

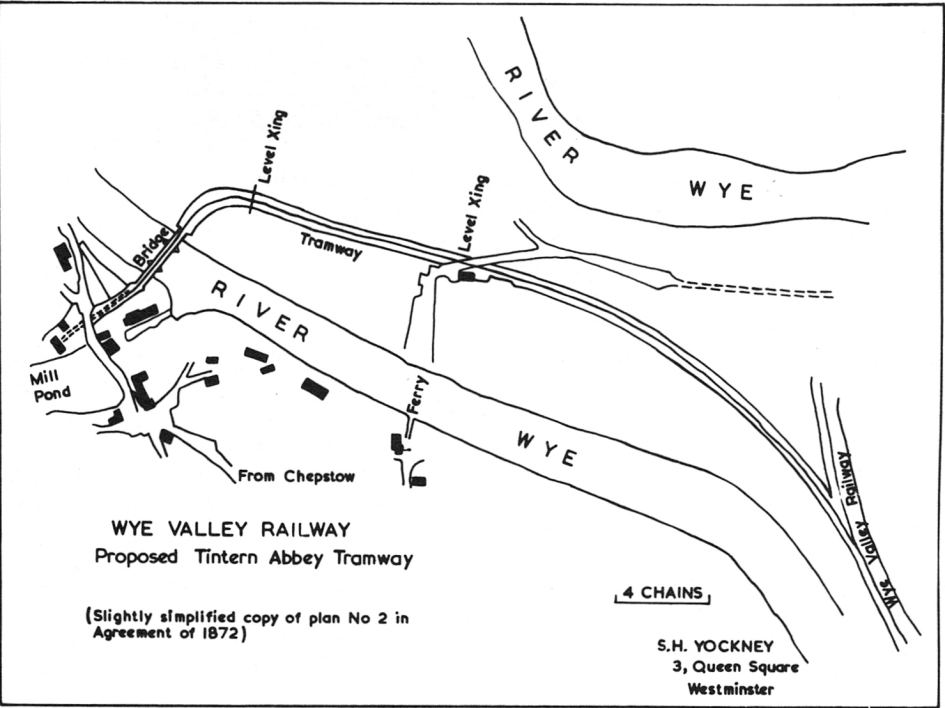
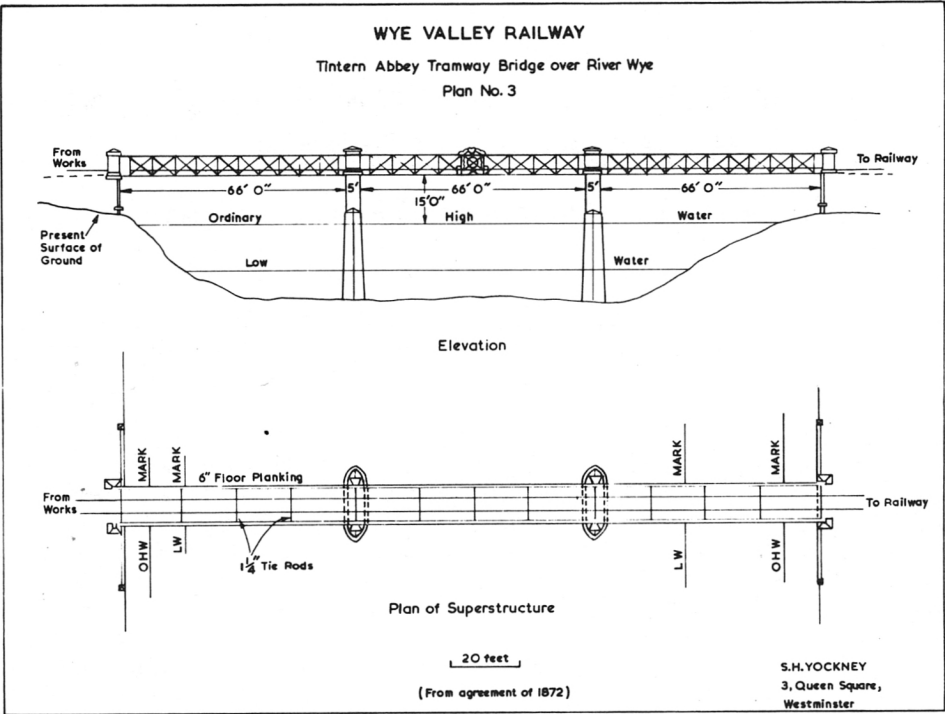
THE WIREWORKS TRAMWAY AND BRIDGE AT TINTERN

by H. W. Paar and D. G. Tucker

VISITORS TO TINTERN (and residents!) can hardly fail to notice the plain but not unpleasing girder bridge which spans the River Wye near the Abbey, and no doubt many use it as a foot-bridge, perhaps to get a new view of the Abbey. Many must have been puzzled as to why it was built.

