

The original concept for the collection of sand to be sold was to use the barges, after they had passed through the Sea Lock and laid to rest on the beach, where they would be filled with 35-40 tons of sand. When the tide next came in the barges would again pass through the Sea Lock, into the Canal, for their onward journey.



These full-scaled replicas of the lead or bow tub boat and its mate, the butt tub boat, are as used on the Bude Canal. These boats were built by Adrian Wills (Weare Gifford) and Barry Hughes (Appledore), from drawings as part of a survey on the remains of an original Bude Canal tub boat, undertaken by Dr. Blue, a marine archaeologist, on behalf of Bude-Stratton Town Council. Adrian Wills owns the tidal lock and basin on the Rolle Canal. The Rolle Canal was built by James Green, following his construction of the Bude Canal.

From early tests in 1821 there appeared to be a problem of lack of time in order to complete this manoeuvre, highlighting the inefficiency of the system. In 1822 Earl Stanhope commented that it would be better to have a railroad system in order to take the sand off the beach, although this would cost £600 in construction costs, it would in turn reduce the cost of sand by 1d per ton and reduce the capital needed for extra barges. Common sense prevailed and the railway was built. It had a 4’ plateway and bridge over the river close to the Sea Lock. The rails were spread across the beach and each truck was pulled by a single horse. The sand was then either tipped into tub boats or barges for transportation along the Canal system as required.

The sand, of course, was free with the costs for labour and transport at agreed rates. The lime rich sand was measured in ‘seams’, a seam being 2½cwt or 280lbs, with 8 seams to 1 Imperial ton. It is unknown as to how the measurement of a seam was calculated.

Initially there was a lot of discussion and disquiet on how the trading of sand should be conducted, eventually agreeing that individual traders should

operate the business of trading on the Canal, whether it was sand or other goods.

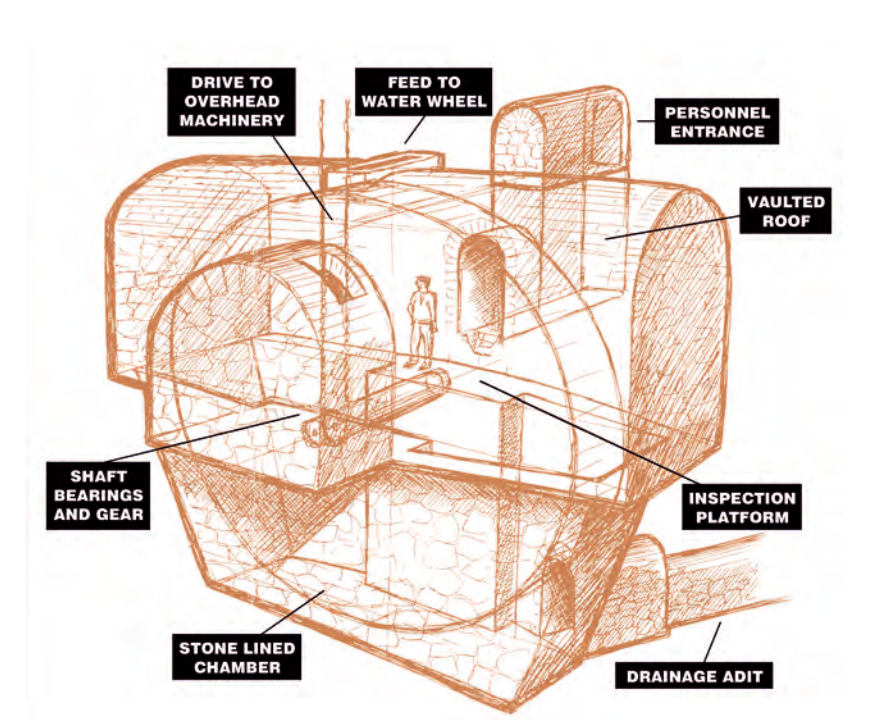
Each trader had their own boats and or barges and operated throughout the whole Canal system making full use of the public wharves provided by the Canal Company.

The traders paid for the labour involved in the loading of the trucks with sand and for the transport of sand, or other goods, along the Canal. Charges were made based on the type and weight of goods carried multiplied by the mileage to be covered. These charges were passed onto the customers by way of a price per ton.

