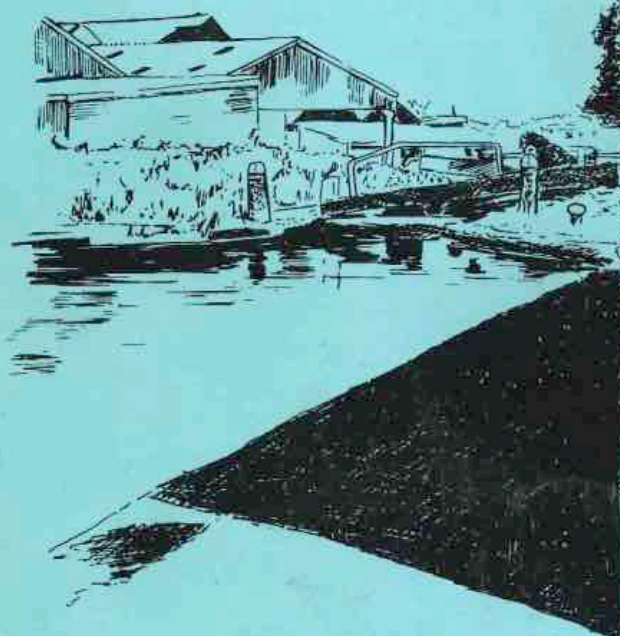


BIRMINGHAM CANAL
NAVIGATIONS



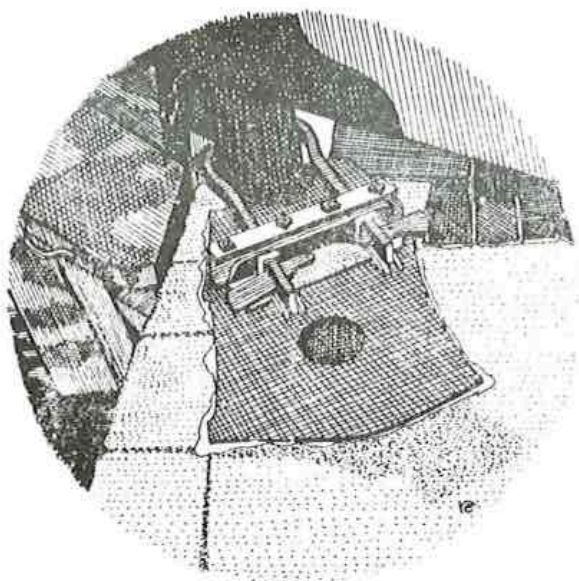
A CRUISING AND WALKING
GUIDE



Tim Lewis

First Published 1984

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Waterways Sub Committee, Birmingham Branch. I.W.A.
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Sparrows End Lane
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Stafford
ST19 9DB

A Cruising and Walking Guide to

THE
BIRMINGHAM CANAL
NAVIGATIONS

*(excluding the outlying section of
the Birmingham & Fazeley Canal between
Salford Junction & Whittington Brook.)*



Illustrations:

Ron Eason
Diana Codling
Richard Evers-Swindell

Text & Maps:

~~Alan~~ Codling

THE BCN

The BCN began in 1767 when a group of Birmingham industrialists, alarmed that their competitors elsewhere might gain an advantage from reduced transport costs on several proposed new waterways, asked James Brindley to survey a route for a canal. This ran from Birmingham to the Staffordshire and Worcestershire Canal at Aldersley near Wolverhampton, with a branch to the Wednesbury collieries. The branch was opened in 1769 and the main line was completed in 1772. From this initial 26 miles or so the BCN developed by the construction of new canals and amalgamations with neighbouring companies to a total of 159 miles. This has been reduced by closures to just over 100 miles, of which about 90, the Birmingham and Black Country network, are described in this guide.



Thanks to the efforts of canal societies, local councils and BWB the canals of the BCN are in better condition than many more popular waterways. There is ample depth of water and surprisingly little rubbish. As several accurate maps are now available and most of the factory basins, into which one could inadvertently cruise, have been filled in, navigation of the network is very much easier than in the past. The towpaths are, in general, excellent and the whole of the BCN, except for two small loops, can be walked. The surroundings range from completely rural, rich in wild life, to heavily industrial, where many of the buildings are highly regarded by local historians. The story of the BCN has been colourful, even bizarre: at one time the company was excommunicated for failure to pay church rates. It is still full of interest today.

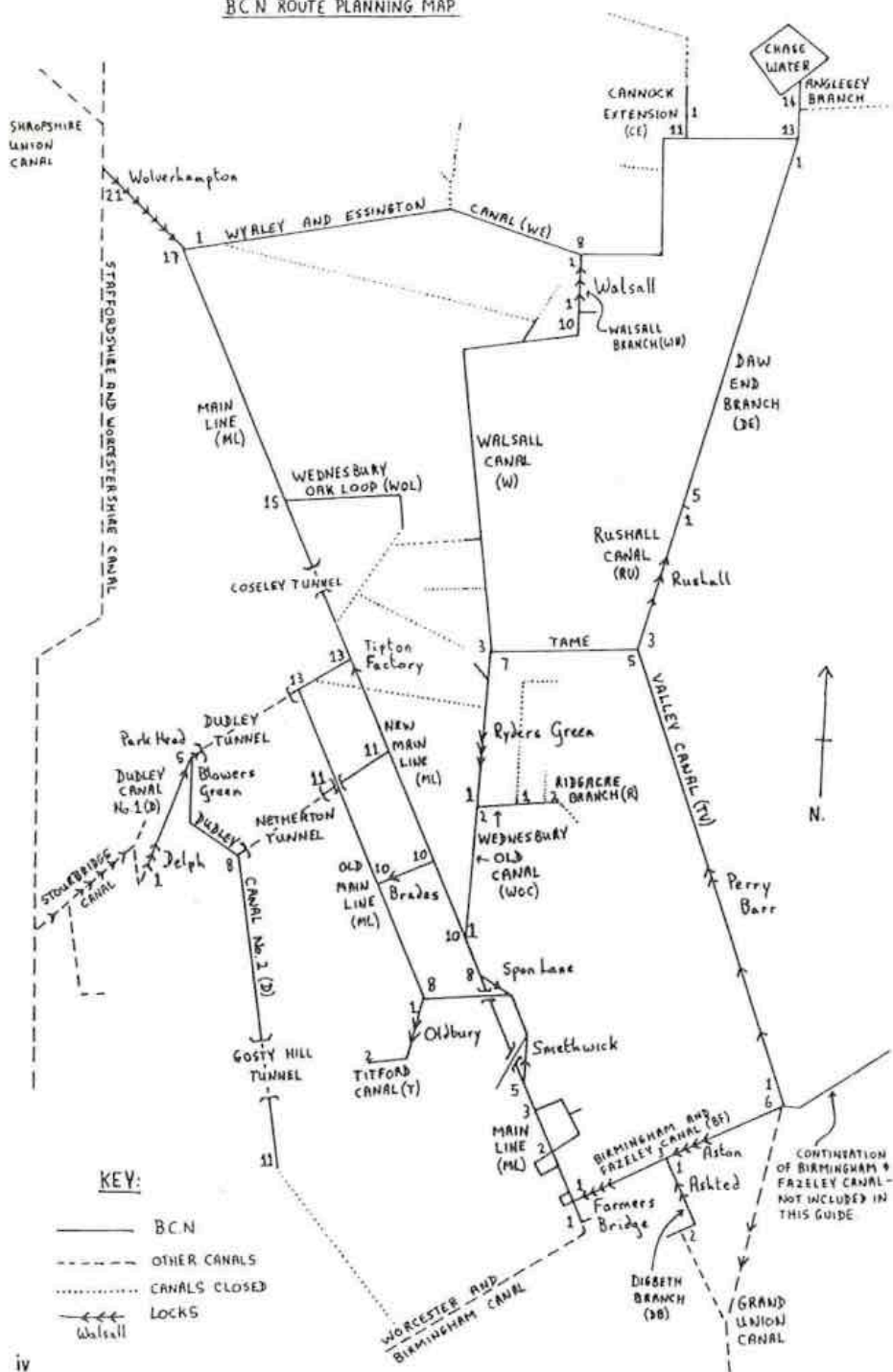
USING THE GUIDE AND ROUTE PLANNING

Since 1969 three guides to the BCN have been published and, as a direct result, there has been a considerable increase in the number of visitors to the system. However many boaters and walkers, their interest in the BCN awakened, have requested a much more detailed guide. When asked exactly what detail was required their replies included information about the history, wild life, geology and industrial archaeology of the canal, the location of services such as public houses, fish and chip shops, telephones and bus routes, and whether there was access to the towpath from nearby roads. This guide is an attempt to meet their requirements.

Much of the information has been shown on the maps, although this could only be done successfully by representing the canal as a straight line. This is easy to follow but inevitably leads to some distortion of other features such as roads and railways. Bends in the canal are mentioned in the text when noteworthy, and the general direction of each waterway is indicated on the route planning map (page iv). If a more conventional representation is required the guide can be read in conjunction with Ordnance Survey Sheet 139 (1:50000 First Series) or the Geographers' A-Z Street Atlas. The maps in the guide are not to scale but each page covers approximately one mile of canal (sometimes less if there are a number of locks)

The main features of each canal and its surroundings are described in the text, and examples chosen to illustrate how it is often possible for the traveller to reconstruct a small piece of canal history from the evidence along the way. Useful clues are sometimes provided by the industries that developed near the canals and these are included on the maps. Further information can be obtained from the excellent reference libraries in the region.

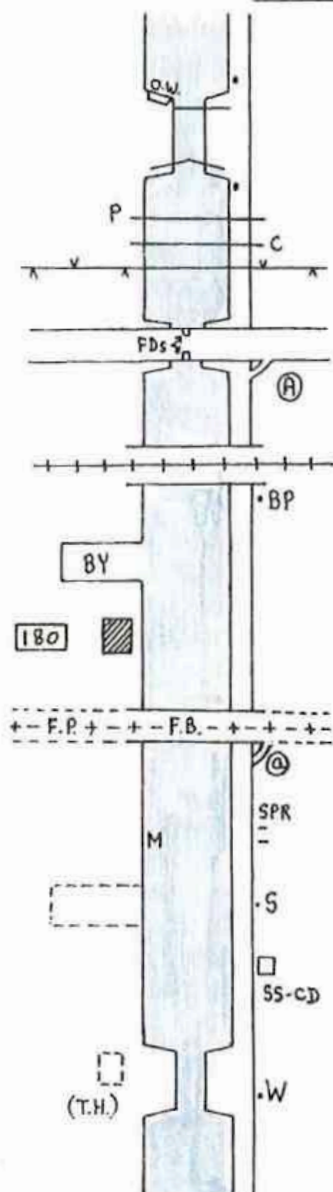
BCN ROUTE PLANNING MAP



The guide is divided into sections, each corresponding to one of the BCN canals. Within each section all pages bear the initials of the canal they refer to (eg: Dudley Canal: D, Rushall Canal: RU). The initials for each canal are shown on the route planning map opposite. The pages are also numbered in sequence from one end of the canal to the other, with maps or illustrations on the left-hand page, text on the right. Each text page bears the same number as the map it is opposite. Some sections have an extra illustration numbered as page 0 but the first map is always page 1. The maps and text describing short branches are inserted at the appropriate place within each section. The ring binding can be removed (use a strip of card to support the plastic clips as they are lifted) and the pages rearranged to suit the user. If desired they can be kept as loose leaves in a plastic wallet.

The numbers at junctions on the route planning map indicate which pages are needed for a particular journey. For example, to travel from the Worcester and Birmingham Canal to Chasewater via the Birmingham and Fazeley Canal will require maps ML1, BF1-6, TV1-5, RU1-3, DE1-5 and WE13-14. A rough estimate of mileage (take one map = 1 mile) is 22 and the number of locks (each < on the map approximates to 3 locks) appears to be 45. Accurate figures obtained from the table of distances and from checking the number of locks on the large scale maps are 19 and 46. Assuming a boat travels four miles or passes 4 locks per hour the difference between the two sets of figures in estimated journey time is $\frac{1}{2}$ hour. Thus the route planning map gives an indication of the time needed for a particular journey and alternative routes can be rapidly compared. If travelling along a canal in the opposite direction to the sequence followed in the guide reverse all directions given in the text and read the maps from the bottom to the top.

SYMBOLS AND ABBREVIATIONS



Canal and Towpath

Lock: single top gate, mitred bottom gates, Overflow weir and Bollards (or posts)

Pipe (PP = Pipes), Cable and Power transmission line

Road bridge, with narrows, Fire Doors and official access to canal

Railway bridge and Boundary Post

Basin with Boatyard

Building of interest with Number plate (or nameplate)

Footbridge and Footpath, formerly Railway or Tramway, unofficial access to canal

Moorings and Stop plank rack

Site of basin and Sluice

Sanitary station : chemical toilet disposal.

Water point and site of Toll House

Only shops likely to be of use to canal travellers are shown on the maps

CH	Chinese restaurant	PC	Public convenience
CP	Playground	PH	Public house
D	Diesel Fuel	PO	Post office
FC	Fish and Chips	PS	Police station
G	Garage	R	Restaurant
GP	Garage + petrol	SB	Signal box
GPD	Garage + petrol + D	SP	Sign post
H	Hotel	SURG	Surgery
I	Indian restaurant	T	Telephone
L	Letter box	TA	Take-away
LB	Litter bin	WB	Wine bar
LC	Level crossing	'	Feet
LIB	Library	x	Yards
NT	Newsagent	m	Miles
OL	Oil Licence		

126	Bus routes
522	

" " indicates a name, number or date on a building, lock gate, brickwork etc. (but not a plate)

→ → on a road at edge of map indicates direction of services; in this eg: straight ahead, 2nd turn on right

() has three distinct meanings:-

- i round a works or mine indicates this is now closed or demolished, eg: (Wallows Colliery)
- ii round the destination given for a railway line indicates no regular passenger service
- iii normal usage, eg: Birmingham (Snow Hill), Market (Tues).

Public houses named on the maps have been recommended by previous visitors.

TABLE OF DISTANCES

Canal (+ branches)	Distance m f	Canal (+ branches)	Distance m f
<u>NEW MAIN LINE</u>		<u>OLD MAIN LINE</u>	
Worcester Bar to:		Smethwick J to:	
Old Turn	0 2	Engine Branch	0 4
Ladywood J	0 4	Spon Lane J	2 0
Sandy Turn	0 7	Oldbury Locks J	2 5
Soho Loop E. End	1 0	Brades Hall J	3 9
Winson Green J	1 6	Tipton J	6 0
Smethwick J	2 6	Factory J	6 4
Bromford J	5 0		
Pudding Green J	5 6	Newhall Branch	0 1
Albion J	6 2	Oozells St. Loop	0 3
Dudley Port J	7 0	Icknield Port Loop	0 6
Factory J	8 4	Soho Loop	1 2
Deepfields J	10 1	Engine Branch	0 5
Horseley Fields J	13 1	Spon Lane Locks	0 3
Aldersley J	15 4	Titford Canal	1 3
Gower Branch	0 4	<u>WYRLEY AND</u>	
Netterton Tunnel	2 7	<u>ESSINGTON CANAL</u>	
Wednesbury Oak	1 7	Horseley Fields J to:	
		Birchills J	8 0
<u>WEDNESBURY OLD</u>		Pelsall J	12 7
<u>CANAL</u>		Catshill J	15 3
Pudding Green J to:		Ogley J	16 3
Ryders Green J	0 5		
Ridgacre Branch	1 2	Cannock Extension	1 4
		Anglesley Branch	1 4
Ridgacre Branch	0 5	Daw End Branch	5 2

m = miles, f = furlongs, J = Junction

Canal (+ branches)	Distance m f	Canal (+ branches)	Distance m f
<u>WALSALL CANAL</u>		<u>RUSHALL CANAL</u>	2 6
Ryders Green J to:		<u>TAME VALLEY CANAL</u>	
Doe Bank J	1 3	<u>Salford J to:</u>	
Anson Branch	5 1	Rushall J	5 0
Walsall J	6 7	Doe Bank J	8 4
Walsall Wharf	7 0		
Anson Branch	0 4	<u>DUDLEY CANAL</u>	
Walsall Branch	0 7	No. 1	
<u>BIRMINGHAM AND</u>		Black Delph J to:	
<u>FAZELEY CANAL</u>		Blowers Green J	2 1
Farmers Bridge J to:		Tipton J	4 4
Aston J	1 4	No. 2	
Salford J	3 2	Blowers Green J to:	
Digbeth Branch	0 6	Bumblehole Arm	2 3
		Windmill End J	2 5
		Hawne Basin	5 5

Books on the BCN

The Canals of the West Midlands. Charles Hadfield
1966 Published by David and Charles.

The Birmingham Canal Navigations. Volume 1
(1768-1846) S.R. Broadbridge 1974.
Published by David and Charles.

The Other Sixty Miles (abandoned canals)
Richard Chester-Browne 1981
Published by BCNS

FACILITIES FOR BOATS

Sanitary Stations:

Gas Street Basin (map ML1)
Farmers Bridge (BF1)
Tividale (ML11)
Sneyd (WE7)
Coombeswood (D11)
Cannock Extension (CE1)

Pump-Out Stations:

Oozells Street Loop (ML1)

Diesel Fuel:

Oozells Street Loop (ML1)
Minerva Wharf (ML17)
Cannock Extension (CE1)

Refuse Disposal:

Lock 7 Farmers Bridge (BF2)
Lock 10 Wolverhampton (ML19)

Water Points:

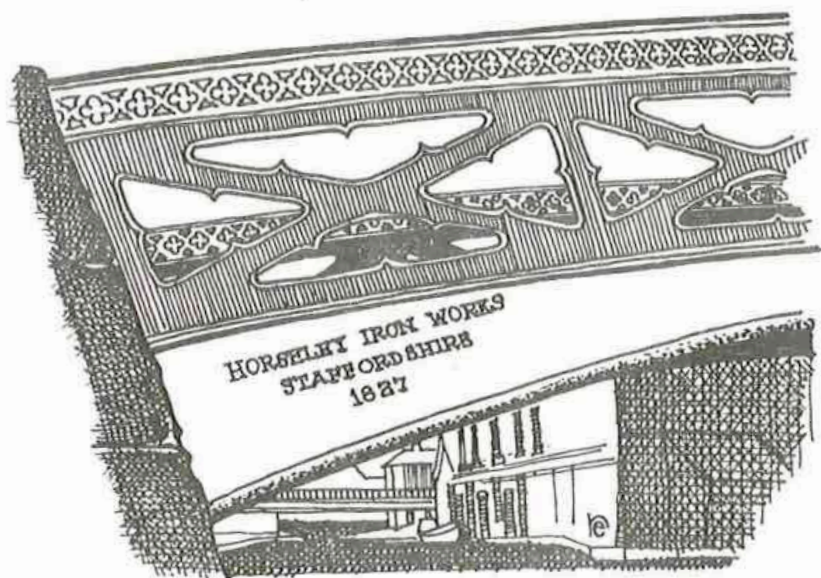
Gas Street Basin (ML1)
Farmers Bridge (BF1)
Tividale (ML11)
Sneyd (WE7)
Coombeswood (D11)
Bumblehole (D8)
Oozells Street Loop (ML1)
Lock 15 Wolverhampton (ML20)
Rushall (RU1)
Perry Barr (TV4)
Cannock Extension (CE1)

USEFUL PHONE NUMBERS

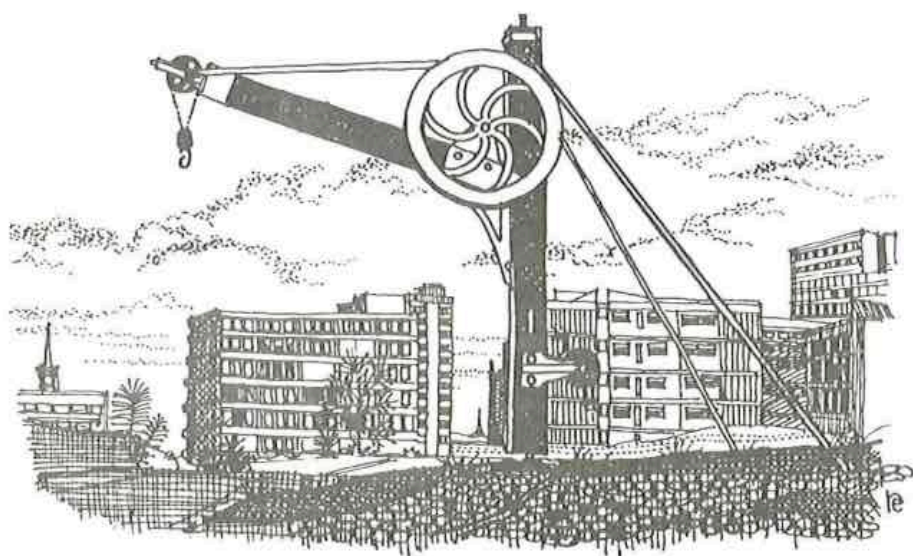
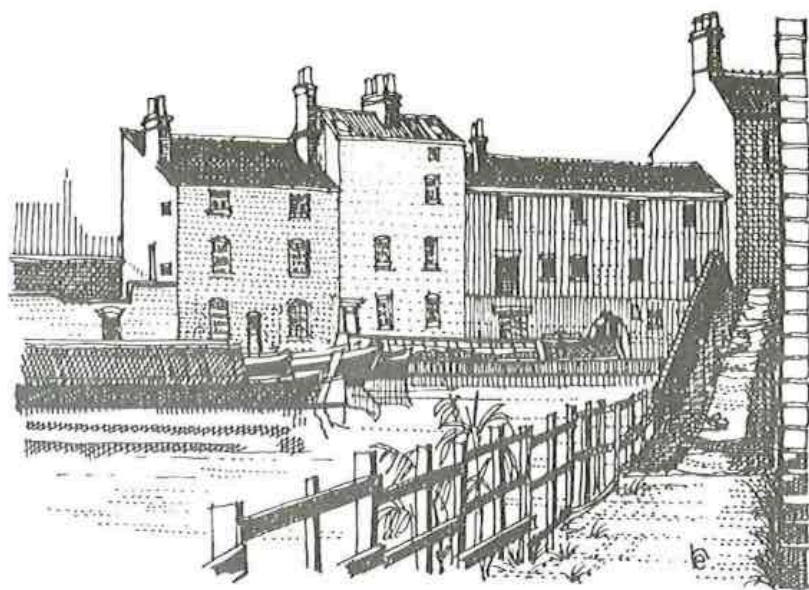
Canalphone (North)	:	01-723-8486
Canalphone (South)	:	01-723-8487
BWB Area Office	:	021-454-7091
Dudley Canal Trust	:	021-520-5321



The production of this guide would have been impossible without the assistance of a considerable number of people. These are far too numerous to mention individually but include the staff of several local libraries, a number of canal historians and authors, members of the Birmingham Branch of the IWA, and many BWB employees. We would like to record our thanks for their help.



In a publication of this nature errors and omissions are always possible, particularly as changes occur very rapidly in this area. Every canal and road shown on the maps has been visited at least once, and every care taken to ensure that the information in the guide is accurate. However no responsibility can be accepted for any errors or omissions or the consequences thereof. The publishers would be grateful to receive suggestions for changes and improvements to the guide for future editions.



TOP : GAS STREET BASIN
 BOTTOM: CAMBRIAN WHARF

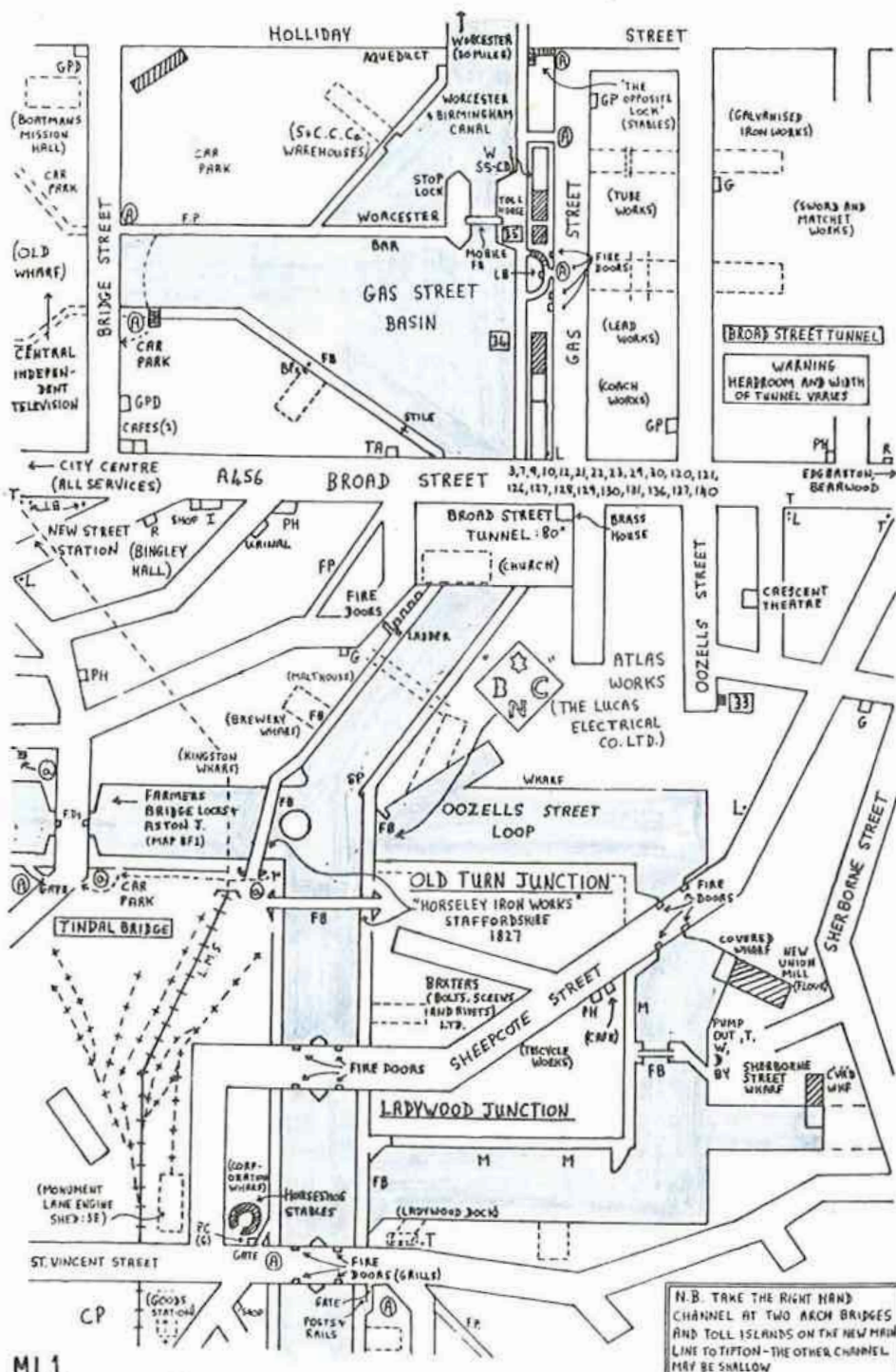
THE BCN MAIN LINE

(including the Titford Canal,
the Wednesbury Old Canal and Ridgacre Branch,
and the Wednesbury Oak Loop)

The Main Line of the BCN from Birmingham to Wolverhampton was completed in 1772. There were two terminal branches at the Birmingham end, one past Cambrian Wharf to Newhall (see BF1), the other to Gas Street Basin. Both branches have been truncated and the canal at Gas Street formerly extended to Old Wharf, where the original BCN offices fronted onto Suffolk Street. They were demolished in the 1920s after the Company had moved to Daimler House nearby.

The first part of the Worcester and Birmingham Canal was opened in 1795 but to safeguard their water the BCN refused to allow a connection with the new canal, and a 7 foot wide strip of land - Worcester Bar - was left between them. Interminable delays and frustration must have been caused by this Bar as everything passing from one canal to the other had to be transhipped across it. The stop lock through the Bar was not built until 1815 when the Worcester and Birmingham was completed to the Severn and desperately needed water. This the BCN agreed to supply, at a price, via the lock.

There is always a fine display of narrow boats moored along the Bar, although there have recently been attempts to move them elsewhere and thus destroy much of the remaining atmosphere of the Basin. In the 1960s and early 70s this was a Mecca for local waterways enthusiasts. The Basin was almost completely enclosed by buildings and to walk through the passage from Gas Street was to step into a different world. The demolition in 1975 of the warehouses on the south side irreparably changed the character of the Basin and demonstrated an amazing lack of sensitivity by BWWB for the canal environment. Before leaving the Basin note



the two BCN boundary posts on the towpath bridge on the north side and the number plates on the canalside buildings. These plates were introduced by the Company around 1900 and the numbering runs sequentially along each canal of the BCN, although there are some anomalies, particularly on the Main Line, and gaps in the series where buildings have been demolished.

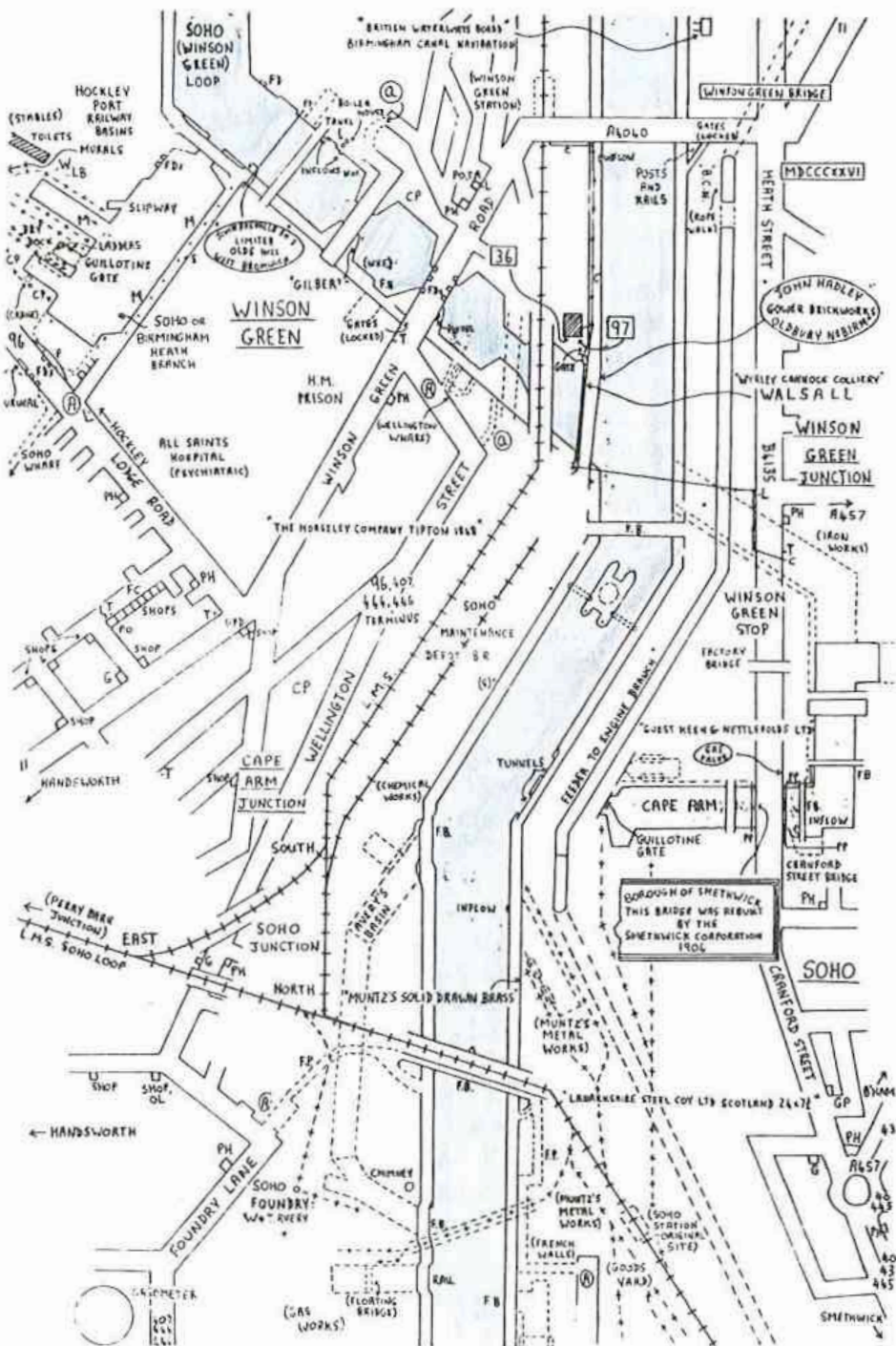
Broad Street Tunnel is in fact a bridge that has been extended four times. When the BCN was a flourishing commercial waterway the tunnel was somewhat unsavoury as boatmen moored at Gas Street used it as a public convenience. Other localities suffered similarly and conditions were sometimes so insanitary that the canal company had to spread chloride of lime on the towpath. A short distance from the tunnel is a four-way junction with three elegant bridges. Two are turnover bridges cast by the Horseley Iron Works, the other has the initials BCN as part of the design. Turn right for the Newhall Branch and the Birmingham and Fazeley Canal (map BF1), or left for the Oozells Street Loop, where Brummagem Boats have their base. Diesel fuel is available here, and there is the only pump-out facility on the BCN. There is no towpath round the Loop. Straight ahead is the most direct route to Wolverhampton.

The date 1827 on the "Horseley" bridges is the year in which improvements to the canal between Birmingham and Smethwick were completed. The original canal, surveyed by James Brindley but apparently largely built by Samuel Simcock, followed such a winding route along the contour that it was suggested Simcock was attempting to cut his initials across Staffordshire. The Company did not object as tolls were based on mileage. As traffic increased on the canal the sharp bends were a navigational hazard and caused considerable delay. In 1824 Thomas Telford was engaged to suggest improvements and one of his proposals was to cut off the bends by a direct line to Smethwick. The result can

be seen at the next five junctions where loops of the old canal leave or rejoin the new. Improvements were also made in the design of towpaths and bridges. The old canal had a single towpath and numerous makeshift bridges, particularly over the entrances to arms and basins, and many horses were killed or injured in accidents on these ramshackle structures. Originally there were a number of swing and lift bridges on the Main Line but these were such a hindrance to traffic that they had been replaced by the early 1800's. In contrast Telford's canal has twin towpaths and substantial turnover and side bridges.

On both the loop and the direct route the first road bridge has red wooden fire doors in the parapet. These give the fire services access to the canal for pumping water in an emergency. Most bridges along industrial stretches of the BCN have such doors, except where the distance from bridge to water level is greater than 28 feet, the maximum lift of the Fire Brigade pumps. The magnificent two-storey Horseshoe Stables, built in 1802, are on the right at Ladywood Junction. The building is used by Birmingham City Council and is not open to the public but can be seen from the entrance on the corner of Sheepcote Street.

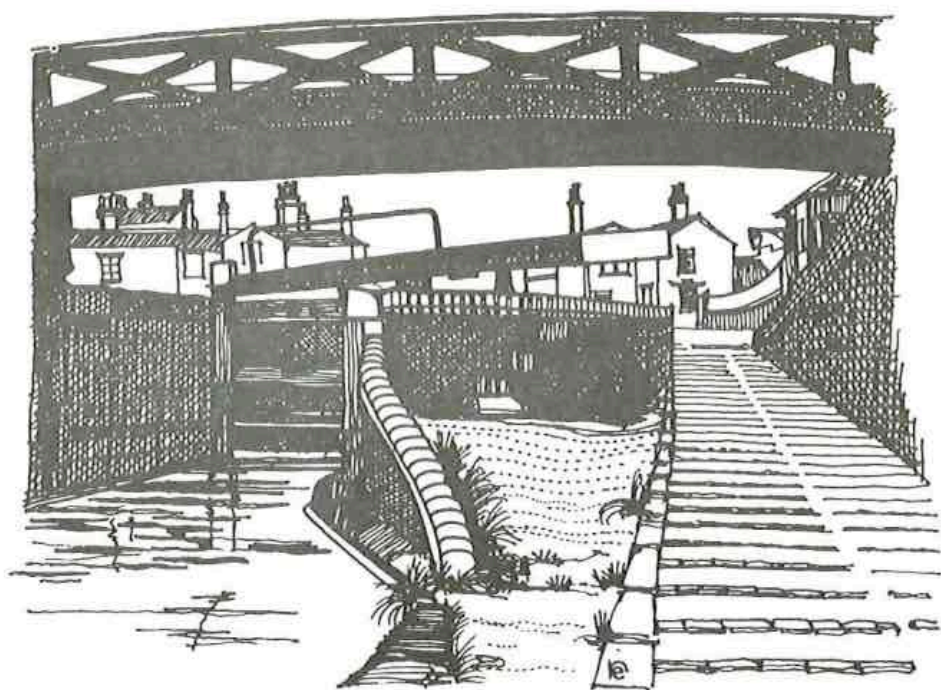
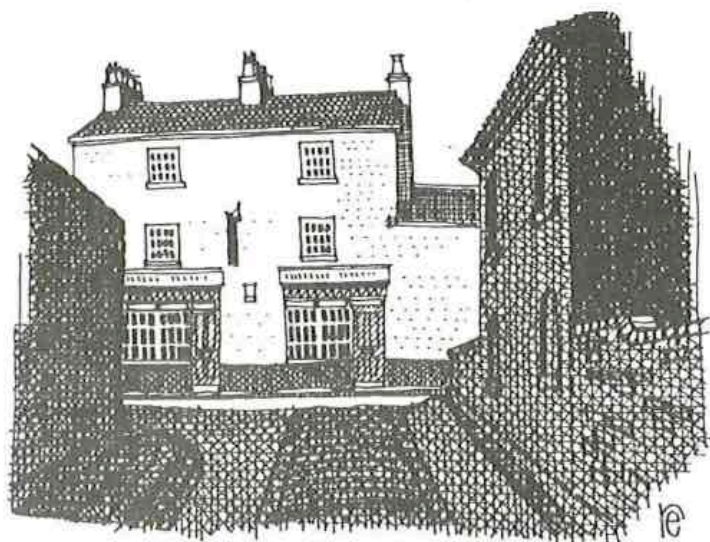
Much of the commercial traffic on the BCN was between mines and factories on the system, with boats often only travelling a few miles. When the railway companies began to compete with the canals they were not interested in this short-haul traffic. It caused congestion on their main lines and there was frequently no rail access to the works which had developed alongside the canals. Instead all three railway companies in the area (LNWR, GWR and Midland) actively encouraged use of the canal by building railway-canal interchange basins. Here freight



could be transhipped to boats for delivery to factories, or finished products fed into the rail network. The companies even operated their own fleets of "railway" boats. One interchange basin was just before Monument Road Bridge. The basin is still in water, although the rails and transhipment sheds have disappeared.

A trip along Icknield Port Road Wharf Loop to the BWB maintenance yard and Rotton Park reservoir is recommended, although if on foot this involves a detour via Ladywood Middleway as the towpath is not continuous. The reservoir, part of the Telford improvements, was opened in 1826 and enlarged in the 1830's. The dam towers above the yard, where the elegant buildings (a Telford design?) are in excellent condition and a credit to BWB. If the yard gates are open it is possible to walk along Icknield Port Road to the BWB offices and on to the dam. The reservoir receives water by feeder from the Titford Canal (see T1). It supplies the 473' Wolverhampton Level via another feeder to the Engine Branch. Formerly water was pumped back into the reservoir from this feeder in times of surplus.

The Loop rejoins the New Main Line at another four-way junction. The Soho Loop is straight ahead but visibility to left and right is not good - beware of boats approaching from either direction. Telford's Line continues on the left under a turnover bridge. If walking take the right-hand towpath, the other is wet and muddy in places. The brick pier in the middle of the canal once carried the LMS Harborne Branch, which lost its passenger service in 1934 but remained open for goods until 1963. The canal is now in a deep cutting spanned by two fine bridges, both dated 1826. Contrary to the instructions daubed on Lee Bridge there

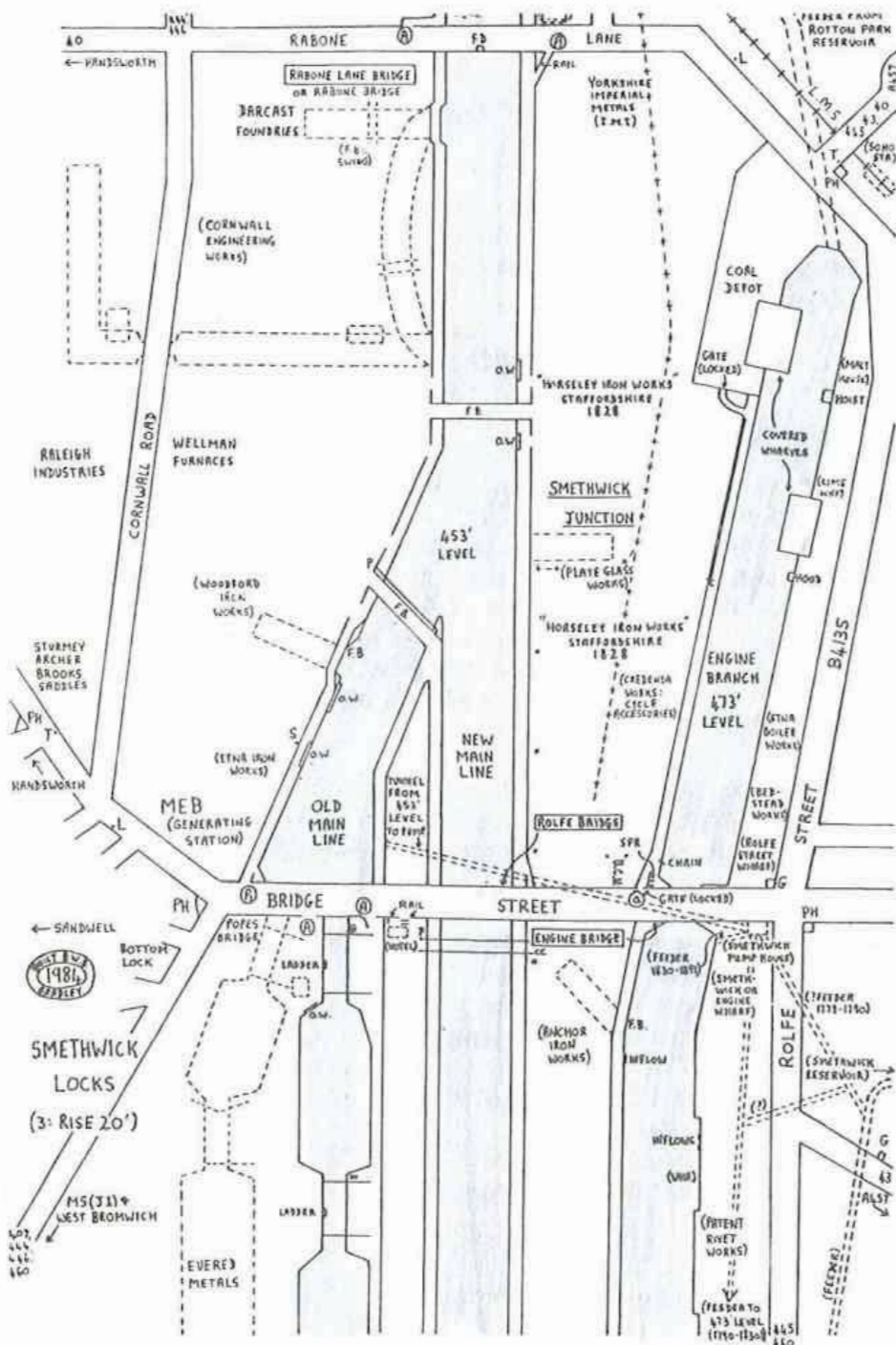


TOP: FORMER CANAL SHOP, KINGSTON ROW
 BOTTOM: FARMERS BRIDGE TOP LOCK

is no access at present to the fish and chip shop in Dudley Road.

The Soho Loop leads to the Birmingham Heath Branch, opened in 1801 to Matthew Boulton's Soho Works. This was a group of workshops where craftsmen produced jewellery and silverware of high quality. The Works was demolished in 1863 and the Branch now only runs as far as Hockley Port, where the GWR interchange basins have been converted into an adventure centre for local youth. There are three striking murals, two showing the Port "then and now". The original stables still stand and are used for the centre's activities - a farm is housed in one end of the block on the right. Ample moorings are provided for visitors but it is perhaps best to use those in the first basin on the right, which is fenced off from the rest of the centre. The attractive Victorian terraced houses surrounding the basins are being sympathetically restored, and the whole site is an excellent example of the imaginative renewal of an inner city area.

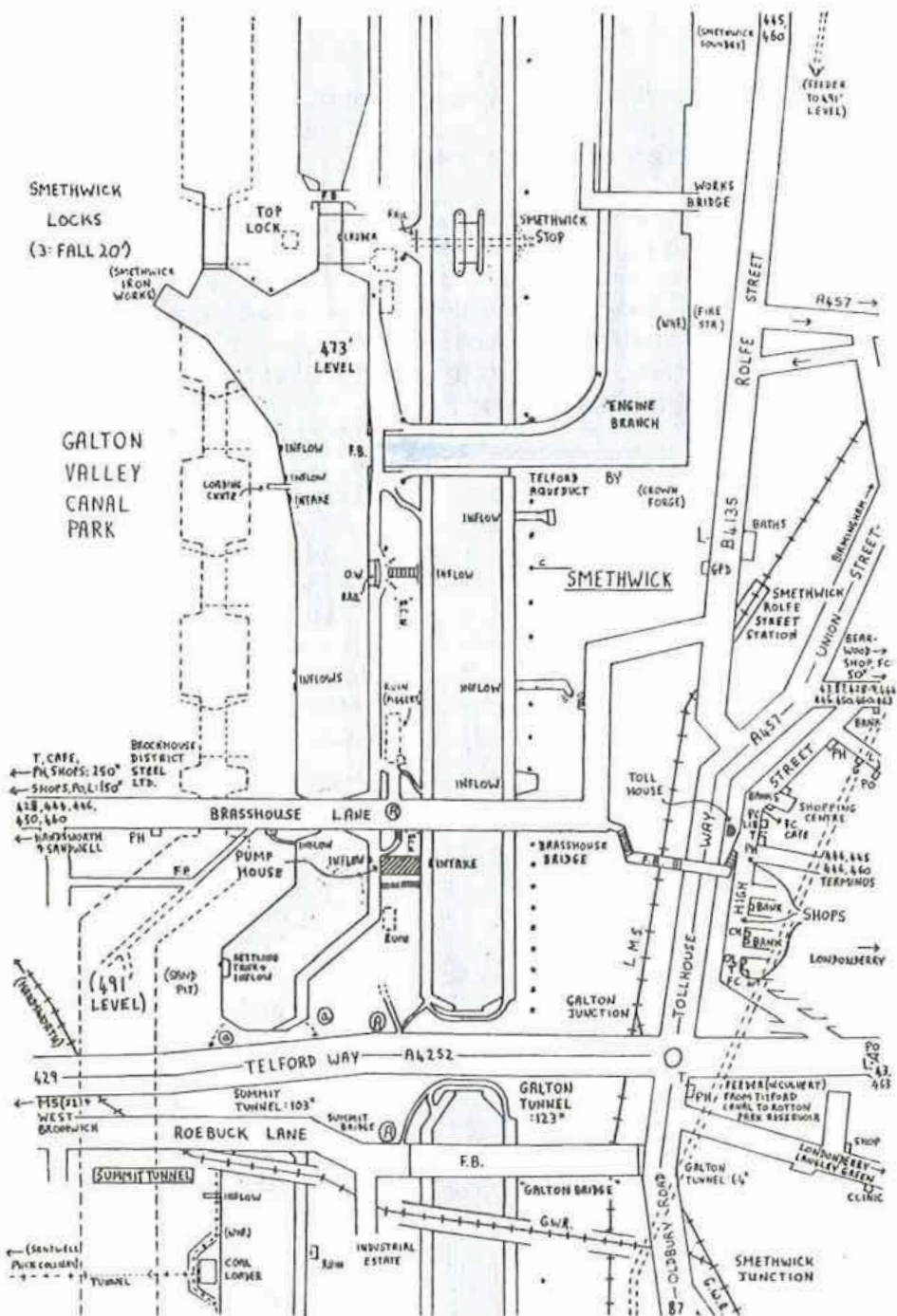
The Loop rejoins the New Main Line at Winson Green Junction. After the turnover bridge is a toll-island which once carried an octagonal toll-office. Unfortunately none of these attractive buildings have survived. Access from the towpath was over a plank which could be swung across the water by the toll-clerk turning a long lever. The swivel mountings of the planks can still be seen on some of the toll-islands. The feeder from Rotton Park to the Engine Branch is on top of the embankment on the left, which was built at the same time as the New Main Line and cut across another loop of the old canal. The Winson Green end of the loop was filled in to prevent boats bypassing the toll-island. The other end became the Cape Arm, connected to the Main



line by a tunnel under the embankment. The whole of the Arm is within the GKN works and is blocked by a guillotine gate at the far end of the tunnel.

