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COMMUNICATION WITH CANALS IN THE STAFFORD AREA

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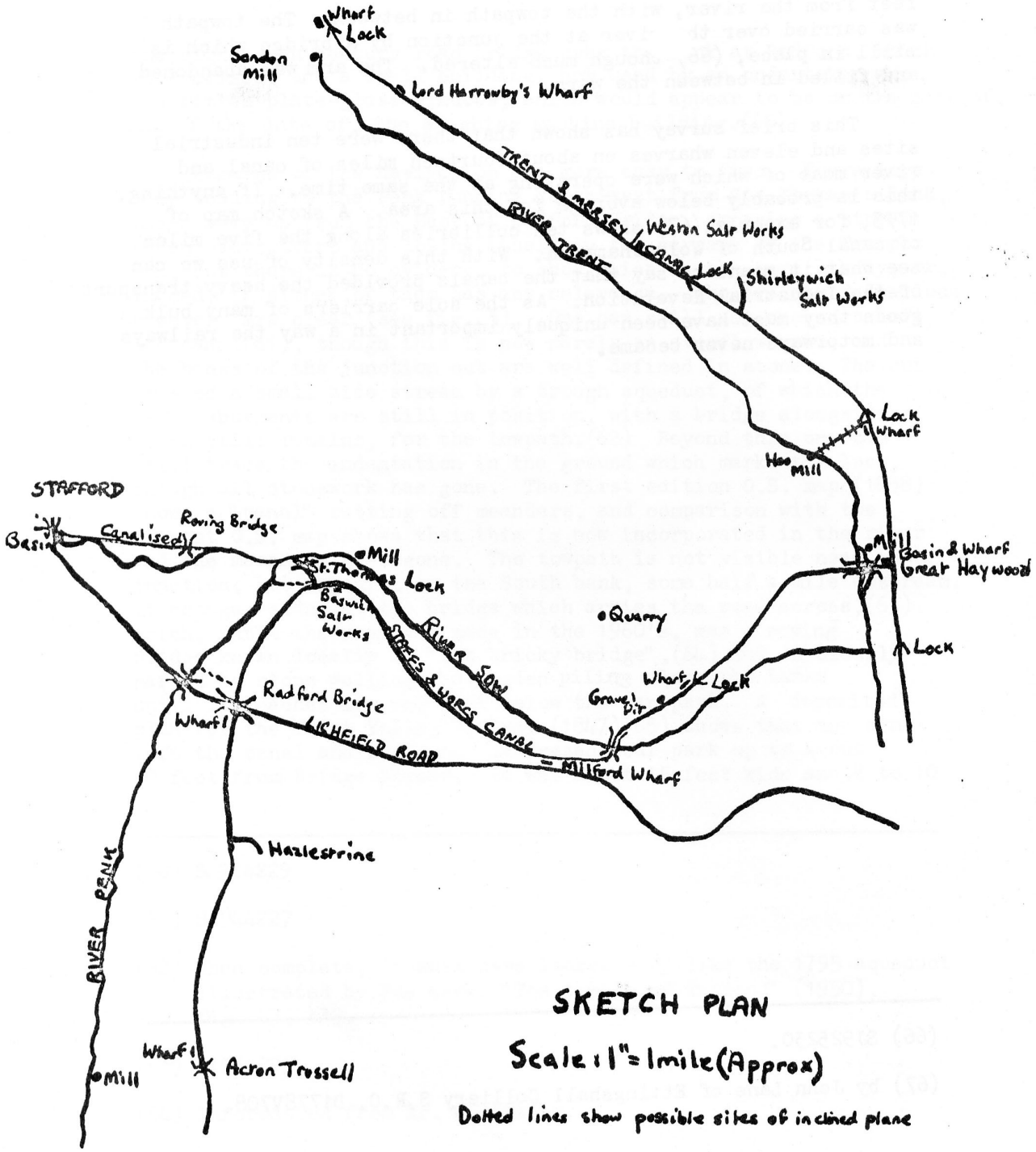
It is hard today to visualise the canals as they were before the coming of railways - as the main means of bulk transport for heavy goods. Yet so great was the advance that they represented that their attractive power was scarcely less than that of the railways at a later date. Existing industries adopted themselves to use the canals; now industries deliberately sited themselves to take advantage of them. It is the purpose of this article to show how part at least, of this process can be illustrated in the Stafford area. [1]



The most obvious way in which this attraction shows itself is in the situating of new industrial sites actually at the side of the canal. By 1795[2] there was a flint mill at Sandon,

on the River Trent where it is only a few yards from the canal. Unfortunately, nothing more is known of it and there are no remains on the farm which now occupies the area between the canal and river, though the river diversion for the leat is still visible.

We know more of the salt works by the canal.[3] About 1820 Earl Talbot decided to enter the salt-making business and a shaft was sunk on his land on the West of the Trent at Weston. The brine was pumped under the river and canal to a new works (opened 1821) on the canal bank at Weston. A plan of 1820 prepared by James Trubshaw shows short cuts from the canal along two sides of the works - the longer, on the North, leading to the stoking holes, the shorter, presumably, being for loading the salt. The works were soon supplying most of Staffordshire to the south, almost entirely by canal. In 1830 the company was in dispute with the Canal Company about reductions of freight charges, from which we can learn, for example, that it cost 2/6 (per ton presumably) to send salt to Alrewas (18 miles according to the ledger) or 1⅔d per mile, 20/- to Ferry Stratford (122) or 2d per mile, but 28/- to London (190), 1⅔d per mile. There seems no logic in the variations, certainly not reductions for distance, but this is presumably because of the need to send the salt over canals belonging to different companies, and thus with differing tonnage rates.[4]

