

CHAPTER 3

BUILDING THE SURREY IRON RAILWAY

The preamble to the Act of Incorporation set forth the purpose of the railway:

".... the making and maintaining a Railway for the Passage of Waggons and other Carriages will be a very great Advantage to several considerable Manufactories established in the Neighbourhood, and to the Inhabitants of many Towns and Places, and of a very populous Country lying on or near to the Line of the said intended Railway, by opening a cheap and easy Communication for the Conveyance of Coals, Corn, and all Goods, Wares, and Merchandise to and from the Metropolis, and other Places."

The Act contained 95 clauses, directing the procedure to be adopted in building the railway, and the manner in which it was to be financed, operated, and managed.

SURREY Iron Railway.

The COMMITTEE of the SURREY
IRON RAILWAY COMPANY,

HEREBY, GIVE NOTICE: That the BASON at *Wandsworth*, and the Railway therefrom up to *Croydon* and *Corshamton*, is now open for the Use of the Public, on Payment of the following Tolls, *viz.*

For all Coals entering into or going out of their Bason at Wandsworth,	<i>per Chaldon,</i>	3d.
For all other Goods entering into or going out of their Bason at Wandsworth	<i>per Ton,</i>	3d.
For all GOODS carried on the said RAILWAY, as follows, <i>viz.</i>		
For Dung,	<i>per Ton, per Mile,</i>	1d.
For Lime, and all Manures, (except Dung,) Lime-stone, Chalk, Clay, Breccia, Ashes, Sand, Bricks, Stone, Flint, and Fuller's Earth,	<i>per Ton, per Mile,</i>	2d.
For Coals,	<i>per Chald. per Mile,</i>	3d.
And, For all other Goods,	<i>per Ton, per Mile,</i>	3d.

By ORDER of the COMMITTEE
W. B. LITTLE,
Clerk of the Company.

Wandsworth, June 1, 1801.

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Plate 1

Table of Charges [207.2kb]

meeting a committee of management was to be elected comprised of at least nine proprietors, each of whom were to hold three or more shares. The committee was empowered to draw up the company's orders and bylaws and impose fines for contravention thereof. Further general

The names of 82 subscribers were given, who were constituted as "The Surrey Iron Railway Company." They were empowered to raise up to £35,000 in £100 shares, and if necessary a further sum of £15,000 by the creation of new shares, or by mortgage of the tolls or the property. The first general meeting of the company was to be held on 4 June, 1801, at the Spread Eagle Inn at Wandsworth, and at this

meetings were to be held annually on the first Thursday in June, at which shareholders were to be entitled to one vote for every share held.

The company was empowered to purchase all the land required, and authorised to erect wharfs, warehouses, toll houses, cranes, weighbeams, and other works. The owners of lands adjacent to the railway were to be allowed to erect private wharfs and warehouses, with roads connecting to the railway. Sixty-four persons were appointed as commissioners, to determine the amount to be paid by the company for the purchase of land and as compensation for damage, in cases where agreement could not be reached with the landowners.

Unless the adjoining owners agreed otherwise, the width of land to be taken for the railway was not to exceed 20 yards, except where turning places were to be provided, or where warehouses, wharfs, etc. were to be erected, where the width was not to exceed 60 yards. The company was permitted to build branch lines to any place within 1500 yards of the main line, provided the consent of the owners of the land to be crossed was first obtained.

Maximum toll charges were set as follows:

On all goods passing through the dock, 4d. per ton. For goods carried on the railway: Dung, 2d. per ton per mile. Limestone, chalk, lime, other manure (except dung), clay, breeze, ashes, sand, and bricks, 3d. per ton per mile; Tin, copper, lead, iron, stone, flints, coals, charcoal, coke, culm, fullers' earth, corn and seeds, flour, malt, and potatoes, 4d. per ton per mile; All goods, wares, and merchandize, and things whatsoever, 6d. per ton per mile.

And so in proportion for a fraction of a ton, taken to be the nearest quarter ton above, and reckoned to the nearest whole mile above.

In order to determine distances relative to toll charges, posts or stones were to be erected by the side of the railway at intervals of a mile, or less. The owners of wagons to be used on the railway were required to have an identifying name and number painted on the outside of each wagon in 3-inch high letters and figures.

