

FOREST OF DEAN TRAMROADS ~ Some notes on Construction & Rail.

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1. Mr. TEAGUE'S RAILWAY This was the first tramroad to be built in the Dean and first appears on a plan dated 1801. It ran through Crown forest lands but was built without licence or Parliamentary Bill. It has been described by Harry Paar (1) and more recently by Gordon Clisold and myself. (2) That account referred to an earthen bank at Teague's Engine Pit near Coleford (SO 59951285). We felt at the time of writing that this bank was the likely line of Teague's Railway on account of a couple of stone sleeper blocks lying out of situ as a result of bulldozing or forestry operations on the bank.

Since then two small excavations have been made on the bank to investigate its structure and purpose. Regularly spaced pairs of stone sleepers of primitive design were uncovered, demonstrating that the bank certainly carried a tramroad. Each sleeper block was of local Pennant Sandstone and roughly dressed on the surface which carried the rail. Each sleeper contained a single spike hole, diameter of $1\frac{1}{4}$ in. The sleepers were small, many being triangular, whilst others were almost cubic. Their sides measured typically 8 - 12 in., and none weighed in excess of 10 - 15 lb.

The lineal distance between pairs of blocks along the line, and measured from hole to hole, was 4 ft. 1 in. (nominal 4 ft. rails), assuming that the rails butted end to end at each spiking hole. One sleeper block carried a dressed facet which clearly accommodated the base of the rail. Its width of $2\frac{1}{2}$ in. gives a good idea of the overall rail dimension. They were relatively light in construction, possibly more akin to rail in use below ground than to the tramplates described elsewhere in this Journal from the Bullo Pill and Monmouth Tramroads of later date.

The gauge across the track, measured from spiking hole centre to centre, varied between 2 ft. 1 in. and 2 ft. $3\frac{1}{2}$ in. This variation is probably due to movements of blocks within the embankment. With a rail width of $2\frac{1}{2}$ in., the probable gauge of trams was 2 ft. 2 in.

The Embankment. This would appear to have been built to keep gradients favourable. One section previously breached by bulldozing was cleaned down to establish constructional details. The height of bank was about 1 ft. 8 in. above the forest floor and consisted of subsoils and colliery waste. There was no evidence of stone retaining walls.

The width of the top of the bank was about 6 ft. but as the single track approached to within 30 yards of the Pit, its width increased rapidly to about 6 yards. This suggests that single track becomes double or even triple track at the point where coal would have been loaded and empties assembled.

Discussion. The evidence from excavation shows a tramroad of simple and economic construction. This might be interpreted as a sign of early date or a tramway made more recently from second-hand materials by quite a different generation of forest miners. The evidence in favour of this being the trackbed of Mr. Teague's Railway includes the exact position and relationship, as portrayed on contemporary plans, to Teague's Engine Pit. Furthermore, on the embankment are the rotted stumps of oak trees up to 2 ft. 6 in. diameter. Some are in positions which would seriously affect traffic movement, and must have grown after the tramway went out of use. The age at felling cannot have been less than 80 - 100 years. In addition, the 1st edition of the O.S. 25 in. map (1880) depicts no tramway then. On the other hand, the looseness of layer two in the section was surprising, as was the lack of coal dust or any form of metalling between the rails. Excavation in the Lydbrook area might now be very interesting.

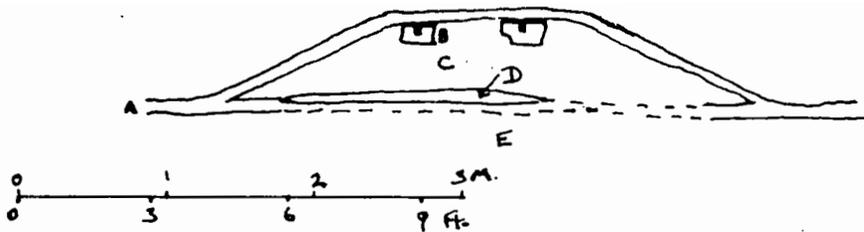


Fig. 1. Mr. Teague's Railway: Section of Bank.