The brine was weak, but produced high quality salt. However when it grew weaker at the end of the 19th century both Weston and Shirleywich (see below) ceased regular operating and both were closed in 1901. By that time part of the site was a fertiliser works[5] and this was in 1919, taken over by Alabaster Industries Ltd., who did not use the canal. In 1963 they sold out to Laings, the contractors, who now occupy the site.[6] No buildings of the salt works remain, but the Northern arm is clearly defined and partly filled with water. It is at present about 70 yards long and 25 feet wide at the entrance, narrowing sharply to about 9 feet wide for the last 70 feet. The South side of the narrow section is a store-capped brick wall. Originally the arm was another 80 yards long but this was filled in by Laings in 1963. At the beginning of this century the land on the North of the arm at the entrance was a coal wharf belonging to the Earl of Shrewsbury, owner of Brereton Colliery. Good coal was unloaded there for sale and slack further up the arm straight into the furnace holes. This wharf is now the garden of one of two houses which have been formed from a single original, which was occupied by the owner of the salt works, a Mr. Vincent, who traded as Chaplin and Vincent, and who owned the first motor-car in Weston.[7]

At a much later date (1894) the Stafford Salt and Alkalie Co.who had begun to manufacture salt near the Common railway station at Stafford the previous year, built another works at Baswich so that the Staffs and Worcs canal could be used for transport.[8] Today these works have been modernised and no traces remain of wharves.

At Great Haywood, a new industry grew by expansion of an old:

"About a mile from Tixall, a portion of the river is diverted from its course, in order to work a corn mill, which was the ancient lord's mill of the Aston family and was sold ... to the Staffs and Worcs Canal Co. It is admirably suited for business, at the spot where that canal falls into the Grand Trunk; and its present proprietors have availed themselves of these advantages by adding a paper mill, and an apparatus for grinding colours, to the original concern."[9]

The mill is still there[10] and in use, though there is no water wheel. At this point the canal crosses the Trent by a three-arched aqueduct, built by Brindley and then, immediately to the East of this, crosses the mill-leaf by a similar aquaduct of one arch built at the same time.

A little further along the canal[11] there is the remains of a gravel pit beside the canal and road at Tixall Bridge. It has now been landscaped and a house was built in it in 1968.

Finally, in this brief survey, a lime works was erected on the canal wharf at Radford in 1806. Permission to erect it was given to Messrs. Fereday, Turton and Hall on 6th March of that year, after they had shown that they would pay nearly twice as much tonnage by bringing limestone from Haywood and coal from Bilston as they did previously for bringing in ready-made lime.[12] Presumably they aimed to use the newly built tramway to Stafford (see below), but they did not long survive. On September 1st, 1814, the Canal Committee laconically records;

"Ordered that notices be given to Mr. Rereday, Mr. Turton and Mr. Omar Hall as to the removal of the Lime Kilns at Radford Wharf." [13]

Other industries which were not, or could not be, at the side of the canal could either make provision for connecting themselves or use the wharves. On the Staffs and Worcs Canal these were public, and the Company's minute book, with many references to employing new wharfingers and moving them from one wharf to another, show that they took their duties seriously. In our area there were wharves[14] at Acton Trussell[15], Radford[16] Old Hill Lock (Tixall)[17], St. Thomas, Milford and Great Haywood the latter apparently shared with the Trent and Mersey Canal.

"Adjoining the mill is a warehouse belonging to the company, and a house and office for the wharfinger, who manages the business of both canals."[18]

There are quite considerable remains at Radford, where the warehouse and other buildings are occupied by Radford Marine Ltd. Part of one building was, until recently, a sub-Post Office, but both it, and a fine house which was apparently the wharfinger's, are due for demolition in a road-widening scheme. In 1814 Mr. Turton was let a wharf of a boat's length "by the new sluice at Radford" [19] and recent digging by the present occupiers has revealed a small arm across the wharf running in the direction of the river. There were apparently foundations for a bridge to carry the towpath over the entrance.[20]

At Great Haywood there are considerable remains of all buildings mentioned by Clifford, together with a small toll office, only about 8 x 10ft. at the entrance to the aquaduct.

On the Trent and Mersey Canal it appears to have been the practice to allow private individuals to own (or rent) the wharves. In 1904 for example, those at Little Haywood and Sandon were listed as "Sproston"s" . Three-quarters of a mile South of Sandon lock there was Lord Harrowby's wharf.[21] This was presumably in the Park, where a building remains[22], with access under the railway. The whole stretch of canal was piled when the railway was electrified in 1967/8 and nothing now remains at the canal side.

These wharves would have been used, of course, for delivery of bulk goods, especially coal (cf Weston, above) to local domestic users, but they were presumably used by local industries as well. We can see the effect in one particular case. Stone had been quarried since the 16th century at Tixall, when it was used to build the Hall, but its use remained local until the coming of the canal. However, this stone resisted water so well that it was used extensively for locks and canal buildings and by the 1820's it was finding its way to considerable distances, all by canal. For example, it was used in John Gwynn's new bridge over the Severn at Worcester, for Lichfield Cathedral and St. George's Church, Wolverhampton. The quarries[23] were exhausted in the middle of the century. Presumably the stone was carried to the canal along the existing roads since, surprisingly, there is no sign of a tram road.[24]

For those whose traffic was too heavy for the existing routes to the wharves, the solution was to build some means of private access - either a canal arm or a tramway, or both. Examples of all three solutions exist in our area.

The Shirleywich salt works[25] belonging to Lord Ferrers, preceded the canal by over a century, so they could not be sited near to it, as at Weston. However, the canal passed within a quarter of a mile, probably by agreement, since, according to Plot, the low-concentrate brine required twice as much coal as that from Middlewich, and cheap transport was therefore essential. There was certainly a canal branch to the works by 1810, when a refund of duty was claimed on a cargo of salt for Reading which sank in the arm, which illustrates the wide markets made available by canal. The works were sold in 1904 and demolished.

