

Preface.

When I came to live in Rugby in 1968 I joined a Local History Study Group at the Percival Guildhouse under the leadership of Mrs G.Blackburn and with the intention of publishing a definitive history of Rugby. I had no previous special interest in history; but I had a childhood interest in railways (not locomotives) and I jumped at the chance to fill a vacancy in the team for someone to study railways, roads and canals. I became totally absorbed in the excitement of research: and the frustration of discovering more and more unanswered questions. My childhood interest had matured and I found that I had become the Hon. Secretary of the Percival Guildhouse.

Unfortunately Mrs Blackburn's group had been too ambitious and no publication resulted.

For two years I researched and collated as much information as I could. The daunting task of editing this into a readable form was compounded by personal difficulties at the time and it has taken a further ten years to complete the work.

To ease the task of typing I have chosen to write source references into the text rather than to use page notes. The chapters have really been written as self-contained articles. I have quoted from nineteenth century sources quite freely and confess a soft spot for the quaint language of that time.

The chapters about the "London & Birmingham Railway", the Battle of the Gauges, and Turnpike Roads were first published in "Rugby - Aspects of the Past" and its companion volume by the successor Local History Study Group again at the Percival Guildhouse but under the leadership of Mr R.J.Davies. Without the encouragement of those publications I might not have had the courage to complete my task.

Peter H. Elliott.

"Furlong", January 1982.

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1. Introduction

The purpose of this study is to investigate the effects of various factors on the performance of the system. The study is organized as follows: Section 2 describes the methodology, Section 3 presents the results, and Section 4 discusses the conclusions.

The first part of the study focuses on the analysis of the data collected from the experiments. The results show that there is a significant difference in the performance of the system under different conditions. The second part of the study discusses the implications of these findings and suggests some practical applications.

In conclusion, the study has shown that the performance of the system is highly dependent on the input parameters. The results of the study can be used to optimize the system and improve its efficiency. Further research is needed to explore the effects of other factors on the system's performance.

The study is based on a series of experiments conducted over a period of six months. The results of these experiments are presented in the following tables and figures. The data shows that the system's performance is generally better when the input parameters are within a certain range.

The study has several limitations. First, the sample size is relatively small, which may affect the generalizability of the results. Second, the study only considers a limited number of factors, and there may be other factors that affect the system's performance.

References
[1] Smith, J. (2010). The effects of temperature on the performance of the system. *Journal of Applied Science*, 10(1), 1-10.
[2] Jones, M. (2011). The impact of humidity on the system's efficiency. *International Journal of Science and Technology*, 3(2), 15-25.

ACKNOWLEDGMENTS.

I would like to acknowledge my debt to the numerous authors from whose work I have quoted in this volume. I have tried to give full credit in the text to all such sources of information that I have used. I have chosen to use actual quotations from these so called "secondary sources" so as to give full credit and to retain the authenticity of the source material.

I would like to thank my wife, Norma, for putting up with me while my mind was concentrating on railway rather than domestic matters, and for putting up with the irritating noise of my unprofessional typing.

I would like to acknowledge the help and encouragement that I have received from members of the original Local History Study Group at the Percival Guildhouse during our systematic study of the Rugby Advertiser and from the following friends and colleagues:

Mary Aliberti, Graham Bevan, Ted Bray, Geoff Davies, Rees Davies, Tony Franklin, Peter Harrison, John Raybould, Stuart Robinson, Dave Allen, Bob Scobie, Peter Penney, John Hanby, Mrs Eenson.

Finally, I would like to acknowledge the contributions of numerous unknown journalists in many newspapers, and the Rugby Advertiser in particular.

Peter H. Elliott

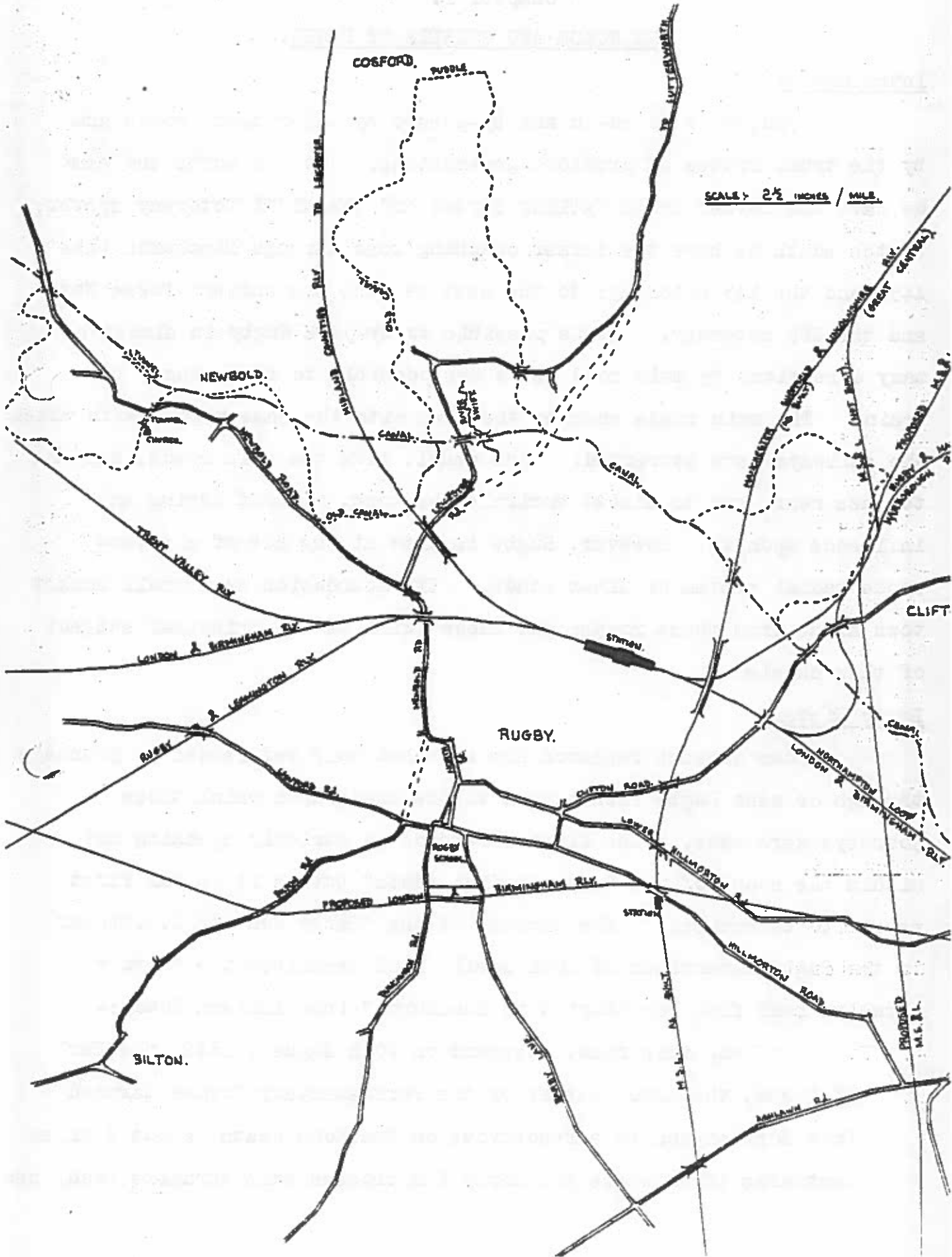
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THE DEVELOPMENT OF TRANSPORT IN RUGBY.



THE DEVELOPMENT OF TRANSPORT IN RUGBY.

Chapter 1.

THE ROADS AND STREETS OF RUGBY.

Introduction.

Rugby is boxed-in and by-passed by major trunk roads and by the trunk routes of previous generations. To the north and east we have the former Roman Watling Street and the M1/M6 motorway system; to the south we have the former coaching road through Dunchurch (the A45) and the M45 motorway; to the west we have the ancient Fosse Way and the M69 motorway. It is possible to by-pass Rugby in almost as many directions by main road as it was possible to reach Rugby by train. The main roads shunned the town with the same vigour with which the railways were attracted. The canal, like the main roads, happens to pass near, and to almost encircle the town, without having an influence upon it. However, Rugby is also at the hub of a seven-spoke radial system of minor roads. Its foundation as a small market town arose from these roads: and these will be the principal subject of this chapter.

Early History

Our present research has revealed only references to journeys through or near Rugby rather than to the roads upon which those journeys were made. The first reference is strictly speaking not within the scope of the "seven radial roads" but as it is our first we ask to be excused. The account of the "Barby Run" by M.E. Bloxam in the Rugby Advertiser of 18th April, 1882 describes the "former turnpike road from Northampton to Dunchurch" (now Ashlawn Road):-

"Along this road, westward on 20th August, 1642, the Earl of Essex, the Lord General of the Parliamentary forces marched from Northampton to a rendezvous on Dunsmore Heath, about 2 miles westwards (from where the Barby Run crosses this turnpike road) near

the lodge entrance to Bilton Grange. He was accompanied by the Earl of Stamford, Col. Cholmley and Col. Hampden Amongst the forces were many troops of horses and eighteen field pieces; the latter were in general of very small bore".

The next reference (Wait P271) concerns Hillmorton Road and Lawford Road "In June 1690, King William III passed through Hillmorton on his march to Ireland, and on that occasion it is said that three thousand carts laden passed along the high road to Coventry."

Britannia Depicta.

Our first factual evidence of the state of roads in or near Rugby comes from "Britannia" a book of road maps published by a John Ogilby in 1675 and re-printed in "Britannia Depicta" in 1720. It is from this latter volume that our research is based. The maps were in strip form at a scale of 1 inch to the mile - they showed only the route and principal landmarks, junctions and "the directions of turnings and backward turnings to be avoided". These maps were the first in which the unit of 1760 yards as equal to one mile was used as a standard throughout - until then the distance called one mile varied between users.

The most significant fact to emerge, for this writer, from Britannia Depicta is that in the seventeenth and eighteenth centuries the Watling Street (the present A5) was not shown as a through route. This was quite a surprise because the Watling Street had become quite an important boundary - between Alfred's Saxons and the Danes; and it is not crossed by a single Parish boundary - and it is also virtually a straight line. It is possible that Ogilby simply chose to ignore it, but more likely that the route through Dunchurch had more inns and was more hospitable.

The "road from Cambridge to Coventry" is shown and takes

a line from a crossing of the Watling Street at Watford Gap, through Kilsby, along Kilsby Road to Hillmorton, past "heath on both sides", past "common fields on both sides" and through Rugby (shown as a simple cross-road !), through more "common fields on both sides", "enter a lane" at a point opposite the church in Newbold, past "inclosures" at Church Lawford and Bredford (sic), through Brinklow, past Comb Park (sic), Bingley (sic) and into Coventry.

The "Road from London to Holyhead" is shown from Towcester, Daventry, through arable land to the south-east of Dunchurch, through Dunchurch, past a backward turning marked "to Northampton" (this must be Northampton Lane), across a hazard three miles in diameter called Dunsmore Heath and on through Coventry, Coleshill and Lichfield. The other routes follow courses much as expected - Coventry to Leicester along the present A46, Oxford to Coventry along the present A423, and Northampton to Leicester along the present A50. No route is shown through Rugby in a north/south direction.

Stage Coaches and Carriers.

The great coaching era lasted only from about 1790 to 1840 - having been made possible by the improvement in roads that were pioneered by Telford and Macadam, and been brought to an end by competition from the railways. The stage coach, however, continued to serve, much as motor omnibuses do (? 1975) today for the feeder services from villages to the towns until the early twentieth century.

Bloxam records that at the time of the construction of the London and Birmingham Railway in 1838 there were 16 coaches per day each way between London and Birmingham and passing through Dunchurch. The Dun Cow and the Bull Inns served the travellers and there were 20 pairs of post horses kept in Dunchurch.

An exciting account of Tom Brown's journey from London to Rugby in the early 1830's tells of conditions on the roads, in the inns and on the coach. This writer recommends all readers to the account

and offers here only two paragraphs that tell of Rugby and its coach services.

"Tom and his father had arrived in town (1) from Berkshire the day before, and finding, on enquiry, that the Birmingham coaches which ran from the city did not pass through Rugby but deposited their passengers at Dunchurch, a village three miles distant on the main road, where said passengers had to wait for the Oxford and Leicester coach in the evening, or take a post-chaise - had resolved that Tom should travel down by the Tally-ho, which diverged from the main road (2) and passed through Rugby itself. And as the Tally-ho was an early coach, they had driven out to the Peacock (3) to be on the road."

The Tally-ho left at 3.00am and reached Rugby at midday - nine hours of discomfort - cold and dark at first, no heating, poor suspension and plenty of draughts ! Accidents to coaches at this period were frequent and horrific - caused by wheels coming off, coaches turning over after hitting pot-holes, and also frequently by the alcohol consumed by drivers to make the ride bearable.

Tom rides with the guard and in reply to Tom's question as to what sort of place Rugby is the guard replies:-

"Werry out-o'-the-way place, sir; no paving to streets nor no lighting. 'Mazin' big horse and cattle fair in autumn - lasts a week - just over now. Takes town a week to clean after it. Fairish hunting country. But slow place, sir, slow place: off the main road, you see - only three coaches a day, and one on 'em a two-oss wan, more like a hearse nor a coach - Regulator - comes from Oxford. Young genl'm'n at school calls her Pig and Whistle, and goes up to college by her (six miles an hour) when they goes to enter. Belong to school, sir ?"

(1) - ie London; (2) - ie for Leicester; (3) the Inn from which Tally-ho left.

Thomas Hughes, the author, was at the school at this time and his description of other aspects of Rugby is true and so we have no reason to doubt that this record is other than authentic. Tom's coach is recorded as travelling round "Deadman's Corner" and down High Street rather than Sheep Street, to the Spread Eagle Inn - the coach stopping place immediately to the west of the present clock tower.

The number and the names of coaches serving Rugby varied with the fortunes of the times and the operators - it was by no means a once-and-for-all pattern that endured for seventy years. References can be found in a number of places to coaches serving Rugby but a catalogue would have to list them year by year to convey a true picture. A "Directory of Stage Coach Services in 1836" by Alan Bates records a service by W. Smith & Co (Licence No 10037) making a single journey to Daventry and back on Monday to Saturday for 4 inside and 5 outside passengers; and similarly a single journey between Leicester and Southam by J. Briggs & Co (Licence No 6956) Monday to Saturday again for 4 inside and 5 outside passengers.

The opening of the "London & Birmingham Railway" brought a temporary influx of coaches to perform a shuttle service until the railway was opened throughout - it also ended a coaching era and brought a need for more feeder services. The railway company had its own coaching department. The "Times Coach" left the Bath Hotel in Leamington daily (except Sunday) at 10.30/10.45 am for Rugby to connect with trains to the north - and returned at 1.25pm. The fare was in 1841 6/0d. for inside passengers and 3/0d. for those outside. Connections to the south from Leamington were by the "Eagle Coach" to Weedon.

The transport of parcels and merchandise was handled by carriers - about 30 of these are listed in Tait's Almanack 1870/79 starting from various inns in Rugby to numerous destinations and permutations of destinations.

The Streets of the Town.

The earliest account that we have of the streets of Rugby is a personal reminiscence by Bloxam (P77 Rugby School & Neighbourhood) of his early school days in 1813, "the streets were in a state of darkness, for Rugby was not then lighted, and the footpaths in the streets not flagged. Everything, in fact, was in very primitive condition."

Simms (P8) reports that an "Overseer of Highways" was appointed by the Vestry Meeting. Of $9\frac{1}{4}$ miles of roads within the Parish itself only three-quarters of a mile was paved by 1845.

The next account is from 1848 (Report to the General Board of Health by Mr George Thomas Clark dated 28th February 1849).

Clauses 81 to 83 are reproduced below:-

(81) "The streets are very ill paved, and many of them not paved at all, not having been "taken to" or "adopted" from the builders by the parish. In the parish there are about 16,309 yards of highway, of which about 1,467 yards only are pitched, and a large portion are in very bad state. The paving, or rather pitching, employed is of two kinds, one composed of the ordinary pebbles of the district, laid in gravel or sand and rammed fast. Where the road is not macadamised this "random pitching" is common, and it is also extensively used for footways. It is difficult to clean, liable to settle into holes, and most unpleasant to walk upon. There is a better description of paving in use for footways, formed of small squared blocks of Warwickshire syenite. A part of High Street and possibly of one or two other streets, is flagged, or has a band of flags in the centre of a pitched footway.

(82) If, from reasons of economy, this random pitching be unavoidable for the carriageways, still the footways should be either wholly flagged, or be at least laid down in squared syenite blocks, or perhaps the "block bricks" from Huneaton and Chilvers Coton would be cheaper and better than either.

(83) The average annual sum granted for highway rates during the last four years has been £517/5/1d; a large sum, and a proof, taken in conjunction with the existing condition of the highways, that they might be better and more economically managed."

The report goes on to say that the town is "wholly lit by gas" - there being 75 street lamps in single rows about 190 feet apart. Gas lights had been introduced on 29th December 1838 and variously described as not being lit on nights of full moon, 4 days before or 2 days after, or in other places as being "lit for eight of the twelve months or 200 nights". The lights were extended to Railway Terrace in 1851.

The state of the streets seems not to have been perfect ! The Rugby Advertiser of 8th November 1850 reported that the excavations to the streets caused by gas, sewerage and water pipes has caused the streets to be "in a most disagreeable state with dirt and mud". The Advertiser of 11th May 1850 reported that the Rev E. Elmhirst MA had come to Rugby and had broken a spring in his carriage. He did not take any action against the Board of Health "for the disgraceful way in which they kept the roads" as they had only recently been constituted and he wished to throw no obstacle in their way. The Board had in fact appointed a Surveyor of Roads (Rugby Advertiser 25th May 1850) "to supervise watering roads, cleansing roads, recording labourers employed, see that names of streets are kept legible, keep thoroughfares open on Market Days and Cheese Fairs". The naming of streets and the numbering of houses was also completed in 1850 (Rugby Advertiser 14 Sept and 12 Oct) by the Board of Health, the numbers having been painted on the doors by the official and described as "ugly things in shape". An activity that has ceased to be necessary since horses were replaced by motor vehicles was politely called "scraping" or "scavenging". This was let out by auction, with the watering of roads to keep down the dust, to local contractors; a typical example (Advertiser 19 July 1851) being "that Mr Thomas

Carr's tender be accepted at £6.15.0d and his offer to do the day work by man, horse and cart at 5/2d. per day be accepted". Kerb stones, and bollards to prevent carriages cutting corners, were introduced in 1850 - kerb stones to be "fixed and rammed" at 1½d. per yard run.

The Rugby Advertiser of 3rd July 1852 reports a decision that a highway rate of 6d. in the pound should be made instead of paying for the roads out of the General Rate. The accounts were presented:-

For taking up, relaying and Macadamising Sheep St and Market Place	£100- 0-0
Extra stone for ditto	£ 73-15-0
Labour and carting for ditto	£ 75- 0-0
Stone for other highways in the district	£120- 0-0
Labour for ditto	£160-10-0
Cartage for ditto	£ 36- 0-0
Scavenging	£ 60-10-0
Watering	£ 30- 0-0
Repairing Workmens' tools	£ 25- 0-0
	<hr/>
	<u>£680-15-0d.</u>

The stone for the roads came from Hartshill quarries by canal. The cartage was regularly put out to tender - a price of 2/3d. per ton being typical in 1850.. A mystery exists here, for the present writer, because the stone was to be delivered either to Rugby Wharf or All Oaks Wharf. Rugby Wharf still exists but there is no sign of an All Oaks Wharf ! A copse called All Oaks exists near Brinklow but this seems too far away to be involved with road repairs in the streets of Rugby.

The State of the Early Roads.

The Romans, and even Britons before them, had laid down and engineered some trunk routes - but no organisation existed to maintain them. Where no formal road had been engineered the "road" simply became an accepted "route" - there were no hedges and the "route" was often very wide as each traveller chose a line, through or around the morass, that seemed to him to offer the least resistance. We have no evidence other than that this is how the roads that radiate from Rugby came into existence.

