is wonderful hill walking on hills resembling rather those of south-west Scotland than the Cairngorms. They have more definite tops and sounder rock. The rock-work usually starts at, or near, a road, and this is a great joy. Against this is the disappointment, at least at holiday times, of having to share all climbs with so many other parties. Indeed, I have seen a queue for a route on Idwal Slabs. The popular rock faces are routed on every square foot and almost to an inch. But undeniably there is excellent climbing and both Hendry and I hope to go back. A final note to anyone who may wish to visit this country. For the rock work, there is a series of excellent guides, published by the Climbers' Club, in four volumes, covering Cwm Idwal, Tryfan, Glyder Fach, and Lliwedd. The 1 inch O.S. map of Snowdonia is excellent and compares with the beautiful map of the Cairngorms.

## LUIBEG BRIDGE.

The lettering on the two tablets is as follows:-

## LUIBEG BRIDGE

IN APPRECIATION OF THE SERVICES OF

## JAMES A. PARKER

TO MOUNTAINEERING IN SCOTLAND.

Erected by

THE CAIRNGORM CLUB.

August 1948.

←—Speyside.	Deeside.→
Miles.	Miles.
Lairig Ghru	Derry Lodge 2
summit $(2,733 \text{ feet})$ $6\frac{1}{4}$	Linn of Dee 6
Coylum Bridge 14	Inverey 8
Aviemore 16	Braemar 12½

## THE LUIBEG FOOTBRIDGE.

G. A. TAYLOR.

It is no new departure for the Club to embrace bridge building among its many other activities. The names of at least one generation of climbers help to swell the membership roll since the Club undertook the not inconsiderable task of erecting a footbridge over the Allt na Bienne Moire, a formidable obstacle on the north approach to the Lairig Ghru. It is pleasing to record that this bridge has carried lightly its weight of years and is still as serviceable now as when, on August 3, 1912, Miss Clark "gracefully cut the ribbon . . . and declared the bridge open." After a lapse of some twelve years, it appears that the Club had again felt the irresistible urge to build and, not inappropriately, to build as high as possible. As a result, we have two fine mountain indicators, one on Lochnagar and the other on Ben Macdhui. A similar feeling surged up again last year when, at the Annual General Meeting, the members heartily approved a proposal to build a bridge replacing the dilapidated structure over the Luibeg Burn. It was a particularly happy thought that this bridge on the south approach to the Lairig Ghru should be associated with the name of James A. Parker, Past Hon. President of the Club of which he was for long a distinguished member. We can at least be confident that, if Parker could have assented to any tribute to himself, "the builder of bridges" would have greatly appreciated the form decided on. Need I recall that Parker undertook the design and supervised the construction of the indicators and of the Allt na Bienne footbridge, now so closely identified with us that it is popularly known as the Cairngorm Club Footbridge? Approval of our proposal was kindly given by the Fife Estates and an appeal for contributions was launched in April 1947. The fund now stands at £253, more than ample to cover the cost of the bridge and its future maintainance. Apart from subscriptions from members, donations were made by The Life Preservers' Society,

Scottish Youth Hostels Association, Etchachan Club, the Presidents of the Moray Mountaineering Club and of the Grampian Club, and by members of the Scottish Mountaineering Club and Ladies' Scottish Climbing Club.

After the usual slightly irritating delays seemingly inseparable from our present day complex and planned society, consent was graciously given by the Aberdeen County Council and the Ministry of Works to our proposal to spend our own money. One might add here (without in any way criticising official regulations which must be inflexible) that it does feel a trifle amusing to fill up forms under the Town and Country Planning Act and the Restriction of Ribbon Development Act for permission to erect a structure 2 miles beyond the last, and that a very isolated, outpost of Deeside habitation.