The exit point of the arm from the canal[26] is well defined, being 50 feet wide, but after 30 feet it is filled in, and appears only as a dip in the land. This was done in the late 1960's.[27] It is clear again at the farm[28], though churned up, and was apparently, originally, 25 feet wide. As it approaches the road the South side curves out to make a triangular basin 70 feet wide along the road, defined by stone-walled sides of which traces remain. At present the Cafe at Shirleywhich Garage stands in the basin. Opposite this was, until the late 1960's, a row of cottages for workers at the salt works, and behind them is still the concrete covered well-hole from which brine was pumped by a water wheel.

Further South[29] Hoo Mill, on the Trent, was rented by John & James Davenport (Glass and earthenware manufacturers of Longport) in 1816, together with a wharf, at a rent of £100 p.a., rising to £150 p.a. in 1841. In 1826 Joseph Davenport was given a receipt for Church Rate "for the Crane & Wharf at Hoo Mill lock". A letter of 1830 from John Davenport to Ginders, the agent, makes it clear the mill was used for flint grinding:

"we used to know the probability of it [the lease] being renewed to us in order to direct us as to providing means of steam or otherwise a supply or partical supply of ground flints."

Davenports were still renting the mill in 1880.

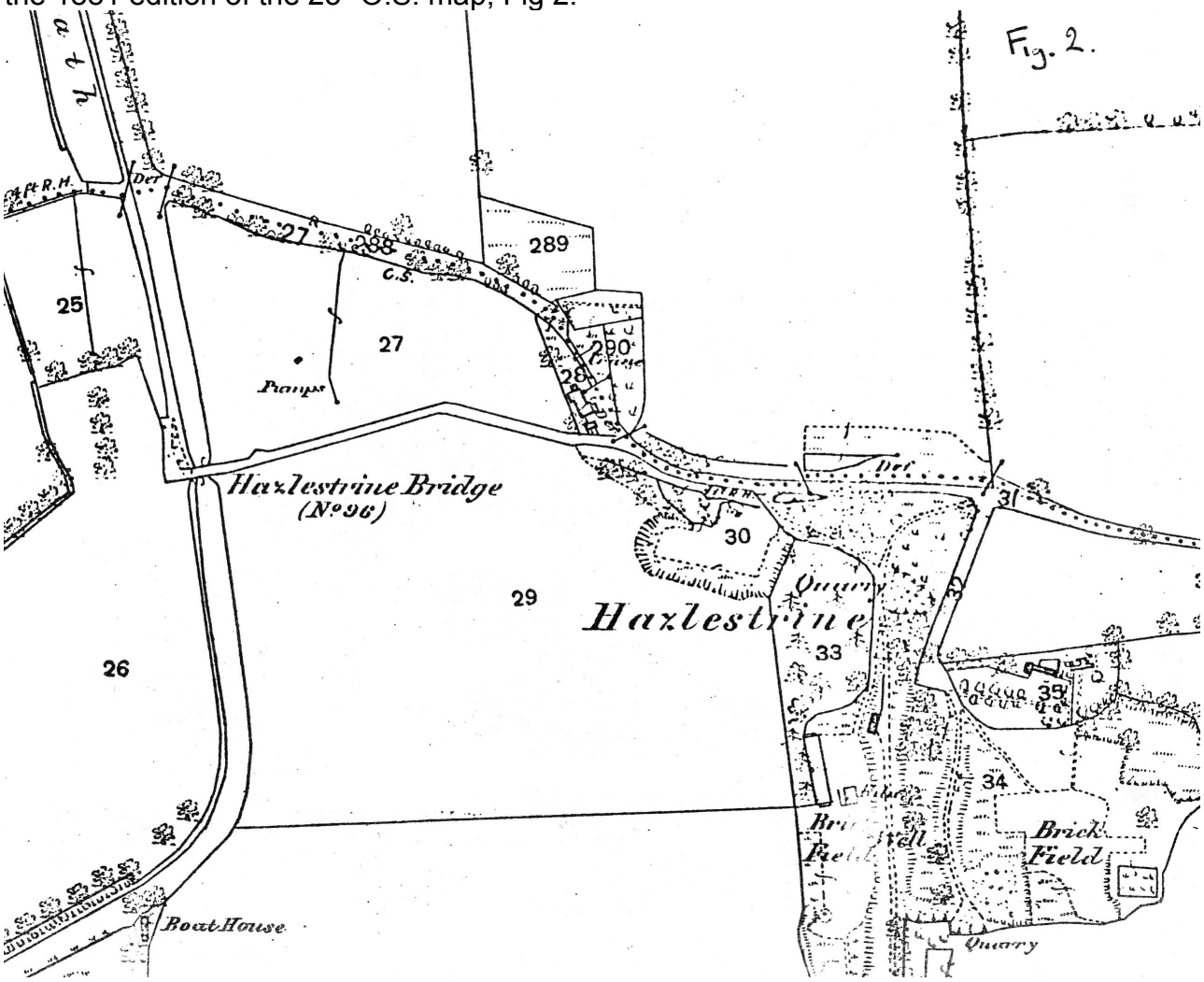
Clearly the flint was brought and carried by canal, and in 1849 the Ingestre Parish Rate Assessment Book tells us how when it mentions a "railway from mill to wharf" in the hands of "William Davenport".[30]

A visit to the site reveals that while the mill-house remains, as does the mill-leat, the mill wheel[31] and machiner have gone. The house is linked to the canal, where the wharf is now occupied by King Fisher Live Cruisers, by a roughly metalled track, about a quarter of a mile long, in which can clearly be seen the stone blocks of the tramway. These are roughly square, 12-15 inches across and placed at 34-35 inch centres. There is a hole in the centre and, in some, there is still a wrought-iron peg, set in lead. One of these was found loose, and it is of 'C' shape the bend at one end flattened underneath to hold the rail. A small broken piece of cast iron rail, about 5 inches long, was also found, apparently broken off one end. It is of 'L' section the part lying to the ground being 3 inches across and the flange 1¾ inches. There is no hole in it, and the single hole in each block suggests that rails were merely overlapped at joins.

