the exact positions and distances of other points, and so in this way the whole country may be covered with a vast network of triangles, and the relative positions of each of the stations ascertained with exceeding accuracy.

The accuracy of these results depends on the perfect measurement of the base line and the exact determination of the various angles by the theodolite. Both of these prove to be much simpler in theory than they turn out to be in practice. The first requisite, then, is a base line which must be absolutely straight, perfectly level, and of sufficient length—the longer the better. As the earth is spherical, "perfectly level" means that every part of the line must be at right angles to the direction of a line to the centre of the earth, or, in other words, to the plumb line. When the base has been aligned, it is measured by rods of metal, wood, or glass, which are not permitted to touch each other, lest by the placing of them the perfect alignment of the rods might be disturbed. The spaces between each pair are measured by microscopes and added to obtain the true length. As, however, these rods expand by heat and contract by cold, a certain temperature has to be fixed upon, and all measurements by rods reduced to what they would be at that temperature. The temperature chosen is 62° Fah.

General Roy measured the first base line in England on Hounslow Heath in 1783, and used wooden rods, each 20 feet long, cut out of an old Riga mast, but he found that these rods changed so much in length through the effect of moisture that he abandoned them for glass rods. In proof of the wonderful accuracy of General Roy's party, it may be stated that this base line was measured three times in 1783 with wooden rods, steel chain, and glass tubes, and again in 1791 with a steel chain, and though the length of the base was five miles the greatest difference between the measurements was under six inches.

In 1827 Major-General Colby invented his compensating bars, consisting of two bars, one of brass and one of iron, so combined as to eliminate changes of length due to variations of temperature. The two bars are fixed together in the middle by a steel cylinder, but free to expand at the ends. Joining the free ends of the two bars are two steel tongues. so fixed by pivots rivetted into the bars that they are capable of free movement. These tongues extend beyond the bars, and the distance between their two points is 10 feet. If the upper rod of brass alone expanded, then the points would be brought nearer by the tongues revolving on their pivots, while, if the iron rod alone expanded, then the points would be pushed farther apart. As, however, the two metals expand different amounts for the same degree of heat, the rods have been so arranged that the unequal expansion acts in such a way as to keep the points at an unvarying distance, whatever be the variations of temperature to which the bars are subjected. A difficulty arises here. As brass and iron have different capacities for heat, and their surfaces present different powers of radiation and absorption, it follows that the same amount of heat will produce different degrees of temperature in each of the metals. Now, as it is essential that Colby's bars should be at exactly the same temperature, the surfaces of these bars have been coated with varnish until, by experiment, it has been proved that the bars increased and diminished by the same amount when similarly exposed.

Drummond's base line on the level shore of Loch Foyle was measured in 1827 by Colby's bars. This base line is 7<sup>4</sup>/<sub>7</sub> miles, and the probable error of measurement is not more than 2 inches. When the Salisbury base line of 1794 was measured from triangles, originating from the Loch Foyle base line at a distance of 350 miles, the calculated length differed from the measured length by only 5 inches.

From what has been said, it must be granted that those engaged in our Ordnance Survey could measure a base line with marvellous accuracy, and this having been obtained the work of triangulation commences. Here, again, not a few difficulties meet us at the outset. First, as the earth is globular, lines drawn upon its surface are arcs of circles, and therefore differ essentially from those drawn upon a plane surface. This would matter little were the triangles small, but in triangulation, in order to avoid the errors that would arise from many angular measurements, the

triangles are made as large as possible. In a plane triangle the value of the three angles amounts to 180°, but in a spherical triangle the amount is more. Thus, with a triangle having sides 13 miles long, the excess would amount to one second of arc, and this spherical excess has to be allowed for in calculating the lengths of the sides. There are several ways of solving these triangles, but of late the favourite method is that introduced by Legendre, which is applicable to all triangles drawn on spherical surfaces, whose sides are small compared with the radius of the sphere upon which they are drawn. It may be expressed thus: Diminish each of the angles by one-third of the spherical excess, thus reducing the sum to 180°, and then treat as plane triangles.

If the earth were a perfect sphere, the measurement then of these spherical triangles would present no great difficulty after the observations had been made and checked, but as the earth is not a perfect sphere, but an oblate spheroid flattened at the poles and slightly compressed at the equator, the problem becomes one of some difficulty, and entails the calculation of the radius of curvature at various parts of the earth's surface, by no means a simple task. The difference between the lengths of the polar and equatorial diameters is 26 miles, and between the two equatorial diameters 1524 feet. Again, as the three stations of a great triangle will likely be at different heights above the earth's surface, it becomes necessary to reduce all to sea level before measuring the length of the sides.

In measuring the heights of distant stations for the purpose of reducing all to sea level, not only must we allow for the curvature of the earth, which makes the height appear less than it really is, but also for the refraction of the light rays in their passage from the distant object to the eye, which tends to make the height appear greater. As the amount of refraction depends on the state of the atmosphere, and is constantly varying, sometimes in a most extraordinary way within a few hours, it becomes a matter of great difficulty to apply corrections for refraction. Again, the plumb line which theoretically always points to the centre of the earth, is often deflected by the presence of

mountains, or rocks of high specific gravity, or even by underground caverns, and errors of some magnitude, that are highly difficult to discover and eliminate, creep thus into calculations. Besides all these sources of error, there are those arising from defects in the instruments used, and those due to the temperament of the observers, both of which it is impossible to eliminate, but must be allowed for. It will thus be seen that though in theory the determination of the true position of places on the earth's surface is simple enough, yet to obtain accurate results time, care, judgment, patience, and high mathematical skill are required.

To determine the heights of mountains by trigonometry involves nothing more than is necessary to determine the true position of distant points, viz., a base line and two angles. Measure off a base of some length between two points in the same straight line as the mountain top, then with the theodolite measure the angular elevation of the mountain top from each point. Lines drawn from each end of the base at the inclinations observed would meet at the summit, and a perpendicular dropped from this point to the base produced would represent the height required. This height may be calculated by the application of trigonometrical formulæ. Heights are frequently measured by the theodolite and staff, and though the method involves much labour and care, excellent results have been obtained by it. The distant mountains of moon-land have had their elevations determined from observations of the lengths of their shadows.

The Survey of Great Britain has just been completed, but already, owing to the length of time since it was begun, calls loudly for revision. This Survey gave employment to a staff of 3200 men, of whom 380 were engineers. Ten thousand eight hundred sheets have been produced in scales varying from 10.56 feet to  $\frac{1}{10}$  inch to the mile, the former being a representation of the surface as it would appear from a height of 750 feet, and the latter from a height of 1670 miles. In the Survey 29 triangles had sides of 90 miles length, and 11 had sides measuring 100 miles. We

may well be proud of our Ordnance Survey and the men who have so successfully carried it out, for the scope of the undertaking is greater than that of any other Government, and the mode and style of the work, whether viewed from a scientific, artistic, or utilitarian stand-point, will hold a first place among the great Geodetic Surveys of the world.

#### THE TEACHING OF THE HILLS.

The everlasting hills, their country's pride,
In silence dominate the crowded plains,
Where busy mortals toil for trivial gains,
Remembering not the lessons hills provide,
Mute witnesses of Time's remorseless tide,
Sweeping away frail man as he attains
Some object cherished long, for which he strains
With utmost power; the hills such folly chide.
Though fiercely rent by many a stormy blast,
Majestic their gigantic forms appear,
The links sublime with ages of the past;
These heights, with caution due, the mountaineer
Ascends, that he afar his gaze may cast
And rise in thought beyond earth's narrow sphere.

ADAM SMAIL

13 CORNWALL STREET, Edinburgh.

#### SOCKAUGH.

#### By the Rev. George Williams.

A Vale of Alford man once declared that Cushnie Hill (Sockaugh) was "ane o' the auldest an' maist respectable hills in the hale warl'". A native of the Garioch would affirm the same of Bennachie, and stand to it; but, while making due allowance for our Alford friend's prejudiced exaggeration or limited observation, it cannot be denied that the Hill of Cushnie is well worth a visit. It may be reached from Deeside by Lumphanan or Aboyne, or from Donside by Alford. Suppose we accomplish the journey to this pretty much terra incognita by Lumphanan.

Arriving at Lumphanan Station, we take the road leading to Corse, with the Free Church on our right. After a walk of a few minutes, we see Macbeth's Cairn in a cultivated field about a quarter of a mile to the west, or on the left, for the terms east, west, north, and south are often somewhat perplexing to a stranger. In the Vale of Menteith, between Ben Lomond and Bencleuch, the words east and west play a very important service in ordinary conversation. Thus, a man desired his tailor to move one of the buttons of his coat "a wee wast", while another, whose wife had taken more than her due share of the bed, desired his offending partner to "shift east a bit". Macbeth's Cairn is some forty or fifty feet in circumference, and no doubt it was at one time much larger. Here it is supposed that the famous or infamous monarch of that name lost his life in conflict with Macduff, about the middle of the eleventh century.

Crossing Perkhill, we notice the hoary ruins of Corse Castle, with the Burn of Corse (the Leochel Burn farther down) flowing at its base. This castle was built by William Forbes, the father of Bishop Patrick Forbes of Corse and of William Forbes, the successful Dantzic merchant and founder of the Craigievar branch of the family. It is dated 1581. The lands of Corse, partly in Coull, partly in Lumphanan, belonged

to the Durwards, and became Crown property towards the close of the thirteenth century. In 1476 Corse was granted by James III. to his armour-bearer, Patrick Forbes, third son of the second Lord Forbes. George Forbes, son of Dr. John Forbes, Professor of Divinity, Aberdeen, and grandson of the Bishop, sold the estate partly to the Duguids of Kincraigie, but the greater portion of the property was secured by Sir John Forbes of Craigievar, and, since 1670, Corse has been an integral part of the lands of Craigievar. Corse is quoad sacra in the parish of Leochel-Cushnie, and quoad civilia in that of Coull.

It would be an unpardonable omission not to quote the venerable and popular rhyme, characterising several of the farms of this neighbourhood:

"At Tillyorn grows the corn;
At Waster Corse, the straw;
At Blackbauk, the blaewort blae;
At Cal'hame, naething ava".

In addition to its agricultural products, Tillyorn is famed as having reared the steed that carried the news to Her Majesty at Balmoral of the fall of Sebastopol, on 8th September, 1855.

Proceeding westwards, we have Leadhlich (1278) on the south, "the hill of the flag-stones", where the surrounding districts obtain "peasiewhins" for building purposes. veteran quarryman, looking at the hill from a distance, exclaimed, "That's Leadhlich—weel-a-wat, I've gart it sink a fit or twa, a' owre, mysel'". Nearing Oldmill (which presents no vestige of a mill), we may note on the roadside several specimens of the pretty Corydalis claviculata (the white climbing corydalis), a plant which preserves its beauty in house decoration for a much longer time than most of our wild flowers. A granite quarry was opened in this neighbourhood several years ago, but "it wadna do". The rocks are very old, and belong to the Lower Silurian. No real fossils have been found hereabout. There is, however, what is popularly called "fossil heather". found in feldstein rock, quarried for the roads, a few yards from the smithy of Cushnie. The markings are due to the presence of manganese oxide, which has assumed the form of plants, hence called "dendritic markings".

After we have reached Tillylodge and turned northwards, climbing the steep Brae of Blackbauk, with Bogfern, famous in the annals of polled cattle breeding, on our left, we find in "the Howe o' the Holm", in one of the fields of Holmhead, a quarry of decomposed gneiss, which is often used for sand. The sand of this district is said to be abundant in irite, in the shape of small black grains. Irite gives us two rare metals, irittium and osmium, the former of which became important as an alloy with platinum for making international standards of weight and length. Pieces of coarse jasper have been found on the hill. In the quarry on the north shoulder of the hill are found large crystals of iron pyrites, slightly decomposed and difficult to extract from the rock without breaking. Near this quarry the milky variety of quartz is seen lying on the surface. Most of the springs are deep seated, and, being little affected by surface climate, are said to be warm in winter and cold in summer.

The easiest course from Hallhead to the hill-top is to ascend by the Cromar bank of the Leochel Burn, the hill on the right bank of the stream having been planted by Mr. Wolrige Gordon of Hallhead and Esslemont. gentleman deserves much praise for having thus made the whole hillside beautiful and improved a poor "scawp" of an estate. "The Ground", as Hallhead is, par excellence, termed, has been owned by the same family since the close of the fifteenth century. Tam o' Rivven's fourth son, George, was the first proprietor. He married, about 1480, the widow of Lumsden of Cushnie. Their grandson was slain at Pinkie in 1547. The House of Hallhead, according to a stone in the door cheek, shows the date 1668, but other evidence has placed its erection eighteen years later. expense of building the house and other extravagant behaviour reduced the rightful heir to straightened means, but his uncle, Robert Gordon, Treasurer of Aberdeen, bought the family estate, and increased his property by the purchase of Esslemont in 1728. The thirteenth Gordon of Hallhead was the first of Esslemont. One of his daughters was the mother of Black the famous chemist. Dr. Adam Ferguson's mother was a lady of this house, and several of them have distinguished themselves by their gallantry and courage in the field of battle.

The "flauchter spade"-like marshes, called the Polsons, give rise to the Leochel Burn, where bog asphodel grows abundantly in its season. This singular name, Polsons, where there never could have been a human habitation, seems to be a corruption of buailtean, "cattle folds", the

larachs of which are still visible in the vicinity.

The county road leading between the Ford of Don at Drumallachie and Cromar passes through between the shaft and the blade of the so-called flauchter spade. in olden times a most important thoroughfare. Mackay led the Royal troops from Strathbogie to Abovne. in July, 1689, by this road, and when the parishioners of Forbes took steps in the translation of the Rev. Mr. Orem from Cushnie to Forbes in 1745, the Cushnie folks pleaded that it was but proper that so good a minister should be allowed to remain in a parish "situated on a public road from the north to the south, frequented by persons of all ranks, and who have sometimes to be hearers at Cushnie". It was probably by this road that Father Gilbert Blakhal went from the muir of Rhynie to Birse in 1641. He tells us in his "Brieffe Narrative" that, as he was crossing the hills of Cushnie, "as wyld a piece of ground as is in all Brittaine", his horse was stung by an adder, and was so lamed that he could not put his foot to the ground. worthy blacksmith "at the churche of Birs" could detect nothing the matter with the horse, but removed the shoe and set it on again-" so I did sometimes lead him and sometimes ryde him to Aberdeine". We may remark, with due deference to his Reverence's opinion, that with his lame horse he was in no fit mood to criticise the scenery through which he passed. The wildness of the place, however, has been referred to by a modern writer. C. Elphinstone-Dalrymple, author of "Lays, Highland and Lowland", says in his excellent ballad "Duncan Gorme":

"The nor'lan' win' is blawin' snell
An' Cushnie hills are cauld,
It's we maun lift an unco prey
An' syne we'll draw to hauld".