Before dealing with the erection, I shall give a brief description of our new bridge and explain certain points in the design. The clear span is 23 feet 6 inches, width between handrails 3 feet, and height above normal water level 6 feet 6 inches. The latter dimension was decided on as the minimum safe figure, evidence on the point being available from Welsh, Mutch, and others who had actually observed the level of the burn in heavy spate. Our first inclination was to erect a steel bridge rather similar to Parker's larger structure at Rothiemurchus but, as even non-technical readers must know often to their personal inconvenience, steel is and will be for some time in very short supply and is strictly controlled. It appeared probable therefore that, if we had to apply for a steel licence, we might not obtain permission to build the bridge at all and that, even if permission were forthcoming, delivery of steel could be so protracted that none of the promoters of the scheme might be alive to see the work through. I began to consider seriously the use of aluminium alloy which is gradually being applied to structural purposes though it has long been familiar in the smaller sections used in aeroplane fuselages and transport vehicle parts. Recently much larger sections are being extruded and we must be well in the forefront in the application of these. (The first all-aluminium

traffic bridge in the country, with a span of 90 feet, was, at this time, under construction at Sunderland and has since been completed.) The material has disadvantages, notably in price, the lowest for the heaviest sections being, weight for weight, at least six times that of steel though it must be remembered that an aluminium article is only about one third of the weight of the same article in steel. Further, it is much softer than steel and therefore much more easily damaged or defaced, e.g., by climbing boots. As against these and some other technical drawbacks the attraction of quick supply without a permit was rather powerful. Equally important, it was clearly visualised from the outset that it would not be at all easy to transport heavy material from Derry Lodge over the rough path to the bridge, many ingenious and impracticable schemes being advanced to overcome the snags. Obviously aluminium would very materially reduce the difficulty when it is remembered that an aluminium beam 26 feet long weighs about 204 lb. as against 610 lb. for the steel section which we considered. Finally, it is hoped that aluminium, which corrodes much more slowly (and more pleasantly) than steel, will not require painting in the pure air of the Cairngorms and consequently a heavy and troublesome item in maintenance costs will be eliminated. It was decided then to use an alloy, Noral 51 ST, manufactured by the Northern Aluminium Co., Banbury, Oxfordshire and having a strength about two-thirds that of steel. All main and cross beams, bracing, standards, and handrails are made of this material. The only ferrous parts are the galvanised parapet clamps and cadmium plated bolts and nuts. The footway is formed of 21 inch thick reinforced concrete slabs precast by John Fyfe, Ltd., through the good offices of Andrew Mutch. The abutments are built of boulders only too readily gathered on the site and backed with cement concrete, 22 cwts. of cement being dragged up for this purpose. Sand, though not of a good plastering quality, was plentiful on the site as the name of the locality "The Sands " would indicate. Most of the cutting, drilling, and fitting of the aluminium was done personally by the writer, the remainder being carried out by Messrs Wm.



THE CARTIE



Luibeg Bridge under Construction

Tawse, Ltd., who very generously offered to undertake the work at Luibeg at cost price, members of the firm having had professional and personal contacts with Parker. Actually, on completion of the work, they refused to accept any payment.

As it was not possible to obtain ponies which might, in any case, have been unsuitable for the loads and as mechanical transport such as a jeep or tractor was, except in emergency, ruled out on the score of cost and possible expensive trouble on the rough and narrow path, it was decided that haulage should be done by volunteers. Earliest and chief of these was R. Still, a Club member, who rather miraculously persuaded two of his class-fellows, G. Sim and J. Semple, to accompany him for the first week when I was able to pay only a fleeting visit. Unfortunately, it proved impossible to produce any more volunteers that week. I wonder whether this was entirely due to the holiday season or whether others foresaw more clearly than we did the type of work involved. Still and I made an improvised handcart from a pair of old car wheels and a wooden crate and also fitted a handbarrow with two large pneumatic wheels, these applicances being duly sent up with Tawse's lorry, which took up to Luibeg on Monday, July 26, the three workmen and all the materials and tools. On that day, ghastly difficulties were experienced in hauling up the first load to the site and a message was very nearly sent for a jeep; but, after fitting a new pole to the "cartie" and doing some road repairing, the three volunteers performed prodigies of endurance, hauling up two bags of cement at a time until sixteen were up by Thursday morning. This was done in the blistering heat of the finest week of our "summer," with a plague of midges and clegs unsurpassed in the notorious annals of Derry. Hardly a drop of rain fell the whole week and, the burn being low, the abutments were rapidly completed under ideal conditions. On Wednesday, Mr Selbie, the foreman, announced that, after the day's work, a main beam would be carried up in the evening. Though various ways of doing this had been discussed, it was eventually decided that the three workmen and three volunteers should carry it on three cross poles. As obviously the weight could never be evenly distributed,