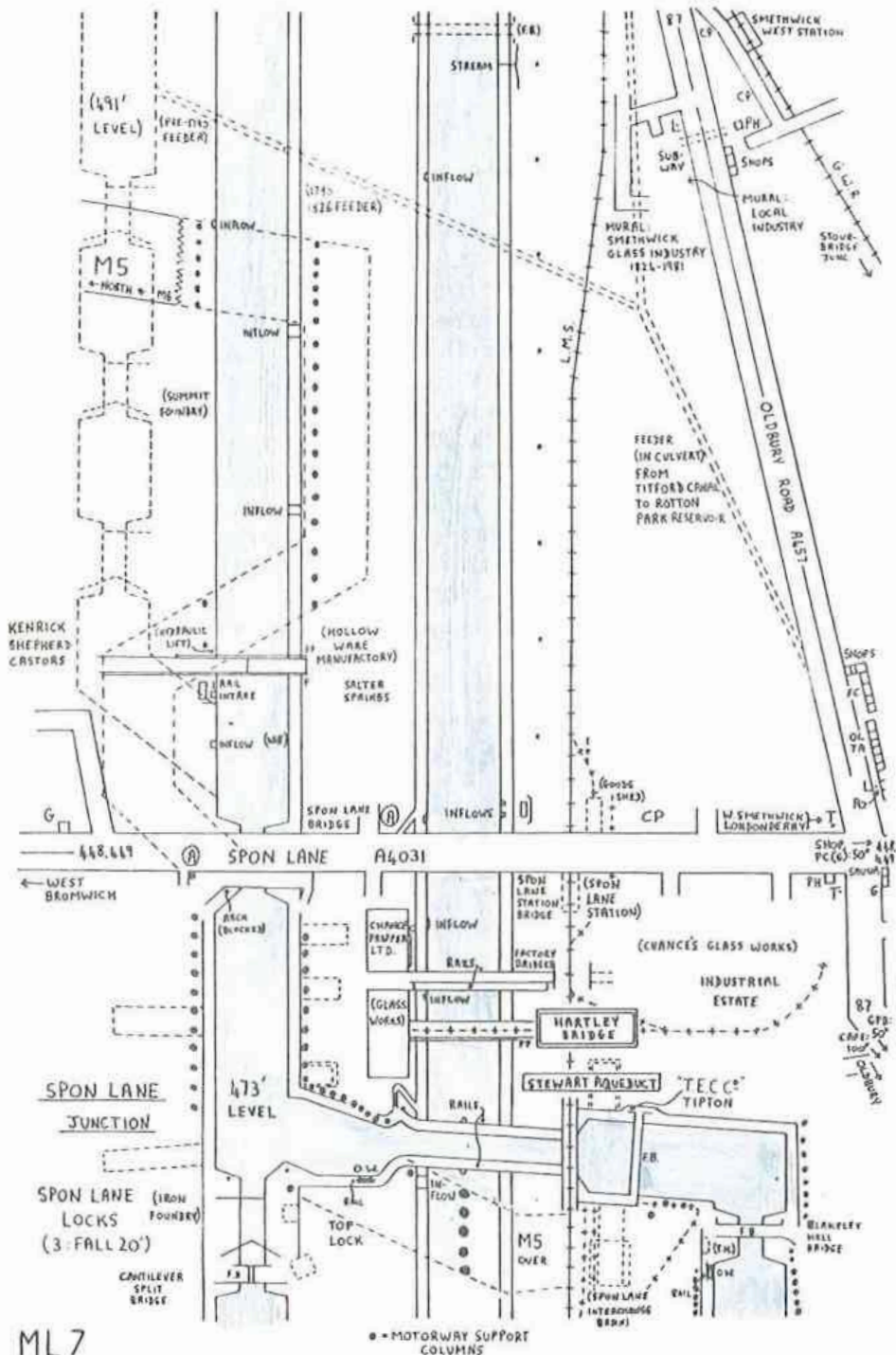
Another loop ran past Soho Foundry, opened in 1796 by Boulton and Watt to manufacture pumping and rotary steam engines. These engines had been assembled at Soho Works from parts manufactured elsewhere since 1775 and the Birmingham Canal Company had been a regular customer. Eventually they purchased 19 of the first 54 pumping engines built. In 1802 the first gas lights ever to be seen in public illuminated the front of the foundry. These were produced by William Murdock, who had also built a model locomotive driven by steam. Gas lighting equipment soon became an important product of the foundry but the partners missed the opportunity of developing Murdock's locomotive. The firm left the Foundry in 1850 and it was acquired in 1895 by W & T Avery Limited, manufacturers of scales and weighing machines. Some of the original workmen's cottages still stand just inside the entrance and there is a small museum. Visits can be arranged by writing to the curator.

At Smethwick Junction there is a choice of two routes. Bear right for the Old Main Line to Tipton via Smethwick Locks or continue straight ahead on the New Main Line. This also leads to Tipton but remains on the 453' Birmingham Level for a few miles further. Follow the Old Main Line if you wish to visit the Engine Branch and the Titford Canal, or take the New Line for the quickest route to the Wednesbury Old Canal and the Netherton Tunnel Branch. The choice is not critical as it is possible to change from one line to the other at Spon Lane and Brades Locks. If walking along the New Line follow the right-hand towpath. This is in better condition and has more access points than the left-hand one. It also connects with the towpath on the old canal in several places and it is easy to switch from one to the other.



Until the 1960s there were two sets of locks at Smethwick. Brindley's original locks were on the right, Smeaton's duplicate flight on the left. Brindley had taken the canal over Smethwick summit by six locks rising to the 491' Level, with another six back down to the 453' Level at Spon Lane. This summit, only a thousand yards or so in length, was very wasteful of water and there were long delays at the locks as traffic increased. In 1786 John Smeaton was asked to lower the summit by cutting a canal along the 473' contour from between the third and fourth Smethwick locks to the Wolverhampton pound at Spon Lane. Thus three locks at each end were made redundant. At the same time duplicate locks were built at Smethwick to deal with the volume of traffic. The Brindley Locks have been filled in but the bricked-up arch which led to them can be seen under Bridge Street, and the chamber of the top lock is intact with the gates still standing amongst the rubble.

The Engine Branch is on the left beyond the locks. This crosses the New Main Line on Telford Aqueduct, an elegant structure in need of some attention. There is no winding hole on the Branch and steerers of full length narrowboats may prefer to walk the towpath. There is access to Bridge Street as the locked gate has lost its central panels and only the framework remains. The WMCC and other interested parties recently excavated the site of the Smethwick Pump House, where the James Watt pumping engine now in the Museum of Science and Industry (see BF3) stood from 1779 until 1897, when it was moved to Ocker Hill. The engine went to the Museum in 1959 and is still in working order. The foundations uncovered by the excavations clearly

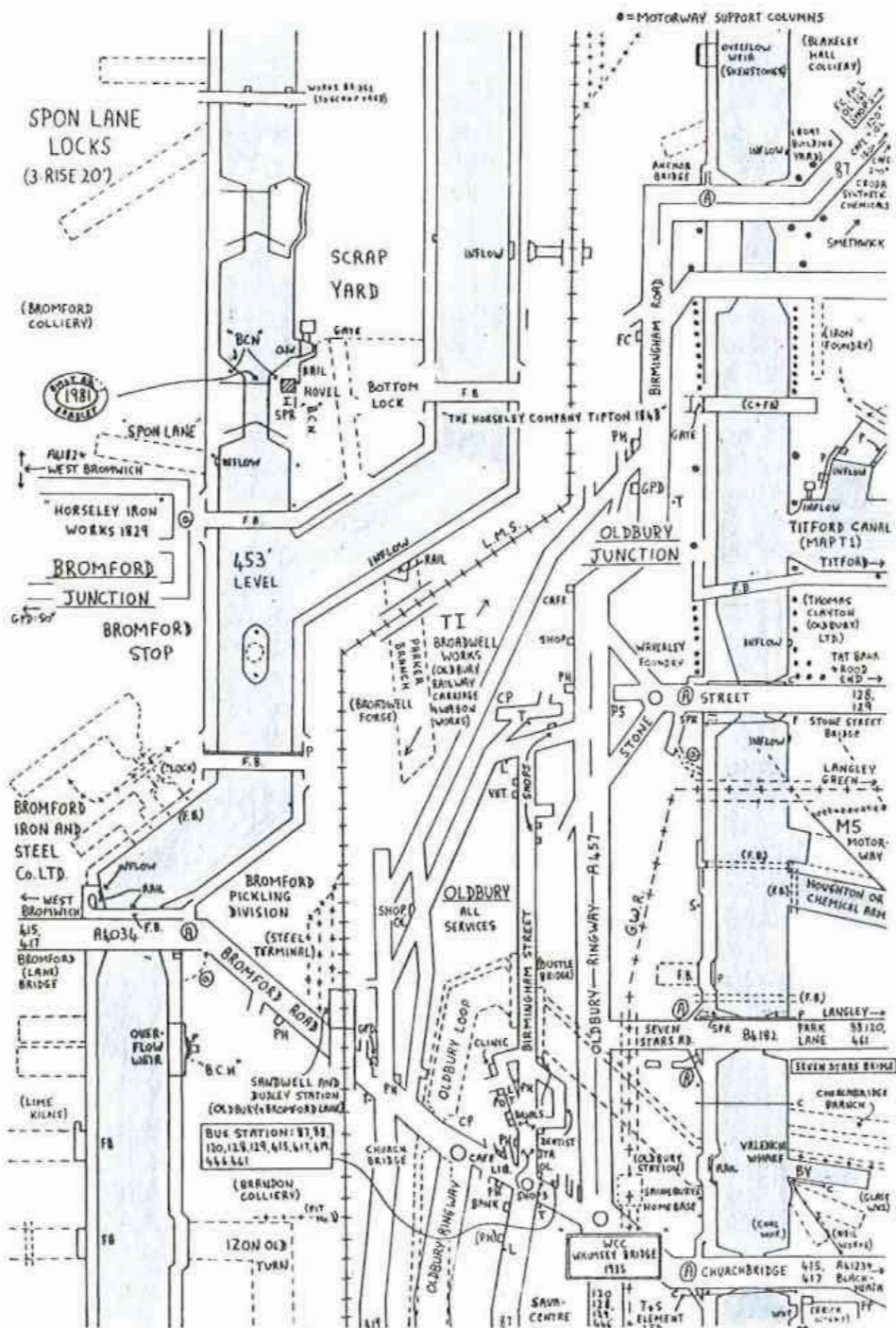


ML7

show the positions of the various parts of the engine and the culverts carrying water to the summit levels. There are plans to eventually open the site to the public and this will add considerable interest to a visit to the Branch.

Brasshouse Lane is a convenient spot to moor for access to the shops in Smethwick High Street. The building just beyond the bridge was erected in the late nineteenth century to house a pumping engine that raised water from the Birmingham to the Wolverhampton Level. The pump house has recently been restored and will be used as an information office for the Galton Valley Canal Park. This ambitious project, funded by WMCC, will create a linear park between Smethwick Locks and Spon Lane Locks.

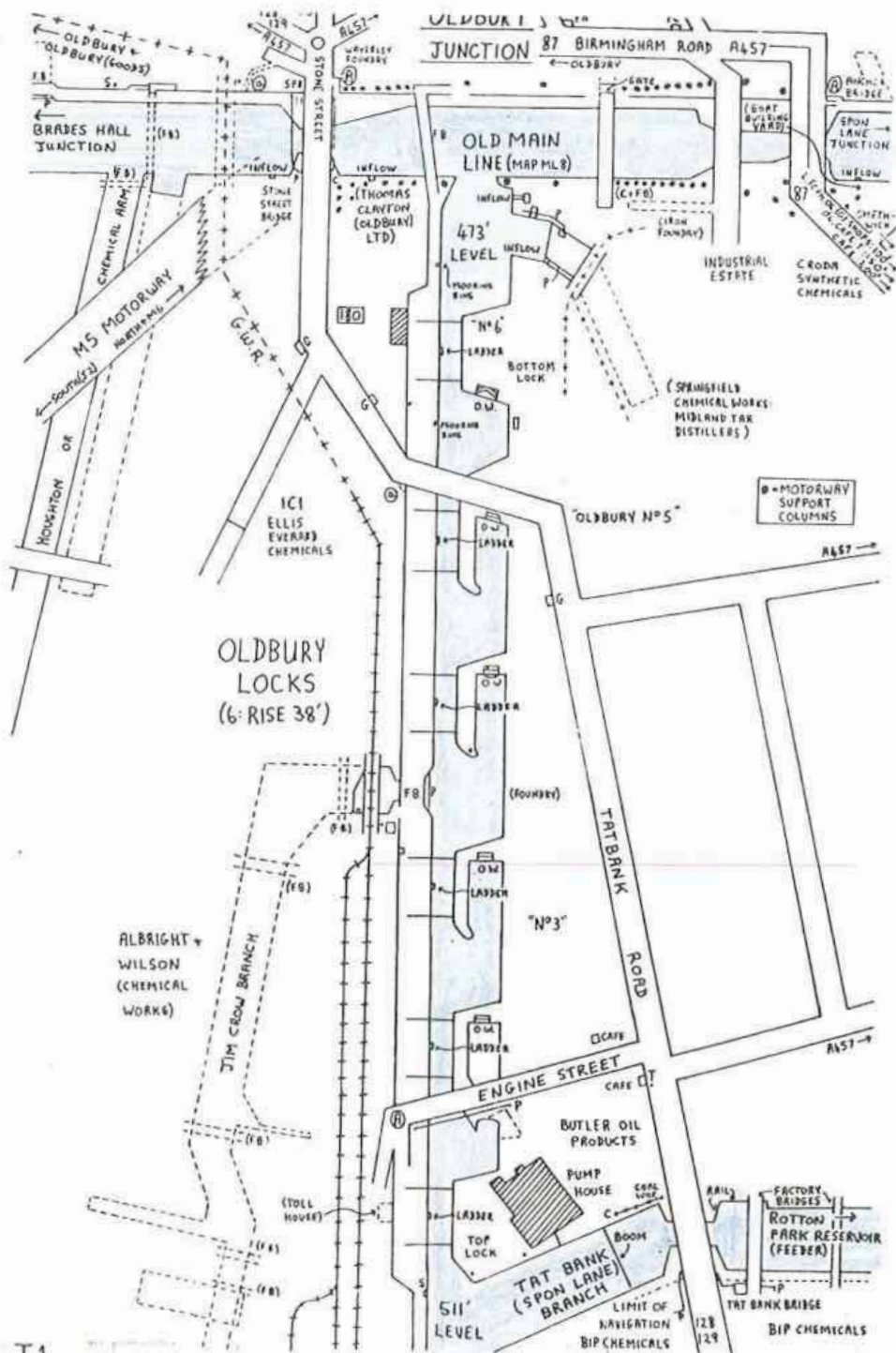
The New Main Line, in a cutting parallel to and below the old canal, was another Telford improvement and enabled coal boats from Wednesbury to bypass the summit completely. It was opened late in 1829 and as the cutting has a maximum depth of 71 feet it attracted considerable attention. It is still spectacular today, particularly when the gorse or rosebay willow-herb are in full flower and the banks are a mass of colour. Both Lines now pass through modern tunnels under Telford Way. These were opened in 1974 and are no more than large concrete drainpipes covered with earth, although they perhaps illustrate the change in civil engineering techniques and style since 1830. Immediately after the tunnel on the New Line is one of Telford's masterpieces, the 150 foot span Galton Bridge cast by the Horseley Iron Company in 1829. Samuel Galton was a prominent member of the BCN committee. Although now only a footbridge it carried heavy road traffic until Telford Way was constructed. The railway viaduct following is a fine blue brick structure also worthy of note.



Smeaton's cutting on the Old Main Line above is only 41 feet at its greatest depth and received little attention compared with its neighbour. However considering it was constructed forty years earlier it is a very respectable example of canal engineering. Coal from Jubilee Pit in West Bromwich was tipped into boats through chutes at the wharf just beyond Summit Tunnel until the pit closed in 1970. The ruin on the towpath bank is where boatmen (and horses) used to shelter while they waited to load. A few hundred yards further along the Old Line the M5 motorway joins the canal and will remain close by or over it for the next mile or so. The turnover bridge at Spon Lane is to enable horses (or pedestrians) to gain access to Spon Lane Locks and descend to 453' Level. The Old Main Line bears left and crosses the New on another Telford aqueduct, a two-arch brick structure named after Stewart, another committee member (called Stewart on the nameplate). Chance's glassworks, dating from the 1830s and formerly extending as far as the A457, is on the left. The works made the glass for the Crystal Palace in 1851 and was famous for its optical glass, particularly lighthouse optics. The factory now produces microscope slides from glass manufactured elsewhere.

The Spon Lane Locks are not strictly part of the Main Line; they are the start of the Wednesbury Old Canal. However as a length of the WOC below the locks was included in Telford's improvements and became a section of the New Main Line, the distinction is rather academic. At the tail of the top lock is a cantilever split bridge. It differs from the three other cantilever bridges on the system in that it has the gap for the towing line

Titford Branch follows: for continuation of ML turn
three pages.

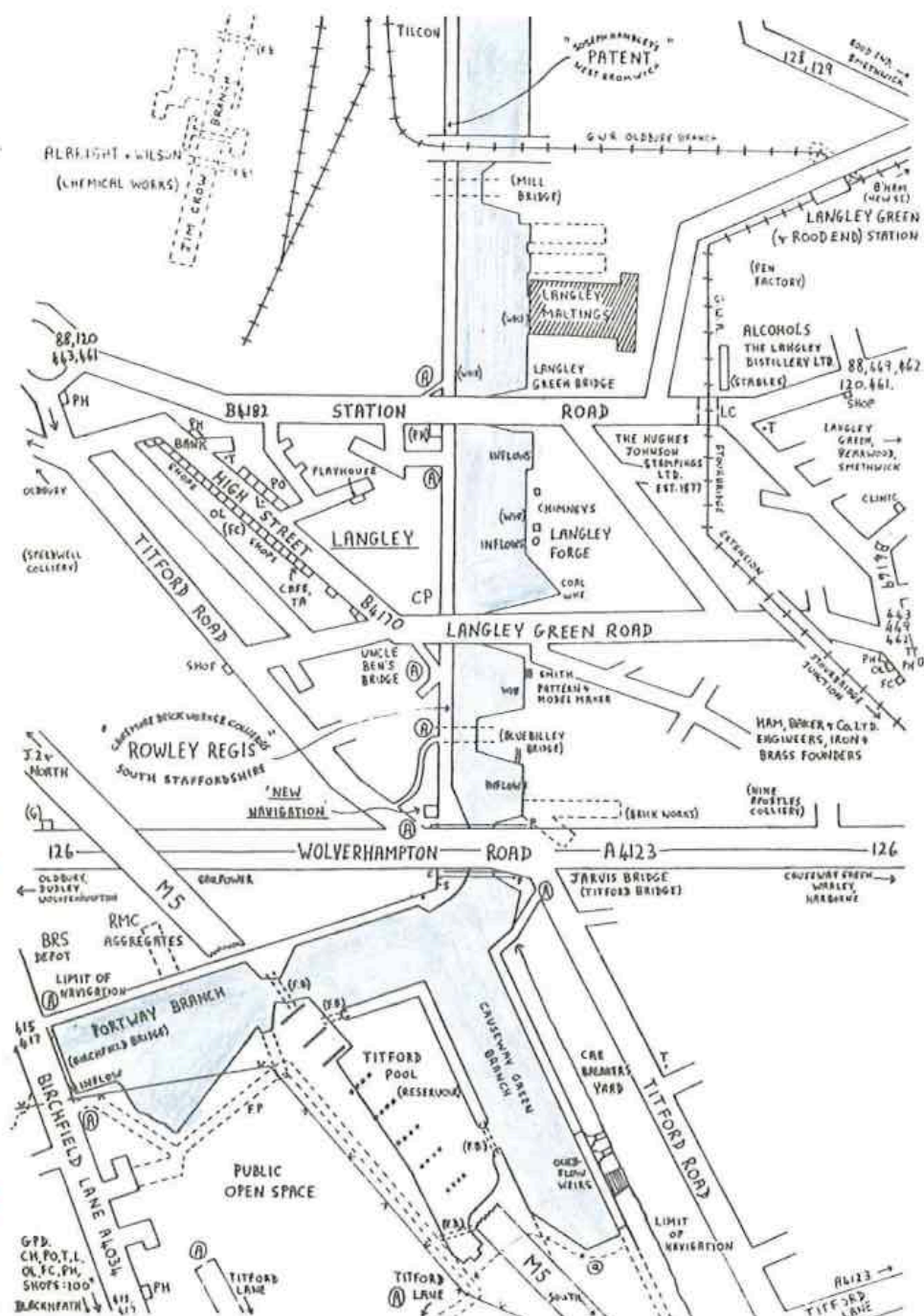


The Titford Canal

This branch was opened in 1837 to serve the collieries and works in the Langley area. It climbs via Oldbury Locks to 511', the highest level still navigable on the BCN and then runs to Titford Pool, which has been a BCN reservoir since the days of Brindley. As the canal connects with the pool on the level the section above the locks serves as a linear extension of the reservoir.

The basin on the left just after leaving the Main Line served the Midland Tar Distillers Springfield works and was the main destination of the Thomas Clayton "gas" boats. This firm was based at Oldbury Junction from 1889 to 1966 and specialised in the carriage of liquid cargoes, particularly crude tar and gas-water from Midlands gasworks to the Springfield tar distillery and, until 1955, fuel oil from Manchester to Langley Green. The boats used for these traffics had the holds divided into tanks and covered over by flat wooden decks, and they carried about 20 tons. In addition to their distinctive appearance the boats were decorated with a characteristic form of the traditional rose design known as "Claytons Cabbages". Throughout the 1950s and '60s gasworks traffic declined and Claytons ceased trading on the canal on 31 March, 1966, although they remained active as domestic and industrial fuel oil suppliers by road.

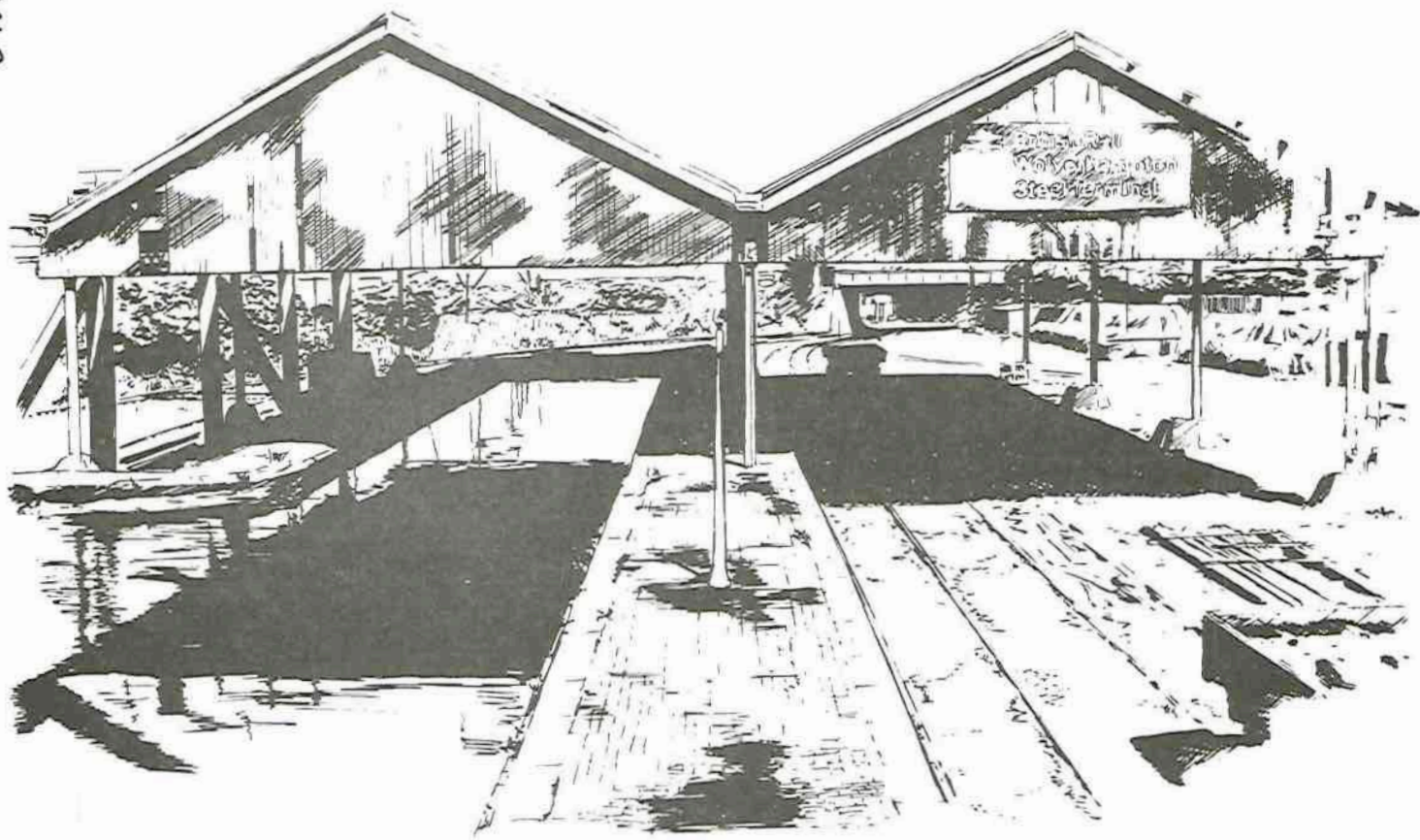
Oldbury Locks have the chambers in line with the towpath, an unusual feature also found at Factory Locks at Tipton, which were built at about the same time. It may be easier to steer a boat into such a lock but the design does not seem to have been generally accepted, as many flights built in the 1840s (eg Walsall, Rushall) have the traditional arrangement. The top of the flight passes close to the huge chemical works of Albright



and Wilson and if the wind is from the west the smell is distinctly unpleasant. The arm through the works was known as the Jim Crow Branch and Oldbury Locks are sometimes called "The Crow". The origin of these names is not clear but one suggestion is that they referred to a local industrialist.

Above the top lock the feeder to Rotton Park reservoir is on the left by the pump house. The first five furlongs of this were made navigable in the 1860s (The Tat Bank Branch) but there was little traffic and the Branch had closed by the turn of the century. Recirculatory pumping is still carried out when Rotton Park needs replenishment or there is heavy use of the locks, although modern pumps have replaced the original engine. Langley Maltings, a BCN landmark, follows the bridge carrying the GWR Oldbury Branch, although the view of this late Victorian building from the canal is marred by the concrete fencing erected along the wharf.

For rail enthusiasts there are fine GWR lower quadrant signals and an attractive signal box at Langley Green station. The Oldbury Branch is still open for freight traffic to the chemical works and the electric train staff for the Branch is handed over here. Langley Green bridge has been widened in such a way as to complement the original rather than detract from it. The old bridge has six cast iron arches while the extensions have longitudinal girders with brick arches between. Beyond Langley Forge, an old works now producing castings, the canal becomes less industrial and a pleasant tree-lined stretch leads to the two terminal branches and Titford Pool. The 1978 and 1982 IWA National Rallies were held here, and the elevated section of the M5 crossing the site did not seem to detract from their success. The greater part of both the Causeway Green and Portway branches was abandoned around 1960.

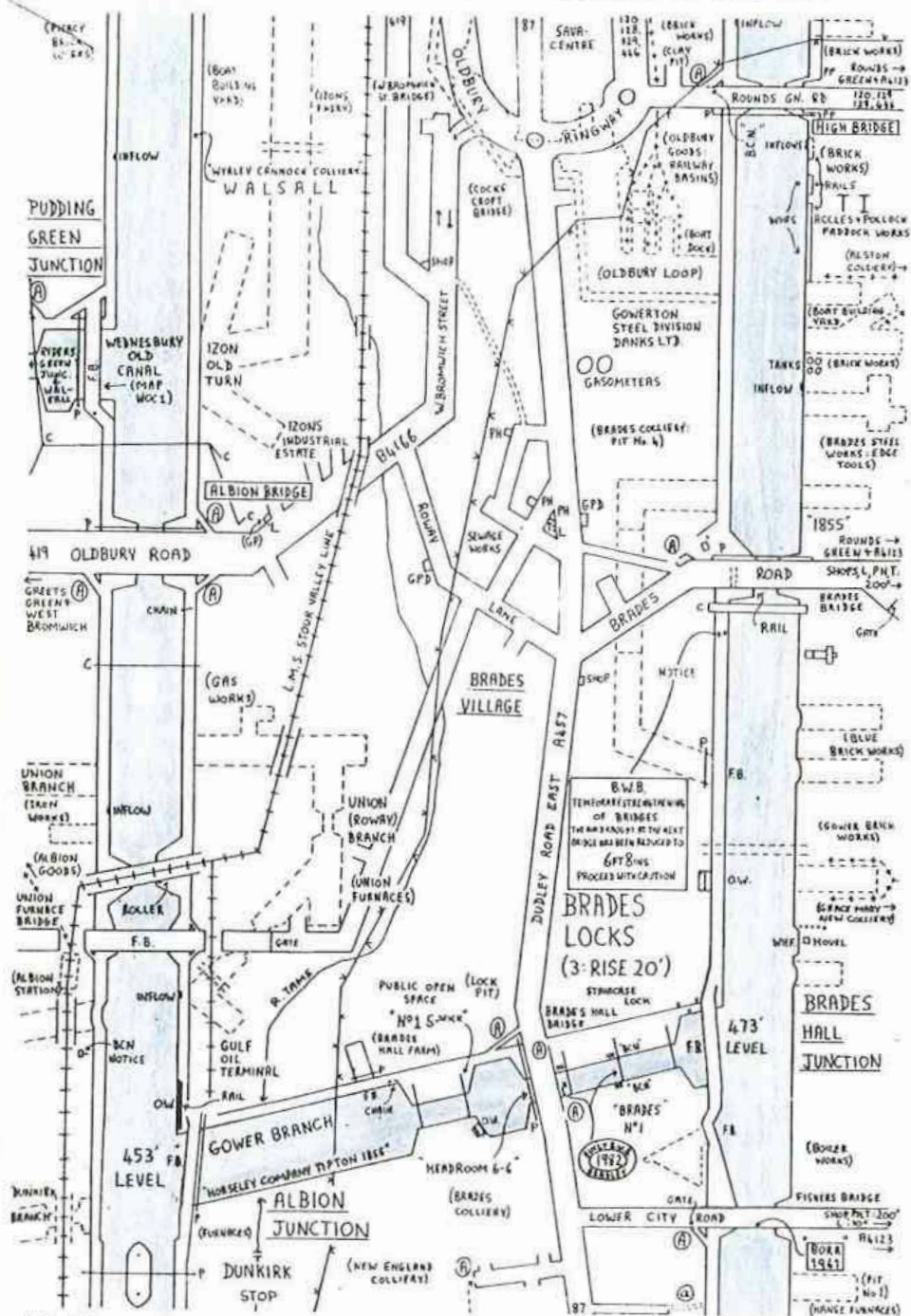


INTERCHANGE BASIN
MONMORE GREEN, WOLVERHAMPTON

in the middle rather than at the side. For a bridge that is unique on the BCN it is in a deplorable condition, with part of the handrail replaced by old gas pipes and the gap in the middle covered with concrete.

After the aqueduct the Old and the New Lines part company and are further apart than indicated on the map. The Old Line winds along the contour towards Oldbury, the New joins the Wednesbury Canal and heads directly for Tipton. Considering first the Old Line. This passes an interchange basin, a toll narrows, and Shenston's overflow weir in quick succession. The weir, an early BCN type, is a long brick-lined depression in the bank with the towpath passing across it. The path will be submerged when the weir is running but the water will be only a few millimetres deep because of the large surface area. The problem is unlikely to arise unless there has been torrential rain.

The motorway again runs over the canal after Anchor Bridge and the Titford Canal (Map T1) is on the left halfway along this stretch. The BCN plays an important role in the disposal of drainage water from the elevated sections of the motorway as well as from other roads, houses and factories. In a heavy rainstorm the canal may receive 10 million gallons per mile per day. The M5 finally leaves the canal at Stone Street Bridge and heads south across the Houghton (or Chemical) Arm. This private arm was the loading point for one of the last regular commercial traffics on the BCN. Until 1974 Alfred Matty's boats carried phosphorus waste from Albright and Wilson's chemical works to the Rattlechain marlhole at Dudley Port. There were



once two arms here with a shared towpath but only one is still in water. Moor at Whimsey Bridge for the excellent shopping facilities in Oldbury. Just beyond this bridge are the offices of T. & S. Element, a firm once well-known as canal carriers but now only involved in road transport.

The Oldbury and Brades Loops of the canal were cut off by improvements in 1821. A dry section of the Oldbury Loop can be followed between Birmingham Street and Bromford Road, where Church Street Bridge still stands, but little else remains. The only trace of the Brades Loop is the side bridge at the far end, where part of the Loop became a basin after the straightening. Brades Locks and the Gower Branch follow on the right. If intending to cruise through Netherton Tunnel descend the locks and join the New Main Line.

After Stewart Aqueduct the New Line joins the Wednesbury Old Canal at the bottom of Spon Lane Locks and passes a toll-island and two turnover bridges. The second, at the side of Bromford Bridge, was built because the towpath on the right past the Bromford Iron and Steel Works was closed. As far as the Izon Old Turn loop the New Line is an improved section of the Wednesbury Canal and there is another early overflow weir on the left. The section of new canal that cut off the Izon loop follows and the Wednesbury Old Canal (map WOC1) leaves on the right at Pudding Green Junction.

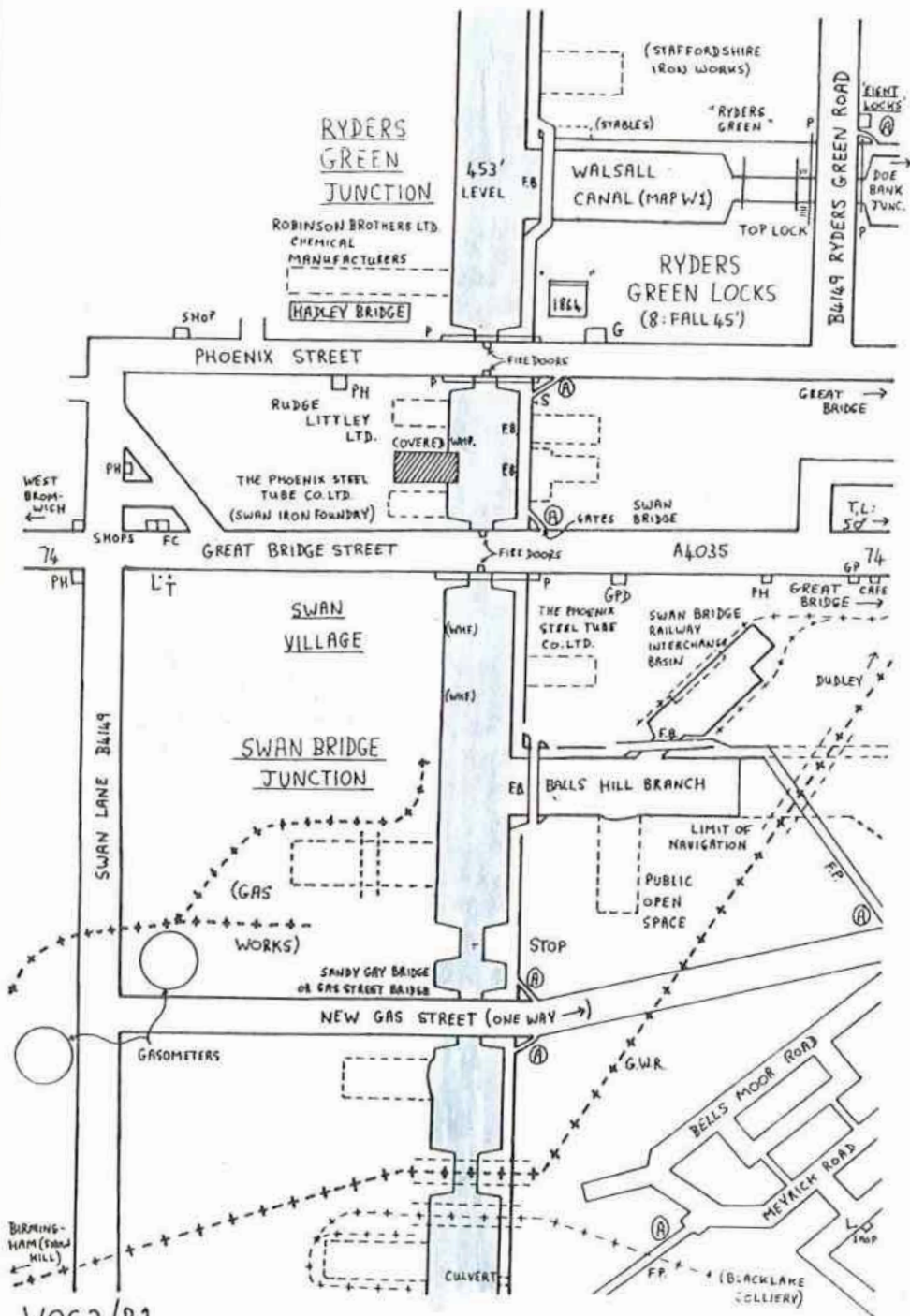
The canal from Wednesbury to Birmingham was the first section of the BCN to be opened, on 6th November 1769. This was not surprising as the main objective of the original proposal for the Birmingham Canal was a connection with the Wednesbury mines. The lower cost of carriage by canal had a dramatic effect. The retail price of coal in Birmingham was halved and in 1770 there was more coal delivered than the town could use. Original structures, if any still exist, along the WOC,

Wednesbury Old Canal
(including the Ridgacre Branch)

After Pudding Green Junction the "improvements" of the New Main Line are left behind and the Old Canal heads towards the once productive coal measures south of Wednesbury. The WOC is still predominantly an industrial canal but the many basins, arms and branches built to serve factories and mines have almost completely disappeared. Only the large transshipment shed (not visible from the canal) and traces of the stables mark the site of the Albion interchange basins, now occupied by a steel stockholder (GKN). The odd name of Greets Green possibly derives from a local deposit of gravel ("grit").

Ryders Green Junction is noteworthy for the remarkable odours which often issue from the nearby chemical factories. Bear left here for the through route to the Tame Valley or Wyrley and Essington Canals via the Walsall Canal, or continue along the WOC towards Hadley Bridge. This is dated 1864 but the brickwork in the middle of the bridge appears to be much older than that on either side. Thus the date refers to the widening of an earlier bridge, which itself may have been a replacement (c.1800) for one on the BCN swivel or draw bridges, or it may even have been contemporaneous with the canal. If this were the case then it would be the oldest brick arch bridge on the BCN. The fire doors here are fitted with rollers to assist the passage of hoses to and from the canal below.

At Swan Bridge Junction the Ridgacre Branch lies straight ahead and the original line of the WOC, which became known as the Balls Hill Branch, is on the left. Swan Bridge interchange basin has



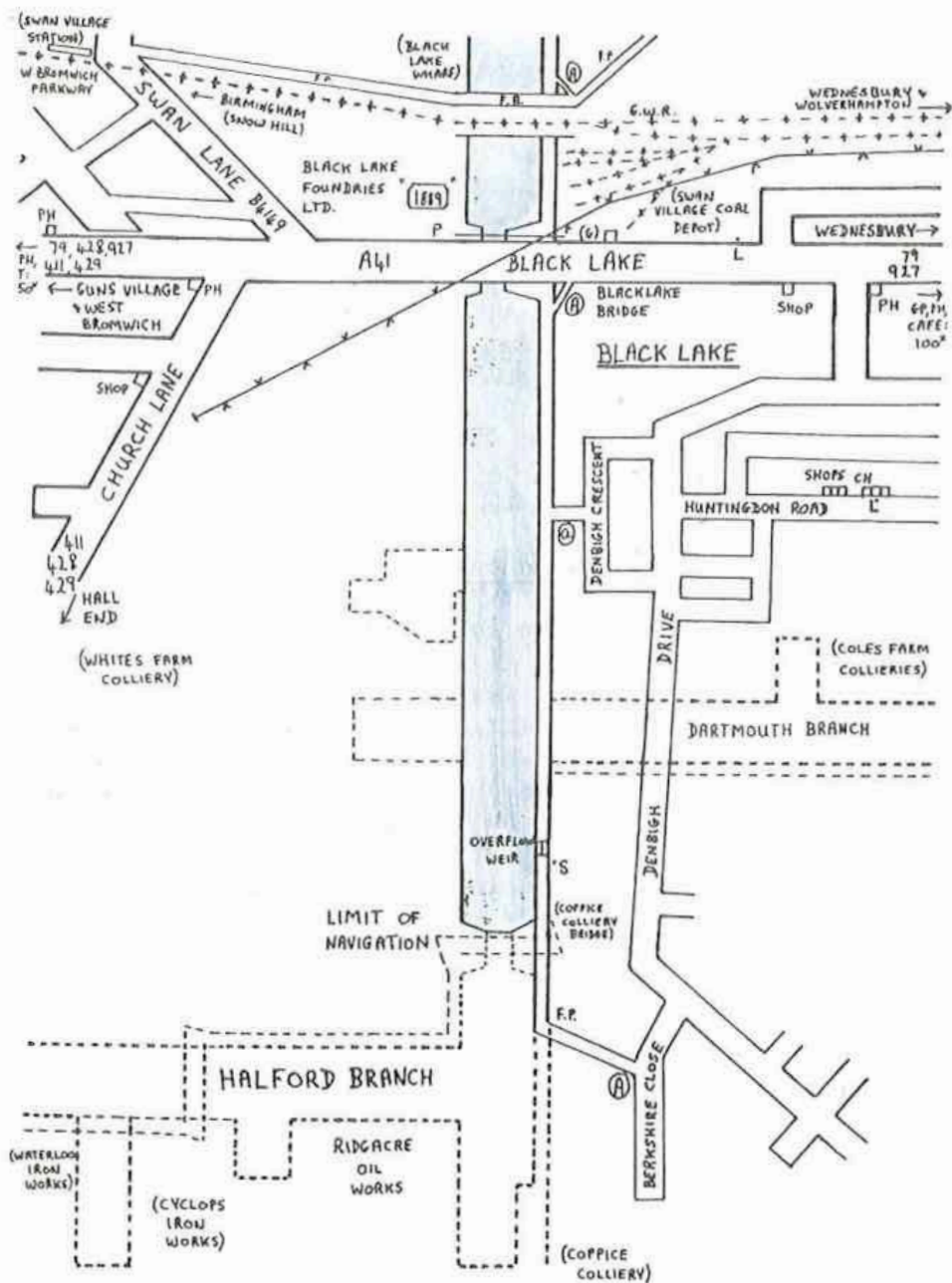
WOC2/R1

been restored to navigation but the remaining $1\frac{1}{2}$ miles of the old line has been levelled since it was abandoned in 1960. In spite of its name the canal did not extend as far as the town of Wednesbury, on the opposite side of the valley of the River Tame. Instead it followed the contour along the side of the valley through Golds Green to near the Wednesbury - Birmingham road. Unfortunately there is nothing here, either in the form of surviving canal structures or a more modern memorial, to indicate that the WOC was the first section of the BCN to be opened, and that the resulting many years of prosperity for the region began with Wednesbury coal.

The Ridgacre Branch

There is no winding hole along this $\frac{3}{4}$ mile branch: Swan Bridge Junction is the last point where it is possible to turn a boat that is longer than the width of the canal. The reclamation and landscaping work at the junction and along the Ridgacre have been carried out by the West Midlands and Sandwell Councils and the BCNS.

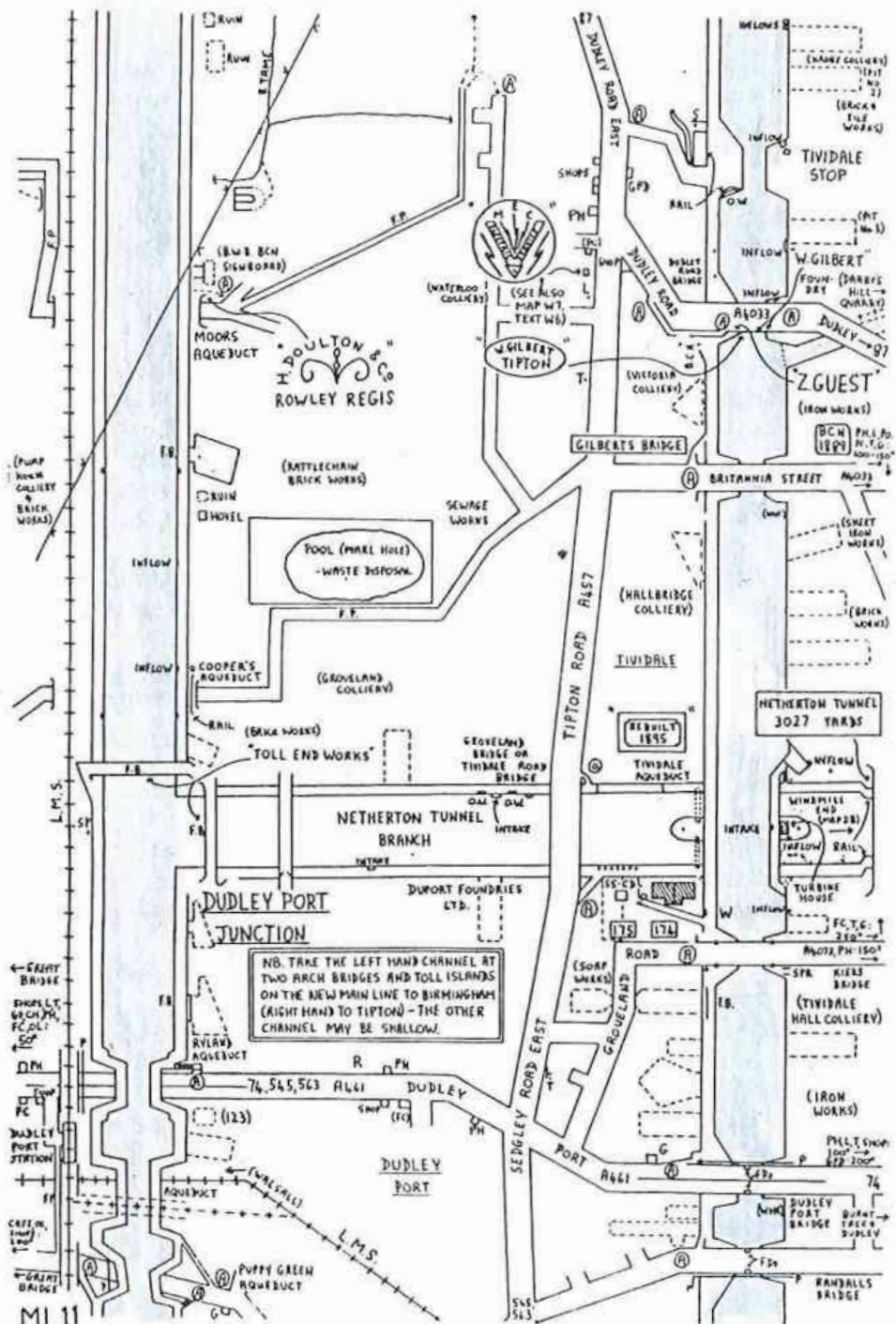
The Swan Village Gasworks, most of which was demolished in 1975, is of historical interest. It was built in 1825 by the Birmingham and Staffordshire Gas Light Co., one of the two companies that supplied Birmingham. One of the first acts of Joseph Chamberlain when he became Mayor of Birmingham in 1873 was to begin negotiations for the purchase of the two gas companies by the Corporation. The profits from the municipal sale of gas were then used to help offset the cost of borrowing for his ambitious programme to improve sewerage, public health and slum clearance. These were problems that Birmingham had neglected for many years and drastic action was needed. The programme was a success and "Brummagem Joe" Chamberlain's reputation was made.



The ex-GWR system in this area suffered severely from the rationalisation and closure of lines. Swan Lane at one time had three level crossings and two signal boxes within a few hundred yards. Now there are none. However the WMCC has converted $2\frac{1}{2}$ miles of the disused Birmingham-Wolverhampton main line, from Swan Lane through West Bromwich into a "Parkway". This is designed to be used as a footpath, as a trail for joggers, who can use the exercise equipment provided at various points, and as a cycle track (the first link in a proposed 40 mile route around Birmingham and the Black Country). There are also notice boards explaining the geology, natural history and industrial archaeology of the route. A leaflet giving further details is available from the WMCC Planning Department, County Hall, Birmingham.

The last stretch of the Ridgacre passes a housing estate on the left before reaching what must be the least inspiring terminus on the BCN. It is not unpleasant but lacks a focus of interest, and facilities are almost non-existent. Children may feel that a visit to the playground makes the whole trip worth-while, as the slide on the side of the hill must be one of the longest in the West Midlands.

The short (about $\frac{1}{2}$ mile) Dartmouth and Halford Branches were opened in 1828, one or two years after the Ridgacre. The Dartmouth and the Jesson Branch (an offshoot of the Halford) have completely disappeared. The course of the Halford Branch can still be traced, although most of the canal has been filled in or is dry. It is a pity that the navigable section of the Ridgacre was not extended a few yards further during the recent dredging and landscaping in this area, and the junction with the Halford excavated to form a winding hole.



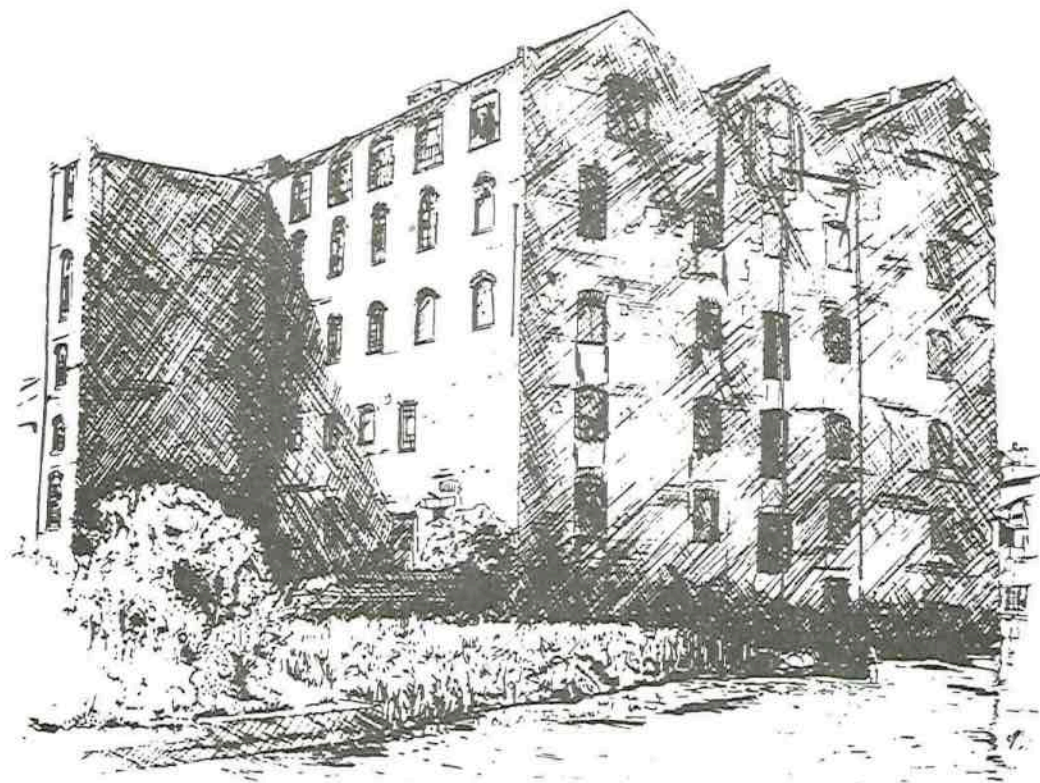
at Brindley's Spon Lane Locks, or on the loops of the Old Main Line towards Birmingham, would be the oldest on the system.