It was built nearly 100 years ago, and the Agreement¹ under which it came into being is just 100 years old, having been signed on 22 November 1872, for the sale of land by the Duke of Beaufort and his son, the Marquess of Worcester, to the Wye Valley Railway Company. At that time there was still a good deal of industrial activity at Tintern, and although the wireworks, which had once been famous, were badly run down, there was obviously a hope that better transport would help them to recover. The original railway proposal² of 1865 had envisaged a route entirely on the Monmouthshire side of the river at Tintern, and this would have served the works directly. However, the final Agreement was for a route crossing to the Gloucestershire bank above Tintern and continuing on that side all the rest of the way to the junction with the main line near Chepstow. The Duke of Beaufort owned the wireworks, and thus had in the Agreement, as a sort of *quid pro quo*, an arrangement for the construction of a branch railway or 'tramway' from the Wye Valley Railway on the Gloucestershire side of the Wye, to the wireworks at Tintern, including detailed drawings of the substantial bridge that was necessary to carry the branch over the river. We give in Fig. 1 a copy we have made of the drawings. The bridge as built is in all major respects in accordance with these. The design was by S.H. Yockney of 3 Queen Square, Westminster and the builders were the Isca Foundry Company, Railway Plant Engineers, of Newport.

The wireworks³ at Tintern were founded in 1566 and, together with associated ironworks, occupied various sites from the bank of the river Wye to Pont-y-Saeson up the Angidy valley until a changeover to tinsplate making was effected in 1880. Tinsplate making ceased in 1901, but various other industries continued at Tintern for a while. Power was provided by the Angidy river throughout this period. Until the opening of the Wye Valley Railway in 1876, transport to and from the area was mainly by boat on the river Wye, but transport from the various works sites to the river bank must have been mainly by waggon. However, at some time during the 19th century a tramway was built from some part of the works to the river bank or to the small dock; Peacock⁴ considers that it was built between 1836 and 1844, but the evidence is very slight. It is not mentioned in any of the leases⁵ made between the Duke of Beaufort and the various lessees of the wireworks in the 19th century, nor shown in any of the maps accompanying the leases – not even in that of 1866 – although these maps include the ground over which it must have run. That it did exist is proved by an indication of it in the deposited plans of 1865² and by the requirement in the Agreement of 1872 that the new railway 'on the West side of the said Bridge shall occupy the site of the present Railway of Messieurs Murrell and Stothart the Lessees of the Abbey Tintern Wire Works'. It was apparently disused by 1875.⁶ A map forming part of the Agreement is reproduced (as re-drawn by us) in Fig. 2, and from this it can be seen that the new railway is shown terminating just in front of some cottages (which still exist). This is a puzzle, too, for there is no doubt that the railway as finally built and shown on the



25 inch O.S. map, as well as in Peacock's book, extended right up to the main wireworks site which now forms the Forestry Commission's Depot. The termination in the map was probably that of the earlier tramway. The later railway was operated from the junction with the Wye Valley Railway, over the bridge, to the wireworks, by a private steam locomotive.⁷

According to the Agreement, the bridge was to be constructed according to the design of the drawing, 'but with such variations if any as may be necessary to carry out the stipulations contained in this Agreement and the said Bridge is to be capable of sustaining a Locomotive Engine and three loaded Trucks at the least . . .'. The stipulations referred to are presumably that 'the Rails shall be level on the said Bridge and from thence up to and with the said High Road' and 'there shall be a clear headway of fifteen feet between ordinary high water mark and the Crown of the Arches of the said Bridge'. The variations actually made in the design of the bridge as finally constructed appear to have been largely unconnected with these stipulations. They are comparatively minor variations, comprising three main features: (a) the drawing shows the two outer spans with 10 diagonally-braced girder sections, whereas the bridge as built has nine sections in all three spans, (b) the drawing shows the piers as being perpendicular to the bridge, whereas as built they are skewed by about 16 degrees towards the west-east line, (c) the bridge is probably a foot or two higher than indicated in the drawing, for in 1874 the Board of Trade⁸ suggested that the bridge should be raised by 2 ft., and the railway company agreed to raise it by up to 2 ft. 6 in. at an estimated additional cost of £556 15s.

The bridge is not a particularly handsome one, but it has been, and still is, useful, even though it was always an expensive embarrassment to the railway company, and it is certainly the most obvious and the only well-preserved relic of the old metallurgical industries of Tintern. It still has the timber plank deck as shown in the drawing.

ACKNOWLEDGMENTS

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REFERENCES

- 1 Badminton Papers Group II, No. 10, 512, Nat. Lib. Wales.
- 2 Deposited plans for Wye Valley Railway, 1865.
- 3 A detailed history of the early years is given by William Rees, *Industry Before the Industrial Revolution*, Cardiff, 1968; and a coverage of the whole period, with maps, is given by D.G. Tucker, 'The Wireworks at Tintern and Whitebrook', *Historical Metallurgy Group Paper*, Sept. 1972 (purchasable from the Treasurer, HMG, 147 Whirlowdale Road, Sheffield S7 2NG).
- 4 T.B. Peacock, *Railways to Tintern and Coleford*, Loco. Pub. Co., London, 1952.
- 5 Documents in the Badminton Papers, Nat. Lib. Wales.
- 6 Deposited plans for Wye Valley Railway, 1875 refer to 'disused tramway' in the parish of Tintern Parva.
- 7 H.W. Paar, 'The first whistles in the Wye Valley', *Industrial Railway Record*, No. 39, Oct. 1971, p.127; also Peacock, *loc. cit.*
- 8 Wye Valley Railway Co., Minute Books, 20 Nov. 1874.