Probably the first attempt to contain the spread of these roads during wet weather came in 1773 with the local Enclosure Act which stated that the new occupiers of land had to set out "Publick and private roads or ways through the new inclosures 50ft broad at least between the ditches, except bridle and footways, which roads shall be repaired by and at the expense of the Parish of Rugby" The Act also contained clauses about not encroaching on roads and about permitting young hedges to grow. So, the traditionally narrow roads of Britain came about since, and not before, roads became properly engineered.

The proper construction of roads, pioneered by Thomas Telford and John Loudon Macadam, began at the end of the eighteenth century. Until then the method of repairing deep ruts was to plough the sides in or to fill them with large stones - larger stones for larger ruts. The waggon wheels pushed the stones aside, or if they rode on top of them would slip off sideways and the ruts returned. Telford and McAdam's greatest contribution was perhaps not in the skill of their engineering but in persuading the turnpike trusts that it was worthwhile to make a decent road. Their methods differed in principle - Telford favouring large foundations and McAdam favouring a "flexible" road in which all the stones to a depth of 10", laid on top of the soil, were less than 2" in diameter. With good drainage at the sides these stones soon "worked" to produce a waterproof surface. The waterproof surface would not then rut or be damaged by frost. The

average cost of converting a road by the McAdam method was about one shilling per yard run or £88 per mile.

Rugby may have been 50 years behind the times in its technology, as we can offer no other explanation, but the Rugby Advertiser of 6th July 1850 reports that "directions for road making, drawn up by Mr Macadam were referred to the Highway Committee" !

The Turnpike Roads.

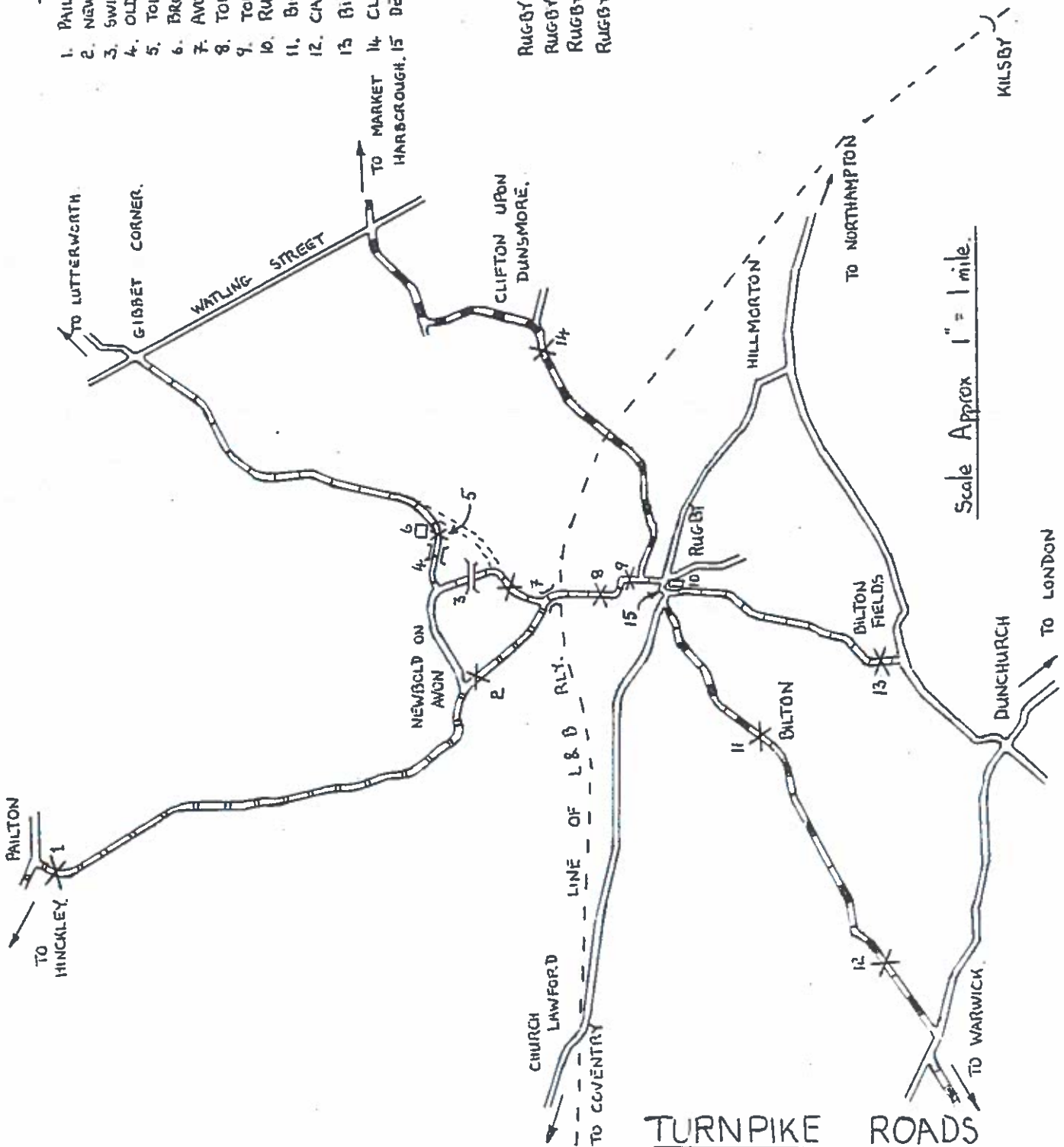
Four Turnpike Trusts had their headquarters in Rugby and held joint meetings in the George Hotel - in the Market Place to the south-east of the present clock tower. The Trusts were non-profit making - the part of their duty that was discharged with the greatest efficiency ! Their purpose was to manage the road, its repair, and the collection of tolls on the basis of capital borrowed from various authorities and individuals. It is quite significant, as an indication of the status of Rugby relative to the surrounding towns, that the financial interests for five out of seven radial roads from Rugby was held in Rugby rather than at the distant end. Our present researches cannot establish whether the Lawford Road route to Coventry (the route described by Ogilby in 1674) was ever turnpiked or if it was an "unmade" bridle track. A search of the Coventry Standard has revealed no references, similar to references in the Rugby Advertiser for the other Trusts, for a Trust for the road. We have evidence that Ashlawn Road and the road to Northampton was turnpiked but have not sought to find where the financial interest was held or whether the route was through Kilsby as in Ogilby's time or through Crick as the present A428.

The collection of tolls was "let" annually to the highest bidder - the purchaser then being responsible and having the incentive for collecting the tolls to cover his investment and to make a profit.

KEY

1. PAULTON GATE
2. NEWBOLD ON AVON GATE
3. SWIFT AQUEDUCT
4. OLD CANAL
5. TOLL GATE 1833
6. BROWNSOVER HALL
7. AVON BRIDGE
8. TOLL GATE NEWBOLD Rd.
9. TOLL GATE NORTH ST.
10. RUGBY SCHOOL
11. BILTON GATE
12. CAWSTON GATE
13. BILTON FIELD (COCK ROBIN) GATE
14. CLIFTON GATE
15. DEADMAN'S CORNER.

- RUGBY & LUTTERWORTH.
- RUGBY & MARKET HARBROUGH.
- RUGBY & HINCKLEY.
- RUGBY & WARWICK.



TURNPIKE ROADS

1785 - 1878.

The Rugby & Lutterworth Turnpike Trust.

The Rugby & Lutterworth Turnpike Trust was the first to be established, by an Act of Parliament in 1785 (25 George III). The road, in spite of its name, was between a junction with the present Ashlawn Road near Dunchurch and right through town to the Gibbet Corner on the Watling Street. In terms of present street names this includes all Dunchurch Road, round the corner at the School (Deadman's Corner), along part of Lawrence Sherriff Street, along High Street, through Market Place, along North Street, Evreux Way and Newbold Road, over the bridge at the Avon Mill, along Leicester Road and Old Leicester Road past where the present aqueduct crosses overhead (this was opened in 1834), east into Brownsover Road and over the River Swift and what then was the canal (the original line of canal was opened in 1772), past Brownsover Hall and then by the winding route (recently re-built and straightened in conjunction with the M6 Motorway) to "Lutterworth Hard" or the Gibbet Corner on the Watling Street. The detour of the road a short distance up the valley of the River Swift, together with the much longer detour of the original canal suggests that the direct line was probably quite marshy. Newcomers to Rugby (including the present writer) may like to be reminded that the present direct line of the dual carriageway between its junction with the Old Leicester Road and Brownsover Road is a recent "green field" by-pass dating from 1960.

Toll Gates were located at "Bilton Fields" near the junction of the present Bawnmore Road ^(Sainsbury's roundabout) and a second gate was located north of town at various places during its life. It seems to have originally been in North Street near the Saracen's Head Inn and called "Rugby Gate", then in Newbold Road where John Street now is (shown in this position on the Giffney map of 1833) and finally just opposite Rugby Wharf. A further gate is shown on the Giffney map at the canal crossing near Brownsover Hall.

The bridge over the River Avon at Avon Mill was not the

responsibility of the Trust. Lawrence Sherriff is reputed to have given a grant in 1558 towards its maintenance. Articles in the Rugby Advertiser of 27th November 1852 confirm that the bridge was not the responsibility of the Trust and also that a bequest by a Mr Richard Fosterd of 20gns a year had been made for the maintenance of this bridge and the "long bridge between Newbold and Lawford". The Rugby Advertiser of 12th November 1870 reports ".... a great improvement on the Rugby & Lutterworth by widening of the bridge over the Avon at Rugby Mill". The old bridge was 16' wide - the new one 26' wide including a 4' footpath on the Brownsover side and one of 2' on the other side. The bend into Brownsover Road was improved from 5' to 50' radius. The contractor was a Mr John Bromsgrove and the engineer a Mr Henry Fowler (presumably not the Sir Henry Fowler).

The Rugby & Warwick Turnpike Trust.

The Rugby & Warwick Turnpike Trust was established only in 1818 (58GeorgeIII) and included what is now Warwick Street from the School, Bilton Road and right through Princethorpe and Cubbington to Leamington. There were tollgates at these two places and also south of Cawston, and finally "Bilton Gate" that disappeared and reappeared during its life. Bloxam recalls that in 1813 (ie five years before the Act of Parliament) the junction of the roads to Bilton and Dunchurch "had turnpike gates set up on each road, forming barriers at which blackmail was levied on those travelling in carriages or on horseback, those on foot being exempt." The Giffney map of 1833 shows only one gate and this well beyond Cawston about half a mile from the Blue Boar. Incidentally, the bend in the road, where it passes under the railway line, existed before the railway and was not caused by the railway !

On 3rd October 1846 the Rugby Advertiser reports that "a correspondent informs us that it is in contemplation to erect a Toll Gate between Rugby and Bilton, and suggests that a visit of

the renowned "Rebecca" would not be unacceptable to the lieges in such a case. We recollect that the removal of the gate from the road leading to Bilton gave very great satisfaction to the Inhabitants of the town some ten or twelve years ago, and hope that there will be no revival of the heartbreakings and bickerings that its existence then gave rise to". From shortly after this time the letting of tolls is advertised annually at Bilton Gate and Cawston Gate; implying that the gate was built and that the next gate was moved closer to Rugby.

The Rugby & Market Harborough Turnpike Road.

The third road is variously called the Rugby & Market Harborough, the Rugby & Harborough, the Rugby & North Kilworth and the Rugby & Kilworth. It was established as a Trust in 1801 (41GeorgeIII) and in fact went only as far as North Kilworth on the way to Market Harborough. It started at the Graziers Arms Inn (now ~~the Squirrel Inn~~) and passed through Clifton-upon-Dunsmore and several villages before making a junction with the turnpike road between Lutterworth and Market Harborough.

Toll gates existed on the Rugby side of Clifton and at South Kilworth. It has not yet proved possible to find the scale of charges at gates - all contemporary documents assume that the reader is only too well aware of them - but it seems that in 1852 it was a shilling for a cart drawn by two horses and loaded with coal, and in 1830 it was 6d for a man on horseback at Clifton Gate.

The Rugby & Hinckley Turnpike Trust.

The date of the formation of the fourth Trust is not known - its existence is only certain because of advertisements over almost 50 years for stone to repair it and for the sale of the rights to collect tolls. The Road started near the Avon Mill at a junction

with the Rugby & Lutterworth Road and passed through Newbold-on-Avon, Pailton, Wolvey, Three Pots and Sketchley with toll gates at each of these places - the Newbold Gate being on the Rugby side of the village just before the junction with the road to Brownsover.

The Abolition of the Turnpike Roads.

The four Trusts based on Rugby worked in association with each other and held Annual Meetings at the same time as each other. In 1859 a joint appointment was made for a surveyor to all four roads - no salary is mentioned but the man appointed was a Yorkshireman. Between 1873 and 1875 the Rugby & Lutterworth, Rugby & Market Harborough and the Rugby & Hinckley Trusts formed a joint Trust - but details are scanty and it is not known what became of the Rugby & Warwick road.

The precarious state of the Trusts can be gauged from a meeting of the Rugby & Market Harborough Turnpike Trust on 15th October 1855 when under an Act of 1851 they were to apply to "extinguish the arrears of interest amounting to £317-8-6d. on the debt due to the Trust together with arrears in interest of £388-17-6d. which were added to the debt in 1823 and 1841 and also to reduce the rate of interest on the remaining debt of £1,119-3-4d. from 4% to 3½%".

The formal end of the Trusts started at a meeting of the Warwickshire Chamber of Agriculture on 28th January 1870 at which it was proposed by a Mr Wilmot that if Trusts were to be abolished then they should all be abolished at the same time and their debts be paid half from the County Rate and half from the Consolidated Fund. Suggestions were also made for a form of Road Fund Tax on all vehicles in the County but for the licences to be valid in any County. The County would take over main roads and the parishes would take over other roads.

The abolition of tolls, on the 1st November 1873, was not worthy of a comment in the Rugby Advertiser although the auction of

tools, implements and materials belonging to the Trusts was announced but only by virtue of advertisements. The materials included gates, chains, bars, gate-posts and tables of tolls (what this writer would give to see one of these tables of tolls !). The tools included wheel barrows, spades and hammers. The buyers had to take possession by noon on 1st November and to remove the gates and fill the holes within two weeks. Of the gates nearest Rugby the auction realised £12-3-0d. at Newbold-on-Avon Toll House, £38-8-0d. at Rugby Gate Toll House (near Rugby Wharf), £7-0-0d. at Bilton Field Toll House and £26-6-6d. at the Clifton Gate Toll House.

Proposed Electric Tramways for Rugby.

Unfortunately, the next development of interest was a non-event. The Rugby Advertiser of 8th November, 1902 carries the following article under the headline as above:-

"In our advertisement columns will be found an official notice of intention to apply to the Light Railway Commissioners for powers to construct electric tramways in the parishes of Rugby, Bilton and Hillmorton.

"The proposed railway will run from the L & NW station up Railway Terrace, Albert Street and along Church Street, encircling the Clock Tower on the north side, and then through the Market Place, Sheep Street and by way of Warwick Street as far as Addison Road, New Bilton. Another line will start from the top of Regent Street and pass along Church Street, Clifton Road and Whitehall Road and Hillmorton Road by the Great Central Station to the far end of Upper Street in Hillmorton. There will be a branch from near Whitehall Road to the Spoil Bank and an alternative route is shown to traverse the upper part of Railway Terrace above the junction with Albert Street. The station for the generating plant will be near the Great Central Station and about two acres of land on the east side will be acquired for

the purpose."

The lines would have been 3ft 6ins gauge and single track with only short sections of double track for passing; there would have been reversals at the top of Albert Street towards Clifton Road and at Whitehall Road towards Hillmorton. The costs were estimated at £40,000 to £50,000 although the deposited plans at the County Record Office show an itemised breakdown that totals exactly £33,001 for the track only. It was estimated that the system would contribute about £1,000 each year to the Council by way of rates. Certain corners, particularly Deadman's Corner at the School, would have been widened; as has happened since for the 'Gyratory System'. The private promoters were serious and the order permitting the construction was confirmed by the Board of Trade on 2nd April, 1904, but was never commenced. The Council was divided about the possible benefits and tried to compel the tramway company to purchase electric power from the Council's own new generators; they had just failed to gain the co-operation of the independent Rugby School Power Company in a similar bid. The scheme did not proceed: the promoters, Messrs Pritchard Green & Co of Birmingham probably being discouraged by the concessions demanded by the Council and having similarly failed at Bromsgrove, Redditch, Watford and Canterbury.

Fosterd's Bridge Charity.

A charity to repair bridges over the River Avon at Rugby and Newbold-on-Avon was founded in 1558 under the will of Richard Fosterd, a one time resident of Newbold who had moved to Frankton. The yearly rent from his house and lands, after the death of his wife, was to be divided equally with one half being used to maintain the bridge in what is now Newbold Road and the other half being used to maintain the footbridge between Newbold and Long Lawford. By the will, and for the next three hundred years, the charity was administered by four men - "two from Rugby and two from Newbold, and ordained that when any of these should die the others should take some honest man

into his place".

The regulation of Charities from the middle of the nineteenth century, by the establishment of the Charity Commissioners, permitted the charity to be modified and in 1903 the bridge over the river on the 'Black Path' from the 'Wooden Bridge' over the railway was added to its responsibilities. Fosterd's house had become a public house, the Friendly Inn, by that time. Some land was sold in 1938 and the property itself was sold during the Second World War; the income since then being derived entirely from investments. In 1954 the scope of the charity was further increased to include any public bridge over the River Avon in the Borough of Rugby. For about ten years, and until the new bridge was opened in Parkfield Road in 1971, the charity provided and maintained the footbridges at that crossing - the road bridge being narrow and liable to flooding. Today (1983) the charity restricts itself to maintaining the footbridges at the Black Path, between Newbold and Long Lawford, and at the Little Lawford ford.

The capital value of the investments held by the charity is currently about £3,500 with a repair fund of about the same value re-invested. The work undertaken currently is limited to painting, repairs to handrails and repairs to footboards.

The Twentieth Century.

The first substantial change in the appearance of the roads and streets of Rugby for almost a hundred years, since the introduction of Macadamised surfaces, was with the introduction of tarred surface dressings and later 'tar-bound Macadam' (tarmac) as pneumatic tyres came into use and started plucking the stones from the 'water-bound Macadam'. The first tarred surfaces probably came at the time of the First World War and by 1932, the date of the earliest remaining records at the Town Hall, most of the main roads had been tarred. Granite

'setts' and cobbles could still be seen at the gutters and forming footways at junctions across what had previously been muddy Macadam. Most minor roads in 1932, Main Street at Bilton, parts of Bilton Road and parts of Lower Hillmorton Road, remained water-bound Macadam. Roads in the new housing estates were still being constructed on this principle although concrete had become a possible alternative. The first concrete bridge in Rugby was built in about 1910 over the River Avon for Boughton Road and is due for replacement in 1983. In May 1934 a new road roller was purchased as "the existing steam roller had been in use for over 30 years". The last steam roller to work in the town was owned by Messrs Galliford and was used on the construction of Corporation Street in 1958.

The process that had initiated the change in the appearance of the roads also brought an immense growth in traffic and the first substantial change in the pattern of roads through Rugby with the construction of a western bypass to be called "Corporation Street". Congestion in Sheep Street, High Street, Market Place and North Street (although the latter was not a principal shopping street then), had become chronic and something had to be done. The first proposals, in 1950, had been for a road leading from Bilton Road and heading directly towards the site of the proposed new Town Hall; possibly the planners had in mind a boulevard lending dignity to the town and its new civic building. This was not to be so: a slight dog-leg was introduced and the first carriageway of the present Corporation Street was opened in 1958 heading directly into Newbold Road and with a very clinical aspect.