The New Main Line continues under Albion Bridge past the Union Branch, which once connected with the WOC on the right, to Albion Junction and the Gower Branch. Follow the left-hand towpath after Union Furnace Bridge if intending to walk to Brades Locks. The Gower Branch, opened in 1835, was built after it had been decided not to continue the New Main Line across the area known as the Island towards Tipton. However before the Branch was finished the decision had been reversed and the Island Line was completed in 1838. Follow the Gower Branch and ascend Brades Locks if heading for Dudley Tunnel, and the Black Country Museum. The top two locks at Brades form the only staircase pair or "riser" on the BCN. This is a double lock where the middle gate and ground paddles serve both as the top gate and paddles for the bottom lock and as the bottom gate and paddles for the top lock.

The Old and New Lines are now running parallel a few hundred yards apart. The side bridge on the Old Main Line after Brades Hall Junction is the worst on the BCN, as the deck of the bridge has completely disappeared and only the iron beams remain. Fortunately it is possible to avoid the bridge by walking across the waste land behind. At Tividale toll narrows the overflow weir has a rail sloping gently down to ground level to ease the passage of towing-lines. After Dudley Road and Gilberts bridges the Old Line reaches Tividale Aqueduct over the Netherton branch. There is a water point hidden in an unmarked box (BWB key) at the far end of the Aqueduct and a sanitary station on the Branch below.

The New Main Line crosses a long embankment, which includes two aqueducts, to Dudley Port Junction. The embankment suffered a serious breach on 9th September 1899 and six miles of the Birmingham Level were drained. The force of the water cut a chasm 80 yards wide as it poured into the adjacent marlhole, which had probably

ML12



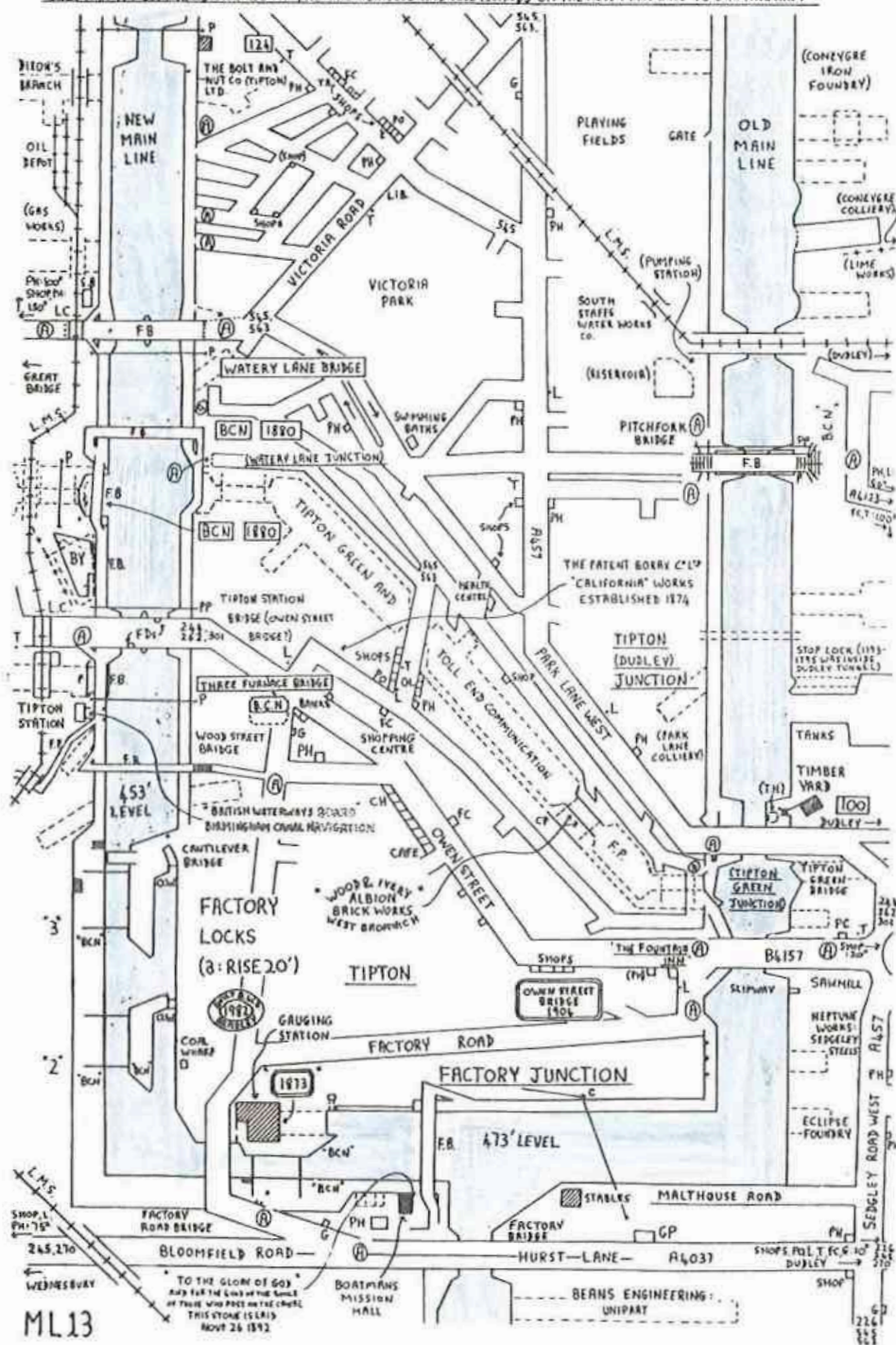
UNION MILL, WOLVERHAMPTON

been worked too close to the canal and weakened the embankment. Rattlechain brickworks was almost swept away and its enforced closure threw many local people out of work. The embankment was rebuilt and it was probably at this time that the arches carrying the two aqueducts were extended. Turn left at Dudley Port Junction for the Netherton Tunnel Branch. If walking towards Birmingham note that the turnover bridge at the junction is the last before the Gower Branch.

Netherton Tunnel was built to relieve the congestion on the Dudley Tunnel route and was completed in 1858. The engineer was James Walker, who had already built the Tame Valley, Rushall and Bentley Canals. The tunnel has twin towpaths with passing places for horses, seven air shafts, and is seventeen feet wide at the water level. It was lit by gas and later by electricity generated by a turbine at the aqueduct. The turbine house and the pipe carrying water from the Wolverhampton level to drive the turbine can still be seen. The tunnel has recently (1984) re-opened after a long closure for repairs.

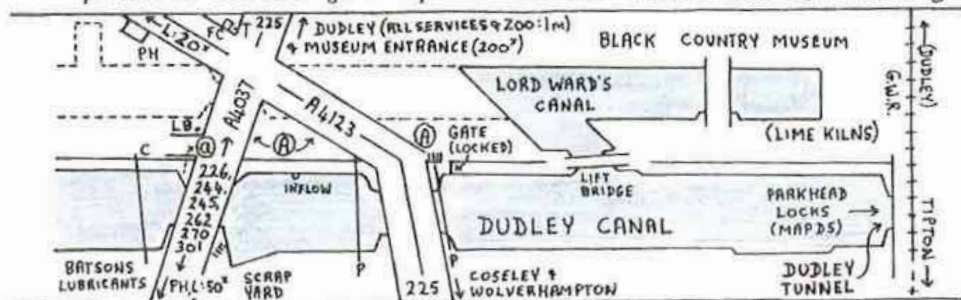
The Old Main Line passes through an industrial area that has seen better days to Dudley Port Bridge. There were wharves and warehouses here handling goods to and from Dudley and the "Old Port Hotel" stood until the late 1970s on the site now occupied by a car saleroom and garage. The industry that has accompanied the old canal since Smethwick gives way to housing estates after the railway bridge. Thomas Monk, a canal carrier, had a base near Tipton junction in the early 1800s. He ran a passenger service on market days from Tipton to Birmingham which was so successful that by 1830 it had been extended to run daily to Wolverhampton. The boat was a "packet" named "Euphrates" and had first and second class accommodation. The service continued until the Stour Valley Railway opened in 1852. There is no turnover bridge to the Dudley Canal and the most direct route if on foot is to leave the Old Line at the next bridge, turn right over the canal and then keep turning left until you arrive at the Dudley Road Bridge.

N.B. TAKE THE LEFT HAND CHANNEL AT TWO ARCH BRIDGES AND TOLL ISLANDS ON THE NEW MAIN LINE TO BIRMINGHAM



ML13

The Dudley Canal Trust runs trips into the tunnel and their electrically powered boats are moored when not in use just past the stop lock. The embarkation point is on the tunnel side of a locked gate on the towpath, and unless special arrangements have been made (tel: 021-520-5321) the only access for pedestrians is through the Black Country Museum. The Museum is based on an industrial village as it might have been in the last century. The houses and shops have original fittings, there is a pub, a boat dock and some interesting narrow boats including a "railway" boat and an ice-breaker. As Dudley Tunnel has no towpath boats had to be "legged" through by the boatman lying on his back and walking along the tunnel wall. The Tunnel is at present closed for repair but the Trust are continuing



to run short trips to Castle Mill Basin and Cathedral Arch. There is also an exciting scheme to construct a branch from the main tunnel to one of the caverns in the underground limestone workings. If the tunnel reopens see Map D5 for entry regulations.

The Old Main Line winds through Tipton past the Coronation Gardens on the left and the Owen Street redevelopment on the right. This is an attractive and imaginative housing scheme that blends in well with the canal. All services are available along Owen Street and a visit to "The Fountain Inn", headquarters of "The Tipton Slasher" might be of interest. A short industrial stretch leads to Factory Junction, where the Old and New Main Lines re-join. The recently renovated Malthouse stables are just before the Junction.

The New Main Line continues along the embankment from Dudley Port Junction and crosses three more aqueducts. The first is a modern concrete trough which replaced Telford's aqueduct in 1968. The second crosses the railway and was itself once crossed by the link between the Stour Valley and the Walsall-Dudley lines. The third, Puppy Green Aqueduct, is an older structure with only 8'3" headroom above the road. Dixon's Branch follows the narrows protecting the embankment. This $\frac{3}{4}$ mile branch was opened in the 1820s and ran to the Horseley Ironworks, where the characteristic BCN turnover bridges were cast. The firm also built the first iron steam-ship, the "Aaron Manby", in 1822 and the Dome of Discovery for the Festival of Britain in 1951, as well as countless bridges, piers and steel buildings erected in many parts of the world.

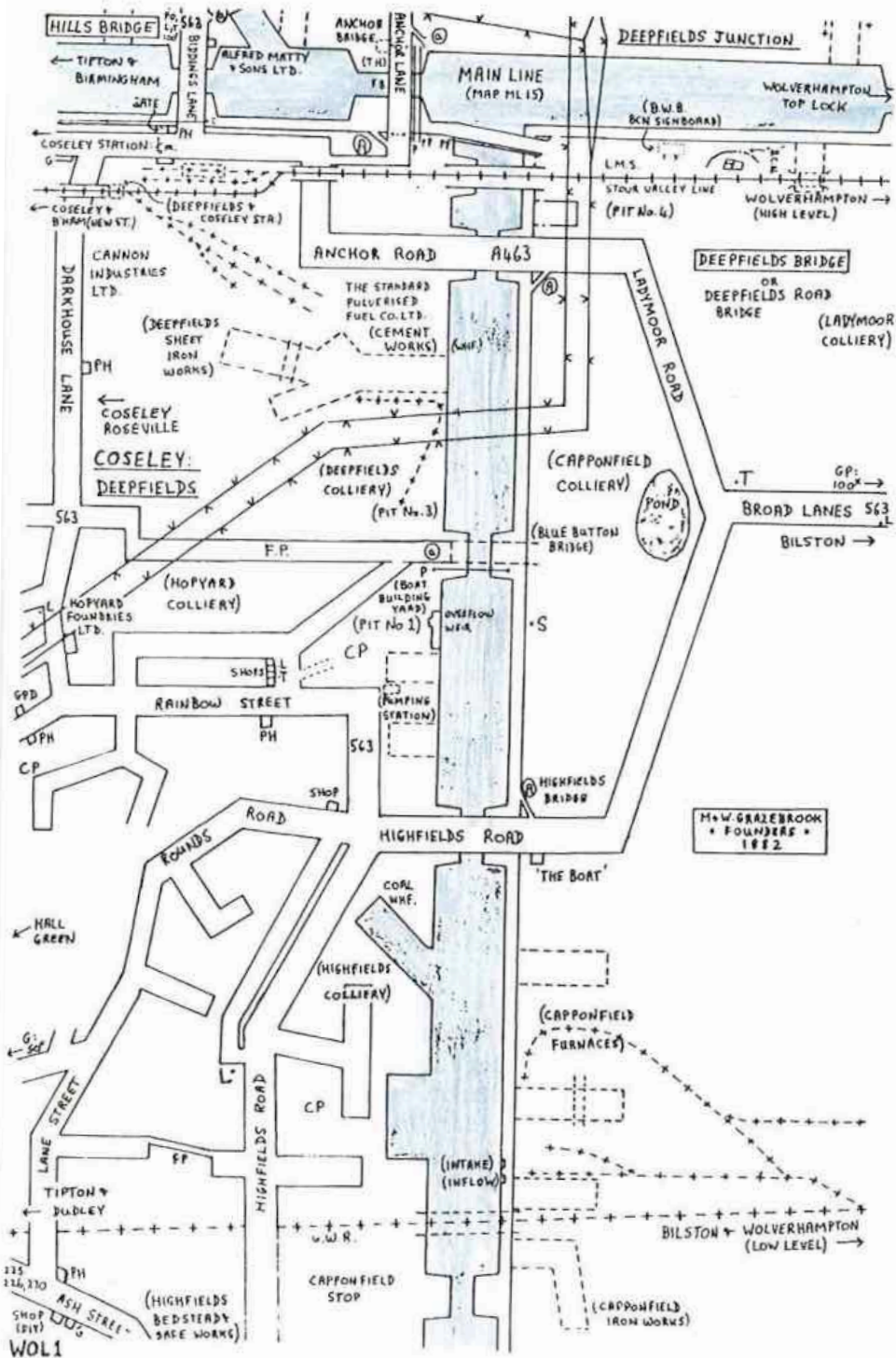
When the Island Line was constructed it connected with a branch of the Tipton Green and Toll End Communication (see also W3) at Puppy Green. This joined the older canal between Locks 3 and 4 and then another branch ran as far as Three Furnace Bridge. These branches were upgraded to become part of the New Line and Factory Locks were constructed to raise the canal to the Wolverhampton Level. The TG & TEC has been filled in but the Tipton Green section has been landscaped and is used as a footpath. This runs through the chamber of Lock 2, which is still intact. The boat yard just past Watery Lane Junction occupies a former railway interchange basin. Three Furnace Branch was unusual in that the platforms of Tipton station were built over it.

Factory Locks show several interesting features. There is a fine cantilever bridge at the tail of the bottom lock, and the BCN gauging station, or weighing dock, is next to the top lock. The gauging of boats was undertaken so that the amount of cargo carried, and hence the toll, could be quickly determined. New boats had their freeboard measured at four points when empty and when loaded with weights. The toll collectors would be informed of the "dry inches"

corresponding to a particular tonnage and could easily check a boat using a gauging rod. Just beyond the lock is a Boatman's Mission Hall, now used as industrial premises - for information concerning these Halls see WB1. The top lock has no bypass overflow weir. This is a characteristic of all BCN top locks and was to meet the legal obligation that any surplus water only overflowed into mill streams, rather than ran to waste down the locks.

The site of the GWR Tipton railway basins, now an industrial estate, is on the left after Factory Bridge (named after a nearby soap factory). The unique lift bridge in the Black Country Museum once spanned the canal between the two basins here and a chain testing (or proving) house stood on the far bank until vandalised beyond repair in the mid-1970s. This proving house was similar to the one still standing at Primrose Hill (see D8), except that the chains could be winched out of the boats into the building, tested under strain, and then loaded into railway wagons. Thus testing and transhipment could be carried out on the same site.

Another long loop of the Old Main Line was cut off by the construction of Coseley Tunnel, opened in 1837. The old canal, the Wednesbury Oak Loop, was on the right at Bloomfield Junction. The southern section was abandoned in the 1950s although the northern part is still navigable as far as the BWS workshops and pumping station at Bradley (WOL1-3). The New Line enters a cutting after Bloomfield toll narrows and unless the fence by Wallbrook Bridge has been repaired there is access to the shops in Coseley ($\frac{1}{2}$ mile walk along Central Drive). Coseley Tunnel was built with a full width of water and twin towpaths, although the rest of the improved line

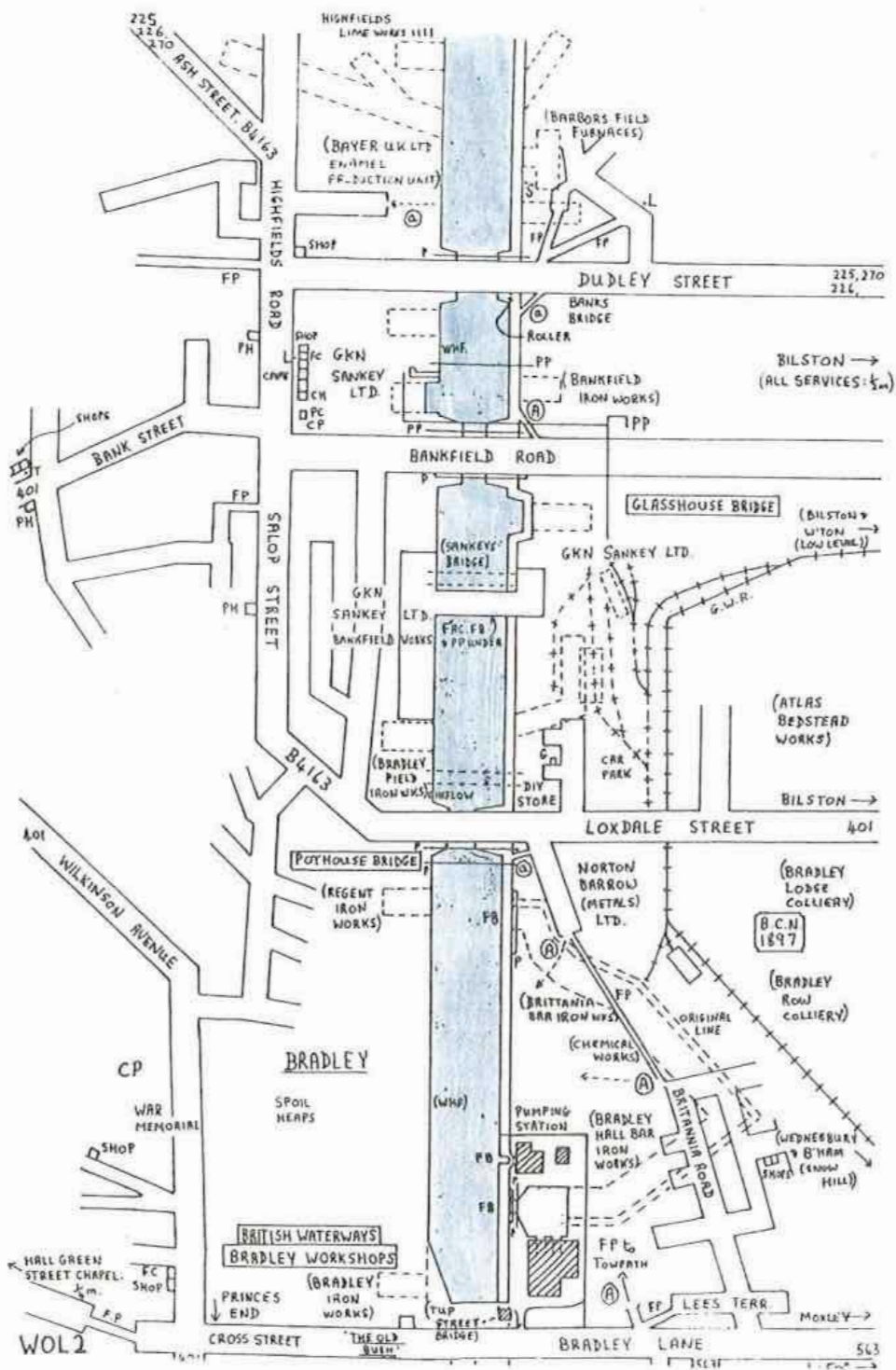


The Wednesbury Oak Loop

This canal (also known as the Bradley Branch or Arm - a reflection of its present truncated state) was a particularly tortuous length of the Old Main Line, following the contour round Coseley (Hurst) Hill. Proposals to cut off the Loop by a canal from Deepfields to Bloomfield were made as early as 1793, and when this improvement was finally completed in 1837, it reduced the distance from $4\frac{1}{2}$ miles by way of Bradley to $1\frac{1}{2}$ miles through Coseley Tunnel. The Loop regained some of its importance as a through route, but to the Walsall and Tame Valley Canals, when the Bradley Locks Branch was opened in 1849. This connection, which would have been a useful alternative north - south route today, was closed in 1961. The southern part of the Loop, including the Ocker Hill Branch, was abandoned a few years earlier. It was only the transfer of the BWB workshops from Ocker Hill to Bradley in the early 1950s that saved the remaining $1\frac{1}{2}$ miles.

In the early nineteenth century Bradley was the centre of the region's iron industry, based on the works established by John "Iron Mad" Wilkinson between 1766 and 1772. Then the canal traversed a typical Black Country landscape with coke-ovens, ironworks, engine houses and brickworks set amongst coalpits and spoil heaps. Today the route winds through a mixture of residential and industrial areas, most of the despoliation having disappeared in reclamation schemes, as is evident soon after leaving the Main Line and passing under Deepfields Bridge. On the left one such scheme is in progress on the site of Capponfield Colliery while on the right basins and wharves, or their remains, are the only obvious indications that there were once several collieries where there is now housing and open space.

Capponfield Pond was an important source of water for the BCN with two pumping engines working in 1813.

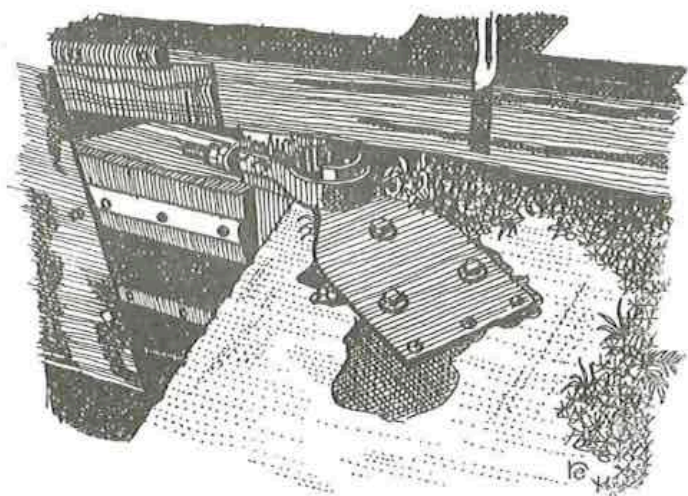
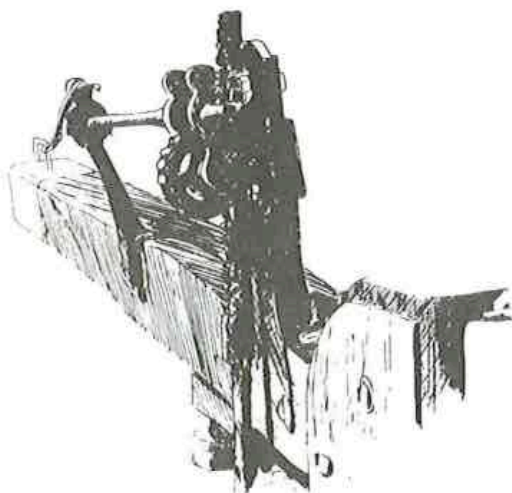
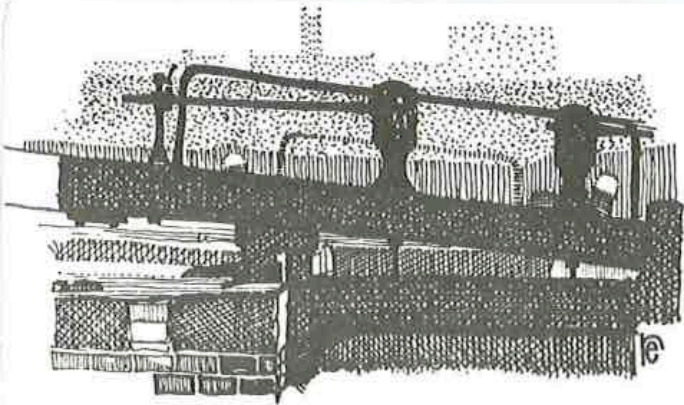


The supply was not reliable however, as mining activities drained the pond, and in the great drought of 1826 only 4000 lockfuls were provided from this source, compared with 65000 lockfuls from mines engines. One engine was moved to Ocker Hill and the other sold in 1833, although water was still obtained from colliery engines in the area, part of the cost of the engines being paid by the Company.

Several of the bridges on the Loop had intriguing names, inviting speculation as to their origins. Blue Button Bridge was one; Rotton Brunt Bridge on the closed section another. After Capponfield Stop there is a wall topped with barbed wire and broken glass for several hundred yards on the left - an extreme example of the policy of restricting access to the canal from nearby housing estates. The Bayer enamel works, recently demolished, was a reminder of one of the industries (japanning was another) for which Bilston was renowned. The famous collection of Bilston Enamels is now in Bantock House Museum in Wolverhampton. A particularly well-preserved roller, designed to prevent abrasion of the brickwork by towing-lines, can be found under Banks Bridge.

The canal now passes through part of the GKN Sankey complex. This firm is perhaps best known for the manufacture of automatic vending machines, but Bankfield Works produces electrical laminates. Further large works are along Dudley Street and Bankfield Road towards the centre of Bilston. Little remains of the interchange basin on the left, or, after Pothouse Bridge, of the Loop cut off when the line was straightened, although the far end forms part of the basin at the BWB Workshops.

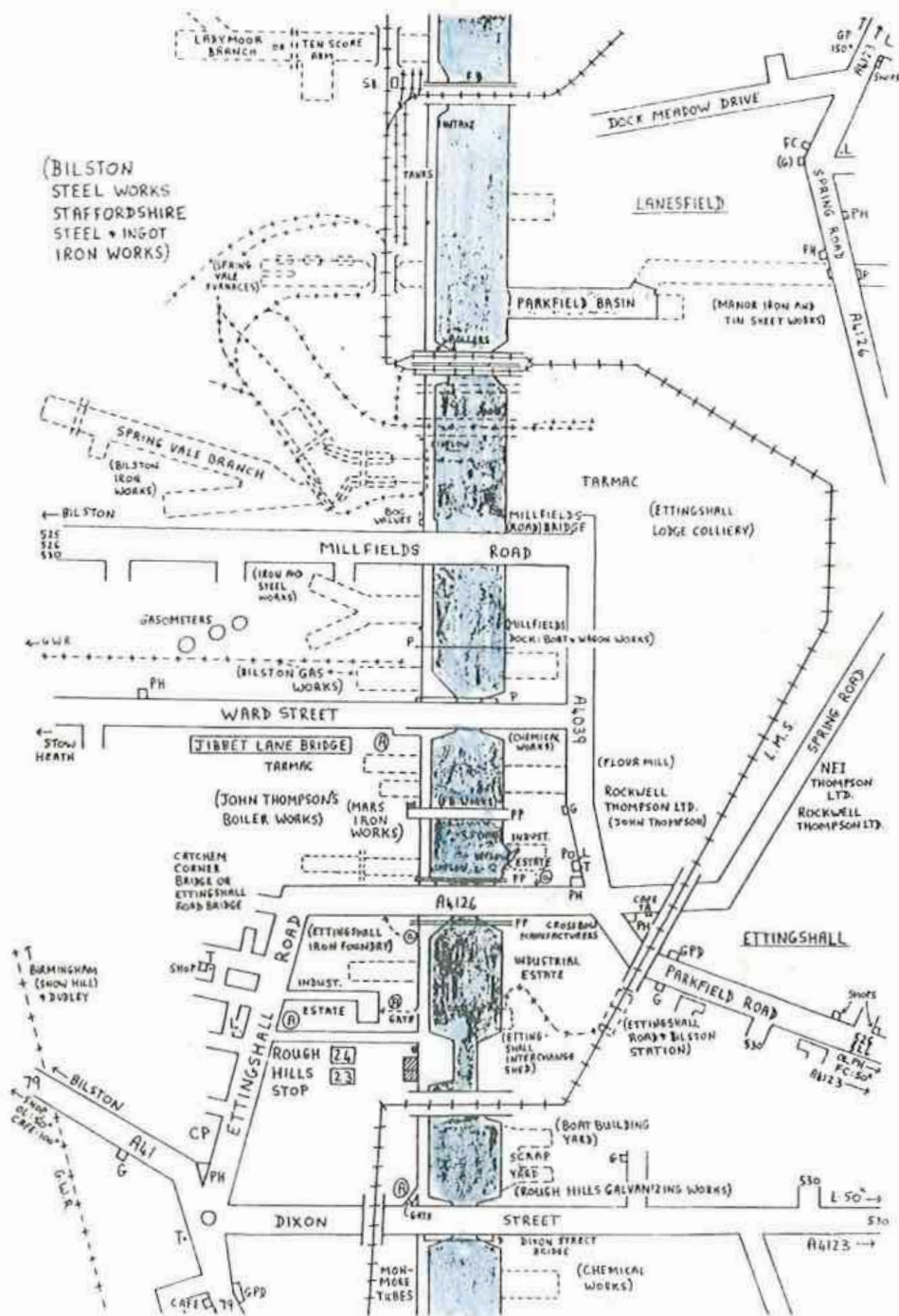
Wilkinson's Hall Fields ironworks, together with associated mines and engineering works, covered 88 acres and in 1796 was responsible for one-eighth of the country's iron production. The only sign now of this industrial activity are two grassy hillocks in the



B.C.N. LOCKS

school playing fields opposite the BWB Depot, and the War Memorial perched on top of a spoil heap. Wilkinson was the first to realise that a Boulton and Watt steam engine could be used to provide the blast for a coke-fired furnace, and thus he freed the industry from its dependence on water power. He could therefore build his works in the South Staffordshire coalfield, where coking coal and iron deposits were plentiful and limestone near at hand. So strong was his belief in the suitability of iron for almost any purpose that he paid his workers with iron tokens, launched the first iron boat in 1787, and was buried in an iron coffin in his own garden when he died in 1808. A cast-iron pulpit he made is in Hall Green Street Chapel. "Iron Mad" he may have been but he died a millionaire and owned eight of the largest ironworks in the country. He was also involved with the Shropshire, Flint Coal, and Shrewsbury Canals - the latter at the time of construction of the iron aqueduct at Longdon-on-Tern.

Of the many pumping stations that were once active on the BCN only Bradley is still regularly in use. The original steam engine has been superseded by three submersible electric pumps which are operated singly or together, when the supply from Chasewater and Rotton Park reservoirs is insufficient. Each pump delivers 1000 gallons a minute (approximately two lockfuls per hour). The water is often bright orange owing to the presence of iron oxide, and has a distinctive smell. The last few yards of the Loop are used as moorings for an interesting selection of BWB craft, and the paraphernalia involved in canal maintenance can be seen scattered around the yard. There is now no sign of Tup Street Bridge and little remains of the rest of the Loop through Batmans Hill and Wednesbury Oak.



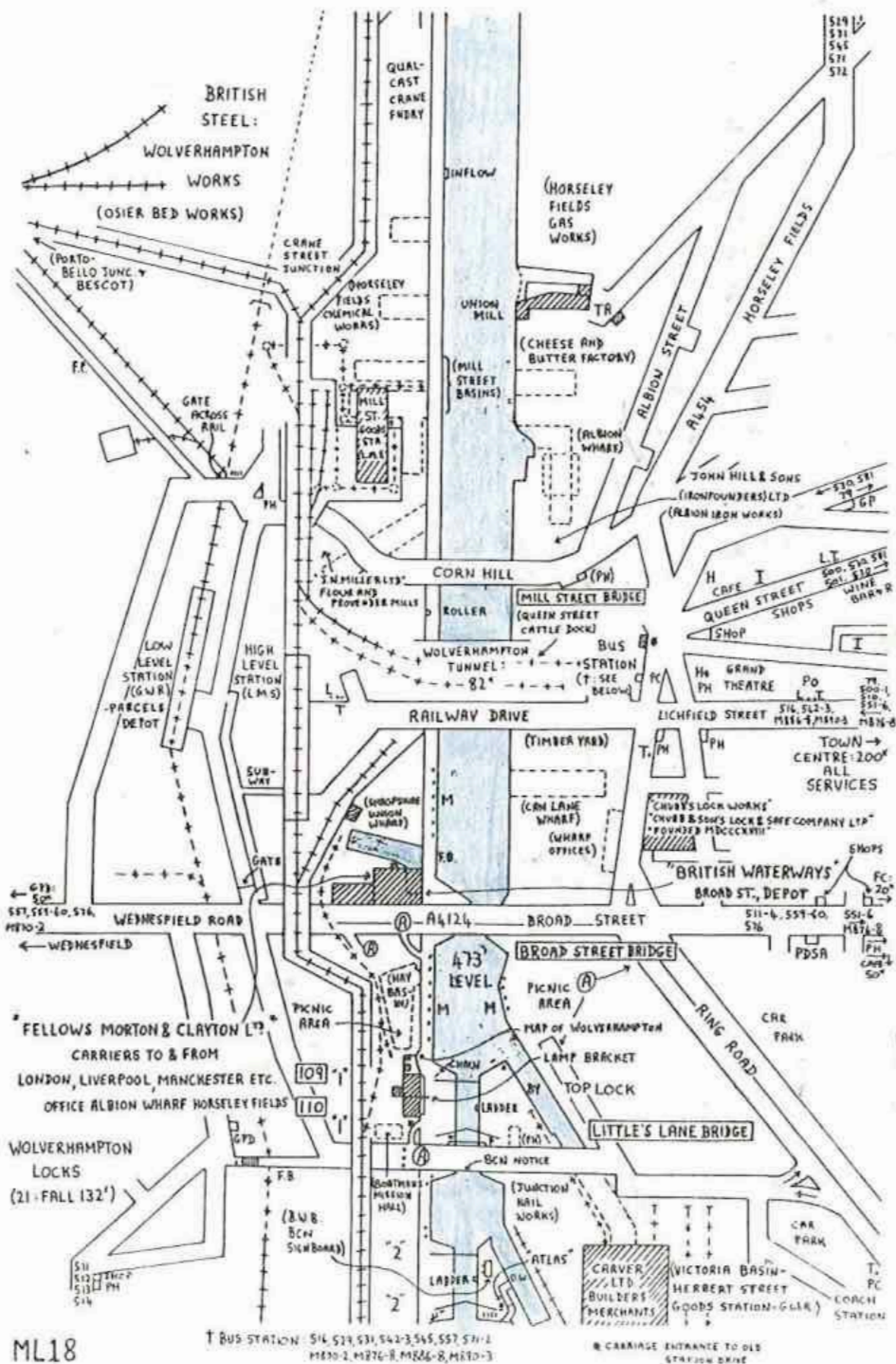
from Factory Junction to Wolverhampton only has one. The tunnel towpath is wet in places and a torch would be useful for pedestrians.

The old Cannon Foundry, established in 1826, stood on the towpath bank after Deepfields Foot Bridge until demolished in 1982-3. Gas cookers are still manufactured in a modern plant on the other side of the road. The yard of Alfred Matty & Sons (no longer owned by the Matty family) is a few yards further on the left. This firm is one of the few canal carriers that has managed to adapt and survive through the decline of commercial traffic on the BCN, first by carrying industrial waste and rubbish and latterly by contract dredging. Although the company also has other interests (eg. cranes) it continues to operate tugs and mud boats on the BCN. The navigable section of the Wednesbury Oak Loop is on the right at Deepfields Junction and is worth a visit, particularly if the Bradley pumps are operating.

Although the canal from Deepfields to Aldersley was upgraded in the 1830s it was not straightened and the Main Line winds along the contour past a huge area of derelict land. This is all that remains of Bilston Steel Works, where the last blast furnace in the Black Country operated until 1980. There is now a proposal for opencast mining on the site. If this is approved it will result in a landscape reminiscent of the Black Country in days gone by. The canal is very industrial for the next 2½ miles into Wolverhampton, although some of the factories have closed in recent years. The former works of John Thompson & Company, where the boilers for the Fellows, Morton and Clayton steam narrowboats were made, follow Jibbet Lane Bridge.

Wolverhampton was exceptional for the number of railway-canal interchange "stations" that were constructed. The site of one, Ettingshall goods shed, was just before Rough Hills Stop. This was unusual as there was no basin and boats moored on the Main Line while cargoes were transhipped. Another, Chillington Wharf, is some $\frac{3}{4}$ mile along the canal by Bilston Road Bridge. This is now the best example of an interchange basin on the BCN. The basin, shed and railway tracks are all in good condition and form part of the Wolverhampton Steel Terminal. Transshipment still occurs here, using the crane on the left of the basin, but now steel is transferred from rail to road rather than to canal. Chillington Wharf is of historical interest and must be a prime candidate for preservation. Additional noteworthy features are the wall along Chillington Street, built of Staffordshire blue bricks with red brick panels on the outer side, and the bollards at the gate to the yard to prevent damage by wagons. Shrubbery Interchange Basins opposite the partly demolished power station have disappeared under the British Oxygen works.

The pill-box on the corner of Commercial Wharf is presumably a wartime relic. Even if the likelihood of enemy infantry or saboteurs advancing along the towpath was remote the threat to the BCN from bombing was very real. As most raids were at night stop planks were placed in the grooves in bridge holes and narrows every evening and removed the following morning. Thus if the canal was breached only a short section was drained. The side bridge on the right before Horseley Fields had some fine horse treads, brick ridges designed to prevent the horse slipping, until a gas main was laid along the towpath in the 1970s. Instead of the brickwork being replaced when the trench was filled a crude concrete repair was carried out. Such vandalism can be seen in many places on the BCN and reflects badly both on BWB and West Midlands Gas.



Horseley Fields Bridge has been attractively painted underneath and the junction with the Wyrley and Essington Canal follows on the right. This provides an alternative route to Birmingham via Walsall or a much more rural journey to Salford Junction than along the Main Line. There are a number of nineteenth century buildings bordering the canal as it approaches Wolverhampton Tunnel, including Union Mill, an imposing five storey building with cast iron columns instead of internal walls. Mill Street Interchange Basins, where cargoes were lowered into boats through the floor of the goods shed above, have been filled in, as has Fellows, Morton and Calyton's Albion Wharf, although some of the buildings survive. A roller protects the brickwork on the bend after Corn Hill from abrasion by towing lines.

Wolverhampton Tunnel, full width and with a dry towpath, was built about 1850 when the canal was diverted to allow the construction of the High Level Station. The arm at the BWB depot was the original line of the canal. There is ample mooring space by the retaining wall built of furnace slag (cinder) or after Broad Street Bridge, where the site of Hay Basin has been landscaped. Both this basin and the previous one shared a siding from the main railway line and were used as small interchange basins. Visitors to Wolverhampton by canal are provided with a map of the town, something rail travellers have to do without! The main shopping centre is along Lichfield Street.



SPRINGFIELD
BREWERY
(MVB)

WOLVERHAMPTON
LOCKS
CONSERVATION
AREA

CARVER
LTD
BUILDERS
MERCHANTS

← FALLING'S PARK
G.P.H.L.
SHOP: 100*

568
598
T: 100*

'THE WAGON
AND HORSES'

THE ROSENTHAL
SHROPSHIRE

CANNOCK

"N° 5"
1862

CANNOCK ROAD BRIDGE

COMMEMORATIVE
PLAQUE: W.B.C.
PUBLIC WORKS
COMMITTEE 1924

(CROWN
GALVANISED
IRON WORKS)

(CERES
WORKS:
CHEMICALS
AND
MANURE)

WOLVERHAMPTON
IRONPOUNDERS
(1941) LTD.

WOLVERHAMPTON
NORTH JUNCTION

↑
WTON
TOWN
CENTRE:
1/2 m.

CANNOCK ROAD
JUNCTION

UTOPIA

JORDANS BRIDGE

REFUSE
INCINERATOR

WMCC
BOTTLE,
CAN &
WASTE
PAPER
BANK

CROWN STREET

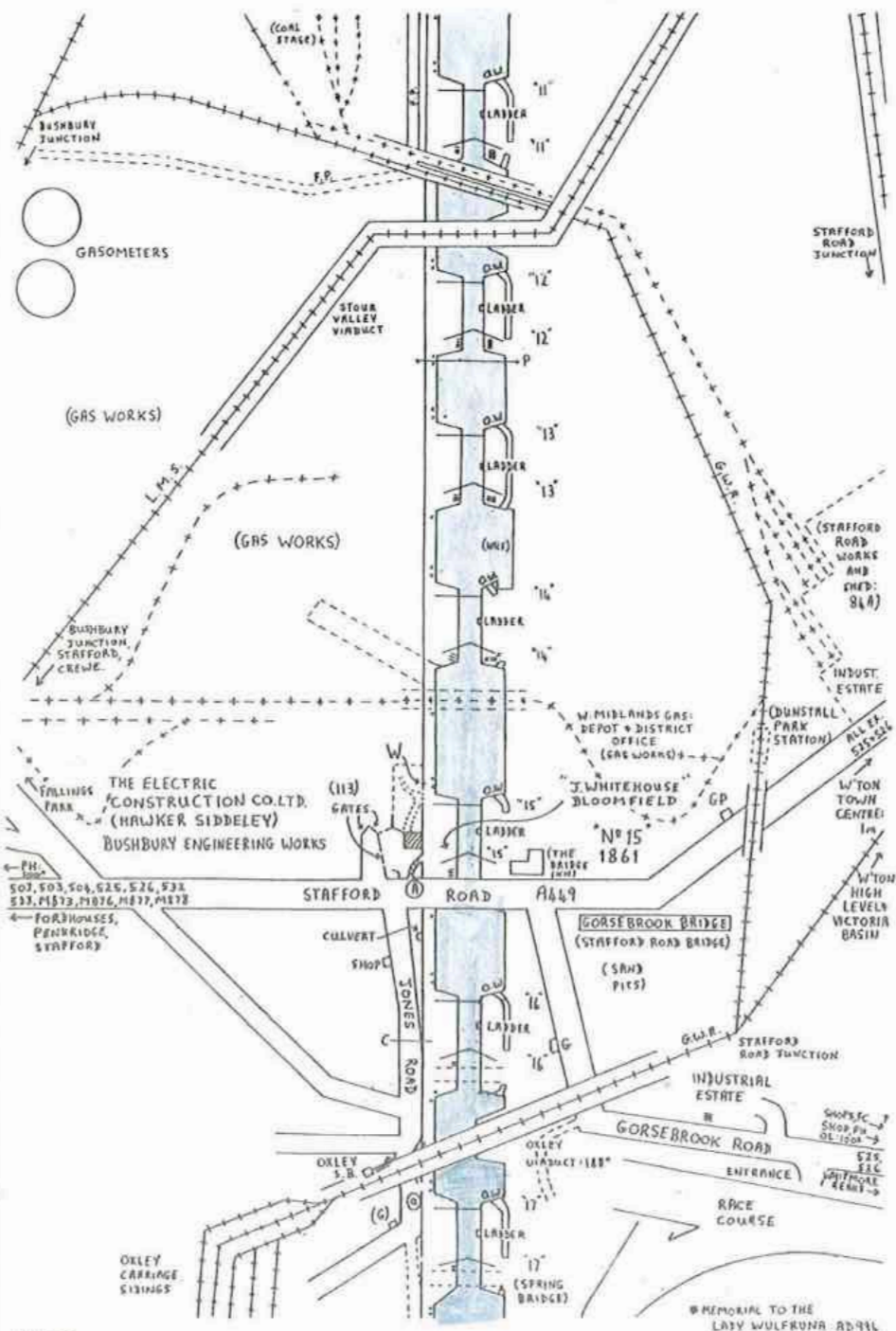
FOX'S LANE BRIDGE

FOX'S LANE

G.P.
PH: 50*

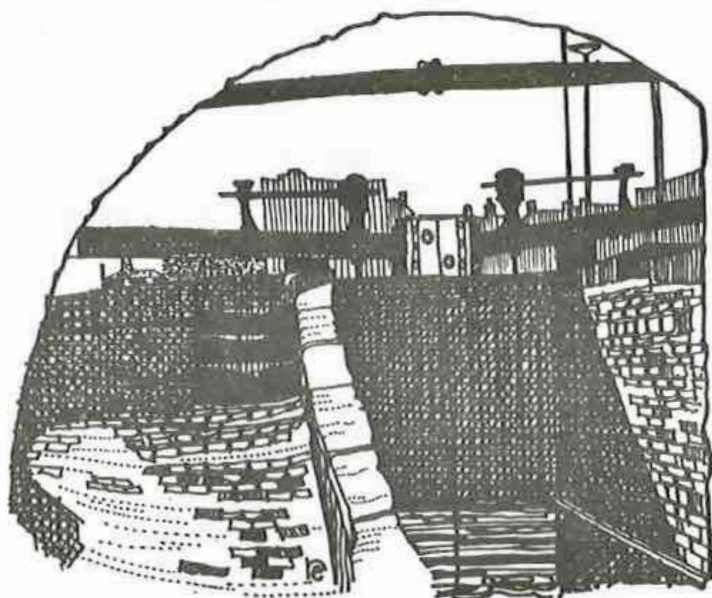
Before leaving the top lock of the Wolverhampton flight note the ornate lamp bracket on the lock cottage, and the cast-iron kerb and BCN weight restriction notice on Little's Lane Bridge. This is one of several original bridges on the flight although it is not such a fine example as Dunstall Park Bridge by Lock 19. The remains of a gate across the towpath can be seen at the exit from the bridge hole. The large black building on the left is the transshipment shed for the Herbert Street interchange basin. The present shed dates from 1935 but the basin was constructed by the Shrewsbury and Birmingham Railway in the early 1850s. The S & BR had reached Wolverhampton in 1849 and although it had running powers along the LNWR Stour Valley line to Birmingham this was not completed until 1852 and the S & BR did not gain access until 1854. An interchange basin was therefore built so that freight could be forwarded to Birmingham. In 1854 the S & BR amalgamated with the GWR. The LNWR also had an interchange point here as one of their sidings ran alongside the basin by Lock 2. Thus if one includes the Midland Railway Canal Depot on the Wryley and Essington there were six large and three small transshipment points in Wolverhampton. Six were operated by the LNWR, although almost certainly not all were in use at the same time, two by the GWR and one by the MR.

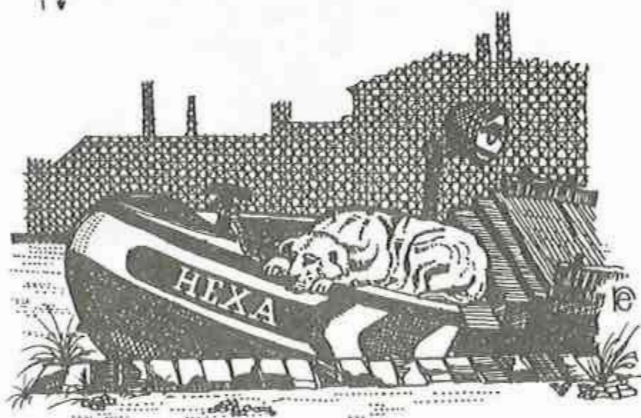
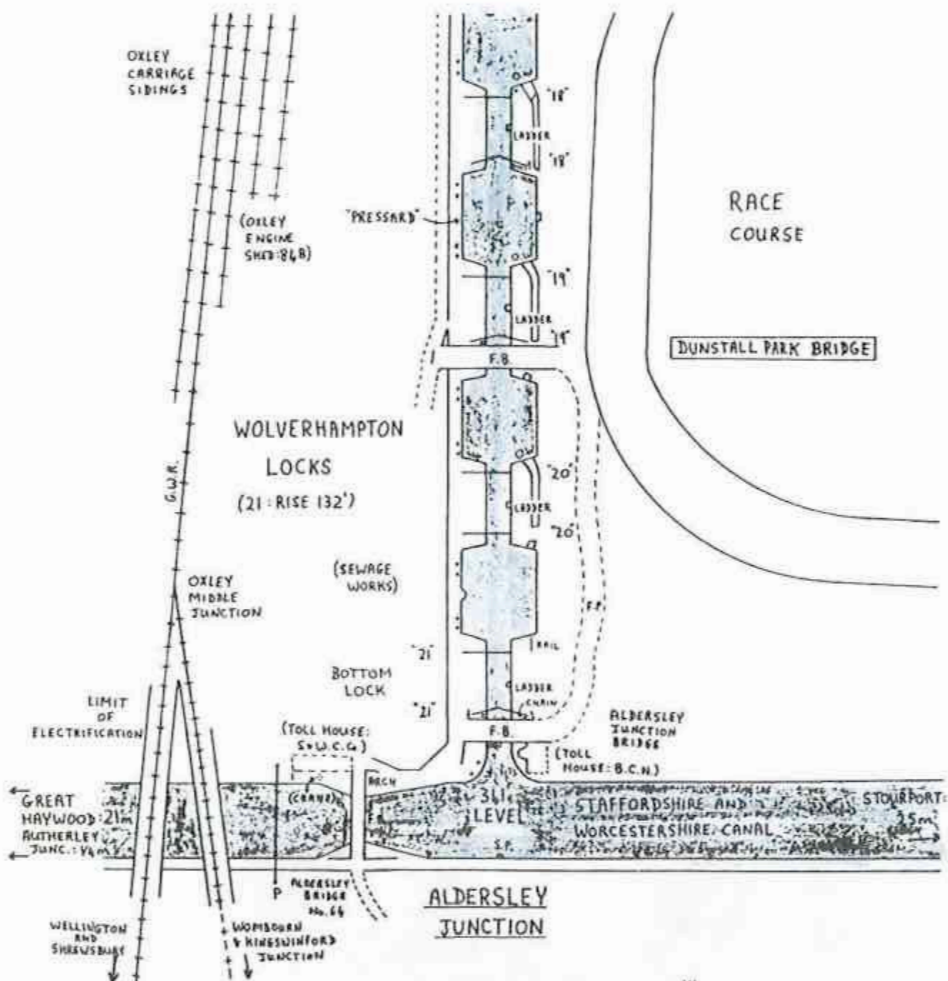
There were wharves or basins in almost every pound of this flight until it reached Lock 15 and the Stafford Road. Below Lock 9 the Wharf by the Council incinerator has gained a new lease of life and ballards are provided for boaters wishing to moor and dispose of rubbish. The steps on the offside at the tail of Lock 10 have an interesting modern addition in the form of a concrete channel. This is to divert water down the steps if the culvert carrying the overflow from the pound above



becomes blocked. If on foot pass under Fox's Lane Bridge and not along the path to the right, which is soon separated from the towpath by railings. The former GWR line to Wolverhampton Low Level, now only used by coal trains to Build was power station, crosses the canal between Lock 11 and 12 and is followed immediately by the 22 arch Stour Valley Viaduct.