No doubt the author took his estimate of the climate from having heard the oft-repeated saying, attributed to the wild rieving Macgregors:

"Cushnie for caul, Culblean for heat, Clashanriach for heather".

A riever is also said to have thus described one of his raids:

"At Cushnie cauld I bigget my fauld, At Ininteer I simmert my steer, At Little Lynturk I drew my durk, At Baldievin I stak it in".

Climate suggests the plants of the district, which very much resemble the plants of any equally elevated locality. Some of the rarer species are Cornus suecica (dwarf cornel), in a sheltered hollow on the north-east side of the cairn, out of which the Tochie takes its rise; Thalictrum alpinum (alpine meadow rue) has been found, as also Trollius Europæus, but neither is frequent. Helianthemum vulgare (common rock rose) is common near Blackhills. Ononis arvensis (common rest-harrow) was found at Oldtown. The young lads and lasses from the Cromar and Cushnie sides of the hill used to meet on the Averin Brae on a Sunday afternoon to gather and regale themselves with this fruit (Rubus chamæmorus). Senecio sylvaticus (wood groundsel) and Solidago Virgaurea (common golden-rod) are met with in several places. Recent cultivation has expelled Briza media (common quaking grass), which used to be frequent near Bogfern. Arctostaphylos uva-ursi (red bear berry) is sometimes seen; Empetrum nigrum (black crowberry) frequently. Galium mollugo (great hedge bedstraw) was found in one situation and Viola lutea (yellow mountain violet) in several. The graceful plant which the great naturalist, Charles Linnée, associated with his name and fame (Linnœa borealis) (two-flowered Linnea) may be found in the plantation on the south shoulder of the

hill. As far as the writer's limited knowledge of the subject goes, he would conclude that there are no Saxifragas in the parish of Leochel-Cushnie.\*

The summit, which has been crowned with a large cairn, is reached without great exertion. On a favourable day, at our altitude of 2032 feet, an extensive and varied prospect is unfolded. Directing our eyes towards Aberdeen, which, however, is hid from view by the Brimmond Hill and Hill of Fare, and turning round sunwise (for turning in an opposite direction might forebode mishap) we see the ocean, with boats scudding over its surface in the season of the herring fishing. Cairn-mon-earn, Kerloch, Clochnaben, Mount Battock, and Mount Keen (or rather let us say, with an older generation than ours, Mounth Battock and Mounth Keen—the writer's grandfather used Mounth Keen as the landmark in the direction of which the stooks had to be set up in harvest), Mortlich, Culblean, and Lochnagar—of which a grand view can be got—with a more distant and apparently higher peak to the right, not unlike Beinn a' Ghlo. Now comes Morven, "the big Ben", which, from our present point of observation, deserves its distinguished name more than any other. It presents a substantial front, and our only regret is that its magnificent personality hides regions beyond. Looking almost due west, we readily identify Ben Avon, Beinn a' Bhuird, and Cairngorm. The Strathdon hills are "too numerous to mention "-a phrase which may cloak the guide's indolence or ignorance. Ben Rinnes stands out clear and unmistak-

<sup>\*</sup>Professor Trail gives the following note of plants observed by him, not mentioned above, on a visit to Sockaugh on 24th April last:—"Near Corse Castle there is a large bed of the white Butterbur (Petasites albus), an introduced plant in this district—seemingly a relic of old gardens. On the hill the cranberry (Vaccinium Vitis-idæa) is abundant, and so are several of the club-mosses, the common club-moss or tods'-tails (Lycopodium clavatum) and the alpine or savine-leaved club-moss (L alpinum) being the more abundant on the ascent from the east, and the fir club-moss (L selago) being very plentiful in fine fruit on the north slope. On some of the stones of and around the cairn a dark subalpine lichen—Umbilicaria proboscidea—grows, forming shallow cups often nearly an inch across, and studded inside with small black warts".

able. The Buck of Cabrach is also prominent—natives of Leochel-Cushnie are generally well acquainted with the Buck and with the famous corrective of a wayward disposition, "Cabrach sweeties", associated therewith. Almost due north are Tap o' Noth, Knock, Coillebharr, Forman and Foudland Hills, while looking north-east we detect the stack hills of New Byth, with its church and school. Part of Gamrie, with the hills of Cook, are quite discernible, and before Bennachie comes to curtail our prospect, we detect the "White Horse" of Mormond, resting his limbs on the slope of the hill, and the Fordyce Monument, near Brucklay. Passing Bennachie, which intercepts the greater part of Buchan, the eye rests upon Cairn William, the Red Hill, the Barmekin, and Hill of Fare.

A prominent object at the foot of Bennachie is Castle Forbes: and we feel constrained to turn right round about to admire the silver sheen of Lochs Kinord and Davan, so well known from the excellent history of them compiled by the accomplished and genial minister of Dinnet, the Rev. J. G. Michie. It would be difficult to say whether the Vale of Alford or that of Cromar were more worth a prolonged sweep of our binocular. Probably the direction of the wind at the time will put the question beyond doubt.

The late Rev. Alexander Taylor, D.D., a man universally esteemed and an excellent historian and enthusiastic antiquarian, in the *New Statistical Account*, thus writes of Leochel-Cushnie:

"The prospect from the summit of the Hill of Cushnie well repays the toil of the ascent. To the south is seen the fertile vale of Cromar, with the lofty chain of the Grampians beyond, among which Mount Keen and Lochnagar rise pre-eminent; to the west, Morven and Ben Avon; to the north-west, the windings of the Don through the valley of Towie, and Ben Rinnes in the distance; to the north, the Buck of the Cabrach and the Tap o' Noth, with the upper part of Strathbogie; and to the north-east and east, the vale of Alford, highly cultivated and richly wooded, with its bounding mountains, the district of the Garioch, and the flat country extending even to the Buchan coast. Various other points afford pleasing though much less extensive views".

At the foot of the hill stands Cushnie House, the residence of Sir William Samuel Seton, Bart., with the Auld Place, now called Cushnie Lodge, nestling among its old Sir William succeeded to the lands of Cushnie plane trees. on the death of his uncle's widow, Mrs. Lumsden. Lumsdens have owned these lands since the middle of the Their residence in Cushnie was the fifteenth century. Auld Place, erected in 1707. Their hatchment, seen above the door and on stones in the kitchen of the old Mains and above the door of the mill, is two wolves' heads couped in chief and an escallop in base, with the motto, "Dei dono sum quod sum". Notwithstanding this motto, they were a wild race. One of them, in 1719, was summoned before the Presbytery of Aberdeen for some misconduct, but he caused the Presbytery's officer to swallow the summons "gnipper and gnapper". Most of the Aberdeenshire families of the name can trace their connection to the Lumsdens of Cushnie.

The Hill of Cushnie is hardly known as "Sockaugh". The latter name is familiar only to those who have studied the Ordnance Survey map, but the surveyors have no doubt good authority for the name. The writer has been endeavouring to clear up this perplexing matter, but as yet unsuccessfully. In Robertson's map (1822) the name is given as "Cushnie Hill". It is a somewhat singular circumstance that the Cushnie people know the hill as simply "the Hill", or more usually "the Glen". Accustomed to derive their fuel from the hill, they would speak of going to the glen to cast, set, or drive a fraucht of peats, and so "the glen" has come to be identified with the hill itself.

On the O.S. map the name Pittenderich (1655) will be observed. The inhabitants of Cushnie call this part of the hill Presandye, while the natives of Tarland contend that "Sockaugh" itself, as well as Pittenderich, should be called Presandye. The latter name would imply some prominent plant or shrub growing there in days of yore—preas-an-dye, "the bush of ——", but of what? Curiously enough, but not without reason, the most prominent point from Cushnie,

and so called the Muckle Tap (marked The Top on the O.S. map), was called Pittenderich in a document of 1640.

The name Sockaugh may have been suggested to the surveyors by Socach Burn, which flows towards Towie, but we hope they had stronger authority than this. Perhaps (O! perhaps, for who has not got his fingers burnt in cooking Gaelic roots?) the word may be preserved in the "Auld Tochie" (Allt an t-Socach). Socach is the adjective formed from Soc, a snout, and means "the snouty hill". We are inclined to think that the hill, if so designated on good authority, was called by this name from the appearance of the marshes at Polsons. The Corse people speak of "the flauchter spade", and the fancy of earlier Celtic residenters might for the same reason call it the "Sock" hill, from the resemblance to the sock of the plough. Hence Socach.

On the north side of the cairn is a deep hollow, out of which the Cushnie Burn springs. It is known as the Kachel. Last time the writer was on the summit, he and his companion saw a rainbow resting on the two wings of the hill, with the intervening glen to complete the circle. We were reminded of the reverent piety of a rustic who, on looking at a splendid view from the summit of a hill, exclaimed, "the works of God are jist deevlish"—the adjective meaning much more than he could, with a limited vocabulary, express.

At a short distance down the glen stand the ruins of Cushnie Church, around which many generations of our forbears rest from their labours. Although it dates from the middle of the seventeenth century, a more ancient style of masonry is noticed in the gable and walls. The Cromar farmers claimed a right to the moss on the Cushnie side of the hill, as far as within sight of the bell. In recent years the bell was lowered, but the people on both sides were deprived of their right. Here is a bit of choice Latinity from a 1638 retour:—"Privilegio focalium in maresiis, vulgo to cast peittis, turvis et clodds in maresiis vocatis the moss of the Auldtoun of Halheid infra parochiam de Cushnie", which privilege gave rise to the saying, "O' the three peats at the door o' Ha'heid's hoose, Cromar taks twa".

The shootings are considered good both on the Cromar and Towie and Cushnie sides of the hill, and heavy bags are carried off after the day's toil. The Cushnie part of the hill was regarded as good pasture in olden days. In 1751 the minister of Cushnie applied for an augmentation of stipend, and this application was opposed on the ground that "he lives at the base of a very fine pasture hill, where he can have plenty of sheep, and not a gentleman in the whole parish", and it was stated that "he is a very trouble-some, turbulent creature".

Sockaugh, it should be observed, presents its best face to the south and south-west. From Cromar and many points on Deeside the hill has rather an interesting appearance, second only in the neighbourhood to Morven. particular, as one comes down Glen Muick, Sockaugh looks quite a two-thousand feet hill, and peaked, and, seen a little to the right of Morven blocking a farther north-eastward view, his identity has puzzled not a few. The descent to Cromar is an enjoyable one, and is made by first proceeding westward from the cairn for nearly three-quarters of a mile (near the point where three parishes-Leochel-Cushnie, Towie, and Logie-Coldstone-meet), thence descending by Trotten Slack, past Hillfoot, and on to the farm of Bog, about two miles from Tarland, the capital of Cromar. Dinnet and Aboyne stations are each about six miles from Tarland.

#### OUTLYING NOOKS OF CAIRNGORM.—No. II.

BY THE REV. WILLIAM FORSYTH, D.D.

(The Green Lochan). This romantic little An Lochan loch lies in the "Slugan", or throat of Glen More, at the entrance from Abernethy. UAINE. The hills rise steeply on each side, but with more breadth on the right, where the road passes. The hill on the right is called Creag Loisgte (the Burnt Hill), and that on the left Creag nan Gall (the Lowlanders' Hill). These names are descriptive, and, doubtless, refer to forgotten incidents of the past. The lochan is oval in form, and about 600 yards in circumference. It has neither inlet nor outlet, but is fed from underground sources. is of a delicate green colour and exquisitely clear. Looking down from the bank, some 10 or 12 feet, one can watch the tiny trout swimming about, and wonder at the strange gathering of logs and roots, the relics of ancient forests, that lies in the bottom. Between the banks and the water there is a strip of ground which in an August day may be found gay with violets, bluebells, and St. John's Wort, with here and there thistles, dandelions, and wild strawberries. If the day be calm, all above and around is reflected on the surface of the water with wondrous beauty. tufts of grass, the patches of purple heath, like clots of blood, the pines standing singly or in clumps, the ledges of rock, with the masses of loose stones sloping downwards from the cliff, the clouds, the blue sky, and the glorious sun are all there-

> "For not a feature of those hills Is in the mirror slighted".

So sings Wordsworth of St. Mary's Lake. Scott has a similar passage; so has Shelley in his poem, "The Recollections", but with a subtlety of thought and felicity of expression beyond either of the others. When one looked, as Coleridge has it, "with head bent low and cheek aslant",

the beauty of the scene was marvellously enhanced. colours took a more delicate tint, the sun shone with more chastened radiance. Things were in a manner transfigured. It became difficult to distinguish between the seeming and The mind itself was caught as if in a spell. Now the thought was of our rude forefathers. Fancy ruled. and we listened as if for the horn of one of the old barons of the glen, or the wild shouts of the caterans as they drove their prey through the pass or turned fiercely on their Anon, other thoughts arose. The scene seemed a glimpse of fairy-land, and we felt as if it would have been no surprise to have heard the fairy maidens lilting "Crochailan" as they milked the deer, or to have seen "Donald More" himself with his elfin band sailing their skiffs on the lake or holding gay revels on the green.

The question is often asked-What causes the green-In the "Survey of the Province of ness of the water? Moray" (1798) it is said:—"The rocky banks rise around to a great height, and are closely clothed with the eververdant pine, by the reflection of which the water is always seen of the deepest green colour in every possible situation". It is strange that a man so shrewd and intelligent as the Rev. Mr. Leslie should have committed himself to such an The explanation is not a bit better than the old belief that the water is green because the fairies washed their clothes in it! Some twenty years ago Sir Robert Christison gave his opinion, as the result of enquiry, that pure water was colourless, but Tyndall and Aitken have proved, by various experiments, that this is a mistake. The colour of distilled water is blue-green. At the same time, owing to matter held in suspension or solution, the colour may be greatly varied. The Lake of Como is of a deep blue; the Maggiore is greener. Brodick Bay takes a green hue from the grains of yellow sand, whereas Loch Lomond is of a brown colour. In Australia a gum tree cast into the water will soon tinge it of a fine blue. It may be well to notice that there are three other "green" locks in the Cairngorm district. One is on Ben Muich Dhui, another on Cairn Toul, and the third on Cairngorm of

Derry. The latter is the one referred to by William Smith, Rynuie, Abernethy, in his fine hunting song (Gaelic) "Allt an Lochain Uaine".