The proprietors named in the Act included, in addition to the "founder members" mentioned previously, a good number of owners or occupiers of mills on the Wandle. Among these were Robert and William Were, who worked an oil mill at Wandsworth; Richard Glover, who managed several mills at Mitcham; George Day, who operated an iron mill at Wandsworth; Richard Howard and his sons Richard and James, together with their partner John Rivers, calico-printers at Phipps Bridge, Mitcham; Jacob Poster Reynolds and William Poster Reynolds, who owned calico-bleaching grounds and a corn mill at Wallington; and James Perry, the proprietor and editor of *The Morning Chronicle*, who owned a corn mill and calico-printing works near Merton. There were also the bankers Henry Hoare of Mitcham and John Brickwood of Croydon, and the brothers Abraham, Asher, and Benjamin Goldsmid, brokers and financiers. A few of the subscribers also held shares in the rival Croydon Canal. As required by the Act, the first general meeting of the proprietors was held on 4 June, 1801, at the Spread Eagle Inn at Wandsworth, at which John Hilbert took the chair. The Act was read, and it was agreed that it be "carried into execution as soon as possible." Thirty proprietors were elected, to be a committee of management. (Their names are listed in Appendix I.) Confirmation was given to the previous appointments of William Bedcot Luttlly as clerk and solicitor, William Jessop as engineer, John Foakes and George Wildgoose as surveyors, and Messrs. Castell, Powell, Son & Wilson as "bankers, with Walter Powell as treasurer. It was resolved that the first call of 10 per cent be made on the shares subscribed for, to be paid before 24 June.^[1]

A few days later the company advertised for tenders from "Any Person or Persons inclined to undertake the Execution of the Iron Railway, intended to be made from Wandsworth to Croydon and Carshalton, in the County of Surrey, or to supply the Company with such Bricks, Stones, Timber, Ironwork, and other Materials, as may be necessary for making the

said Railway," in accordance with plans and a specification. The tenders were to be delivered to Luttlly on or before 30 June.[2]

Benjamin Outram & Company prepared a tender for constructing the railway, signed by Benjamin's brother, Joseph Outram junior, which amounted to £29,000. It included for building the earthworks, but not for constructing bridges, culverts and soughs. The 18-foot wide bed was to be of gravel or other durable material, laid at least one foot thick.[3] This tender, however, was not successful, and the name of the contractor who built the railway is not known. In fact, several contractors would seem to have been employed, judging from subsequent advertisements.



Route of the Surrey Iron Railway as shown on the deposited plan A [207.2kb]

In July, tenders were invited for the "building of a Lock, Swivel Bridge, and the Walls of a Bason, together with the digging of a Lock, Pit, Canal and Bason at Wandsworth. And also Proposals for throwing up and forming the Line of the Road, and Stubbing, Embanking, and Graveling the same, so as to prepare it for the Person who has contracted to lay the Iron Railway." The tenders were to be delivered by 5 August, 1801.[4] A further advertisement was published in September, asking for tenders for fencing the railway with oak posts and rails, to be submitted by 23 September.[5]

George Leather, a Yorkshire engineer, who had some experience in building colliery railways, was the supervisor or resident engineer, assisted by his young son, also George.[6]

Initially the work proceeded rapidly, and the opening of the basin at Wandsworth on 7 January, 1802, was reported in the press thus: "On Thursday last the Lock, Canal, and Bason, from which the proposed Iron Railway is to commence at Wandsworth, was opened, and the water admitted from the Thames. The first barge entered the lock amidst a concourse of spectators, who rejoiced in the completion of this part of the important and useful work. The ground is laid for the railway with some few intervals all the way up to Croydon, and the undertakers wait only for the approach of open weather to lay down the iron. It is expected to be completed by his Majesty's birthday, (i.e. 4 June)". [7]

It would seem that progress then slowed due to delays in the delivery of the rails, for "by June, 1802, only a short section of the track was completed: "The Surry Iron Railway is now completed over the high road through Wandsworth town. On Wednesday, June 8, (note: this should be June 9) several carriages, of all descriptions, passed over the iron rails without meeting the least obstacle. Among these, the Portsmouth waggon, drawn "by eight horses, and weighing from eight to ten tons, passed over the rails, and did not appear to make the slightest impression on them. The road will be immediately opened for traffick up to Mitcham, as there only remains the iron to lay down, which is considered to be a very expeditious process." [8]

It was to be some time, however, before the railway reached as far as Mitcham. The account of the Portsmouth wagon and other carriages passing easily over the rails refers, of course, to vehicles in Wandsworth High Street, which was part of the Portsmouth Road, passing over the level crossing. No doubt there had been some apprehension as to an obstruction being caused to road carriages by the crossing rails.

