

## N&Q 27.18 – Contract for building a canal boat in 1836

Hugh Conway-Jones asks

I would be interested to hear comments on the following document from the Gloucester Waterways Museum collection that was brought to my attention by volunteer Martin Bryan, who is improving the collection catalogue. The document records an agreement for the building of a 'canal boat' by Edward Hipwood of Gloucester for John Bowkett jnr of Newent (on the Hereford & Gloucester Canal) dated 1836. It specifies the thicknesses and types of timber to be used, and some of the timber was to be supplied by John Bowkett snr who was a timber and coal merchant at Newent. The document also gives some details of the design, but curiously it does not specify the overall dimensions of the finished boat. It seems that the term 'canal boat' was clearly understood by both parties.

Newent, 2 Novr 1836

I Edward Hipwood do agree to Build a Canal Boat for Mr John Bowkett Junr as hereunder Specified the Bothams to be of 2¾ inch Beech plank the Sides First Strake 3 inch English Oak Keelson 3 inch Oak the residue of side plank to be of 2½ inch Oak the Knee to be 3 feet 2 inches Distance and Double Bolted Oak rail on the top of the Sides(?) good Cabin & Fore Deck with Floor in the Cabin the whole to be well and properly fastened & finished in a Good and Workmanlike Manor with three pair of wood & three pair of iron Guards for the Sum of One Hundred and ten pounds & I Edward Hipwood further agree to take in part of payment 12 Oak Timber Sticks(?) of Mr John Bowkett Senr at 3 Shillings per foot to be delivered in my yard at Gloucester the remainder of Payment to be made when the Boat is finished which is agreed to be on the First of March 1837

[signed] John Bowkett Junr  
Edward Hipwood

I would be interested to hear if there any suggestions for alternative readings of difficult words in the attached original. Are there any earlier known contracts for building a canal boat? As the basic design was understood by both parties, can we deduce that the contract was for what we now call a narrowboat and that such boats were standard on the Hereford & Gloucester Canal by 1836, even though the canal was capable of taking wider boats and presumably did so in its earlier years.

Tom Foxon writes

In N&Q 27.18, 'rail on top of the sides' may refer to the gunwhales which were known as 'rails' in the Severn area. Construction in beech, both for bottom and side planking, is something that I have never come across and will, no doubt, provoke some discussion on wooden boat building. The side planks appear to be rather thicker than would be found in later boats where they usually had a thickness of 1.5 inches being strengthened at the top by a lining piece, of similar thickness and about 6 inches deep, which would enable the gunwhales to be 3 inches wide.

Is there any mention of the cost of the boat?

John Selby suggests *Boat Builders Sketchbook* by Keith Kealy 1993 as source material

Newent 2 Dec<sup>r</sup> 1836

J<sup>s</sup> Edward Tipwood do agree to Build a Canal  
Boat for M<sup>r</sup> John Bowtell Jun<sup>r</sup> as hereunder  
Specified the Bottoms to be of 2x $\frac{3}{4}$  inch Beech  
Plank the Sides First Strake 3 inch English Oak  
Kelson 3 inch Oak the residue of Side Plank to  
be of 2x $\frac{1}{2}$  inch Oak the Knee to be 3 feet  
2 inches Distance of Vaulth Bolted Oak rail on  
the top of the Side good Cabin & Horse Back  
with Store in the Cabin the whole to be well  
and properly fastened & finished in a Good and  
Workmanlike Manner with three pair of wood  
& three pair of iron Guards for the Sum of  
One Hundred & ten Pounds & J<sup>s</sup> Edward Tipwood  
further agree to take in part of payment  
12 Oak Timber Slips of M<sup>r</sup> John Bowtell Jun<sup>r</sup>  
at 3 Shillings per foot to be delivered in  
my Yard at Gloucester the remainder of Payment  
to be made when the Boat is finished  
which is agreed to be on the First of March 1837

John Bowtell Jun<sup>r</sup>

Anne Willis asks: could the wood be birch, not beech? Much lighter and easier to work.