(The Dark Sithan of the Double Outlook). This Sithan stands on the Cairngorm side, SITHEANa little beyond the Green Loch. DUBH-DAname is a word picture. It accurately describes the hill as commanding a double view-looking on the one side to Glen More and on the other to Abernethy. Tradition says the place was a favourite haunt of the fairies. On the south side a little burn finds its way through rough rocks and shaggy wood to the glen below. On its bank, opposite the Sithan, there are the remains of a smuggling bothy, which was famous in its day. I was told by an old man, dead many years ago, that once when standing in front of the bothy on a summer evening, he heard the fairy piper playing on the Sithan. The piper was going his round, and one could mark when he got to the end of his beat and turned back, but nothing could be seen. Here is an older and more romantic story :-Robin Oig, son of one of the Barons of Kincardine, famed as a hunter, was returning one day from the glen when he met a party of fairies on their march, with pipers. The music was the sweetest he ever heard. He listened entranced. As they passed by he noticed that the pipes were of silver, sparkling with jewels. Throwing his bonnet among the little folks with the cry, in Gaelic-"Mine to you, yours to me", he snatched the pipes. The procession moved on, and the music pealed out sweeter than ever. Stewart hid his prize in his plaid and hurried home. But when he looked, lo! he had nothing but a broken spike of grass and an empty puff-ball. The moral is not ill to find.

#### THE LOCHNAGAR CORRIE.

#### By JAMES Rose.

THE crags of Lochnagar—its "steep frowning glories"—have by no means received their due meed of attention from the mountaineer. It is its battlemented front which fascinates when upon, or near, the mountain, and which displays that characteristic blue colour which is so marked a feature in all the distant views of it from the eastern side.

It was with the intention of making a leisurely survey of the wonderful corrie and its encircling cliffs, and of varying the ordinary route to the top by ascending the "Black Spout", that three "dissentient" Cairngormers, having turned their backs on the easy delights of Sockaugh, found themselves, on the occasion of the Spring Holiday, on the saddle that connects the Meikle Pap with the main mass of Lochnagar. The little black loch, which receives the waters of the melting snows that linger so long at the foot of the cliffs, had almost shaken off its winter coat of ice, and the great scree slopes that separate it from the precipices bore comparatively little snow, just enough to make the "going" fairly easy along the foot of the cliffs, where our route lay.

The Lochnagar Corrie, as every one knows, is a double one, the north-western portion being by far the more interesting from the greater height and steepness of its rocks. Both are crescent-shaped, and, where the two curves join, the main cliffs are continued by two lower systems of crags down to the edge of the loch. Our way seemed to lie along the top of the upper rocks, which route would take us right to the foot of the cliffs of the principal corrie, and that, too, without our having to descend much below the level of our point of survey. The course we thus marked out was found to be quite feasible, and, taking advantage of the snow wherever possible, after a short scramble we found ourselves at the base of the great buttress that forms the southern extremity of the larger corrie.

A closer inspection of the giant walls of Lochnagar can only add to one's appreciation of the apparently inaccessible character of the mountain on this side. True, in most places the cliffs are by no means perpendicular, and time has scarred their front with several gullies which, no doubt, will yet yield to the bold climber, but the party will have to be a strong one, and the difficulty of making a complete survey of any route from either bottom or top of the cliffs will always leave the practicability of an ascent a problem to be solved by actual trial. It was one of the objects of our visit to reconnoitre these gullies, or "spouts", as they seem to be called locally, and from the bottom one or two appeared to promise a possible way to the summit. At the foot the cliffs have not experienced the shattering effects of the weather to the same extent as towards the top, and the difficulties that would present themselves would come from the comparatively smooth and unbroken nature of the rock. All this, however, is changed further up, and insecure handand foot-holds, and sudden "faults" in the cliff, would doubtless be the obstacles the climber would have to encounter.

The ever active forces of Nature here work with rudest vigour: frost and the "ever young and ever mighty sun", of which Tyndall writes so eloquently in that memorable passage where he describes the power that has so wonderfully carved the giant features of the Alps-these are the ioint sculptors of this gloomy corrie, and are ceaselessly fissuring the crags, and strewing the slopes with the debris. The silence is often broken by the crash of falling stones. A great block that had recently been shot from the upper regions of the cliffs had cut a deep trough in the snow slope, and ploughed its way far down towards the loch. snows, and the waters that one hears every-where rushing along under the stones, are the agents that are always at work clearing the base of the cliffs and making way for the shattered and toppling masses which hang ready above for the next impulse of King Frost.

As our expedition was only of the nature of a reconnaissance, we were unprovided with the "moral support" of

a rope, and so the temptation to try the merits of a very promising "chimney" had to be put aside, and, as the afternoon was waning, so had likewise the desire to tarry longer as passive spectators of this savage scene. Up to this point the weather had served our purpose admirably; it was certainly not a day for distant views, but these were not our special object. A thicker haze, however, which was creeping up from the east, seemed to threaten our investigations at the top, and, though fortunately this anticipation was not realised, prudence suggested an onward movement.

Still keeping to the snow, and as close to the foot of the crags as possible, we had worked our way to the head of a great scree slope which stretches from the bottom of a gully we had been scrutinising almost to the loch. From this point the rocks, which form the centre of the Corrie wall, reach much further down, and to round them we had to seek a considerably lower level. This was easily and pleasantly accomplished by means of a sitting glissade, which method of progression on snow of the proper consistency is not nearly so wearing to the nether garments as might be supposed. Thus far we had kept to an average level of about 3000 feet, but now we struck straight up to the foot of the Black Spout, observing, as we went, that the rocks on its right might possibly be climbed all the way to the summit. On the day of our ascent, the name Black Spout was obviously a misnomer, for it was floored with snow from bottom to top, with the exception of a spot near the head, where a low cliff of about six feet broke its continuity. Just above this rock the snow rose in an almost perpendicular wall for about twenty feet, and this having been duly scaled, we were on the summit plateau, and only a few yards from the Cac Carn Beag.

The ascent by the Black Spout is, undoubtedly, the most interesting of the routes to the top of Lochnagar. To gain it one must pass under the mighty cliffs, and no one can appreciate this distinctive feature of the mountain unless he

has surveyed these sublime walls from their base.

Anything of the nature of pinnacle or aiguille seems foreign to the character of the Lochnagar rock wall, but,

while standing at the top of the Black Spout our attention was rivetted by a huge rock of distinctive needle shape, which is cut away from the main mass of the mountain by a gully which branches off the Black Spout on its southern From this point of view it is seen to rise a completely isolated mass, terminating in the sharpest of points, from the foot of the Spout to the level of the top of the Corrie wall—a height of perhaps 400 feet. As seen from the Black Spout it is quite inaccessible, but in mountaineering, as in other questions, it is wise to hear the other side, and as we moved southwards in continuation of our investigations, we soon saw that our inaccessible pinnacle was connected by a rather rotten-looking ridge with the plateau along the edge of which we were walking. On this side, too, the peak was very much weathered, and, further, what seemed a fairly easy gully led apparently to the foot of the cliffs on its southern side.

Our explorations along the top of the cliffs revealed nothing finer than this rocky needle, unless we except a splendid jagged ridge at the extreme south of the main corrie, almost right above the point where we began our walk along the foot of the precipices. Here the rocks are, perhaps, highest, and the climb, if it is ever accomplished. will no doubt satisfy the most exacting lover of mountain adventure. But every-where at top or bottom these stupendous rocks are intensely interesting. The student of the forces of nature, the lover of mountain scenery, and the climber will ever find something new to wonder at, to admire, or to conquer in these grim precipices; and when the ever-changing conditions of weather are taken into account, he will be a very easily satisfied mountaineer and scarcely worthy of the name who can fancy that he has exhausted the attractions of Lochnagar.

# ROUND LOCH EUNACH.

# By John Gordon, M.D.

WHILE some of the less thoughtful of the party had to employ the clachan cobbler at unseemly hours in tacketdriving, the leader of the expedition and the writer were stretched on the short heather and petty whin rehearsing the plan of the excursion. It had been proposed to ascend the western shoulder of Braeriach by the Coire Dhonndail bridle path, thereafter to cross between Loch Eunach and its feeder, Lochan nan Cnapan, to Sgòran Dubh. ing was somewhat suggestive of a change in the weather, and as one of the company had read in the day's paper that a depression from the south-west was approaching, feelings of apprehension were possibly the more easily roused. clouds hung low on the hills and lingered along the rim of the large plateau on which Boat of Garten is situated. as we walked on a carpet of cranberry flowers to the little knoll which lies to the west of the village, somewhere from its lines of black firs the notes of the cuckoo greeted us, with something of hope in the wandering voice.

The following morning we were astir by five o'clock. The sun shone brightly as we started, the clouds were few, and the smell of the morning air was fresh and stimulating. While we drove along "the solitary morning smote the streaks of virgin snow" in the northern corries of Braeriach. entered the grand forest of Rothiemurchus, bedecked in all the glory of the leafy month of June; and the purple vetches, the snow-white stars of the winter-green, and the blue of the speedwell were blended in profusion. Here a birch tree shook the sunshine and the dew from its glossy leaves, while the grim Scottish fir looked on. The juniper and the rowan stood side by side in flower. Passing along the narrow road which leads by the side of the Bennie the views were most levely at almost every turn. Opposite Carn Elrick we were specially struck with the beauty of the scene. On the right hand the shoulder of the brae ran

up against an indigo blue sky, which was broken into lakes by the branches and stems of the firs and birches that edged the horizon. The Bennie ran, a seething silver stream, past rocks and pines, here enclasping an island with its trees and shrubs, there chattering over its pebbles. On the other side of the burn the sunshine lay in islands on the wonderful green of the newly opened blaeberry leaves. These isles of green sunshine shimmered in the wastes of No one can fail to be enchanted by the freshness of the young blaeberry leaves when the sunshine is lying on them. Higher up the hillside the sparse pines were sentineling their own shadows. Then the brown shoulder of the ridge, with gray and black lichened rocks, leaning with a rounded softness against the lighter blue of the sky. All this bathed in the fresh morning air, which had robbed birch, larch, fir, and juniper, and a thousand flowers of their perfumes, intoxicated the senses and quickened the delights of the morning in the forest. In front, seen through the trees, the glimpses got of the skirts of the hills looked purple in the faint mist that hung over Loch Eunach.

We were unable to drive to the upper bothy owing to a huge wreath of snow which lay across the road just beyond the Little Bennie. So there we left our conveyance, and made the necessary preparations for the climb. Although we were repulsed by this snow wreath—large enough to give work to a couple of men for a day or two to cut a carriage-way through—there was comparatively little snow to be seen on the hills.

And now to the right there towered up two thousand feet the black buttresses and grayish-red screes of Sgòran Dubh which even the sunshine failed to soften; in front Loch Eunach and its southern corries, the latter streaked with mountain rills which the rocks combed into white cataracts; and to the left the salmon-coloured gravelly shoulder of Braeriach with the stalkers' path zigzagging to the plateau.

As we sauntered upwards, passing a snow bridge, where the camera had its first outing, we could not help contrasting this day of sunshine and softest streaming wind with the day of mist and tempest in which we toiled last year. To-day the jagged peaks of Sgòran Dubh were serene in the sunlight, except where some slowly moving cloud, herded by the gentle breeze, climbed up the corries, chimneys, and cracks, and, gaining their utmost limits, swept silently away. Only a few small patches of snow were left on the steep face, little tags of winter's ermine torn from her by the rocks and detained by the glooms. A year ago from out the mist and the snow-filled gullies only at times were the black ridges visible with an ominous grimness. vague, mysterious effects which mist produces on hills were gone, and we grudged them. To us our finest mountain Not the mist that hangs like a days are set in mist. funeral pall without change or movement, but where wind and mist combine to give that inexpressible delight to the mountain tops; where every minute the wind and the rocks like mighty shuttles weave it into cloud draperies of ever-changing varieties of shade and shape; when the eye wanders upwards and the vision lingers, or still stumbles on into a mysterious region where fancy takes up the chase and goes racing along till the next glimpse of sunshine plays, or the mist becomes diaphanous enough to disclose some landmark. Who that has ever spent such a day on the hills can forget the fantastic forms, the quaint suggestions, or the half-formed picture suddenly blotted out; and who has never felt a fierce delight as a torrent leaped unexpectedly across his route, or a deep gully suddenly gaped like a steaming cauldron below his feet, or gazed with wonder when some high peak struggling for light tossed the mist-cap from its head. On such a day the grunt of the startled ptarmigan is "eerie"—and the glimpse of red deer filing past, from shadow-land to shadow-land, becomes an enduring memory.

But "chacun à son goût", as a tolerant philosopher would say. And meanwhile, although we thought of the mist, we could not help looking backwards to feast the eyes on the distant Cromdale hills that now undulated softly on the far horizon in the thin morning haze—we saw

their patches of wood, and the green fields on their skirts. Below us the young river, proud of its escape from the loch, was leisurely enjoying its freedom before starting on its race to the Spey. Patches of black burnt heather blended with the early greens and last year's browns and grays. Loch Eunach lay purple in parts and inky black in others-the sun not yet having visited it; but the wind was there at a morning race, for we saw the little wavelets white-capped at times, or noticed a shiver run over the surface. The margins of the loch looked soft and lovelythe many yellow sanded little bays shelving into the dark water and shining out of it in reddish brown, here a long, narrow margin of pebbles, there a miniature promontory shooting in to view its own image; while right in front the gray black Stuc, half in shadow by the wandering clouds, stood guardian of the scene.

When we entered Coire Dhonndail we found only a few hundred feet of snow; last year the whole was filled. The sun was busy at work, and as the melted snow fell glittering over the black rocks one was puzzled to make out if the sheen were not that of ice. There was no difficulty in crossing the snow, steep slope though it was, and

the top of the corrie was speedily gained.