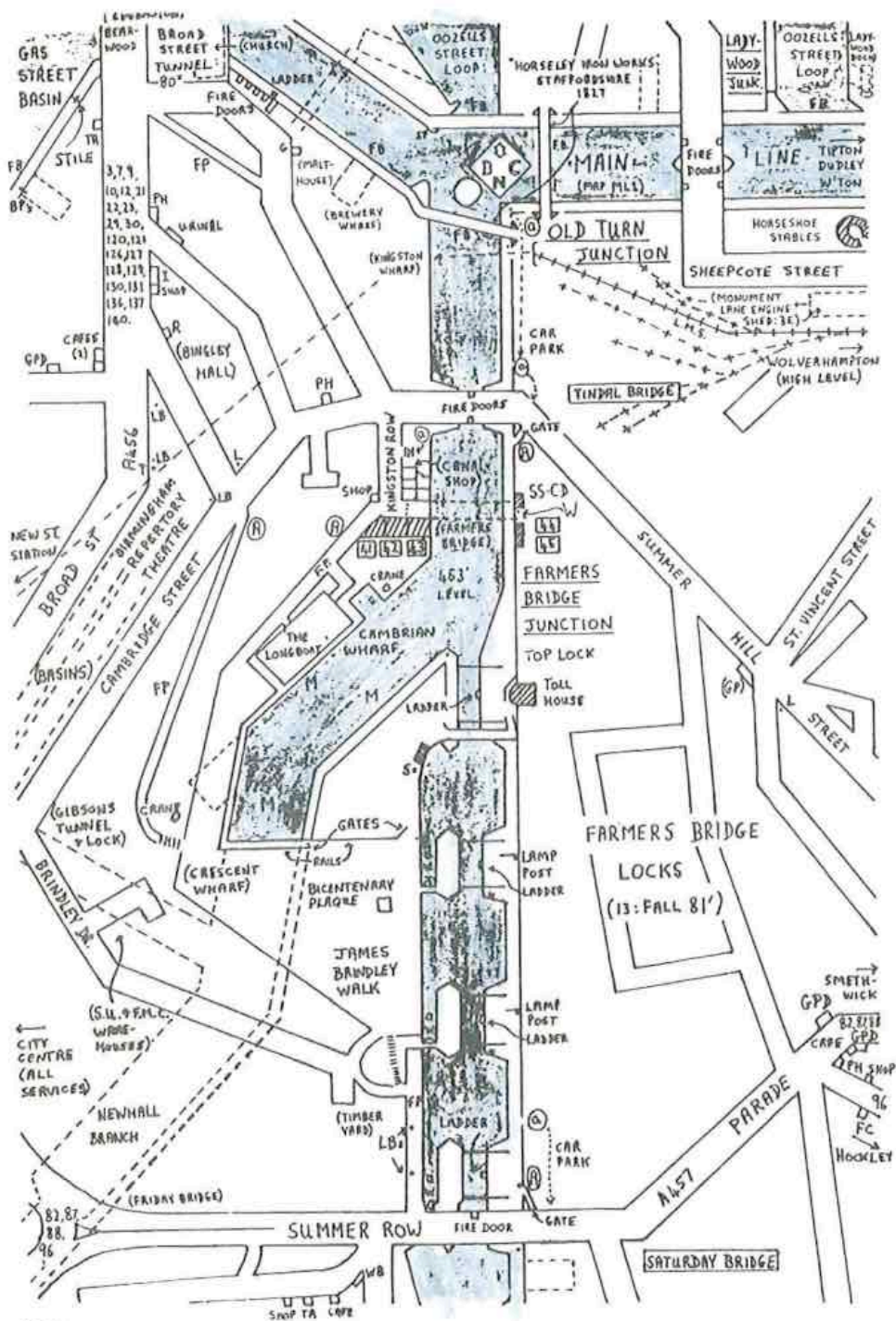
There is a water point by the garden of the demolished lock cottage at lock 15. This was the fourth cottage down the flight, the third originally being by lock 10 but later moved to Lock 9, and the second by Lock 5. The Bridge Inn has been altered out of all recognition and is now used as industrial premises. The Electric





Construction Co. along the Stafford Road was responsible for the Liverpool Overhead Railway in 1893 and the generating set for the South Staffordshire Tramways (see map W8). The canal passes under the high blue-brick S & BR Oxley viaduct after Lock 16 and the surroundings become almost rural, with the race course on the left and scrub and grassland on the right. The 12 arch viaduct was the northern limit of Brunel's broad gauge and it carries the only ex-GWR line to be electrified.

Dunstall Park Bridge at Lock 19 is superb and almost certainly dates from the opening of the canal. Note the batter of the face of the bridge, to add strength, and the curvature of the top of the arch. To have replaced the traditional paddle gear on the lock gates by modern hydraulics is surely inexcusable in such a setting. Like the Walsall flight the Wolverhampton "21" have one odd lock, No. 20, which has a single bottom gate. Originally there were only 20 locks in the flight, with the bottom lock having a depth of 10 feet. This was so wasteful of water that the Company proposed to build a reservoir to supply it, although there is no sign of this. In 1784 the lock was rebuilt with half the depth and another lock built above it. This was at the time that John Smeaton was engineer for the Broadwaters Extension and the Birmingham and Fazeley, on both of which he used single bottom gates. He was presumably also involved in the work here and adopted the same design for the new lock - the present No. 20. The rebuilt Lock 21 leads to "Cut End" at Aldersely Junction. Unfortunately the toll house that once stood at the Junction has been demolished and the bridge, now minus its lamp bracket, has been repaired with concrete.



THE BIRMINGHAM AND FAZELEY CANAL:

Farmer's Bridge to Salford Junction (including the Digbeth Branch)

Map BF1 begins with the Newhall Branch, one of the two terminal arms of the Old Birmingham Canal. In 1769 the first boats to bring coal from Wednesbury were unloaded on this branch at Friday Bridge, which at that time marked the end of the navigation, as the extension to Newhall and the arm to Gas Street and Old Wharf were not opened until 1772. There was considerable argument over where the BCN should terminate, the Company altering their original plans and favouring Gas Street/Old Wharf but eventually being compelled by an Act of Parliament obtained by the landowner to complete the canal to Newhall.

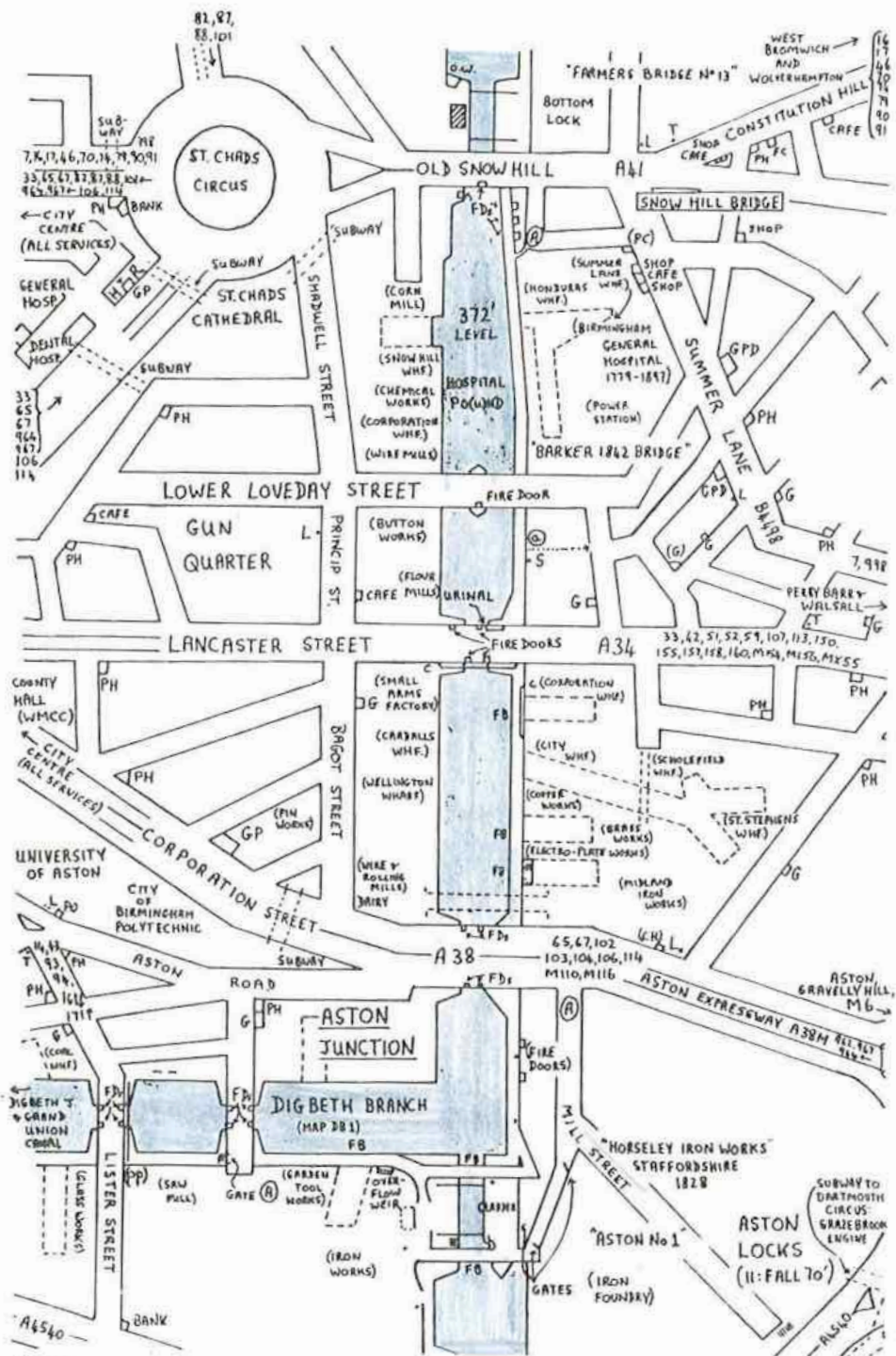
After passing Tindal Bridge there is a sanitary station and water point and an interesting collection of canal buildings (BCN houses No: 41, 42 and 43 are best seen from Kingston Row). Unfortunately the canal shop and information centre has now closed. The Cambrian Wharf development here won a Civic Trust award for Birmingham City Council in 1971. James Brindley Walk forms part of this and runs beside the canal as far as Summer Row, passing the "Longboat" public house and a plaque commemorating the BCN's bicentenary. The centre of Birmingham can be reached by walking along Cambridge Street. The rest of the Newhall Branch has been levelled, as also have Gibson's tunnel, the Shropshire Union and Fellows, Morton and Clayton warehouses it passed under, and the lock up to two basins where the Repertory Theatre now stands.

The Birmingham and Fazeley began as a proposal by a rival company for a canal from the collieries at Bilston and Wednesbury to Fazeley, with a branch to Birmingham. The BCN immediately saw the threat

this canal posed to their monopoly in the supply of coal and a lively public and Parliamentary battle began. Eventually the BCN triumphed by obtaining approval to set up a new company, with an almost identical list of proprietors, to extend the Wednesbury Branch towards Walsall and to build a canal from Farmer's Bridge to Fazeley. A year after this Act had been passed the two companies amalgamated, the Fazeley Canal was completed in 1789, and traffic to Birmingham was still in the hands of the BCN. John Smeaton was engineer of the new canal and the contractor for the section from Farmer's Bridge through Salford to Minworth was John Sheasby. John Pinkerton was contractor for the remainder and, as on the Walsall and Dudley Canals, his work was unsatisfactory. After many years of haggling over finance Pinkerton finally libelled the BCN clerk and was fined £200 and sent to prison for a month.

The B & F leaves the Newhall Branch at Farmer's Bridge Top Lock and descends the "Old Thirteen" to the 372' Level (the "New Thirteen" were the locks on the Tame Valley Canal). This flight was once so busy that there were long queues of boats waiting for the locks, even though they were open day and night. Lamps were provided for night work and the posts and arms for these can be seen by Locks 2 & 3. They may well have been erected in the early 1800s. Proposals for a parallel flight to ease the flow of traffic were put forward in 1830 but the area was so heavily built over that the estimated cost was prohibitive. Relief was not obtained until the Tame Valley Canal, which provided an alternative route into Birmingham and the Black Country, was opened in 1844.

Some of the sense of enclosure around the top few locks is being lost as walls are demolished but this soon returns as the canal passes under Saturday Bridge and enters a narrow canyon between tall buildings. Space for building was at such a premium that the factories here were constructed over the side pounds



of the locks. There is a skip provided for rubbish by Lock 7. The Birmingham Museum of Science and Industry, built on the site of Elkington's Electroplating Works, follows on the left. Exhibits include the James Watt pumping engine erected by the BCN at Smethwick in 1779, jewellers, nailmakers and gunmakers' workshops and a steam locomotive, the LMS Stanier Pacific "City of Birmingham". For many years the Museum has firmly turned its back on the canal, although the BCN played no small part in the story of Birmingham industry. The gate to Newhall Street has been kept locked and anyone on the canal wishing to visit the Museum faces a lengthy detour. However there are now plans to open up the towpath as a canalside walk and for the Museum to be linked to the canal. One wonders why it has taken so long for the BCN's assets to become obvious.

The famous Birmingham Jewellery Quarter is beyond the Museum and is also worth a visit, particularly if access is made easier. The arches in the side pounds by Lock 8 are the remains of former buildings that again made the maximum use of available space. The modern equivalent is Brindley House which straddles the canal below Lock 9. Unfortunately this has blocked the view of the three arches of Newhall Street Bridge, and the concrete used in its construction is not so attractive as the brick of the buildings further up the flight. The bottom gate of Lock 11 is reversed with the heelpost and balance beam on the offside, presumably because of the restricted space on the towpath side.

Snow Hill Station has been demolished and the site of the platforms is now a car park but the bridge, almost a tunnel, which once carried the tracks still crosses the canal. The city centre shops are a few hundred yards from Old Snow Hill and there is easy access. Along the Hospital Pound are two unusual bridges. Barker Bridge has one side cast iron, the other brick, and the bridge carrying Lancaster Street has the back of a urinal forming part of the parapet.

The Digbeth Branch

This Branch is $\frac{3}{4}$ mile in length and connects with the Grand Union (Warwick & Birmingham Canal) at Warwick Bar. It is very much an industrial canal and is almost completely isolated from the City around it, as there is only one point where it is possible to gain access to the towpath. This is at the first bridge after Aston Junction, where a gate and spiral staircase were erected in 1983. This could be a sign of change for the better, as the City environment and open up towpath walks in the City centre.

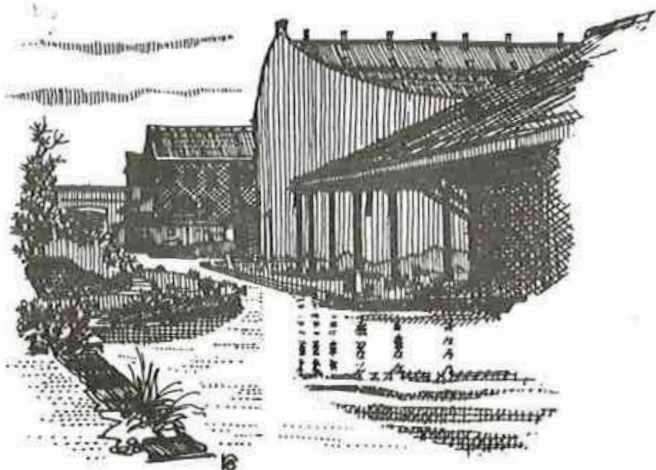
The date of opening of the Digbeth Branch is usually taken to be 1799, the year in which the Warwick and Birmingham Canal was completed and the Branch became important as a through route. It was probably partly or even wholly open some years before this, as it was authorised by the Birmingham & Fazeley Act of 1783.

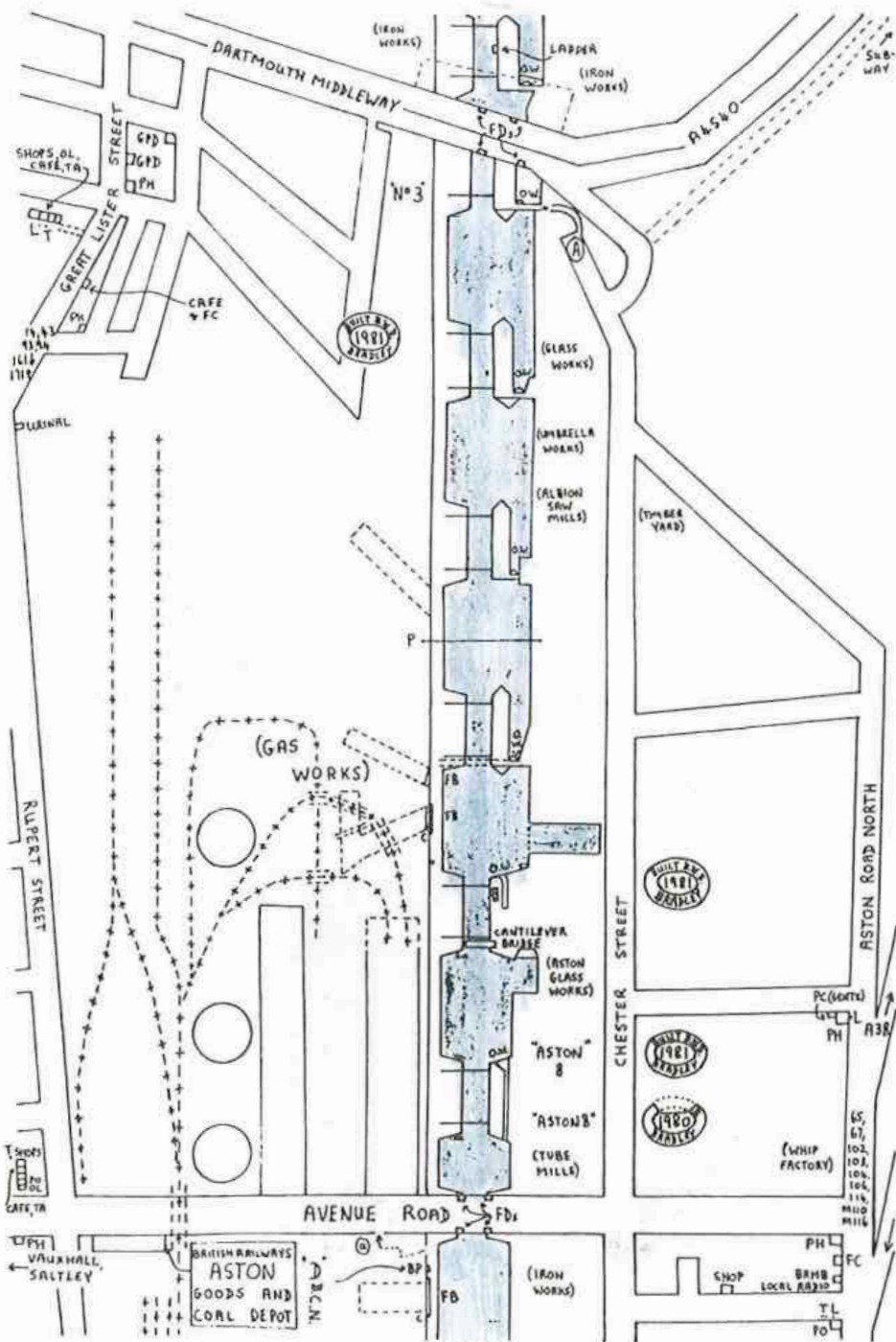
Ashted top lock is a few hundred yards from Aston Junction and is followed immediately by Ashted Tunnel. Do not start to descend the lock until you have checked whether there is another boat in the tunnel. If there is: wait. Otherwise one boat will have to reverse as there is no passing place. If approaching from the opposite direction do not enter the tunnel if a boat is descending the lock (the rush of water out of the tunnel when the lock is emptied is a warning to wait). The towpath continues through the tunnel but it is wet and uneven in places and part of the handrail has disappeared.

The pumping station beyond the tunnel has been demolished and the recirculating pump it housed was purchased by Henry Ford for a museum in America. The lock pounds down the flight badly need dredging and are very shallow away from the main channel. Below the bottom lock the bridges carrying the railway to Curzon Street and New Street form another tunnel, this time with a full width of water and ample headroom.

The first railway to reach Birmingham was the Grand Junction line from Liverpool, which was completed to Vauxhall in July 1837. The following year the line was extended to Curzon Street, where the London and Birmingham Railway also opened a station. Both stations became goods depots when New Street was completed in 1854, but the imposing entrance to the L & BR station still survives. Both companies had to construct viaducts to reach Curzon Street. These can best be seen from Lawley Street, where it is obvious that the GJR viaduct has another viaduct on top. This was built when the tracks were raised to run into New Street.

The Grand Union Canal joins the Digbeth Branch opposite the rear of the Gun-Barrel Proof House (another fine building). Turn left here for Warwick Bar and the art deco style FMC warehouse. Do not attempt to pass to the right of the stop island: the top of the submerged weir is just below water level. The Digbeth Branch continues straight ahead to Digbeth Basins, now deserted and forlorn. If you can gain access to Fazeley Street note the boundary stone in the bridge parapet, and the elegant facade of the FMC building.





There is an awkward narrows under the A38 before the canal reaches Aston Junction. Bear right for the Digbeth Branch or turn left under the "Horseley" bridge to continue towards Salford Junction.

Aston top lock follows immediately and is unusual in having two bridges: the "Horseley" and the attractive old brick bridge at the tail. Theoretically one turn-over bridge would be adequate, but there is insufficient room for such a bridge above the lock. With it sited at the tail, horses coming from Farmer's Bridge and taking a line across to the Digbeth Branch (or vice versa) would interfere with boats using the lock. Hence another bridge was provided for this traffic. The next two locks also have features of interest. Lock 2 has a gate paddle on the bottom gate, an unusual sight on the BCN where locks with single bottom gates are normally emptied by ground paddles. The top gate of Lock 3 is under the new Dartmouth Middleway Bridge and this has been fitted with a beam for lifting the gate when it needs replacement.

The Grazebrook blowing engine (see D6) is nearby in Dartmouth Circus and a detour can be made to view this. Leave the canal by the passage by the top lock, turn right into Mill Street, climb the steps at the far end and walk through the subway to the middle of the Circus. Return via the next subway on the right. This leads into Chester Street and there is access back to the canal across the overflow weir at Lock 3.

Industrial and commercial premises continue to border the B & F down the flight as far as Salford Junction. When passing Locks 7 & 8 look up at the extravagant Victorian architecture of the building towering over the canal on the right. The coloured bricks and decorative columns and arches are certainly impressive although hardly in keeping with the industrial processes of a gasworks. Lock 7 has a cantilever foot-bridge at the tail, with a small gap

on the towpath side wide enough for the towing-line, thus avoiding the inconvenience of having to unhitch the horse as a boat passed under the bridge. Access to the outside world is not easy along this length of canal but it is possible to reach Avenue Road by leaving the towpath just before the BCN boundary post and walking across the derelict industrial site. There are several of these concrete BCN posts between here and the bottom of the flight. They are not as attractive as the earlier cast-iron design and the significance of the letter "D" is not clear. There is another striking Victorian building, in red brick with decorative work over the windows, at the former BR Aston Depot in Avenue Road.

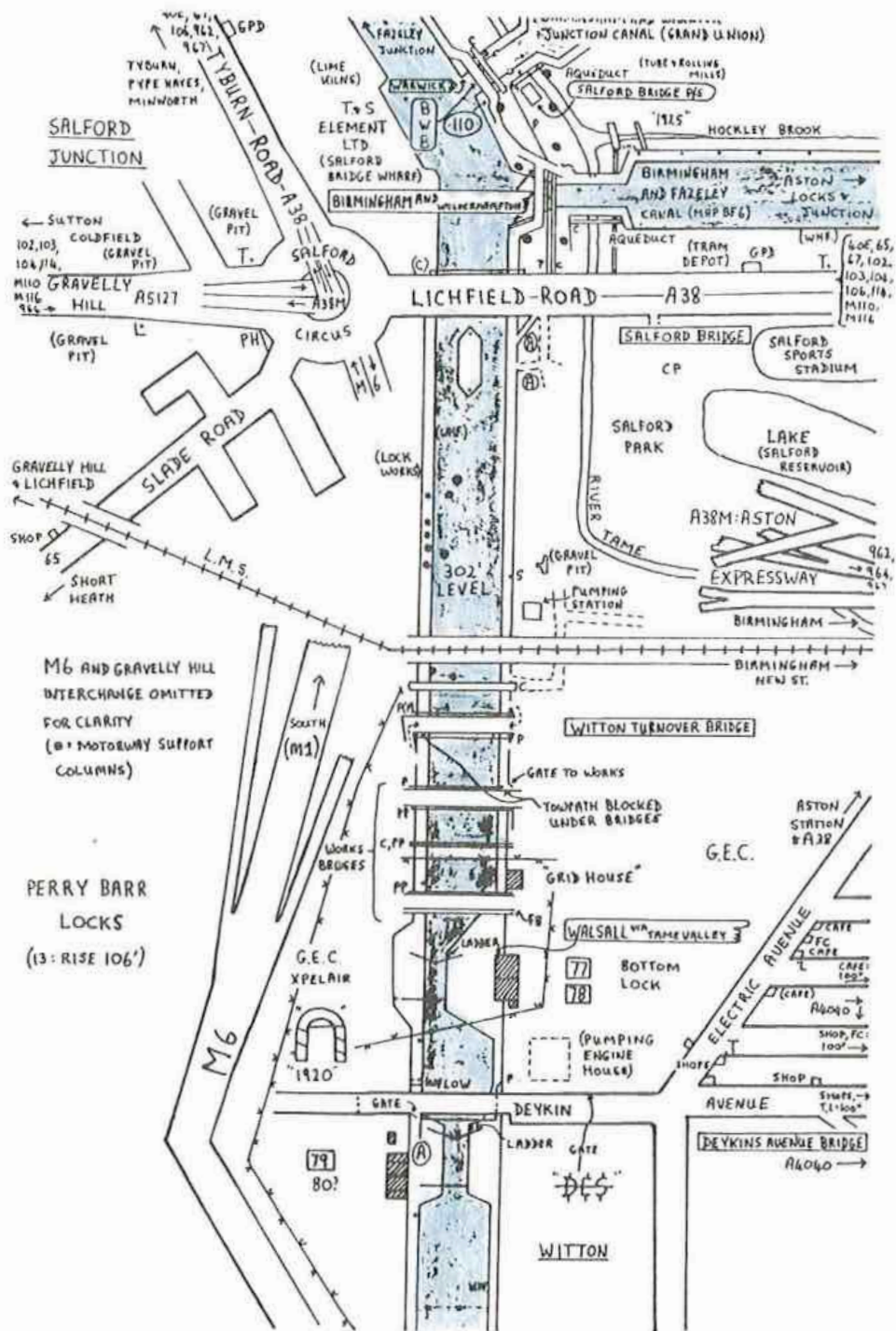
The inscription on the bridge carrying Rocky Lane is a record of the late nineteenth century system of local government. Local Boards were the fore-runners of the Urban District Councils which were established in the mid-1890s. The Aston Manor Board would have been responsible for the bridge because it was not covered by the original Act of Parliament for the canal. Under such Acts the canal company had to provide road bridges and also to build accommodation bridges for the owners of land bisected by the canal. If extra bridges were required at a later date then the landowner or highway authority had to meet the cost.

The old stable building and yard by Lock 9 are unfortunately not accessible from the towpath. There is a gate into Thimble Mill Lane by BCN house No.70 but this is often locked. If you can obtain permission to use it note the fine wrought iron arch at the site of the Aston Manor Brewery. Lock 10 has a reversed bottom gate with gate paddles, and a cantiliver bridge to facilitate working the lock. The final pound of the flight is hemmed in by tall buildings, now derelict and with the roofs removed (to avoid payment of rates?).

Access to the road from the offside of Lock 11 is across waste ground used as a car park and is only open during working hours. At other times the gates are locked. Just after World War 1 the Dunlop Rubber Co. ran a passenger boat service for their employees between Holborn Hill (for Aston Station) and Fort Dunlop, $2\frac{1}{2}$ miles along the B & F past Salford Junction. The works had no train service and there were no buses available at this time. The service lasted from April 1919 to August 1920 and over 5000 passengers a week were carried. Five fly boats were used, each seating about 100 and fitted with electric lights and hot-water heating. An early form of outdrive engine was used very successfully on the boats. A petrol engine was bolted on the cabin roof and the drive transmitted to the propellor via two shafts, one horizontal and one mounted vertically on the stern post.

The canal now runs parallel with the A38 to Salford Junction, past a closed hire boat base and across an aqueduct over the River Tame. At irregular intervals along the towpath since Farmer's Bridge there have been wooden posts, similar to bollards but in impossible positions for use as such. After Cuckoo Bridge it is more obvious that these are the sawn-off stumps of telegraph poles, which once carried lines beside the canal into the heart of Birmingham.

Salford Junction is dominated by the Gravelly Hill Motorway interchange, and there is bone-dry dust wherever the elevated roads cover the ground. Turn left here for the Tame Valley Canal, half right for the remainder of the B & F, or sharp right for the Birmingham and Warwick Junction Canal. Opened in 1844 this $2\frac{1}{2}$ mile bypassed the Ashted and Aston flights, saving 11 locks on the trip from Bordesley to Salford. It became part of the Grand Union in 1929.



THE TAME VALLEY CANAL

The Tame Valley Canal was first proposed in 1810 after John Rennie's survey of the BCN system, but the Bill was withdrawn because of opposition by landowners and other canal companies, and doubts at that time about the extent and value of the mineral resources in the area traversed by the canal. It was not until 1839 that the plans were revived and when it opened in 1844 the Tame Valley was thus a relatively late addition to the network. It was intended to relieve the congestion at the Farmer's Bridge locks by providing an alternative route to Birmingham and the Black Country, to serve the mines towards the Wednesbury end of the canal, and to 'close the Valley of the Tame against future projects'. The last of these aims was perhaps encouraged by memories of the battle for the Birmingham and Fazeley (see BF1) where the BCN had narrowly defeated a scheme for a canal from Wednesbury to Fazeley, which would presumably have followed a similar route.

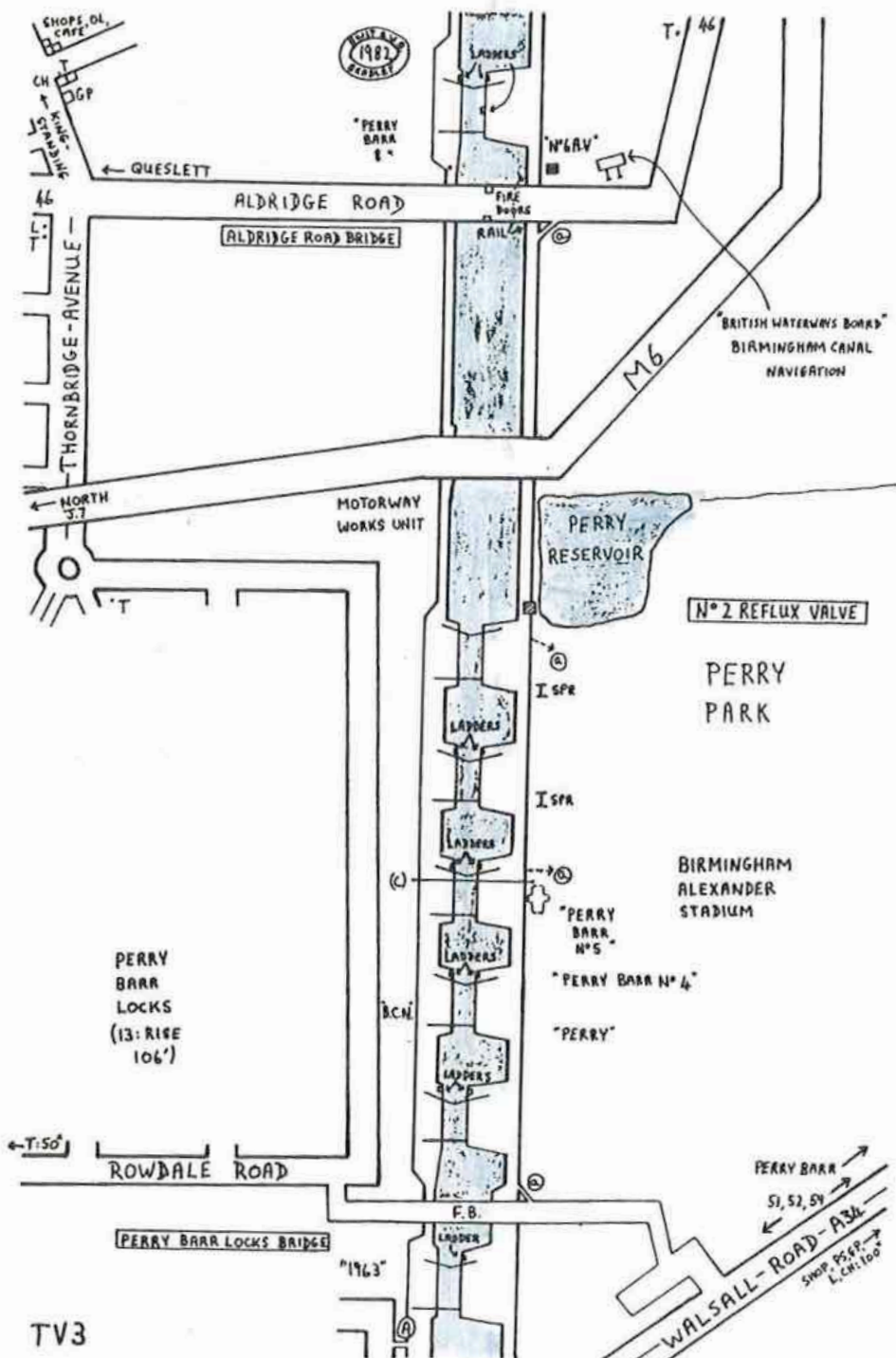
The Tame Valley illustrates how civil engineering techniques had developed since the days of the early contour canals, particularly with the stimulus provided by the advent of the railways a few years before. The canal is wide and straight with twin towpaths, the locks are grouped together wherever possible, and traffic is no longer hindered by narrows at bridges and aqueducts. There are massive embankments and spectacular cuttings spanned by bridges high above the canal. James Walker was the engineer. He was also responsible for the Bentley and Rushall Canals and the construction of Netherton Tunnel.

From Salford Junction the canal runs past a toll island and under part of the motorway interchange. Several of the support columns are in the canal but are not an undue hazard to navigation. Birmingham

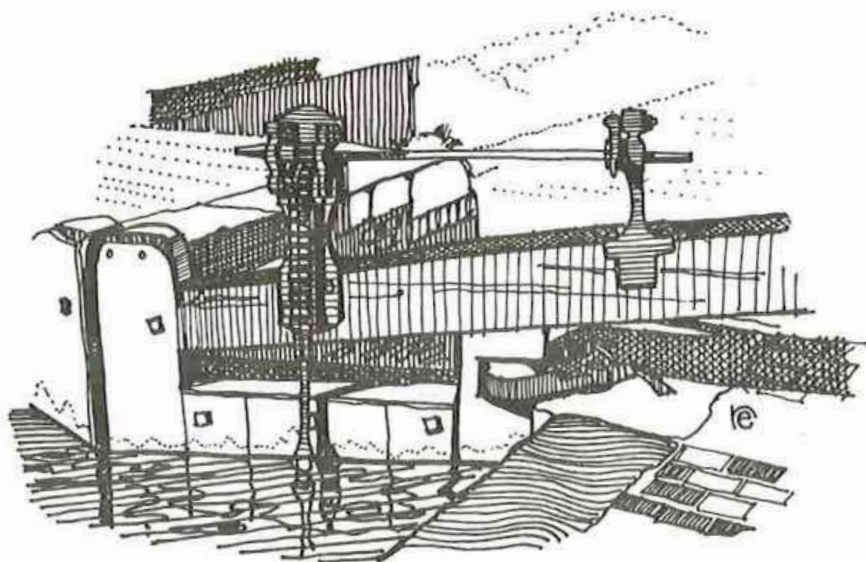
was one of the first large industrial towns to have a piped water supply and Salford Reservoir, opened in 1831 by the Birmingham Waterworks Co., marked the start of this development. The source of the water was the River Tame until serious pollution made it unsuitable (it is still heavily polluted). The pumping station just before the railway bridge was part of the Waterworks system.

If walking the towpath in either direction cross over Witton Turnover Bridge, as all other routes are impassable. The right-hand towpath hardly exists between Salford Junction and this point and the left-hand one is blocked at the next bridge to prevent unauthorised access to the large GEC works which border the canal. The Grid House below the well kept bottom lock of the Perry Barr flight was the intake for the recirculating pump above the lock. Only the foundations of the pump house remain but the large pipe that carried water up the flight can be seen by Deykin Avenue bridge. The direction sign by BCN house No.77 has presumably been moved from Salford Junction.

The Perry Barr Locks, known as the "New Thirteen" to distinguish them from the "Old Thirteen" at Farmer's Bridge, are in three groups: a pair here, four at College Road, and a flight of seven at Perry Park. Take care if using the ladders below the bottom gates of the locks as some have rungs missing or very worn. The surroundings become less industrial after Brookvale Road Bridge but the M6 motorway, never far away from the Tame Valley along this section, reappears and crosses the canal. The No.1 Reflux Valve below Lock 11 was part of the recirculating pumping system, as also was the No.2 Valve below Lock 7. By using these valves the flow of water could be reversed and the pounds drained for maintenance work. On the opposite side of the canal is a sports ground with a miniature railway running beside the towpath.



The shaft for the Perry Well pump is in the container base above Lock 11. This was a supply pump rather than a recirculatory one, and although pumping has not occurred for many years BWB still retain the right to use the shaft if necessary. There is a typical "Horseley" bridge spanning the infilled arm between Locks 9 and 10. In contrast to some of the older parts of the BCN there were very few basins and arms along the first five or six miles of the Tame Valley. This is partly because of the cuttings and embankments which make the construction of basins difficult but even more it is as reflection of the lack of industrial development. There was no mining at this end of the canal and the few factories that were built arrived relatively late (GEC was late nineteenth century). These were large works with long canal frontages and preferred canal side wharves rather than basins.



The M6 again crosses the canal before the final flight of seven locks. With a park and stadium on the left and a view back over the motorway these are reasonably pleasant to work, although excessive use of

TOP
LOCK

"GAUGING WEIR HOUSE"

*BRITISH WATERWAYS BOARD
BIRMINGHAM CANAL
NAVIGATION//

WALSALL ROAD BRIDGE

408

A34

ROCKY LANE
HAMSTEAD STA.
SHOPS, T. OL.
14. Pol. Fr: 50-

HAMSTEAD

LANE

AMERICAN COLLEGE

— 41 —

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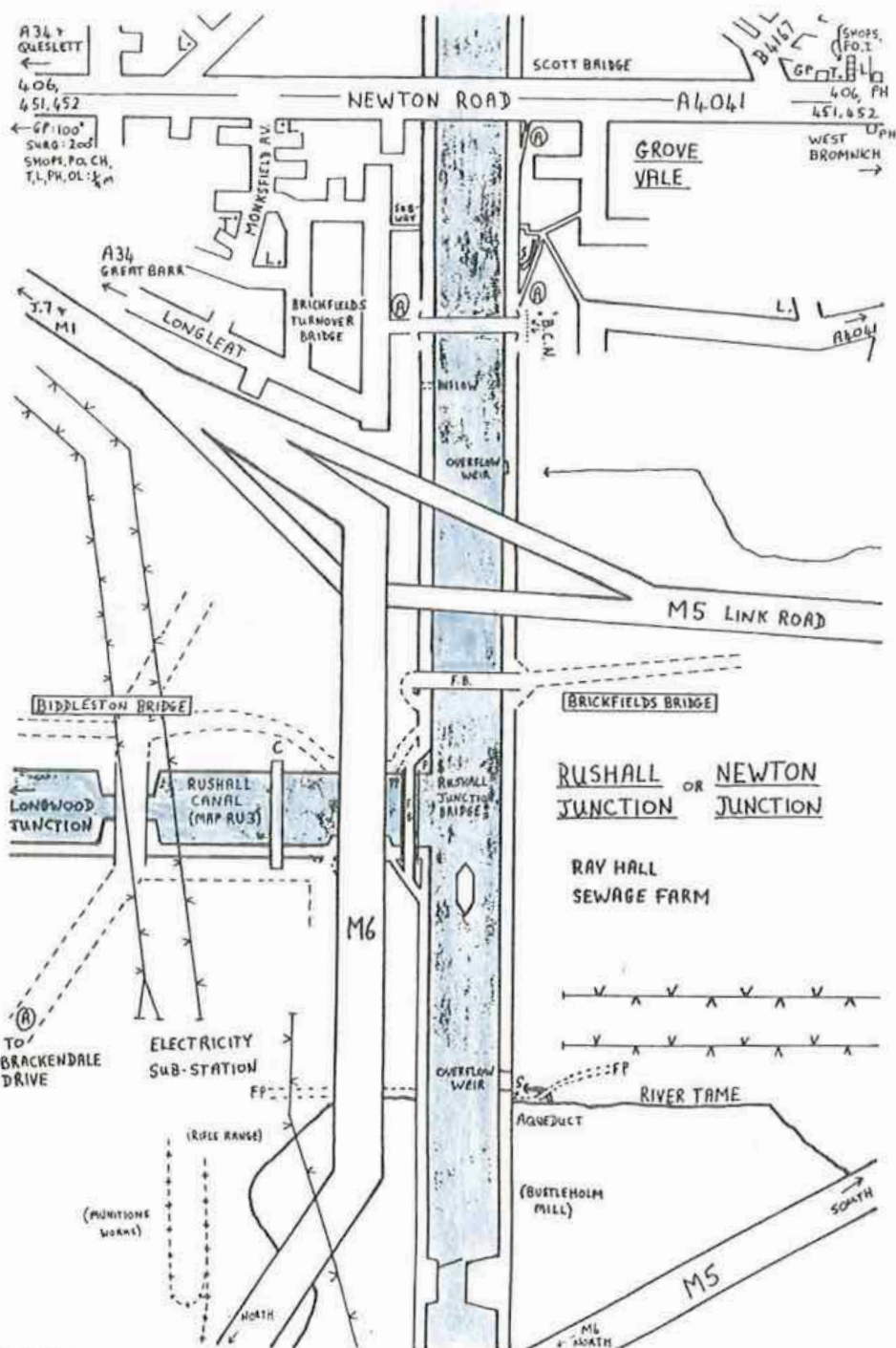


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TV4

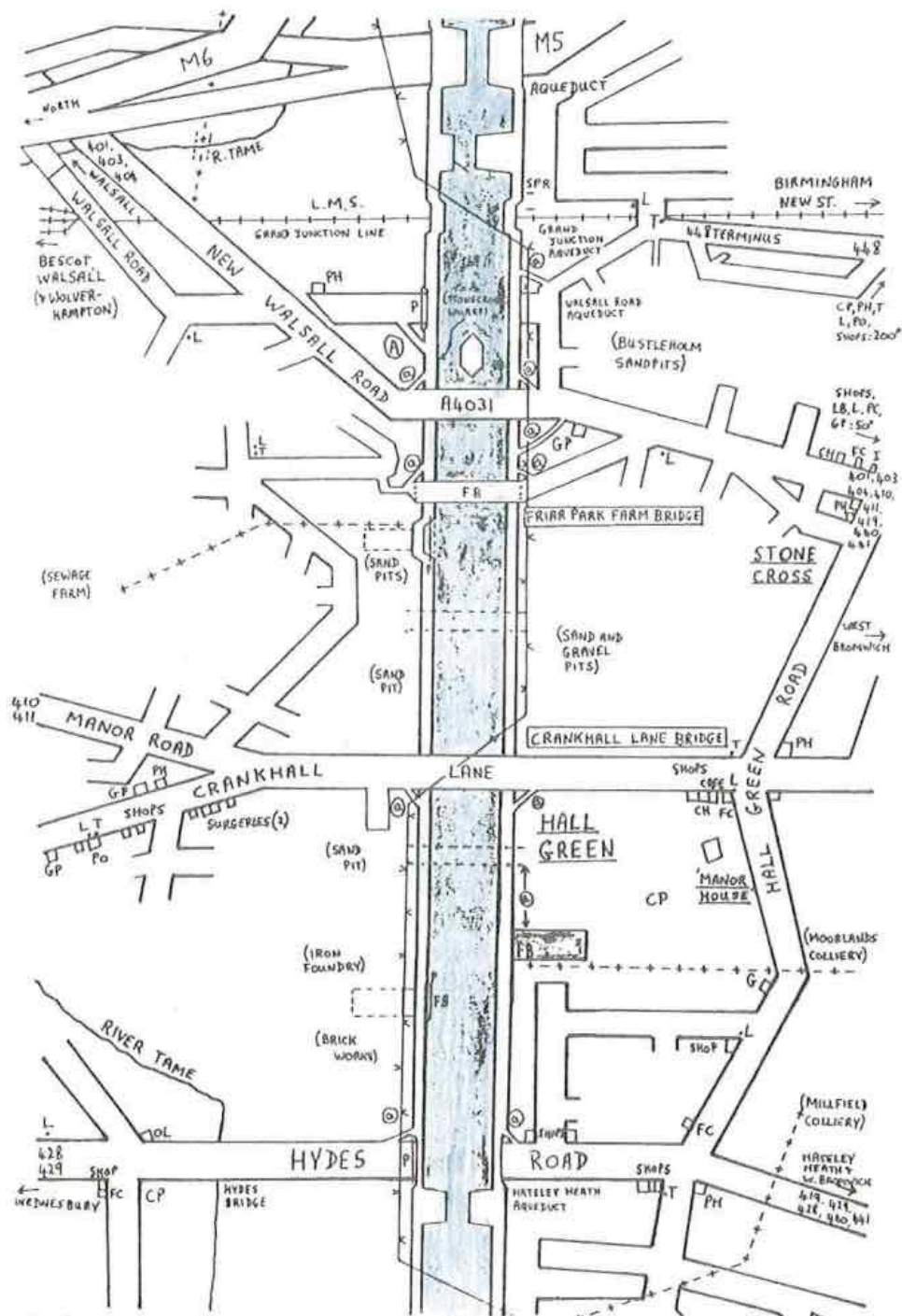
concrete for repairs detracts from the appearance of the locks. Perry Reservoir at the bottom of the flight is not a canal reservoir but part of the Birmingham waterworks system. Lock 2 has steel bottom gates dated 1963, when it was BWB policy to substitute these for wooden gates needing replacement. Luckily the policy has changed and Bradley workshops are still manufacturing wooden gates (there was a works plate dated 1982 at Lock 8). There is an attractive group of canal buildings at the top lock and access to Walsall Road. If on foot it is advisable to cross over to the left-hand towpath as this is easier to walk for the next mile or two. The BWB advertisement board here has BCN in the singular although the title was changed to the plural by the Company in 1794.

The canal now enters a deep cutting with Freeth Bridge crossing high above. There was a John Freeth who wrote an ode for the opening of the BCN in 1769, but it is more likely that this bridge and Freeth Bridge on the Anglesey Branch (see WE14) were both named after the John Freeth who worked for the BCN for over 50 years and retired from the position of clerk (chief executive) in 1842. There is another bridge on the Wyrley and Essington known as Freeths Bridge (see WE11) but here the derivation is uncertain as it is unlikely that it was built in the same period as the other two bridges (in the 1840s). After emerging from the cutting the Tame Valley crosses a long embankment and two impressive aqueducts, with views across Handsworth to the GPO tower in central Birmingham. The Piercy aqueduct has a segmented iron through supported on cast-iron beams with side arches for the towpaths. The spouthouse Lane aqueduct is a completely different design with a single stone arch infilled for some distance down with ornamental brickwork. The narrows at the end of the embankment are a safeguard in case of a breach in the canal, as stop planks can be inserted each side of the island to stem the flow of water.



Hamstead Colliery basin, now built over, was a few yards further along the canal. The presence of a colliery here is not an indication that the canal has passed onto the productive Middle Coal Measures but rather that they are now at a reasonable depth below more recent rocks. Since Salford Junction the boater and walker have travelled back through approximately 100 million years of geological time in terms of the rocks they have crossed. They began on the Triassic sandstone, laid down about 200 million years ago, passed across progressively older rocks while ascending Perry Barr Locks and are on carboniferous Upper Coal Measures about 300 million years old by the basin. Hamstead Colliery reached the "Thick" coal seam at a depth of 2000 feet in 1880, and it was one of the last mines on the BCN to close. In 1908 there was a disastrous fire at the pit in which 24 miners and a rescuer died.