After crossing a small stream by a flat brick bridge (the bricks are now covered in cement) of two 3feet arches the road curves to the North to join the canal just below the lock. There are no blocks in this section and it is not clear whether the curve was in the tramway.

Finally, the existence of a late 19th century brickworks and a clearly defined canal arm at Haselstrine[32] prompted investigation of the link between the two. The canal arm is 40 feet wide for its first 40 feet then narrows to 20 feet. It runs West for about 200 yards, then turns South and runs for 70 yards up to the road dam to the bridge, with remains of buildings on the East. It has however, apparently no connection with the existing brickworks now derelict and, having been used as a tip by Nickolls of Milford now occupied by Haselstrine Traders. There are a number of well defined paths, sometimes in cuttings or on embankments, which lead away from the arm, and seem to be remains of tramways. These all run to the East of, and below, the existing works, past various holes and pits, some clay and suggesting brickworks, some with stone in the sides and suggesting quarries - a suggestion given added force by the fact that the canal bridge and facings to the arm etc are of stone, and there is a quarry further up towards the main road. The whole area is covered with scrubby trees and "The most distinctive evidence of brickmaking at some time in the past is the brickyard plantation' - the small wood which has grown up on the site of the old clay holes".[33]

There is no direct evidence as to date, but the parish boundary of the 1870's, runs along the arm, which is not marked on the first edition O.S. map (1834). Nor is the brickworks. Moreover the canal bridge has a ramp leading East into a field and another bending round North to join the towpath, which suggests it was adapted for horses to come up to cross the canal to pull boats up the arm. The whole area is shown clearly on the 1881 edition of the 25" O.S. map, Fig 2.



(fig. 2), which should be compared with the sketch plan (fig. 1).

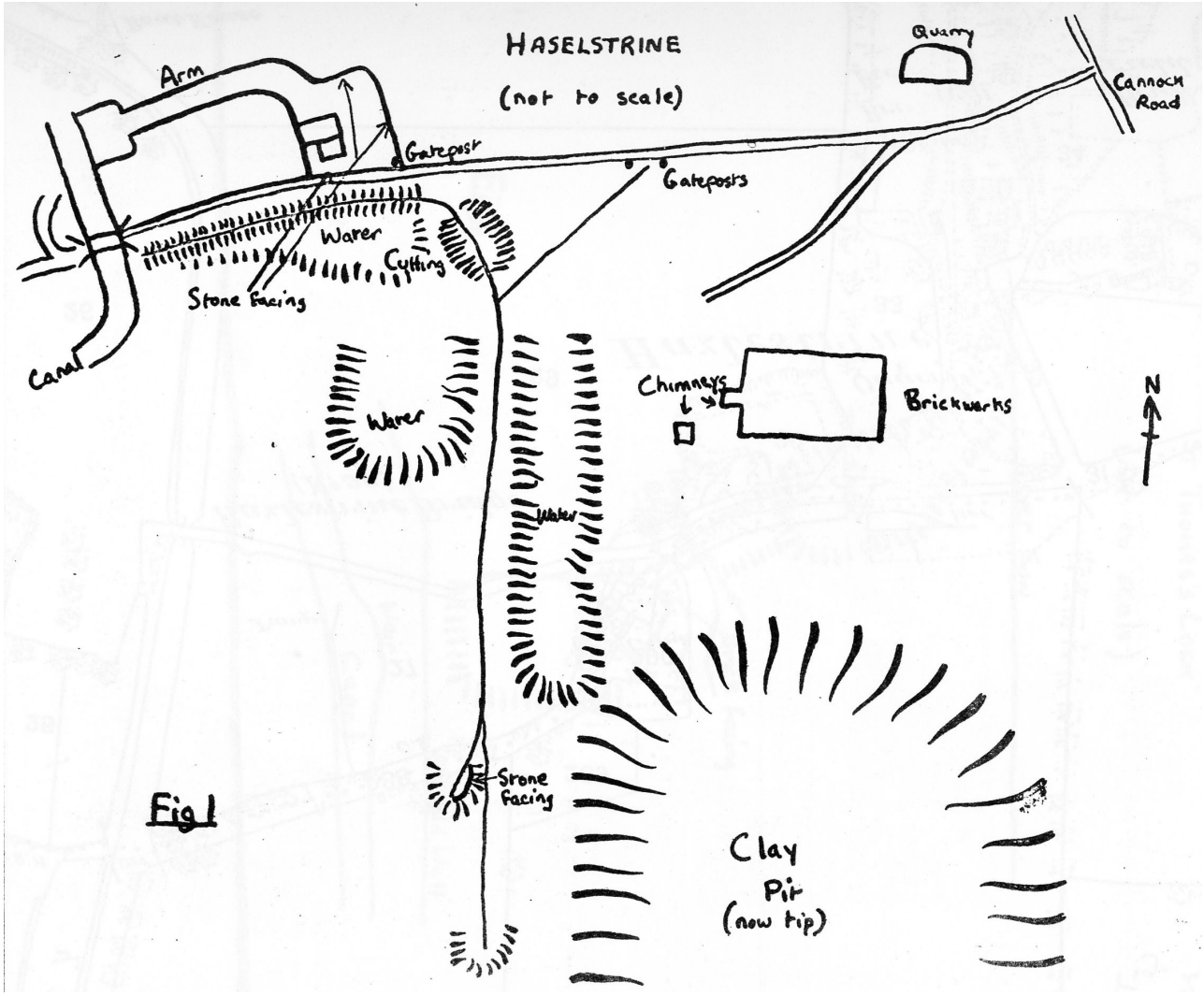


Fig 1

There is no written record of the brickworks or the arm, which is not mentioned in the 1904 edition of Bradshaw. A reasonable conclusion would seem to be that both are contemporaneous, and were built about the middle of the last century, but went out of use towards the end of the century when the new brickworks began to be supplied by road,