A news item, published on 25 July, 1802, suggests a partial use of the railway by that date: "The new road, with iron railing, from Wandsworth to Croydon, is an expensive but beneficial improvement On the road are four iron grooves to fit the wheels of two large waggons, by which means they travel with great rapidity, and the same number of horses draw eight times the weight that they could do upon the ordinary road." [9]

Positive evidence for a partial opening is contained in a newspaper article arguing the advantages of railways over canals, published on 29 September, 1802: "The Surrey iron

railway is now at work from Wandsworth to Garrat. On Thursday last (i.e. 23 September) I saw one small horse draw three waggons, containing thirty-three quarters of linseed, up the road; and this before the iron has taken the polish which it will receive from work." [10] Deposited Plan.(A) Plate 1 The reference to linseed suggests that the destination of the wagons was Messrs. Were and Bush's oil mill, which was situated on the River Wandle and served by a branch line running from Garratt Lane along the route of the present Trewint Street, a little south of Earlsfield station. The branch itself may not have been built at this time, The hamlet of Garratt was about half a mile further south.)

The official opening of the whole line took place on 26 July, 1803: "The Iron Railway from "Wandsworth to Croydon was opened to the public for the conveyance of goods. The Committee went up in waggons drawn "by one horse: and to show how motion is facilitated by this ingenious yet simple contrivance, a gentleman, with two companions, drove up the railway, in a machine of his own invention, without horses, at the rate of 15 miles per hour. The Committee afterwards dined together at the King's Arms, in Croydon, and spent the day with the utmost conviviality." [11]

The nature of the gentleman's machine has "been the subject of some speculation. It seems most likely to have been some sort of trolley operated by pedals or hand levers.

The date of the opening of the branch from Mitcham to Hack Bridge is uncertain. The well-known poster preserved in the Science Museum, South Kensington, giving the toll rates and announcing that the railway "to Croydon and Carshalton" was "now open for the use of the public", is dated 1 June, 1804- (Plate 1). A similar notice, in the form of an advertisement, was published in a number of newspapers on 30 June. It has been claimed that this notice indicates that the line to Hack- Bridge was not opened until June, 1804, but as this branch was always considered to be an integral part of the system, the likelihood is that it was opened at the same time as the main line. Following the first call on the shareholders made on 4 June, 1801, further calls had been made at monthly intervals from January, 1802, the last call, for payment to be made by 30 September, 1802, completing the subscription. Although no details are available, it would seem that a new issue was made subsequently; a number of "original and new" Surrey Iron Railway shares were advertised for sale by auction on 5 August, 1803. [12]



Route of the Surrey Iron Railway as shown on the deposited plan B [207.2kb]

William Jessop's estimate in 1801 for the cost of building the railway was £33,000, but the actual cost is difficult to ascertain. An article in Rees' Cyclopaedia, apparently written in 1805, summarised some contemporary assessments:

"Few subjects have been more variably stated than the cost per mile of this railway. Mr. John Phillips, after noticing in his History the commencement of this work, adds, that iron rail-ways are made at an expense of about £300 per mile. The original estimate was, we believe, £2000 per mile; at a public meeting in Gosport, in September, 1803, it was stated by some favourers of the extension of a canal from Croydon

to Portsmouth, that the expenditure on this rail-way had amounted to £6,400 per mile; but the advocates for extending this rail-way to Portsmouth instead of a canal, then contended that the expense did not exceed £4,500 per mile; while Mr. James Malcolm, in his Agricultural Report on Surrey, just published, after stating the great pains he had been at to come to the facts, says 'instead, therefore, of the expense being £2000 per mile, it appears as if it would be £7000!' (this includes all the expenditure of the Company)" [13]

A number of other writers gave the total cost as £60,000, but this seems to represent the sum the company was empowered to raise, rather than the actual cost.