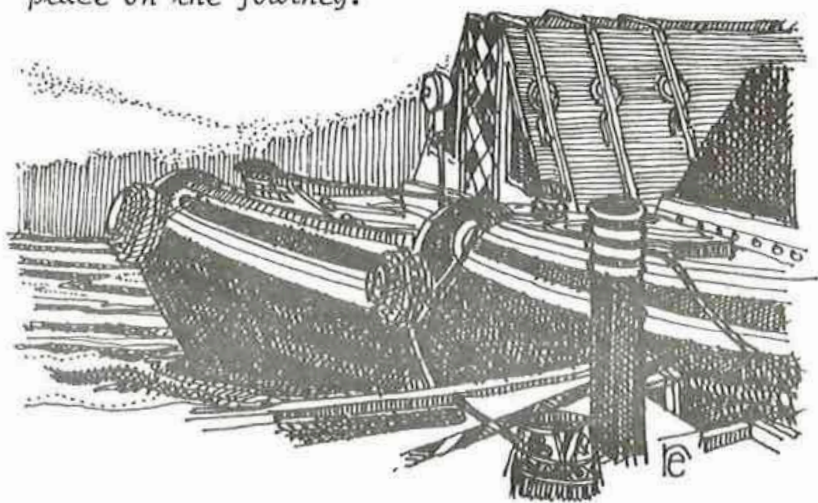
A deep wooded cutting follows with two more very high bridges: Chimney Bridge and the modern Scott Bridge. A view from above can be obtained from Scott Bridge which is easily accessible from the towpath. The canal emerges from the cutting and passes housing estates before reaching another motorway junction: the M5/M6 interchange. Turn right at Newton (Rushall) Junction for the Rushall Canal or continue along the embankment towards the Walsall Canal. There are several more aqueducts, the first is a single arch over the River Tame, the second a modern concrete through over the M5. The latter is protected by a pair of narrows with gates that are designed to close automatically with the rush of water in the event of a breach. Bustleholme Mill stood beside the River Tame for about 400 years until it was demolished in 1971. At one time it was used as a slitting mill to produce iron rods for nailers. Two further aqueducts take the canal over the Grand Junction Railway and the Old Walsall Road to a third cutting, less

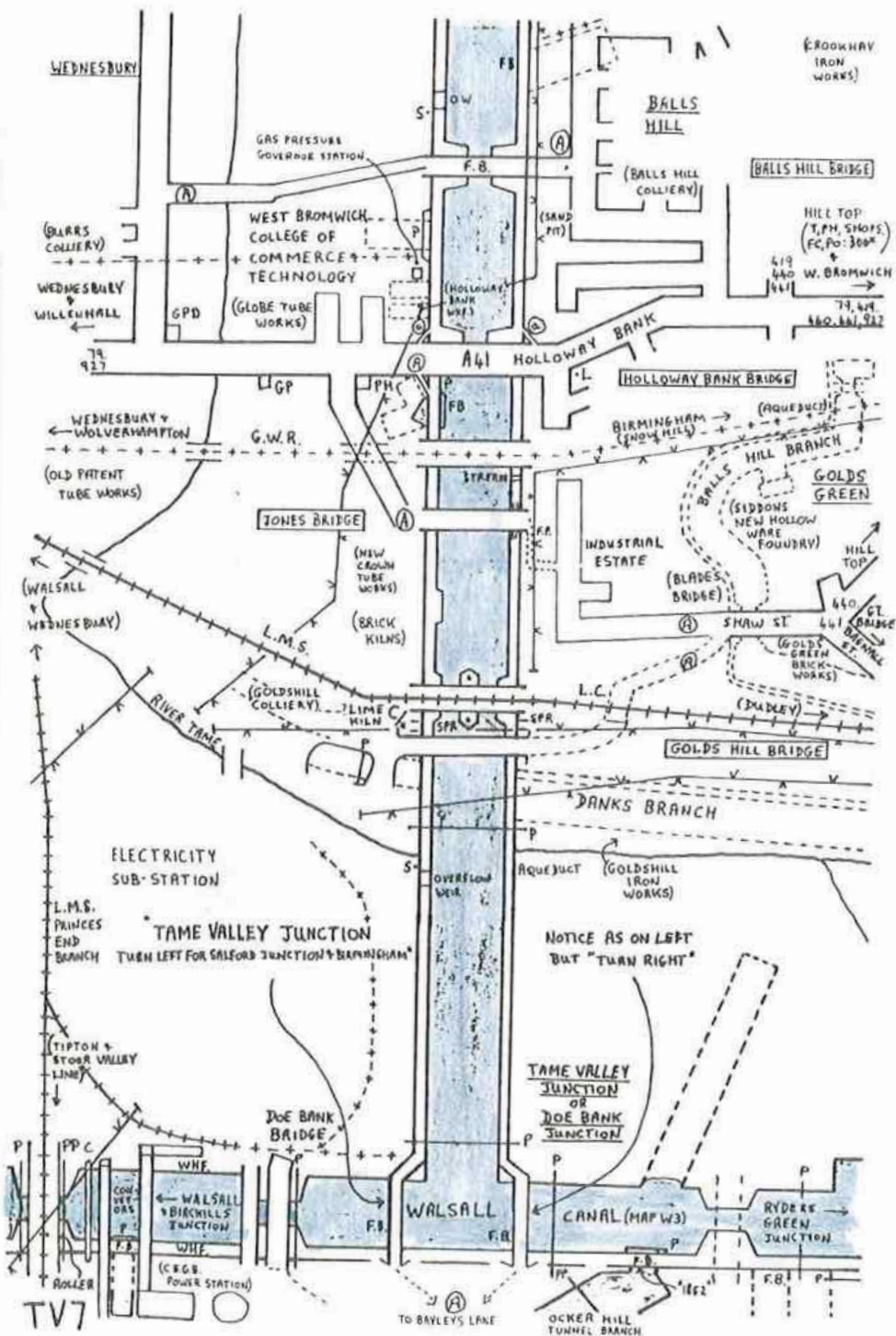


attractive than the previous two but still impressive. The huge Bustleholme sand pits are now used for waste disposal.

Beyond Crankhall Lane Bridge the Manor House is on the left. This building dates from the thirteenth century and is probably the finest example of a medieval timber-framed hall in existence. It was purchased by the Local Authority in the 1950s for demolition but examination of the structure revealed what was hidden under old brickwork. It has now been restored and opened as a licensed restaurant.

As the canal crosses another embankment and Hateley Heath Aqueduct the town of Wednesbury is on the right. This unfortunately achieved notoriety as the scene of violent anti-Wesleyian riots in the 1740s. The worst of these was in 1743 when John Wesley was almost pushed down a coal mine by an incensed mob. Holloway Bank was formerly much steeper and passengers on the Holyhead to London coaches had to dismount and walk while extra horses hauled the coach to the top. In winter Hill Top was said to be the coldest place on the journey.

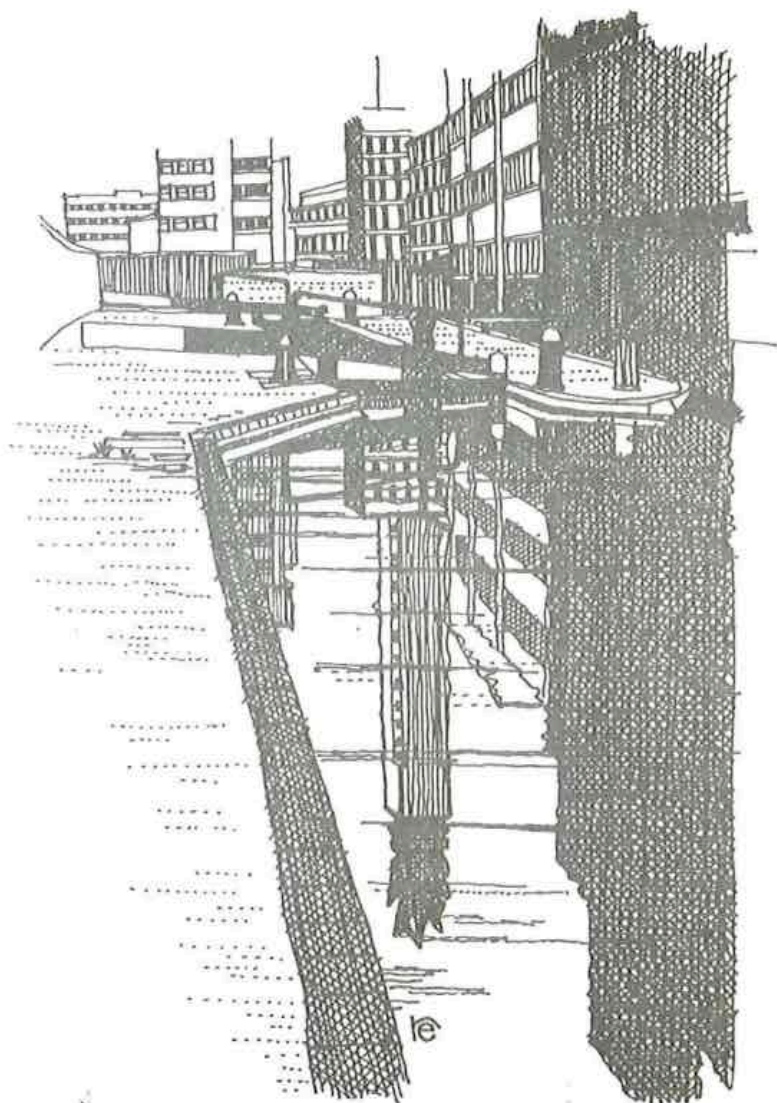




The canal here is on the Middle Coal Measures and has become much more industrial. When built it cut across the end of the Danks Branch (see W2) just beyond the railway bridge and toll island but little remains of this junction. As the waterway approaches Ocker Hill the cooling towers of the disused power station come into view. Until they were moved to Bradley in the 1950s the main BCN workshops were on the hill behind the power station, at the other end of the Ocker Hill Branch from the Old Main Line. These workshops, in addition to undertaking routine maintenance work, also produced some very unusual canal craft. In the 1890s they built a "fan boat" for draining short sections of canal without a sluice. Stop planks were inserted at each end of the section, the fan boat was sunk near one end, and a scoop-wheel in the stern lifted water over the stop planks. The wheel was driven by shafts from a steam engine and boiler mounted on another boat - the "engine boat" - which remained in the adjoining section of canal still in water.

Less successful were boats fitted with two railway locomotive boilers and a pump. One boiler produced steam to drive the pump which circulated water through the other boiler, where it was heated before being returned to the canal. This ingenious system was developed in the severe winter of 1895-6 when traffic on the BCN was halted by ice. Unfortunately the boats were unable to cope with the conditions and the experiment was abandoned. In 1906 the workshops built a petrol engine to replace the steam engine in the BCN inspection launch "Selene". This launch remained active until the 1930s by which time motor vehicles with their advantages of speed and convenience had taken over its role.

A final aqueduct over the River Tame takes the canal to Doe Bank Junction. Turn left for Ryders Green and the Main Line or right for Walsall.



G.P.O. TOWER, BIRMINGHAM
(15 MILES AND 16 LOCKS FROM BLACK DELPH)

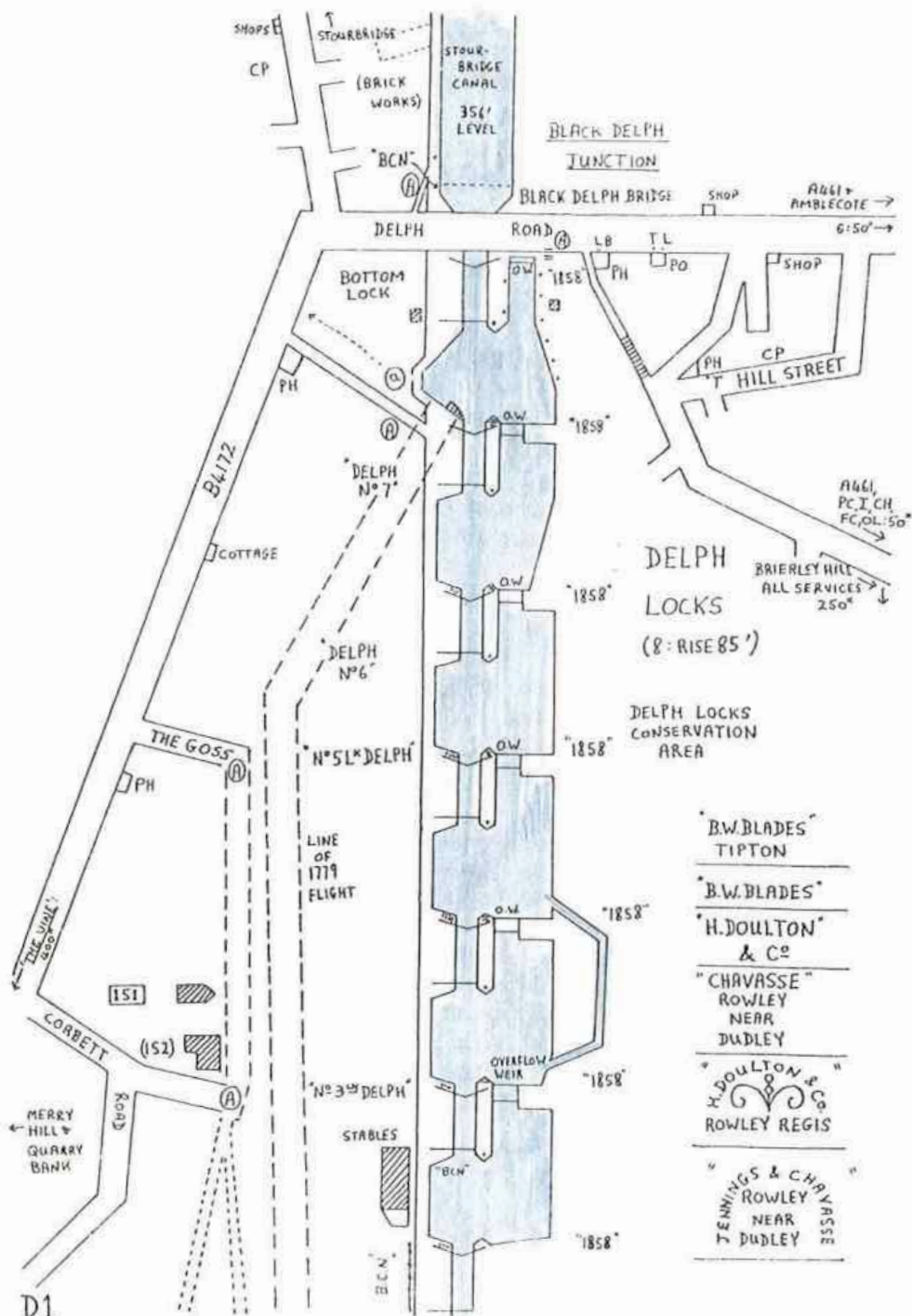
THE DUDLEY CANAL

Dudley Canal No.1 Line

The original proposal for the Stourbridge and Dudley No.1 was for a single canal from Stourton to Dudley. However the BCN successfully opposed this Bill and two separate schemes following the same route were then put forward. These were approved even though the Birmingham company continued to object. Not surprisingly the two canals shared several of their proprietors and worked closely together. The surveyor and engineer of the Dudley was Thomas Dadford, his son, also Thomas, held the same posts on the Stourbridge. Both canals were opened in 1779; although the Dudley was completed first it cannot have carried much traffic until the Stourbridge was finished a few months later. The latter was for many years a prosperous canal, paying high dividends and retaining its independence until nationalisation in 1948. In contrast the Dudley had incurred very high capital costs building extensions which included two long tunnels, and also had continual and expensive problems with mining subsidence. No dividend was paid until 1804 and several planned branch canals were not completed. When the BCN, armed with an agreement from the London and Birmingham Railway to pay a guaranteed dividend, opened negotiations in 1845 the Dudley itself suggested a merger, and this was approved the following year.

Approaching along the Stourbridge Canal the only indication that there is a junction with the Dudley at Black Delph is a gap in the cast-iron rubbing band protecting the towpath bank and, just past the gap, the initials "BCN" cast in its upper surface. Black Delph derives its name from the extensive coal, fire-clay and ironstone workings in the area.

The eight Delph locks are all dated 1858, the

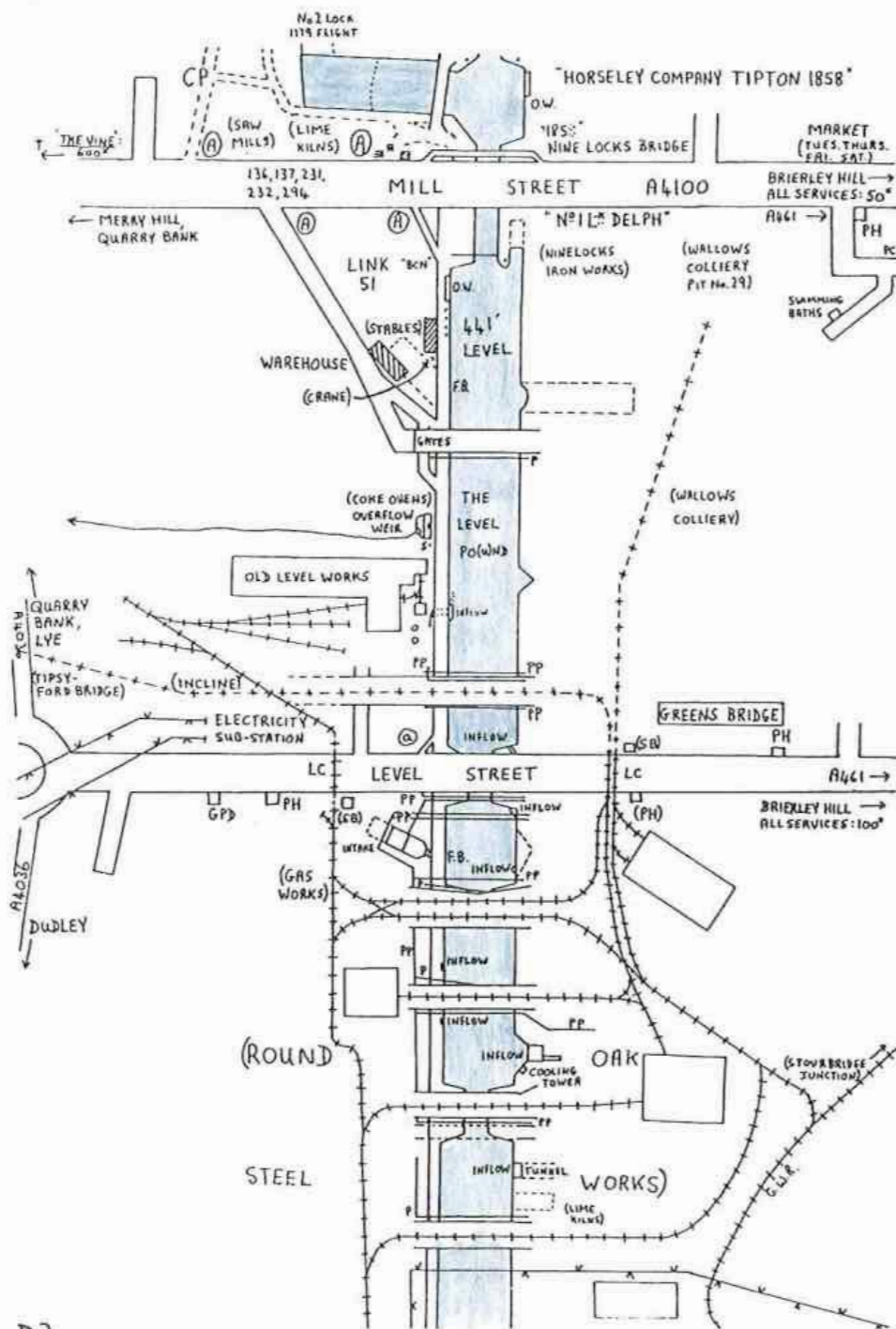


year in which the entire flight was rebuilt because of the effects of subsidence. The present top and bottom locks occupy the same sites as the originals but the other six replaced seven earlier locks to the right of the present flight (hence Nine Locks Bridge). Five of the six have "waterfall" bypass overflow weirs, most spectacular after heavy rain when water is cascading over them. The WMCC has been excavating the infilled line of the old locks, which had huge side pounds extending across and beyond the 1858 line. If inspecting their work note also the lamp posts in the garden of BCN house No.152.

Many of the bricks along the edge of the towpath and at the locks carry the imprint of their manufacturer. Some of these are illustrated on the map and an interesting diversion would be to keep a record of the different designs, particularly for those who wish to try their hand at making brick rubbings. There are many more to be seen throughout the BCN system and a complete list would give a fairly comprehensive roll-call of Black Country brickworks.

Another feature of these locks is the way in which the number of steps on the offside at the tail of each lock increases towards the bottom of the flight. Lock 2 above the renovated stable block has none; Lock 3 has one step; Lock 4 has several but they cannot be used because of the gap at the top. The rest of the locks have their full complement. These disappearing steps are a graphic illustration of the effects of subsidence caused by the workings of the Wallows colliery at the top of the flight. The tower blocks on the left of the locks are on firmer ground as previous landowners had the foresight to purchase the mineral rights from the Earl of Dudley, thus ensuring that the area was not undermined.

Wallows Colliery Pit No.29 (Nine Locks Pit) was the scene of a remarkable rescue in 1869 when the mine flooded and ten men and three boys were trapped



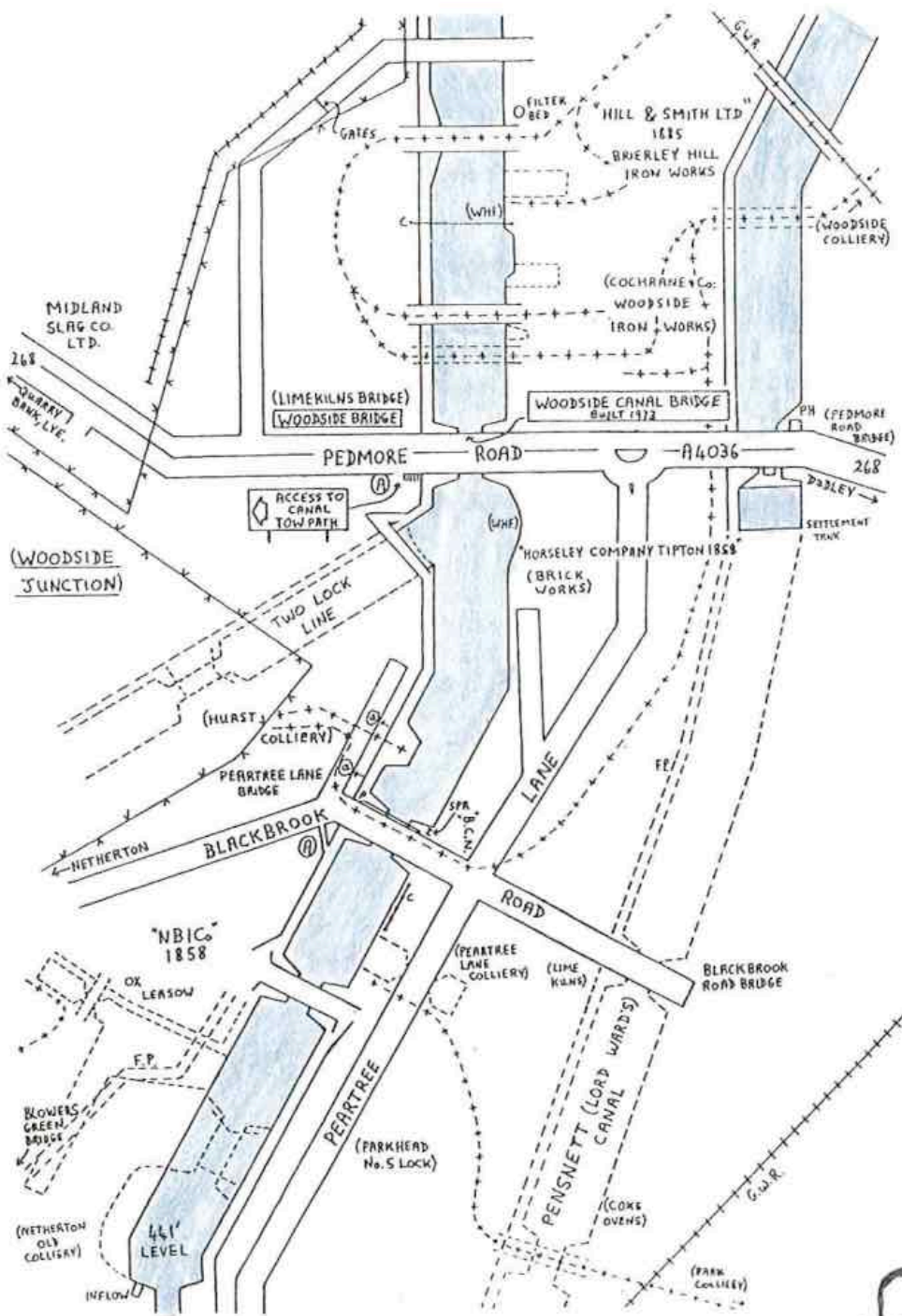
underground. One man died but the rest managed to survive for the six days it took rescuers to reach them. They had quenched their thirst during their ordeal by straining floodwater through their handkerchiefs.

The shops and amenities of Brierley Hill are only a few yards to the left at Nine Locks Bridge. Somewhat further along Mill Street in the opposite direction, on the right at the top of Velph Road, is perhaps the Black Country's most famous public house: 'The Vine' or, as it is popularly known, 'The Bull and Bladder'. This is the home of Batham's brewery, well known to connoisseurs of real ale and with a pilgrimage if your tastes lie in this direction (and there is a children's room).

Nine Locks Bridge is a modern structure but care is needed when working the lock as the headroom over the bottom gate is restricted. The towpath under the bridge has some attractive brick horse treads. The basin at the Shropshire Union Railway and Canal Co. (later L.M.S.) Nine Locks wharf has been filled in and the bridge-hole blocked with unsightly angle iron and plastic. However the stables and an unusual wooden warehouse still survive.

After passing through an area where former collieries have become overgrown with grass and scrub the canal reaches Round Oak SteelWorks. Just before the works boundary is an overflow weir that probably dates from the time of the construction of the canal. Such an original structure is unusual on the Dudley Canal as most were rebuilt or replaced in an extensive programme of improvements carried out by the BCN in 1856-58, and in the 1890s.

The vast Round Oak complex ceased production last year after a history of iron and steel making on the site going back almost 200 years. This stretch of canal is now one of the quietest on the BCN. There is a



surprising amount of vegetation on the banks, particularly at the far end of the Works, and one could almost be on a rural waterway rather than in an area of heavy industry.

The first railway bridge once carried the Saltwells and Cradley line of the Pensnett Railway over the canal to the head of the Topsyford incline. This railway began in 1829 when the 4th Lord Dudley opened a line from Shut End near Kingswinford to Ashwood basin on the Staffs and Worcs Canal. This was an early example of railway competition as it bypassed the Stourbridge Canal and avoided the payment of tolls. The locomotive used was the "Agenoria", built by Foster, Rastrick & Co. of Stourbridge and now in the Railway Museum at York. The first locomotive to run on rails in America, the "Stourbridge Lion", was also manufactured by this firm. Within a few years of the opening of the Shut End Line the system had been expanded to serve the whole of the Dudley estates and extended from Ashwood as far as Cradley Heath. Except for some of the lines within the Steel Works little now remains of the Pensnett Railway.

Level Street takes its name from the mining term, and the basin just beyond the bridge was the intake for cooling water for the Works. The Dudley is very obviously a contour canal here as it winds past the furnaces and rolling mills. When the canal was built the main source of water was a reservoir at Woodside and the feeder entered the canal on the left a hundred yards or so before Woodside Bridge. On reaching this bridge there is a fine view of St. Andrew's Church on the summit of the gorse-covered Netherton Hill.

A section of the Pensnett (Lord Ward's) Canal that is still in water can be reached by a short walk along Pedmore Road. This $1\frac{1}{2}$ mile canal was built in 1840 by Lord Dudley (Ward was the family name) and ran from above Parkhead Locks to a wharf and siding near the Wallows engine shed on the Pensnett Railway. The branch served several iron works and was in use until 1950.

The Two Lock Line was built in 1858 as a short cut to the Dudley No.2 canal and saved about a mile on the journey round through Blowers Green. Unfortunately the famous "10 yard" or "Thick" coal seam outcropped nearby and subsidence due to mining was a constant problem. There was a spectacular collapse of the canal into old workings in 1894 and the BCN finally gave up the struggle and closed the Line in 1909. Peartree Lane was diverted when the Two Lock Line was built and no longer crosses the Dudley Canal, although the next bridge still bears its name.

The initials on the cast iron beam of the turnover bridge refer to the North British Iron Co., which in spite of its name operated several local furnaces. The canal originally terminated in a field (Ox Leasow) on the right just past this bridge, but tons of spoil have been dumped on the site and there is now no trace of the terminal basins.

In 1785 the Dudley Company began to extend the No.1 Line up five locks and through a $1\frac{1}{2}$ mile tunnel to connect with Lord Dudley's limestone workings on the other side of Castle Hill. These were already linked by canal to the BCN at Tipton and thus the Dudley Extension would open up a through route. There were considerable problems with the new canal. John Pinkerton, whose work for the BCN on the Walsall Canal had left something to be desired, was the contractor for the tunnel. Progress was slow and Pinkerton's performance unsatisfactory. Eventually in 1789 Josiah Clowes, who had built Sapperton tunnel on the Thames and Severn Canal, was appointed engineer and the work was finally completed in 1792.

Clowes also constructed a reservoir at Gads Green, near Windmill End, to supply water to the new locks and maintain the tunnel level 6" above the BCN at the stop-lock at Tipton. After the 1846 merger there was no longer any need to protect the BCN water in this way and the feeder from the reservoir to Parkhead seems to have been abandoned. There is certainly no obvious sign of it now.

Locks 4 and 5 at Parkhead both suffered from the effects of subsidence and in 1894 No.5 was removed and No.4 rebuilt with a fall of about 12 feet, thus making it the deepest lock on the BCN. Until the 1930's the building by the lock housed a recirculating pump that returned water from the 441' Level to the 453' Birmingham Level. An unusual feature of the junction above this lock is that there is no turnover bridge to the towpath of the Dudley No.2 Line. When this canal was constructed it was no doubt easier and cheaper to provide a towpath along the right bank of the Dudley No.1 from the turnover bridge some distance below the lock. This path has disappeared and access is now obtained by crossing the lock gates or by walking along Peartree Lane to Blowers Green Bridge, where it is possible to surmount the fence and join the towpath. Alternatively one can bypass the junction completely by following a footpath across the waste ground between the turnover bridge and Blowers Green Bridge (see maps D3 and D5).

The three other locks are above the junction and are well worth a visit, although the bottom gates of No.3 are padlocked and the 3154 yard Dudley tunnel is closed for repair. There are several interesting features here in an attractive setting. For example the "BCN" posts by the top gates of two of the locks, the railway viaduct with cracks and tie-bars indicative of subsidence, and the pulley at the head of the top lock. A horse towing a boat out of the lock could not exert an effective pull on the line as it would be heading towards the turnover bridge at the tail of the lock or the one over the Pensnett Canal. However if the towing line was passed round the pulley the problem was solved. The odd structure on the other side of the lock is a replica of a tunnel ventilation shaft and houses a plaque commemorating the reopening of tunnel and locks in 1973.

The Grazebrook Arm ran to Grazebrook's Netherton Furnaces and was abandoned in 1953. There are plans to

37/24271	SPRUCE SAWN	11" x 1 ⁹ / ₈ "
37/24249		9' x 1 ¹ / ₂ '
37/24160.		9' x 1
37/2347.	E. ELM.	12" x 2 ¹ / ₂ "
38/85837.	ASH. TILLERS.	8 FT.
38/74936	OAK KNEES	5" x 8" x 3 ¹ / ₂ "
38/79370	HELM POLES	
38/79390	MAST POLES	
38/84041	STEM POSTS	
38/80215	STERN "	
3°2/2756.	OLD CANVAS. SHEETING.	° ^{TEXTILE}

NARROWBOAT PARTS LIST - BCN BOAT DOCK
(WRITTEN ON THE BACK OF A 1934 CALENDAR)

dredge and restore to navigation the 200 yards or so that still remain. The famous Grazebrook blowing engine was sited near the Arm. This engine was erected in 1817 and was still at work providing the blast for bomb castings during World War 2. The engine was dismantled in 1964 and has been re-erected in the middle of Dartmouth Circus in Birmingham - hardly the most appropriate locality.

The Parkhead end of the Dudley tunnel was affected by subsidence and was rebuilt in 1884, hence the date on the portal. This "new" section, $9\frac{1}{2}$ chains long, gives a very misleading impression of the tunnel dimensions as it was built larger than the original bore. There is no towpath through the tunnel.

The centre of Dudley, the zoo and the castle are some distance away but may be reached by a walk of a mile or so along Holly Hall Road (turn right into Stourbridge Road). The 287 bus runs every half hour; journey time to Dudley about 7 minutes.

Dudley Canal No.2 Line (Selly Oak Extension)

This canal ran to Selly Oak Junction on the Worcester and Birmingham Canal and was intended to provide a route to the south which bypassed the BCN, thus avoiding the high tolls levied by that company on traffic via Tipton Junction. At the same time it served the industrial area to the west of the line of hills between Dudley, Rowley Regis and Blackheath. Clowes was the engineer, although he died before the Dudley No.2 was finally completed in 1798.

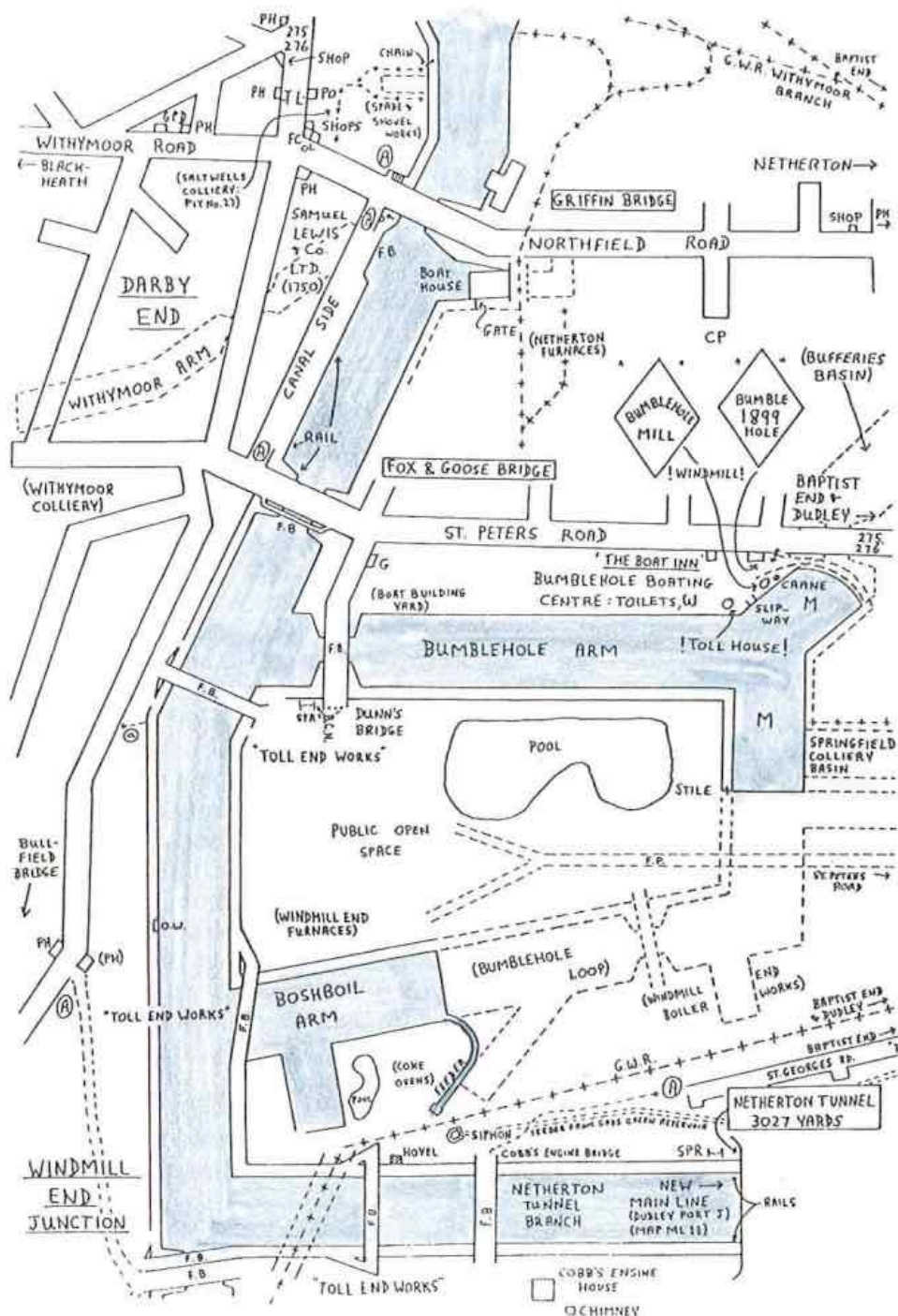
From Blower's Green Junction the canal skirts Netherton Hill and for a while runs parallel with the No.1 Line on the other side of the Black Brook valley. The colliery waste on the hill is now covered with vegetation, there are fields and woods in the valley, and the only blot on the landscape is the opencast

mining which began in 1983. The narrows just before the electricity transmission line are for the insertion of stop planks if the embankment is damaged by subsidence. The corresponding set at the far end are spanned by a modern bridge with beams by Dorman Long.

Thomas Brewin was superintendent of the Dudley from 1812 until 1846. His tunnel was built in 1838 as part of a new length of canal that cut off a loop of the old line. At the same time Lodge Farm storage reservoir was constructed over part of the loop, but basins were left at each end. A tramway from Doulton's Clay Pit ran to one basin, the other became part of the Company's maintenance yard. Brewin's tunnel was opened out in 1858 and High or Sounding Bridge (because of the echo) built over the cutting. There is an elegant Victorian pavilion in the cricket ground to the left of the bridge.

The rocks exposed in the cutting are of interest to geologists as they are the Downtonian sandstones and shales forming the core of Netherton Hill and underlying the Coal Measures in this area. There is also a small igneous intrusion. In the garden of BCN house No. 159 are the sluices and side pond for adjusting water levels between the reservoir and the canal. In times of drought the stored water was returned to the canal by a pump in the maintenance yard. The yard has been levelled and is now a car park; the reservoir is used for water sports. A walk along the foot-path past the immense Doulton's Clay Pit to the Saltwells Nature Reserve is an interesting and pleasant diversion. Saltwells takes its name from some saline springs where as early as the 1630s Lord Dudley unsuccessfully "attempted to make salt". However the waters were found to have a beneficial effect, particularly for skin diseases, and Saltwells was popular in the last century as a spa.

The canal rapidly becomes more urban and industrial as it approaches Netherton. Just before Primrose Bridge



is a Shropshire Union basin still in water, with a warehouse and stables carrying an LMS advertisement. Opposite is Primrose Hill Basin, part of an uncompleted improvement to cut off the loop round the hill. Netherton was famous for the manufacture of anchors and chains, and these were tested before dispatch in special proving or testing houses. There is one on the wharf here, with a large anchor standing outside, and there was another at Cradley a mile or so to the south. With views across to the Clent Hills on the right these buildings, basins and bridges make an attractive canal scene.

The centre of Netherton is a few hundred yards from Primrose Bridge or from Bishtons Bridge. "The Old Swan" in Halesowen Roas is also known as "Mrs. Pardoe's" and is highly regarded by those who "waa'nt a drap of comforting wairter, whom-brewed". Between the two bridges is Noah Hingley's Netherton Iron Works, now partly demolished, where the anchor for the "Titanic" was made. In the last century William Bishton ran a packet pleasure boat every Sunday from his wharf at Bishtons Bridge to the Old Wharf in Birmingham. At Fox and Goose Bridge near Bumblehole a Baptist minister waited for the boat and subjected the passing sinners to a fire and brimstone sermon for breaking the Sabbath.

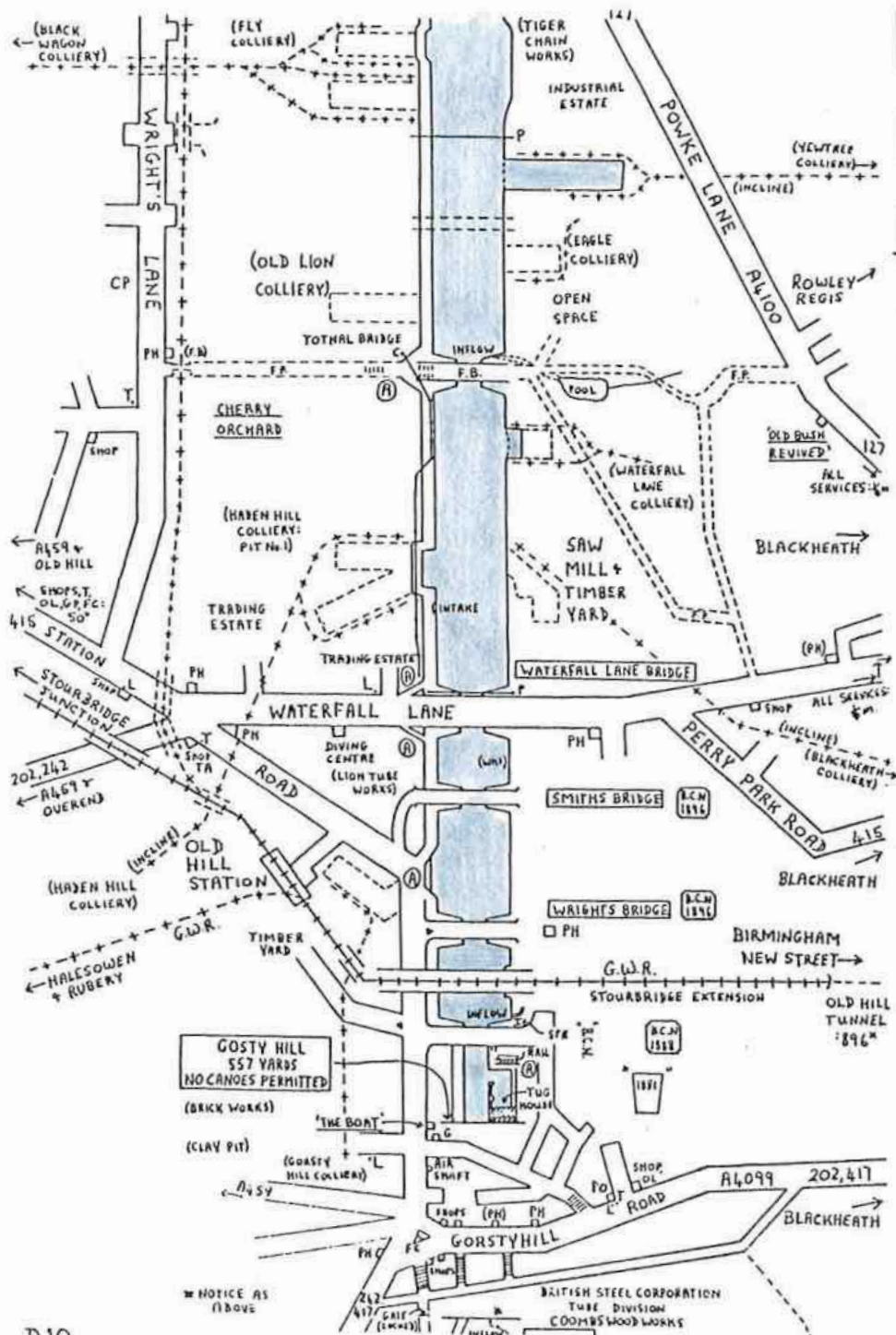
Withymoore interchange basin is a shadow of its former self as the transhipment shed, cranes and railway lines have all been removed since it ceased operations in the early 1960's. Griffin Bridge is named after Griffins Spade Works, which in the early 1800's issued its own coinage: "one pound for 240 Token Payable Jas. Griffins". Just past this bridge there is an attractive building on the left that was an ironmaster's office. On the right is one of the oldest firms in Netherton, Samuel Lewis and Co. Ltd., who started as nailmakers but now manufacture forgings and pressings. Their "Sammy" hand winches have been used by many boaters.

Nailmaking was a prominent Netherton industry and Darby End is where cottages were built for horse-nail makers who had come from Derbyshire. The Withymoor Arm served the colliery of the same name, where in 1864 the winding chain (rattle chain) snapped and the cage fell to the bottom of the shaft, killing eight men. The rail bordering the Canal Side towpath has the bolt heads countersunk into it so that they cannot snag towing lines.

The Bumblehole Loop was bypassed by a new length of canal, with twin towpaths and attractive "Toll End" bridges, when Netherton Tunnel was opened in 1858. Two arms, Bumblehole (apparently so named because of the sound made by an early steam hammer) and Boshboil, are all that remain of the Loop. The Bumblehole Boating Centre is worth a visit, although the headroom at Dunn's Bridge is restricted (6' 3" or so). The magnificent old crane is in need of some renovation and there is a collection of boat registration plates. The windmill and toll house are imaginative structures added in recent years. "The Boat Inn" in St. Peters Road has some fine etched glass windows.

Butteries Basin was yet another uncompleted branch. Originally planned to run to Baptist End, only a short section was built before the scheme was abandoned and a tramway constructed instead. The Baptists who lived in this area were for some years baptised in a "warm hole" where hot water from a furnace entered the canal. The whole area between the Bumblehole Arm and Warrens Hall Park beyond the Netherton Tunnel Branch has been landscaped, and Cobb's Engine House retained as a reminder of the many engines that once drained local mines.

A feeder from Gads Green reservoir entered the canal at the end of the Boshboil Arm and a section is still in water. The reservoir, above and to the left of the tunnel, was abandoned towards the end of the last century



and the feeder now carries surface water via a siphon under the railway embankment. At windmill End Junction continue straight ahead for Netherton Tunnel or turn right under the two bridges for the rest of the No.2 Line, which is navigable for another three miles. It is no longer a through route but a visit to Coombeswood and Hawne Basin is a worthwhile detour. The canal skirts Warrens Hall Park and passes two colliery basins before reaching Hailstone Quarry basin, where "Rowley Rag" was loaded for many years. This is an extremely hard igneous rock intruded into the Etruria Marl and there are large outcrops in the Rowley Hills. It was broken up into chips and sent by canal for use as road stone.

Doulton's Birmingham Pottery, which manufactured sinks and sanitary ware, is a few yards further along the canal. Many of the buildings still stand and form part of a trading estate. After Rowleystop there are housing estates on the left and industry on the right as far as Powke Lane Bridge. This is a modern bridge with an unusual ridged surface to the concrete piers, which may not be in keeping with the canal environment but is certainly effective against graffiti artists. After the next bridge the canal becomes more industrial but there is a reclaimed and landscaped area around Totnal Bridge. A footpath climbs the hill from here to Powke Lane where "The Old Bush Revived" is a popular meeting place for canal societies, particularly the Coombeswood Canal Trust. Take care if using the footpath in the dark as it is overgrown in places and very wet where it crosses the stream.

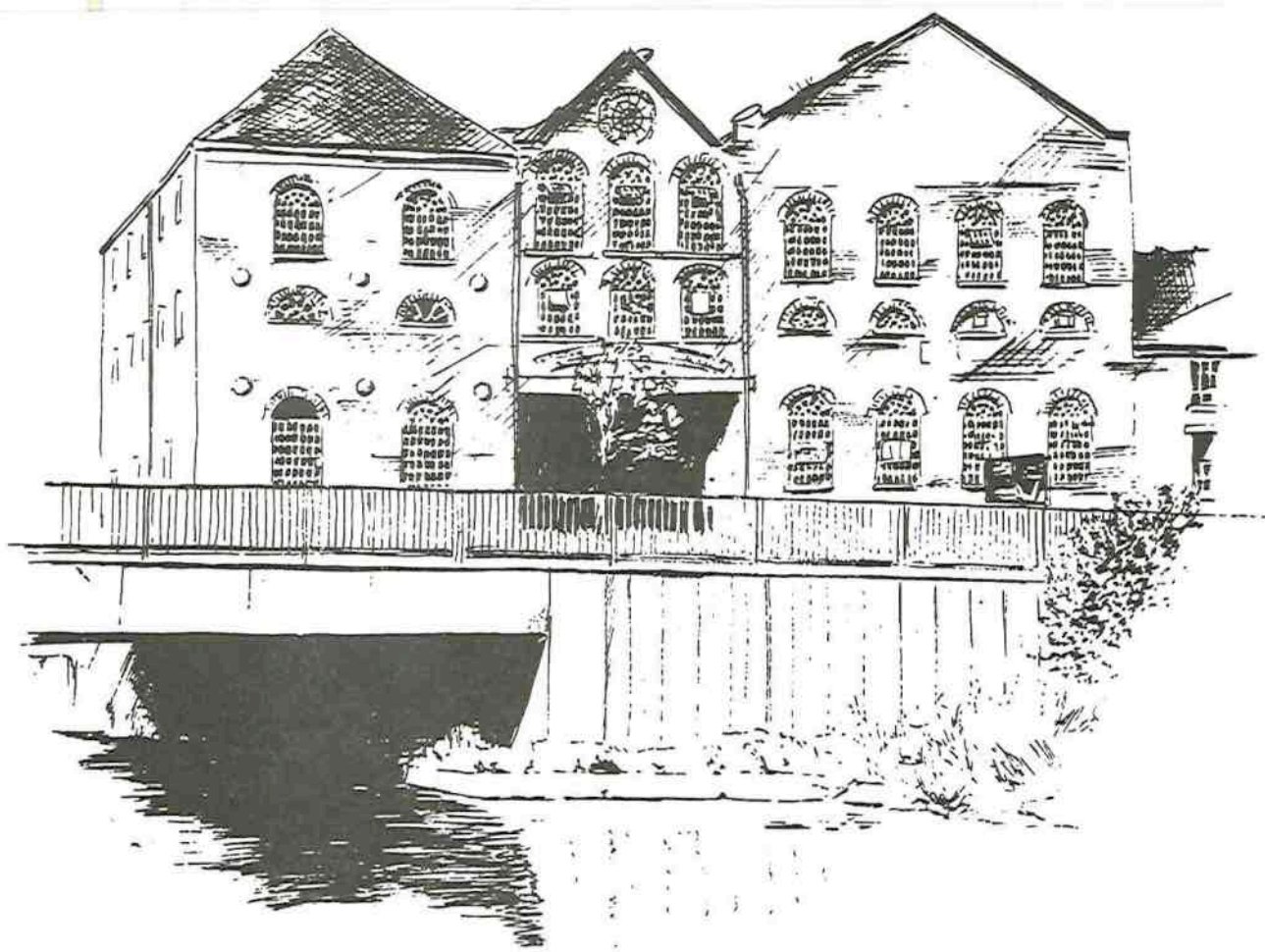
After Smiths Bridge the towpath joins Station Road to cross the bridge over the infilled colliery arm and road vehicles can be a hazard. There is no towpath through Gosty (or Gorsty) Hill Tunnel and no passing places for boats. However as one can see through the tunnel to the other end it is easy to check whether another boat is approaching. Although the tunnel was extensively rebuilt in 1881 the roof height is variable;

there is a low section just inside the entrance and also at the far end. The air shaft comes to the surface in the front garden of a house in Station Road.

