Proposed Passenger Service on the Gloucester & Cheltenham Tramroad

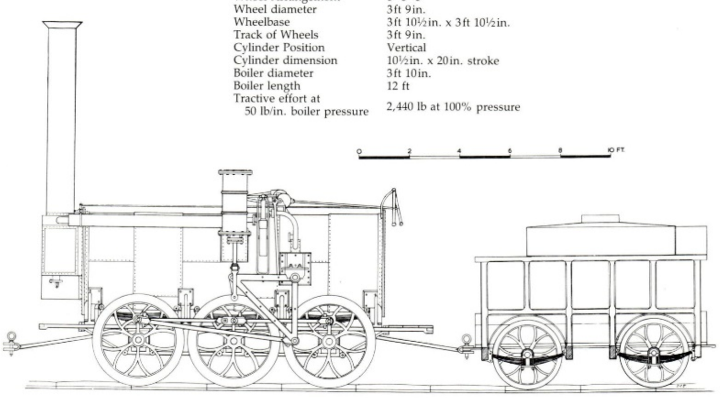
Mike Smith October 2025

The Gloucester and Cheltenham Tramroad, officially known as the Gloucester and Cheltenham Railway Company, connected Gloucester and Cheltenham using horse drawn wagons. Its primary economic purpose was the transport of coal from Gloucester's (then new) docks to the rapidly developing spa town of Cheltenham and the transport of building stone from quarries on nearby Leckhampton Hill.

The tramroad operated in a similar way to the turnpike roads and canals of the period. Provided the rules and regulations of the company were obeyed, anyone could put a horse and wagon (tram) upon the line and the principle of erecting toll houses and extracting payment from the users was exactly the same as on the turnpike roads. It should be noted that the tramroad was a 3 foot 6 inch gauge plateway. On a modern railway, the flanges that keep the vehicles on the rails, are on the wheels. On a plateway, the flanges are on the rails, so the rails have an L-shaped cross section. This is better for horse drawn operation because the wagons are lighter in weight, the wheels being simple discs without flanges.

In 1825, the year the Stockton & Darlington Railway opened, a steam locomotive was tested on the Gloucester and Cheltenham Railway. Unfortunately, these trials were unsuccessful, and it was another six or seven years before a second attempt was made to introduce steam onto the tramroad.

The *Royal William* arrived at Gloucester during the Winter of 1831/1832, probably delivered by coaster. It was supplied by the Neath Abbey Iron Company near Swansea who built their first tramroad locomotives in 1829. *Royal William* was the fifth locomotive constructed by them and was the first one they built with an 0-6-0 wheel arrangement. The boiler had a single flue with a corrugated firebox and water tubes. The locomotive had two vertical cylinders, placed over the middle pair of driving wheels, as can be seen in the accompanying drawing.



The *Royal William*, built at Neath Abbey Ironworks in 1831, reconstructed as far as can be confidently predicted from existing drawings.

Wheel Arrangement	0–6–0
Wheel diameter	3ft 9in.
Wheelbase	3ft 10½in. x 3ft 10½in.
Track of Wheels	3ft 9in.
Cylinder Position	Vertical
Cylinder dimension	10½in. x 20in. stroke
Boiler diameter	3ft 10in.
Boiler length	12 ft
Tractive effort at 50 lb/in. boiler pressure	2,440 lb at 100% pressure

Note: The actual working pressure is uncertain, but was probably the same as *Camel* — 50 lb/in^2.

Royal William started its trials at Gloucester and headed for Cheltenham. An eyewitness, John Godfrey Maliphant, wrote *"it was put on the Gloucester and Cheltenham [tram]road but the difficulties were so great that the efforts to run it did not last longer than a week".*

John Maliphant's letter goes on to say the rails on the tramroad were not very long and were fixed with rough rivets ("iron nails" rather than "rivets") on stone sleeper blocks. As the locomotive moved forwards, the rails tipped up and had to be replaced after the locomotive had passed over them. Maliphant thought the engine would have done its job if the track had been able to take its weight. He says it was put into the tramroad's Spa Wharf depot in Park Road, Gloucester and "*there he remained until it got rusty*", so *Royal William* probably never reached Cheltenham. Spa Wharf was a loading facility on the tramroad, not on the canal or river.