Mike Clarke replies

Beech was a standard wood used for boatbuilding, and is included in the section on woods for boatbuilding in the *Foresters Guide* published in 1820. (downloadable from Google Books)  
On other specifications for early canal boats, there are some in the accounts for John Brockbank, 1789-1822 which used to be in Lancaster Library and may now be at the Lancashire Record Office. Brockbank was a Lancaster boatbuilder who was also involved with the Lancaster Canal. Although he mainly built sea-going craft, there are several canal boats and coastal flats mentioned in his accounts. He travelled across the country to source timber, including the Severn area under discussion. I have scanned my photocopies of the transcripts which are now in pdf form, so readily available via Dropbox, if required. (circa 150Mb)

Stephen Rowson adds

Hugh asks if there are any extant contracts for building canal boats before 1836. Further down the Severn, at the sea lock pound of the Glamorganshire Canal, Insole and Biddle's daybook gives some information on the materials used and the wages paid at their Cardiff boatyard for (1) repairing Dowlais boat No 52 in April-May 1830 and (2) for building a canal lighter for Joseph Davis. Although these are not contract specifications, they add to the discussion on what wood was used and their dimensions:

**Extracts from Insole and Biddle daybook** [boatbuilding and repairing on the Sea Lock pound, Cardiff]

(1)

An extensive entry itemises the charge for parts and labour to the Dowlais Company 'To repairs of Boat No 52 Docked April 10<sup>th</sup> 1830.' The labour is itemised each day per individual involved. The costs of parts are:

Apr 14

8 lbs Spikes @ 3d

2 pieces 3 in Birch Plank for Lower Strakes (26 x 13 and 26 x 9½)

Apr 16

New Keelson in one piece 57 x 11 x 8 Red deal £5 4s 6d

12 lbs Spikes @ 3d

3 in Birch 39 x 8½

3 in Elm 17 x 17

11 New Knees @ 4/6

110 Treenails @ 8/-

4 lbs Spikes @ 3d

Apr 30

Plank for Strakes in Red deal (1 55 x 11, 1 37 x 11, 1 55 x 13, 1 25 x 14)

6 lbs Spikes @ 3d

May 3

14 lbs Spikes @ 3d

300 @ 2d nails

400 @ 4d nails

piece 2 in Birch 28 x 9½

May 6

121 ft 1 in deal @ 3d

54 ft 1¼ in deal @ 3½d

72 ft ½ in deal @ 2d

1¼ in Birch 112 x 6 ½ @ 4d

2 in Oak 24 x 4 @ 10d

300 Plate nails

200 8d nails 6 lbs Striker's

1 Stancheon 1/- 100 6d nails

1 in deal 12 x 11 @ 3d

May 7

Dockage 5s

Total cost of repair charged to Dowlais was £52 7s 9d

(2)

Monday July 5 1830

Offered Mr Jos<sup>h</sup> Davis to build him a lighter for Canal as follows

3 in Elm bottom & lower strake

Oak Stem, Stern Post, Knees and upper strakes. Other strakes red Pine 2 ½ in

3 red Pine Kilsons of sufficient size

the boat to be 60 feet long and of the usual breadth & depth of other lighters –

Smiths work complete except plates

to be caulked, coated and launched

for the sum of Eighty Pounds and old Boat as agreed.

(3)

1 July 1830

Robert Thomas Merthyr D<sup>r</sup>

To New Canal Boat fit for use £90 0s 0d

From the above it can be seen that the base of the boat was of elm, the keelson of red pine or deal, the lower strakes of elm (always under water), the middle strakes of red pine and the upper strakes of oak. The stem and stern posts were of oak as were the knees. Perhaps birch was easier to use for repairing where other hardwood needed replacing, including for the lower strakes. The keelson of the Herefordshire & Gloucestershire Canal boat was of oak and only 3 inches thick whereas the keelson of the broader Glamorganshire Canal boat was much heavier. The lighter (for use within the sea lock pound and for outside the sea lock to load sea-going vessels) would not have had a cabin and cost Davis £80 but with an old boat in part exchange.