So far we have referred to access cleared, and built, by individual traders. But, in the area we are concerned with, there was one transport need which was wider than the single firm. That was the need of the town of Stafford for adequate links with the rest of the country, in particular to receive its coal. It would appear probable that this was first met by road transport from the wharf at Radford, but it was not long before this was felt to be inadequate and attempts were made to improve it.

In September 1798 notice was given of intention to apply to Parliament for a "Bill intended to give powers to make and maintain a Navigable Canal from the Staffordshire and Worcestershire Canal at or near Radford Bridge to or near the Town of Stafford".[34]

A petition for a Bill was presented to the House of Commons, and was sent to a committee, where it disappeared.[35]

It was apparently still under consideration next year since in an indenture[36] for the lease of "All that piece of ground used as a coal wharf situate and being on the eastern side of a certain bridge at Radford called Radford Bridge", together with a weighing machine, for a rent of fiteen guineas, by Samuel Copestick to John Box, the latter says he

will, "when the canal is made navigable from Radford or any other place within 3 miles of Radford to Stafford at any time during the said term [50 years] hereby pay or cause to be paid the said Sam. Copestick the [extra] yearly Sum of Five Pounds".

As it turned out, the scheme was dropped for the time being and a tramway was built in its stead. It ran along the Western side of the Lichfield road and, apparently, required no Parliamentary sanction.[37] The first that we hear about it is a small news item about its opening in 1805:

"The Railway from Radford Bridge to this town having been completed, the first load of coal was drawn thereon on Thursday which occasioned a good deal of rejoicing in the town. As the railway promises to be a public benefit, we hope the spirited projectors will meet with a commensurate reward." [38]

The identity of the spirited projectors is revealed in an assignment[39] of 24th June, 1807, whereby Mr. John Brown made over a fourth share in the "railway to Edward Harding. This shows us that

"Omar Hall [whom we met, above, as the owner of a lime works at Radford Wharf] John Hall and John Brown have for some time carried on the Trade or Business of Dealers in Coal and Lime as Copartners or Joint Traders and have at there joint expence made a Railway from the Town of Stafford to the Staffordshire and Worcestershire Canal at or near Radford Wharf."

Omar Hall owned half share and the other two one quarter each. The assignment shows that a quarter share was worth £810. A later advertisement[40] tells us that they traded under the name of the "Stafford Railway Coal and Lime Co."

As for the "commensurate reward", it would appear not to have been forthcoming, for on 6th July, 1811, John Hall assigned his quarter share to James Cramer for only £254 and interest. [41]

Other evidence that the concern was possibly not too profitable comes from a "sale" advertisement[42] in 1810, which tells us that

"At Stafford Coal Wharf may be had the best Bilstone Coals at Radford prices [.i.e. at no cost of railway carriage]. The company offered for sale "Coal and Lime at the following REDUCED PRICES" viz. "Best Walsall White Lime in Boat Loads of 20 Tons each ... at 14s 8d per Ton. Caldon Low at 15s 8d per Ton" They also offer "Carriage of all kind of merchandize, bricks, tiles, timber etc. ... on terms proportionally low; for which annual payment will be required. The Company pledge themselves to deliver goods immediately after their arrival at Radford."

A list of wharves is given where coal and lime may be obtained and this includes "St. Thomas" and "Milford", which had disappeared by the date of the first edition of Bradshaw.

Whatever the reason, interest began to revive in a water communication, but this time by river. In September 1810

"Mr. Omar Hall attended the meeting [of the SAW Canal Committee] to obtain the leave of the Company to open a communication between the Canal and the Rivers Penk and Sow which are proposed to be made navigable to Stafford and to sollicit them to build a lock below Radford for that purpose. Ordered that such application be referred to the next General Assembly and that Mr.Hall be then prepared to answer certain Queries to be then suggested to him' .[43]

Unfortunately the minutes of the General Assembly have disappeared, and there is no further direct reference in the minutes of the Committee, but it would appear from later events that permission was not granted.

In August, 1812, appeared an advertisement for a

"Wharf and River Navigation, Stafford To be let by auction by Mr. Henshaw. For such term of years and under such conditions as will be proposed at the Swan Inn in Stafford on Tuesday the 25th day of August instant at five o'clock in the afternoon.

The Wharf at Forebridge adjoining the Town of Stafford with the Navigation of the Rivers Sow and Penk, from thence to the inclined plane forming a communication with the Staffordshire and Worcestershire Canal near Radford which premises are occupied by Mr. Richard Brown for the conveyance of Coals and Lime to Stafford."

This is the first we hear of the inclined plane, which must have been nearer to Radford than the later lock, if the reference to the Penk has any significance. It is not marked on the 2" Survey (made in 1817) for the first edition of the 1" O.S. map.[44] Certainly the river must have been made navigable by this date, once again without an Act of Parliament, possibly because the land belonged to Lord Stafford. The same 2" survey shows that by 1817, at the latest, a "canal" of about half a mile in length had been made to cut off some meanders in the river.

