THE EXCAVATION OF A TRAMROAD SIDING AT
GLoucester Docks

by HUGH CONWAY-JONES
During the final stages of the construction of the Gloucester and Berkeley Canal, the Main Basin at Gloucester was extended by the provision of a smaller basin for barges, and a number of tramroad sidings were laid in 1824-25 to serve the surrounding yards. The sidings were connected to the existing line of the Gloucester and Cheltenham Railway, which had been opened in 1811 to carry Forest of Dean coal to Cheltenham. The sidings are clearly shown on Causton's 1843 map of Gloucester, but the rails have long since been removed and the ground has been built over. With the prospect of the area being re-developed for housing, it seemed an opportune time to organise a small archaeological excavation, and I was delighted to find that Neville Crawford, Ian Parsons and David Bick were prepared to come along and help.

We had a choice of two sites. One possibility was the set of cobbles behind the Police Office which appear to be on the line of a tramroad siding shown on Causton's map. It seemed, however, that these cobbles were probably more associated with a later railway siding, and any tramroad remains would be well buried underneath. We therefore looked for the next siding to the east where David Bick had found some stone blocks in 1966. (See shading on Causton's map.)

We quickly found two stone blocks close to the surface, and with slightly more effort we began to expose a good line of them about 0.9 m (3 ft.) apart (although one was missing). Knowing that the gauge of the tramroad was 1.07 m (3 ft. 6 in.), we looked for the other line of blocks, but initially without much success. Each time we uncovered a new block, we looked for its partner, and we were eventually successful at the eighth try. Evidently the missing ones had been removed when the later buildings were erected. As we worked down the line, the going became harder because the blocks were buried deeper, but we kept at it until eight pairs were uncovered. (See plan.) To our surprise, the alignment of the siding was not at right angles to the Barge Basin as it was shown on Causton's map, but we later found that the slightly offset alignment is shown on the Board of Health map of 1851.

Each of the blocks had a 35 mm diameter hole in the middle. Several still had the remains of a wooden plug in the hole, and one had part of the iron nail that had once located the rails. To show how the tramroad would have looked, David Bick brought along eight rails and laid them on the blocks. The rails were L-shaped to suit wagon wheels without flanges, and each had a small rectangular recess at each end into which the locating nails would have fitted. Although some of the rails had in fact come from other tramroads, they matched the spacing of the stone blocks perfectly.

The final stage of the excavation was to dig a trench across the line of the siding to reveal the structure of the foundations. This showed an underlying layer of mixed stones, broken bricks and clay about 200 mm (8 in.) deep, and an upper layer between the blocks which contained large rounded stones that had probably formed a crude roadway. Much of the packing
GLOUCESTER DOCKS
Survey of Gloucester and Cheltenham Railway siding to Barge Arm
29 July 1985 (Drawn by Ian Parsons)

possible site of building
shown on Causton's map
of 1843

exposed block depth 200
average block spacing 940
1.14m to centres of
110 x 35 dia fixing holes

Barge Arm

Scale 1:200
around the blocks and between the stones consisted of finely broken pieces of a reddish material like partly-baked brick clay. Four of the blocks were weighed, and the weights varied between 40 kg (88 lb.) and 80 kg (176 lb.). Only one of the four was in the range 160 to 200 lb. that the Gloucester and Cheltenham Company specified when they advertised for blocks for the main line, (2) but perhaps the lower weights were acceptable for what was only a siding.

By good fortune, both the contract and the contractor's accounts have survived for the Barge Basin and the associated tramroad sidings. (3, 4) The contractor was Hugh McIntosh of London, who was also responsible for the main task of completing the canal. The contract called for a siding to be laid down the middle of each of the eighteen yards around the Barge Basin, and it specified that these should be laid "in the same manner as those on the Cheltenham Rail Road (each yard of single rail to be 50 lb)". The accounts show that the cost of a 64 yard stretch was made up as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>128 rails of 50 lb each</td>
<td>£34 - 5 - 8d</td>
</tr>
<tr>
<td>128 blocks at 1s 6d each</td>
<td>9 - 12 - 0d</td>
</tr>
<tr>
<td>Boring a hole in each block 2d</td>
<td>1 - 1 - 4d</td>
</tr>
<tr>
<td>128 plugs at 1s for 20</td>
<td>6 - 5d</td>
</tr>
<tr>
<td>128 nails at 1d</td>
<td>10 - 8d</td>
</tr>
<tr>
<td>Excavating at 1s 6d per yard</td>
<td>4 - 16 - 0d</td>
</tr>
<tr>
<td>Stoning under the road &amp; gravelling</td>
<td>6 - 8 - 0d</td>
</tr>
<tr>
<td>at 2s per yard</td>
<td></td>
</tr>
<tr>
<td>Laying the blocks &amp; rails at 4d per</td>
<td>1 - 1 - 0d</td>
</tr>
<tr>
<td>yard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>£58 - 1 - 1d</td>
</tr>
</tbody>
</table>

In the early days, the siding was probably used mainly for loading coal on to tramroad wagons, and during the 1840s, the yard seems to have been occupied by George Brown, (5) a river carrier, wharfinger and coal merchant. Then it was rented by Humphrey Brown, M.P. for Tewkesbury, and he was followed by Richard Rice, a river carrier from Tewkesbury. The siding must have gone out of use by 1861 when the main line of the tramroad was closed and the rails were sold, (2) The yard continued in use, however, and at about this time it became known as St. Owens Wharf. (6) It was the base for the Rice family's steam barge which normally operated up the River Avon to Stratford. The firm of Jacob Rice & Son continued to use the premises until the 1940s, and traces of their name can just be identified on the front of the nearby building.

The excavation aroused considerable interest, and we had visits from boat owners, British Waterways Board employees, passers-by and also from the chaplain of the Mariners' Chapel. The "Citizen" sent a reporter and photographer and gave us a good write-up, and this was followed by a short item on BBC-TV Points West. The site has subsequently been shown to parties of visitors who were being taken round the docks. It is hoped that the stone blocks will be preserved, and that they will eventually be featured close to their present site when the area
is re-developed. I am particularly grateful to Neville Crawford, Ian Parsons and David Bick for their sterling work during the heat of the summer, and I am also grateful to the British Waterways Board for permission to dig on their property.

H. Conway-Jones © 1983

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REFERENCES


3 Copy of Contract. P.R.O. RAIL829/17.

4 Copy of Accounts. G.R.O. D2460 Box 95.


6 Kelly's Directory for 1863, and O.S. Map 1885.