The new works at Corporation Street were accompanied by traffic management schemes, improvements and changes elsewhere. The first traffic lights were introduced to Rugby at the High Street to Lawrence Sheriff Street junction in 1953/54. The Newbold Road bridge over the River Avon was strengthened in 1955. What previously

had been a hump-backed bridge over the canal on Crick Road at Hill-morton was replaced in 1960 at a cost of £35,291-16-0d. A contract to the same specification had been awarded in April 1939 for £7,995-19-8 but work did not proceed due to the war. Regent Place was extended through Chestnut Field to Park Road in April 1959. The road under the railway bridge in Newbold Road was lowered by 2ft in 1965 - the northern part of the bridge itself being replaced by British Rail in February 1983. Partly due to changing boundaries but more so due to residential development the mileage of roads for which the Rugby Borough and its predecessor have been responsible for maintenance has increased from 54.86 in 1934, 61.47 in 1947, 70.92 in 1957, 83.89 in 1967 and 123.04 miles in 1982. The boundary for this responsibility remains much the same in spite of the enlargement of the Borough to include the former Rugby Rural District in April 1974.

The roads of Rugby had to fit into a national pattern and in 1923 the Ministry of Transport allocated route numbers to all principal roads in the country. The routes designated by the new system formed a continuance of those that had first been established by the Turnpike Trusts. In 1970 the changed use of routes was formally recognised and Bilton Road (ex-A427 Market Harborough to Coventry route) became the A4071, the Clifton Road (also ex-A427) became the B5414 and the road to Southam from the Cock Robin Corner onwards (ex-B4100, the previous end of the Rugby & Lutterworth Turnpike Road) became a continuation of the A426 through from Leicester and Lutterworth.

Not all proposals have matured; some have lingered for years before maturing and some cannot yet be assumed to be finally disposed of. In March 1959 the Borough Council decided to defer "for the time being" proposals to widen the tunnel under the railway to Mill Road. Three proposals were considered:- 1) for a separate pedestrian subway at £78,000, 2) to widen the northern end west side only at £36,000 and 3) to widen the northern end both sides at

£46,500 -- compensation and approach works would have cost extra. The proposals were considered again later that year when, after discussions with British Railways, it was established that there would be savings if the work was done while the bridge was being strengthened in conjunction with railway electrification. On the 4th December that year the Borough confirmed its decision not to proceed with the proposals. In retrospect we can see what a bad mistake that was. Traffic lights were introduced, as a substitute, in 1960/61. Hindsight, however, does not help us to see in a more favourable light the proposals in 1963 by an independent consultant, Dr Thomas Sharp, in which, for a fee of £2,000, he proposed to restore life to the town centre by re-introducing through traffic to High Street and Sheep Street: this objective was to be achieved by knocking down the School and replacing it with a dual carriageway road across the Close! Really! Dual carriageways have continued to grip the minds of planners such that the 'Northern Distributor Road' in 1967, a proposal that lingered and caused blight along its proposed route for many years before being laid to rest, would have carved a dual carriageway road from Evreux Way to Murray Road with a roundabout in Chestnut Field at the top of Park Road. Together with widening of Murray Road, Whitehall Road and Hillmorton Road, what was eventually to become the Warwick Street Gyratory System, and Corporation Street, this would have completed an inner ring road round Rugby.

Many events have happened and some are listed below:-

1. Corporation Street opened for the first through traffic on a single carriageway on 20th May, 1958. West Street to which it linked was re-named as part of Corporation Street on 22nd July, 1958.

2. M1 south of Crick and the M45 motorways opened 2nd November, 1959.

3. Leicester Road (Old Brownsover Bypass) first carriageway in use 14th August 1960.

4. Ditto second carriageway 10th November, 1960; total project cost £215,000.

5. M1 north of Crick opened on 1st October, 1964.

6. Boughton Road Extension and Canal Bridge opened 3rd December, 1964; total project cost about £40,000.

7. Corporation Street second carriageway put to use in about August of 1965.

8. Bus Priority Scheme with no other through traffic at the Market Place, Sheep Street and High St 'neck' 15th September, 1969.

9. M6 Catthorpe to Ansty section opened 15th November, 1971

10. Parkfield Road new River Avon bridge opened 1st December, 1971. *Diveunder Rly - rly into full operational use 17 Sept '62*

11. Blue Boar Flyover opened 29th June, 1972 at a total project cost of £272,000.

12. Warwick Street Gyrotory System (first gyrations) 18th December, 1980.

13. Complete pedestrianisation of Sheep Street and High Street (in theory) from 3rd August, 1981.

14. Butlers Leap to Mill Road link opened 1st March, 1982.

15. Town Hall roundabout (first circulations) 15th April, 198

16. Clifton Rd roundabout (" ") 12/9/84
17. Boughton Rd/Leicester Rd roundabout (first circ) 15/11/83
18. Tesco
19. Avon Mill Roundabout (first circ) 24/3/92

Chapter Two.PUBLIC ROAD TRANSPORT IN RUGBY.

More than any other chapter in this book, this chapter has depended on the memories and recollections of various individuals rather than being based on written records. Future historians may discover records unavailable to this author and may re-write parts of the account. The author looks forward to this.

The first public road transport in Rugby probably started when the railways arrived in 1838. According to the Francis White & Co. Directory of 1850: "Omnibuses from the Eagle Hotel, calling at the principal Hotels and Inns, meet every train to and from. Samuel Grew, agent". This arrangement lasted throughout the second half of the last century and continued into this. The omnibus was of course horse drawn, probably by two horses and it was probably replaced at least once during this lengthy period; they were more durable than their internal combustion successors although their horses were not -- a working life of less than five years being typical.

With the establishment of industry in Rugby the need for public transport increased, and when between the wars the petrol engine gained supremacy, various local entrepreneurs obtained licences to operate services from the outskirts of the town into the town centre. Until the 1930 Transport Act the local authorities had issued licences but without any central direction of policy. This changed with the Act and inspection of vehicles, drivers and conductors reduced the scope for one-man initiatives that had given Rugby the following fare stage services:-

1. Batchelor & Son - Kilsby, Barby and Hillmorton to Rugby.

The service was founded by 'Nimble' Jack Batchelor with a horsedrawn carriage. At a later date, between the wars, he bought two petrol buses, one a 20-seater Morris and the other a 29-seater Bedford.

Father drove and son took fares. The town centre bus stand was in Clifton Road opposite Moultrie Road between trees which then grew beside the road. After the Second World War he purchased two 32-seater Dennis Lancet buses from the Ministry of Defence. These vehicles were purchased by the Rugby Co-operative Society when the business was sold to them in 1948.

2. Rugby Co-operative Society - Kilsby, Barby and Hillmorton to Rugby. The Co-op operated this service from 1948 until it was sold to Lloyds on 9th May, 1959.

3. Moores - Bilton to Rugby. Stand in Warwick Street. Taken over by the "Midland Red" in about 1935/36.

4. Petit and Round - Long Lawford to Rugby. Two separate operators each with one bus. Stand in Warwick Street. Taken over by the "Midland Red" in about 1934.

5. Lewis's - Pailton to Rugby ^{from the early 1920's.} Operated 'jointly' with "Midland Red" who extended their service to Monks Kirby and Stretton under Fosse. There was much 'chasing' to pick up passengers before the rival service. Lewis's dropped out in about 1933.

6. "Red Rambler" - Dunchurch to Rugby. Operated by Reg Prior and his wife until about 1930/31. The name is reminiscent of stage coach practice. *Crimson Rambler - Town Centre to Paddocks Id.*

7. Fred Gee - Clifton and Swinford to Rugby. One bus operated by the owner and his wife. The "Midland Red" started a parallel and co-operating service until Mr Gee sold out to Messrs Woods of Wigston in the 1960's; the stage licence was relinquished immediately and the "Midland Red" had the route to itself.

8. Wycliffe Motors - Lutterworth to Rugby. Operated by the Richardson brothers to a stand at the park gate in North Street. The service was taken over by the "Midland Red" in 1946/47.

9. George Morris - New Bilton to Lodge Plugs. A one-man operator. Upon his retirement Geoff Amos of Daventry bought his

one and only vehicle.

10. Kilsby Motors - Operated for a short time doing contract work and private hire. Sold to Taylors of Long Buckby who also took over KW Services of Daventry. This now operates under the name of Geoff Amos Ltd.

11. Rowland Coaches - Operated by two brothers who started the Bagington service and a Weymouth holiday service, together with private hire work, using three coaches, 29, 32 and 33-seater Bedfords. Eventually sold to the Rugby Co-operative Society in 1955 and then to Lloyds in 1959.

12. J.Lloyd & Son Ltd - fare stage service Kilsby, Barby and Hillmorton to Rugby. Although a Nuneaton company, they took over this service as related above, and continue to operate it today as their only fare stage service in Rugby. Much of the company's contract work is so regular that the distinction with fare stage operation is blurred. Rugby operations were first based in West Leys and included all the schools services in the Rugby area under contract to the Warwickshire County Council; workers services from the Overslade Hostel in Rugby to the re-building of Coventry after the war under contract to Wimpey; three coaches daily to Bristol Siddeley, now Rolls Royce, in Coventry; six coaches daily to Melton Road, Leicester, and New Parks, Leicester; and morning, lunch and evening services from Overslade Hostel and Coton House to the B.T.H. There was never a stage service to Nuneaton probably because the rail service was adequate.

On 9th May, 1959 J.Lloyd & Son Ltd took over the Rugby Co-operative Society bus and coach operations and premises in Railway Terrace. They still operate the Barby, Kilsby and Hillmorton service but since 25th April, 1981 have modified it to incorporate the Ashlawn estate and Daventry services when the "Midland Red" withdrew from those routes. The workers' service to Rolls Royce at
 * 6 coaches and 1 s/d bus - none lasted more than 12 months with Lloyd

Parkside and Ansty is now operated as a stage service from Hillmorton, Rugby, Newbold, Bilton and Dunchurch. Now trading as "Lloyds of Nuneaton" since selling the Railway Terrace premises in 1972 and first moving to Leicester Road and then Craven Road.

13. Cotton's Coaches - Bilton. Private hire and contract work but no stage carriage licences. *Preston Travel / Fred Marvix*

Dominating the story of the pioneer services is the "Midland Red", (actually the "Birmingham & Midland Motor Omnibus Co Ltd.", registered on 26th November, 1904) who first served Rugby in about 1920 with Leamington based buses. Gradually, and following the creation of the Traffic Commissioners by the 1930 Transport Act, it took over the licences of the independent operators, took on their staff sometimes, and substituted its own vehicles. It is doubtful if it ever had a formal agreement with the Rugby Council to operate the town services. This had normally been necessary when a town council had operated its own services initially and had handed them over to an independent operator: but this did not apply to Rugby. However, "Midland Red" certainly paid rent for its stands. The first "Midland Red" garage in Rugby opened on 9th March, 1926 in Railway Terrace on the east side between Market Street and Spring Street in premises taken over from Rushall Transport and eventually handed on to Lloyds of Nuneaton. It housed 12 buses and additional premises were obtained for 4 or 5 buses in November 1932 in Dobson's Yard lower down Railway Terrace behind the old Police Station.

The pattern of services established by the small independent operators, in which they all terminated at the town centre, was broken in about 1930 by the "Midland Red" with a through service (fare 1d. between termini) between Croop Hill, Clifton and Newton. This was followed in about 1934 with a service between Long Lawford and the Ashlawn estate. Additional services between Southfields and Eastlands to the town centre came in 1933.

The "Midland Red" had made its debut in Rugby with 'country' rather than 'town' services from and to Leamington and Coventry between 1920 and 1923. This service expanded to three routes to Coventry (Dunchurch, Brinklow and Pailton) together with routes to Daventry, Northampton and Market Harborough in about 1925. By the 1930's there was a half-hourly service to Coventry starting at 6.05am and augmented to a quarter-hourly service on Saturdays; the round trip taking two hours and needing 8 or 9 vehicles to maintain it. The premier route operated from Rugby however, from 1932 until 1974, was the cross country 'X96' service. The best vehicles in the garage were allocated to this prestige turn which left Rugby at 07.35 and proceeded via Northampton (08.36/09.00), Rugby Coventry, Birmingham and Wolverhampton to Shrewsbury (14.12/15.08) before returning along the same route to Northampton (20.18/20.45) and a final leg to Coventry arriving at 22.28. The vehicle then returned to Rugby as the 586 service.

The "Midland Red" had a policy of picking up and setting down where needed rather than only at formal stops. There were no bus stops along Hillmorton Road until after the war. The company also operated an extensive parcels and newspaper service with agents in each village - the conductors could even be relied upon to post a letter in town before the last collection! The crews were each provided with a cast brass "scotch" to put behind a wheel when parked on a hill; building bricks often had to substitute when they had driven off leaving it behind and until another scotch was 'recovered'. The crews were also provided with an ex-WD 1914/18 war horse nosebag full of clinker for frosty mornings, and a shovel for snowy days. From 1932 until 1940 special buses were operated on Mondays from North Kilworth, Daventry via Welton and Ashby St Ledgers, Napton via Southam and Yelvertoft via Lilbourne for farmers. Rail tickets could be used on the "Midland Red" services when the rail service did not operate - particularly from Market Harborough on Sundays.

The "Midland Red" also operated several tours of which the most popular was the Sunday afternoon and evening 'Mystery Tour' of about 30 miles, costing a shilling (5p) and which could be relied upon to end up at a country pub. Ten to twelve vehicles sometimes ran, each setting off when loaded and with the crews paid only for the hours worked which could sometimes be only three.

The second "Midland Red" garage, but on the present site right at the bottom of Railway Terrace, was opened for 30 vehicles on 8th November, 1934 and extended for 42 vehicles in May 1938. Until 1934 the "Midland Red" at Rugby had two open touring coaches and on the opening of the new garage received its first allocation of covered coaches, eventually having six of these available for day trips to the seaside and for private hire. Even on day trips there were two 'coachmen' on each vehicle; the senior of the two, as on all services, being the conductor.

The greatest contribution to the life of Rugby was, however, the works services. The development of the town could not have progressed without these. Some workers journeyed out of town to Coventry, to Wolston (Bluemels) and to Daventry; other workers arrived from all the villages and from the outskirts for Willans Works, B.T.H. and Lodge Plugs. There was also a service from New Bilton to the Symington corset factory in Spring Street. About 30 buses were involved in ^{works services} ~~this activity~~ before the war; the first leaving Rugby at 5.30am for the first departures from West Haddon and Daventry. The traditional Rugby long lunch time during which men returned home for lunch rather than use the works canteen, required 14 bus services making three peak periods and split shifts ("three timers") for the crews - 5.30/6.30 to 9.00am; 11.45am to 2.20pm and 4.20 to 6.30/7.00pm. Outside these times half the fleet stood idle. Works fares stopped at 9.00am and most worker tickets sold were 'returns' giving the evening conductor a fairly easy ride.

The Second World War was a testing time for the "Midland Red" as works services had to be maintained in more difficult conditions with extended hours and blackout. Interior lights were painted black and made the conductors task exceptionally difficult. 1940 saw women being used as conductors and it saw 15 buses from Rugby being requisitioned, complete with drivers, and sent to Salisbury Plain on standby for an evacuation. In the event they were not used and returned after two months, with very frustrated drivers, to proper work in the town. The fleet also took part in the partial evacuation of Coventry during the bombing. Services to Coventry terminated at the Craven Arms, Binley, during raids and their aftermath. The service to Rootes at Coventry, for aircraft workers, took 15 buses for each of the two 12-hour shifts each day. The last local departure to the garage was at 9.00pm. To cope with the additional work the garage was extended to accommodate up to 54 vehicles in January 1942 although the fleet actually numbered 43 at that time.

For most of the period from 1944 to 1952 there were over a hundred drivers and a hundred conductors on the payroll to operate 52 buses and 6 coaches. Rugby always seemed to be the last in the allocation of new vehicles and had to make do with 'hand-me-downs'. The post-war buses were of the underfloor engine type, but until 1958 Rugby continued to operate six pre-war types with a 'half-cab' in which the driver sat in solitude beside the engine. Legislation limited vehicle size to 27ft long by 7ft 6ins wide (8.230m by 2.286m). This was a handy size to operate in housing estates. However, the legislation changed in 1950 to permit ^{single deck} vehicles 30ft long by 8ft wide (9.144m by 2.438m). Some vehicles were lengthened to take advantage of the new regulations; seating capacity increased from 44 to 49 or 53 and the difficulty of manoeuvring in housing estates increased proportionately. Until this time "Midland Red" had successfully

designed and built most of its own well liked and unique vehicles at its own works in Birmingham. The uniqueness, however, carried a penalty in the need for spare parts and the flexibility of transfer of vehicles within the new National Bus Company and led to their early phasing out of service. Demand to meet the new regulations compelled the company to buy from outside suppliers and in the early 1960's Rugby received two dual-purpose 36ft Leyland Leopard vehicles for the X96 service. These were to be the first of many such Leyland Leopards with a great variety of bodies on almost identical chassis. The next development, the introduction of 30ft 77-seater Daimler (later Leyland) 'Fleetline' double deckers, had to wait for the opening of the new (present) garage in March 1967 with additional headroom. The new garage could accommodate a theoretical 73 36ft 49-seater saloon vehicles; it introduced mechanised cleaning to Rugby and provided vastly improved facilities for the staff. The double deckers first took over the R96 service to Abbots Farm and subsequently the R77 Hillmorton to Eilton, the R80 Overslade Estate service, the R84 Shakespeare Gardens service, the R76 Long Lawford to Hillmorton service and the 589 Coventry via Dunchurch service. They were only a partial blessing: although they were well liked by the crews, the routes were too short from the town centre, where there was virtually a complete change of passengers, to allow the conductor to collect the fares adequately; also, the existence of low bridges at the railway station, Cawston and on the roads to Northampton and Church Lawford limited flexibility needed by the planners to operate such a varied service. The double deckers lasted until 1975, although in decreasing numbers, and since then have continued to visit Rugby from other garages. The ultimate solution appeared in 1974 with the arrival of the 11m long Leyland National capable of taking a standing load of 75 passengers and capable of going through the Mill Road tunnel.

The Planners had a difficult time, but 1969/70 was also a difficult time for "Midland Red" as a whole at Rugby with public esteem at a low ebb due to fare increases, industrial unrest among the crews (partly in protest against fare increases) and indifferent maintenance reducing the fleet availability below minimum requirements. Passengers deserted in large numbers and accelerated the demise of the double deckers.

Vehicles and attitudes changed but the pattern of services established during the war lasted until the late 1950's. There were not quite so many works services but this was more than offset by services to the new Overslade and Glebe estates and the first stage of the Abbotts Farm estate. Another new group of services was created to replace the railway branch lines as they closed under the Beeching axe. Prior to this rail tickets had been accepted on "Midland Red" buses as the rail services declined, particularly on Sundays. The new services, subsidised until 1968, started in 1959 with the 561 to Leamington as a straight 'replacement rail service' and not competing directly with the existing 571 service, this was followed in the New Year of 1962 by the Leicester "Midland" line replacement, the Market Harborough line in 1966 by a joint service with "United Counties", the "Great Central" southwards in 1966 with a service to Woodford Halse operated by "KW Services Ltd." and northwards with a limited stop service to Leicester in 1969. The railway operating philosophy did not easily translate into bus terms and the services were allowed to die after a suitable period of respect. Meanwhile, back in the town itself, services were extended piece by piece as Shakespeare Gardens, Hillside, Woodlands, Admirals and Brownsover estates each developed; a new bridge over the canal in Boughton Road being a pre-requisite to the latter.

A change in the pattern of services came with the introduction of one-man-operation (O-M-O) in 1963, first on country

services and then on town services, until the process was complete in 1980. While there had been a conductor on the bus one of his duties had been to guide the driver, using a whistle to signal, while reversing at termini. With one-man-operation and to avoid this necessity, most of the routes were modified to link with each other in circular through routes. Routes also had to be modified as the town centre developed. By 1965 Corporation Street had achieved its present dual carriageway form and shops began to appear in North Street. Prior to this, and together with all through traffic, buses had to use Sheep Street and High Street, cope with a Saturday market around the Clock Tower, and operate both directions along Regent Street. In 1969 a bus priority scheme was introduced at the Market Place/Sheep Street/High Street neck and other through traffic was not allowed. Complete pedestrianisation of this area followed in 1981. Bus stops have been shuffled around several times and in the sad absence of a Bus Station have been spread all over the town.