A letter written by William Bedcott Lutly on 10 May, 1810, gave the information that the cost of "forming and gravelling the road, completely ready to receive the railway was 4/10 per

yard for every lineal yard forward, and for the Stone and Iron including Labour, Plugs and Spikes £1-8-8 per lineal yard forward making a total of £1-13-6 per lineal yard." [14] This works out at an overall cost of about £27,200, not including the purchase of land, the value of the basin, lock, bridges and buildings, and sundry expenses. Further information given by Lutly in 1805 to a House of Lords Committee indicates a total cost of about £56,600 by that date.

It will "be convenient at this point to quote a description of — the route of the Surrey Iron Railway as given "by James Malcolm in 1805. He began at the Wandsworth basin: "From this basin the railway proceeds across the high turnpike road from London to Portsmouth, close by the Ram Inn, a short distance down Garrat-lane, turns to the right over the Wandle upon a wooden bridge, follows the river close by Messrs. Shipley and Poppineau's flour and oil mills, by Mr. Williamson's dye-houses, recrosses the Wandle to the left upon another wooden bridge into Garrat-lane, close by the iron works belonging to Mr. Henckell; it then enters some fields, keeping as close as possible to the lane until it comes to Messrs. Ware and Bush's oil mills, to whose works a railway is laid. It then pursues as regular a track as possible so as to avoid all unnecessary expenses, without losing sight of the manufactories, and crosses the Epsom turnpike road, above the turnpike house at Merton, taking a southerly direction until it crosses the Sutton turnpike road at Mitcham, at a short distance from Mr. Glover's flour mills; it then takes a south-east direction through the fields, and at the back of Alderman Smith's house, until it enters Mitcham Common by Mr. Sutherland's gate. One branch keeps a short distance from the houses on this side of the common, and by maintaining nearly a straight line, joins the London road to Carshalton on the south side of Mitcham Common, keeping along the road side until it passes Messrs. Reynold's lodges; it then takes off a corner of a field (which has supplied them with an abundance of good gravel) belonging to those gentlemen in its winding course to Messrs. Shipley's oil and skin mills, at Carshalton. Resuming the main line from Sutherland's gate, it takes a diagonal direction across Mitcham Common, at a short distance from, but at the back of the barracks, until it enters Messrs. Lane and Lay's calico and printing grounds"

The railway terminated just past these grounds, at Pitlake, to the north of Croydon parish church, but Malcolm continued to describe the route as far as South Croydon. In fact, the latter length was the beginning of the Croydon, Merstham and Godstone Iron Railway, and will be included in Malcolm's account of that railway, to be given in due course.

Malcolm concluded his description: "Thus far it is nearly complete, with a double railway; that is, the one being used for the passage outwards, and the other for the return, without obstructing each other, as would be the case if there was only one road; they have, nevertheless, at certain distances, a method of letting the waggons pass from one road to the other by a short diagonal railway, and by throwing or forcing aside a bar of iron moving on a pivot, which enables them to move in and out with the greatest facility." [15]

References

1. The Times, 11 June, 1801.
2. The Times, 11 June, 1801.
3. Draft contract for constructing the Surrey Iron Railway (Derbyshire Record Office, D/103). I was unable to locate this document, and the information given is extracted from P.J. Riden, "The Butterley Company and Railway Construction 1790-1830", article in Transport History No. 6, 1973.
4. The Times, 27 July, 1801.
5. The Times, 12 September, 1801.

- 6.** House of Commons committee on the Liverpool & Manchester Railway, 1823, George Leather's evidence; Minutes of evidence before the Committee on the London & Brighton Railway Bill (John Rennie's Line) 1836, George Leather's evidence..
- 7.** The Morning Chronicle, 9 January, 1802.
- 8.** The Annual Register for 1802.
- 9.** Bell's Weekly Messenger, 25 July, 1802.
- 10.** The Star, 29 September, 1802.
- 11.** The Hampshire Telegraph, 8 August, 1803.
- 12.** The Sun, 25 July, 1803.
- 13.** John Farey, article "Canal" in Abraham Rees, Cyclopaedia, or Universal Dictionary of Arts, Sciences and Literature, Vol.6, 1819.
- 14.** Surrey History Centre, Bray MS 85/2/4/1 Item 111.
- 15.** James Malcolm, A Compendium of Modern Husbandry, Vol.1, 1805.