For many years boats were "legged" through the tunnel but in 1913 the BCN introduced a motor tug, with a Bolinder engine burning paraffin and a propellor at each end so that turning was unnecessary. As motor boats became common there was less need for the tug and it was sold in the 1930's. The tug house is in poor condition but it is the only one on the BCN and should be restored. Could it once again be used as a boat house?

The tunnel emerges into Coombswood Tube Works, where narrow boats were still transporting tubes around the complex in the mid-1970's. On the right of the tunnel entrance is a pile of BCN stop planks. Similar planks were once to be seen on stop plank racks all over the system, but they proved irresistible to vandals and were removed, to be brought out of store as required. There is no access to the towpath from Gorsty Hill Road as the gate is kept locked. The only way one can walk this stretch of canal is to make a detour of over a mile along Coombes Road to Hereward Rise and approach from the opposite direction.

Beyond the Tube Works is Hawne Basin, an interchange basin that was used for the transshipment of tubes until the railway closed in 1967. It has now been restored by the Coombeswood Canal Trust for use as moorings and visitors are welcome. Burton Bridge, named after Chris Burton in 1982 after he had rebuilt it from a ruinous condition, has some very unusual interlocking iron plates protecting the brickwork of the parapets. The limit of navigation of the No.2 Line is now just past the Basin, where a bridge has collapsed into the canal, but originally it continued for another five miles to Selly Oak Junction on the Worcester and Birmingham canal. Over two miles of this length was in the 3795 yard Lappal Tunnel, which was closed in 1917 after constant problems with subsidence.



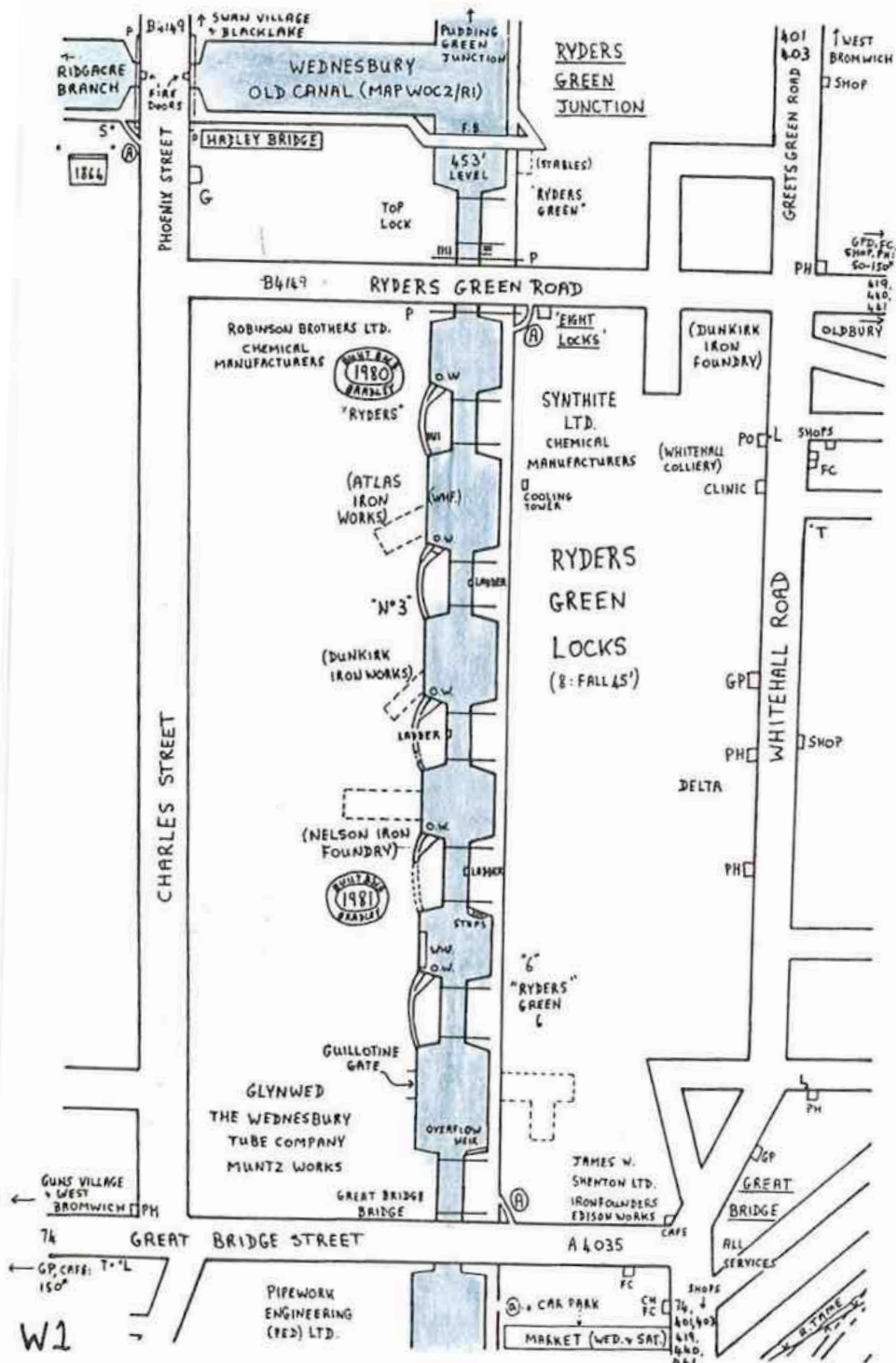
ALBION MILL, WALSALL

THE WALSALL CANAL

(including the Walsall Branch Canal)

Of all the Birmingham canals the Walsall has retained more of its original character than most. For much of its $7\frac{1}{2}$ mile length the canal is bordered by foundries, factories, interchange basins and derelict land; many of these appearing much as they did when it was a working waterway. At present, with the exercise of a little imagination, the sensation of stepping back into the past is very real, and is the main attraction of a visit to the canal. As derelict land is reclaimed and industrial sites redeveloped this will almost inevitably change. However some of the atmosphere could be preserved if two rather atypical planning policies were adopted. The first would be to site new industrial units close to the canal, so as to maintain the sense of enclosure in a world remote from suburban housing estates and commuter traffic. The second would be to allow as much natural colonisation of waste land as possible, rather than following the "public park" approach. Its present environment suits the Walsall canal and has continuity with its industrial past. It will never possess the charms of a rural canal and it could easily become an indeterminate and unattractive suburban waterway.

Immediately after Ryders Green Junction eight locks take the Walsall Canal down into the Tame Valley to the Walsall Level of 408'. The appropriately named pub is recommended. Formaldehyde is manufactured at the Synthite works adjoining lock 2. This chemical has a characteristic smell and is used in the plastic industry. In solution (formalin) it can also be used for preserving biological specimens, including human bodies for medical students. To stand by the works in the rain with the smell of formaldehyde in the air can produce an uncomfortable feeling of being pickled alive.

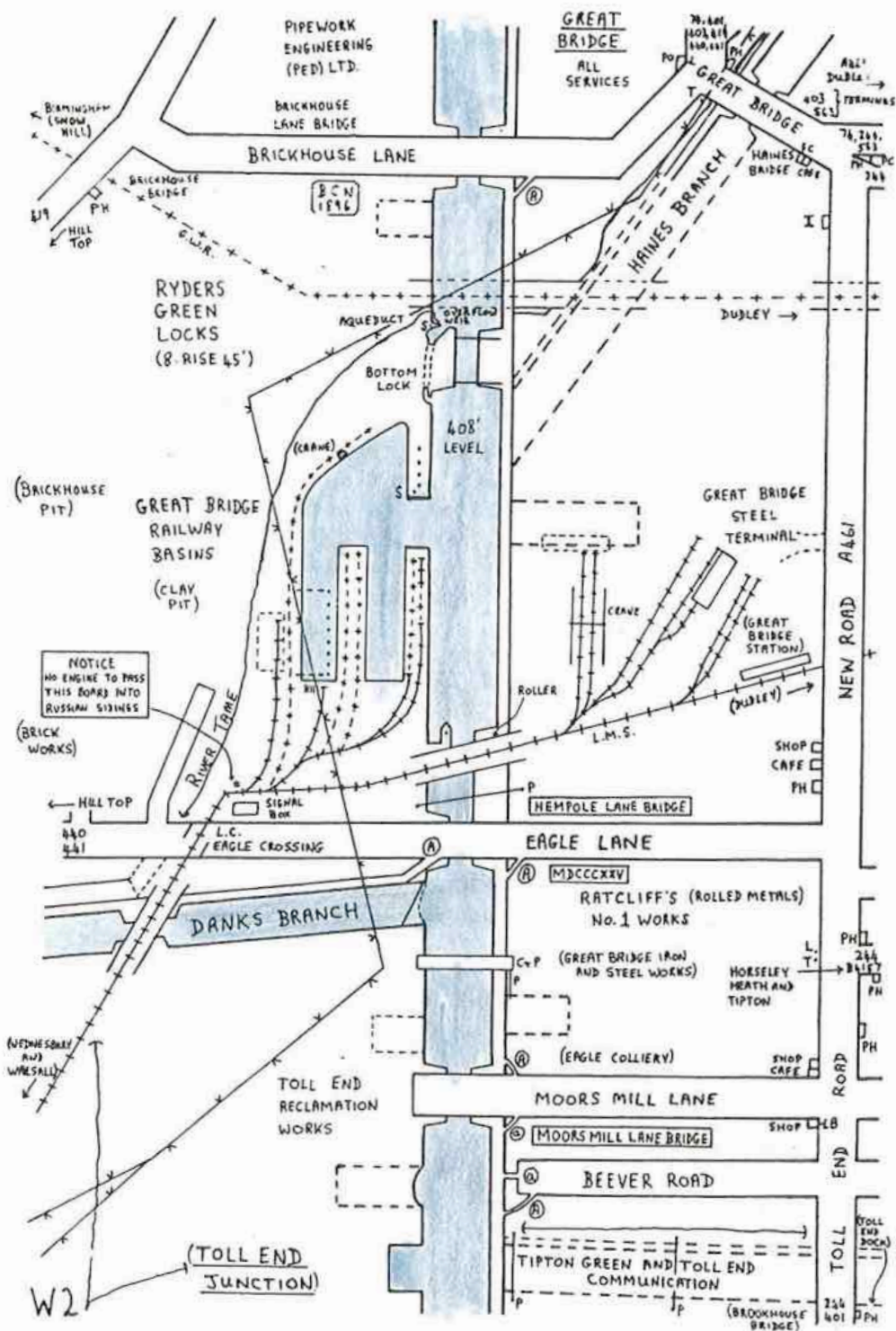


The Ryders Green locks have been surrounded by industry for many years and there were wharves and basins in most of the pounds. A decrepit wharf remains between lock 5 and 6 (note also the steps at the tail of lock 5) and the basin in the next pound is unusual in being gated. The chains and pulleys of the lifting gear are still in place, although obviously not used for many years. The Muntz works are named after G.F. Muntz, who in 1832 patented a yellow alloy of copper and zinc used for sheathing the bottoms of timber ships. Muntz's Metal Co. also had a large works in Smethwick.

Until it was replaced recently the bridge below lock 7 was notorious as the lowest on the BCN, with strengthening girders reducing the headroom to 5'9". The centre of Great Bridge, where the shops are adequate for most needs, is only a short distance from here or from the next bridge.

The bottom lock is some distance from the rest of the flight and with a fall of only 3 feet or so, half that of the others, it is the shallowest lock on the BCN. This is an indication that this section of the Walsall was constructed at an early date. A later canal would have descended into the valley with evenly spaced locks of uniform fall. Such an arrangement is less wasteful of water but involves the excavation of the necessary cuttings and embankments, something the early engineers avoided wherever possible.

This length of the Walsall, the 2½ mile Broadwaters Extension, was the beginning of the expansion of the BCN system after the completion of Brindley's original canal. It was intended to serve the collieries on the other side of the valley from the Wednesbury Old Canal, and was part of the BCN's successful campaign to defeat the rival Fazeley scheme (see BF1). Robert Whitworth surveyed the route in 1782, John Smeaton was the engineer and John Pinkerton the contractor. The canal



seems to have been open by late 1785 but poor workmanship by Pinkerton was not rectified until early 1786. The extension to Walsall came later, in 1799, and finally the Walsall Locks Branch was constructed in 1841 to connect the Wyrley and Essington and the BCN after their merger in 1840. A feature of Smeaton's work is that he used single bottom gates for his locks, a practice continued by the BCN until the Bentley Canal was built in 1843. Presumably cost was the determining factor as single gates were cheaper than the mitred gates used by Brindley.

Below the bottom lock the next $1\frac{1}{2}$ miles of the Walsall were once a maze of branches and arms. Most were constructed to serve collieries and indicate how heavy the traffic carried by the Broadwaters Extension must have been as the coalfield developed. Little remains now of the Haines Branch, which eventually extended almost to the New Main Line at Dudley Port Junction, and closed in 1969. However Great Bridge railway interchange basins are still in water, although shallow. The stumps protruding from the water in the furthest basin are the bases of the pillars that supported one side of the transhipment shed. In the 1960's some of the sidings off the main line here were used to store steam locomotives awaiting the torch at Cashmore's scrapyard.

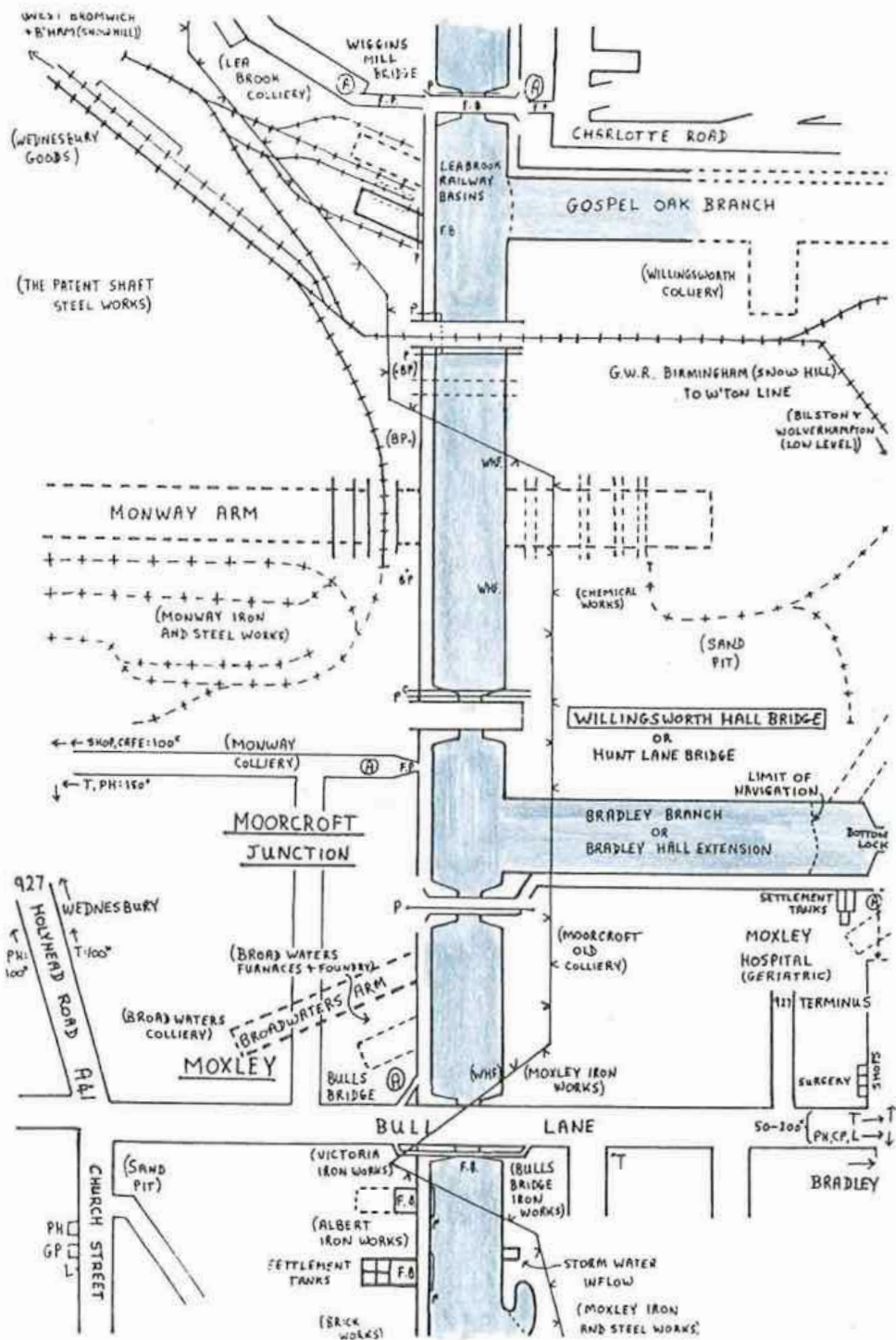
Hempole Lane Bridge is a turnover bridge carrying the towpath across to the Danks Branch, which although stanked off is still in water for some distance. Danks was a local mineowner and the branch ran to Golds Hill Colliery, with an arm to Brickhouse Pit. There is still an attractive wooden towpath rail under the railway bridge.

The Toll End Reclamation Works ("reclamation" seems to be a modern euphemism for "sewage") follow on the right and the next substantial branch - the Tipton Green and Toll End Communication - is marked by a curve of pipe standing in a field on the towpath side. This

branch began as a colliery arm but by 1809 it had been connected to the Old Main Line at Tipton Green, thus providing an alternative route from the Walsall Level and easing the pressure on Ryders Green and Spon Lane locks. John Rennie, whose engineering achievements included the Kennet and Avon and Lancaster Canals, where he built some notable aqueducts, produced plans for the Communication Canal, but these were not accepted. There were eleven (later reduced to ten) locks up to the present summit level and when the New Main Line was built it ran through the pound between locks 3 and 4 (Watery Lane Junction - see map ML13). The length between the Old and the New Main Lines was abandoned in 1960 but the lower section survived until 1967.

The Ocker Hill Tunnel Branch was opened in 1785 to feed water from the Walsall Level to the Ocker Hill pumping engines, via a tunnel into the side of the hill. These engines were at the end of the Ocker Hill Branch from the Wednesbury Oak Loop of the Old Main Line, and they raised water 65 feet up shafts from the tunnel to replenish the 473 foot Level. There were three engines working by 1803 and the number was eventually increased to six. The current created by the pumping was so great that in 1815 "when the Cut is crowded with Boats they cannot be haled out". After the Ocker Hill Branch was abandoned in the 1950's the tunnel was blocked but the lower canal was retained to provide cooling water for the adjoining power station. This has recently closed and there must now be some concern for the future of the Branch. It would be regrettable if it became a linear tip, as when navigable such branches add character and interest to the BCN, and this one would only appear to require dredging.

Turn right at Doe Bank Junction for the Tame Valley Canal. The directions on the two cast-iron bridges here are misleading. Obviously so if you have recently left Birmingham and come down Ryders Green Locks, but if you are approaching the Junction

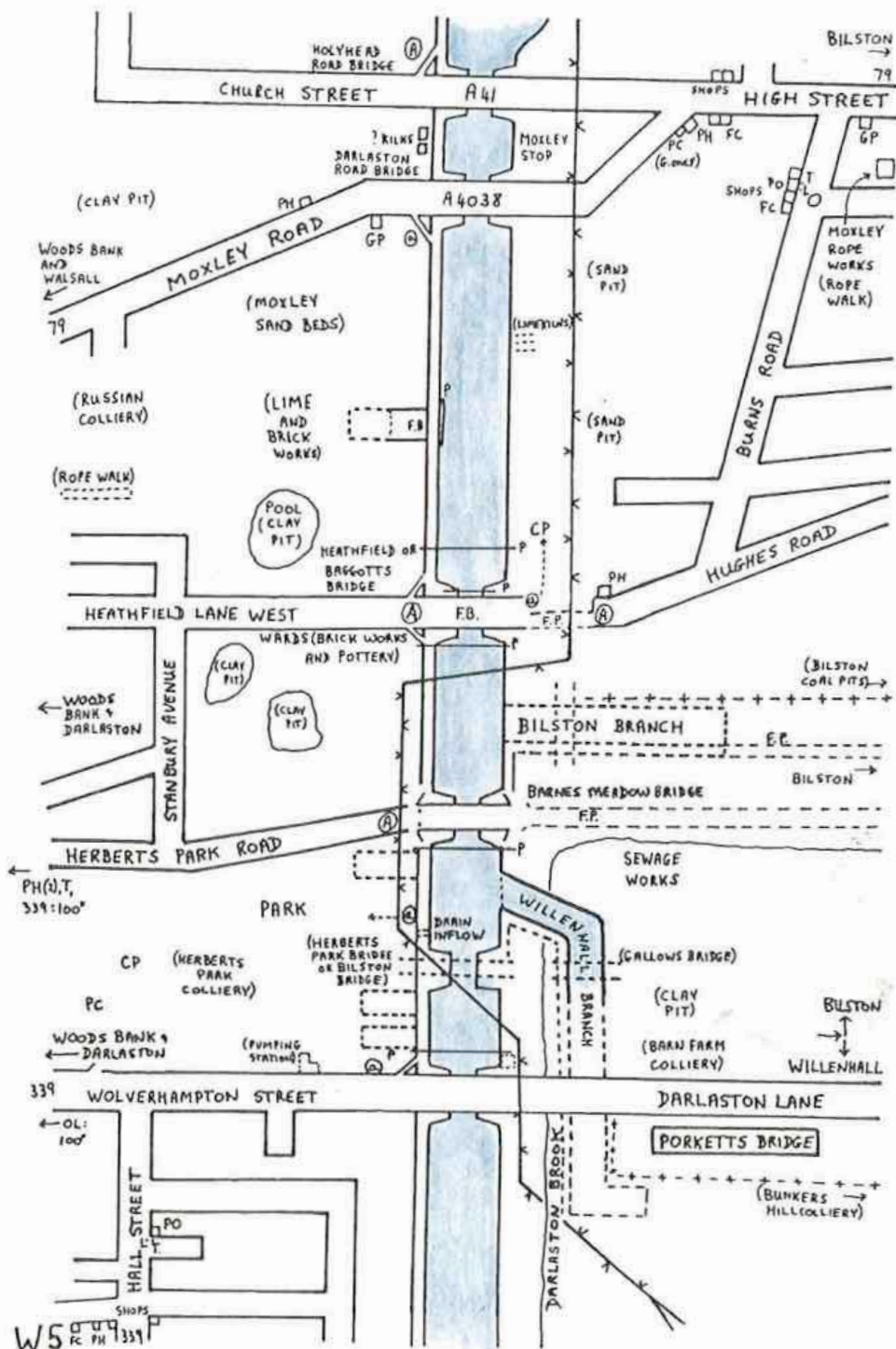


from Walsall the most direct route to Birmingham is straight ahead and not to the left.

The Walsall Canal continues under the power station coal conveyors and the bridge carrying the LNWR Princes End branch. This was an early example of an uneconomic branch line and lost its passenger service in 1916. There are two small housing estates before Wiggins Hill turnover bridge and then another arm on the right: the Gospel Oak Branch. The original plans for this branch included locks but these were never built. It was decided instead to have three locks on the Bradley Branch and duplicates here, only a few hundred yards away, would have been superfluous. The Gospel Oak was abandoned in 1954 but remained in water, although choked with reeds and completely unnavigable, until most of it was recently filled in.

On the opposite side of the canal is the surviving basin of the GWR Wednesbury (Leabrook) railway-canal interchange yard. The other basin was levelled before the last war and the sidings are now used as a steel terminal. The next bridge carries what was once the GWR main line, now reduced to a short freight-only section between Wednesbury and the Walsall Street steel terminal in Wolverhampton. The pipes attached to this bridge carry oxygen from the British Oxygen plant, also at Walsall Street, to the Patent Shaft Steelworks. The Monway Arm once ran through these works, with a lift bridge to carry factory traffic over the canal, but now the only indication that this branch existed is the railway bridge at the entrance. Just past the bridge, by the corner of the fence bordering the towpath, is a GWR boundary post.

The young birch wood on the left of the canal is an excellent example of the natural reclamation of derelict land. Fifteen years ago when the chemical works was demolished there were patches of garishly coloured soil



amongst the heaps of rubble. The area appeared totally unsuitable for plant growth. Now it is fast becoming an attractive woodland and the cost to the community has been nil. Have the millions of pounds spent on land reclamation in the West Midlands (and elsewhere) all been absolutely necessary?

The Bradley Branch is still navigable for a few hundred yards, although judging by the growth of reeds very few boats make the attempt. This was another colliery branch, initially built with three locks but extended in 1849 through six more to join the Wednesbury Oak Loop. It thus provided another link with the 473 foot Wolverhampton Level until it was abandoned in 1961.

The Broadwaters arm, the original terminus of the 1785 canal, has completely disappeared, as there has been extensive tipping in this area. Indeed BWB still dump dredgings across the towpath here and the inevitable spillage makes boots essential if on foot. The disused mines and pools at Broadwaters were a major source of water for the BCN and between 1790 and 1813 the Company had an engine pumping water into the Walsall Level, from which it was raised to the summit by the Ocker Hill engines. There was also a feeder carrying surplus water back from the summit to the pools for storage. After 1813 pumping continued but using an engine installed by local mineowners who wished to reopen the mines.

The canal is now only $\frac{1}{2}$ mile or so from the site of John Wilkinson's ironworks (see W012-3). Walk along Bull Lane past Moxley Hospital, turn right into Great Bridge Road and the "Fiery Holes" public house is a reminder of the night-time spectacle 200 years ago, as furnaces illuminated the sky and lights flickered in shallow coalpits. A plinth in the recreation ground across the road from the pub once carried a plaque commemorating Wilkinson, but this has been removed by vandals.

April 3 1886

Barn Farm Collary

Mr Robinsan sir Consuring
tha wight on your Boats
i am nat to a wagin of
clay nor tow But sum
of your Boats lak verry Bad
we dursent load them tow
hevy or we should have
them sunk

Yours trulay
William Bailey

"April 3 1886

Barn farm Collary

Mr. Robinsan Sir Consuring
tha wight on your Boats
i am not to a wagin of
clay nor tow But sum
of your Boats lak verry Bad
we dursent load them tow
hevy or we should have
them sunk

Yours trulay
William Bailey"

Holyhead Road Bridge carries what was once the main London to Holyhead coach route, improved by Telford in 1826. Between this bridge and Darlaston Road Bridge there are two brick structures, half hidden by vegetation, at the side of the towpath. These might be small kilns - any information about them would be welcome. Boaters requiring rope can purchase it at Moxley rope works, although unfortunately the ropewalk was demolished in the 1970's.

There are glacial deposits of sand and boulder clay overlying the Middle Coal Measures in this area and Moxley sand beds were a rich source of foundry moulding sand. The site is now waste ground and has been used for tipping. The side bridge carrying the towpath over the nearby basin is badly holed. Ward's pottery at Baggotts Bridge specialised in the manufacture of flower pots, but production ceased some years ago and the bottle ovens have been demolished. Plant pots are still sold but they are the modern "plastic" variety and are made elsewhere.

The Bilston and Willenhall Branches had a relatively short working life, opened soon after the canal was constructed but closed by 1904 when Bradshaw's Canal Handbook was published. This is the least industrial part of the Walsall Canal, with open ground around the Darlaston Brook on the left and a public park on the right. Yet another BCN pumping station was sited here, supplying water from Herberts Park colliery to the canal near Porketts Bridge. A housing estate follows on the towpath side and then industry once again encloses the canal as it passes through the large Rubery Owen and GKN works.

The initials in the device decorating the small building by Rough Hay Bridge refer to the Midlands Electric Corporation for Power Distribution. At the turn of the century this company, together with the Blast Furnace Power Syndicate, began to

supply the district with electricity. The MEC also built a generating station, which is dated 1906, in Church Street, $\frac{1}{2}$ mile to the south-east in the centre of Darlaston. In the same street is St. Joseph's Catholic Church, one of the most unusual churches in the Midlands. Its design is based on the recurrent theme of the shape of a nut and it symbolizes the industry for which Darlaston is famous: the manufacture of nuts and bolts. Willenhall, the centre of the lock and key trade, can be reached by walking $\frac{1}{2}$ mile in the opposite direction from Rough Hay Bridge.

The Rubery Owen works, like Patent Shaft, receives oxygen by pipe from British Oxygen at Wolverhampton. This pipe has been buried in the towpath from Baggotts Bridge but it now crosses the canal on the second of the two factory bridges. There are many miles of electricity cables and gas mains under canal towpaths, including this one, but an oxygen pipe is more unusual. Immediately after Bughole Bridge are the remains of Darlaston railway interchange basin, established by the Grand Junction Railway and said to be the oldest such basin on the BCN (the GJR became part of the LNWR in 1846).

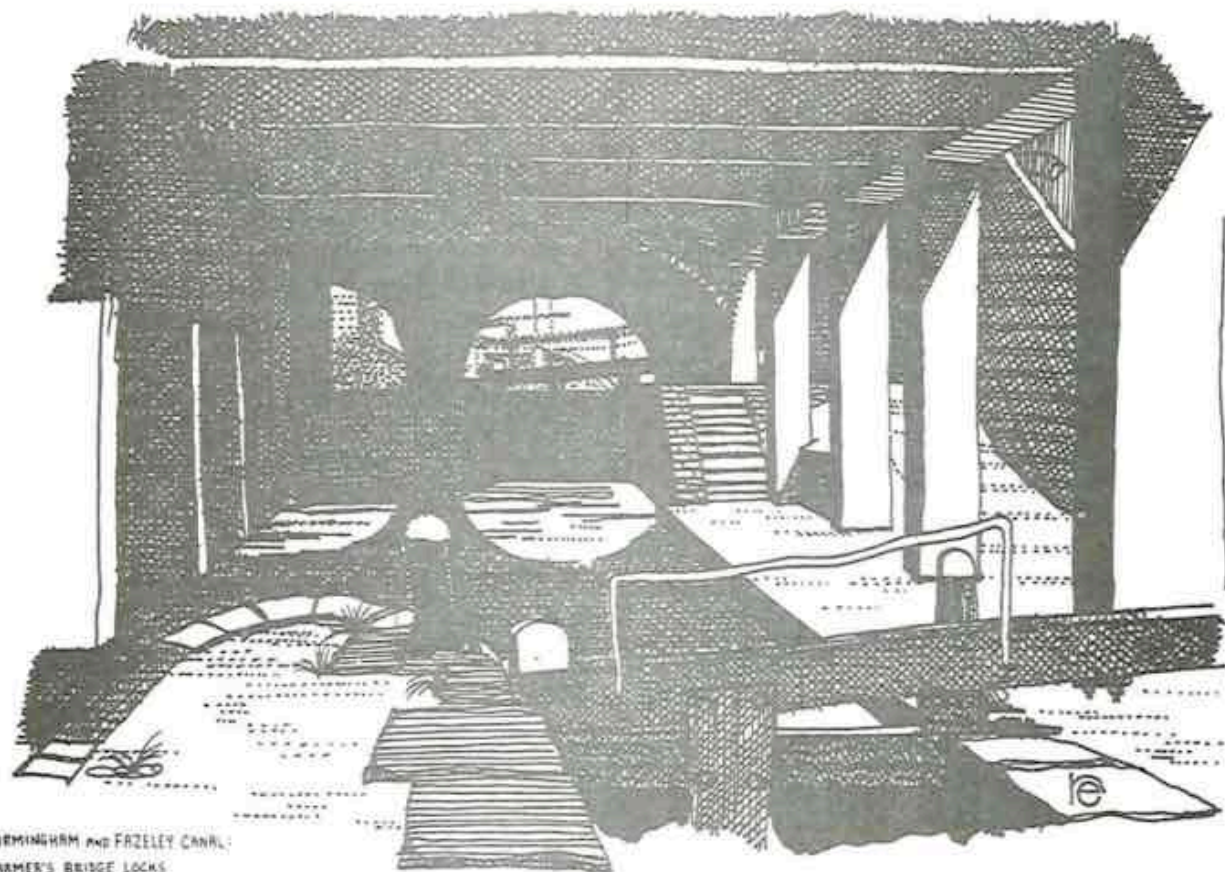
The canal now passes the site of what was until its removal in late 1983 the only operating bascule bridge on the BCN. This was a modern electrically-powered bridge controlled by push-buttons at the operating stations. It carried an internal factory road across the canal, with the towpath taken high over the roadway on an inelegant framework of girders. Although a loss to the BCN, the bridge has been purchased by the Wey and Arun Canal Trust and hopefully will eventually be re-erected on that canal.

Darlaston has been severely affected by the recent recession, perhaps more so than other parts of the Midlands, but some heavy industry has survived. It is worth leaving the canal at Bentley Bridge and walking

to the corner of Willenhall Road, where it is possible to look into an inferno of heat and noise at Garrington's Forge. Bradley and Foster's works on the left of the canal is another typical Black Country scene, with glowing furnaces and heaps of spoil.

After Forster's turnover bridge a short length of the Walsall, including the aqueduct over the Grand Junction Railway, has twin towpaths, as does the Anson Branch as far as the junction with the Bentley Canal. The Anson, over $1\frac{1}{2}$ miles long, was opened in 1830 to serve Reedswood colliery. In later years a BCN pumping station was situated near the end of the Branch. More recently, after Birchill's power station was built, it gained a new lease of life for cooling water. However the power station has now closed and the Anson Branch is threatened with complete abandonment. Theoretically the limit of navigation is the M6 embankment, as although the canal north of the motorway is in water, the culvert will only pass an undersize boat. In practice the section north of Bentley Mill Bridge has accumulated so much rubbish that it is only a few inches deep, and there is another shallow stretch just past the entrance to the Branch. More serious is an underground fire that BWB suddenly discovered burning in the embankment near the junction with the Walsall. The Anson was closed and then reopened after protests from enthusiasts, presumably indicating that the fire was not considered a major problem. However the Branch has recently been closed again and its future must be in doubt.

The Bentley Canal was opened in 1843, after the 1840 merger of the BCN and the Wyrley and Essington Canal. It ascended through 10 locks in just under $3\frac{1}{2}$ miles to join the W & E at Wednesfield. After the abandonment of all but the six locks at the far end (see WE2) part of the Bentley was used as the route



BIRMINGHAM AND FAZELEY CANAL:
FRIMLEY BRIDGE LOCKS

of a 8' x 5½' storm-water sewer - a role that the restored canal could surely have performed at a fraction of the cost.

The Walsall Canal continues across the river valley on an embankment and the two arch James Bridge aqueduct (although one arch is no longer used as the river has been diverted through a culvert). The young River Tame has two main tributaries, both confusingly known as the Tame. They meet a mile to the south-east of here, at Bescot, and the river then flows east and north to join the Trent. The Walsall crossed the more southerly of the two tributaries at Great Bridge: this is the other. The narrows just before the motorway is a safeguard against a breach in the embankment, as stop planks can be inserted in an emergency.

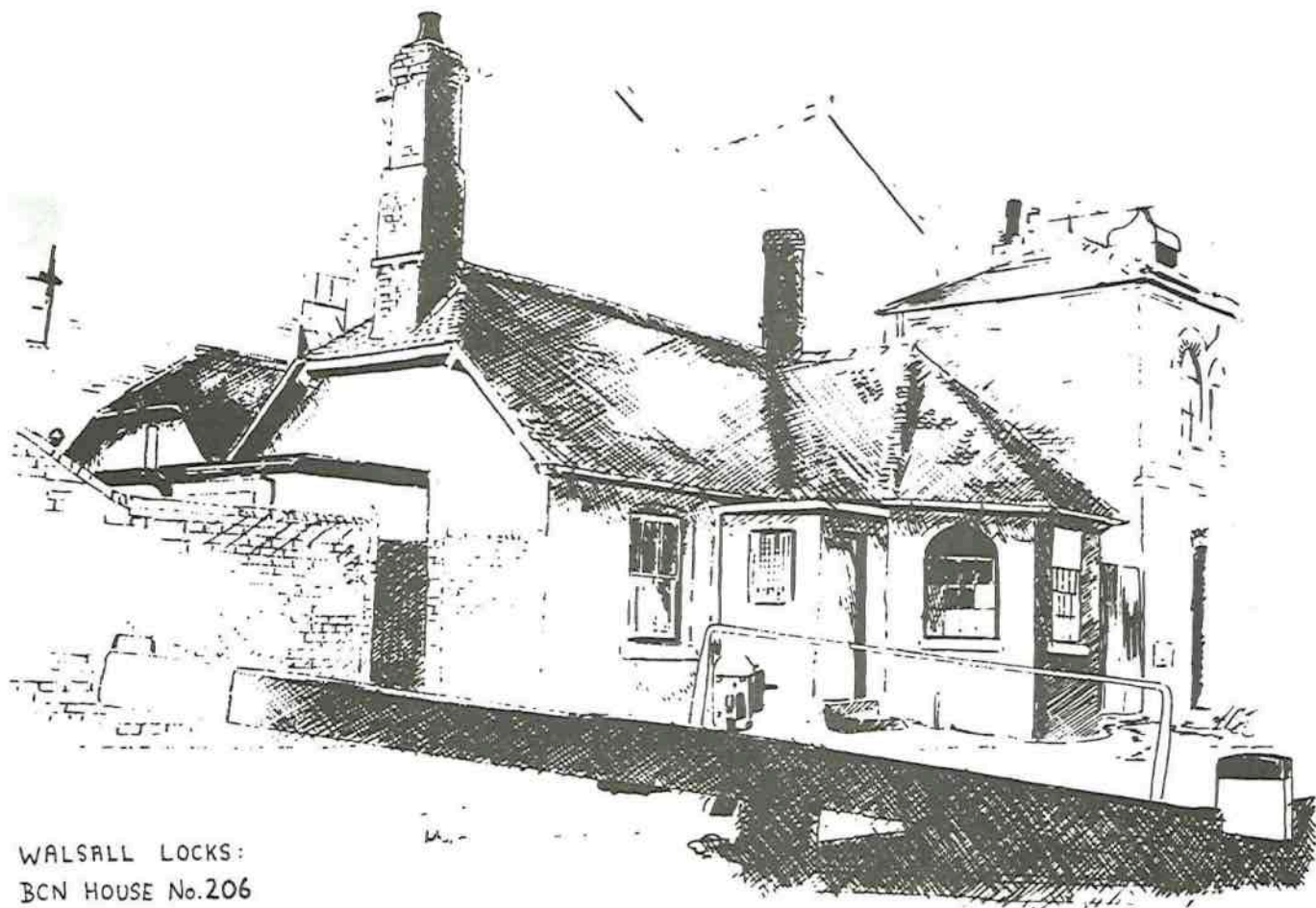
After James Bridge Copper Works, where an office block has been built over the canal and there is an interesting side bridge on the right, the industrial surroundings give way to housing as the waterway enters a cutting. Woodward's Bridge is most convenient for access to the rather scattered shopping facilities at Pleck, including the fish and chip shop in Pleck Road. Industry returns after Pagett's Bridge and remains the predominant feature until Birchills Junction. Canoeists seem to find the canal towards Walsall Junction attractive and boats should pass them with care.

In his "Buildings of England" Pevsner describes Walsall as "a mess", an opinion confirmed by the state of Walsall Town Wharf. However there are features of interest amongst the dereliction. The brick wall on the right at the junction has cinder (furnace slag) panels in an attractive design that has unfortunately suffered from some crude and unsympathetic repairs. On the left a range of unusual Victorian warehouses in red and blue brick surround the site of the basin. They

are at present occupied by the local Co-operative Society but there have been suggestions that they would be ideal for a museum specialising in the history of the leather industry. Walsall has been the centre of this industry for several hundred years and there are many works (marked with an asterisk on the map) manufacturing saddlery, bags and other leather goods, including footballs used in the World Cup Finals. At Bloxwich, a short distance to the north-west saddlers' ironmongery and awl blades were made and this ancillary trade could also feature in such a museum.

Unless the arm has been dredged recently it is almost impossible to proceed beyond the narrows, but there is a convenient mooring just before them. To reach the town centre walk past the foundry and along the back of the old coal yard. The building at the end of the arm is an unusual combination of a warehouse and a wharfinger's cottage. It is probably unique on the BCN but has been allowed to fall into disrepair. In spite of several requests the Walsall Planning Department have flatly refused the Walsall Planning Safeguard the building, as its retention does not suit the plans submitted for the site by developers!

The Wenlock Limestone that outcrops at Daw End (see DE4) lies under a shallow covering of Coal Measures in this area. Several shafts were sunk around the end of the canal arm and on the other side of Wolverhampton Street to raise the stone, although exactly where the workings were, and their size, is not known. There were also extensive mines, with caverns and a large underground lake, a short distance to the north-east around Littleton Street. Further workings were beneath Church Hill to the south-east and the site of Walsall Arboretum was once a large limestone quarry.



WALSALL LOCKS:
BCN HOUSE No.206

The Walsall Branch Canal

This canal, also known as the Walsall Junction Canal or the Walsall Locks Branch, connects the Walsall Canal with the Walsall Branch of the Wyrley and Essington. After Wolverhampton Street Bridge and the imposing Albion Flour Mill the canal reaches Lock 6 which still has traditional, rather than hydraulic, paddle gear on the bottom gates and a fine flight of steps. It is not clear why this lock has mitred bottom gates while the other seven have singles. The BCN changed back to mitred gates in 1843, a couple of years after the Branch opened, and it is possible that this lock was rebuilt at a later date. The remains of ladders can still be seen on some of the older bottom gates. These were provided instead of steps at the tail of each lock. Provisions can be obtained at the shops to the left of Top Lock Bridge.

The Boatman's Rest just beyond the bridge was one of three mission halls on the BCN operated by the Incorporated Seamen and Boatmen's Friend Society. The other two halls, both now demolished, were near Gas Street Basin in Birmingham and at Hednesford on the Cannock Extension. The aim of the Society was to care for the spiritual and physical welfare of the boatmen. Services were held in the missions and at popular mooring points, clubroom facilities (but no alcohol) provided, and letters written for the boatmen free of charge. Boat children were given as much education as possible, although their attendance was inevitably sporadic. The missions would even provide overnight shelter for a boatman working a long trip on a "day" boat without a proper cabin. The boat horses were not forgotten and stables were erected at the Boatman's Rest and at Rushall, Great Bridge, Ryders Green and Hednesford; all places where horses and mules might have to stand waiting their turn for locks or while the boat was loaded. There were also mission halls at Wolverhampton

Top Lock and Tipton (see ML10) which were independent of the Society, although they operated in much the same way.

A few yards beyond the mission the canal joins the Walsall (Birchills) Branch of the Wyrley and Essington. When Walsall Locks were constructed the end of this branch was left as a short arm. This later became the base for E. Thomas (Walsall) Ltd., a canal carrier who had several hundred "day" boats moving short haul traffic (mostly coal) on the BCN and neighbouring canals. As commercial traffic declined in the 1950's and '60's "Ernie" Thomas was one of the few carriers to successfully adapt to the changing pattern of use of the waterways. He founded Gailey Canal Cruisers on the Staffs and Worcs Canal and then moved to Hatherton Junction, where he spent his remaining years until his death in 1973 developing Calg Heath Marina and the hire fleet business that is still based there today.

Walsall's worst industrial accident occurred at the nearby Walsall Iron Company works. On the 15th October, 1875 an overfilled furnace burst as it was being tapped and 17 men (? some accounts state 15 or 12) were showered with molten metal. Three were in such agony that they jumped straight into the canal. Eventually two men recovered, largely due to the nursing skills of Sister Dora, Walsall's most famous inhabitant. Sister Dora (Dorothy Pattison) came from Yorkshire in 1865 to take charge of Walsall's first hospital and stayed until her death in 1878. Her nursing techniques were such that the death rate from serious accidents, mainly industrial injuries, was less than the average for the most progressive London teaching hospitals. She was the civilian equivalent of Florence Nightingale and was regarded with reverence by the townspeople.

After passing the closed Birchills power station and crossing the massive blue brick aqueduct over the railway the canal reaches Birchills Junction. Turn left for Wolverhampton or right for the Anglesey and Daw End Branches.

BIRMINGHAM CANAL NAVIGATIONS.

5963

TRAIN STAFF TICKET.

LITTLEWORTH RAILWAY.

TRAIN No. _____ (UP.)

TO GUARD AND ENGINEMAN.

You are authorised to proceed from
Wimblebury Junction to Cooper's Lodge Junction,
and the Train Staff will follow.

Time _____

Signature _____

Date _____

188

OVER

This Ticket is to be given up by the Engineman immediately on arrival at the Station to which he is authorised to proceed, to the Chief Officer on duty there, who will be held responsible for this and all such Tickets being at once cancelled and forwarded to the Officer appointed to receive them, so as to prevent the possibility of their being used a second time.

THE WYRLEY AND ESSINGTON CANAL

(including the Cannock Extension, the Daw End Branch, and the Anglesey Branch)

To join the Wyrley and Essington, turn off the Main Line at Horseley Fields Junction, following the signpost to Walsall and Cannock. This indication is somewhat misleading, as the latter town has been several miles from a navigable canal since most of the Cannock Extension was abandoned in 1963. Furthermore the W & E really is part of the BCN, and has been since amalgamation in 1840, although one arm of the signpost firmly states otherwise.

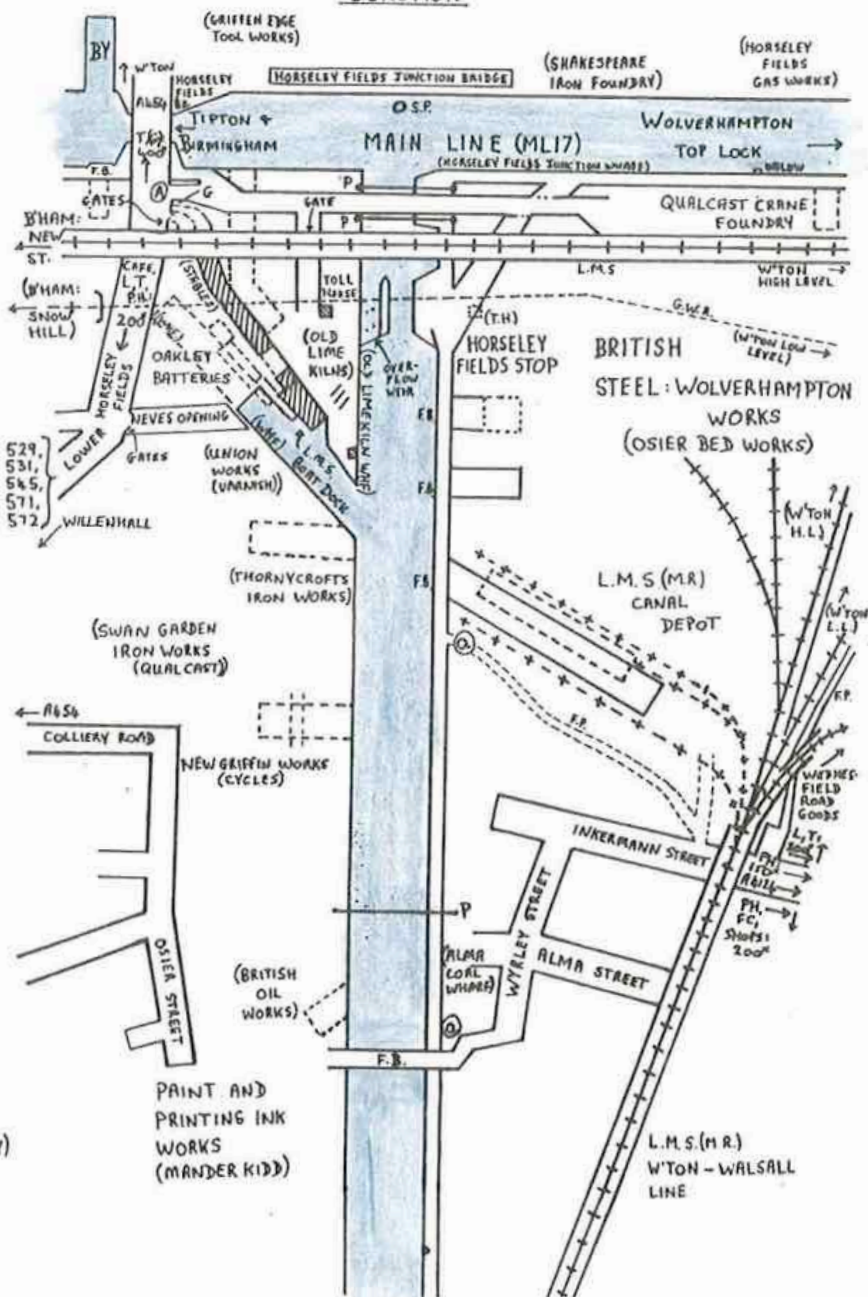
First impressions are not favourable. After passing under two solid but uninspiring bridges, the view is of dereliction and waste ground on the right, and of an expanse of blue corrugated iron (British Steel) on the left. However, appearances are deceptive, and this is one of the most interesting stretches of the W & E.

The stop-lock, now without gates, incorporates an overflow weir; an indication that the water level in the W & E was once higher than in the Wolverhampton Level of the Birmingham Canals, and that any surplus flowed into the latter. This was designed to safeguard the water supply of the Birmingham system when the junction was opened in 1794. The Act for the construction of the new canal included clauses to this effect, inserted at the insistence of the Birmingham company, not surprisingly in view of their constant problems with water shortages.

Early maps show a toll-house on the left of the narrows but no trace of this remains, and the two-storeyed building on the right, almost hidden behind tumbledown shacks, was used for many years. The arm on this side of the canal leads to the LMS Boat Dock (also known as Commercial Wharf) which has recently been restored by the West Midlands County Council.