We now made for the March Cairn (4149) of Braeriach, some thousand feet above us, a surprisingly easy walk along a desert of gravel where plant life gets but the faintest hold. The only vegetation which we found, maintaining its own, was a species of velvet black moss-dotting the gravel in little cushions of fantastic shape, some looking like moles with feet embedded in the soil, as if they had begun to dig their homes. This variety struggled on—a solitary pioneer which none seemed able to follow. vast, silent, forsaken region, extending for miles, gives one the feeling of intense desolation and loneliness. Nor beast, nor bird, nor flower was seen, while the only sound audible was the crunching of the loose sun-warmed gravel under foot. No trace of water—except dry "tear" tracks. Then when the memory goes back to the forest of Rothiemurchus, which has just been left in all its leafy glory, the contrast

of utter barrenness is still more impressive. Verily we were treading amongst "the riddlings of creation". The western ridge of the plateau gained, a descent was made on the Wells of Dee, but a great snow-field guarded them, and we had to be content with the young river as it appeared from below its eastern edge. Some of us, indeed, were surprised to find "the infant Dee" so vigorous and well developed at an altitude over 4000 feet. It flowed a fair-sized stream, four feet wide and five or six inches deep. Swiftly, too, it ran towards Fuar Gharbh-choire, rippling in the mountain breeze over its reddish gravel, and making a flowing network of the sunshine that fell on its surface. The southern edge of Fuar Gharbh-choire was next gained; the snow still well filled it. In the noon-tide rays the snow was of dazzling whiteness except where the wind-chased clouds swept their shadows over its depths. Within a stone-throw of where we sat the young Dee makes its first and greatest leap, a bound of some 200 feet from snow to snow, disappearing and re-appearing several times ere it brawls a white-crested racer in the bottom of An Gharbh-choire. In spite of their grimness the huge tempest-torn rocks that guard the top of the corrie had their southern sides softened by dustings of gray, green, and red lichens. While we gazed over out flew a ptarmigan, grunting as it went, on wings that were taking on their darker summer colour. This was the first living thing we had seen. Then presently a bee hummed past to the west—as if to give doubt to the poet's story that the "bugle of the summer bee" is there unheard.

All day long detached clouds had been sailing across the sky—or were teazed overhead into thinnest films by the upper currents of the wind, but about this time their endless diversity was a source of changing pleasure. We watched them sail out of the north-west, voyage quietly over mountain, corrie, and tarn—away to the far horizon where they formed into a grotesque encircling rampart. Perched on the lip of the corrie we gazed along the Learg Ghruamach, half in shadow half in shine. To the right Sgòr an Lochain Uaine ran boldly out over the corrie; further on the two

cairns of Cairn Toul overlooked Glen Dee. On the left the corries of Ben Muich Dhui were filled with bright snow and wandering shadows. Lochan Uaine lay sullen in front, untouched by sunshine. Beyond the Pass the eye followed mountain upcrowding on mountain till on the extreme limit Lochnagar closed one view, while the grand outlines of the Beinn a' Ghlo group dominated the right horizon and compelled attention.

The mutterings of hungry men indicated that the luncheon hour had passed. A descent was necessary, and glissading over several large snow-fields we soon gained a lower level. Then a race across a rough and stony ridge and we were encamped by a little water-course on the east side of the Lochan nan Cnapan Burn. There in our skyey tent, curtained by the flowing wind, and on our carpet of heather and grass, we eat our high altitude meal. It may be interesting here to observe that the fluid portion of our luncheon consisted of a small quantity of beef juice mixed with spring water, and that this extemporised beef tea was the only fluid employed as a stimulant, and, further, that the evening never felt us less fatigued after a long day on the hills.

We had now reached the level where vegetation could live; we picked up specimens of adventurous violets (Viola palustris) as well as the Alpine variety of the marsh marigold, while the mountain lady's mantle gracefully outspread its lovely leaves, to contrast with the green mossy cushions of the moss campion (Silene acaulis) and their blush of faint pink flowers. More ptarmigan were startled and some of the party had sight of a noble herd of about 200 deer.

Our movements now led us over the ridge commanding the head of Loch Eunach, and as we proceeded we had ample opportunity to notice the water-worn sides of Braeriach and Sgòran Dubh—the one almost the replica of the other so far as their slopes were torn with water-courses, showing the loose grayish-red gravel which led in countless wastes to the margins of the loch. The route was a series of up and down climbs amongst "cnaps" from which Lochan nan Cnapan derives its name. These "cnaps" seem to

partake of the nature of moraines, and were in great diversity of shape and size, and hidden between them there were many jet black tarns. The south-eastern shoulder of Carn Ban (3443) was now traversed, where, under foot, grasses replaced "cnaps". By the side of a dilapidated shieling we lighted on an exquisite spring of water which after a somewhat arid climb was a treasure trove. began the last part of the day's work along the summit of Sgòran Dubh. And a delightful walk it proved; the evening air was so delightfully caller. Its carpet of wind-clipped moss had a springiness which to tired feet was most grateful. Over and over again we found ourselves compelled to compare the summit with the back of some gigantic animal which had recently been shorn by a somewhat wandering scissors, leaving big shear-marks all Sgòran Dubh Bheag (3658), as the highest top is called, is a great "Stuc" which prominently faces the climber as he approaches it from the south. When we stood on it looking down on the loch, 2008 feet below us, the shadow -or rather shadows-of the Stuc lay across the water in the form of two huge triangles—a central black one and an outer lighter in shade. The apex of the triangle while we lingered there in the softening light had just reached the foot of Braeriach, and we watched it gradually climbing up the hill as we unwillingly withdrew from the spot. and many a glimpse did we take down the rugged, buttressed side, the eastern face, of Sgòran Dubh, to Loch Eunach. We were struck with the evidences of the ice wedge in the vertically and horizontally fissured rocks so plentifully piled on the edge of the ridge. The western side of the mountain is, however, extremely disappointing when contrasted with the eastern. It is merely a great slope, covered with mosses and grasses, shelving gently down to the valley of One cannot help noticing, also, the great contrast that the top of Sgòran Dubh presents to that of Braeriach, although there is only a difference of about 600 feet in their altitudes. The former is a narrow table-land of moss, the latter a vast plateau of gravel.

Crossing a slight depression we reached Sgòran Dubh Mhor (3635), and from here the last horizon look was taken before the descent was commenced. The catalogue of mountains visible was given by Mr. Munro in the first number of the Journal. What specially filled us with admiration in the summer evening haze was the Spey lying like a long silver serpent fast asleep, while here and there among the cups of the hills lay little tarns, gleaming silver shields. Only dimly could the far-off western hills be seen, darker masses, as it were, in the gathering gloom. But even a June day draws to an end, and we had to make a drop of 2000 feet to the Bennie. We crossed it on boulders, observing that the day's heat had considerably increased its volume by the addition of melted snow. A walk of a short mile brought us, at eight o'clock, to the lower bothy and our wagonette. Without delay we were trotting down the glen through the glooms of the forest, now perfumed by its evening fragrance and noisy with the talk of the stream. As we neared Boat of Garten we saw a new range of mountain tops lording it over all, ridged with precipices and capped by cairns, here a plateau, there a valley—a vast phantasmagoria which the cloud artist had limned as if in serene mockery of our petty hills of rock and sand. While we looked, it changed and melted into nothingness. Through the peat reek of the clachan we smelled a lively meaning in "Oh, Hesperus! thou bringest all good things: home to the weary—to the hungry cheer".

From start to finish, the day had been full of sunshine and pleasure. If by no means rich in moving incidents it had a rich enjoyment all its own, and for one long day we had "summered high in bliss across the hills of God".

## THE CAIRNGORM MOUNTAINS.

#### II.—THE CENTRAL CAIRNGORMS.

I .- THE BEN MUICH DHUI DIVISION.

### BY ALEX. INKSON M'CONNOCHIE.

"Amid this vast, tremendous solitude,
Where nought is heard except the wild wind's sigh,
Or savage raven's deep and hollow cry,
With awful thought the spirit is embued!
Around—around, for many a weary mile,
The Alpine masses stretch; the heavy cloud
Cleaves round their brows, concealing with its shroud
Bleak, barren rocks, unthawed by summer's smile.
Nought but the desert mountains and lone sky
Are here;—birds sing not, and the wandering bee
Searches for flowers in vain; nor shrub, nor tree,
Nor human habitation greets the eye
Of heart-struck pilgrim; while around him lie
Silence and desolation, what is he"!

The Central Cairngorms, so well defined by the two Larigs, contain the best known and most frequented summits of the whole group. They are dominated by Ben Muich Dhui (4296), the highest of the Cairngorms—long considered the highest mountain in Scotland, though now yielding that eminence to Ben Nevis—and Cairngorm (4084). Notwithstanding the fact that the latter summit ranks only fourth of the group in height it has secured the honour of being its titular peak.

Yet the name "Cairngorm Mountains" is, comparatively speaking, of yesterday, their original and more appropriate designation being Monadh Ruadh, the red mountains; Cairngorm, a name of not infrequent occurrence in the Highlands, signifying the blue mountain. Monadh Ruadh is appropriately descriptive from a geologist's point of view, and was in contradistinction to Monadh Liath, the gray mountains, on the left bank of the Spey. An Aberdeenshire

rhyme perpetuates a name which has now fallen into desuetude:

"There's four great landmarks frae the sea, Brae o' Mar, Lochnagar, Clochnaben, an' Bennachie".

Robert Chambers\* gives this couplet in a slightly different form:

"The four great landmarks on the sea
Are Mount Mar, Lochnagar, Clochnaben, and Bennachie".

Brae o' Mar is, we believe, the older form, and, doubtless, has reference to the Cairngorms.

As a group, the Cairngorms are much better seen from Spevside than Deeside, and doubtless always attracted more attention from the great thoroughfare in the neighbourhood of Aviemore than from the once little-frequented Deeside road terminating in Braemar. The gashes and landslips of red granitic debris could not fail to suggest to the ancient Gael the name "Monadh Ruadh". In modern times one is not inclined to quarrel with the designation "Cairngorm Mountains", which, though not especially descriptive, is euphonious. It is probable that both names were originally bestowed by the natives of Strathspey, in whose vision Cairngorm bulks most prominently, for Beinn a' Bhuird and Ben Avon, irrespective of their lower elevation, lie too far from the Spey to be considered, while Ben Muich Dhui and Braeriach, both flattopped, have not the full advantage of their greater height in the eyes of the ordinary observer. Cairn Toul. being invisible from the lower points in the valley, does not enter into the competition at all. The actual summit of Cairngorm, however, is readily observable from many points in Strathspey on account of its isolated position, and thus had suggested the modern name - a name which has met with such favour that now it is recognised by all topographers. Moreover, even so late as last century, a few hundred feet more or less in the height of a mountain was a little considered matter, and

<sup>\* &</sup>quot; Popular Rhymes of Scotland", new edition (1870).

extraordinary notions prevailed as to the comparative height of mountains. We find Pennant\* lamenting "the disgrace of *Snowdon*, once esteemed the highest hill in the island, but now must yield the palm to a *Caledonian* mountain".

Even the then minister of Elgin had evidently regarded Cairngorm as the most important peak of the group from his remarks in the Appendix to Pennant's book. Little wonder then that the standard topographical works of last century ignored every other summit visible between Kingussie and Carr Bridge along the great highland road from Perth to Inverness, contenting themselves with some such observation as—"Not far from this is seen the lofty top of Cairngorm".† We have also the authority of a poet‡ in the early years of the present century that Cairngorm was then accounted the principal mountain in the district. The Ordnance Survey arrived too late to deprive Cairngorm of its popular honours.

Ben Muich Dhui is generally held to mean the mountain of the black sow, and has been named either from its hogbacked ungainly appearance, or from some hunting incident in the days when wild swine abounded there, as they did in many parts of Scotland. It is situated on the watershed of the Dee and the Spey, mainly on the boundary line between the counties of Aberdeen and Banff. The Aberdeenshire portion is in the united parish of Crathie-Braemar, the Banffshire in Kirkmichael. Cairngorm is on the boundary between the counties of Inverness and Banff, and drains to the Spey—the southern side by the Avon in the parish of Kirkmichael. The Inverness-shire side, on the north, is in the united parish of Abernethy-Kincardine, and on the north-west in the united parish of Duthil-Rothiemurchus. The distance between the summits of Ben Muich Dhui and Cairngorm is about 3½ miles. The dividing line between the two is the Lochan Buidhe Burn, the Garbh Uisge (after

<sup>\* &</sup>quot; A Tour in Scotland" (in 1769). 3rd Ed., 1774.

<sup>† &</sup>quot;Scotland Delineated", 2nd Ed., 1799.

<sup>‡ &</sup>quot;The Grampians Desolate", by Alexander Campbell (1804).

their confluence), and Loch Avon. The principal dependencies of Ben Muich Dhui are:—Beinn Mhéadhoin (3883), Derry Cairngorm (3788), Cairn Etchachan (3673), and Carn a' Mhaim (3329); under Cairngorm are included Cairn an Lochain (3983), Ben Bynac (3574), Creag na Leacinn (3448), and Meall a' Bhuachaille (2654).

The Central Cairngorms may be conveniently reached from either Dee or Spey—Braemar or any point between Nethy Bridge and Aviemore. Ben Muich Dhui is probably most frequently climbed from Deeside, and Cairngorm from Speyside, but a favourite excursion is to pass from the one valley to the other, across both summits. As the Ben surmounts all, it shall be first described, along with a brief outline of the Braemar approach as well as of the two Larigs.

The first stage in an excursion to Ben Muich Dhui from Aberdeen is by rail to Ballater (431 miles). Then follows a drive by coach to Braemar (161 miles). It is unnecessary to describe here the numerous objects of interest and picturesque scenery continually within the gaze of the tourist; suffice it to say that Abergeldie Castle, Balmoral Castle, and Invercauld House are passed, and that Lochnagar is often in view, while Beinn a' Bhuird and Ben Avon can also be seen. Castletown of Braemar is an excellent mountaineering centre (reached also from Blairgowrie by the Spital of Glen Shee), from which the end of the third stage, Derry Lodge, is about ten miles distant by a capital driving road. Here the final stage begins, the summit cairn being 8 or 6 miles. distant according to the route selected. This must be accomplished on foot, unless the doubtful luxury of a pony be indulged in. By the longer route ponies may be taken all the way to the top.