Locomotives built by the Neath Abbey Iron Company ran successfully for many years on South Wales tramroads. They had probably switched from cast iron to wrought iron rails, the ends of which rested on iron rail chairs on the stone sleepers. The Gloucester and Cheltenham Railway used cast iron rails (tramplates), the ends of which sat directly on the stone sleeper blocks, held in place by iron nails hammered into oak plugs set in holes in the sleepers, so it seems Maliphant was probably right to blame the track for the problems encountered by *Royal William*.

We know that users of the tramroad paid a toll to place their own wagons on the rails, so why did the Gloucester and Cheltenham Railway buy a steam locomotive? Firstly, a horse could only move one loaded wagon whereas a steam locomotive could move a whole train of them, so if *Royal William* had been successful, the tramroad could have handled more traffic.

Secondly, 20 sets of wheels and axles were ordered from the Neath Abbey Iron Company at the same time as *Royal William*. These were of a lightweight design and were probably intended to be fitted to passenger carriages, so the Gloucester and Cheltenham Railway planned to introduce a passenger service between Gloucester and Cheltenham. Remember, this is 1831/1832, years before the Birmingham and Gloucester Railway arrived in 1840 to connect Cheltenham to Gloucester. In February 1831, Sir Charles Dance operated one of Goldsworthy Gurney's steam coaches on the Gloucester to Cheltenham turnpike road and carried several thousand passengers before aggressive opposition from operators of local horse drawn passenger services forced him to stop, so the Gloucester and Cheltenham Railway realised there was a market for a steam service between Cheltenham and Gloucester.

They produced copper "tickets", perhaps better described as "tokens" for the proposed service. These are very rare, but I did purchase one at a recent railwayana auction. It is $1^5/_8$ inches diameter (41mm) and photographs of both sides of it are included in this article.

One side shows a very early locomotive. It does have six wheels, but comparison with the drawing of *Royal William,* tells us the locomotive shown on the "ticket" is not *Royal William*. It has a barrel on a platform behind the driver, presumably for water. The first wagon is carrying coal, probably fuel for the locomotive, and the next vehicle is a passenger carriage. Another vehicle would be hidden by the sail of the boat, and the final wagon also appears to be carrying coal. The boat is probably meant to be a trow.

The other side of the token carries the name of the Gloucester and Cheltenham Railway and the words "ROYAL WILLIAM LOCOMOTIVE ENGINE. CLASS No 2", meaning this is a second class token. A "CLASS

No. 1" token was also issued. Presumably, first class passengers would have travelled inside the carriage and second class passengers on the roof.

The tramroad opened in 1811 and was a great success until the arrival of the main line railway companies. The majority of the tramroad continued in use but declined over the years and was closed in 1859. The steepest part of the Leckhampton incline continued in private use until the 1920s as part of the internal railway system within the quarries.

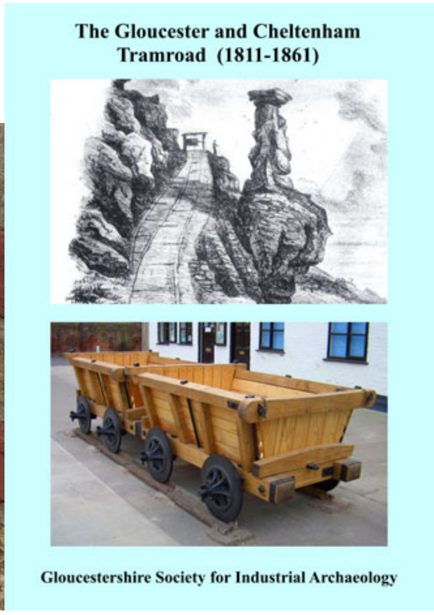
When Gloucester Docks were "gentrified" a few years ago, two replica tramroad wagons were placed on some original stone sleeper blocks and rails by the Southgate Street entrance to Gloucester Docks as a reminder of this once important part of Gloucester's and Cheltenham's transport infrastructure. These wagons are shown in one for the photographs and another shows the plaque erected by the Gloucester Civic Trust and the Gloucestershire Society for Industrial Archaeology by the tramroad's dock entrance.

References:

- *The Gloucester & Cheltenham Tramroad and the Leckhampton Quarry Lines*. Author David Bick, published by Oakwood Press in 1987. ISBN 0 85361 336 2.

- *British Steam Locomotive Builders*, Author James W. Lowe, published by Goose and Son Publishers Ltd in 1975. ISBN 0 900404 21 3.

*****



Commemorative plaque at Docks entrance

A Short History of the Tramroad can be downloaded at:

https://gsia.org.uk/sites/files/gct/gsia-tramroad-history.pdf (A5 format – 8 pages)