A decline in the use of buses started in the 1960's when the motor car began to compete seriously for the works and social traffic. At the same time television led to the demise of cinemas and reduced much evening travel. A run-down started and continued to gain momentum. However, an important change of attitude towards public transport came with the 1972 Local Government Act which from April 1974 required the non-metropolitan county councils to promote the provision of a co-ordinated and efficient public passenger transport system to meet the needs of their counties. At the request of the Warwickshire County Council the "Midland Red" arranged a 'Marketing Analysis Project' (M.A.P.) for each of the operating garages in the County to identify which of its routes were viable and the level of 'revenue support' (subsidy) that would be needed to sustain different levels of service. This was to provide the

basis for a political decision on what subsidy would be appropriate. Rugby garage was the last in the County to be analysed with 'on-bus' and 'at-home' surveys starting on 21st November, 1977 and lasting two weeks. The gestation period was until October 1980 and the report itself was not made public. The County Council undertook its own 'on-bus' and 'road-side' surveys in November 1980 to 'tune' the M.A.P. report for changes since the original survey and considered the matter on 12th March, 1981. In general terms the conclusion was that due to the overhead costs of the extensive garage at Rugby the services could not be contracted to a point where they would be viable without subsidy. The level of service recommended would have needed a subsidy of £145,000 out of a total fund for the entire County of £300,000. The report was referred back to the "Midland Red" with a request for further savings. The route to Leamington was abandoned completely, that to Braunston and Daventry was handed to "Geoff Amos", that to Coventry via Ryton was handed to "Enterprise", and that to Southam handed to "Catteralls". Town services were also trimmed from 25th April, 1981 and included the abandonment of the Southfields Estate service. The County Council renewed its grant to the "Midland Red" but without identifying a specific subsidy for the Rugby services. The first systematic study of the bus services in the area had thus been completed and it is pleasing to note that since M.A.P. there has been a modest expansion of services as local initiative is again able to express itself.

In addition to the local town and country services, "Midland Red" at Rugby had also played its part in the national express network of services including the "G" service to London along the A5 before the motorway opened, to Cheltenham, and summer services to Llandudno, Great Yarmouth, Bournemouth, Skegness and Mablethorpe. These services were ceded to "National Travel", a subsidiary of the "National Bus Company" in 1969, but now (1983) the trend is firmly back to local initiative and flexibility to locally perceived needs.

Routes came and went but fares always had to be collected and accounted for by the conductor. A waybill had to be maintained during each journey and a conductor was able to tell if he had an overriding passenger. Until 1938 the "Midland Red" conductors in Rugby carried a rack of tickets of each price and used a bell punch to clip them for date and stage. Shillings were initially endorsed on the ticket by a separate punch with a meter. This punch was very awkward-to-manage and could also be operated by a mischievously minded passenger so that the conductor had to justify the shortfall in his takings. Rugby was one of the earliest garages to adopt the Clayton-Harris 'Verometer' into which the fare and other details were set with buttons, a handle pulled across and a ticket printed which was then torn off a long roll of paper. The fares were metered automatically. The system was improved over the years and was used throughout the war while other garages still used the bell punch and rack. Although the other garages changed to Verometers in 1947/49 they then changed again quite quickly to the more modern 'Setright Speed' machines leaving Rugby to be almost the last to make this change in 1957. Rising fares had made the change a matter of urgency. In 1971 the '£.s.d.' machines were replaced by decimal 'Setright Speed Insert' machines. The fares recorded by these have also been subject to increases: Coventry to Rugby was 4/10d. (24p) in 1970, 26p in 1973 and £1.15 in 1983.

The human needs of the crews were no less important than the needs of vehicles and equipment. The "Midland Red" crews at Rugby were divided into four formally recognised 'Sections' for the purposes of sharing the different duty rotas equally within the

- Section:
1. Coachman's Section - 6 pairs
 2. Express Section - 6 pairs; X96 service, Lutterworth
and Daventry
 3. Old Mans' Section - country services

4. Main Section - town services and reliefs.

The Main Section did the donkey work on town and works services and did relief duties for the higher Sections - but the higher Sections did not reciprocate with relief duties on lower Sections. A fifth Section started in 1963 with One-Man-Operation (O-M-O) initially on country and schools services but eventually, during 1980, absorbing all other Sections into itself.

The "Midland Red" establishment at Rugby began to slim in the early 1960's with 49 buses and 2 coaches in service, but only 70 drivers and 70 conductors: the complete establishment is given in the Appendices. Social life at the garage had included an active and successful ambulance team and a football team which had achieved the distinction of being pictured on a 'Ardath' cigarette card in 1935/36. The Sports and Social Fund blossomed into a Social Club at Easter 1965 with premises including a canteen, a new luxury for the crews, in Gas Street. The new Garage, opened in 1967, had a canteen of its own and the Social Club moved at Christmas 1971 to premises in Regent Street and in July 1977 to its present premises above the Patio Coffee Bar in Church Street.

Canteens were all very well for the crews but not for the vehicles. The old garage had two inspection pits; the new one has an extensive service bay with five pits and M.O.T. testing facilities used by all local operators. Other than daily servicing, maintenance at Rugby was by unit replacement in which all major tasks were sent to the Central Works at Edgbaston. Until the arrival at Rugby in 1956 of Sl4 buses built by "Midland Red", followed by the Leyland Nationals, all buses had a chassis and with the aid of a towing bar could tow failed vehicles home. The new method of construction did not permit this and the first attempt to overcome the problem at Rugby made rather an incongruous sight when a Land Rover was put to towing-in duties. This was followed by an ex-W.D. Humber

2-ton truck with a thirsty 6 mpg Rolls Royce engine. In turn this was followed by a cut-down double decker and the present (1983) cut-down but exceptionally smart Leyland Plaxton coach.

In early 1983 the establishment is 21 buses including 2 dual purpose vehicles and 4 coaches with a total of 39 O-M-O drivers: again, the complete establishment is listed in the Appendices. However, expansion is changing this every month. The fleet comprises Leyland Nationals of several minor variations and Leyland Leopards with a variety of bodies from buses to coaches.

The "Midland Red" built vehicles were fine indeed and had been innovative in their time, but the need to standardise throughout the "National Bus Company", of which more shortly, spelled their early demise. Rugby had the distinction of operating the very last of these, type S23 No. 5930, and gave it a splendid commemorative final run to Leamington on 28th February, 1981. Rugby also has the distinction of having the last type S21, No. 5878, to be built in preservation by the Midland Red (Rugby) Transport Enthusiasts Association.

Although the "Midland Red" still dominates the bus scene in Rugby there is healthy co-operation with various independent operators: "Lloyds" still operate the Kilsby and Barby service and have added the Ashlawn Estate to its route, "Geoff Amos" still operates the Daventry Service, but "Enterprise" of Coventry who took over the Ryton service have handed it back to "Midland Red", and "Catteralls" have had to abandon the service to Southam. A noteworthy development is the "Lillbourne Community Bus" - a mini-bus operated with assistance from "United Counties" and driven by volunteers.

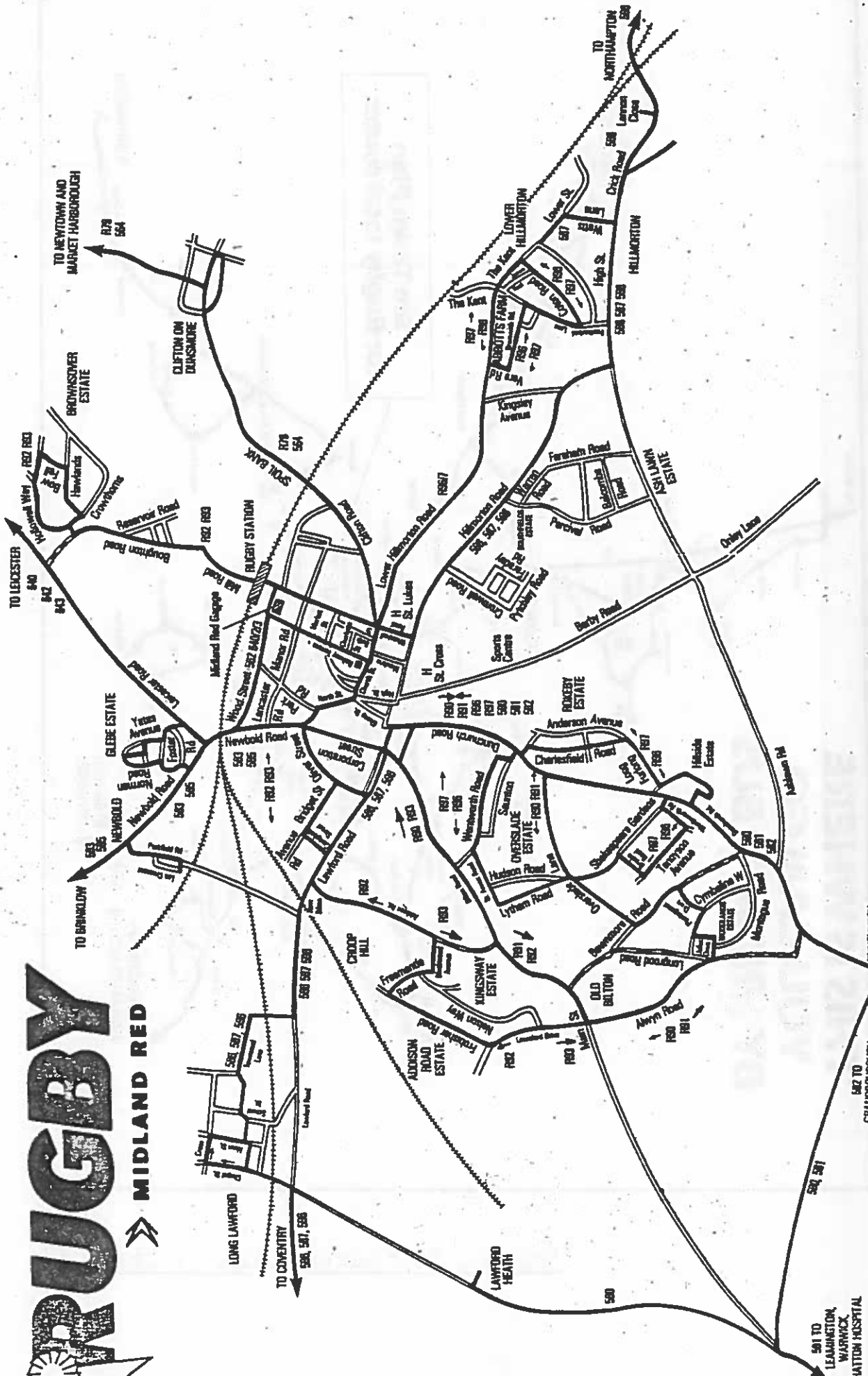
As a result of the 1968 Transport Act the "Birmingham & Midland Motor Omnibus Co. Ltd." became part of the "National Bus Company" on 1st January, 1969; and the "West Midlands Passenger

Transport Executive" was formed on the 1st October, 1969. After the "Midland Red" activities in Birmingham were transferred to the W.M.P.T.E. on 3rd December, 1973, leaving the "Midland Red" literally decentralised like a mint with a hole in it, the company changed its name on 29th March, 1974 to the "Midland Red Omnibus Co. Ltd.". On 5th September, 1981, further decentralisation, but in the more normal sense of the word, took place and the "Midland Red" split into five independent operating companies. "Midland Red (South) Ltd." was formed with administration from the garage at Rugby and controlling services in Rugby, Nuneaton, Leamington, Stratford, Banbury and Pool Meadow in Coventry. The extensive garage that had been such a liability at the time of M.A.P. less than a year earlier has become a valuable asset to the new and enterprising company. The Registered Office of the new company, for legal purposes, is actually at the "United Counties" offices in Northampton.

RUGBY TOWN ROUTES—

RUGBY

MIDLAND RED



"Midland Red" after M.A.P. in 1981.

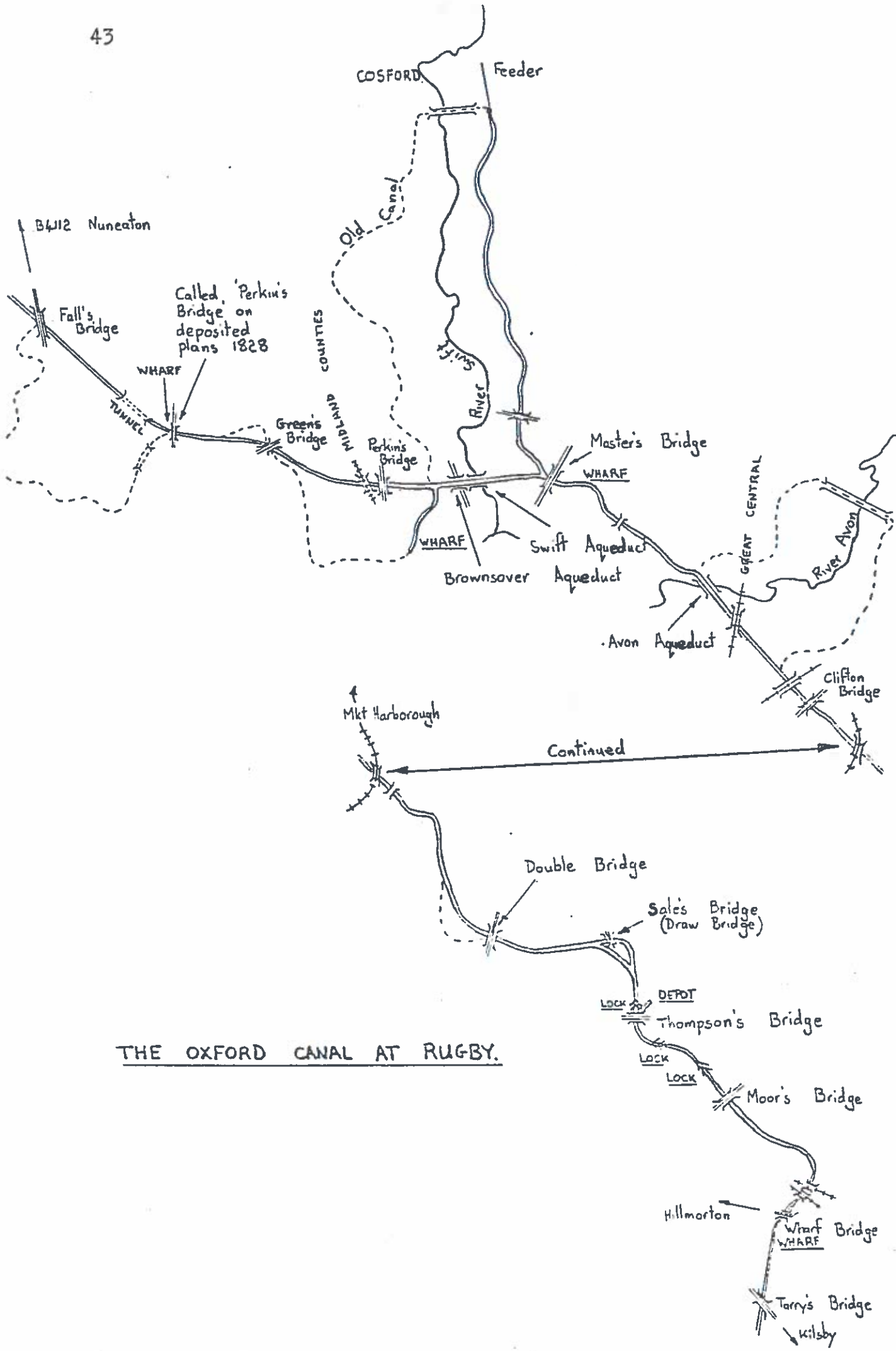
901 TO LEAMINGTON, WARWICK, HATTON HOSPITAL

The Oxford Canal at Rugby.

Rugby had become a small market town because of the convergence of roads from Coventry, Northampton, Hinckley, Leicester and Warwick. These roads, before the establishment of turnpike trusts at the end of the eighteenth century, were little more than commonly recognised routes between the towns at their extremities. A complete revolution in transport came about when canals were opened. The "Oxford Canal Navigation" passed near Rugby. It must have made at least some difference to the quality of life in the town -- the availability of cheap coal probably being the most significant aspect of this. However, the canal did not cause any change in the nature of the town -- it remained a fairly small market town. The canal passed by Rugby without leaving its mark.

The "Oxford Canal Navigation", from Coventry to Oxford, was authorised on 21st April 1769 (9 Geo III cap 70), despite objections from the Avon Navigation that it would deprive them of their trade, by civic initiative from both Coventry and Oxford and by the financial backing of the clerics and academics of Oxford. The principal motivation was coal -- one party wanted to sell it and the other to buy it.

The engineer was James Brindley, the most distinguished canal engineer of his time; a man who had virtually no education and certainly no engineering training. He worked by intuition. It would appear that his tongue was coarse and his manners crude. He judged success by results rather than subtlety. He built canals that were desperately needed and when they were needed; he should be judged by this rather than the lack of subtlety he showed in following the 304 foot contour on its circuitous route between Coventry and Hillmorton. His technique involved the minimum of earth moving along the line of canal; the earth was moved from the higher to the lower side of the line leaving a trough between. The trough was then lined or "puddled" with local clay to make it waterproof.



THE OXFORD CANAL AT RUGBY.

Apart from the revolution in transport there was also a revolution in agriculture taking place at the same time. The infamous "Enclosure Acts" had to be individually applied for by the landowners of each district and in the Rugby area required that between 1st August 1773 and 10th October 1773 the land be divided from the traditional fields of strips into the new fields with occupation to be taken within twelve months. The canal reached Rugby during that very same year. It cut through the traditional strips with impunity -- the remains of severed strips can still be seen in many places. The places where old field boundaries were severed can also be detected but the plan of new fields recognised the existence of the canal from the outset. As many of the fields were named after events in the Napoleonic wars 25 years later we can conjecture that the changeover had not been as rapid as it should have been.

Construction of the canal started at Longford near Coventry. Brindley was in frequent dispute both with the Oxford Canal Company and the Coventry Canal Company of which he was also the engineer because of his infrequent attendance to direct work personally. Somehow an error was made in the levels of the two canals. The Oxford was $6\frac{7}{8}$ inches higher than the Coventry -- one of the most enduring of engineering errors of all time. A small stop lock at Hawkesbury has been needed for more than 200 years now to accommodate it. The canal was built from one end section by section and filled with water to check the level and surveying -- it is said that Brindley got drunk prior to each filling operation in case an error was discovered. Brindley died, however, on 27th September, 1772 when the canal had only reached Brinklow $\wedge\wedge$. He was succeeded by Samuel Simlock, but by then the circuitous route had been decided upon.

So winding was the route of the canal up the Swift and Avon valleys that the Rev. W.O.Wait in his book "Rugby: Past and Present" recalls:-

"..... it was a common saying that a canal boat starting

from Newbold at six-o'clock in the morning would not be out of reach of the sound of the Newbold clock striking six in the evening when travelling towards Hillmorton".

St Botolph's church at Newbold sat inconveniently on Brindley's contour with a steep slope down to the Avon on the east side and a substantial hill on the west side. A tunnel of 125 yards in length and $12\frac{1}{2}$ feet wide was built to the west of the church. The earth above the roof was so shallow that part of the churchyard cannot be used. We presume that the church authorities, despite considerable influence in Oxford, would not countenance a cutting. The southern portal was at a point now in the middle of the present (1981) B4112 road opposite the gate to the church. The tunnel is said to have had a towpath through it but this must have been a wooden platform and probably the horses walked over the top to rejoin their barges at the other end. Facilities were available at Newbold for boatmen to get overnight lodgings.

