PROPOSED LIGHT RAILWAYS.

BLAIRGOWRIE AND KIRKMICHAEL.

For several years past the traffic on the North Road between Blairgowrie and Kirkmichael has been on the increase, chiefly through the growing reputation of Strathardle and Glenshee as summer resorts. In "the season" extra coaches are put on, and the road presents a busy appearance. Proprietors and others on the route have had under consideration for some time the advisability of laying down a light railway, and the Light Railways Act, 1896, gives powers which, it is considered, may now be turned to advantage in this direction. Mr John Panton, Blairgowrie, who was a prime mover some years ago in the introduction of the telegraph to Kirkmichael in the face of opposition, and which is now a goodpaying property, has been the first, however, to take practical steps for the accomplishment this object, and has obtained the following report from an engineer of high standing. In addition thereto, it may be mentioned that inquiries have been made with the view of a certaining whether "light railways" require to be of narrow gauge, and the opinion is that they do not, but may be of the standard gauge, which would obviate the difficulty of or necessity for "transhipment" at Blairgowrie, and thereby greatly lessen the expense of transit. A number of the proprietors concerned in the proposed route have been conferred with in the matter, and the encouragement given has been of such a nature that in all probability an Act of Parliament will be applied for so soon as details have been gone into and more accurately determined than is professed to be the case in the present report:-

ENGINEER'S REPORT AND DESCRIPTION OF LINE.

The information supplied in this report has not been by means of a survey or levels, but only from general information given on the Ordnance Survey sheets. Before supplying an accurate report, a section of the proposed railway, along with sections of roads crossed or diverted, and also a recorrection of the Ordnance Survey would have to be made, and information about the river flood levels, the nature of strata to be excavated, and the depth of the rock below the surface in cuttings ascertained.

The proposed railway commences with a junc-

very suitable for station purposes. The total length of the railway is 13 miles 7 furlongs, and throughout its whole length passes through a fine agricultural district. Not only so, but in dealing with the proposed stations, it is found that they are all centres of some importance.

RATTRAY STATION.

This station will be midway between the villages of Old and New Rattray, and, although the distance direct is only three-quarters of a mile from Blairgowrie, yet it is mostly uphill. On this account farmers to the east would sooner send away or get their goods from this station. In connection with passenger traffic it is not likely there would be a great deal with Blairgowrie, but as the villages consist largely of mill hands, it is most likely that a large number who work at the mills near Craighall Station would take advantage of the railway.

situated 14 miles by road from Blairgowrie, and 1 mile from Rattray, has got several mills adjacent; while the district seems to be thickly populated by a working population. The station is quite close to Craighall entrance lodge, the grounds of which are open to the public reverse days in the work.

several days in the week.

MAUSE STATION.

situated 4½ miles from Blaurgowrie, has a large number of farms quite close; while Glen Ericht Lodge is just on the other side of the river, and is reached by means of a bridge. This is the only bridge between Craighall Bridge and Bridge of Cally. The district on the Glen Ericht Lodge side of the river is largely agricultural, with some fine timber forests.

BRIDGE OF CALLY STATION.

six miles from Blairgowrie, would tap all the agricultural district between there and Glenshee (to the north), a distance of 15 miles; while the general supplies and coals for an immense district like this must necessarily be very great. The district and hotel are at present largely taken advantage of, but on the completion of the railway the centre of the coaching trade between Blairgowrie and raemar would be transferred to Bridge of Cally. and necessarily tourists would use the line. This would necessitate the construction of hotels and stables, while shops would be required as the district grows as a residential place for Blair-gowrie and Dundee people. Sheep, cattle, agricultural products, and wood would be the principal goods going south.

BALINTUIM STATION.

104 miles from Blairgowrie. Besides a large number of farms in the district, there are several gentlemen's county seats quite close which are constantly requiring supplies of all kinds. There are also sawmills in the district.

KIRKMICHAEL STATION

—the principal village in the district, consisting mostly of shops—has a large agricultural area, not only extending west up Strathardle for seven or eight miles, but also eastwards to Blackwater and Glenshee. Local coaches start daily for Pitlochry, which might be turned into one of the coaching routes of the Highlands. There are two good hotels, and the district is largely taken advantage of by summer residents, but to the English tourist it is unknown. The line, if made, would attract large numbers on account of its scenic effects, which are as fine as any in Scotland.

ADVANTAGES OF THE RAILWAY.

In connection with the present traffic on the roads, there are four coaches up and four down in the day from Blairgowrie to Bridge of Cally, while three of these continue on to Kirkmichael. The public road is constantly being used by carts, in fact it may be said that no other road in Scotland, considering its length, has so much traffic. Of course most other districts so thickly populated are well supplied by railways. Even at Kirkmichael, 13 miles from Blairgowrie, no less than 70 vehicles have been counted passing in one day. It would be greatly to the advantage of the whole district if the railway were gone on with at once, for, to the poorer classes, the expense of coals and all necessities of life must be considerable in those places at a distance from Blairgowrie owing to the long cartage; while to the farmers and proprietors the loss must be excessive when it is considered that the price for horse and cart and driver is about 10s 6d per day, and as a rule no more than a ton can be carried on hilly roads at a time. If the proprietors along the route be all agreed that the line proceed at once, there is yet time to get a Bill in this session of Parliament, if the railway be unopposed. As soon as ever it is agreed to go on with the railway an agreement must be entered into with the Caledonian Railway, firstly, in connection with the access to their station at Blairgowrie, which will require enlarging, as there is only one platform at present; and secondly, as to arrangements