Layers

- A Forest topsoil with leaf mould and roots; up to 10 cm.
- B Stone sleeper blocks.
- C Brown to orangey-brown subsoil with inclusions of colliery waste which included grey fire-clays and coal fragments and occasional Pennant Sandstone fragments. All very soft to trowel. 40 cm.
- D Thin layer of compacted coal, cinder and ash, resting on original topsoil. Very hard to trowel. 2 - 7 cm.
- E Brown to orangey-brown subsoil for at least 50 cm. becoming more stoney with depth.

2. THE MONMOUTH RAILWAY In contrast to Mr. Teague's Railway, the Monmouth Railway was constructed under Parliamentary powers in 1812. It was built by contractors and paid for by subscribers. It ran from a point above Coleford down through the town and thence to Monmouth by way of Whitecliff, Newland and Redbrook. Harry Paar gives a good description (3) whilst Dr. Cyril Hart's forthcoming book on Coleford will contain much detail concerning its passage through the town.

During 1982 the Forest of Dean District Council laid a storm-water course through part of the town and utilised a section of the tramroad formation for some 300 metres, including some 80 metres which forms the driveway to my house (SO 57361064). Many stone sleeper blocks and one complete tramplate or rail were seen. They provide field evidence of construction.

Stone Sleeper Blocks. Upwards of twenty blocks were seen. Most were of local pink Drybrook Sandstone, possibly quarried from behind Rock House, or from another quarry, now infilled, at SO 57371069. Occasional sleepers were of grey Pennant Sandstone. Most were cubic in shape, with sides measuring 18 in. and weighed about 50 lb. Each block or sleeper had a single spiking hole of about 1 in. diameter and rare blocks still contained the spike itself.

The blocks occurred in pairs at spacings of 3 ft. along the track measured from spike hole centre to centre. The blocks were rough dressed except for the face which carried the rails - this was fine dressed.

The gauge across the track, from spike hole centre to centre was 3 ft. 9 in. This would indicate a nominal tram gauge of between 3 ft. 4 in. and 3 ft. 10 in.

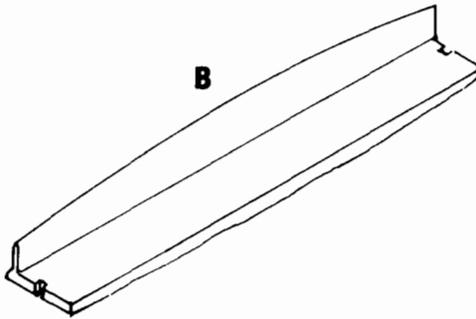
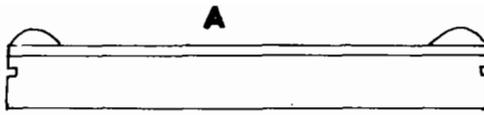
There was no evidence of cobbling between the rails but the surface consisted of about 1 - 2 in. of compacted small coal and gravel which was very hard to a trowel.

The overall construction contrasts strongly with that of Mr. Teague's Railway.

The Tramplate. Council operations discovered one fine tramplate. A few weeks later I dug up a second and identical specimen in my vegetable garden, which adjoins the tramroad formation. Both are in excellent condition, and exhibit pleasing lines and evidence of quality manufacture.

The plates are of L section and made of cast-iron. They measure 3 ft. in length and weigh 40 lb. The scale drawings by Mr. N.G. Standing show the details. Of note are the gentle curves of the top edge and inner rail foot edge. These serve to increase the section and hence the strength of the weakest middle section of each rail.

(NOTE Measurements are all stated in Imperial because these tramroads and their materials were all made and measured by this system.)



Monmouth Railway Tramplate

- A Plan or top view of tramplate. Scale 1:10
- B Oblique view. Scale 1:10
- C Section close to end of plate. Scale 1:5
- D Section in middle of plate. Scale 1:5

(Note. With reference to the article on the Lightmoor Beam Engine (page 7), I have been asked by Mr. Pope to point out that there is a Restoration Fund for this interesting item of industrial history. Donations may be made to the Trust's Director, R.J. Tamplin, at the Dean Heritage Museum, Camp Mill, Soudley, Cinderford, or to Mr. A.K. Pope at 48 High Street, Cinderford.)