the load on each man, applied in a most uncomfortable manner, can be imagined. I was told that the first beam, taken up in the evening, did not cause quite the expected distress but that the second one, carried the following morning, was too awful for words. Such matutinal trouble is not entirely unknown to mountaineers! On Saturday, July 31, Ewen and I arrived at Luibeg, the other three having returned to town. There remained at Luibeg all the concrete slabs, weighing 120 lb. each, except two which the President and Lorimer had hauled up very nearly to the bridge during the day. This we reckoned to be a particularly stout effort for two as the handbarrow which had been rejected by the others as quite useless on account of its limited clearance had been used, the President having failed to spot the "cartie." On Sunday, Ewen and I were constrained to emulate this feat and nearly killed ourselves hauling up the second pair. We sympathised with Sim who proposed lettering his initials with blood on a slab. The rest of that day we spent road-building. In the evening Still returned but Sim had found on arrival in Aberdeen a telegram instructing him to report to a job two days earlier. He was replaced by A. Frith, a Forestry officer home on leave from Sierra Leone, who came up though he had to journey to London on Tuesday morning. He worked until he had just time to walk to Braemar to catch a bus. The four of us made short work of the slabs, hauling up three at a time until all were at the bridge by Tuesday morning. It may seem nearly incredible that on Monday evening, on our third run of the day, we hauled up, including the weight of the handcart and slabs, \frac{1}{4} ton from Luibeg nearly to the bridge in half an hour exactly, carried the slabs to the bridge and were back with the cart at Luibeg one hour and seven minutes after leaving. Next morning our load took much longer! Very speedily thereafter, the superstructure was erected and the workmen returned to town on Friday, August 6, twelve days after commencing. We owe them a debt of gratitude for the way in which they worked, day and evening, Saturday and Sunday, to get the job finished and for their willingness to help us with the haulage

and we like to feel that, despite some forebodings, they enjoyed their stay at Luibeg. Needless to say, the rest of us enjoyed our sojourn under canvas, in spite of the hard work, which did not prevent us from paying one or two visits to the hills under the ideal conditions favouring our stay. In addition to the people already mentioned in the account, we have also to express our thanks to Mr Maitland Gray, who donated 25 cwt. of cement; to Mr Scott, the keeper at Derry, who gave us every facility and help; and to various public bodies who can remain anonymous as the enlistment of their services may not necessarily have been disclosed at the highest levels. I am personally grateful to William Malcolm for his co-operation and to the President for his constant interest and encouragement.

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On Sunday, November 7, 1948, the day of the official opening, over seventy people converged on Derry Lodge in two buses, a number of private cars and on foot. In addition to Aberdeen members and friends and Braemar guests, several came from Speyside. Magnificent weather favoured the occasion, snow-clad Ben Macdhui, glistening in the sun, forming a striking background to the ceremony at the bridge. The President, in a short speech, recalled the history of the scheme, thanked the Princess for giving approval and estate officials for their co-operation and introduced the two subsequent speakers. The engineer thanked Messrs William Tawse, Ltd., and the various voluntary helpers and gave a brief description of the bridge. R. T. Sellar paid an eloquent tribute to his old friend, James A. Parker, and the President then called on Mrs E. Birnie Reid to cut the ribbon of Club colours closing the bridge and to unveil the commemorative tablet. Following the ceremony the company was entertained with cake and wine by Hugh D. Welsh and the President.