Leaving Braemar on the third stage the mountaineer's attention becomes concentrated on the object of his journey, for now the character of the scenery begins to change, and he is introduced to the longed-for mountains. The first six miles, while allowing him many a peep of the Cairngorms, present Highland scenery at its best, the valley of the Dee here affording an excellent example of the blending of the

grand and the picturesque.\* Nor are particular objects of interest wanting, among which are the Falls of Corriemulzie, Mar Lodge, Old Mar Lodge, Inverey, and the Linn of Dee. The Falls are three miles west from Castletown, and another quarter of a mile brings the tourist to Mar Lodge,+ the highland residence of the Duke of Fife. Old Mar Lodge, anciently called Dalmore, is a plain structure opposite the fourth milestone from Castletown; there is here a private bridge across the Dee, the use of which is frequently granted to the public. A "short cut" is thus gained into Glen Lui, saving the round by Linn of Dee. The village of Inverey-where the tourist may occasionally find accommodation—is situated on both sides of the Ey Burn, about The ruins of an old castle of five miles from Castletown. the now extinct Farquharsons of Inverey will be observed on the right. The Linn of Dee is a unique freak of nature, where, 1243 feet above sea level, the river rushes along a rock-bound channel of about 80 yards in length, and in some places less than four feet in breadth. Here the south road ends, the Dee being crossed by a handsome granite The road on the north side is continued westward to Geldie Lodge, in Glen Geldie, crossing the river at White Bridge (the uppermost bridge over the Dee), three miles from the Linn, where the Geldie joins the river at the south end of Learg Ghruamach. Our route, however, proceeds eastward from the Linn by the north road for about half a mile (ignoring a "short cut" of doubtful advantage due north from the Linn Bridge), till the Lui Water, a clear, sparkling stream, is reached, when a road will be observed turning northward up Glen Lui, by the right bank of the stream. This is an excellent forest road always open to the public, leading to Derry Lodge and Luibeg, two houses used in working Mar Forest. Many larachs will be observed on both sides of the stream, and traces of cultivation are numerous. A short distance above the confluence of the Lui with the Dee there are two water-falls worth a passing

<sup>\* &</sup>quot;Deeside", 2nd Ed., by Alex. Inkson M'Connochie.

<sup>+</sup> Burned down last month.

I. Y

visit, but the deer-fence protecting the young plantation renders this no easy matter. These falls prevent the passage of salmon. At the base of Creag an Duichd, on the right bank of the stream, the road crosses the Lui at Black Bridge, where the "short cut" by Old Mar Lodge ends, about a mile and a half from the Linn. About a mile further along the Allt a' Mhadaidh is forded, a path here connecting Glen Lui with Glen Quoich. There is a considerable extent of hilly ground between Glen Lui and Glen Dee, of no interest whatever to the mountaineer. The highest point is Sgor Mor (2666); other summits are Sgor Dubh, Creagan nan Gabhar, Carn Mor, and Leachd nan Uidhean, of which latter Creag an Duichd is a part.

Derry Lodge and Luibeg are situated near the confluence of the Derry and Luibeg Burns, which form the Lui Water, the two houses being three furlongs apart. Except during the season they are only occupied by foresters. Two tracks here take the place of the driving road: the path on the right (north)—up Glen Derry—is part of the Learg an Laoigh, while the path on the left (west)up Glen Luibeg-joins the Learg Ghruamach after rounding Carn a' Mhaim. The first shieling erected by the Earl of Fife in this neighbourhood was about half a mile above the present lodge, and on the opposite side of the burn. About a century ago, as we learn from the travels of an English lady in the Highlands,\* Lord Fife at times left part of the shieling open for the convenience of travellers between Strathspey and Braemar, "but the depredation of poachers" put an end to this convenience. There were also several shielings in Glen Luibeg on the opposite side from the present house on a little haugh known as Dail a' Mhoraire. Cordiner,† writing of a descent from Cairn Toul, says that "the first object is the sequestered habitation (on a plot of grass that spreads along the sides of a brook) which Lord Fife has built for a temporary accommodation when

<sup>\*&</sup>quot;Guide to the Beauties of Scotland", 3rd Ed., 1810, by the Hon. Mrs. Murray.

<sup>†&</sup>quot; North Britain", written in 1788, published in 1795.

benighted in these vast solitudes of the forest, and from its situation has denominated Dee Cot".

The time and cause of the destruction of the great Caledonian forest, under which name many writers seem to include all the forests in Scotland, are still puzzling ques-The wanderer on the Cairngorms continually comes tions. across evidences of the former enormous extent of the woods, which must have almost covered the Highlands. In the vicinity of Derry Lodge burnt wood is frequently found below moss and tree roots at a depth of from two to three feet; and even three depths, or layers, of tree roots have been found by one of the head streams of the Dee. Sir Thomas Dick Lauder attributed the destruction of the forests to fire\*—some fires accidental, others lighted for the purpose of driving away wild beasts, and others made to clear ground for hunting and pasture. Evidence is not wanting that much high ground now treeless was covered with wood at the beginning of the eighteenth century, yet Sir Thomas, in spite of all his efforts, was unable to glean any account, legendary or otherwise, of the extirpation of the forests at a period so comparatively recent. Roots show that the pine was the prevailing tree, but birch, alder, and hazel had been common, and oak not infrequent.

The final stage of the excursion being now entered on, the mountaineer has to exercise his option of proceeding by Glen Derry or Glen Luibeg. The former is the stereotyped route to the summit, but should the excursionist propose to return to Braemar the ascent had better be made by the one and the descent by the other. Leaving the Lodge (1400) behind, the Derry Burn is crossed and the right bank of the stream kept in the lower portion of the glen. A good many large pines will be passed in the vicinity of the Lodge, but as we progress the trees become fewer (many having been uprooted by a recent storm—November, 1893), and only weather-beaten and lightning-shivered trunks meet the eye. The glen is narrow, with rather steep hills on both sides—on the right (east) Meall na

<sup>\* &</sup>quot;Highland Rambles".

Guaille, Beinn Bhreac, and Craig Derry; on the left Cairn Crom (2847), a spur of Derry Cairngorm, and the latter The conical top of Derry Cairngorm is mountain itself. observable both from Glen Lui and Glen Derry. Now the crags and "Barns" of Beinn Mheadhoin attract attention. The burn is recrossed at what was the outlet of the "Derry Dam", a large pond constructed by Alexander Davidson, "Rough Sanie" (1792-1843), for floating cut trees down to the Dee. But the money which he had earned by smuggling disappeared in this timber speculation. The 1829 "flood" broke up the "dam", and it was never repaired. beginning of the present century the timber in the glens of the head-streams of the Dee was accounted of particularly good quality, many of the trees measuring 100 feet in height.\* Shortly before reaching the Dam Bridge the Allt Coire Bhoghadaire, from Craig Derry and Beinn Bhreac, will be observed; near its confluence with the Derry, at a point not unknown to artists, it is quite picturesque, with little rapids and groups of pines. The remains of smuggling bothies may still be traced in the vicinity. bridge the glen evidently affords good pasture, as, thoroughfare though it be, the red deer testify by their frequent presence. The track at the entrance to the glen is not particularly distinct, though the mountaineer will have no difficulty in following the main route. Above the upper bridge its character changes, but does not improve. The path, now very narrow, is stony, marshy, and grassy by turns, but always well defined. Several lurachs will be noted, but, though the human inhabitants have long been removed from the glens now within the deer forest, the mole remains in Glen Derry. Moraines are not infrequent; the opinion has even been expressed that probably Glen Derry sheltered the last glacier in the British Isles.† Heather and scree will be observed on the hills sloping to the west as the glen is ascended, but an abrupt transition to grass occurs as the Glas Allt ravine is neared. Fording

<sup>\*</sup> Souter's "Agriculture of Banffshire" (1812).

<sup>† &</sup>quot;Deeside Tales", by the Rev. J. G. Michie (1872).

the Glas Allt-no easy matter in a spate-from Beinn a' Chaoruinn, the Derry soon turns to the left (west), the track crossing it at a ford, and at last the real ascent is The great gap which the mountaineer will have observed for some time on the left is Coire Etchachan, which in 15 miles rises from 2047 feet at the ford to 3050 feet at Loch Etchachan. The corrie has a steep side of Beinn Mheadhoin on the right (north) and Creagan a' Choire Etchachan on the left (south). The Creagan form the north side of Derry Cairngorm. Loch Etchachan, the gathering pond of Derry Burn, is a typical mountain tarn, covering an area of about 68 acres. A semicircular wall of rocky precipices bounds it on the west; on the north and south (especially the former) there is an easy slope; while the outlet is at the east end. It has a tiny "tail-piece", known among foresters as Little Loch Etchachan; one may, at certain times, cross between the two sheets of water. Loch Etchachan contains trout, and formerly a boat was kept on it for the use of fishermen, but it was maliciously The Eastern Cairngorms come into view when destroyed. the level of the loch has been reached.

The track to the summit keeps a little away from Loch Etchachan in a south-westerly direction, and rises to the 4000 feet line in a mile and a quarter. Gradually approaching the loch's only visible feeder, a miniature tarn. whose source (3750) it passes, having on the south the lochan and corries at the head of Glen Luibeg, with their precipitous rocks, the track leaves Aberdeenshire and enters Banffshire. The latter county here projects a narrow "tongue" (about half a mile in breadth) into the former, walking across which we find ourselves upon the great boulder-covered plateau of the mountain. A peep of Loch Avon will be had on the right (north), after which the Royal Engineers' "kitchen" comes into view, and, immediately thereafter, the cairn. Thus Ben Muich Dhui is leached by the Royal route.\* A short distance north from the cairn is Coire Mor. where Allt a' Choire Mhoir rises.

<sup>\* &</sup>quot;Leaves from the Journal of our Life in the Highlands".

The mountaineer who selects the Glen Luibeg route shortens his mileage, but finds the ascent more toilsomeexcellent reasons to many for its adoption. Crossing the Derry at the Lodge, a bridle-path makes an excellent commencement on the left bank of Luibeg Burn. The mountaineer will now have Carn Crom on the right (north) and Sgor Dubh (2429) on the left (south). The forester's house at Luibeg and the region of trees left behind, the lower part of the glen is not particularly interesting, but it is redeemed by views of Beinn Bhrotain and Carn a' Mhaim. As the glen turns to the right (north) the burn is crossed by a foot-bridge,\* and the bridle-path, rounding Carn a' Mhaim, becomes merged in Learg Ghruamach. But we keep by Glen Luibeg, following a narrow track round Carn Crom that quickly "disperses" itself among the heather. A point is by and by reached where the burn forks (1800). The main stream rises in Coire an Sput Dheirg, with a tributary from Lochan Uaine, † a little tarn, 9 acres in extent. The westerly branch, Allt Carn a' Mhaim, rises on Sron Riach and flows in a great hollow, dividing Ben Muich Dhui from Carn a' Mhaim. It is at this forking, 21 miles from the summit, that the ascent may be said to begin, as the centre of the ridge, here known as "The Green" from its colour, but which higher up is named Sron Riach, has to be kept. Having safely negotiated all the boulders that cumber the Sron, and passing a big rock with pot-holes at a height of 3200 feet, Lochan Uaine will be overlooked when a height of about 3500 feet has been attained. Still ascending, Coire Clach nan Taillear, with marks of digging for Cairngorm stones, at the head of Allt Clach nan Taillear, will be passed on the left (west) and the track of the Royal route will be found. In descending by Glen Luibeg care must be taken, in mist, to avoid Allt Clach nan Taillear, which should be crossed a few yards below its source.

<sup>\*</sup> The best near view of Ben Muich Dhui is obtained in this vicinity. Vide illustration facing p. 57, Vol. I., C.C.J.

 $<sup>\</sup>dagger$  On 24th July, 1879, this loch an was still covered with unbroken ice of the previous winter.

Ben Muich Dhui was ascended on 13th August, 1847, by an Edinburgh professor at the head of a botanical party, by the Luibeg route. The ascent was thus immortalised:

"They cam' to poo Some girss that grew On Ben Muich Dhu, Whar ne'er a coo Had set her moo. If a' be true, 'Tween me and you,
They sair did rue
They ere did view
The big black soo
Or Larig Ghru ".
&c., &c.\*

The occasion was further memorable from being followed on the return journey by the celebrated encounter in Glen Tilt with the Duke of Athole:

"The Sassenach chap they ca' Balfour,
Wi' ither five or sax, man,
Frae' yont the Braes o' Mar cam' o'er,
Wi' boxes on their backs, man.
Some thocht he was a chapman chiel,
Some thocht they cam' the deer to steal;

But nae ane saw
Them, after a',
Do ocht ava'
Against the law,
Among the Hielan' hills, man.

"Some folk 'll tak' a heap o' fash
For unco little en', man;
An' meikle time an' meikle cash,
For nocht ava' they 'll spen', man.
Thae chaps had come a hunder' mile,
For what was hardly worth their while:

'Twas a' to poo
Some girss that grew
On Ben Muich Dhu,
That ne'er a coo

Would care to pit her mouth till ".+

Learg Ghruamach—a name sometimes shortened to Larig Ghru—presents no difficulty of entrance at White Bridge, the Braemar end, but it is a different matter from the

<sup>\*&</sup>quot; Autumnal Rambles Among the Scottish Mountains", by the Rev. Thomas Grierson (1851).

<sup>†</sup> Maclagan's "Nugæ Canoræ Medicæ", 2nd Ed., 1873.