The canal quickly became part of the national assets. It was not opened throughout its 91 miles to Oxford until 1790 -- twenty years in the building. In 1785 there was a proposal to make the River Swift navigable from Cosford to Lutterworth. The canal wound its way up to Cosford before it crossed the Swift and the extra works to reach Lutterworth, particularly if flash locks had been used, would have been relatively small. However, the proposals did not mature. The canal crossed the Swift on a low but substantial earth aqueduct; there was a second low earth aqueduct over the River Avon beyond Clifton and three locks at Hillmorton. A wind driven pump was installed at Hillmorton in 1789 to return water to the summit pound and avoid wastage. This was replaced by a steam pump in the 1820's. Make-up water for the lower pound was, and still is, taken from the Swift at Cosford without the need for pumping. In 1852 the company Minutes Book records that a Mr John Bagshaw was willing to sell the annual rent of £30 due to him "for use of River Swift"

for £650. Three years earlier a wharfinger was appointed at Hillmorton on his giving a security of £100 for the faithful discharge of his duty. On 14th April 1841 the Minutes Book records that £200 was paid as permanent compensation to "the owners and occupiers of Land adjoining the River Swift for the damage they have sustained by the diversions of water therefrom for the use of the canal".

In 1799 there were proposals for linking the "Lincolnshire & Northamptonshire Union Canal" with the "Grand Junction" (Braunston to the River Thames at Brentford) by a new canal to be called the "Grand Union Canal"; this was not the same company as the present day "Grand Union", although this company includes the former. The planned route in 1802 included a tunnel at Crick and a junction at Norton. However, to avoid the Crick tunnel consideration was given in 1803 to joining the "Oxford Canal" first at Cosford and then at Hillmorton; but the Crick route survived.

For the first eleven years after its completion to Oxford the "Oxford Canal" formed part of the shortest route between London and Birmingham with a substantial proportion of the nation's trade passing Rugby -- just as it was again to with the opening of the "London & Birmingham" and "Midland Counties" railways in the next phase of the transport revolution. This was also the start of the stage coach era and the ascendancy of Dunchurch as a coaching halt. Rugby could now receive coal from Coventry and mail and manufactured goods from London and Birmingham -- the quality of life was indeed improving. However, in November 1800 the "Grand Junction Canal Company" opened its line to London from Braunston and diverted much of the traffic from the southern half of the "Oxford": a short while later the "Warwick & Napton Canal" diverted the Birmingham traffic away and this no longer passed Rugby. The canal prospered however and due to a period of severe inflation following the Napoleonic wars paid a maximum dividend of 33 $\frac{1}{2}$ % from 1824 to 1826. At this same time the "Coventry Canal" was paying a dividend of 50%.

Before the "Oxford" had been built, according to a more recent writer, Charles Hadfield, a survey by Robert Whitworth had proposed a level route of $15\frac{3}{4}$ miles from Gosford Green to Hillmorton and instructions to the engineer had been for the canal to be set out "in as Strait a Line as the Ground will permit". Brindley, however, set out a line of $26\frac{1}{2}$ miles, and criticism of this was not withheld. The prospect of railway competition spurred the company to shorten its winding line. Mistakes were not repeated; a survey was carried out by Sir Marc Brunel, and then a second survey by Sir Charles Vignoles -- the latter survey was dated 8th October, 1828 and was deposited with the County authorities in November of that year. The canal as we know it today is shown -- from the Falls Bridge on the road to Harborough Magna the new line traverses the new (present) Newbold Tunnel and rejoins the old line just before what the survey calls Perkin's Bridge (see map, the Ordnance Survey maps give the name "Perkin's" to another bridge) which remained from the original line, by a short cutting at Newbold Hill with water level 50' 11" below previous ground level and proceeding through a cutting at Perkin's Hill with water level 30' 10" below previous ground level (the old line had been where the the present Newbold quarries are) and proceeding over the new Swift Aqueduct with the bottom of the canal 20' above the river water level and then the Avon Aqueduct with the bottom of the canal 17' 9" above the river water level. The Minutes Book on 11th February, 1829 records that the Company seal was to be fixed to the petition for a Bill to shorten the line of the northern part of the canal "in conformity with the order of the General Meeting in January last". £500 was advanced for expenses.

The Act of Parliament was obtained in 1831 (10 Geo IV cap 48); the estimated cost being £131,877 (the final cost was £167,172). The Act stipulated that reduced tolls would be charged but that they would be calculated on the basis of the original mileage of the canal. The same year, on 12th January, the Company voted £1000 for checking the

survey of the "London & Birmingham Railway". Work started, again in the same year, with resident engineer John Ferguson under the Company's engineer Frederick Wood with consultant William Cubitt (Wood was the surveyor of the map of Rugby hanging in the Rugby Library). The aqueducts over the Old Leicester Road and over the River Swift were cast iron structures with Telford's influence showing, that over the Avon was a skew three-arch brick structure, the new tunnel is 250 yards long, of immense proportions and with an almost unique feature of a tow-path on either side. The reconstructed parts of the canal can be easily identified by the huge stone slabs forming protection against erosion at water level by the wash from boats. The graceful cast iron towpath bridges which cross the abandoned arms of the canal were also provided at this time. The Minutes Book records on 19th February, 1834 an order for a stoppage from the evening of the 4th May until the evening of the 13th "for completing and opening the improvements". The canal had to be at least partially drained and the temporary dams removed and the bed made waterproof below them and then the canal re-filled. The total mileage was reduced by almost 14 miles, most of this being near Rugby.

The old tunnel was abandoned; its northern portal can still be seen (it is a "listed building" with the distinction of not being shown on Ordnance Survey maps) just to the west of St Botolph's Church and the first twenty odd yards of the tunnel are in a remarkably good and dry condition.

Even after the arrival of the "London & Birmingham Railway" in 1838 the traffic on the canal continued to increase although the toll was much less for each boat. Employment on the canal offered scope for the independent minded and was always ~~more~~ more attractive than employment on the railways for some people and they were willing to cut tolls to the level necessary to secure business. The influence of the canal on Rugby became even less

as coal now arrived by rail. In 1840 the increased traffic justified the doubling of the three locks at Hillmorton. Running sand was encountered, as in the Kilsby tunnel, and caused great difficulty. In 1842 20,859 boats passed through the locks. The locks were provided with experimental iron gates and in 1887 were the subject of a further experiment: to conserve water "side ponds" were frequently used to hold the "top half" of a lockful of water from a descending boat to be used as the "bottom half" of the lockful needed for the next ascending boat. At Hillmorton a variation of this was to have a "paddle" between the two side by side locks and to use the second lock as the side pond to the first and to then reverse the roles for the next pair of boats. The disadvantage was that ascending and descending boats had to be available at just the right time; and the time taken for the equalisation of levels at the half way and empty lock stages was twice that for a straightforward lock. The experiment was not popular and was not an operational success. The choice of Hillmorton for these experiments was probably because of their nearness to the canal Engineer's Office above the lowest of the locks. The facilities at the offices included a "dry dock" and a "gauging office" to ensure that freeboard regulations were complied with and the correct toll charged. The Minutes Book, on 13th June, 1832 suggested that "in consequence of the shortening of the Line a more convenient location for the residence of the Agent be found than at Dunchurch".

An annual event contrasting sharply with the normal life on the canal was the tour along the length of the canal by the "Survey Party" in a special barge. There is some evidence that matters of engineering concern were considered by the party; but these were of a secondary nature. The carefully maintained "Survey Book" records details such as the salmon at a certain inn was superior to the year before but the wine inferior. There was a traditional stop on the third day of the survey, on the return from Hawkesbury, in the Swift Valley when the party dined aboard their vessel instead of ashore.

Non gastronomic reporting is limited to such informative pieces as on 10th July, 1877 "inspection of new engine at Hillmorton"; 6th July 1880 "new engine at Hillmorton has not been required to work since its erection owing to the good supply of water" and "viewed railway works" on the way to Dunchurch for tea in the evening. We also learn that there were three swing or draw bridges between Newbold and Hillmorton.

The canal was not a common subject of news in the Rugby Advertiser. The trustees of the turnpike roads, however, frequently advertised for the transport of stone from Hartshill to "All Oaks Wharf" but the present author cannot establish this location -- perhaps it was part of the Rugby Wharf itself. The readers of the Rugby Advertiser became quite agitated over the Canal Boats Act 1877 concerning the registering of boats as dwellings for the purpose of deciding where the childrens' education should take place and regulatin the number of people living in a single room -- this was limited to husband, wife, girls under 12 and boys under 14 years old -- but there didn't appear to be a limit on the total number of these. The Rugby Advertiser of 23rd August, 1879 reported that only 44 out of at least 600 or 700 boats requiring registration at Rugby had so far done so with a consequence that "the poor childrens' education would be neglected for another year". Satisfaction was noted that other places were worse than Rugby.

Another topic to catch the imagination of the Rugby Advertiser was the steam tug "Pioneer". A report on 18th August, 1860 said that three days beforehand an experiment had been conducted by the Moira Colliery Co on the canal with a steam tug "Pioneer" of 7 H.P. and twin screws. The twin propellers were contra-rotating and were described as being "an entirely new principle" to prevent wash from paddles affecting the canal banks. "Pioneer" could take four loaded boats at 3 mph and 5 mph when empty; although 3 mph was the maximum permissible as there was opposition from the canal company.

The test run passed Rugby wharf at 3pm and reached Braunston at 9pm. The article hints that it would be possible to fit two further propellers at the bows and suggests the need for a speaking tube from the helmsman "to the driver at the bow". The credit for the experiment is due to Mr James Harrison, an ex-resident of Rugby, and now manager at Moira Colliery. The several coal merchants of Rugby are well pleased as the prospective haulage charge from Moira to Rugby is 1/1d per ton. On 12th January, 1861 the Rugby Advertiser reported that "Pioneer" was 25 tons burden, 75 ft long, 7 ft wide and drawing 21 ft (yes! that's what it said) and could draw 600 tons at 4 mph at a cost 30% less than the railways; curiously, the propellers are described as a "waggle tail". The 21 ft draught is presumably inches: but the length !

The relationship of the "Oxford Canal" with the railways was not relaxed. Perhaps the happiest was with the "Midland" where there was not a conflict of interest -- the "Midland" established a coal wharf on the main Rugby wharf to assist with the local distribution of coal to outlets that they otherwise would not have had. Access was achieved by a steep incline and via a small turntable. With other lines it was not quite as happy, the Minutes Book on 13th December, 1848 records £880.15.0d being received from Messrs Brassey & Co, contractor on the "Trent Valley Railway" "for the banks of the canal used for support of the railway". (The "Trent Valley" had opened in 1847 with a stretch beside the "Oxford" at Brinklow; so this was either a late or disputed payment or for widening work). A serious rift with the "London & North Western Railway" occurred in 1877 when in reprisal for discrimination in railway controlled canal rates elsewhere the "Oxford" refused to allow the "London & North Western" to take engine water at Newbold and maintained this attitude until 1896 when the railway agreed to pay 3d. per 1,000 gallons for a minimum of 120,000 gallons a day. The construction of the "Great Central" brought further business -- the contractor received materials from the canal at Onley. At Brownsover, where the new line crossed the

"Oxford", the latter was already on an embankment and extensive temporary timber staging was needed. "Cylinders" or piles were sunk 30 ft deep on either side of the embankment to avoid damage to the canal. A temporary cast iron trough was laid in the canal causing a restriction to traffic but effectively forming an aqueduct while the work proceeded. The railway company had to pay the "Oxford" £10 for every hour that traffic was stopped with £10 per hour additional if the stoppage was of longer duration than 3 days or if it was avoidable. £1 was paid for every 1,000 cu ft of water lost.

The canal was a financial success for the first generation of investors. The dividend climbed every year from an initial 2%, albeit through periods of high inflation, until it peaked in 1824/6 at 33 $\frac{1}{2}$ %. The set-back caused by the loss of traffic to the "Grand Junction" and the "Warwick & Napton" in 1800 was offset by increased traffic and compensation tolls (2/9d. per ton of coal) paid by the diverted traffic. The next set-back was the opening of the "Midland Counties Railway" in 1840 and the despatch of coal from Leicestershire and Derbyshire to London starting in 1846. Toll rates quickly dropped from 5/11d. to 2/7d. for a ton of coal from Longford to Oxford. The dividend slumped to 7%; takings which had risen from £18,478 in 1791/3 to a maximum of £90,446 in 1827/29 fell to £26,312 in 1853. The remainder of the century and the first half of the next was a period of struggle but not crisis - finance was by default on maintenance. 520,000 tons were carried in 1838 and 482,000 in 1868.

The "Oxford Canal Navigation" changed its name to the "Oxford Canal Co" on 28th March, 1935 and, by the initials OCN or OCC, provided us with a ready means of deciding whether canal side objects are post c pre-1935. The canal was nationalised on 1st January, 1948. Commercial traffic has now (1981) virtually ceased and such that remains is more of a labour of love. The use of the canal for pleasure purposes is increasing -- but its traditional relationship with Rugby remains -- its nice to have it there but it doesn't get in the way and it hasn't and still doesn't affect the commerce of the town.

THE RAILWAYS OF RUGBY - AN INTRODUCTION.

During the first half of this century it was possible to arrive in Rugby by train from any of nine different directions. The reasons for this assemblage at Rugby are quite fortuitous and can be found in the geography of the area - particularly the location of the Watford Gap - a natural approach cutting to a ridge of hills that extends from the Cotswolds to Lincolnshire. The "magic of the Watford Gap" had first attracted the Romans and the Watling Street, then the canal builders and the Old Grand Union Canal, then the railway builders and the London & Birmingham Railway and finally the motorway builders and the M1 Motorway. Today all these routes, within yards of each other, are still in use and a very sizable portion of the trade of the Nation crosses the Watford Gap. So the Gap determined the direction of approach from the south of the first railway towards Rugby. Having crossed the ridge the railway then had to swing sharply westwards towards its destination at Birmingham. The initial plans would have involved very heavy earthworks along a route slightly to the south of the town. These plans were modified to take the line in a wide sweep to the north of town and round the "high ground" on which Rugby stands instead of through it. The sweep to the north then resulted in an even sharper swing westward - and even a barely perceptible swing back to the south on the way. The decision to take the line round the north of town was the most historic decision in the history of Rugby. The "sharp bend" made it the obvious springboard for further lines to the north of the country. The junction that was made here changed the whole pattern of development of Rugby and is the largest single reason why Rugby grew and its near neighbours did not.

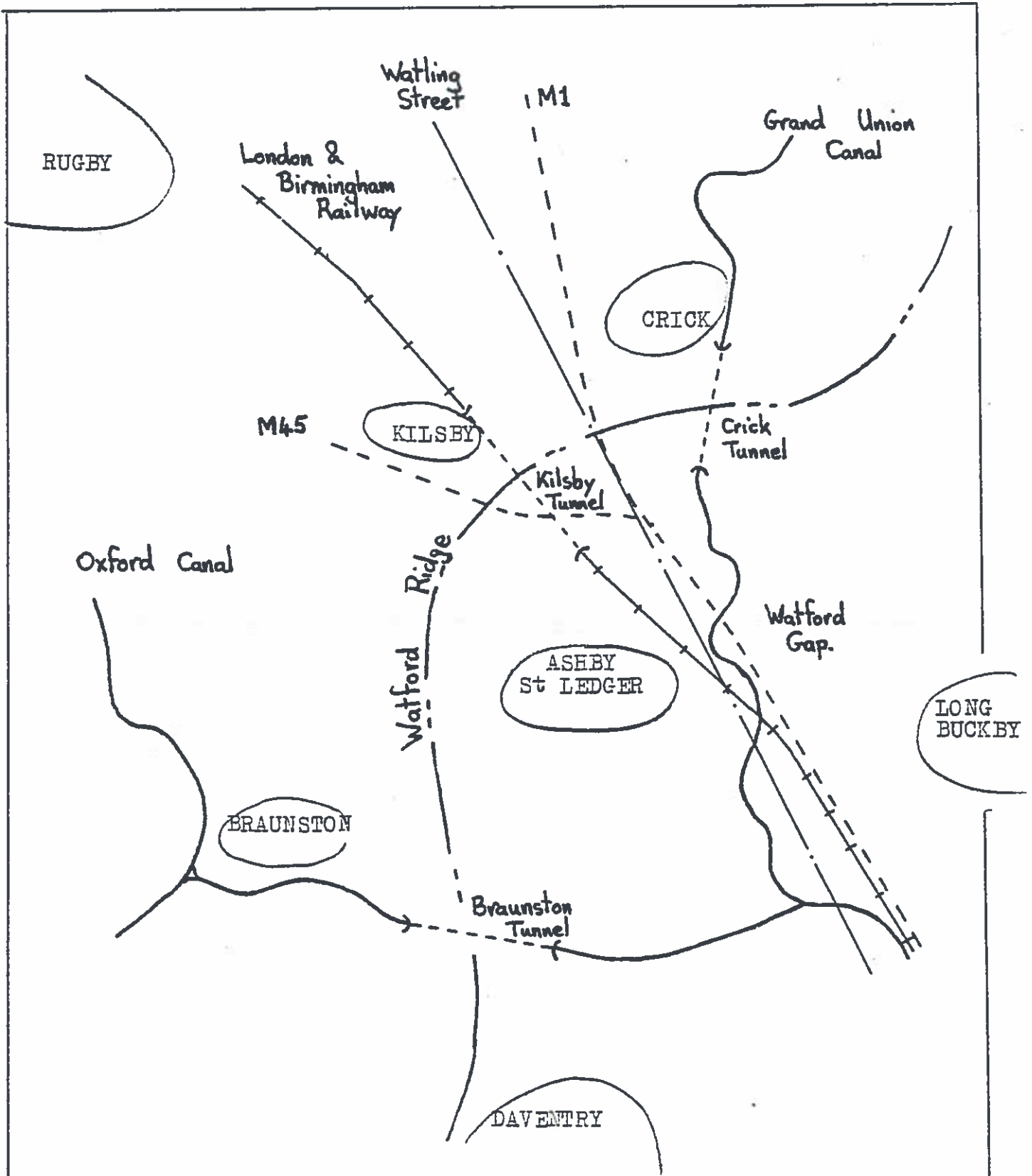
With the benefit of hindsight Robert Stephenson, the engineer of the London & Birmingham Railway, said in a letter to Samuel Smiles in 1857:-

"Few people have any notion how completely the whole

system of our railways has been influenced by the bend northwards at Rugby. Scarcely a single line to the north of that point would have been made as it now is, but for the determination I then formed as to the direction in which the railway should be constructed."

The key word in the previous paragraph is probably "hindsight", but nevertheless we can be certain that the decision on the northerly sweep round town had implications on the whole railway network of the country, including even the Great Western Railway - possibly even also the choice of gauge of major railways throughout the world as we shall see. For a while Rugby Junction was the most important junction in the country. But now we must study the origins and construction of the various railways that comprised the junction.

A mystery remains: since the first publication of this chapter as an article in "Rugby - Aspects of the Past", it has been suggested to the present author that the "Watford Gap" is not a geographical feature at all but is the "gap" in the line of the Watling Street where it deviates from the original line and detours through Kilsby. It has also been suggested that a farm at that location gave its name to the area - but what gave the name to the farm ?



WATFORD GAP.

THE LONDON & BIRMINGHAM RAILWAY.

The launching of a successful Company to promote a railway from London to Birmingham was preceded by skirmishing that is delightfully described by John Britton in his account of the building of the railway which accompanied J.C.Bourne's famous drawings that were published in 1839:-

"The success of the Liverpool and Manchester Railway gave an impetus to speculation in similar undertakings; and a line between LONDON and BIRMINGHAM was too promising an object to be neglected by solicitors, engineers, surveyors and other adventurers. We have been told that, so early as the year 1823, a Company was actually formed with this object in view, - that shares were issued, and an unsuccessful application made to Parliament for an Act. It is at all events certain, that, in consequence of a resolution, dated January 1824, and emanating from such body, Sir John Rennie devoted much time and attention to a survey of the country between London and Birmingham; and, in April 1826, prepared a report, advocating in strong terms a line of railway to pass near Oxford and Banbury. Mr Francis Giles subsequently made another survey and recommended a different route through Coventry: in the year 1829, prospectuses were issued, and rival companies established, for carrying into effect these two competing lines. After much expense had been incurred by both parties, it was deemed expedient to combine their efforts; and that desirable object was effected in the autumn of the year 1830."