However, reference to "farming a communication" caused alarm to the Canal Committee, who ordered

"that Messrs. Collins & Keen be desired to attend a Sale advertized to take place at Stafford of the wharf at Forebridge and a right to the Navigation of the Sow to Radford and to represent that there is not any right to open any Communication between that River and this Canal Navigation." [45]

However, the problem seems to have been solved fairly quickly, for a year later we find that

"Messrs. Bickley and Turton having applied to this Company for liberty to open a communication by means of a canal lock between this Canal and the River Sow below Radford that such liberty be granted to them upon condition that they do the same at their own experience and that this company shall have a right to obstruct such communication as and when they shall think proper and that the same shall not be extended beyond the town of Stafford and that no lime limestone or Coal shall pass thro' such lock which should be carried along this canal from Hegwood"[46]

Nevertheless, there seems to have been considerable delay in execution, for it was not until 1816 that the Committee resolved

"That a stoppage take place upon the Canal for the space of 3 days on the 17th instant to open the communication between the Canal at Radford and the River Sow." [47]

The Navigation and lock appear to have belonged to the Earl of Stafford, who leased them first to Fereday of Gornal Colliery (apparently only for his own boats) and then to the Moat Colliery who sub-leased to the Canal for £50 p.a. in 1838.[48] By 1904 the Canal Company was leasing direct from Lord Stafford. [49]

By the time the lock was opened the tramway had been closed for some time, for it was advertised for sale by auction on 15th July, 1814.[50] The list of matters for sale show the close link, revealed in the proprietors' names (above), with the river navigation, for they include, besides "a capital Weighing Machine capable of weighing 5 tons with machine house, a blacksmith's shop on the Green in Stafford" , and "a quantity of Railway

Carriages capable of carrying from 20 to 30 cwt each a crane with wheels etc. " also "2 Canal Boats, 2 Short River Boats". The use of two types of boats suggests that the inclined plane did not transfer boats between the two navigations but only their cargoes.

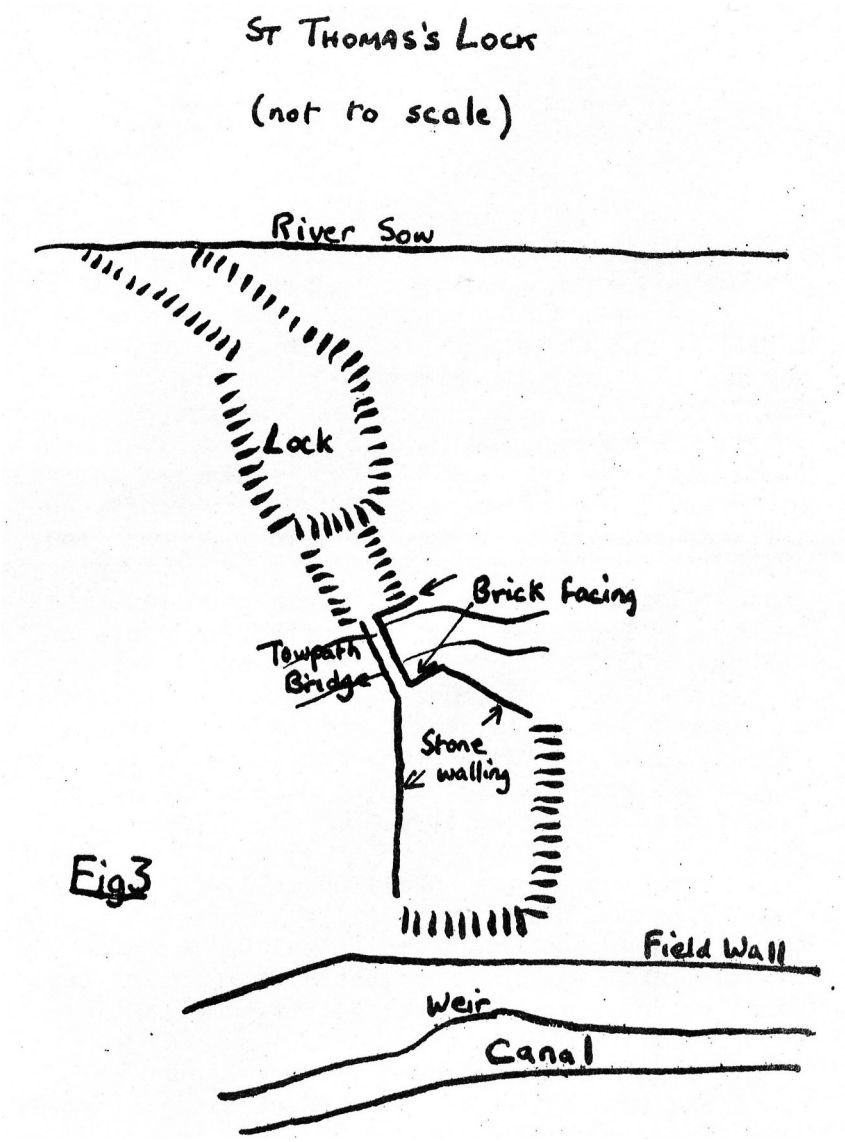
Trade on the tramway and navigation was, presumably, mainly in coal and lime, but that they were also used by Stafford's staple industry is shown by some weigh bills[51] made out from Heath Tyler of Radford Wharf "who consider themselves entitled to detain goods for Freight and Warfage in Arrears" to Mr. Elley, a Stafford footwear manufacturer[52] e.g.