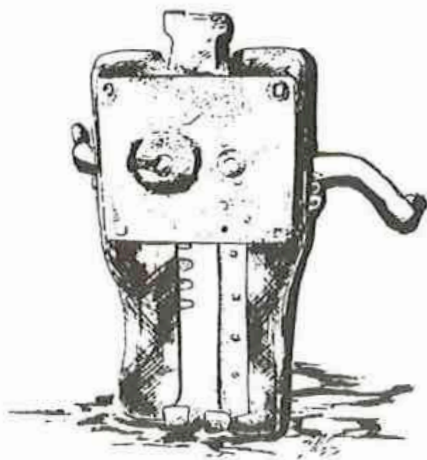
HORSELEY FIELDS

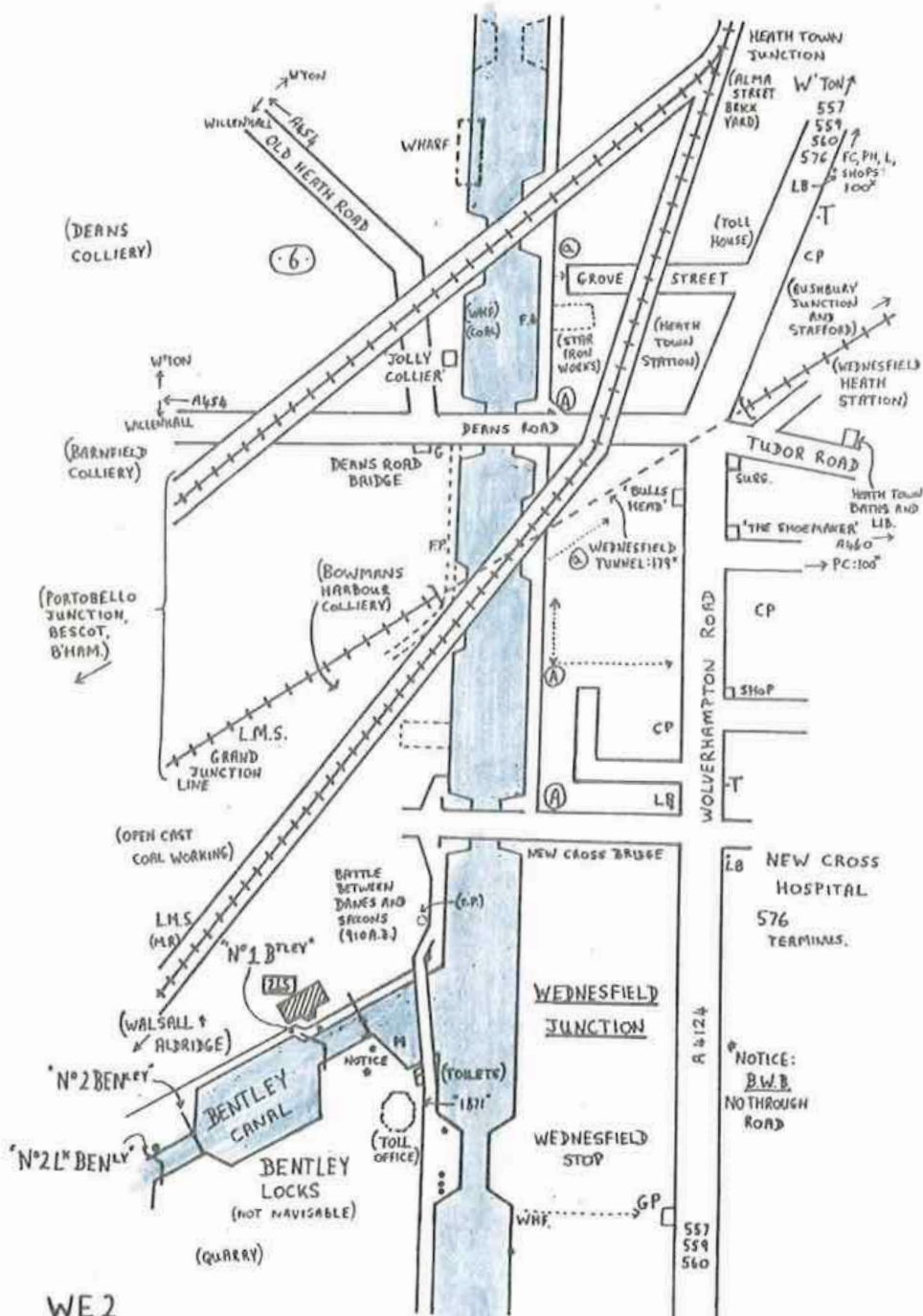
JUNCTION



Unfortunately the Boat Dock illustrates the difficulty of achieving restoration without losing much of the character and interest of the original. The cobbled yard has become tarmac, the colour wash and rustic fence are incongruous, and the massive oak beams along the floor of the Dock have disappeared. Six of these beams were arranged in pairs running down to the water, and formed slipways up which the boats were dragged by hand windlasses. This Dock was unusual in that "pulling out" was done lengthwise rather than sideways, as was the usual practice.

Many of the original buildings have been demolished. The boilerhouse and plank-bending shed went some years ago; the blacksmith's forge, gatehouse and one of the two pitched roofs of the Dock, with an attractive railway-style canopy over the arm, disappeared during restoration. However the remaining roof is still supported by elegant cast-iron columns, and the stable block has found new use as industrial premises. Another loss is the original tools, including boat jacks, bostocks and windlasses, which were still in use here only five years ago. Some of these are probably recoverable, although it is perhaps unlikely that they will ever return to this site.





WE 2

N.B. NEW CROSS HOSPITAL HAS NO ACCIDENT DEPARTMENT;
NEAREST IS AT ROYAL HOSPITAL, CLEVELAND STREET, W'YTON.

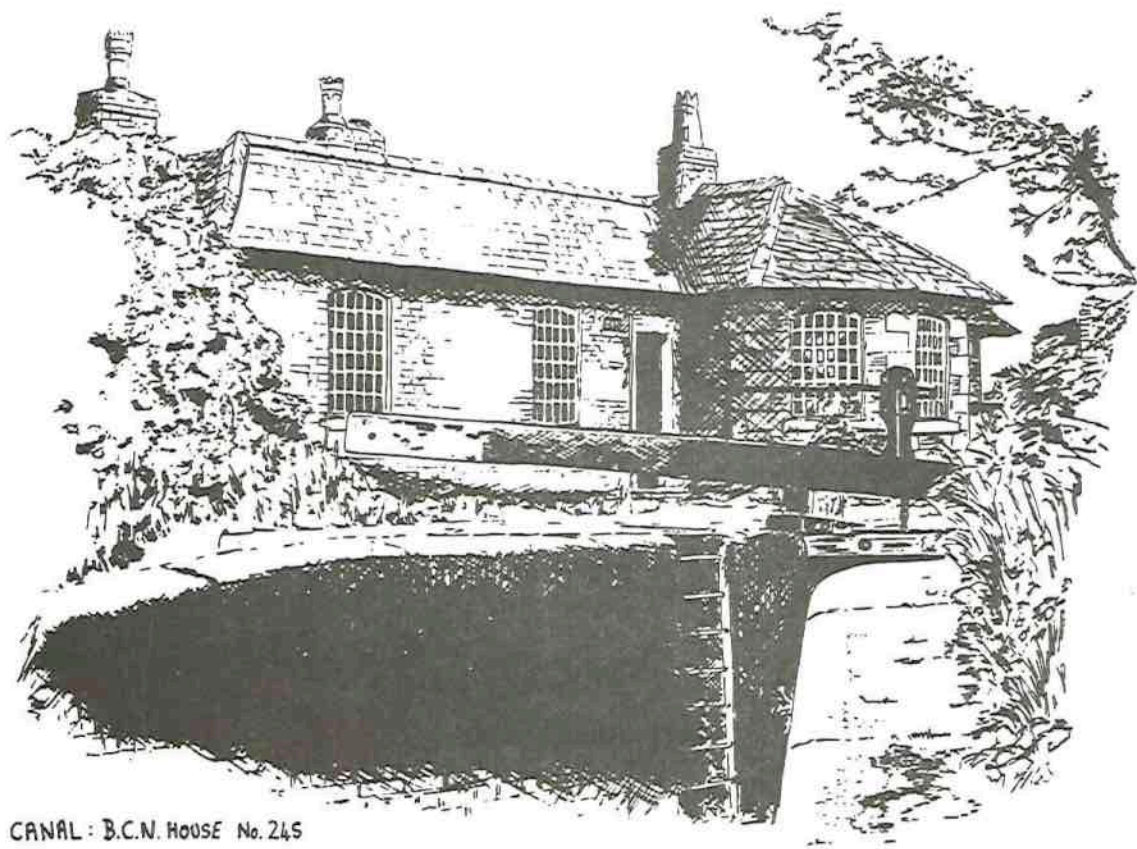
The basin on the left opposite the Boat Dock is a Midland Railway interchange basin. The Midland was the last of the three railways to reach Wolverhampton, arriving in 1872, and this canal depot was built about 1880. Until twelve or thirteen years ago the basin had a 42 foot span timber roof supported on a 300 foot long brick wall on one side, and on eleven cast iron columns in the middle of the canal on the other. It was structurally sound and demolition appeared to serve no useful purpose. Proposals for use as moorings have recently been put forward and, if approved, should ensure the future of the basin.

The canal now passes through a mixed industrial/residential area and onto a low embankment after Veans Road Bridge. If using the access into the car park at the rear of the Bulls Head beware of rubble in the canal. Wednesfield Heath, opened in 1837, was the original Wolverhampton station, but it was soon superseded by Wolverhampton High Level, and closed in 1873. It was finally demolished in the late 1960s. In 1923 one of the first trolleybus services in Britain began operating along the Wolverhampton Road to Wednesfield.

At Wednesfield Junction there are reasonable moorings under the cast-iron roving bridge; the towpath is used by vehicles from the lock house (BCN No.245) and should not be obstructed. The forces of Edward, son of Alfred the Great, defeated the Danes in a battle in this area (exact site unknown), at the time of the reconquest of the Danelaw by the English.

The Bentley Canal was closed in 1961, except for the flight of six locks at this end. The one redeeming feature of this closure was that it helped to convince local authorities that elimination of a canal really was more troublesome and expensive than restoration. The remaining six locks are not navigable as the paddle gear has been removed and the canal blocked

WE3



BENTLEY CANAL : B.C.N. HOUSE No. 245

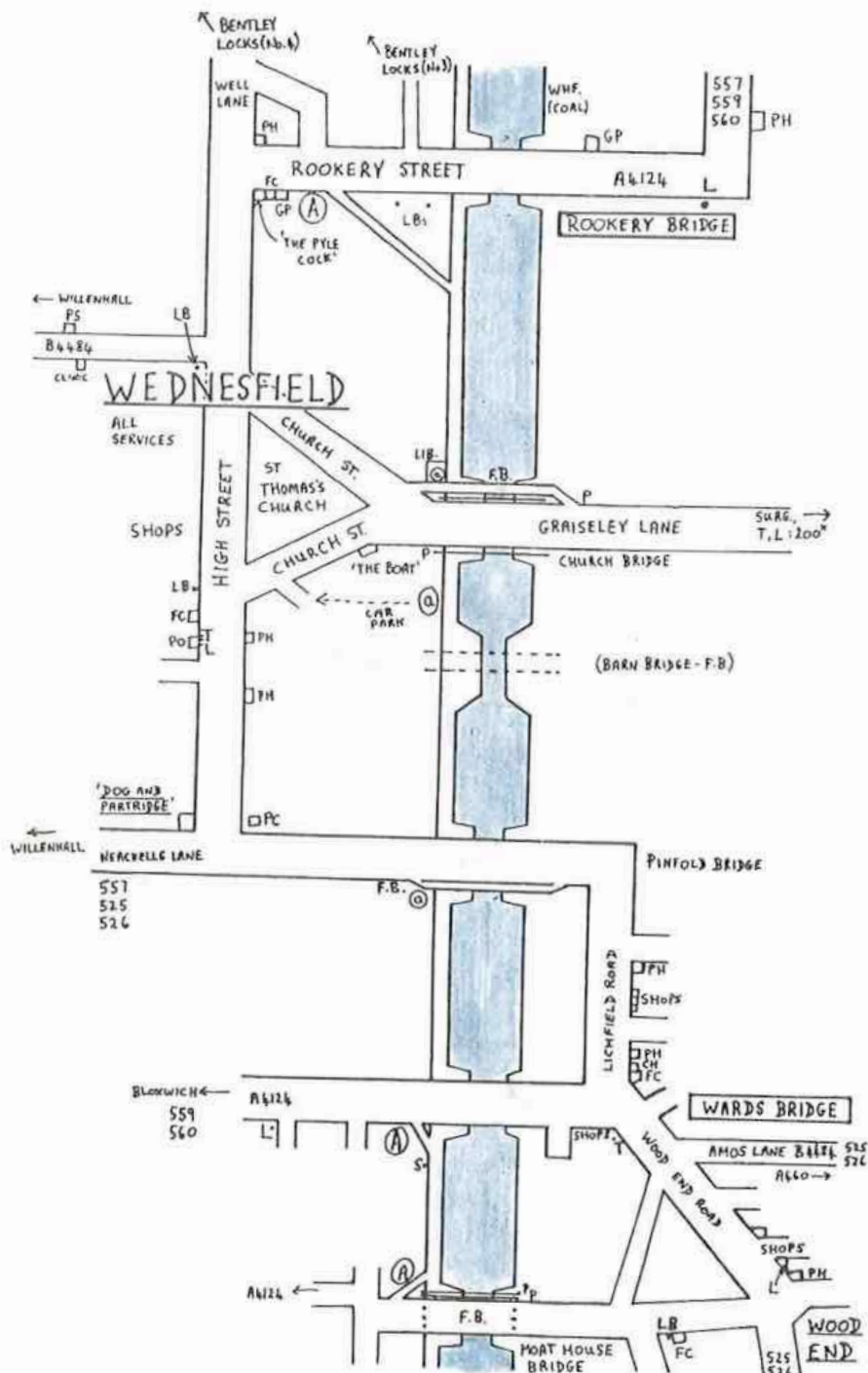
by a substantial fence at Well Lane Bridge below lock 4. This section was only retained for water supply purposes (there were four abstraction points in this length) and use of the locks has been strongly discouraged since the early 1970s.

An interesting feature was the coal unloader to be found between locks 5 and 6. Coal to fuel a gas producer was shovelled from a boat into a tunnel under the towpath, a worm conveyor was turned and carried the coal through the tunnel, where it fell into a continuous line of buckets and was lifted up into the plant. Unfortunately this was removed and the towpath levelled some years ago. The Midland Walsall line, now freight only, has been lifted beyond the works at the bottom of the flight.



The foundations of the octagonal toll-office are clearly visible by Wednesfield Stop. The ladies and gents toilets, now derelict, were presumably erected for the benefit of those engaged in the canal traffic, as it is unlikely there was much demand from the general public for facilities here. Rookery Bridge has a sharp bend on either side with poor visibility.

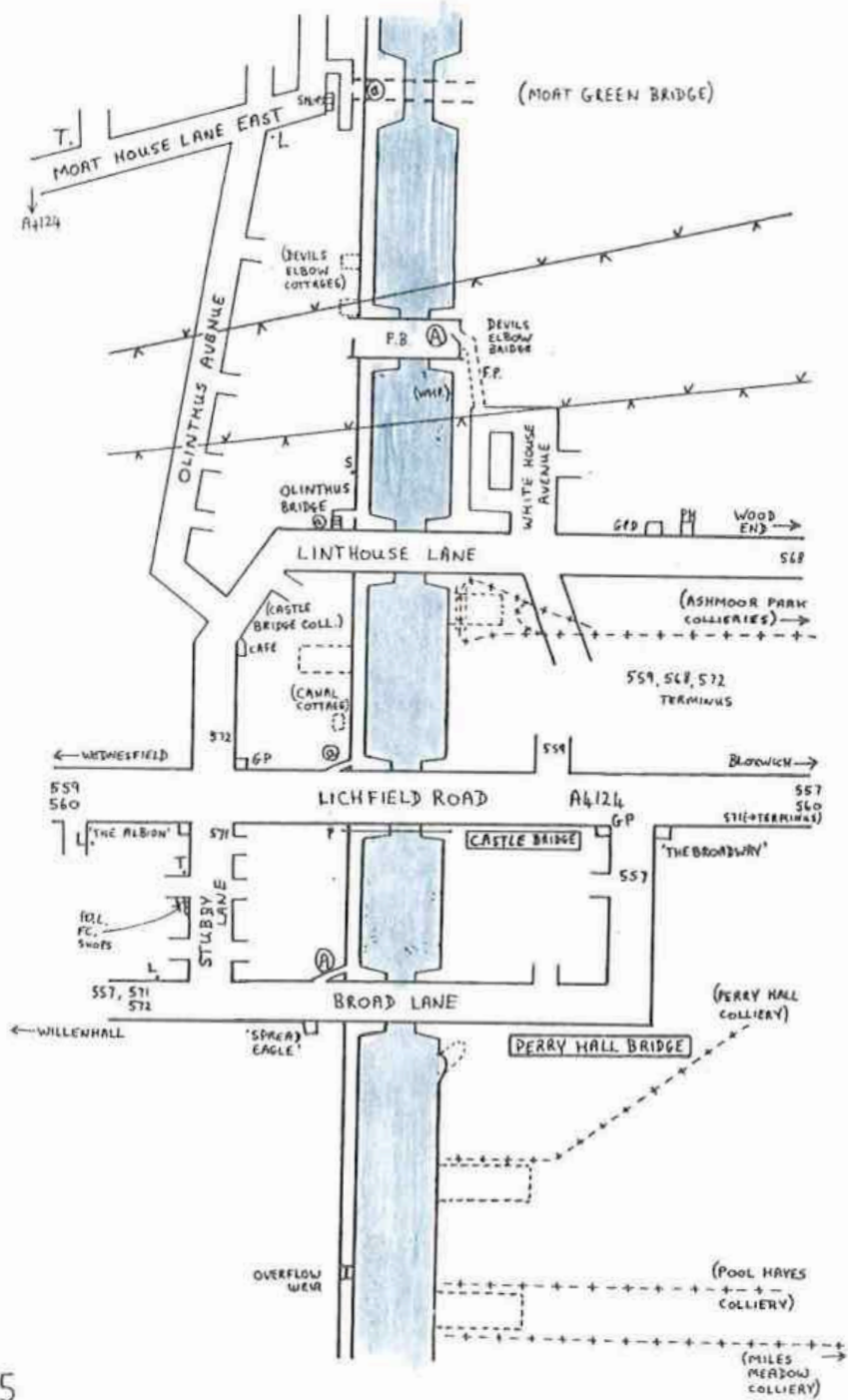
Wednesfield has been built on an outcrop of dolerite, a brown or green igneous rock, which is often very close to the surface, and is exposed in



several places where the canal has been cut throught it. Quarrying for this stone was widespread, particularly on the south side of the village, but there were no productive coal measures and mining proved unprofitable. The industrial revolution had little direct effect on the village, beyond the development of small workshops engaged in metalworking. The most important of these cottage industries was lock and key manufacture, though on a smaller scale than in neighbouring Willenhall, and trapmaking, which was almost a Wednesfield monopoly. The traps ranged from those for rats up to lion and man traps (usually without teeth in the jaws).

Even now there is still something of a village atmosphere in the Church Street area, perhaps enhanced by the way that Wednesfield tends to turn its back on the canal, so that access to High Street shops is not encouraged. Either follow the path just before the first house after Rookery Bridge or use the opening into the car park at the rear of buildings in Church Street. The latter is more convenient for the main shopping centre but depends on the fence remaining down. Between Pinfold Bridge and Wards Bridge there is a pleasant mooring overlooking the school playing fields. Although the course of the Roman Road from Edgbaston to Stretton on Watling Street is not known with certainty, there is some evidence that it crossed the line of the canal just after Pinfold Bridge, and ran parallel with it on the left as far as Moat House Bridge.

Much of the next few miles is residential in character but with gardens running down to the canal, many trees, and several open areas, it is not unattractive. Devil's Elbow Bridge is next to a particularly tight bend, and no doubt its name reflects the difficulties encountered by boatmen when negotiating these obstacles with loaded boats. It is now one of the most grotesque sights on the BCN as



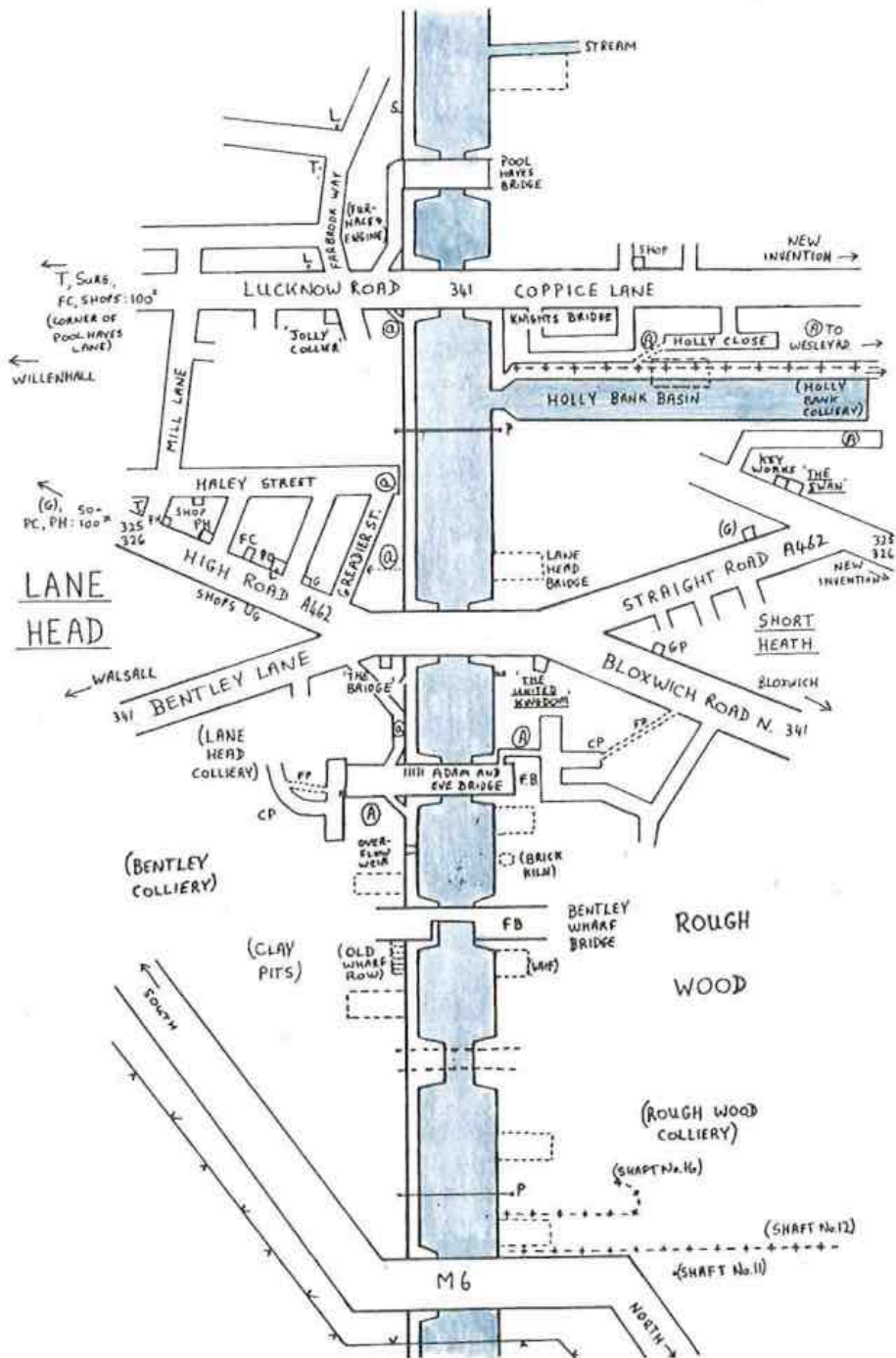
every inch has been covered with white cement rendering. Possibly this is all that is holding the bridge together!

Evidence of former mining activity begins to appear after Olinthus Bridge, and continues for the next two or three miles, with the remains of a number of colliery basins visible, particularly on the left of the canal. Holly Bank Basin (Short Heath Branch) was the largest of these, initially serving the mines at New Invention, and later Holly Bank Colliery. This basin has recently been dredged and landscaped, and is a convenient mooring for "The Swan".

Pool Hayes Bridge, and the overflow weir a few hundred yards before, are attractive red brick structures. The bridge now serves no purpose, and the track crossing it is blocked on both sides of the canal, but it may well date from the time when the canal was constructed.

There is no access to the shops at Lane Head Bridge; it is best to moor before the bridge and walk across the grass to Greadier Street. These are the last shops within easy reach of the canal for five miles or so. Both "The United Kingdom" and "The Bridge" make commendable efforts to attract custom by providing steps and a gate to their respective car parks, but mooring by either is difficult owing to obstructions in the canal.

The housing estates are now left behind and the canal winds through an area where the scars of mining have been concealed by nature, as in Rough Wood, or reclaimed by man, as with the clay pits on the right. This open space is very popular with local residents, and the canal banks can be crowded with walkers, picnic parties and sightseers. There is a nature trail through Rough Wood (stop 3 on the trail is at Bentley Wharf Bridge) and a free booklet describing

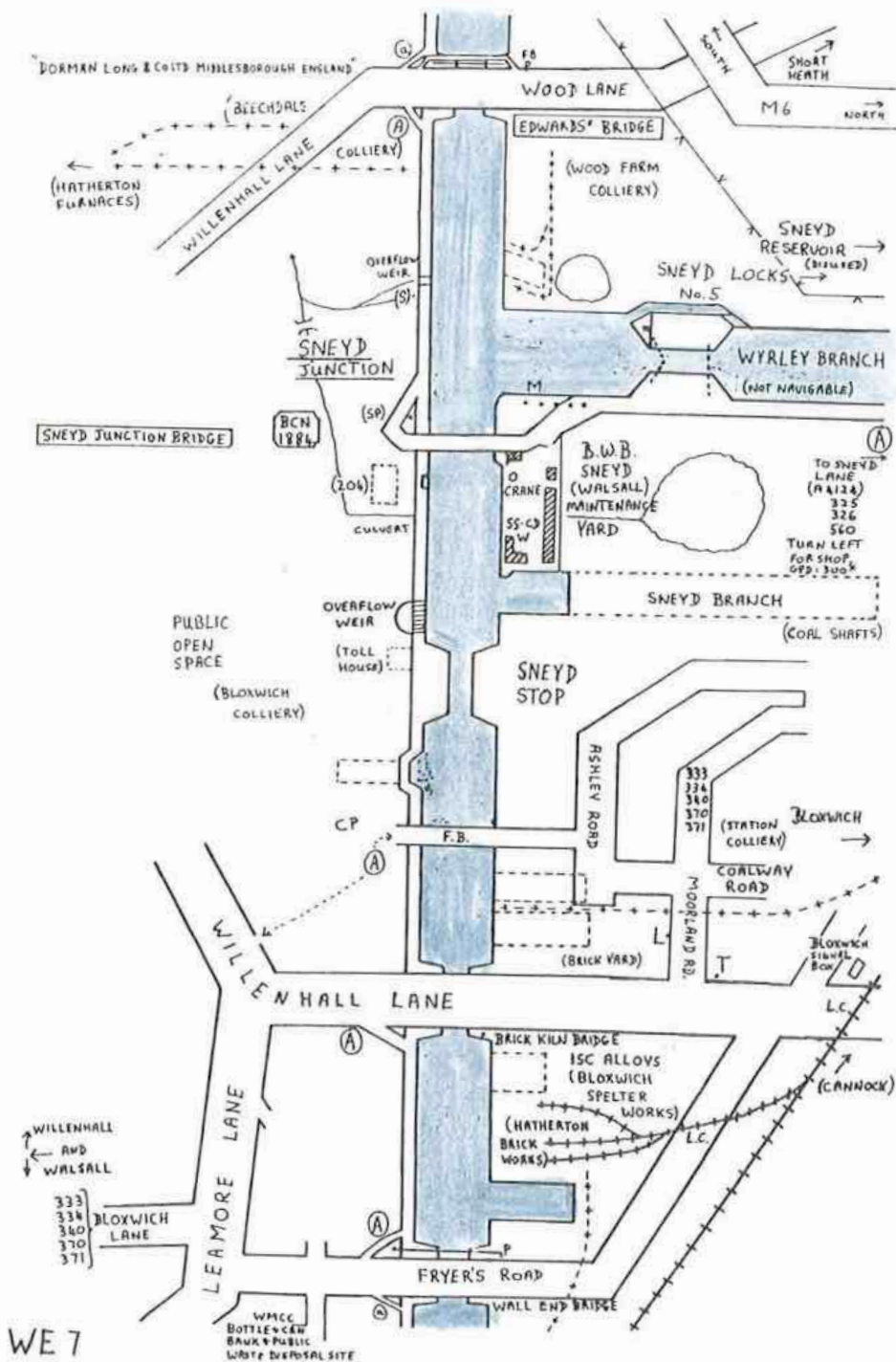


this is normally available from Walsall Library. Unfortunately it is at present out of print and stocks are exhausted, but hopefully a new edition will soon be available.

Even without the guide-book there is much of interest to be seen in the area. The northern half is covered with mixed deciduous woodland whilst to the south, bordering the canal, is heath or rough grassland with dense hawthorn scrub. There has probably been little or no mining since the 1926 General Strike but the surface workings and shallow shafts can still be found - one of the shafts is close to the left bank of the canal about 150 yards after the demolished bridge. Many of the pools are the result of subsidence and flooding of old workings, and the mounds scattered between them are pit banks and spoil heaps, some burnt to red shale by spontaneous combustion of the waste coal in them. The course of the tramway running to shaft 12 is marked by a rail embedded in a path about 100 yards from the canal.

To the east of Bentley Wharf Bridge the M6 disrupts the semi-rural tranquility and the noise and fumes remain as an accompaniment almost as far as Sneyd Junction. As some compensation there are views across the valley of the Sneyd Brook to Bloxwich and, on the right, to Walsall and Barr Beacon (744 feet). The most prominent landmark, and one which will be seen repeatedly over the next ten miles or more, is Walsall (Birchills) Power Station.

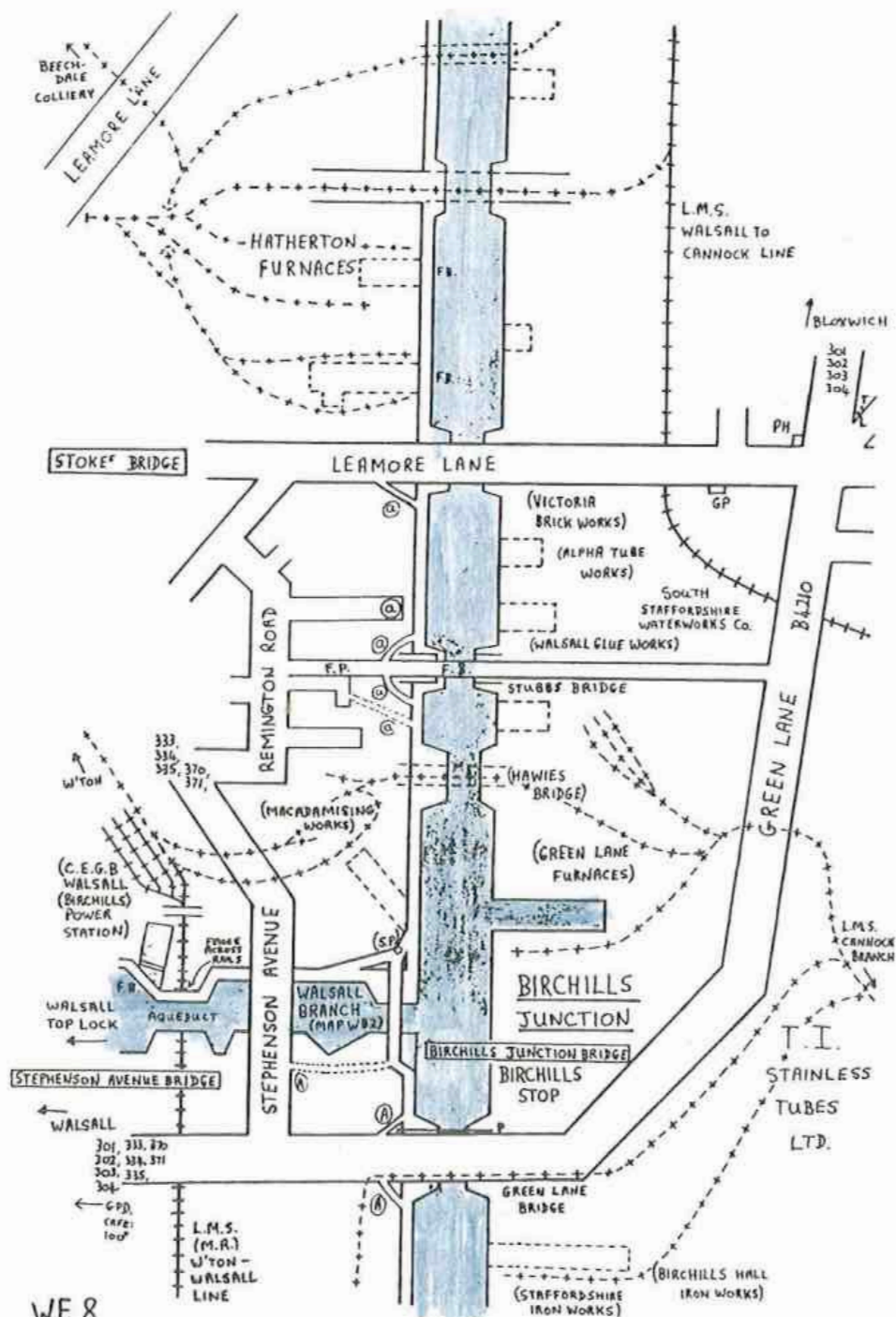
At Sneyd Junction the main line of the canal bears sharp right under the bridge; straight ahead is the Wyrley Branch, now only navigable as far as the derelict bottom lock of the Sneyd flight. This branch was an integral part of the W & E as originally planned and it was built concurrently with the Wolverhampton - Birchills section. It led to the Essington Locks Line and both these canals served



the mines of Henry Vernon, a leading shareholder and chairman of the Company in 1796, who had agreed to supply a regular traffic on the new canal by using it to transport his coal. Unfortunately the relationship soon turned sour as problems arose with the Essington Line, which left the Wyrley Branch three furlongs above Sneyd Top Lock and was opened two or three years later. One indication of the strained relationship was that in 1799 Vernon deliberately breached the canal to recover a sunken boat and lowered a $1\frac{1}{2}$ mile pound 7 inches - an unusual and probably unique action by an ex-chairman of a canal company! This dispute rumbled on inconclusively for 15 years or more and at one stage Telford was asked to report on the state of the canal.

The Essington Branch was very much a white elephant. The short summit pound, at about 533 feet, was the highest level reached by any constituent company of the BCN, but the locks were extremely difficult to use as the water supply was from a small stream, supplemented by pumping. Perhaps not surprisingly, the branch was abandoned sometime in the last century.

The Wyrley Bank Branch ran northwards from near the end of the Wyrley Branch, and was improved and extended in 1857 to give a total length from Sneyd Junction to the terminus of $3\frac{1}{2}$ miles. Both branches were closed in 1954, an unfortunate loss as they ran through pleasant countryside and there were several features of interest. These included the two remaining BCN wooden lift-bridges, similar to those on the Llangollen Canal, and Sneyd Reservoir, which still contains some water, although silted and overgrown and no longer used. The BCN Head Office was moved to Sneyd House (BCN No.199) in 1939 and remained there until nationalisation in 1948. The House and outbuildings, on the left of the canal above the reservoir, were demolished in 1972.



Continuing towards Birchills there is a puzzling step in the towpath opposite Sneyd Maintenance Yard - possibly a "horse step" on which an animal which had fallen in the water could place its forefeet and be hauled back onto dry land. The overflow weir before Sneyd Stop is unusual in that a plank bridge carries the towpath over it. The remainder of this length is a rather uninteresting mixture of industry and housing, with very little in the way of facilities. The two Hatherton blast furnaces and the old blowing-engine house were demolished in 1982. The second side bridge here, although the better preserved of the two, with wooden capping to protect the brickwork from tow-line wear, has a dangerous hole in the towpath crossing it.

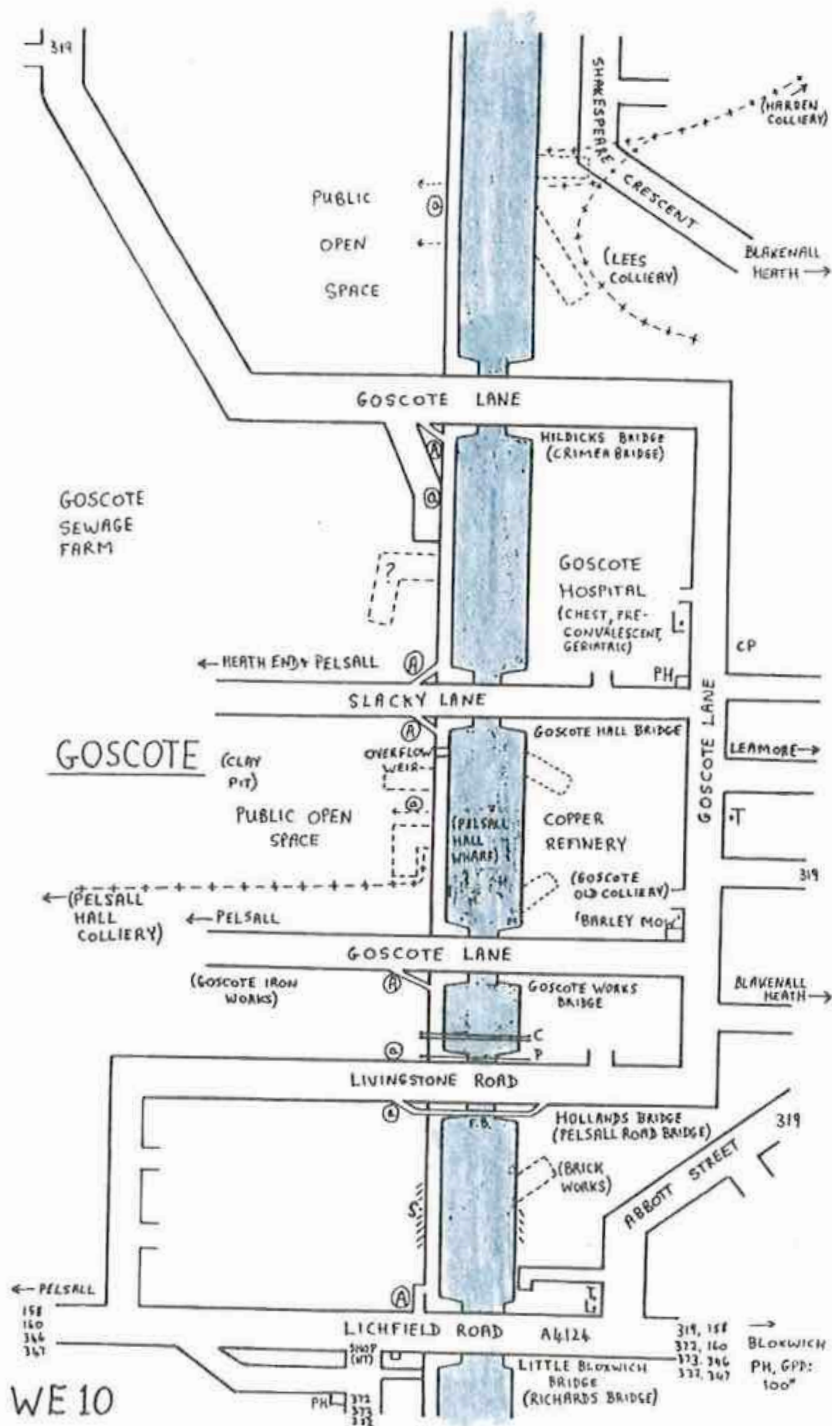
Turn right at Birchills Junction for Walsall Locks and the Walsall Canal. The first half mile or so of the Walsall Branch, as far as Birchills Wharf, is strictly part of the W & E., as it was the original line, but even before it was open the Company had been empowered to extend the canal from Birchills Junction to Huddlesford via Catshill. The branch was little used after the BCN's Walsall Canal reached the town from the opposite direction in 1799, and it apparently remained so until the two canals were linked in 1841 by the construction of Walsall Locks.

Beyond Green Lane Bridge the site of Birchills Hall Iron Works (galvanized and corrugated sheets, frying pans and boat plates) is now occupied by the works of TI Stainless Tubes, after which the canal again passes into a mainly residential area. The boatyard of Peter Keay and Son has recently been taken over by Keelkast Narrowboats and moved to Minerva Wharf at Horseley Fields, thus ending over fifty years of wooden boat building at Pratt's Bridge Dock.

The LMS Walsall to Cannock line is freight only, although there is a strong local campaign to reopen

it for passenger traffic. The canal crosses the railway cutting in an impressive blue brick aqueduct, with a pier between the tracks supporting a central segmented iron trough, and on each side of this a cast arch. Lloyds, Foster and Co., whose inscription is on the arch, later became part of the rival Patent Shaft Company. When the railway was constructed the opportunity was taken to cut off a bend in the canal, while at the same time avoiding a lengthy stoppage. This was done by digging a new line including the aqueduct inside the bend before cutting through the old line, which then became two basins. The second of these is full of derelict narrowboats. Such "graveyards" were a common sight on the BCN in the 1950s and '60s as cargoes were lost to road transport and more or less worthless redundant boats were burnt, broken up or simply abandoned. Many have since been salvaged by enthusiasts for conversion to pleasure use, others have disintegrated where they lay, and relatively few now remain. A large proportion of the boats on the W & E were built oversize for use on the lock-free Wolverhampton Level, which was over 40 miles in length. They were known as wharf or 'ampton boats, measured c 86' x 7'9", and carried up to 50 tons of coal from the Cannock Chase pits to factory and power station wharves in Wolverhampton, Bilston and Tipton. There are reports, possibly apocryphal, of amateur salvage teams raising a sunken boat and then finding that they were unable to pass through the first lock they encountered.

Just after Coal Pool Bridge the towpatch is almost blocked by posts and rails and there is another step similar to the one at Sneyd. Here and at Hildicks Bridge the canal is only a mile as the crow flies from Winterley on the Daw End Branch; by water it is ten times the distance. It is perhaps inadvisable to leave a boat unattended in this area; in 1982 a road-roller parked overnight in the hospital grounds ended up on its side, with engine running, in the cut.

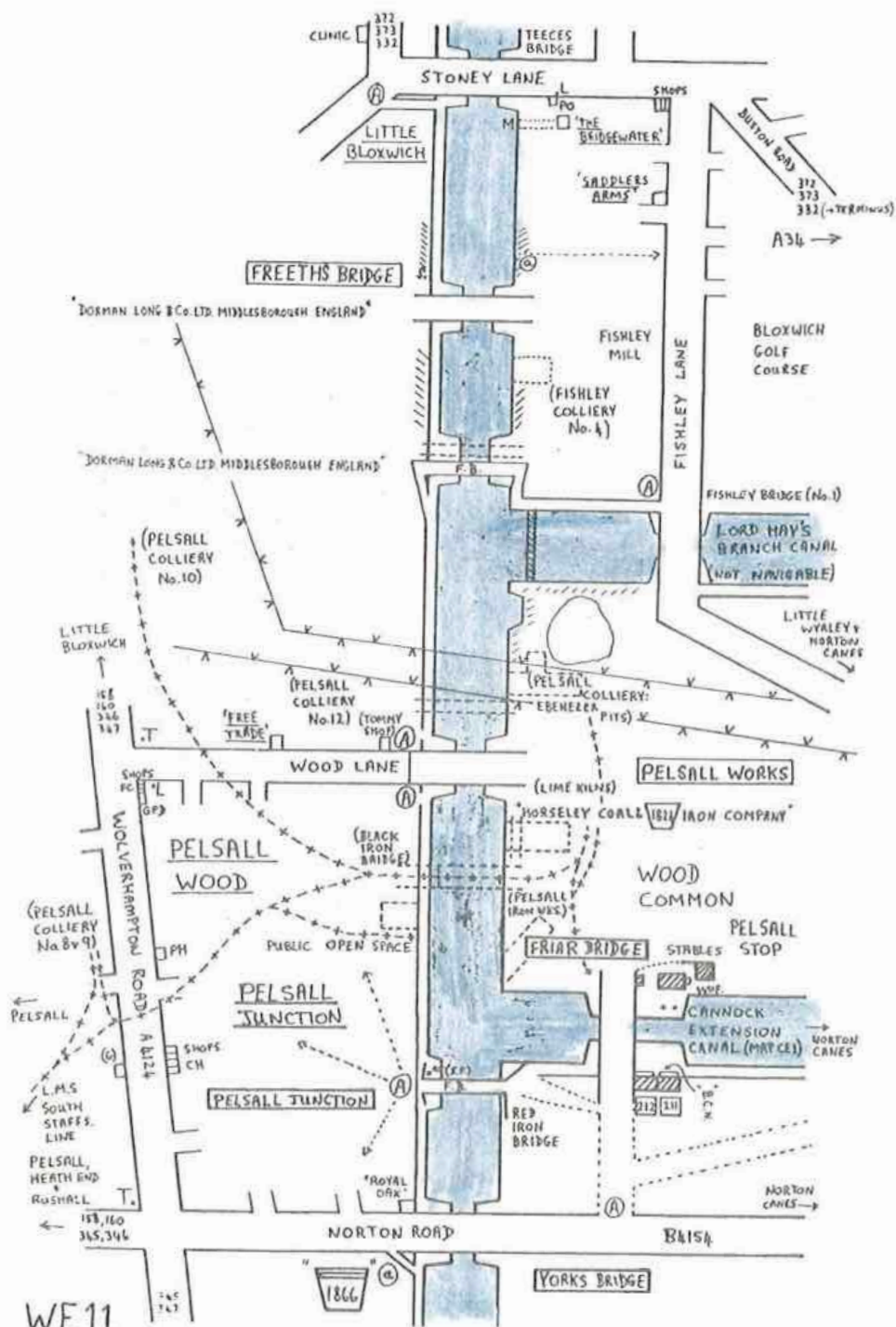


Pelsall was a mining village in the last century and Pelsall Hall Colliery was the scene of a major disaster on 14 November 1872, when water broke into old workings and the pit was flooded. Although 6½ million gallons of water were pumped out in an attempt to rescue any survivors, twenty-two men and boys died.

In common with other 18th century canals the W. & E. avoided major earthworks by following the contour line and this is very obvious as it winds through the village of Little Bloxwich and enters open countryside. The bends here indicate why the canal is popularly referred to as the "Curly Wyrley"; although this sounds more like a fashionable hairdresser than an old boatman's phrase. Another nickname was the "ganseys (or ganzees)", indicating that some stretches (eg. the embankment by Lord Hay's Branch Canal) were so exposed and bleak that Guernsey sweaters were often worn. This term was apparently also used for Rushall Locks and Walsall.

The next few miles of the W. & E. are more interesting botanically than most of the popular cruising waterways as the number of boats disturbing this rural section of the BCN is relatively small, and species such as white water lily, water violet, flowering rush and the true bulrush can be found in or near the canal. Fishley Bridge No.1 on Lord Hay's canal (1½ miles, abandoned 1954) has no towpath and the towing-line would have had to be detached before a horse-drawn boat could pass through it. This perhaps indicates that the bulk of the traffic was to Fishley Colliery basin just past the bridge. On the left just after the branch the canal overlooks a field where horses can sometimes be seen training with sulkies for harness racing (trotting).

Pelsall Works Bridge is one of the most interesting structures on the BCN. It is the earliest dated Horseley Company bridge and possibly one of the first

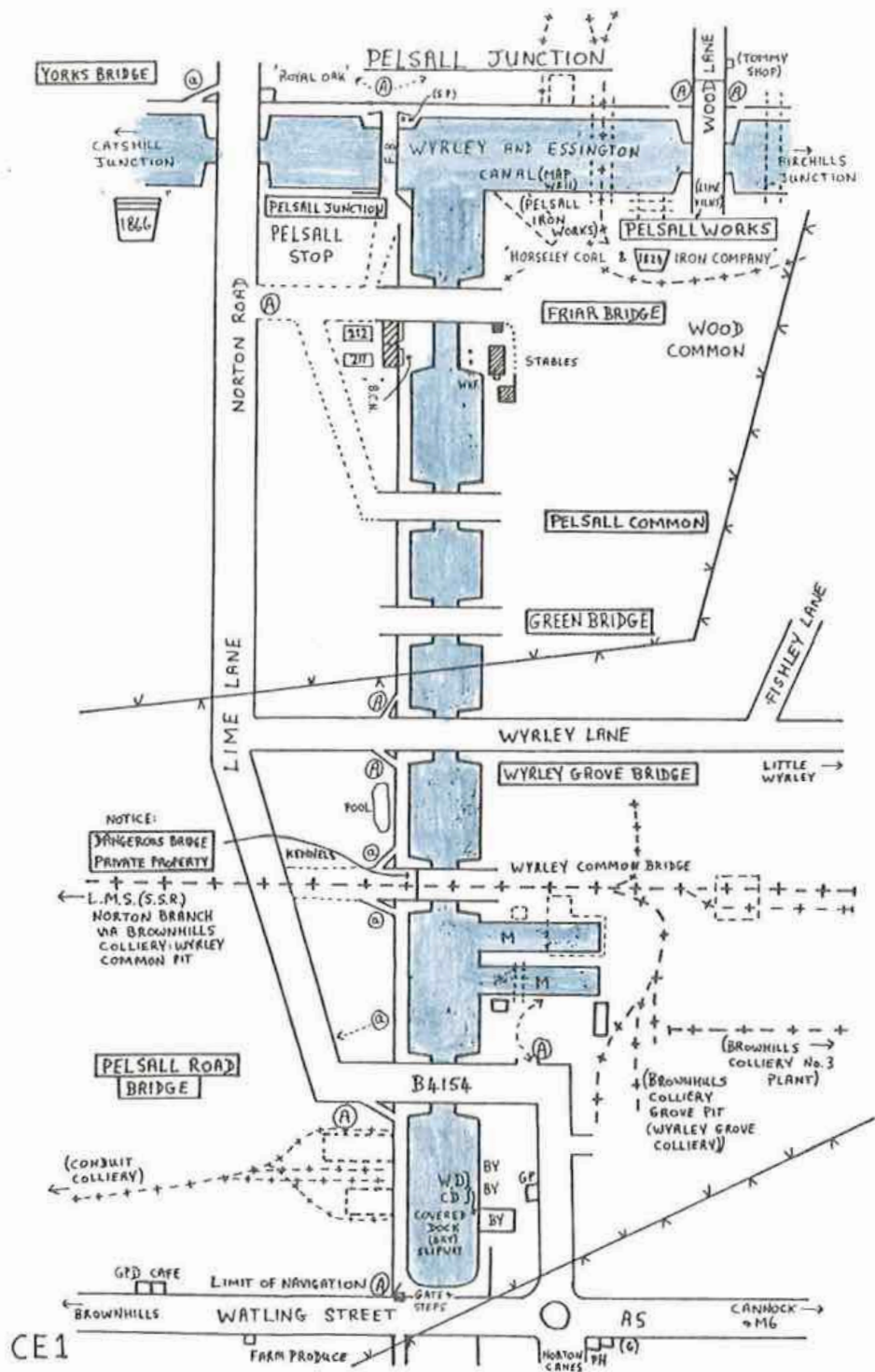


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ever produced by them. Surprisingly it appears to have been completely ignored by industrial archaeologists and local historians. Although very different in style and design from the later Horseley bridges the magnificent arch of cast-iron plates has the same characteristic elegance.