Aviemore approach. This arises partly from the low wooded ground for the first four miles or so that separates Aviemore from the actual entrance between Carn Elrick and Castle Hill, and partly from the numerous and conflicting cross tracks which abound in the Rothiemurchus forest. There is no difficulty of course with the turnpike from Aviemore to Coylum Bridge, a few yards short (west) of which the actual path commences. There two gates will be observed, the larger the entrance to the road to Loch Eunach, the smaller the northern termination of the Larig. The road may be taken for about one-third of a mile, then an indifferent path hugs the Bennie for two miles, when a foot-bridge (1006)—too often in an unsafe condition—will be reached and the Bennie crossed. The road may, however, be followed all the way to the bridge, care being taken to turn at right angles to the left (east) at Cross Roads, due west from the bridge. The Scottish Rights of Way Society has erected guide-posts which will be found of considerable service in this neighbourhood. Having crossed the Bennie, and holding up-stream, the confluence of Allt na Leirg Gruamaich with the Bennie will be passed, the road now proceeding through rich old pasture opposite, on the left bank of the Larig Burn, the ruins of Aultdrue. Then passing an apparently unoccupied building on the left (north), the road makes a bend, at the east end of which a narrow path will, with the aid of the guide-post, be observed. This path holds southward, and is the continuation of our way along the Learg Ghruamach. (The road just left at the guide-post leads to the sluices of Loch Morlich.) The pass now becomes more confined, and our path leads at first through wood and long heather for about a mile, till a height of 1600 feet or thereby has been reached. As the pass narrows the track becomes better and less obscure. Carn Elrick bounds the gorge on the right (west) and Castle Hill on the left (east), and the further one advances the higher are the mountains. Creag na Leacainn, with its shattered rock pinnacles, is the most interesting point on the east; on the west, as the col is neared, Sron na Leirg presents the great "wall" of Braeriach. The Larig Burn in its upper parts

becomes intermittent, and towards its source can only be heard below numerous fragments of rock that have fallen as stone-avalanches from the sides of the mountains. (2750) is on the Inverness-Aberdeen march, both sides being equally cumbered with the debris of the mountains, and consequently for a considerable distance the "going" is, for a pass, about as rough as one could conceive. track here becomes of doubtful service, and is little more than an imaginary line striving for a way through a long field of boulders. Aberdeenshire entered, the Pools of Dee, the source of another Allt na Leirg Gruamaich, will soon be passed; they are three tarns—the uppermost rather minute —formed by debris from Ben Muich Dhui and Braeriach, between which the mountaineer now finds himself. A few vards south of the lowermost the burn can be seen struggling to escape from under the debris which rises up mound-like below the pool. Shortly after, it receives the Allt a' Choire Mhoir from Ben Muich Dhui, the path here crossing the stream (2299) to the left bank. Half a mile below this confluence the burn joins the "infant Dee" from Braeriach. The young river thereafter receives Allt Clach nan Taillear, fully half a mile below which is Clach nan Taillear, opposite the mouth of Allt Coire an t-Saighdeir from Cairn Toul. Clach nan Taillear (the tailors' stone) is said to owe its name to three Rothiemurchus tailors who perished at this "Clach" -really three stones. They had started from Rothiemurchus, for a wager, to attend a ball at Braemar, but the exertion, and possibly other circumstances, proved too much for them. Not a few people have lost their lives in Learg Ghruamach, in most cases weakly persons overtaken by sudden storms. Cairn Toul and the Devil's Point now command the pass on the west, on the east is Carn a' Mhaim. Opposite the Devil's Point the track forks, the principal branch sweeping round Carn a' Mhaim direct for Derry Lodge. But a more or less faintly visible path still keeps southward along the Dee to White Bridge, though few seek to follow it—unless indeed en route for Glen Tilt, a stiff day's work. Below Carn a' Mhaim the hills on the

east side sink below the 3000 feet line; on the west, however, there is burly Beinn Bhrotain. From Aviemore Station to Castletown of Braemar is a distance of 30 miles by this pass: Coylum Bridge, 2 miles; Pools of Dee, 10 miles; Derry Lodge, 8 miles; Braemar, 10 miles. Neither the length nor the roughness of the pass need, however, deter tourists, for the journey has been made by ladies alone. Ben Muich Dhui is not unfrequently ascended from the neighbourhood of the Pools, the steep mountain side there finding considerable favour.

Ben Muich Dhui was used, from 6th June to 16th August, 1847, as a trigonometrical station in the Ordnance Survey. The site of the station—the only one in the Cairngorm district in the "Great Trig."—is marked by a hole about six inches deep, in an enormous stone, over which a large cairn, about 22 feet high, was erected. cairn was originally circular, but not of the usual shape for trigonometrical stations; it was perpendicular for a few feet and then reduced in circumference. "broad arrow" may be observed on an earth-fast stone at The cairn is still a pretty large one, surrounded by a platform of stones and by lesser cairns. Grierson, who visited it in 1850, described it as the largest he had ever seen. It was then " in the Tower of Babel style", with four distinct storeys, the pinnacle reaching a height, he presumed, of from 20 to 25 feet. The erection of this cairn was attributed, he found, to the then Earl of Fife. But a much more ambitious structure would seem to have been contemplated in the beginning of the century\*. Owing to the flatness of the ground round the cairn it is necessary, in order to get full advantage of the near view, to move a short distance towards Leary Ghruamach. The Pools of Dee can thus be brought within sight.

<sup>\* &</sup>quot;And Bhin-na-mach on-daidh, now Bhin Macduff, 4300 feet above the level: belonging to the Right Hon. the Earl of Fife, who is building on the summit a sepulchral pyramid 100 feet high; burial vault, 17 feet by 7; the whole to be surrounded by a dwarf stone wall and cast-iron balustrade. Plans are to be lodged with Mr. Cumming, Braemar". "The Caledonian Itinerary", by Alexander Laing (1819). The book is dedicated to James, Earl of Fife.

At the summit of Ben Muich Dhui a rich reward awaits the climber. He is now able to appreciate its relative importance as well as the grandeur and desolation of the There are so many compensations that the disadvantage caused by the lack of striking outlines among the flat-topped Cairngorms is forgotten. The extraordinary vista, stretching from Caithness to the Lothians\* and from sea to sea, is not so interesting to many as are the nearer views of the fellow-giants of the group and the beautifully wooded valleys of the Spey and Dee. For the lover of the Cairngorms these nearer views possess a peculiarly fascinating charm that even repeated visits cannot weaken. these the prospect to the west, across Learg Ghruamach, is undoubtedly the most striking: Braeriach, with its long, steep front, streaked with snow during the greater part of the year; the sharp-peaked summit of Cairn Toul, and the still more pointed Sgòr an Lochain Uaine; An Garbh-choire, par excellence "the rough corrie", the mighty rift between two great mountains, down which the "infant Dee" dashes impetuously on its way to the huge ravine, 2000 feet deep, at our feet; and the ugly, sheer precipice of the Devil's Point, black and repelling. The distance, as the crow flies, between the tops of Ben Muich Dhui and Cairn Toul is under two miles, which, in certain conditions of the atmosphere, seems contracted to a few hundred yards. The distant prospect is very extensive, varying of course with the state of the weather. One sometimes thinks that all the higher mountains of Scotland are visible, and from our viewpoint it seems to consist of little but mountains. Like the waves of the sea they appear interminable; lines of mountains like billows pressing on each other so closely that they hide from sight the little bits of cultivated land in the narrow glens. Looking first to the southward, the Ochils, with the Lammermuir and Pentland Hills in the extreme distance, will be descried. But the grandest sight in this direction will be found to be the Beinn a' Ghlo group on the east side of Glen Tilt-a cluster of mountains that

<sup>\*</sup> C.C.J., Vol. I., p. 166.

will have several times attracted attention in the ascent all the principal summits being visible, with Carn nan Gabhar, rising from the head of narrow Loch Loch, presiding over them. Beinn Dearg and other mountains will also be noticed on the other side of Glen Tilt, beyond them the great cone of Schichallion and the gigantic mass of Ben Lawers. More to the westward nothing but mountain tops can be seen, among which Ben Alder and his fellows, near the foot of Loch Ericht, are pro-Looking westward, between Braeriach and Cairn Toul, Ben Nevis can be distinguished, while under the most favourable conditions the Coolins in Skye will be made out. North-westward, over the Monadh Liath, Mam Sodhail (Soul) and Scuir na Lapich may be picked out from an apparently continuous mountain mass. Further to the north are Ben Wyvis and Beinn Cleith-bric, while almost due north are the Paps of Caithness. Ben-achielt 87 miles off. Ben Aigan, Findlay Seat, Ben Rinnes, Corryhabbie Hill, Buck of the Cabrach, are laid out towards the north-east, the low hill of Mormond, near Fraserburgh, closing the view in this direction. Bennachie, so prominent from many points, is visible among the nearer hills, among which we may include Morven, Kerloch, Clochnaben, Mount Keen, Mount Battock, Glas Maol, with other of the Cairnwell summits, the Ben Uarns, An Sgarsoch, and Cairngorn itself is well seen across Carn an Fhidhleir. Feith Buidhe. Beinn Mheadhoin also bulks largely in the view, and of course the Eastern Cairngorms make a magnificent picture.

Should the mountaineer wish to continue the excursion, and not to descend to Derry Lodge, there are several recognised routes. A descent may at once be made to Learg Ghruamach and the journey continued to Aviemore; or the county march (Aberdeen-Banff) may be taken in a northerly direction, passing Lochan Buidhe, till the junction with Inverness-shire is reached. Thence the journey may be continued along the ridge, dropping into the Larig at some convenient point. Another favourite route is to descend by Garbh Uisge, a burn rising north-north-east of the cairn, to

the Shelter Stone and Loch Avon. By this route a visit may be paid to Cairn Etchachan, a quarter of a mile northwest from Loch Etchachan. This cairn marks a change in the county (Aberdeen-Banff) boundary; beside it Lochs Avon and Etchachan, differing in level about 700 feet, can be seen at the same time. The descent by the rocks of Garbh Uisge and its feeders looks at first rather forbidding, but is quite easy and safe. Or, best of all, Cairngorm should be made for. By this route the direction is at first due north, taking the ridge between Garbh Uisge and its tributary Garbh Uisge Beag, crossing the latter a little above their confluence; then cross another ridge and descend on Feith Buidhe, crossing its burn a short distance to the west of the crags, then holding north towards the source of Coire Domhain Burn. From the latter point the county march (Banff-Inverness) along the top of Coire an t-Sneachda may be taken, or one may hold a little to the right (east), towards the source of Coire Raibert Burn, whence an easy climb will land the mountaineer on the summit of Cairngorm. The walk across can be easily accomplished in from two to three hours. An interesting account of Jubilee Day on Ben Muich Dhui, followed by a visit to Loch Avon and the Shelter Stone, contributed by the Rev. Mr. Lippe to the first number of the Journal, will well repay perusal.

Learg an Laoigh having been described from Derry Lodge to Coire Etchachan—the most frequented portion on the Braemar side—it will now be convenient to complete the description. It is frequently spoken of as the East Larig (Learg Ghruamach being the West), and has not quite ceased to be used as a drovers' road, for almost every year a flock of sheep passes through Glen Derry. A pointing-fold may be noticed on the left bank of Luibeg Burn, near the bridge leading to the house. The genuine "tramp" is not quite unknown, but the yearly numbers do not average a score. Passing the lower end of Coire Etchachan and holding northward, the track rises to the county (Aberdeen-Banff) march (2450), having now Beinn a' Chaoruinn on the right (east) and Beinn Mheadhoin on the left (west).

Descending towards the Avon it keeps by the right bank of Allt an t-Seallaidh (from Beinn Mheadhoin) and Dubh Lochan, bleak tarns, expansions of this stream\*. crosses the burn a short distance below the lochans, thence making direct for the Avon at an indifferent ford (2245), highly dangerous when the river is in flood. The scene in this neighbourhood is of the most desolate description. The Avon forded, the track, still holding northward, crosses Allt Dearg. It then keeps by the east side of this burn, which has its highest source on A' Choinneach, a shoulder of Ben Bynac, and along the east bank of Lochan a' Bhainne. Then crossing Glas-ath, a head stream of the Water of Caiplich-which, when it suddenly changes its course to north-east, is called the Water of Ailnack, and flows into the Avon a little above Tomintoult-it next crosses the county (Banff-Inverness) march and the Caiplich, and holds north-west for Rebhoan, Ben Bynac being gradually rounded. The Caiplich crossed, a ridge has to be ascended so as to cross the watershed of the Avon and the Nethy. Every year, for want of attention to the direction just given in italics, there are cases of tourists missing their way and descending by the Caiplich to Tomintoul. To a stranger without precise information, and especially in mist. the Caiplich has every appearance of being the proper route, a delusion aided by the fact that the track almost vanishes when it would be of most service. A memorial cairn (2275) with an inscribed stone, marked "I. G", will be passed on the right (east), a short distance below which the track forks; the path on the right is the old right-of-way, which, keeping by the east side of the Nethy, and passing Sluichdt, Inchtomach, and Boglechynack, crosses the Nethy

 $<sup>^{\</sup>ast}$  In Robertson's Map (1822) the name given to the stream is Ault Dulochan.

<sup>†</sup>In Johnston's map the name is Ailnack from the very source; Robertson's map has the same, only Glas-ath is there considered the source.

<sup>‡</sup> Here there are a few weathered old pines, on one of which an eagle nested for several years. A dozen years ago an Abernethy man resolved to pay the nest a visit. Having almost reached the level of the nest one

at Lynemacgilbert near Forest Lodge. But this path has become rather indistinct, and the tourist will do well to keep to the left and cross the Nethy at a foot-bridge threequarters of a mile north from the top of Mam Suim. A driving road now takes the place of the bridle path, and, crossing a small stream, Allt a' Gharbh-choire, from a narrow corrie, An Garbh-choire to the left (south), and passing Loch a' Gharbh-choire, joins the road in the Pass of Rebhoan. The distance of Braemar from Nethy Bridge by this route is 32 miles, the intermediate distances being: Derry Lodge, 10 miles; Avon Ford, 7 miles; Nethy footbridge, 61 miles; Rebhoan, 11 miles; Nethy Bridge, 7 miles. The last section will be described in connection with the ascent of Cairngorm from Nethy Bridge. Like many other long highland passes, Learg an Laoigh has claimed its victims. On 4th January, 1805, five out of a party of seven privates of the Inverness-shire Militia, on their way through the Larig to Abernethy on furlough, perished in a severe snow-storm\*. A song, "The Lads who were lost on the Hill", gives an account of the tragic occurrence; the style of the verses may be gathered from the following specimen:

"Eighteen months pass'd away ere the last lad, they say,
Was found by his friends broken-hearted;
Down in a low green his red coat was seen,
But his head from his body was parted".

Beinn Mheadhoin, the principal dependency of Ben Muich Dhui, though but seldom ascended, is well worth a passing visit. The ascent is a very simple matter from Loch Etchachan, from which the top is about a mile to the north-east. It may also be ascended from the south-east side of Loch Avon, and from the Learg an Laoigh. The latter route gives an interesting climb, which should be commenced near where Allt an t-Seallaidh receives its first

of the parent birds arrived on the scene, and, swooping down, fixed on the visitor's hat with which it flew away—possibly with the idea that there was a head inside!