"March 1814 leather from Manchester Weight 5 cwt 10lbs. Paid 6/8d Total 17/8d ...
Oct 3, 1 Case Stourport 2cwt 13lb paid 5/6d Total 8/-d……
1816 June 29th 2 Sheets leather from Manchester 3cwt 1 qr 21bs Paid 7/-d Total 13/-"

At one time the lock was used for navigation down the river. For some years prior to 1922 the miller at St. Thomas Mill[53] used to have his grain delivered via the lock and allow the boats to float downstream where they were tied up by the mill and unloaded by a rope over a pulley fastened to a branch of a tree. Once, in flood time, the boat ended up several fields away from the .river. The navigation ceased to be used in 1927.[54]

There are no remains of the tramway rails today, though we know quite a bit about them. The sale advertisement spoke of "The Railway and Sills between Stafford and Radford about a mile and a half in length laid with Flanch Rails" [55] and excavations for a sewer at the Lichfield Road/Wolverhampton Road junction, where the tramway crossed the main road revealed that the "Sills" were wooden sleeper baulks[56]. In the 1930's similar baulks were visible by the Crown Inn, Queensville, apparently leading to the stables at the back[57] and more were revealed in road excavations opposite Attwood's garage in 1937.[58] The Crown Inn is still there,[59] together with the stables. Otherwise the only other remains are the eighteenth century road bridge over the Penk at Radford, which it utilised, and a small building, now used by an undertaker who has fitted plate-glass windows, which would appear to be on the site of, and of the date of, 'the weighing machine building. [60]

Remains of the navigation are more easy to find. There is a ramp leading to the Penk running North-west from St. Thomas's lock, and a ramp up from the East of Radford Bridge, crossing a stream by an old culvert and losing itself in the carpark of the Trumpet Inn, but there is no evidence to show which is the more likely, or, indeed, if either of them has any relevance. The traces of the lock, however, are clear (see fig. 3). One can still see where it left the canal[61], though this is now merely an overflow weir, and the banks of the junction cut are well defined in stone. The cut crossed a small side stream by a trough aqueduct, of which the brick abutments are still in position, with a bridge alongside, which still remains, for the towpath.[62] Beyond this one can still trace the indentation in the ground which marks the lock, though all stonework has gone. The first edition O.S. map (1838) shows a "canal" cutting off meanders, and comparison with the current O.S. map shows that this is now incorporated in the river and the meanders have gone. The towpath is not visible near the junction, but appears, on the South bank, some half a mile upstream. It changes sides at the bridge which carries the road across,[63] which, until the road was made in the 1960's, was a roving bridge known locally as "the bricky bridge",[64] and is clearly marked by stone walling and wooden piling-along the banks until it reaches its end just below the car park. A deposited plan for the Trent Valley Railway (1847)[65] shows that an arm left the canal and ran into the present car park up to about 50 feet from Bridge Street. It was about 15 feet wide and 8 to 10 feet from the river, with the towpath in between. The towpath was carried over the river at the junction by a bridge which is still in place,[66] though much altered. The arm was abandoned
and filled in between the wars.



This brief survey has shown that there were ten industrial sites and eleven wharves on about fourteen miles of canal and river most of which were operating at the same time. If anything, this is probably below average for this area. A sketch map of 1775, for example,[67] shows ten collieries along the five miles of canal South of Wolverhampton. With this density of use we can see what it means to say that the canals provided the heavy transport of the Industrial Revolution. As the sole carriers of many bulk goods they must have been uniquely important in a way the railways and motorways never became.

APPENDIX TO COMMUNICATION WITH CANALS IN THE STAFFORD AREA
STAFFORD CANAL (PROPOSED)

P. F. Barker

The first detailed survey to link Stafford with the Staffordshire and Worcestershire canal was published in 1787 by Thomas Dadford. This canal was to leave the Staffordshire and Worcestershire canal at Radford Wharf and after passing the Silvester hotel it was to follow the River Sow into the town centre with its finish where the present market place stands. The length of this proposed canal was to be just over one and a half miles and both Sir William Jenningham and Richard Drakeford the principal landowners with three furlongs and two and a half furlongs respectively were in favour of the plan. However, nothing seems to have been done because it was not until the 30th August 1798 that Collins and Keene, solicitors proposed that "an affliction be made to Parliament

in the forthcoming session, for leave to bring a bill for the purpose of amending and extending the power of previous Acts in order to amend them to give powers to make and maintain a navigable canal from the Staffordshire and Worcestershire canal at or near Radford Wharf to or near the town of Stafford ". Reservoirs were planned in the Sandon Valley and also on Penn Wood Common in the county.

Another plan was submitted in 1798, the survey having been made by Adams, which was similar to the above scheme except for the fact that the canal was to follow the road much more closely and the was to cross the river Sow and terminate at Gaol Square. There was also to be a lock joining the canal to the river.

The most detailed plan yet was another by T. Dadford in 1799 which was similar to his first plan except that it joined the canal further northwards and followed the route chosen by Adams along the main Stafford road, with its finish at the same point as his first survey of 1787. By not going via the Silvester hotel the length of the canal was reduced to eleven furlongs the canal would now pass through only one and a half furlongs of Sir Jenningham's land. This detailed plan had with it an expense sheet which gives the cost associated with different aspects of canal building and is reproduced on the following page.

ESTIMATE FOR CONSTRUCTING CANAL T. DADFORD 17/9/1799

	£	s	d
2451 yards of Cutting Canal in length at 5/-yard	612	15	0
Extra Cutting and Banking	200	0	0
106 yards in length tunnelling	300	0	0
Aqueduct over Penk	1000	0	0
Estimated five bridges at £50 each	250	0	0
207 yards of fencing and roads at 14/- yard	144	18	0
10 acres of land at estimated £80 per acre	800	0	0
Obtaining Act of Parliament estimated	500	0	0
Wharves near Stafford estimates	200	0	0
	4007	13	0
Agency's unforeseen expenses, suppose 10%	400	0	0
Hence the total cost of the canal would be	4407	13	0

The tunnelling needed would be midway between the Wolverhampton and Silkmore Lane roads. . It is interesting to note the cost of the aqueduct and also the cost of the land required. Was this one of the main reasons why narrow canals were favoured more than the broad canals?