Wood Common was the site of Pelsall Ironworks, and looking across the common now it is difficult to imagine that a hundred years ago there were 2 blast furnaces, 40 puddling furnaces, 7 mills and forges, a gas producing plant, limekilns and locomotive sheds between Pelsall Works Bridge and Pelsall Junction. Beer for the ironworkers was carried in buckets attached to a yoke from the Free Trade Inn, and a "Tommy Shop", now converted to a dwelling-house and recently modernised, was next to the bridge. This was part of an iniquitous system whereby workers received part of their wages as tokens, which could only be exchanged for goods at the company shop. Thus the owners profited not only from their main business but also from their employees' purchases of food and other necessities. The company went bankrupt in the recession of the 1890s, their collieries were sold to the Walsall Wood Colliery Company, and Alfred Hickman of Bilston Steelworks bought the salvage rights.

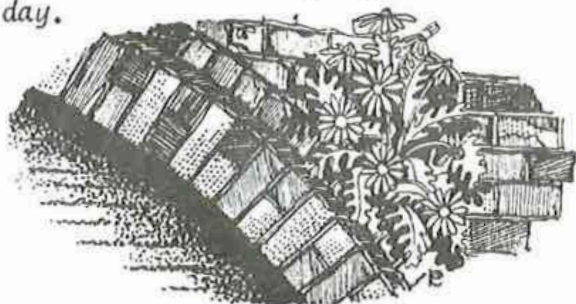
The Cannock Extension Canal joins the main line on the left at Pelsall Junction. Constructed between 1858 and 1863 this canal extended $5\frac{1}{2}$ miles to Hednesford Basins in the heart of the Cannock Chase coalfield, and connected with the Hatherton Branch of the Staffordshire and Worcestershire Canal via Churchbridge Locks. It was the last branch of the BCN to be built and is very much a railway age canal, running straight across County and with massive blue brick bridges. This can be clearly seen from the junction, with a continuous series of bridge arches

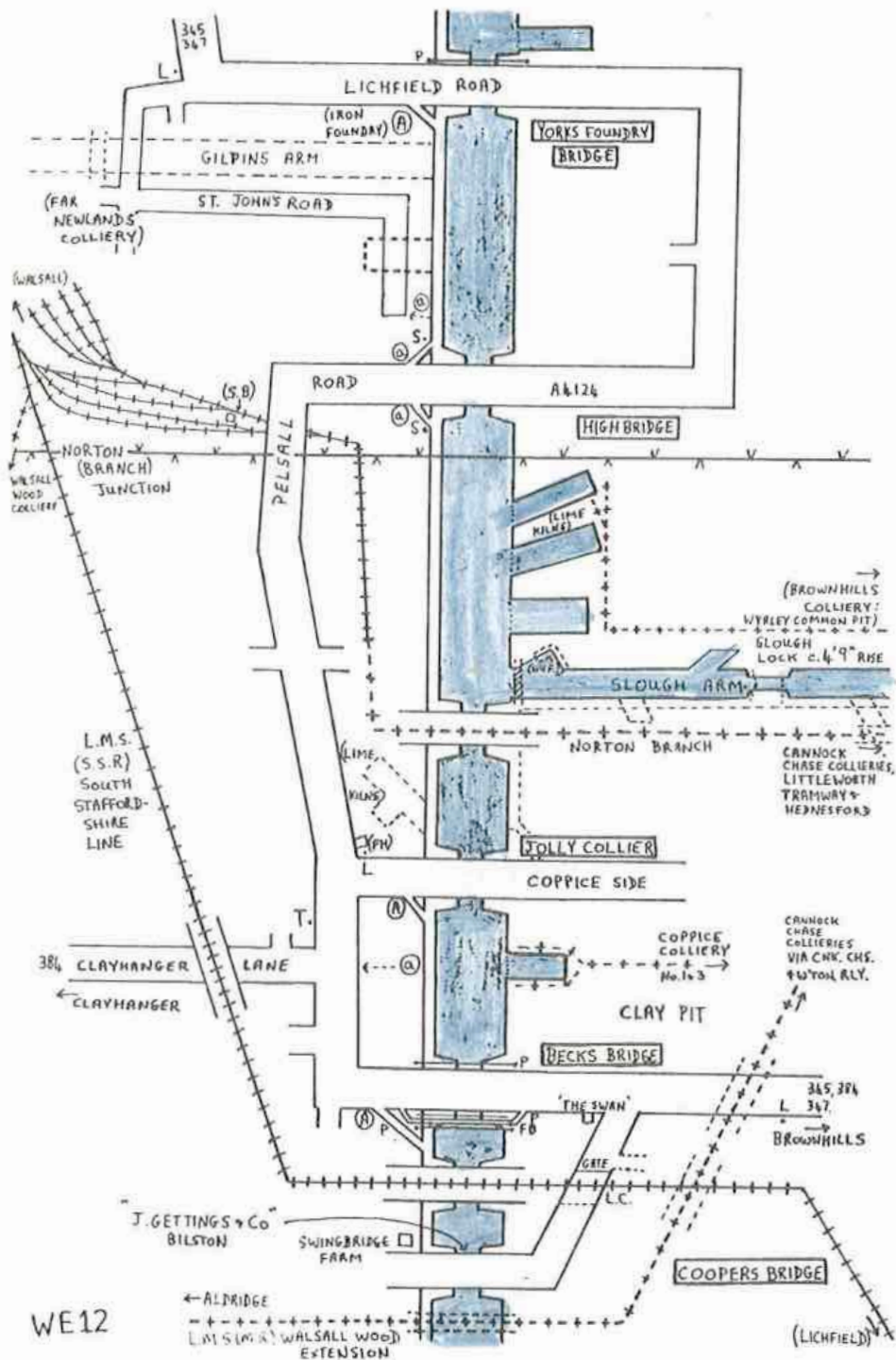


The Cannock Extension Canal

After passing Pelsall Stop, with its interesting collection of canalside buildings, this canal runs through attractive countryside to a group of boatyards, including M.E. Braine and Canal Transport Services, at Norton Canes Docks. Mooring is possible almost anywhere, although near the kennels it can be very noisy if the dogs are disturbed. The best site is probably the old colliery basins after Wyrley Common Bridge. Winding is possible here or at the entrance to Canal Transport Services dock, where water, fuel and Elsan disposal facilities are available.

Churchbridge Locks, which connected the Cannock Extension with the Staffs. and Worcs. Canal, were demolished in 1955 by opencast mining, and the Cannock Extension itself was closed north of Watling Street in 1963 because of subsidence. This was so bad that for several years a team of bricklayers was continuously engaged in laying successive courses of bricks to build up the banks. Aerial photographs taken just after closure show the canal at Norton completely filled with abandoned boats (70 or so in less than $\frac{1}{2}$ mile). A sad commentary on the run down of the BCN and the value of boats without cargoes! The closed section was characterised by some spectacular embankments with panoramic views and monumental brick overflow weirs. At the end of the branch was Littleworth Tramway, opened at about the same time as the canal and the only railway owned by the BCN. It connected with the complex network of lines serving the Cannock Chase coalfield and brought so much traffic to Hednesford Basins that lamp standards were erected so that loading of coal could continue 24 hours a day.





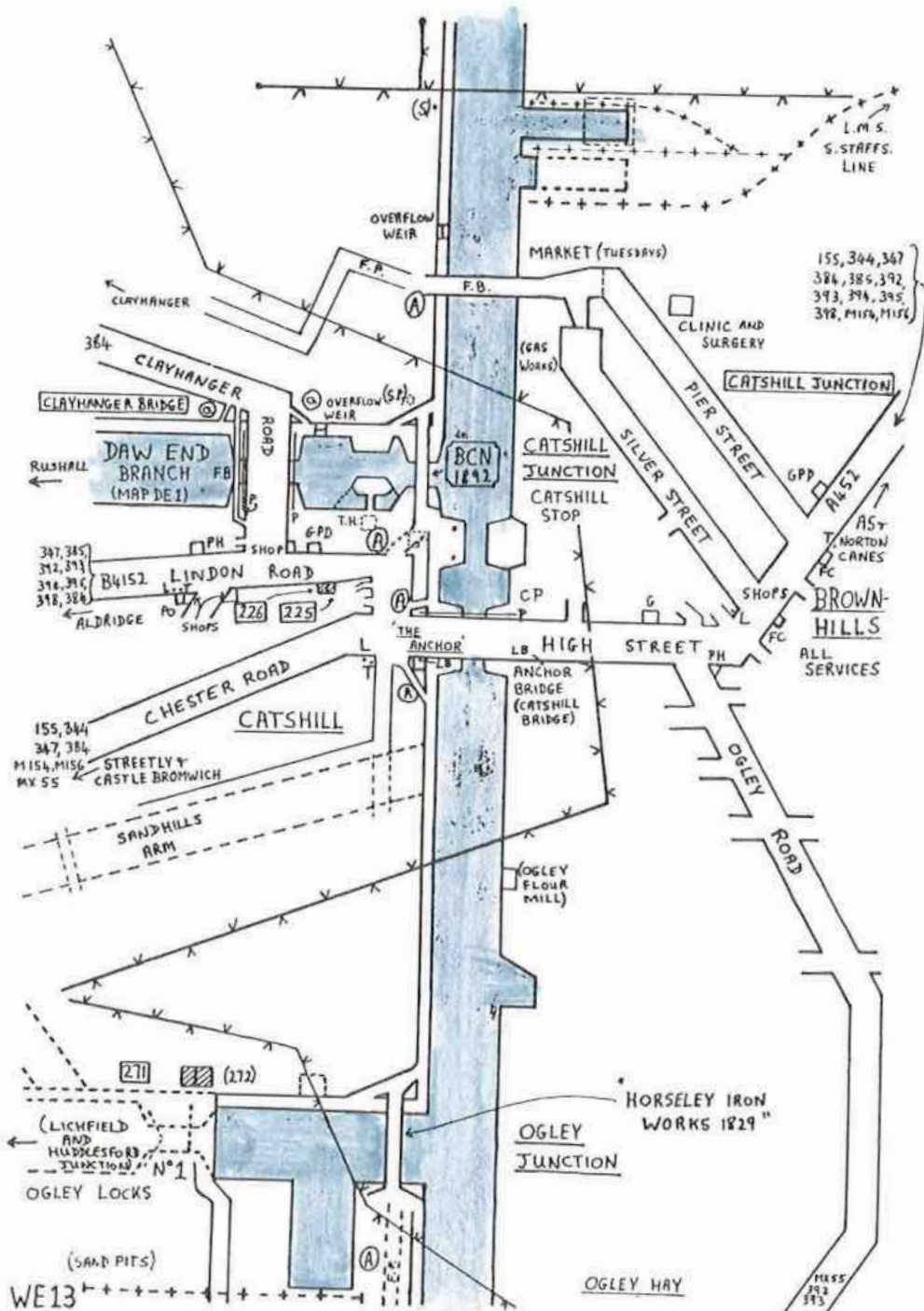
appearing to merge into one another. Only just over a mile of the canal remains navigable but there are several excellent places for a quiet overnight mooring.

FRIAR BRIDGE

Further along the W. & E., under Yorks Foundry Bridge, is an ancient British Transport Commission notice. This is remarkably well preserved considering that it must be more than 20 years old (the BTC was abolished at the end of 1962). Both Gilpin's Arm and the Slough Arm were short private branches to collieries; the entrance to the latter is blocked but otherwise it is in reasonable condition as far as the lock chamber.

Coopers Bridge was built at about the turn of the century to replace a swing bridge, which no doubt often caused delay. It carries the inscription of J. Gettings & Co., and appears to be the only example of their work on the BCN. The protective rollers on the towpath side of the bridge hole have disappeared but their supports and the guards at the base to prevent snagging of the towing-line can still be seen.

After passing two railway interchange basins on the left the canal swings round the outskirts of Brownhills. Access to the High Street shops is best obtained by mooring by the footbridge and walking down Pier Street or Silver Street. At Catshill Junction turn right for the Daw End Branch, leading to the Rushall and Tame Valley Canals, or continue along the main line towards Anglesey Basin and Chasewater.

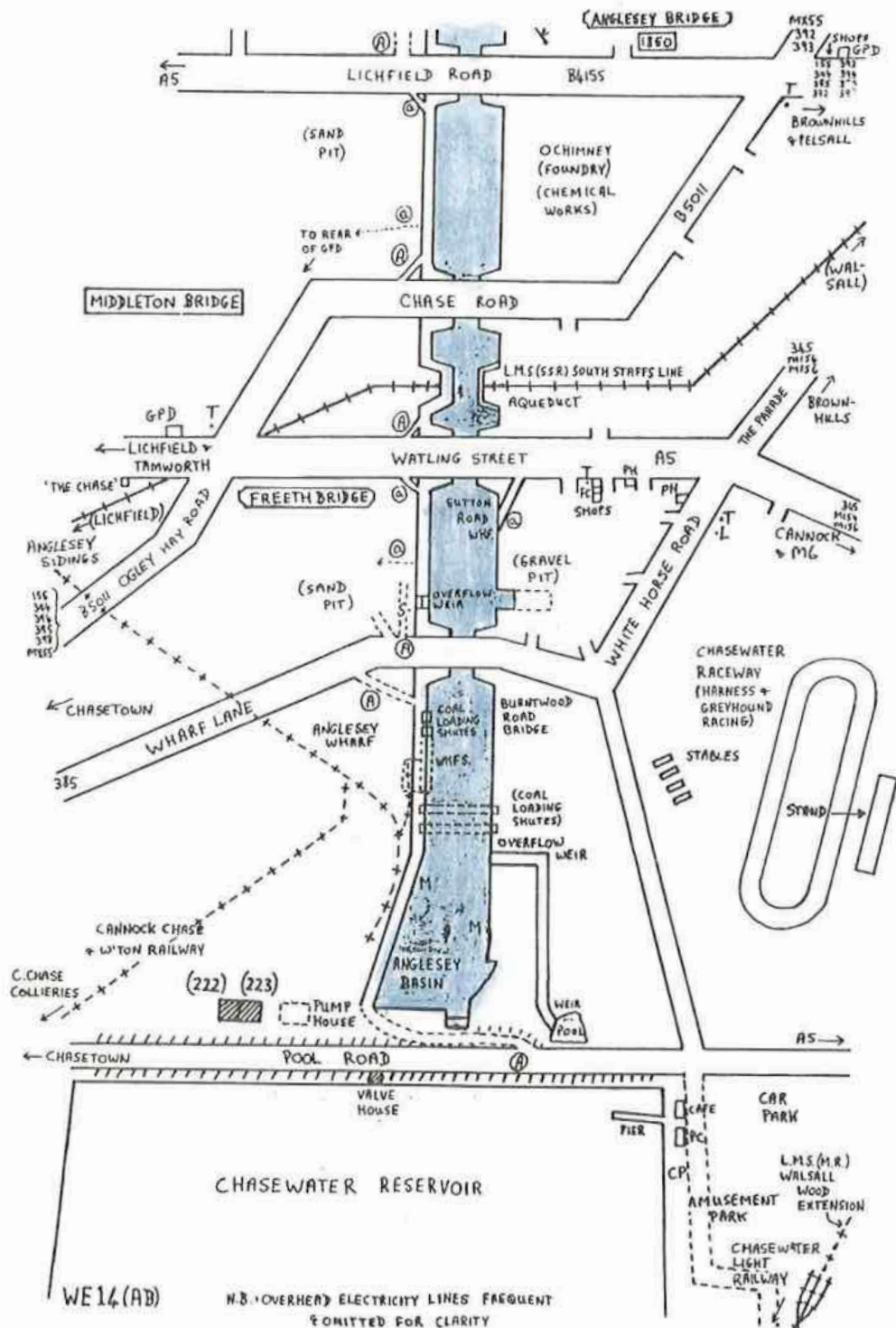


Anchor Bridge carries the old Chester Road over the canal; in the 18th century travellers on this stretch of road were frequently inconvenienced by the highwayman Tom King.

Since leaving Wolverhampton the W & E has been crossing the South Staffordshire Coalfield from west to east, and has been on rocks of the Upper and Middle Coal Measures (predominately the latter). Near the entrance to the Sandhills Arm, which has now disappeared under farmland, the canal passes into an area of Bunter sandstone and pebble beds. This red sandstone is very obvious in the cutting at Ogley Junction, where the Anglesey Branch comes in on the left. It is not unusual to see kingfishers along this length; a striking contrast with other, more industrial, parts of the BCN.

The main line now ends a few yards beyond the Junction, just under the attractive Horseley turnover bridge. From 1797 until 1954 Ogley Locks led down through Lichfield to Huddlesford Junction just over 7 miles away on the Coventry Canal. Of all the closures that the BCN has suffered this was undoubtedly the most unfortunate, as it severed a very useful link with the Trent and Mersey and adjoining canals. Unlike the Cannock Extension, which had immense problems with subsidence, there appears to have been no particular reason for abandonment, other than the cost of maintaining the canal and its 30 locks in reasonable order.

In 1877 the Bishop of Lichfield, whose diocese included much of the northern section of the BCN, had a boat built with a cabin fitted out for religious services and appointed a chaplain, the Lichfield Diocesan Barge Missionary, to minister to the spiritual needs of the canal population.



The Anglesey Branch

The Anglesey Branch was originally a feeder from Chasewater (Cannock Chase) reservoir. This was made navigable in 1850 when the Marquis of Anglesey started to develop coal mines in the area. Most of the branch is on the Bunter Sandstone and the influence of the underlying rock on the vegetation is very noticeable. Characteristic heathland plants such as bell-heather and ling flourish on the well-drained acid soils, particularly around the old pits dug for moulding sand.

The nameplates on Anglesey and Freeth bridges are of an unusual design with scalloped ends. Freeth Bridge is one of two with similar names on the W & E, and there is a third on the Tame Valley Canal (q.v.:TV4). Beware of boulders in the canal on the towpath side when leaving Burntwood Road Bridge, and do not place too much reliance on the notice regarding mooring a little further along, as there are one or two shallow areas (e.g. by the overflow weir on the left).

Coal was loaded at Anglesey Basin until 1967 and the rustling skeletons on the bank are the chutes where it was transferred from lorry to boat. The brick pillars are the supports of earlier chutes which extended across the canal so that boats could be loaded as they moved underneath. These relics, and the coal dust still liberally scattered along the towpath, are all that remain as mementos of the last regular coal traffic on the BCN.

The Basin now is ideal for overnight mooring, with ample room for dozens of boats and something of interest nearby for almost anyone. The surrounding area is important (grade A) for nature conservation, with some attractive plant communities and several uncommon species of birds. The valve house on the dam gives some idea of what a BCN octagonal toll-office must have looked

BIRMINGHAM CANAL NAVIGATIONSNOTICE.

No empty boats to be brought within 60 yds. of this bridge until Steerers are provided with an order from the Toll Clerk.

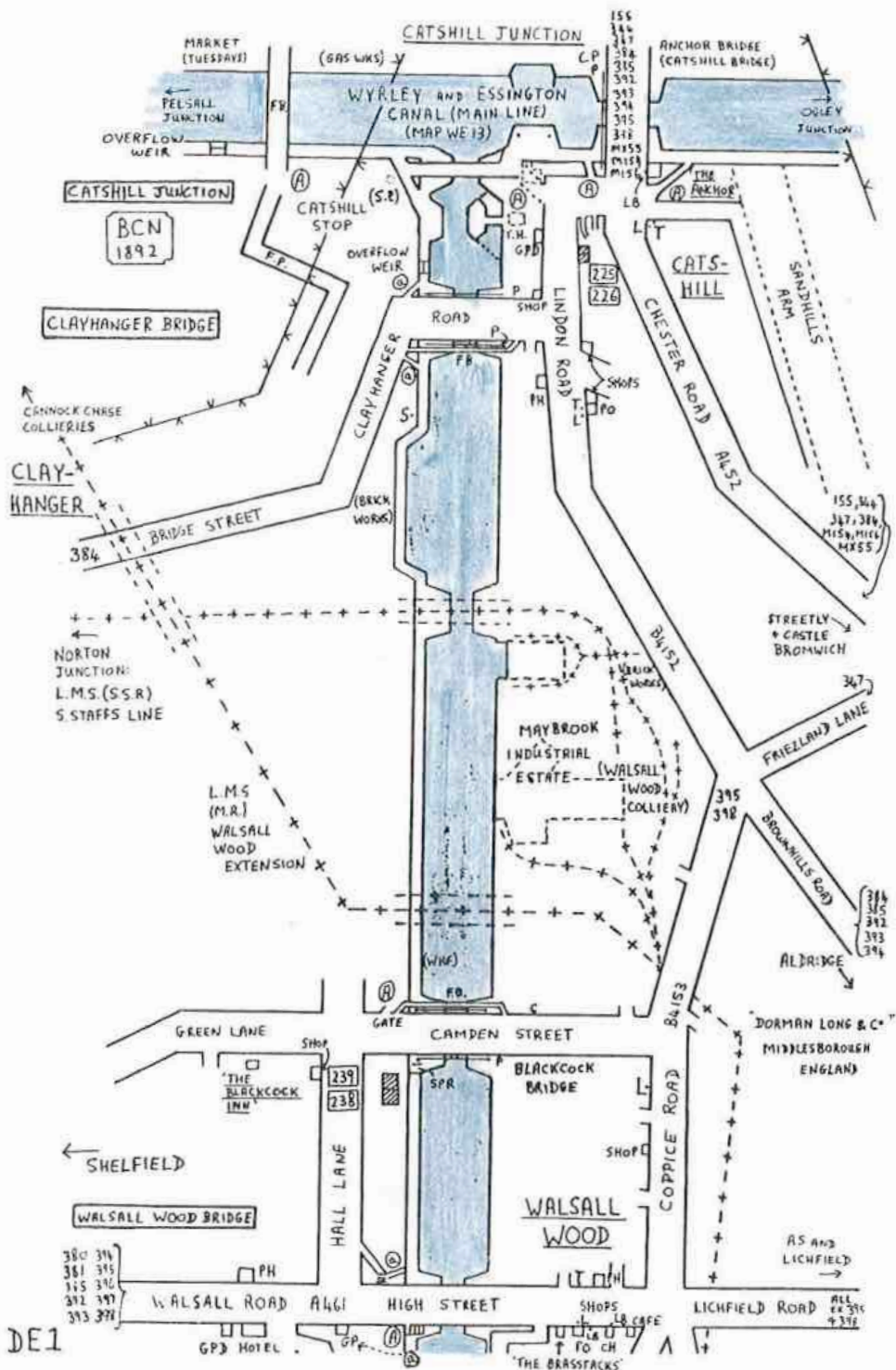
All boats to be moored by boatmen to the chains provided.

By Order

like before they were all demolished, and the craftsmanship shown in the brickwork of the sluices at the end of the overflow channel is worth examination. There is water ski-ing, power-boating and sailing on Chasewater, trotting at the Raceway, and an amusement park where a railway preservation society has a collection of exhibits (including a BCN boundary post) and a length of restored track, with trains running on Sundays and Bank Holidays.

In 1799 Chasewater was the scene of what must have been a spectacular disaster when the dam gave way, apparantly just after it had been built (or even as the reservoir was filling). Water swept down to the right of the present day canal, crossed Watling Street, joined the Black Brook near Shenstone and finally poured into the River Tame near Tamworth. Luckily the flood passed through a sparsely populated area and there seems to have been little damage: some sheep and cattle were drowned, a new bridge near Shenstone was demolished, and meadows were left 12 inches deep in gravel. The dam was rebuilt faced with stone and has since served its purpose well; so well that the W & E regularly sold surplus water to companies such as the Birmingham and Liverpool Junction (later part of the Shropshire Union) and the Dudley.





The Daw End Branch

The Daw (pronounced Doe) End Branch was completed in late 1802 or 1803, some five years after the main line of the W & E; lack of finance seems to have been the principal reason for the delay. This was yet another problem for William Pitt, the engineer of the W & E, in addition to his difficulties with the Essington Branch and the collapse of the dam at Chasewater. Pitt is something of an enigma: little seems to be known about him and he does not appear to have built any other canals.

The Branch served the limestone workings at Daw End and Hay Head, and was originally known as the Hay Head Branch. The 1954 Act of Parliament which closed several sections of the W & E included the Daw End, but fortunately no action was taken and the Branch survived.

It is difficult to believe that this was originally a contour canal; in several places mining and subsidence have left the waterway high above the surrounding countryside. Blackcock Bridge shows exactly what has occurred and is a fine example of how an inanimate object can tell a fascinating story. The iron rubbing strakes on the towpath side appear to be far shorter than usual, and only reach halfway up the brick pier of the bridge. Furthermore the lower ends run into the towpath and have been abraded by towing-lines at ground level. Such wear is impossible unless one assumes that the ironwork was originally fixed normally and the land then subsided. To maintain the level of the canal the banks and towpath have been built up, burying the lower half of the strakes. This would have considerably reduced the headroom and the traditional type of canal bridge would have had to be completely rebuilt. However Blackcock Bridge is an example of design, used by the BCN from c 1840 in areas liable to subsidence, which minimised the amount of rebuilding necessary. These

bridges have iron girders supported by brick piers, and the deck of the bridge can easily be lifted (the lifting rings can be seen at each end of the wooden beams between the deck and the piers). New courses of bricks could then be laid to build up the piers to their original height and the deck replaced. It only remained to repair the roadway and the problem was solved, at least for the time being. The tremendous gradient of the approach roads to the bridge indicates the magnitude of the effects of subsidence, and how often the process described above may have been repeated.

Hollanders Bridge a little further along is also of interest, with what appear to be adjustable tie-rods underneath. Their function may have been to prevent the bridge spreading laterally. There is a sharp bend immediately after Latham's Bridge, and deep clay pits on both sides of the canal. Erosion of the banks here could cause a spectacular breach, and where the canal widens attempts are being made to prevent further damage from the wash of passing boats by planting reeds in the shallows. At Northwood Bridge and Barnfield Bridge stop gates were installed as a safeguard. They were arranged so that they swung in opposite directions and in the event of a breach occurring the sudden movement of water would automatically close the gates and seal off the canal (there are similar safety gates at each end of the aqueduct carrying the Tame Valley canal across the M5 motorway). The baulks of timber by the bridge hole at Northwood are the remains of the wooden framework supporting the gate: a photograph in Dudley Library (reproduced as illustration 47 in "Britain's lost waterways: Volume 1: Inland Navigations" by M.E.Ware) clearly shows the original structure. The canal has only recently been reopened after a lengthy stoppage here to investigate a suspected leak and undertake remedial action.

Since Catshill Junction the Daw End Branch has been on rocks of the Upper Coal Measures. These rocks, the

No. 646 Established 1857.
BARNFIELD BLUE BRICK & TILE WORKS.

ALDRIDGE, near WALSALL.

Aug 13

1888

Messrs The Birmingham Canal Co.
Received of JOHN BEDDOW,

MANUFACTURER OF ALL KINDS OF PLAIN AND ORNAMENTAL RED AND BLUE BRICKS,
ROOFING TILES, CRESS TILES, QUARRIES, PAYINGS, COPINGS, DRAIN PIPES, &c. &c.
All communications to be addressed to JOHN BEDDOW, SHELFIELD VILLA,
SHELFIELD, near WALSALL.

Thos. The Price 6 s. d.

4000 Brimbletts
Bentley Common
Methuins Is. Mayd.

SPRINGFIELD BLUE BRICK, TILE, & PIPE WORKS,

WALSALL WOOD, NEAR WALSALL,

Residence and Office,
Palms House,
Palms,
Near Walsall.

June 2 1887

Messrs The Bham Canal Co

Received from EDWARD BARNETT.

5000 Brimbletts

Steven W. Lovell
To Norton

NORTH WALSALL BRICK WORKS,

BLOXWICH ROAD, WALSALL,

No. 849

August 23 1886

Messrs The Birmingham Canal Co.

Bought of FRED PARKES.

	Q	U	Q	Quantity	Price	s	d
Bricks							
Coal							
Slack							
Sand	6				2/	12	

Cart or Steer

Where to

F. Walker
Dawson

Etruria Marls, consist mainly of purple and red clays and it is these that have been excavated to provide raw material for brick-making. The famous Staffordshire blue bricks are produced by firing the clay at 1200°C or more, with the final stage of firing taking place in a reducing atmosphere. These clays have a high content of iron oxide and when the iron is reduced it combines with silica to form a fused slag-like silicate, which fills the pores of the brick and makes it impervious. The bricks are thus weather-proof and virtually indestructible (they can withstand pressures of 483 tons to the square foot) and many millions were used, particularly by canal and railway engineers in the last century. Firing the clay at a lower temperature and without reduction results in a red brick which is cheaper, as less fuel is consumed, but not as strong and durable. One of the clay pits is now used for the disposal of noxious industrial wastes.

The red marls worked north of Walsall Wood were deficient in iron and would not yield blue bricks. At Walsall Wood colliery for example the clay gave only pale yellowish-red bricks and agricultural drainpipes. The various collieries along this stretch of canal sunk shafts through the Etruria Marls to reach the productive Middle Coal Measures below.

After Aldridge Wharf Bridge the area affected by subsidence is left behind, the embankments disappear, and the waterway is at last recognisable as a contour canal. In the late 1960s there was an unsuccessful attempt to develop a traffic in oil, using specially adapted narrowboats, from Ellesmere Port to the industrial estate on the right after Hopley's Bridge. The industry along this stretch is hardly noticeable; there is a screen of trees and shrubs and the canal is quiet and secluded. This length of towpath appears to be one of the least used on the BCN and is very overgrown. The canal needs dredging in several places and mooring is sometimes difficult (eg: by the gap in the hedge leading to the playground).

The Branch has now entered the limestone area it was built to serve, as can be seen from the white limestone blocks edging the canal and in the bridge abutments. The underlying rocks are amongst the oldest in the region (laid down about 400 million years ago) and consist of beds of limestone and shale which crop out over an area roughly 2 miles wide and 3 miles long. The strata dip in a westerly direction and the youngest deposits (the Wenlock Limestone) are exposed near the canal as it curves round the western side of the area. These outcrops have been worked for hundreds of years, and there is evidence that the Romans burnt the stone to produce lime used in the building of their settlement at Wall (Letocetum) on Watling Street. A magnificent bank of lime kilns just before Winterley Bridge was buried under tons of rubble and spoil in the late 1970s. The limestone was also used as a flux in the smelting of iron ore and as a building stone (eg: Rushall Church). There was also a shaft sunk to obtain "Fullers Earth", a Bentonitic Clay found associated with the limestone and used for cleansing purposes.

As the surface outcrops were exhausted shafts were sunk and underground workings developed. The largest of these was Linley Caves which started as a surface excavation through the Coal Measures over the limestone and was extended until there were immense caverns, complete with an underground lake. These were a well-known local attraction in the last century and were often illuminated for visiting parties. The mines are now all flooded and inaccessible: they were used during the 1939-45 war for the storage of ammunition, but this had to be removed owing to problems with damp. Similar caverns exist under the town of Walsall, a mile or two to the south-west.

The Daw End railway cutting, where the canal crosses the Midland Walsall to Water Orton line, has recently (1980) been declared a site of special scientific interest, as the exposure of Wenlock Limestone

BIRMINGHAM CANAL NAVIGATIONS.

MEMO. FROM THE ENGINEER'S OFFICE.

PARADISE STREET,

30th July 1891.

BIRMINGHAM

To Mr & Taylor

Stoppage Sneyd Locks

I am in receipt of your memo of yesterday's date, & will arrange for stoppage accordingly

BIRMINGHAM CANAL NAVIGATIONS.

Memorandum.

From THE ENGINEER.

Birmingham. Aug^t 10th 1897

To Mr Eli Taylor
Sneyd

Bay Mare Bolly.

Please advise me the day you send this mare to Birmingham.

G.R. Jabb

BIRMINGHAM CANAL NAVIGATIONS.

PARADISE STREET, BIRMINGHAM

Memorandum.

From Grothelch
Bm

To Mr Eli Taylor
Coalpool

Sign I hope to be at Walsall at 8.35

on Friday & will go on to ^{first} Pelsall, if

convenient - please write me saying

which will be best to do.

Why have you
not replied to my
telegram?

{ came to Horton
on Thursday meeting W
H.D.

J.E.

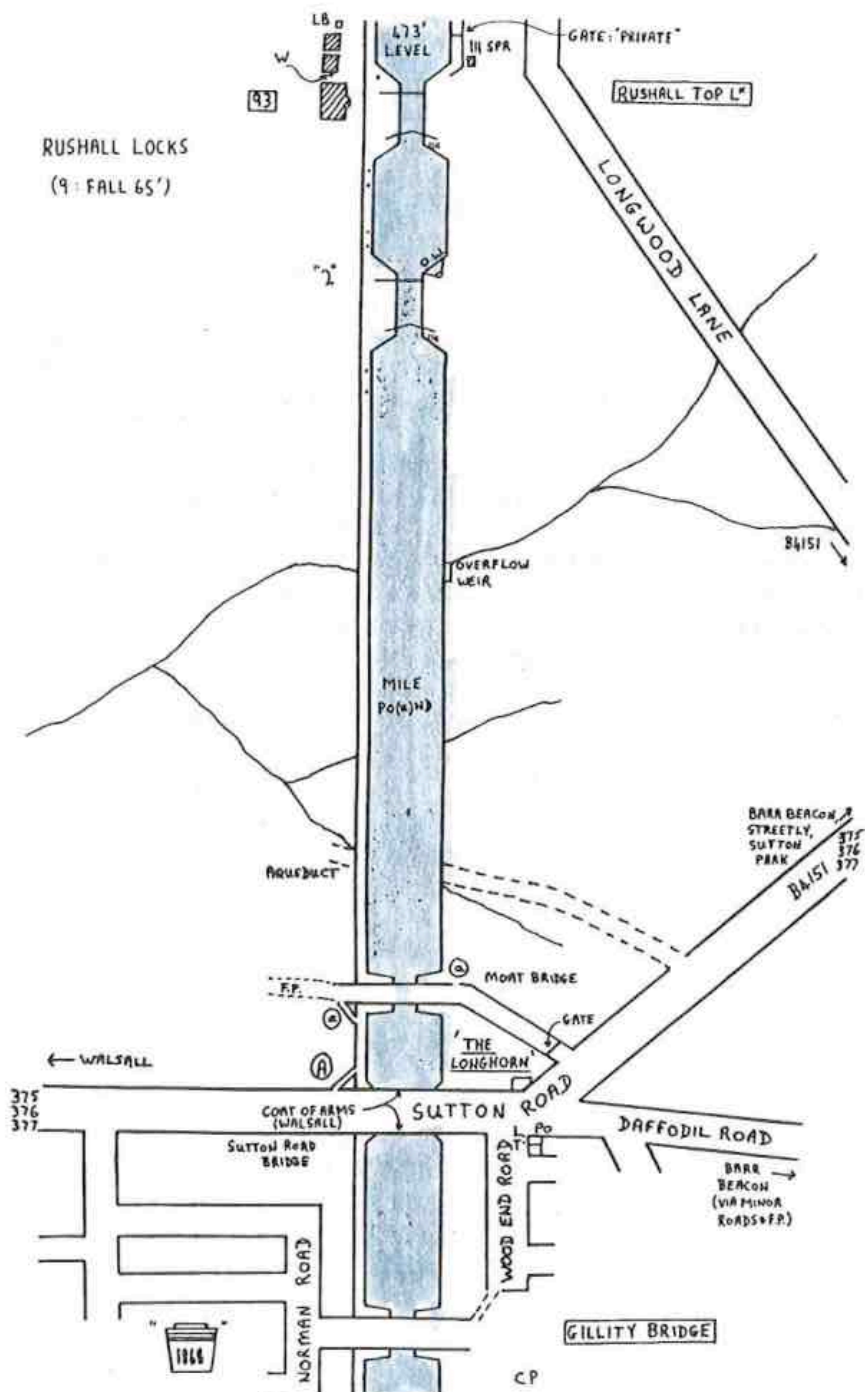
here is considered to be the best in the country. The rocks are extremely rich in fossils and an interesting feature is the occurrence of large irregular masses of coralline limestone, known as "crog-balls" or "self lumps". Just before the aqueduct is an unspoilt canalside pub, "The Manor Arms", which is well worth a visit.

The canal now bears away to the south-east through attractive countryside, crossing progressively older deposits of Wenlock Shales until it reaches Hay Head. There are several inviting spots for mooring and the opportunity for some pleasant walks, although the towpath is holed and uneven approaching Longwood Bridge.

The original line of the canal is on the left at Longwood Junction, with the first two hundred yards used as moorings by the Boat Club. Worthy of note here are the six BCN boundary posts transplanted from Chasewater - but obtain permission before visiting the moorings to view them. The remainder of the Branch has been abandoned and now forms part of the Hay Head Wood Nature Reserve. There is a nature trail through the Reserve and a booklet describing this is available from Walsall Library (or Walsall M.B.C. Recreation and Amenities Department).

To the east of the canal where the Barr Limestone crops out from beneath the Wenlock Shales is another site of special scientific interest, Hay Head quarries. The famous Bradley ironmaster, John Wilkinson (see W011-3) was part owner of the quarries when the Branch was constructed, and considering the advantages of canal transport at that time he was probably one of its main advocates. The quarries were renowned for the lime produced when the stone was burnt. An advertisement in 1822 states that "the Old Birmingham Canal exclusively used Hay-Head Lime" and according to White's History, Gazetteer and Directory of Staffordshire (1851) it was "in great demand for the building of docks, locks and bridges" owing to its "extraordinary adhesive qualities and its strength and durability".

RUSHALL LOCKS
(9 FALL 65')

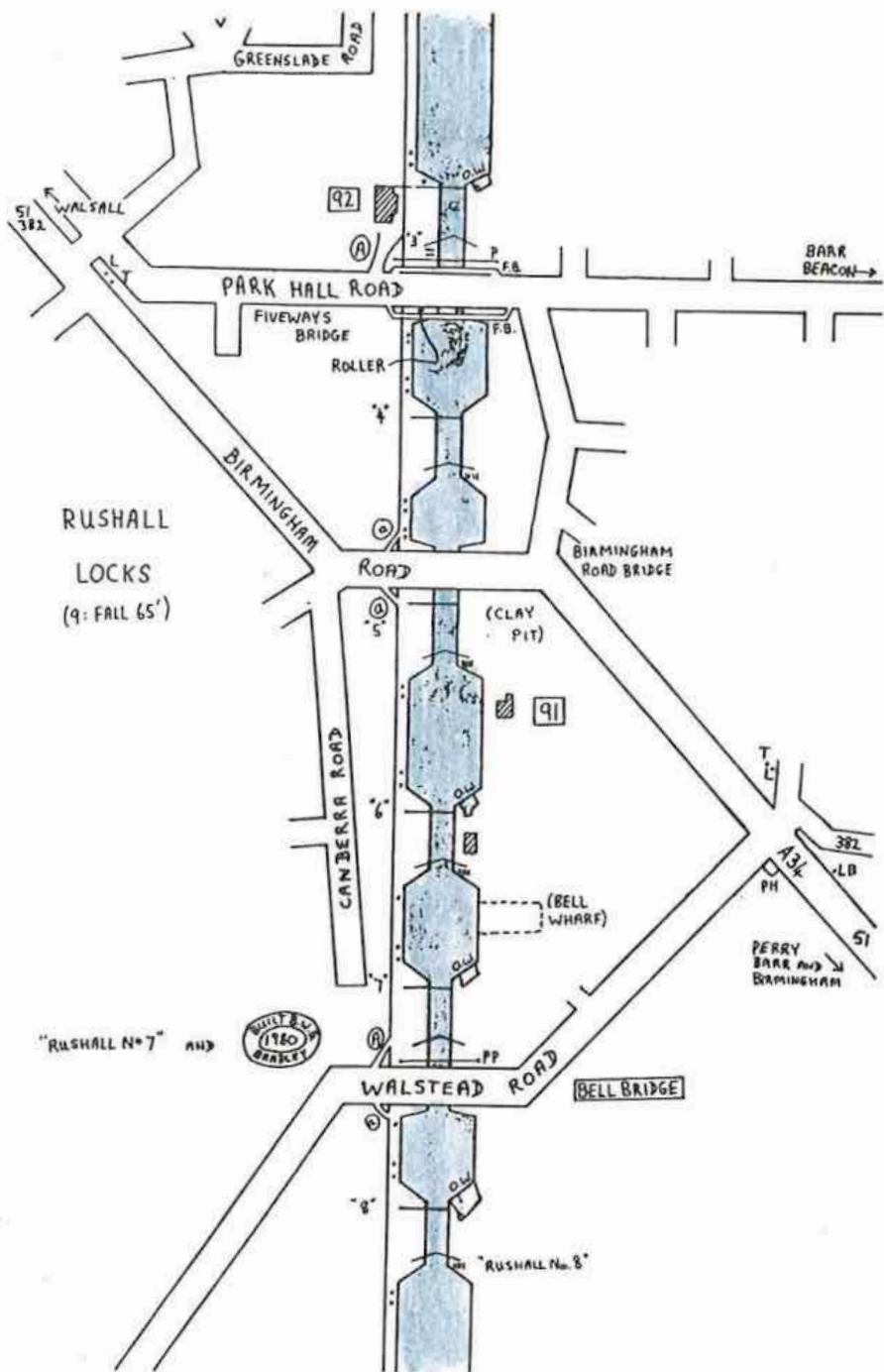


THE RUSHALL CANAL

After the merger in 1840 of the W & E and the BCN three new canals were built to connect the two systems: the Bentley Canal, Walsall Locks, and the Rushall Canal. The Rushall differed from the other two in that it passed through a rural area with almost no mining or industry along its length. At the time of its construction it would have appeared unlikely that this new junction canal would generate much extra traffic for the BCN, and the final decision to go ahead may well have depended on a legal accident. In 1842 the BCN decided not to proceed with the purchase of land for the canal, but they had second thoughts when they discovered that the Act of Union with the W & E specified that the money they had borrowed to build the Rushall would have to be returned if not used for that purpose. The canal eventually opened in 1847, and although the original plans had included twin towpaths only one appears to have been built. Presumably the estimate of potential traffic had been revised and the expense of another towpath could not be justified.

The contrast between the Daw End and the Rushall illustrates how civil engineering techniques had developed in the intervening fifty years. At Rushall Top Lock the change in style is very obvious; instead of following the contour line the canal drops down the side of the valley and runs straight across country, with cuttings and embankments where necessary. Emerging from the seclusion of the Daw End on a day when wind and rain are sweeping in from the south-west, it is easy to understand why these locks were nicknamed "the ganzees" and Guernsey sweaters were essential.

The Rushall is deep and wide and remains rural until after Moat Bridge, where a "Country Walk" from Walsall to Hay Head Wood crosses the canal. A prominent landmark on the left is Barr Beacon, one of the links in

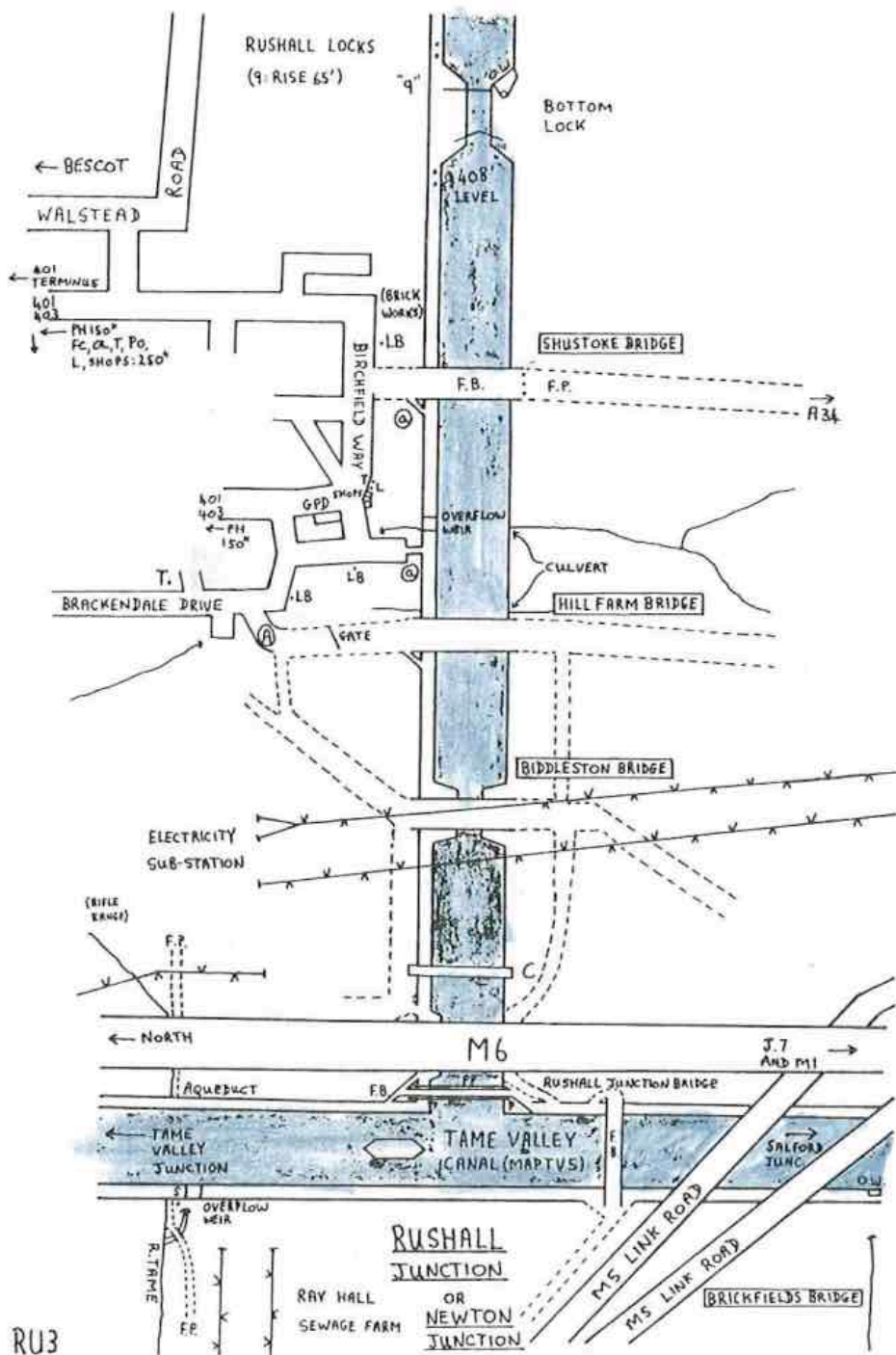


a nationwide chain of summits where signal-fires were lit to alert the population when significant events occurred. As one beacon was visible from another the signal could rapidly be passed across the country. The Beacon is 744 feet high, and can be reached by a two mile walk from Sutton Road Bridge.

The canal now enters a residential area where many of the gardens on the banks have been laid out to include the canal as part of their design. The lawns and flower beds running down to the water show what can be done with a canal at the bottom of the garden, particularly in comparison with some parts of the BCN where the view is more often one of rickety fences or heaps of rubbish. These gardens, together with the wooded cutting between locks 3 and 5, and the well kept grass and gravel along the towpath between Birmingham Road Bridge and Bell Bridge, make this the most attractive length of urban canal on the BCN.

The Rushall is on the Wenlock Shales, with Wenlock Limestone to the north-west at Daw End and the Barr Limestone outcrop running close to the east bank, and some of the local stone has been used in the construction of Gillety Bridge. The very worn rubbing strakes here suggest that as the Cannock Chase coalfield was developed there was more traffic on the Rushall than the BCN had originally anticipated.

One of the few remaining rollers on the BCN is under Fiveways Bridge. These rollers were often used instead of strakes and theoretically should have been more efficient (and less damaging to the towing-lines) as the roller would revolve as the rope passed across it. Unfortunately without regular cleaning and lubrication the bearings seized and most rollers have become as eroded as the fixed strakes. The towing-lines were so abrasive because of the grit picked up by the wet line from the towpath, and the constant wear on the cotton or, more commonly on the BCN, hempen ropes meant



that they had a very short life. It was rare for one to last longer than six weeks.

After Bell Bridge the canal completes its descent to the 408' Walsall Level and passes through a mixture of farmland, playing fields and housing estates, with the noise from the M6 becoming steadily more obtrusive. The area between Hill Farm Bridge and the motorway has recently been landscaped, with tree planting and the construction of a network of foot-paths now much frequented by the local joggers. However no amount of cosmetic improvement can disguise the M6 and, once the contrasts between the scale and atmosphere of the canal and the motorway have been noted, there is little pleasure to be gained from any further delay. Turn right at Rushall Junction to reach the Walsall Canal and the BCN Main Line or left for Salford Junction.





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4

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