<sup>\*</sup> Scots Magazine, Vol. LXV., p. 70.

tributary, Coire nan Saibhlean Burn. The cairn of Beinn Mheadhoin is on a big outstanding rock flanked right and left by lower rocks-all well seen from Glen Derry and known as "The Barns". These rocks (which are not without "pot-holes"), together with several lesser "humps" along the summit, render the hill readily recognisable at a great distance. On the loch side of the mountain are two particular crags; the one at the upper end of the loch is Stacan Dubha: the other, at the lower end, is Stac an Luich. Sron Ghorm is to the north, facing the River Avon, with a crag above Dubh Lochan. The South Top (3551) is marked by an O.S. cairn on the top of the crags on the county march about two-thirds of a mile south from the Barns. The view from the summit is extremely good, particularly Cairngorm, here seen as from no other point. The prospect includes Ben Bynac, Ben Rinnes, Creag Mhor, Corryhabbie Hill, Cook's Cairn, Buck of Cabrach, Tap o' Noth, Bennachie, Stob an t-Sluichd, Ben Avon, Beinn a' Chaorruinn, Beinn a' Bhuird, Lochnagar, the Ben Uarns, Derry Cairngorm, Beinn a' Ghlo, Ben Muich Dhui (crags above Shelter Stone, kitchen, and cairn), Loch Etchachan (seen from a little below the Barns), Braeriach, Cairn an Lochain, Cairngorm, the Feith Buidhe, Mam Suim, Strathspey, the Moray Firth, and the hollow of Loch Avon, the head of the loch being seen from the same point as Loch Etchachan. There is an easy descent to Loch Avon by Coire Buidhe, and a steeper to the Avon by Sron Ghorm. Shaw, in the text of his work\*, has "Cairngormbeg", altered to "Cairngormloi" in the errata, as the name of Beinn Mheadhoin.

Derry Cairngorm meets with even less favour than Beinn Mheadhoin, though the summit is but 1½ miles south-east from the track between Loch Etchachan and Ben Muich Dhui, only entailing an extra climb of a little over 500 feet. Lying between Glen Derry and Glen Luibeg, it may also be ascended from these glens—routes that are, however, only traversed by foresters. Should the

<sup>\* &</sup>quot; Province of Moray " (1775).

climb be commenced from a point below Loch Etchachan, it may be found uncomfortably steep by some. There is a large area on the summit covered with smallish stones. The view is good, and includes Lochan Uaine (Ben Muich Dhui), Beinn Bhrotain, Carn a' Mhaim, Devil's Point, and Cairn Toul, not to mention Lochnagar and the Forfarshire hills. The green-banked Lui and the upper glens of the Dee are probably the most interesting portion of the panorama. Derry Cairngorm also boasts of a Lochan Uaine, a small tarn in Coire an Lochain Uaine about half a mile to the north-east. The stream from the Lochan is known as Allt an Lochan Uaine, and flows into the Derry. William Smith, better known as "Ulleam-Ridhe-noamh", poet and deer-stalker, a native of Rynuie, Abernethy, who long indulged in the pleasures of the chase, on his own account, among the Cairngorms, but ultimately served under Sir John Moore, wrote some songs which breathe the very essence of poetry\*. The best of them is entitled "Allt an Lochain Uaine", alongside which streamlet he had erected a rude turf "shieling". The first stanza of this song is given, with a translation which does not, however, do justice to the original:

Aig Allt an Lochan Uaine, Bha mi uair 'tamh, Ged bha 'n t-aite fuar Bha 'n fhardach fuasach blath, Ged thigeadh gaoth 'o thuath orm 'Us cathadh luath o 'n aird, Bha Allt an Lochan Uaine, Le' fhuaim ga m' chuir gu pramh.

At the burn of Lochan Uaine
Once I did reside;
Although cold was the place,
Very warm was the dwelling;
And although winds from the
north came on me
With swift drifting snow from
the heights,
The burn of Lochan Uaine
With its sound lulled me to rest.

Ultimately foresters set fire to Smith's hut; some of the contents were carried off as trophies, and are still preserved in Braemar.

Derry Cairngorm is also known as the Eastern or Lesser Cairngorm. More than one old guide-book gives a caution against being imposed upon by Braemar guides: "the

<sup>\* &</sup>quot;Highland Legends", by "Glenmore", 2nd Ed., 1859.

tourist will have to take care that he is not conducted to the lesser instead of to the true and higher mountain"\*. Carn Crom is the southern spur of Derry Cairngorm, with Creag an t-Seabhaig immediately overlooking the confluence of the Derry and Luibeg Burns. There is a corrie between the top of Carn Crom and Creag an t-Seabhaig named Coire na Craoibh Ora, a name derived, it is said, from a Mackenzie of Dalmore having once hid his money there. The last Mackenzie of Dalmore had to part with his lands after the Rebellion of 1715.

Carn a' Mhaim, the southerly spur of Ben Muich Dhui, from which it is cut off on the north by Allt Clach nan Taillear, Allt Carn a' Mhaim separating it on the northeast, is easy of ascent, but the prospect from the summit is only of local interest, as its lowness and position do not permit of an extended view. The top is marked by a neat little cairn, six feet in height, on a rocky point. The path from Derry Lodge to Learg Ghruamach rounds it at a height of about 2000 feet, and the mountaineer who is anxious to "bag a peak" may make the ascent from the south at any convenient point of the track. A small tributary of the Luibeg Burn, known as Allt Preas a' Mheirlich, flows along the southern base. The western face is named Ceann Crionn Carn a' Mhaim, and has a rather steep slope to Learg Ghruamach.

Loch Avon is the great glory of the Central Cairngorms, and its famed Shelter Stone is the Mecca of many a mountain excursion. The loch is about 1½ miles in length, with a breadth of little more than a furlong, and lies at an altitude of about 2450 feet in a great hollow formed by Ben Muich Dhui, Cairngorm, and Beinn Mheadhoin. From its lower end issues the River Avon, the largest tributary of the Spey, which has a length of 38 miles and a basin of 210 square miles. The real source of the Avon, however, has to be looked for on Ben Muich Dhui. The precipitous rocks on both sides and at the upper end of the

<sup>\*</sup> Anderson's "Guide to the Highlands and Islands of Scotland" (1842).

loch have an appearance, as seen from the outlet\*, of stern grandeur, and from the head the prospect is equally magnificent. For in the latter case the falling away towards the outlet is amply compensated for by the majestic rocks here forming a semicircle. The intense solitariness, the utter lack of life, and the noise of the torrents which hurry down to join the loch add a weirdness to the scene which has the effect of making the beholder imagine man and his busy world much farther off than they really are. Loch Avon is unique, with nothing commonplace about it, and accordingly is an accepted standard for the comparison of other mountain lochs. In winter, when the sides of the mountains are covered and their corries packed with snow. the burns imprisoned and silent, and the loch sealed up by ice, the only relief from the universal whiteness being the perpendicular black rocks affording no hold for snow, a scene of arctic desolation is presented which is without parallel in our island. Loch Avon, says a famous Scottish writert, is like a fragment of the Alps imported and set down in Scotland; in winter an Alpine devotee might console himself here, and in a few other recesses of the Cairngorm range, realising all the dangers, excitements. and phenomena of Alpine feats. Loch Avon, however, is not equally impressive on all beholders; "And that's Loch Avon! Weel, weel, I thinkna muckle o't; it's owre faur frae hame", was the observation made to the writer by a native of Abernethy when he first saw the famous sheet of water. According to an old popular belief, a splendid brilliant is seen at night by the side of the loch!. Shepherds have been credited with endeavouring to obtain it, one having even been let down a precipice by means of ropes; but all attempts to obtain the glittering prize have been unsuccessful. The loch had at one time been lined with pines, as numerous tree-roots still testify. The upper end

<sup>\*</sup> Wilson, in "Scenery of the Highlands", recommends an approach to it from Glen Avon.

<sup>† &</sup>quot;The Cairngorm Mountains", by John Hill Burton (1864)

<sup>‡&</sup>quot; The Highland Note-book", by R. Carruthers (1843).

has a border of gravel. The larach of a shepherd's bothy may still be seen at the east end, as well as another at the Learg an Laoigh ford across the river. Formerly cattle came up in summer and grazed by the loch-side, seeking pasture even as far as the upper end. The remains of a rough stone dyke across the Garbh Allt, erected to prevent the cattle wandering up at other seasons, are still visible. The loch is not unfrequently visited by deer, but the writer in his many visits, and particularly during a ten days' residence at the Shelter Stone, never saw one. On a certain occasion a large herd, estimated at from 300 to 400, was seen from The Saddle disporting themselves in its cooling waters—some swimming with only heads and antlers visible, others standing by the shore, or shaking themselves dry on the bank. As soon as the herd observed "strangers" they bolted up Beinn Mheadhoin. may be reached from Derry Lodge by Learg an Laoigh. rounding the north side of Beinn Mheadhoin. This route entails little climbing, but is not so popular as a visit from Cairngorm or Ben Muich Dhui. It is frequently descended on from Loch Etchachan, a little to the north of which a good view may be obtained of the upper end.

The Shelter Stone (Clach Dhian) is at the upper end of Loch Avon on the south side of Garbh Uisge. It has long been noted as a place of shelter, and has been credited with accommodation for more than four times as many as could actually repose under its roof. The number that can be "comfortably housed" is five; or at a pinch, six. The external dimensions of the Stone are: length, 44 feet; breadth, 21 feet; average height, 22 feet; and its weight is calculated to be 1700 tons, but the available inside space is not commensurate with its other dimensions. It is but one of many gigantic blocks split by frost or lightning from the towering rocks above; the particular rock from which this stone fell being probably the precipice 800 feet in height, with the square flat top so conspicuous from the loch, and on which at one time eagles nested. In falling it finally rested on other two stones—and thus the "Shelter" was produced. All sizes of boulders from a cottage downward, abound in extraordinary



SUMMITS OF PRECIPICES ABOVE SHELTER STONE.

numbers in the neighbourhood, yet the Shelter Stone can be readily picked out, even at a distance, owing to the peculiar lichen markings on its front. Walking up from the head of the loch a narrow indifferent path conducts one to the desired refuge, its immediate proximity being indicated by empty tins, broken glass and crockery. In summer and autumn the Shelter Stone is much frequented and is undoubtedly a convenience to mountaineers. comforts as an asylum from the weather might be greatly improved. The upper end is in a chronic state of over ventilation, and as there are also other openings it is rather draughty. Then the accumulation of snow in winter and spring causes a dampness of the floor which demands a remedy of a more permanent character than can be applied by a casual visitor. Of old poachers were blamed for resorting to it, and foresters were credited with endeavouring to destroy the sheltering amenities of the Stone; but now that poaching is here a thing of the past, an arrangement might be made with the owner, the Duke of Richmond and Gordon, whereby permission could be obtained for thoroughly "repairing" the Stone. Cordiner could only have had the Shelter Stone in his mind when, writing of this district, he speaks of a "hideous cavern, awful as ever hermit retired to, yawning over the end of a dreary lake. It chills one's blood to enter it". The Garbh Uisge (Rough Burn-a name well applied) subsides into peace when it gets abreast of the Shelter Stone, and, broadening out, seems to enter the loch with much reluctance. Its little boulder-strewn plain at the head of the loch is named Maghan na Banaraich (the Dairymaid's Field); he must have been a highly humorous Celt who first applied the name. Above the Stone, Garbh Uisge dashes down in a series of cataracts, having just received the Feith Buidhe and Coire Domhain Burns. The ascent of Ben Muich Dhui by Garbh Uisge is, despite appearances, quite an easy matter-the left bank of the stream being kept-and should be accomplished in about two hours. Cairngorm may also be reached by Coire Domhain, but the better route is Coire Raibert by which the ascent can be made in

less than two hours. The route to Loch Etchachan is by the left bank of Stacan Dubha Burn; the nearer that burn is kept the fewer boulders will be encountered. Rebhoan is sometimes reached from the Shelter Stone via The Saddle (2670) at the head of Garbh Allt, one-sixth of a mile to the north of the loch, to which there is a wretched track along the loch-side. The "going" along Garbh Allt is rough in places, at times somewhat reminding one of portions of Learg Ghruamach. The right bank of the burn, which in dry weather is intermittent, should be kept. About half a mile short of the road at the Nethy foot-bridge it will be observed that the stream had at one time been partly diverted. This was with the view of increasing the volume of water in Loch a' Gharbh-choire for tree-floating purposes. The foot-bridge is a smart three hours' walk from the Shelter Stone. During last century and the beginning of the present "cud bear or cup moss", a species of lichen then used for dyeing purposes, was gathered from the rocks in this neighbourhood, as well as by the head streams of the Dee, but it has now no commercial value.

The illustrations accompanying this article are drawn by Mr. J. G. Murray, A.R.P.E., from photographs.

## EXCURSIONS AND NOTES.

was held on 28th February—the Chairman, Rev.

Our Sixth

Professor Cameron, D.D., presiding. The President

(the Right Hon. James Bryce, D.C.L., M.P.) and the

Vice-Presidents (Alexander Cruickshank, LL.D., and
the Rev. Robert Lippe) were re-elected; Mr. Robert

Anderson was appointed Chairman; and the Secretary (Mr. A. I. M'Connochie) and Treasurer (Mr. T. R. Gillies) were re-elected. The following were appointed members of Committee:—Rev. Dr. Cameron, Messrs. Copland, Harvey, C. M'Hardy, J. A. M'Hardy, Macphail, M'Gregor, Porter, Scott, and Semple. The excursions for the current year were fixed as follows:—Spring—Sockaugh; Summer—Cairn Toul; Autumn—Mor Shron (Morrone), the latter at the discretion of the Committee.

The Rules were altered as per print issued with the circular calling the meeting. The only alterations on the print are:—Rule II., add, after "Scotland", 2nd line, "with special reference to the Cairngorm group of mountains"; Rule V., for "season", 5th line, read

"year". The Rules, as finally adjusted, appear at page 339.

The following new members have been admitted:—J. H. Duthie, J. G. Murray, John Rae, James W. Davidson, George Duncan, Robert Adamson, LL.D., Alexander Knox, John Crombie, Jun., Alexander Walker, William A. Brown, Sir William Wedderburn, Bart., M.P., Thomas Walker Hector, Henry Kellas, James S. Butchart, William H. Shepherd, James Smith, Alexander Troup, Jun., William M. Sellar, Walter A. Reid, C. D. Lumsden, A. J. C. Fyfe, William Milne, and William Thomson.

was visited by the Club on 6th May last, the party numbering over fifty. The route was:—Rail to Lumphanan; drive to Oldtown, visiting Corse Castle en route; ascent from Burnside; descent to Bog; whence the carriages were resumed to Aboyne. The Club dined at the Huntly Arms Hotel, Aboyne—Mr. Anderson, Chairman, presiding. The Rev. J. G. Michie, Dinnet, Mr. Henry Williams, Leochel-Cushnie, and the Rev. Mr. MacDonald, Towie, who had accompanied the party by invitation, were thanked for the information and assistance they had afforded. The Excursion was extremely successful in every way.