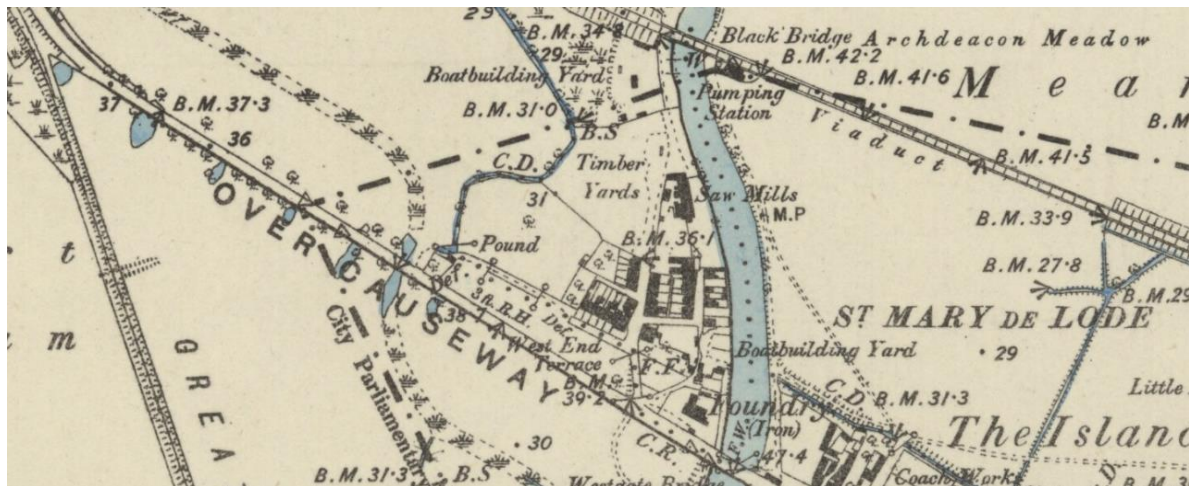
I don't know why Hugh should question whether 'standard' canal boats were the norm by 1836 but members might like to see this (albeit later, but still early) 1864 amateur photograph from my collection that shows Hipwood's yard (it was between the Westgate road bridge from Over and the iron railway bridge and viaduct on the South Wales Railway). There are four canal narrow boats all out of water, and two trows in the cut. The nearest canal boat looks to have been recently caulked. I assume all canal boats were destined for the

Herefordshire & Gloucestershire Canal. The 1884 25-in OS map is from the National Library of Scotland's web site.

[By the way, in Hugh's transcription it should be *knees* not *knee* (i.e. the distance between the knees was to be 3 ft 2 ins.)]







Richard Dean points out that the weed-filled ditch that can be seen snaking from one side to the other of Over Causeway on the map above is the isolated part of the Herefordshire & Gloucestershire Canal across Alney Island, which was abandoned soon after construction.

Christopher M Jones found the attached some years ago in the records of the Gloucester & Worcester Horse Towing-Path Company at Worcestershire Record Office, which may be relevant to this strand.

Ref: 705:192 Acc 5589 Parcel 101  
 Letter from Charles Lloyd - John Booth, Bewdley: 01.10.1852  
 "In reply to yours of the 29th respecting the price of the barge. I beg to inform you my price for the hull is £105.0.0. including side cloths, crab & pall windlass's, five stoves, tiller, taffrail, rowages & ceiling boards. She was built by Mr. Bird, Stourport, whose work is generally known who will give you any information you may require & whose address I have enclosed. Her length on top is 65 feet, breadth 13 feet, depth 3 feet 5, burden 50 tons. She was built in May 50 & cost me cash £140.0.0. The builder has offered me £100 for her, but as she is built of such good material and cost me the above some, I do not feel disposed to part with her for less. She is built of red Quebec pine, bottom & sides with English oak."

Hugh Conway-Jones replies

I have been really impressed with the wide range of information that members have found about materials and costs for early canal boats. It is apparent that the agreement in my original posting is not the earliest to survive and it is not as specific as others of the period. It seems that the use of beech in such boats was known but was not common. This still leaves the question: What size of boat was Edward Hipwood agreeing to build for John Bowkett? Since the dimensions are not stated, they must have been clearly understood by both parties. As the boat was being built for an owner based on the Hereford & Gloucester Canal, it could have been 70 ft long by 8 ft wide to suit the locks on that canal. However, by 1836, it had become common in the Gloucester area for local men to have 70 ft by 7 ft narrowboats (known locally as longboats) so they could collect coal directly from collieries in Staffordshire. They also carried goods inland that had been discharged from ships in

Gloucester Docks. Many of these boats were undoubtedly built by Edward Hipwood who had moved down river from Stourport c1820. I think it is likely, therefore, that this is the style of boat that the two parties had in mind when they signed the agreement, but we cannot be sure. Stephen's fascinating photo shows narrowboats being built/maintained at yards on both banks of the River Severn just to the north of Gloucester's Westgate Bridge when the river there was still tidal – as the later Llanthony weir and lock had not yet been constructed. A fellow researcher tells me that the two yards shown were established by Joseph Hipwood, and that Edward's yard (later used by son Samuel) was off picture on the south side of Westgate Bridge, but any family relationship between Edward and Joseph is not known. Both yards were serving boats trading to the Midlands as well as those using the Hereford & Gloucester Canal.