The colourful language of this extract sets the scene of the period. Stage coaches were then at their zenith - dashing night and day with vivid colours, legendary names and exciting noises between equally legendary inns and along the new roads of Telford and Macadam. The zip of the stage coaches contrasted with

the ponderous movement of freight - typically taking three days by canal from Birmingham to London at a rate of about £4 per ton depending on volume. The roads and canals had given experience to engineers but no other works of anything like the magnitude of the proposed railway had ever been undertaken - to those "adventurers" who had the vision and the courage to create the railway we must raise our hats with deep respect. We must also set the scene by remembering that desperate poverty was the inescapable lot of the majority of people in the land. The industrial revolution was by now producing its slums and its dirt. Children laboured in mills and mines. The gentry lived quite separate lives, with courteous manners in large houses, with servants and silks to ensure their comfort. They ruled the land and controlled commerce by intuition and rule of thumb, and they provided the basis of the new joint committee to promote a railway from Birmingham to London.

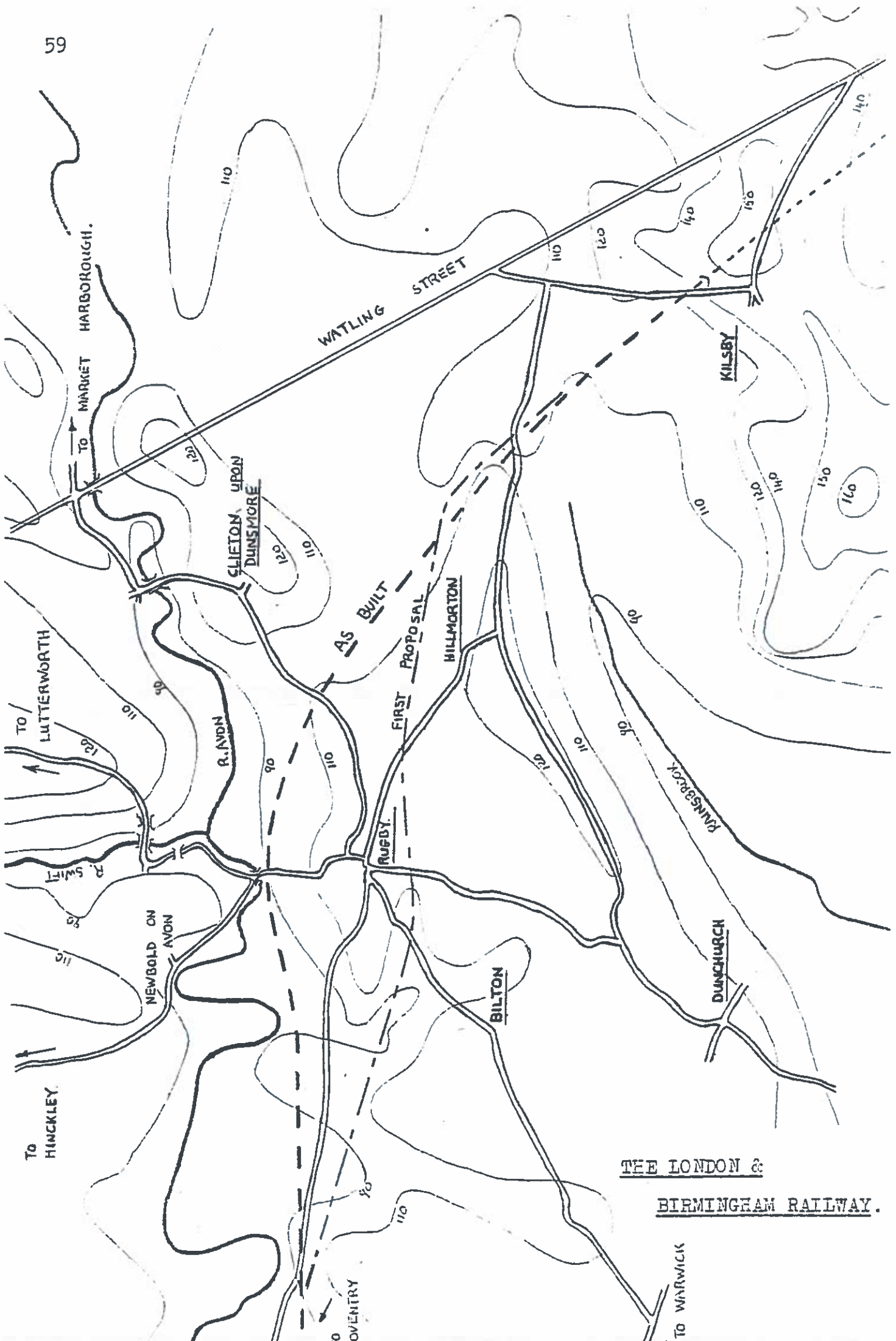
The Joint Committee, based on Birmingham, was formed on 11th September, 1830 and a week later had employed George and Robert Stephenson (father and son) to advise on the two routes and to prepare a more detailed survey for Parliamentary purposes. Robert Stephenson undertook this work on his own, although all reports were jointly presented with his father's signature added. He quickly decided in favour of the Giles route, with small variation at South Mimms, because of tunnelling required at Oxford and the possibility of flooding by the River Thames along the Rennie route. By 30th November, 1830, that is only eleven weeks later, plans of the proposals had been deposited with the Quarter Sessions of the Counties along the route. This was no mean feat as the plans were all hand draughted and coloured, at a scale of four inches to the mile and show fields, roads and property in a band about one third of a mile on either side of the proposed line. A "Book of Reference" accompanies the plans and lists the owners and occupiers of all property shown on the plan. It seems that Stephenson must have used much material

that Giles had prepared.

The route of the proposed line through Rugby was from a crossing over the canal at the southernmost of the three locks at Hillmorton, along the line of what is now Lower Hillmorton Road to Boundary Road, across Cromwell Road and the Recreation Ground, along Oak Street south of the School Close (but not actually touching any of the property of the School at that time), across Bilton Road at Sow Brook and re-joining the present line at Church Lawford. The plans do not show where the station would have been and indeed the final plans passed right through the Parliamentary process without it being noticed that the stations were not shown or included in the bill of quantities. When sanctions were sought for further monies to correct this, recriminations were made that the Engineer had done it on purpose to get the project under way - recriminations that are not unheard of on large projects today !

The Minutes Book of the London & Birmingham Railway Committee records that on 3rd December, 1830 a letter from a Mr Wratislaw, a Rugby Solicitor, of 27th November, 1830 was read "..... complaining of the line of railway near Rugby School." No copy of this letter can be traced. The matter was referred to the Survey Committee who replied on 7th December, 1830 that they were ".... most anxious to meet the wishes of your client as to the line which affects their interests" By mutual agreement Robert Stephenson visited Rugby and reported to the Management Committee on 7th January, 1831 that he had agreed to ".... the alteration of the line over Meriden Ridge at Rugby". Although obviously an error exists, there can be no doubt that this was the historic decision that has been referred to earlier. There is doubt, with such a glaring mistake, that he foresaw the strategic importance of the bend northwards that he had just authorised and to which he later referred in his letter to Samuel Smiles.

The map on page 59 shows the contours of the land around



THE LONDON &
BIRMINGHAM RAILWAY.

TO WARWICK

Rugby. The first proposal would have entailed an approach from Kilsby slightly to the east of the present line - thus it would have been at a slightly higher elevation, just as the Northampton line (which was built much later) is today. Then a viaduct or a very high embankment would have taken it across the canal and into a deep cutting through Rugby. Probably Stephenson revised the line more to avoid these two hazards than to appease the School. His new line skirted round the high ground - the gradient falls gently right through Rugby. Almost certainly it would have had to rise again if it had taken the original line - with a steep drop towards Church Lawford. Imagine for a moment if that line had been built - Hillmorton may have become the junction and development may have taken place there, with Rugby as a quaint suburb of Hillmorton. The existence of a cutting through the middle of present day Rugby would probably have discouraged development there at all. Returning from speculation to facts: the revised plans were deposited with the Quarter Sessions on 30th November, 1831 and show the proposed line as it is today.

The prospectus for the London & Birmingham Railway offered the following as inducements to potential investors:-

"First, the opening of new and distant sources of supply of provisions to the metropolis; Second, Easy, cheap and expeditious travelling; Third, The rapid and economical interchange of the great articles of consumption and of commerce, both internal and external; and Lastly, The connexion by railways, of London with Liverpool, the rich pastures of the centre of England, and the greatest manufacturing districts; and, through the port of Liverpool, to afford a most expeditious communication with Ireland."

The Company, anticipating opposition, delayed their application from the 1831 parliamentary session and then, according to John Britton in 1839:-

"All the plans and estimates being matured, a Bill was introduced into, and passed the House of Commons; though not without much opposition on the part of certain dissentient landholders; and the opposition was so much increased in the House of Lords, that it was thrown out in committee, on the 10th of July, 1832, upon the motion of Lord Brownlow.

With the commencement of the session of 1833, the Managing Committee renewed their application to Parliament; and so successful had been their negotiations in the interval, that the opposition, though it still existed, was no longer powerful enough to defeat, and scarcely to delay, the success of the measure; for, on the third of May, that year, The London and Birmingham Railway Act received the royal assent. These preliminary proceedings cost the Company the enormous sum of 72,868l.18s.10d."

It would appear that a good proportion of this money had been spent on ensuring that the negotiations were successful; intrigue and corruption being so blatant that J.A.Francis, a contemporary historian, was incensed to write at length condemning them - and certainly he cannot be accused of evangelical ardour in his other ^{writings!}

The Act being secured, the construction of the railway was achieved by letting smaller contracts for sections of the line. The Rugby contract extended from "about 8 statute chains on the south-east of the fence of the road from Banbury to Lutterworth", ie the northern portal of the Kilsby Tunnel, for about $5\frac{1}{2}$ miles and "terminating at about $6\frac{1}{2}$ statute chains on the north-west of the fence of the road from Dunchurch to Lutterworth" ie including the site of the first station at Rugby on the west of Newbold Road. The Long Lawford contract extended from this point to "the north-west side of the road leading from Church Lawford to the Blue Boar". The Rugby contract was the more difficult - the long embankment through Hillmorton "crosses a bog, the black peat of which rests on the lias clay and is about six feet thick". Spoil from the

Kilsby Tunnel was used in this embankment but "ballast and logs had to be used before firm foundations were established". A heavy cutting (and hence the first spoil bank - later removed) was required where Clifton Road crosses the line. A further embankment, the then ornate Newbold Road Bridge (how are the mighty fallen !) and the Rugby station were the other features of the contract. It is relevant to pause at this point and to draw a picture in the mind's eye of the embankment at the place where the present station is and as the embankment looked when it was first built. The line was then only double track and ran through open countryside with fields on either side; Rugby being half a mile to the south, across those fields, and on a hill. It must have looked like any rural stretch of embankment. The actual line that the embankment took was at what is now the northern boundary of the present railway. What a change to its present appearance ! A contemporary description of the scene will be given later but it is essential, while thinking of the construction of the line, to erase thoughts of its present layout.

The Rugby contract was let in November 1835, the actual contract was dated 12th March 1836, to a Mr Samuel Hemming for £59,283. Nothing is known of Mr Hemming or of his background or if he faced any competition in winning his contract. It was usual practice to appoint local men, this being before the age of the contracting "giants" such as Brassey, and it does not seem unreasonable to suppose that Mr Hemming had at least had experience of the rebuilding of the Oxford Canal during the previous six years. Mr Hemming ran into difficulties, probably due to rising cost of labour and materials rather than particular engineering difficulties, and surrendered his contract in October 1837. Inflation played havoc with cost estimates even then, and cost estimates were sometimes, to be very kind, of the most rudimentary form. Work was then supervised directly by the Company and were finally completed at a cost of

£93,384. Mr Hemming was also the contractor for the Brandon contract and the viaduct over the River Avon at Wolston; failing on the first of these but succeeding on the second. The Long Lawford contract was let to Messrs W & J Simmons in February 1835, the document itself being dated 6th April 1836, for £20,330 and was completed successfully but at a revised price of £25,893.

In the middle of 1838 Robert Stephenson reported to the Directors on the state of contracts and includes the following:-

"The Rugby contract, having been given up into the hands of the Company, is now proceeding under the direction of the engineers. A considerable proportion of the excavations, embankments and permanent road is already executed, and there now remains two excavations to complete; one of them at the north end of Kilsby Tunnel, containing 143,000 yds - the other near Rugby containing 102,000 yds. The quantity to be conveyed from each to the Hillmorton embankment is about 60,000 yds, which will occupy four months, making the period for completing this contract extend to July, and to this we may add one month for the permanent road, making it the beginning, or say the middle, of August".

The summary at the end of the report makes an overall comment that the Rugby contract was in a forward state and was favourably situated. Completion was expected at the same time as Kilsby Tunnel (400yds of tunnelling remained) and as the Long Buckby contract.

In 1823 the estimate for a single track railway had been £6,000 per mile. The London & Birmingham Railway Act of 1833 was based on a price of £21,756 per mile. The line was completed at a cost of £50,000 per mile. By contrast, the M1 in 1959 cost £750,000 per mile and the M6 in 1972 cost £2,100,000 per mile. There is nothing new in the escalation of cost on large pioneering projects !

We know little of the disruption and disturbances that

must have been caused in Rugby by the navvies working on the construction of the railways. The Rugby Advertiser did not start until 1846 - some eight years after the first line opened. The other local newspapers from Leamington and Coventry seem almost to have kept a conspiracy of silence on the subject. It is a great disappointment that Thomas Hughes in "Tom Brown's Schooldays" did not record the events on the railway - Tom returned by train for Dr Arnold's funeral to "the station he knew so well" and yet had arrived at the school from London by stage coach. We can but guess that the native population, only just recovering from the effects of the re-construction of the Oxford Canal, were appalled and shocked by the invasion of hard drinking navvies to spend their earnings. Some no doubt exploited the situation - some no doubt locked up their daughters! Bloxam, a Rugby historian, reminisces about stocks "near the prison in 9, Dunchurch Road" where "navvies, who little respected the decencies of civilised society, were here confined and derisively termed 'children in the wood' ". The 'gin incident' is credited to numerous sources, and probably was repeated by navvies as they moved along the line, but F.B.Head in 1849 attributes it to Hillmorton where one of the landladies boasted, once too often, that navvies never got the better of her. One navy sought to purchase half a gallon of gin to "top-up" his one gallon earthenware bottle. The bottle, however, was half full of water at the start of the transaction. He contrived to allow the gin to be put into his bottle before disputing the price that was being asked. The negotiations deadlocked and were only settled by the landlady removing half a gallon of what she thought was neat gin. The navy retired with half a gallon of dilute gin.

We may now perhaps return to the contemporary description of the railway that has been mentioned earlier. The idea of the railway captured the imagination of the country and there was no shortage of entrepreneurs willing to cash in with souvenirs and in particular "guides" to the railway so that prospective travellers

should fully appreciate that they were close to places of interest and in particular that they were close to, or even passing through, the grounds of the nobility. This extract from James W. Wyld's Guidebook describes the scene as we leave the Hillmorton embankment and approach what is now the Clifton Road bridge:-

"We now pass beneath a finely constructed bridge of three arches and enter a short cutting, in which occurs one bridge, a little beyond which is seen an opening in the bank of the cutting where it is proposed to conjoin the Midland Counties and London & Birmingham Railroad.* About sixty yards from this point of junction we pass beneath a small bridge, ~~X~~ and proceed for a short distance elevated over the surrounding country, which here presents a most pleasing and diversified appearance. On our right is seen the long green embankment of the Coventry and Oxford Canal, with its handsome brick aqueduct of three arches We now pass beneath another small bridge, on which the horseroad is carried for the accomodation of agriculturists and others engaged in the surrounding fields, and, continuing our onward course for a short distance, slightly veering to the left, cross the turnpike road from Rugby to Lutterworth by a handsome brick viaduct in the Elizabethan style."

The "handsome brick viaduct" is of course the Newbold Road bridge of today. That it was once handsome requires effort and concentration to imagine but another guidebook of the time, by Thomas Roscoe describes it as follows:-

"The bridge which crosses the Lutterworth road is an elegant structure, erected in the style of architecture of the reign of Queen Eleizabeth. It consists of a flat gothic

Page Notes.

* This is of course not where the junction was to be. It could perhaps have been the spoilbank. It was 10 years before the junction of the Market Harborough line was to be at that point.

arch of cast iron, with ornamental spandrils abutting upon octangular towers of brick, with buttresses between them, and the whole is surmounted with a parapet wall standing upon a bold stone moulding, which is carried through the whole length of the bridge. It is a beautiful specimen of workmanship; but the effect would probably have been heightened if pinnacles had been placed on the tops of the buttresses, thereby breaking the long line of parapet wall at that part which, in some degree at present offends the eye: the extra cost would not have been great, especially as it is reported that the Trustees of Rugby School, - which stands not far distant, contributed £1000 towards its erection, in order to preserve the style of architecture of their own foundation."

The contract plans for the bridge describe it as in the Gothic architectural style with cast iron beams of 24 ft centre span. The facing was to be "best polished Rugby white brick". A later historian, H.Lodge in 1912, reports that an examination of the School records had been made and no trace of the £1000 was found.

The station was on the western side of Newbold Road - at what is now called "Old Station Square" and H.Lodge records that in 1908 people still remembered it as a "mere shed". Roscoe, in 1839, was kinder:-

"This building is erected in the Swiss style, with a large projecting roof, and is arranged so as to afford accommodation to passengers both arriving and departing. The booking offices are on the ground floor, and a staircase leads to the waiting rooms above on the level of the railway, to gain which a large covered enclosure is passed under, while parties wishing to leave the railway descend from the line by a separate staircase so that confusion is avoided."

A letter in the Rugby Advertiser of 2nd November 1878 wonders why the station was ever moved from what appeared to be a much better location in Newbold Road. An authentic sounding reply

under a pen-name on 9th November refers to the first station as "a little hut". It also refers to dreadful coaching accidents at the corner at the bottom of North Street during the coach shuttle service while the Kilsby Tunnel was being completed.

The difference of terminology between "a little hut" and a "building in the swiss style" cannot be fully resolved. The station was abandoned in 1840 and was probably removed when the "Rugby & Leamington" was built in 1847. Francis Whishaw, in 1842, but obviously writing of the original station, and ignoring aesthetic considerations, describes the building as follows:-

"The station at Rugby is situate on the west side of the railway, which at this place is on an embankment. The station-house is set back from the railway about 30 feet, with a fore-court intervening about 34 feet in width. The building is 24 feet in front, and 31 feet 6 inches in depth. On the upper floor, which is on a level with the fore-court, is a spacious waiting room, the descent from which to the booking-office below is by a flight of twenty steps. The police-inspectors' house is contiguous to the offices; and the conveniences are placed in the cellars underneath the fore-court.

"The passengers leaving by a train pass through the booking-office and up the stairs into the waiting-room, and from thence across the fore-court to the platform; while those arriving leave the station by a flight of nineteen wooden steps, 6 feet in width, and on the right side of the forecourt.

" The station platform is of wood, 8 feet 10 inches wide; and between the two ways is a second platform of wood, 2 feet 9 inches wide, and 7 inches high above the rails. The whole width of way from the platform to the top of the slope on the opposite side is 26 feet 5 inches.

"The stationary engine-house is on the opposite side of the way; and besides the engine and boiler-rooms, there are

under the same roof the porters' lodge, oil-room, &c.

"The pumping-engine has a 6-inch cylinder and 2-feet stroke; the usual working pressure is about 34 lbs. The water is derived from the river Avon, and let into a large tank built for the purpose.

"At a distance from the station of about a quarter of a mile is a locomotive engine-house which will hold three engines and tenders. The persons employed at this station are, one ticket-collector, one inspector, four police, five porters, one stationary engine-man, three engine-drivers, two firemen, two smiths, one stoker, three fitters, two cleaners, two coke-men and two carpenters. There is also a carriage-shed at this station."