Through the courtesy of the Ordnance Survey, the Director-General of which is a Cromar man, I am now able (vide p. 291) to supply the authorities given in the O.S. documents for the name. They were Mr. Andrew Ross and the Rev. Mr. Watson, Tarland; and Mr. H. Thomson, Mosstown, Leochel-Cushnie, also a Cromar man,

recently deceased. The late Dr. Taylor (vide p. 290) also wrote:—
"The west boundary [of Leochel-Cushnie] is the Soccoch or Hill of
Cushnie, rising to an altitude of 2000 feet". The Towie writer in the
New Statistical Account says:—"Towie is almost surrounded by hills;
those on the S.E., called the Soccoch, are about 2000 feet high".

Next to Dr. Taylor, Mr. Ross would rank as an authority, being a
man of education who had lived all his life within sight of the hill.

Fifty years ago, therefore, the hill was known as "the Soccoch" by
the ministers of Towie, Tarland, and Leochel-Cushnie, and by the late
"Factor Ross", all men of position and capability. Whatever comes
out of this discussion, it must be seen that the Surveyors had ample
authority for calling the hill Sockaugh.—George Williams.

On 22nd April last, in company with two friends, I made the ascent of Braeriach from Aviemore. Driving up Glen Eunach to the foot of the Little Bennie, we APRIL. took the ridge that runs down between that burn and its tributary Allt Coire an Lochain, and onward by an easy ascent to the shores of Loch Coire an Lochain-which was still solidly frozen over and covered with a thick coating of snow. From the east end of the loch our route lay up a steep snow slope to the ridge leading down from the summit. The snow was very soft and no step-cutting was required. Hardly had we reached the sky line when a driving mist came on, and a compass course had to be steered to the summit cairn (which was completely buried in snow), and thence across the plateau to An Garbh-choire. The mist, however, lifted before we reached the head of the corrie, giving us a splendid view of the black snow-draped precipices that surround the sources of Recrossing the plateau, we made an easy descent by the ridge on the east side of Coire an Lochain, expedited by a glissade of several hundred feet down the snow-filled channel of the Allt Coire an Lochain. We found the snow, which was at least 3 feet deep on the summit plateau, soft throughout and in bad condition. The ascent of the mountain from this side is a mere easy walk with no climbing whatever. On the way down we prospected a ridge that runs up the face of the cliffs on the western horn of Coire an Lochain, which, if the lower part is practicable, should afford a sporting climb, the upper portion being very narrow and in places quite perpendicular. - LIONEL W. HINXMAN.

CAIRN TOUL

IN

AUGUST.

Cairn Toul, reaching the upper bothy in Glen Eunach at 9.57. About two miles above the Cross Roads, Glen for the rest of the walk the forward view of the Braeriach corries and the Sgòran Dubh precipices is very impressive. From the bothy we struck up the track leading into Coire Dhonndail. At this time mist

covered all above the 3000 feet line, but as we reached the top of the corrie and scrambled up that delightful last bit, it slowly rose and left the plateau clear. Following our pre-arranged plan, we struck slightly south of east from the top of the path, so rounding the southern side of the March Cairn (4149), and coming suddenly on tothe edge of the southern scallop of An Garbh-choire. The effect of such a magnificent view so suddenly presented is very powerful; at the time of our visit (noon) the plateau was clear, though all the tops were still enshrouded. The corrie was nearly filled with eddying mist, giving now and again glimpses of its walls and bottom, and occasional peeps into Glen Dee. Skirting the corrie on our way to Sgòr an Lochain Uaine we looked down some of the gullies, and saw the soiled and shrunken remnants of the winter's snow, with great arches between it and the gully walls. The ascent of the Sgor was very rough, some 250 feet over great blocks of granite, many of them not firmly placed and turning under foot. The top cleared as we approached, and at 12.35 we were on it, and had a glorious view of the whole corrie now free of mist, which, however, still hung round Lochan Uaine in its high-placed basin is Braeriach and Cairn Toul. a striking feature in this view. Pushing on still, we descended the south-east side of the Peak, and then attacked the final 400 feet of Cairn Toul. This was stiff work, for it is all over rough boulders, much as on Sgòr an Lochain Uaine, only more of it. At 1.20 we were at the cairn; the mist broke overhead, and we enjoyed the first clear sunshine of the day, which lasted as long as we stayed there, till two o'clock. The mist gradually disappeared from all the surrounding heights except Cairngorm, Braeriach being the last to clear, and we had the magnificent view that Cairn Toul affords on a perfectly clear day. Of course the supreme feature is the gigantic hollow of An Garbh-choire with its stupendous walls of crag still carrying large Another feature that struck us was the sharp outpatches of snow. line of the Fife Lomonds, 57 miles distant. In descending to avoid the extreme roughness and the wind, we took about the 3500 feet contour level, and so regained the top of Coire Dhonndail. It would be well if a "leading cairn" were erected here. We reached Loch an Eilein at 7.20, after a day unequalled in my mountaineering experience for excellent weather, good performance of programme, and marvellous scenery.-C. G. Cash.

THE walking and climbing men had been felt in Leeds, and YORKSHIRE after several informal meetings and discussions the Yorkshire Ramblers' Club was established in October, 1892, with the objects of bringing together those interested in walking and mountaineering, and encouraging in them the studies of topography, natural history, archaeology, folk-lore, and kindred subjects. From the first its membership

has been restricted to those who have proved to the satisfaction of the Committee that they are in sympathy with these objects, and that they possess a creditable record of good work. No candidate is considered eligible without this qualification. Several prominent climbing men joined the Club upon its formation, and the majority of Yorkshire members of the Alpine Club are now included in its ranks. The mountaineering element is very strong although climbers have to go to the Lake District, North Wales, Scotland, and more distant places in order to indulge in their sport. Nevertheless the hills, moors, and crags which occupy so large a portion of Yorkshire are an admirable training ground for beginners, while they afford plenty of practice for the experienced. According to their tastes and time members are actively engaged all the year round making excursions and tours at home and abroad, accounts of which are often embodied in papers read before the Club-meetings for that purpose being held monthly in summer and twice a month in winter. The only Club of its kind in the North of England, it bids fair to become a useful and powerful organization .-- H. H. Bellhouse.

THE finest mountain prospect within an hour's easy PANANICH walk from Ballater is from the top of Pananich Hill, HILL. lying close to the old public path between Glen Tanner and Kirk of Glenmuick. It comprehends glorious views of the Mounth, especially Mount Keen and Lochnagar, the Cairngorm mountains, the Banffshire border hills, Morven, the Buck, Ben Rinnes, Tap o' Noth, Hill of Fare, Bennachie, &c. Craigendarroch and Craig na Cailleach, objects of admiration from the Ballater streets, lie so far The valley of the Dee eastwards and below as to be insignificant. Cromar with its lakes are seen to great advantage. Route: -(1) Leave the south Deeside turnpike opposite the curling pond gate, a little west of Ballater Bridge, and follow the road towards Braichlie House to the gate at the grieve's cottage, passing through which, ascend to the wicket in the plantation dyke, where a narrow path winds through thickly planted young firs to another wicket, from which it continues upward by the side of a dyke until the deer fence dividing Glen Muick and Glen Tana estates comes in sight, when it turns to the right through short heather. From a small cairn on the Glen Tana side of the fence the view is best in every direction. The whole ascent is easy, over good ground, the little Braichlie burn brawling along its rocky course many feet below, and the panorama expanding with every upward step. (2) By the old drove road from Bridge of Muick to Loch Lee, as far as the gate in the deer fence, thence to the left along the fence. (3) Over Craig na Cailleach. (4) Over the rocky scarp above Pananich Wells. (5) From Mill of Inchmarnoch up the Pollagach Burn to the deer fence, thence to the right. Nos. 3 and 4 are trackless, and only fit for cragsmen; Nos. 2 and 5 are long and rough, and, being through the centre of the moors, sport might be disturbed .- K. J.

#### THE CAIRNGORM CLUB.

#### RULES.

I.—The Club shall be called "THE CAIRNGORM CLUB".

II.—The objects of the Club shall be: (1) to encourage mountain climbing in Scotland, with special reference to the Cairngorm group of mountains; (2) to procure and impart scientific, topographical, and historical information about the Scottish mountains, their superficial physical features, minerals, rocks, plants, animals, meteorology, ancient and modern public routes giving access to and across them, and the meaning of their local place names, literature, and legendary, or folk lore; (3) to consider the right of access to Scottish mountains, and to adopt such measures in regard thereto as the Club may deem advisable; and (4) to issue a Journal or such other publications as may be considered advantageous to the Club.

III.—Candidates for admission as members of the Club must have ascended at least 3000 feet above the sea level on a Scottish mountain.

IV.—The management of the Club shall be vested in a Committee, consisting of ten members, in addition to the following Office-Bearers—a President, two Vice-Presidents, a Chairman, a Secretary, and a Treasurer—five being a quorum.

V.—The annual general meeting of the Club shall be held in December for the following business: (1) to receive the Treasurer's accounts for the year to 30th November; (2) to elect the Office-Bearers and Committee for the next year; (3) to fix the excursions for the ensuing year; and (4) to transact any other necessary business. Special general meetings shall be held whenever deemed necessary by the Chairman, or on a requisition by at least ten members of the Club. General meetings shall have power to deprive of membership of the Club any member who may, in the opinion of the Committee, have misconducted himself.

- VI.—A Minute-Book shall be kept by the Secretary, in which all proceedings shall be duly entered.
- VII.—The election of members of the Club shall be made by the Committee in such manner as they may determine.
- VIII.—The entry money of members shall be 10s. 6d., and the annual subscription 5s. Members shall receive copies of all current issues of the Club publications.
- IX.—The annual subscription shall be payable in January. Members not in arrear may retire from the Club at any time on sending notice in writing to the Secretary or Treasurer.
- X.—The Committee shall have power to elect suitable persons to be Honorary Members of the Club. Honorary Members shall have no voice in the management of the Club, but otherwise shall have all the rights and benefits of ordinary members.
- XI.—No change shall be made on the Rules except at a general meeting of the Members, called on seven days' notice. Intimation of any proposed change must be made in the notice calling such meeting, and any alteration proposed shall only be adopted if voted for by at least three-fourths of the Members present at the meeting.

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POSTING IN ALL ITS BRANCHES
ON MODERATE TERMS.

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OMNIBUS, LARGE AND SMALL BRAKES AND WAGONETTES, LANDAUS, VICTORIAS, WHITE-CHAPEL CARTS, DOGCARTS, PONY PHAETONS, &c., ON HIRE.

Letters and Telegrams—''MITGHELL BALLATER,''
punctually attended to.

#### SKYE.

# SLIGACHAN HOTEL.

#### NEAREST HOTEL TO LOCH CORUISK.

"Sligachan in Skye is the rock-climbing centre par excellence of the British Isles."—See Badminton Library, Vol. "Mountaineering," p. 342.

Beautifully situated at the foot of the Coolin Hills. Parties living in the Hotel have the privilege of good Sea-Trout Fishing on the River Sligachan; also good Loch and Sea Fishing.

Boats Free of Charge. Boatmen, 4s. per day.

Parties landing at Coruisk can have Ponies or Guides sent to meet them at Camasunary, or the hill above Coruisk, by sending letter or telegram the day previous.

#### POSTING.

Post and Telegraph Office adjoining Hotel.

W. SHARP, Proprietor.

BOAT OF GARTEN, STRATHSPEY.

## STATION HOTEL.

# COMFORTABLE TOURIST AND COMMERCIAL HOTEL.

The most central and nearest point to the famed CAIRNGORM MOUNTAINS.

#### POSTING IN ALL ITS BRANCHES.

Trout Fishing on Spey Free.

GEORGE GRANT, Proprietor.

## BALCARRES HOTEL,

ECHT.

HE above Hotel has now been rebuilt and enlarged, and refurnished with modern comforts, and is one of the best Hotels within the same distance of Aberdeen.

Echt is one of the healthiest places in Aberdeenshire: close to the famous Hill of Fare, the Barmekin, Midmar Castle, Dunecht House, &c.

Persons desirous of spending a quiet day or two in the Country will find homely comforts, and reasonable Charges. Coaches run every week day from the Hotel, starting from Midmar at 6.50, Echt at 7.30, arriving in Aberdeen at 9.30 A.M., leaving 72 Union Street at 4 o'clock P.M., on return journey.

There is a large Hall in connection with the Hotel, suitable for Amusements. Pic-nic Parties can be provided with Dinners, Teas, &c., and also with 'Buses, Brakes, &c.

Hiring in the various Branches carried on.

Prices for carrying Pleasure Parties will be sent on application.

GEO. H. SMYTHE, Lessee.



THE

# GRAND HOTEL,

#### UNION TERRACE GARDENS, ARERDEEN.

200 yards from Railway Station.

CHARLES MANN, Proprietor and Manager.

HIS magnificent Hotel, which has recently been erected from designs by Mr. Marshall Mackenzie, A.R.S.A., occupies the finest central situation in the city, and is sufficiently removed from street and railway traffic to secure complete quiet.

In convenience of arrangement, perfect appointments, luxury, and real comfort, it ranks with the first establishments in the Kingdom. The Cuisine is of the most refined description. Wines and Cigars of the Finest Vintages and Brands are specially imported.

ELECTRIC LIGHTING THROUGHOUT. PASSENGER ELEVATOR.

Postal and Telegraph Office in Hotel.

OMNIBUS AND PORTERS ATTEND ALL TRAINS.

CHARGES MODERATE.

Excellent Salmon and Trout Fishing on the Rivers Dee and Don provided for Visitors, and within easy access.

#### ABERDEEN.

THE

# PALACE HOTEL

(WITHIN THE STATION),

Owned by the Great North of Scotland Railway Company



FRONTS UNION STREET-IN MOST CENTRAL POSITION OF THE CITY.

Equipped with every modern accommodation for comfort. Electrically lighted throughout. Mechanically ventilated. Hydraulic Lifts.

Excellent Guisine. Moderate Charges.

#### PERSONALLY PATRONISED BY

Their Royal Highnesses the Prince of Wales, the Duke and Duchess of York, and the Duke and Duchess of Connaught, Prince Adolphus of Teck, Princess Christian and Princess Victoria, Prince and Princess Henry of Battenberg and Prince Louis of Battenberg, Grand Duke and Grand Duchess Serge and Grand Duke Paul of Russia, and many distinguished Visitors.

Covered Way from Station Platform.

LUGGAGE REMOVED to and from the Hotel FREE OF CHARGE.

Miss M'KILLIAM, Manager.