There were six Inclined Planes on the Canal, at the following locations:

MARHAMCHURCH – The first incline at the end of the Barge Canal, having a plane of 836 feet and a rise of 119’ 8”. It was a water wheel type with a wheel of 49’ 2½” in diameter.

MERRIFIELD – The first incline of the Launceston arm of the Canal. The plane was 361 feet and the height of the rise was just 63 feet. The water wheel was 23’ 8” in diameter.



TAMERTON – The second incline of the Launceston arm where the plane was 365 feet with the rise at 58’ 10”. The water wheel was 23’ 8” in diameter.

WERRINGTON – This was the last incline of the Launceston arm before bringing the Canal down to the final level prior to Druxton Wharf, the terminus. The plane was 259 feet 8 inches and the height of the rise was 51’ 2”. The water wheel here was 23’ 8” in diameter. This plane is over the minor country road from Tamartown towards Druxton.

VEALAND – This plane is on the main line towards Holsworthy, just after the Burmsdon Aqueduct, over the River Tamar. The plane was 514 feet 8 inches with a rise of 58’ 5”. The water wheel was 23’ 8” in diameter.

HOBBACOTT or THURLIBEER – This was the largest incline with a plane of 935 feet and a rise of 225 feet. This was the incline that had the ‘bucket in the well’ system for power.

It should be noted that soon after 1823 a steam engine was installed at the head of the plane, positioned in such a location so as to be able to drive the machinery that powered the continuous chain, when the ‘bucket in the well’ system was out of commission due to chain breakages or damage to the cisterns.



Boat bays at the bottom of Hobbacott Inclined Plane. The left hand bay was for descending boats and the right hand for ascending boats.

At only 4 miles from Bude this was the most important site in the Canal system. Should the machinery be broken or damaged this limited what trade could be conducted. Apart from breakages the incline at Hobbacott was effected by too much water, insufficient water, frozen water or works along the Canal line, as were all the planes.

The Canal Company kept records of when the plane at Hobbacott was working, or not and if not what the reasons were.

The following shows the recorded work period from April 1836 to March 1837 along with the reason for any stoppages.

1836		Worked	Stopped	Cause of stoppage
April	Stopped 1st, 2nd & 4th Worked the remainder	22	3	To repair railroad at Hobbacott
May	Worked all month	26	0	Mr Green began to work at Hobbacott as per contract on Mon 23rd May
June	Worked all month	26	0	
July	Worked from 1st to 10th Stopped the remainder	10	18	Stopped on 10th for no security of water. The reservoir being as low as 3ft 8in
Aug	Stopped from 1st to 5th Worked the remainder	23	4	Began to work on 5th having stopped for want of water
Sept	Stopped 15th-17th & 22nd-24th, 26th-27th Worked the remainder	18	8	Stopped 3 days to put iron to fit drum and 5 days to repair bucket after one of the bucket chains broke on 22nd
Oct	Stopped for 12th, 13th, 14th & 15th Worked the remainder	22	4	Stopped four days to repair bucket, the bucket chain being broken, also to repair the bridge at Cann Orchard
Nov	Worked all month	26	4	Wet weather all month
Dec	Worked 1st-17th Stopped the remainder	16	12	Bucket chain broke 17th. Stopped 19th-23rd to repair. Stopped remainder due to frost
1837				
Jan	Stopped for 6 days for frost. Worked remainder	20	6	Stopped for first 6 days due to frost, begun on the 9th and worked remainder of the month
Feb	Stopped from 1st to 18th. Worked remainder	8	16	Stopped to repair locks, masonry & banks on Helebridge and Marhamchurch levels
Mar	Stopped 2nd, 3rd, 4th, 6th and 7th. Worked remainder	21	5	Stopped 5 days remove Wm. Marshall's bridge
	Stopped to repair bucket machinery		16	76 days in all, ending in March 1837
	Stopped for frost		12	
	Stopped for repairs on different parts of the line		26	
	Stopped for scarcity of water		22	



An example of a typical wheelpit as used on the Bude Canal. This chamber housed the massive overshot water wheel ranging from about 20ft diameter up to the largest wheel of nearly 50ft as used at Marhamchurch.