A description of the features beside the line would not be complete without a complementary description of the track itself. The appearance of the line was not at all like that of today; the rails were of cast iron, in 5 yard lengths, were "spiked" to stone blocks 2 foot square and 1 foot thick, and were "fish bellied" in shape. The "fish belly" refers to the web of their "T" section; this increased to a maximum at the centre point between the fixing points on the stone blocks. The general appearance was of a tramroad rather than a modern railway. In the stations the marshalling of trains, and unfortunately the very frequent replacement of defective carriages was performed with the aid of miniature turntables and tracks at right angles to the main running tracks. A carriage could be speedily moved onto a parallel track without shunting the entire train.

The investment in the railway was about double that authorised by the first act of Parliament and investors were naturally enough anxious for a return on their capital. The Company was also shrewd enough to realise that the forthcoming coronation of Queen Victoria, on 28th June, 1838, would provide opportunities that should not be lightly missed. The Kilsby Tunnel however, and various sections on

either side of it, were behind schedule and could not be completed on time. The "Grand Junction Railway", incorporated on the same day as the "London & Birmingham, from Birmingham towards Liverpool and Manchester, had opened on 4th July, 1837. Not to be outdone, the Company opened two separate sections of their line on 9th April, 1838 from London to Denbigh Hall (where the present A5 road passes under the railway just north of Bletchley) and from Rugby to Birmingham. Coaches provided a shuttle service via Dunchurch, the present A45 road and the present A5 road to and from Denbigh Hall. The Coventry Standard of 20th April 1838 records that on the opening day "The Wonder" coach beat the first train from London to Birmingham by 20 minutes. The entire journey by train from London to Birmingham was accomplished at an average speed of 20 miles per hour - the transfer from train to coaches taking 20 minutes. The coaches were hired from Messrs Horne & Chaplin at £7-14-6d per coach per double journey of 74 miles and required a total of 700 horses to keep the operation going. The normal fares, by coach, from Rugby to Denbigh Hall were 12/6d. First Class and 9/0d. Second Class. During the week before the coronation the local population capitalised on the situation and every waggon, cart, donkey chaise and horsedrawn omnibus were pressed into service at 1/0d. per mile. Seats on coaches were £4 for inside passengers and £2-10-0d. for outside passengers; and cases were reported of "seats remaining unavailable for offers of £10-0-0d."

The problem in the Kilsby Tunnel was one of appalling bad luck. Trial borings had not revealed the existence of a bed of wet sand along the proposed line of tunnel. If the line had been offset in either direction or if it had been a little lower there may never have arisen any major civil engineering problem. However, the bed of wet sand extended for about 400 yards (the tunnel is 2,423 yards long) and only at the very top part, above the springing

of the arch, of the cross section of the bore. The gradient of the line in the tunnel is 1 in 870 falling towards Rugby and consequently considerable pumping was required at the southern end. The story of the tunnel is graphically told in a number of places and summarised in the next chapter. Statistics are presented in the guidebooks of the time so as to create awe and wonder in the mind of the reader - if all the bricks were put end to end

The humblest of armchair travellers must have revelled in such knowledge. The last of these bricks was put into place (in the tunnel that is, not on the way to the moon !) on 20th June 1838. The first goods train went through the tunnel on 24th June 1838, four days before the coronation, but it was 17th September 1838 before inspections were complete and the line was opened for passenger traffic throughout the full length. Because of the danger of landslips on the newly completed earthworks there was a speed limit of 15 miles per hour between Rugby and Denbigh Hall, and no train movements after dark, until 1844 at which time the earthworks were declared secure.

Before moving to the next phase of railway development in Rugby we can record that when the line was opened the fare from Rugby to Euston was 24/0d. First Class and 16/6d. Second Class; from Rugby to Birmingham was 7/0d. First Class and 4/6d. Second Class. Of the opening of the line Dr Arnold commented "I rejoice to see it and to think that feudality is gone for ever; it is so great a blessing to think that any one evil is really extinct". Bloxam commented that the new railway "caused a perceptible increase of boys at the school". The Rugby Advertiser in 1874 looked back and noted that at one time the trade from the school was the livelihood of Rugby but now "the ready cash customers of railway servants and the Civil Service and other Kindred Associations have shrunk this trade to insignificance".

The "London & Birmingham Railway" brought the Industrial Revolution to Rugby: quite peacefully the abolition of poverty in Rugby was to begin. Rugby did not suffer from industrial slums or from children working in mines; but poverty was still the lot of most of the population - living on the breadline - damp cottages with mud floors - draughty doors and windows - cold well water and insanitary toilets - turnip and potato diet - empty stomachs - rags for clothes - the misery of being born, living and dying in squalor - exploitation of labour - saving to get married - emigrating to America - it was little more than just existing. These were the features of life for the majority at that time. This was the background to the arrival of the railway. The arrival of that railway started the process that put an end to universal poverty. This is what Dr Arnold foresaw - what foresight !

The Kilsby Tunnel.

A few miles south of Rugby the "London & Birmingham Railway" climbs the Watford Gap alongside the Roman Watling Street and the Old Grand Union Canal. It was later to be joined by the motorway M1 at this location. A low ridge of hills forming the watershed of England lies across all of these routes. The railway pierces the ridge by the Kilsby Tunnel. A tunnel could not be avoided -- there were already canal tunnels at Crick and Braunston -- but its story is one of bad luck and a band of wet running quicksand. Strictly speaking, being outside Rugby, the story of the tunnel should not find a place in this account; but so exciting is the drama of its construction that those few miles are quite sufficient excuse to make reference to it here.

The human drama is superbly told by L.T.C.Rolt in "George and Robert Stephenson" on pages 238 to 247. The reader is recommended to that account -- while we shall herein limit ourselves to statistics and such details as are necessary for completeness. Rolt himself summarises the planning stages of the tunnel in another of his books:

The Crick canal tunnel ... "was originally planned on a line to the west of Crick village, but in sinking the shafts quicksands were encountered and Bevan^{*} wisely decided to abandon the works and to drive the tunnel on a new alignment passing to the east of the village. As his own letters reveal, Robert Stephenson planned to tunnel through this ridge on Bevan's original line, but on hearing of the canal builder's experience, thought it prudent to switch to a new alignment for his railway tunnel nearer Kilsby. Had he also heard of Jessop's encounter with quicksands at Braunston, still further to the south, he might have been less sanguine of the success of this avoiding action."

A contemporary story of the tunnel, and the source material for several other versions is given in a pamphlet by Lieut Peter Lecount -- described on the title page as "one of the engineers on

* ie the engineer.

the line who has been engaged on the railway since its commencement":-

"Another instance, in which difficulties of no ordinary magnitude were encountered, was at the Kilsby Tunnel, about six miles on the London side of the Rugby Station. This tunnel is about 2,400 yards long, and was originally intended to be chiefly built eighteen inches thick; but it was found necessary to increase this, in most cases, to twenty-seven inches; and the whole has been built in either Roman or metallic cement.

The works were commenced about the middle of June, 1835, by J. Nowell and Sons, contractors; but such serious difficulties were met with, at an early stage of the proceedings, that they gave up their contract on the 12th of March, 1836, and nearly the whole had to be performed by the Railway Company. Previous to the commencement of the works, trial shafts were sunk in several parts of the line of the tunnel, in order that the nature of the material through which it would have to pass might be ascertained, and it was found to be generally lias shale, with a few beds of rock, in some places dry, in others containing considerable quantities of water.

In sinking the second working shaft, it was found that a bed of sand and gravel, containing a great quantity of water, lay over part of the tunnel, and this was such a perfect quicksand, that it was impossible to sink through it in the ordinary way. By repeated borings, in various directions near this part of the tunnel, the sand was discovered to be very extensive, and to be in shape like a flat-bottomed basin, cropping out on one side of the hill. The trial shafts had accidentally been sunk on each side of this basin, so that it had entirely escaped notice until the sinking of the working shaft.

Mr Stephenson was led to suppose that the water might be pumped out, and that under the sand thus drained the tunnel might be driven with comparative facility; this proved to be the case,

but the expense was of course enormous. Engines for pumping were erected, and shafts sunk a little out of the line of the tunnel. These shafts were carried through the sand by means of wooden tubing, and from them, headings were driven into the quicksand to allow the water to flow with freedom to the pumps. The pumping was continued nearly nine months before the sand was sufficiently dry to admit of tunnelling, and during a considerable portion of that time the water pumped out was two thousand gallons per minute.

When the sand became sufficiently dry to allow the working shafts to be sunk in the ordinary manner, headings were driven to each of them from the pumping shafts at the level of the bottom of the tunnel, by which means the water was prevented, not only from rising in the shafts, but in the tunnel, where the work was going on.

The quicksand extends over about 450 yards of the length of the tunnel, and its bottom dips to about six feet below the arch. Great care was required, during all the time of getting through this part, that the sand did not run, it being in some places so fine that great quantities would slip through a very small crevice. It has been effected, however, with only one run of importance.

In May, 1836, one of the large ventilating shafts was commenced, and completed in about twelve months. This shaft is sixty feet in diameter in the clear, and 132 feet deep; the walls are perpendicular, and three feet thick throughout, the bricks being laid in Roman cement. The second ventilating shaft is not so deep by thirty feet. These immense shafts were all built from the top downwards, by excavating for small portions of the wall at a time, for six to twelve feet in length, and ten feet deep.

In November, 1836, a large collection of water burst suddenly into the tunnel, in a part where there were no pumps;

of course it rose very rapidly, and, in order to prevent the ground being loosened by it at the far end, where it was excavated, a rather novel mode of building the brickwork was resorted to, as the getting in of the brickwork was the only thing that would save it. This method was by forming a large raft, and on this the men and their materials were floated into the tunnel, and with considerable difficulty and danger performed their task.

All the impediments were at last conquered, and the tunnel finished in October, 1838; but, of course, the expenses were increased to a very great extent. The work was let for £99,000, and it has cost more than £320,000, or upwards of £133 per yard.

To give some idea of the magnitude of this work:- There are thirty million bricks used in it, which, at ten hours for a working day, if a man counted fifty in a minute, would take one thousand days to get through them all. There is above a million bricks in the deepest ventilating shaft, and its weight is 4,034 tons.

The weight of the whole tunnel is 118,620 tons; or it would freight four hundred ordinary merchant ships, of about three hundred tons each; and if these bricks were laid end to end, they would reach 4,260 miles."

The effect of the entire operation upon the village of Kilsby was profound; F.B.Head in his account of railway operating practice in 1849 also records:-

"Besides the 1,250 labourers employed in the construction of the tunnel, a proportionate number of suttlers and victuallers of all descriptions concentrated upon the village of Kilsby. In several houses there lodged in each room sixteen navvies, and as there were four beds in each apartment, two navvies were constantly in each; the two squads of eight men as alternately changing places with each other in their beds as in their work.

Such was the demand for lodging that it was, as we have stated, found necessary to construct a large village over the tunnel for the accomodation of the workmen, and, as they generally allowed themselves three meat meals a-day, it has been asserted that more beef was eaten in Kilsby during the construction of the tunnel than had previously been consumed there since the Deluge."

C.A.Markham, in 'The Iron Roads of Northamptonshire' records:-

"On 24th April, 1837 there was rioting at Kilsby by the navvies engaged on the railway works. They released prisoners from the local lock-up, and military were despatched from Weedon to quell the disturbance."

Turning again from the human effect of the work back to material considerations: when running sand was not being dealt with the spoil from the tunnel was a blue lias limestone containing numerous shells and small fossils which decay to a more clay-like substance when exposed to air. Much of the spoil was used in the embankment at Hillmorton. At the peak of the work period 1,250 men and 200 horses were employed. 1,800 gallons of water were pumped out for every minute of the day and night by 13 steam engines for eight months. The tunnel is 2,423 yards long, 24 feet wide by 22 feet high (the "London & Birmingham" loading gauge was 16 ft 6 inches) above the rails, and the gradient 1 in 870 falling towards Rugby. The last brick was put in place on 21st June according to Rolt, or 20th June according to the Coventry Standard that week --- although it seems another "last brick" was found to be put in on 28th June, 1838, Coronation Day, according to a railway guide of the time and to records kept at the station.

RUGBY AND THE RAILWAY GAUGE.

In 1845 a Royal Commission considered whether the gauge of our railways should be standardised at 4'8½" or at 7' 0". Rugby was unwittingly at the very centre of the controversy and it is interesting to speculate as to how the financial viability of railways throughout the world today might be different if the decision of that Royal Commission had been to recommend the broad gauge (7' 0" - or 7' 0¼" to be very exact) rather than the narrow (4' 8½").

For the first proper railways in the north-east of England, and for the "London & Birmingham Railway" through Rugby, the Stephensons chose the gauge 4' 8½" for purely historical reasons. For the "Great Western Railway" the flamboyant and individualistic Isambard Brunel chose the gauge of 7' 0" from considerations of stability at speed together with notions of grandeur. All went well until the two systems began to expand and came into contact with each other. The "Great Western" planned in 1844, and obtained an Act on 4th August 1845, for a railway from Oxford to Rugby on the broad gauge. Quite vicious company politics were taking place and the "Grand Junction Railway" (from Birmingham to a junction with the "Liverpool & Manchester Railway") was at the time sulking because it had been out manoeuvred by the "London & Birmingham Railway" for the control of the projected "Trent Valley Railway" from Rugby to Stafford. This would have enabled the traffic to the north to bypass much of their main line and would have damaged their influence and interests. Partly as a self-protective measure, but more probably as a calculated Machiavellian manoeuvre, the "Grand Junction" shamelessly and deliberately exploited the "Oxford & Rugby" proposals by advising their shareholders that if the "Great Western" were to extend their proposed line from Rugby to Wolverhampton then the "Grand Junction Railway" would consider laying broad gauge tracks onwards to Liverpool and Manchester.

It was against this background that the Royal Commission

started to work. It is doubtful if a document of national importance has ever, before or since, contained quite so many references to Rugby. Hypothetical cases were expounded to illustrate the evils; and then re-expounded to illustrate how trivial was the problem of changing passengers and goods from trains of one gauge to trains of the other. One of the methods of transferring coal between trains was by containerisation -- or the quaint phrase then coined was "by putting into boxes".

In evidence to the Commission Robert Stephenson described how he felt the system of changing boxes would work:-

"We will imagine ourselves to be at Rugby, and the two lines are drawn up parallel and opposite each other. We commence by moving the leading box on the line onto the waggon of the other line, which must be empty. We will suppose on the other line a series of empty frames, if the train is 100 waggons long, and each waggon 4 yards, that is 400 yards. This leading waggon as soon as it has got the transfer made must be dragged away by horse or some other operation 400 yards along the line. Then the next frame requires to be brought up to the next full box; the waggon requires of course to be moved precisely the same distance, minus the length of the waggon at the far end, and this operation has to go on waggon by waggon."

(actually ⁴² ~~40~~ miles for both trains)

Stephenson goes on to show how a man and a horse would walk 100 miles during this procedure.

Land was purchased at Rugby to build the transfer yards - a new passenger station was planned as reported in the press:-

"The offices will be built in the form of a crescent, divided into compartments, each of which will bear the name of the Company to whom it belongs, so that all confusion will be avoided, as all the passenger will have to do when he gets out of the carriage, supposing he has come from London and wishes to go on to Newcastle, will be to cast his eye around the semi-

circles, and look at the names of the lines inscribed over the respective offices. The luggage* department will have no connection with the passenger traffic, the warehouses, sheds, &c, being built at the back of the offices, whilst the luggage trains will pass between the two ranges of buildings, and thus avoid that appearance of confusion and danger that now exists in front of the stations... . As might be expected, Rugby, from the foregoing circumstances, instead of being one of the most retired places in the country, presents every prospect of becoming second only to Birmingham in importance."

The engineer Charles Vignoles, in evidence to the Royal Commission, permits us to glance at his opinion of Rugby when in answer to a question he says that traffic to Rugby is equal to traffic from Rugby "otherwise why do you go to Rugby?". The impertinence.

In the event, it was all a non-event! The "Grand Junction Railway" left the "Great Western" at the altar and had a shot gun marriage with the "London & Birmingham" instead. The "Oxford & Rugby Railway" was diverted to Birmingham Snow Hill, the broad gauge did not come to Rugby, and that particular station was abandoned. The Royal Commission decided in favour of the narrow gauge.

This chapter in Rugby's history could have had a different outcome - if the broad gauge HAD reached Rugby then it might have been just sufficient to tip the scales in favour of the broad gauge at the Royal Commission. With Britain's railways using the broad gauge and with British engineers building railways throughout the world it is probable that many of these too would have used the broad gauge.

* i.e. freight.

Chapter 8.

THE RUGBY & LEAMINGTON RAILWAY.

The railway age began in the 1830's and by the mid-1840's had caught the public imagination to such an extent that unco-ordinated schemes and projects were being prepared by the hundreds: the "railway mania". Two of the products of the mania to be successfully completed were the "Rugby & Market Harborough Railway" and the "Rugby & Leamington Railway" - the pathways to completion differed quite remarkably: the former was methodically promoted by the "London & Birmingham Railway": the latter was promoted by local enterprise to satisfy local pride and needs and its story is rich with the atmosphere of the railway mania. The "Rugby & Market Harborough" obtained its act of incorporation on 18th June, 1846 and opened on 29th April, 1850; the "Rugby & Leamington" obtained its act of incorporation on 13th August, 1846 and opened on 1st March, 1851.

The story of the "Rugby & Leamington Railway" starts with the opening of the "London & Birmingham Railway" through Rugby and the formation at Leamington of the "London, Birmingham and North Midland Coaching Department" to provide stage coaches to make connections with trains to London at Weedon, and with trains to Leicester and north at Rugby. The "Times Coach" left the Bath Hotel, Leamington daily (except Sunday) at 10.30am for Rugby; the return coach left Rugby at 1.25pm. The fare in 1841 was 6/0d. (30p) for inside passengers and 3/0d. for outside passengers. The "Rising Sun" and the "Eagle Coach" went to Weedon, "The Railway" to Coventry, the "Star Coach" to Worcester and the "Sovereign" all the way to London. These arrangements lasted until 9th December, 1844 when a railway was opened from Leamington to the main line at Coventry. The coach to Rugby continued to run although

a rail service, taking $1\frac{1}{2}$ hours, was advertised but making no mention that it was via Coventry. Even as the Leamington to Coventry line was being prepared for Parliament in 1842 additional schemes were being suggested for lines to Rugby and to Hampton-in-Arden from Leamington.

A circular, dated 4th September 1845, was distributed and four days later in the house of a Mr William Harris in Rugby a Provisional Committee with Sir Grey Skipworth, Bart. as Chairman was formed to promote a railway to Leamington: it was resolved that an approach be made to the "London & Birmingham" with view to their leasing the line when it was completed. The deputation attended Euston Square on 12th September, 1845 and reported to a meeting in the Eagle Hotel (sic) in Rugby on 18th September, 1845 that the "London & Birmingham" had agreed to put a director onto the Committee of Management. It was resolved that Robert Stephenson be asked to be the engineer. Thus far all had proceeded quickly and smoothly, but it seems that either a rival scheme was in the air or a double approach had been made to Lord John Scott of Dunchurch (whose statue can be seen there) that led to confusion. The Committee either tried to enlist his reluctant support for their scheme as opposed to any other, or his reply confused the issue by suggesting that a better offer was to be had elsewhere. They concluded that his Lordship had confused "opposing" with "non-absenting" and amnesty was restored but not without a resolution that settlements with other landowners should "not exceed that already agreed upon with Lord John Scott".