Railway from Coupar Angus to Blairgowne, at a point about 480 yards south-east from Blairgowrie Station Terminus, in the parish of Rattray. After running along the present railway for about 300 yards it turns to the left with a 10-chain curve, and, rising with a gradient of 1 in 60, crosses over two public roads, one on each side of the river, and the river itself. Still rising at this gradient, it continues in a northerly direction, in embankment (greatest depth 38 feet) it passes over the Greengait Brae, and at 7½ furlongs, adjacent to the Blairgowrie and Old Rattray Road, there might be a station. The railway at this point being slightly in cutting at the road crossing, the road will have to be raised about 6 feet. The gradient at the station will be level. Crossing the road on the east side of Rattray Public School, the railway continues a north-westerly direction in cutting, passing on the east side of Millbank, care being taken to avoid as much as possible the present. houses, while the gradient, so as to avoid too deep cutting, might be increased to 1 in 55 for a short distance.

THE GRADIENTS.

At two miles Westfield of Rattray is reached, where there is ample room for a station, as the district seems sufficiently large to require one, The gradient at the station will be level, while the height of rails will be 9 feet above the roadway. Leaving this station the line curves to the right, and crosses by means of a viaduct the private entrance roadway to Craighall, the public road from Blairgowrie to Bridge of Cally, and the River Ericht. Height above public roadway, 48 feet; and height above river, about 85 feet. It then enters a cutting, and, curving to the left, keeps parallel with the public road before mentioned as far as 2 miles $5\frac{1}{2}$ furlongs, where, by means of a road diversion in which the road is lowered at the point of crossing 10 feet, the line crosses, and, again keeping parallel with roadway and between it and the river, rises steadily from Westfield of Rattray, or Craighall Station as it ought to be called, at a gradient of 1 in 60. the bank is very steep it might be well to mention height of rails at several points in relation to the public road, so as to give an idea of position of the railway.

Rail line 31 feet above roadway at 2 miles 3 furlongs.
Rail line 16 feet above roadway at 2 miles 4 furlongs.
Rail line 9 feet above roadway at 2 miles 5 furlongs.
Same level as roadway at 2 miles 6 furlongs.
19 feet below roadway at 2 miles 7 furlongs,
49 feet below roadway at 3 miles 0 furlong.
58 feet below roadway at 3 miles 1 furlong,
64 feet below roadway at 3 miles 2 furlongs.
68 feet below roadway at 3 miles 3 furlongs.

At 3 miles 3 furlongs the railway emerges from the valley, and, turning north-west, enters very deep cutting (greatest depth, 60 feet). This will be the deepest cutting on the line, and is unavoidable, as a steeper gradient than 1 in 60 for any considerable distance is not advisable, especially where there are 10-chain curves. At 3 miles 6 furlongs the line passes out of the cutting, and by means of a bridge crosses a narrow gorge, rail level being about 100 feet above the stream. The line, having now attained an altitude of 500 feet above

the sea, runs almost level, and with very easy curves. At 4 miles 4 furlongs the line passes 60 yards to the south-west of Mill Lands of Mause, and here a station might be placed, as there is a bridge across the river, which would be the means of communication to a large area of country. At 5 miles 1 turlong the line is 60 yards to the south of Milton of Mause, and at Milton of Rochalie (distance, 5 miles 3 furlongs) the railway is 130 yards to the north-east. Here the railway again begins to rise with a gradient of 1 in 60, passing at the back of Rochalie Farm, until at 6 miles 0½ furlongs we cross underneath the public road from Blairgowrie to Bridge of Cally at a level of 550 feet. A slight road diversion will have to be made here, in which the new road will be raised at point of crossing 10 feet. The railway now keeps parallel with the road with a level gradient, and at 6 miles 3 furlongs Bridge of Cally is reached. The position of the station will be in the field to the south-east of the hotel, and at a distance of about 30 yards, while rail level will be about 35 feet above the doorstep of the hotel.

CROSSING THE ARDLE.

It has been thought advisable to keep along the south side of the river Ardle, as the ground does not seem to be nearly so valuable as on the north, being mostly hill pasture as far as Cochrage. The gradients and curves are very easy, the line following the 550 feet level as far as 7 miles 3 furlongs, where it passes 60 yards to the south of Cochrage Farm. From here the line rises with a gradient of about 1 in 140 as far as 8 miles 2 furlongs, and at this point it has risen to the 580 feet level. The gradient now becomes level, and at 8 miles 3 furlongs the line passes between Blackcraig Farm and the river, while Cally House lies on the opposite side. At 8 miles 7 furlongs the line crosses the river Ardle at a height of 16 feet above the river, as by doing so Blackcraig Castle and Woodhill House are avoided, and the more valuable ground in this part of the valley seems to be on the south side of the river. At 9 miles 2½ furlongs the line passes underneath the private roadway to Blackcraig Castle, and following the curves of the river at 10 miles 2½ furlongs Wester Ballintuim is reached, where there ought to be a station about 20 yards to the south of the farm. From this point onward the river has at one time had a different water channel, which has left a comparatively level stretch at a height of about 8 feet above the present water level. It is proposed to take advantage of this formation, and the line is kept as close to the old river bank as possible, as in some places the ground is of the finest arable kind. From 10 miles 3 furlongs the line keeps at the foot of the old bank, passing at the back of Balna-broich Farm at 11 miles 3 furlongs, and on this level plateau continues as far as 13 miles, where the higher ground recedes from the river, and at 13 miles 3 furlongs, after again crossing the river, terminates in the field at the south-west corner of the Bridge at Kirkmichael, the reason for again crossing the river being to get as near the centre