This canal was never constructed; the only link between the Staffordshire and Worcestershire canal and Stafford was the horse tramway which used to run from Radford Wharf to Stafford in the early days, there being no trace of this tramway today, except that it took the same route as the present road.

[1] For the purposes of this article "the Stafford area" is defined as stretching from Sandon, on the Trent and Mersey Canal, via &reat Haywood to Acton Trussell on the Staffordshire and Worcestershire Canal.
[2] J Acker "A description of the Country for thirty or forty miles round Manchester" (1795). Map opposite page 116.
[3] Information about Weston Salt Works from V.C.H. Staffs Vol.11 p248. The plan mentioned is reproduced on p247
[4] Staffs Record Office D240/E/1/389
[5] Information from Mr. W. R. Brown, of Weston.
[6] SJ.977265
[7] This section is based on information supplied by Mr. Brown.
[8] V.C.H. Staffs Vol.11 p250. The brine was brought by pipe-line from the Common
[9] Clifford: "Description of Tixall" (1817).
[10] SJ995230
[11] SJ975217
[12] Staffs and Worcs Canal Committee Minutes 6/3/06 (BRB/STW1/4)
[13] Ibid 1/9/14
[14] Cf Hde Salts "Bradshams Canals and Navigable Rivers of England and Wales" (1904) pp365-6. For St. Thomas and Milford, see below, note 42. St. Thomas has disappeared, but Milford is at SJ962216, with access under the railway.
[15] SJ935184. This was a coal wharf which, until the 1930's occupied part of the present garden of "Little Orchard". Like Radford, this wharf was unusual in being on the towpath side, and the stone facing blocks can still be seen.
[16] SJ940216
[17] SJ978219. The wharf is still clearly defined above the lock opposite the towpath. It is clear that the present fence is inside the original wharf boundary. It is possible that the wharf was originally approached by a track from behind.
[18] Clifford, loc cit
[19] Committee minutes, (S & W Canal) 10/7/14
[20] Information from Mr. J. Elsey
[21] Hde Salis op.cit. p277
[22] SJ955284
[23] SJ969229 and SJ965229
[24] The road from Old Hill wharf is embanked and opposite where it joins the Milford road, there is a dead straight embanked track leading to Brancote farm, where it joins the farm road leading to the Stafford road near the quarry. However, this track is not marked on the first edition O.S map (1834;. For the quarries see V.C.H. Staffs Vol.11 p191.
[25] Information on Shirleywhich from V.C.H. Staffs Vol.11 p247.
[26] SJ984256
[27] Information from the proprietor of Shirleywhich Garage. The arm is shown with water on the 1959/61 O.S.
[28] SJ984258
[29] SJ995239
[30] All the above re Hoo Mill has been taken, with permission, from typescript prepared for a forthcoming volume of the V.C.H. Staffs by Mr. D. A. Johnson, to whom we are most grateful for his assistance.
[31] According to Mr. C. Howell it was of wood and built by Mr. J. Gardner of Rugeley.
[32] SJ941206
[33] SJ941206
[34] Staffordshire Advertiser" 8/9/98. It seems surprising that nothing had been suggested in the previous 26 years but there is nothing in the Order Books of the Staffs and Worcs Canal, which run to 1785. There is then a gap until 1803 and another from 1804 to 1806, when true Minutes begin to be available.
[35] House of Commons Journal Vol.LIV p211 (1799)
[36] In Box 6 (uncatalogued) in the William Salt Library, Stafford
[37] It does not occur under any heading in the Index to the Journals of the House of Commons for the years 1798-1805. For the tramway of Charry.J.L. "Stafford in Olden Times" (1890), upon which was based an article in the "Railway Magazine" , Nov. 1939, by K. Brown.
[38] "Staffordshire Advertiser", 2/11/05
[39] Box 6, William Salt Library
[40] "Staffordshire Advertiser", 5/5/10
[41] Box 6, William Salt Library
[42] "Staffordshire Advertiser", 5/5/10. The reference to Caldon Low lime is interesting, since the tramway there also ran on wooden sleepers, like the one at Stafford. Cf. A. Rees, "Cyclopaedia" . Article: 'Canals' (1812).
[43] SAW Canal Committee Minute Book, 6/9/10

[44] Photostat copy in the Staffordshire Record Office
[45] S & W Canal Committee Minute Book, 22/8/12
[46] Ibid, 14/8/13
[47] Ibid, 1/2/16
[48] This paragraph is based upon C. Hadfield, "The Canals of the West Midlands" p130
[49] Hde Sails, op.cit. p363
[50] "Staffordshire Advertiser", 9/7/14
[51] Box 6, William Salt Library. Lime is, of course, also used in the preliminary processes of tanning.
[52] Staffordshire General and Commercial Directory 1818. Heath Tyler and Danks were large-scale carriers at Hanley, Wolverhampton ("fly boats daily") etc. (ibid).
[53] Now St. Thomas's Farm SJ950230
[54] Information from Mr. C. Howell, son of the miller
[55] loc. cit.
[56] Cherry, op.cit.
[57] Mr. A. E. Thorndike informs us that he saw this diversion marked on an early nineteenth century manuscript map awaiting cataloguing in the William Salt Library, but it has proved impossible to trace this. The information about the sleepers is from Mr. C. Howell.
[58] Information from Mr. J. H. Parker Oxspring.
[59] SJ934222
[60] SJ924229
[61] SJ944227
[62] When complete, it must have looked very like the 1795 aqueduct illustrated by Ede Mare, "The Canals of England" (1950) fig. 47, p39
[63] SJ934229
[64] Information from Mr. C. Grasby
[65] S.R.O. Q/RUM147
[66] SJ925230
[67] by John Lane of Ettingshall Colliery S.R.O. D1778V708