The initial proposals from the "London & Birmingham", also dated 12th September, 1845, anticipated that the line would be worked by the "London & Birmingham" under a lease in perpetuity at a rent of £4% p.a. on cost of construction, plus half the profits to be

distributed to the shareholders with an option of converting their shares to "London & Birmingham" shares. The "London & Birmingham" would nominate 3 of the 9 members of the Committee of Management. On 18th March, 1846 a request was put to the "London & Birmingham" that as estimates were now £450,000 instead of £500,000 would they please take up half instead of one third of the shares as extra money was needed to make an extension to the "Warwick & London Railway" 'should that Company get its Act'. However, by 16th July, 1846 (the date upon which the "London & Birmingham" amalgamated with others to form the "London & North Western Railway") the estimates were reduced to £360,000 to be divided £186,740 to general subscribers and £173,260 to the "London & Birmingham". Instead of reducing the number of shares the value was reduced from £20 for each share to £16.

On 15th August, 1846 the "Rugby & Leamington Railway Company" Act received its Royal assent - under section 38 of the Act it could lease itself in perpetuity to the "London & Birmingham" and under section 44 it could sell itself to the "London & Birmingham"

A happy Committee met on 22nd August, 1846 and resolved that Sir Grey Skipworth's offer of his family crest for use in the Company seal be taken up - the crest to be surrounded by the words "Rugby and Leamington Railway Company". A sample is included in the Minutes Book. The same meeting heard it reported that the expenses of getting the Act were £13,126 and that the "London & North Western Railway", as successor to the "London & Birmingham", had offered to buy out their Company at £125% of the proportion of shares that had been paid up. The Directors agreed to recommend this.

A meeting of shareholders in the Eagle Hotel on 17th October 1846 agreed to send the conveyances for the sale to the "London & North Western" for the agreed price of £71,571-6-0d. and it was

resolved to give the Directors authority to sign the conveyance when the money was paid into the bank. At the final Board Meeting on 17th November, 1846 it was resolved "that the common seals of the Company be affixed to the conveyances to the "London & North Western Railway Company" in pursuance of the resolution proposed at the last meeting of shareholders on 17th October last". And so the independent existence of the "Rugby & Leamington Railway" came to an end before the first sod had been turned.

A very complete account of the construction of the "Rugby & Leamington" is given in the Leamington Courier of 22nd February, 1851 - just prior to the opening. The main contract had been let in 1847 for £260,000, there being 31 tenders from which to choose, to a Mr G. Knight whose previous experience it seems was as a brick-layer on the "Birmingham Station". Some of the bridges were let as special contracts. T. B. Dudley in his "Complete History of Royal Leamington Spa" reports that Robert Stephenson was the engineer; but it is more probable that the engineer was Mr Edward Dixon, the LNW engineer for branch lines acting under Robert Stephenson. The Resident Engineer was a Mr W. T. Doyne.

The line is 15 miles and 8 chains long and although it was built as a single track the initial engineering anticipated the eventual need for double track and provision was made for a width of 33 feet at formation level. There are no tunnels on the line but originally there were 35 bridges, of which 14 were "occupation" bridges to allow farmers access to their land, and also 5 viaducts with a total of 67 arches. Of the bridges, 13 were bricks in mortar, 9 were bricks in cement, 6 were cast iron, 2 were wood, 1 of wood and iron, 3 of boiler plates and one of wrought iron lattice work. The earthworks were made through very hard red marl except for a stretch between the second and sixth miles from

Rugby where a mixture of blue and yellow lias were encountered. The cutting at Hunningham Hill was 247,360 cubic yards and that at Offchurch Hill was 211,254 cubic yards. There were three stretches of a maximum gradient of 1 in 100 (the "London & Birmingham" had been built to a maximum of 1 in 300 and the famous Shap Fell line is 1 in 74), the first at 8½ miles from Rugby, Marton to Hunningham Hill; the second from Offchurch to Radford and the third in Leamington itself.

The most important engineering features of the line were the bridge carrying the road from Bascote over the railway at Hunningham, and the bridge carrying the railway over the road in the centre of Leamington. The article in the Leamington Courier gives considerable detail of these two works and describes the loading and deflection tests. The first of the bridges was built by Messrs Smith, Smith and Jones of Leamington for £35,000 and had a span of 150 feet, was of wrought iron lattice work, and was 54 feet above the rails. The second was built by a Mr John Hart and was of lattice wood-work covered with an iron roof. The two fabricated wood girders were 150 feet long, 17 feet deep and 23 feet wide, and were "put over" on 23rd September, 1850 to rest on piers of Derbyshire granite 25 feet high and 139 feet 9 inches span between piers.

No particular engineering difficulties were encountered, but the line was two years late in completing because of the crash in confidence in railways which swept the country in the late 1840's at the end of the "railway mania". The Leamington Courier says that only two active years of work had been done. Public meetings in both Rugby and Leamington to urge the "London & North Western" to complete the line as it was "injurious to the towns of Leamington and Warwick" not to do so.

The formal opening of the line to passenger traffic on 1st March, 1851 (almost a year after the "Rugby & Market Harborough") was preceded by the customary private inspection trip by the Directors train. This left Leamington at 12.00 noon and returned from Rugby at 2.00pm where a banquet was held in the Regent Hotel, Captain Huish of the LNWR taking the Chair himself, and the virtues of all present were fully extolled. A more boisterous dinner was held at the same time, but in the Angel Inn, for 220 workmen - among the vast quantities of food being consumed was a baron of beef weighing 216 lb, 200 gallons of ale and 12 lb of tobacco was "puffed in pipes of every imaginable length".

At the time of opening there were five trains each day, taking 30 to 35 minutes to complete the journey and carrying "mixed" traffic. The intermediate stations were built later, Marton in 1852, Birdingbury in 1853 and Dunchurch on 2nd October, 1871 (at "a point ^{where} the Coventry Turnpike Road crosses the Rugby and Leamington Railway, near Thurlaston, and about a mile and a half from Dunchurch"). An accident report on 5th March, 1859 implies that electric telegraph was in use at that time. The Rugby Advertiser of 17th February, 1883 comments, "The work of doubling the Rugby and Leamington Railway between the latter place and Marton has been commenced and, it is expected, will be complete by August. The line will then be double throughout, and as soon as the loop between Kenilworth and Berkswell is completed several express trains daily will probably run from Birmingham via Leamington and Rugby for London". This wishfull thinking never materialised ! In February 1930 push-pull operation was tried with the driver of the steam engine, while in the "push" mode, riding in the carriage and not on the engine. Diesel multiple-units were in use when passenger traffic was withdrawn from ^{*}15th June, 1959. The line is now (1979) reduced to single track and cut short at Offchurch where a reversal must be made onto

* See next page.

the "East & West Junction Railway", itself truncated, to the cement works at Southam. The Dunchurch freight depot was closed on 3rd October 1964.

The history of the "Rugby & Leamington Railway" is a classical example of the history of numerous branch lines throughout the country - from promotion, the engineering features, the construction, the opening, the traffic and the final decline to its truncated form as an extended private siding. The history may take an unusual twist if new coal measures are exploited at Southam and prosperity beyond the dreams of 1845 descends on the line.

Closed following miners strike in 1984/5 when the rail union "blacked" the movement of coal by rail and the Rugby Portland Cement Co transferred to road haulage.

* Page Note from previous page: The last train was the 7.54pm from Rugby on Saturday 13th June 1959 hauled by locomotive No 41227.

THE RUGBY & MARKET HARBOROUGH RAILWAY.

The introduction to the previous chapter describes the "railway mania" and how many ill-conceived railways were promoted. The railways of the mania were mainly the sleepy branch lines featured in plays and novels; and by and large have since been closed on the basis of "last to come: first to go". The "Rugby & Market Harborough" and the "Rugby & Leamington" were both products of the mania and provide such an interesting comparison that it is worth repeating some of the detail in this chapter.

The "Rugby & Market Harborough" obtained its act on 18th June, 1846 and was the brainchild of "London & Birmingham" planning at Euston Square. The "Rugby & Leamington", on the other hand, obtained its act on 13th August, 1846 and was promoted locally to satisfy local needs, ambitions and pride.

It was quite common practice for the larger railway companies to encourage local initiative to promote local lines and then to buy out the goodwill, plans, Parliamentary Act, and any assets at a premium. This procedure ensured that local people dealt with local people, provided the necessary human resources, attracted local capital, won local support and pride and spread the risk -- the larger company simply leaving the smaller one in the lurch if they had not devised a viable scheme. The promoters, knowing that the larger company would buy out their scheme at a premium depending upon its worth, looked upon the exercise as a short term investment needing energetic work to get it under way. We cannot determine why the "London & Birmingham" did not adopt this procedure for the "Rugby & Market Harborough Railway" while at the same time they did for the "Rugby & Leamington". They

appointed a director to the local committee for the latter but for the former their own employees simply got on with the business of promoting, planning, and negotiating for the purchase of land.

The "Rugby & Market Harborough" was only part of a railway from Rugby to Stamford in Lincolnshire -- the whole project being promoted in two parts for administrative convenience to reduce the risk of total failure in Parliament if one part was unacceptable. The cost of re-promoting the acceptable part was saved and work could get under way. In the event it was not Parliament that caused delay but the "crash" of the railway mania in the late 1840's when speculators lost confidence and realised that railways were being oversubscribed. Both the Market Harborough and the Leamington lines suffered such delays and public meetings were held to urge them to completion; the "London & North Western Railway" by then being the parent body and source of funds for both lines.

The method of promotion of the "Rugby & Market Harborough" meant that no separate Minutes Book was kept to record the tribulations and intrigues of the early days. The Act was obtained on 18th June, 1846 a month before the formation of the "London & North Western" and we learn from a snippet in the Rugby Advertiser of 29th February, 1896 (and this is the complete article) that "The Market Harborough line was, according to an old diary, commenced on 17th May, 1847". We grasp at such crumbs of information. A more contemporary account, in the Rugby Advertiser of 2nd October, 1847 records:

"Suspension of works on the Stamford and Rugby Railway -
The works on the above line from Rugby to Great Bowden, have been stopped in consequence of a disagreement between Mr Barton, the contractor, and the resident engineers. The Company have seized upon the whole of the contractors 'plant', alleging he is not proceeding fast enough with the works. A demand to 'put on 100 waggons, 300 tons of temporary rails, and

500 men in seven days' not having been complied with, the above proceeding was the result."

A short time later the Rugby Advertiser again reports a suspension of work because of a dispute between the contractor and the resident engineer.

We cannot determine if Mr Barton was replaced or if the following extract from "The Railway Navvies" by Terry Coleman refers to another stretch of line when it describes a Joseph Firbank, who was to become one of the more famous contractors: "He survived the panic of the mid 1840's, then lost nearly everything on the Rugby to Market Harborough contract in 1848 but again recovered and went from profit to profit" A biography of Firbank by F. MacDermot in 1887 does not mention this incident or indeed any involvement on this line.

The line was built as a single track but with provision for doubling at a later date -- it was not in fact doubled throughout until 22nd July, 1878. The Rugby Advertiser records on 11th May, 1850 that the line was partially opened on 27th April, 1850, "as far as Harbro'..." for a special directors train; the scene being described:

"As the train approached its destination the scene became animated in the extreme; thousands of people exercising their lungs to the utmost to give a hearty welcome to the first train." The guests partook of a "cold collation" before the return trip. The line opened for general traffic on 29th April, 1850 with three passenger trains a day in each direction, the line was opened throughout in June 1850 with the first timetables being published in the Rugby Advertiser on 8th June, 1850.

The line was opened with the 'up' direction being towards Rugby but this was reversed at some stage, probably when the "flyover" was built in the early 1880's to bring trains from Market Harborough

into the 'down' side of the Rugby Midland station with minimum conflict with the paths of main line trains. The thirteen-arch brick viaduct over the Oxford Canal comprised spans of 25 feet and supported on piers up to 45 feet high to the top of the parapet and curves towards a high level junction with the new line from Northampton. It is not certain when the new viaduct was brought into use but it was probably on the same date as the opening of the third station, 5th July, 1885 as described in chapter 13.

A separate booking office in the old Midland buildings on the up-side handled tickets for Market Harborough and beyond until the 1930's.

In addition to local traffic on the line there was also through traffic to the east coast. The rival "Midland" line via Nuneaton offered better forwarding facilities and this traffic was never of great significance. A station was opened at Clifton Mill in November 1864 and closed on 6th April 1953. The new viaduct and the lines to just beyond Clifton Mill performed an important final duty during the electrification of the main line to London when, during 1965, Rugby was a temporary changeover point between diesel and electric traction, and locomotives could run around this loop to change between the 'up' and 'down' lines without conflicting with the movement of the trains on the main line that they had either just hauled or were about to haul.

Passenger trains were withdrawn from the route on 6th June, 1966 and the tracks were lifted in 1968, apart from the section between the main lines and Clifton Mill which survived a little longer as sidings for the electric traction depot.

Chapter 10.

A RAILWAY NORTH FROM RUGBY.

The first railway through Rugby was the "London & Birmingham" which approached from the south east and swung sharply westwards towards Birmingham where, in 1838, it met the "Grand Junction Railway" and provided both travellers and freight with a route to Liverpool, Manchester and beyond. A glance at a map showed that this was a circuitous route and that a short cut was possible. This exemplified the contemporary attitude towards railway development - there was no overall policy or plan and each new line was a piecemeal addition to exploit a gap that had been revealed in the system. In this case the obvious gap was between Rugby and Stafford following the line of the River Trent for much of the way. The junction created when the gap was closed brought an importance to Rugby that had a profound influence on the development of the town.

In 1836 Joseph Locke produced plans on behalf of the "Grand Junction Railway" for a railway between Rugby and Stafford that would have been remarkably similar to the line that was eventually built. It was rare for a new railway project to obtain Parliamentary approval on first try and this was not an exception. The "Birmingham & Derby Railway" were next to try: while their line between those cities was still under construction they had second thoughts and in January 1837 sought to promote the "Tamworth & Rugby Railway" by abandoning their line from Tamworth westward and diverting it southwards. By August it was reported "that the proposal had encountered such severe opposition that it had been withdrawn". The opposition no doubt came from the "Midland Counties Railway" to the east and the "Grand Junction Railway" to the west: to say

nothing of the landowners along the line. The historian F.S. Williams comments: "failing this the directors had decided to begin without delay the Hampton (ie Hampton-in-Arden) branch of their line, by means of which they would be brought near to Rugby and have their course open to the south". Their action was not completely without justification as the "Midland Counties Railway" had just broken their half of a pact not to build a branch to Pinxton if the "Birmingham & Derby Railway" did not build the Hampton branch. The new line was promoted as the "Stonebridge Railway" and with the act secured was immediately absorbed into the parent company which now became the "Birmingham & Derby Junction Railway". The line to Birmingham was delayed as resources were diverted to the branch such that it opened on 12th August, 1839 almost a year before the "Midland Counties" line to Rugby. For that year it was the only route to the south from Derby and enjoyed no competition: the completion of the "Midland Counties" line through Leicester to Rugby destroyed the monopoly and the subsequent price cutting war almost destroyed both companies until they merged and became two of the constituent companies in the "Midland Railway".

The next proposal for a railway north from Rugby had very similar origins to the previous scheme. The "Grand Junction Railway" from Birmingham made a "T" junction with the "Liverpool & Manchester Railway" at Newton-le-Willows: the "Manchester & Birmingham Railway" had been promoted, notwithstanding its name, to build a line from Manchester to Norton Bridge on the "Grand Junction" just north of Stafford and to cut off the corner at Newton. In 1838 the "Manchester & Birmingham", like the "Birmingham & Derby", turned their eyes further south and grew in ambition. Their plans were altered and lodged with Parliament to include a 62½ mile "Stone & Rugby Railway". The protests were repeated: this time with such vehemence that in 1839 not only were the Rugby proposals thrown

out but so were those for Norton Bridge and all that remained was a foreshortened line to a junction in the middle of nowhere at a place that was to become Crewe - a turn of events having quite a resemblance to those associated with the arrival of the "Trent Valley" junction at Rugby. .

By encouraging local promoters the "Grand Junction" effectively moved back towards the ring in 1840 with a proposal for a 49½ mile "Stafford & Rugby Railway". The support of Sir Robert Peel was gained - he was the member of Parliament for Tamworth but not Prime Minister at the time. Opposition remained: the "London & Birmingham" offered £20,000 for the scheme to be abandoned. The bill failed in 1841.

So many plans have been made for a railway along the valley of the River Trent that it is difficult to give credit to the right person - it was a very easy line to engineer - but Joseph Locke, the unsung engineer to the "Grand Junction Railway" probably did most of the detailed work. Copies of the plans were probably two-a-penny by the time an independent company was formed in 1843 to lodge plans with Parliament in November 1844 for the "Trent Valley Railway". The "London & Birmingham" not only dropped their opposition to the scheme but supported the new venture to the tune of £277,780. The "Grand Junction" bought a stake of £250,000 and support also came from the the "Manchester & Birmingham". The new company had as its Secretary a bright young chap called Edward W. Watkins who was destined to lead the "Manchester, Liverpool & Sheffield Railway" (whose name later changed to the "Great Central") for its southward expansion through Rugby at the end of the century.

The proposed line passed over a very level terrain, ideal railway country, with few features to distinguish it - perhaps

the ornate tunnel portals at Shugborough being worthy of mention. More negatively the line distinguishes itself by passing at very inconvenient distance from Tamworth and Lichfield. Through traffic was expected to predominate but there were also considerable populations at Tamworth, Lichfield and Nuneaton; coal at Atherstone and stone at Hartshill to provide additional sources of revenue. An exceptionally large number of level crossings were included in the plans and these were opposed, on grounds of safety, by the landowners. Diplomacy won the day and it was suggested that bridge earthworks would take up agricultural land; and that for the convenience of local travellers stations would be located next to most crossings; and then of course trains would be travelling slowly or stopping at the stations. Local opposition was thus overcome.

The "Trent Valley Railway" Act received Royal Assent on 21st July, 1845 but only at a total promotional cost in excess of the final cost of the works themselves. The Act provided for a capital of £1,250,000 in £20 shares and a loan capital of £416,666; it also provided for the line to be leased to the "London & Birmingham", "Grand Junction" and "Manchester and Birmingham" or to any one of these. The "Trent Valley" was well aware that it held the trump: it was still independent and its ambition extended only to the financial interests of the shareholders. The "London & Birmingham" were quickly off the mark with successful overtures - and cash to back them up - and arranged to lease the "Trent Valley". The "Grand Junction", who had spent a great deal more than the "London & Birmingham" on promoting the line thought that they were about to be outsmarted and deprived of their just reward. The result was a brief courtship with the "Great Western Railway" and proposals for the broad gauge to reach northwards. A frightened "London & Birmingham" thought more deeply - and then together with the "Grand Junction" and the "Manchester & Birmingham" they bought out the

"Trent Valley" on 14th April, 1846 - the three Companies amalgamated on 16th July, 1846 to form the "London & North Western Railway" on terms favourable to the "Grand Junction". It had not been a clean race but the rightful winner had reached the true winning post.

The Prime Minister, Sir Robert Peel, cut the first sod for the new line on 13th November, 1845 at Camel Close, half a mile from Tamworth. The contractor for the entire line was Thomas Brassey and this was his first major association with Robert Stephenson - Brassey was to become a contractor of international stature with mutual respect between and a close working relationship with Stephenson, Locke, Brunel and other engineers; but on this occasion he was in association with a Mr Mackenzie and a Mr John Stephenson (no relation to Robert). A second contract, in 1847, for the stations along the line was awarded to Brassey alone. The lateness of the second contract demonstrates the relative importance of through to local traffic and the sincerity of promises to land owners about level crossings. Robert Stephenson was nominally in charge but Thomas Gooch (destined for fame on the GWR) and George Bidder were resident engineers. The smoothness with which the contracts were let and executed demonstrates how contracting had developed from the hit-and-miss of the "London & Birmingham Railway" into a precise and methodical business.

The date for opening the new line had been set for 26th June, 1847 when a cast iron bridge over the river Dee designed by Robert Stephenson had collapsed with loss of life to passengers. A public outcry had followed and Stephenson was implicated on a charge of criminal negligence. The use of cast iron was novel to this application and it does seem that intuition rather than experience, calculation or test played a large part in the design of the girders. The "Trent Valley Railway" had six cast iron

bridges of a similar but smaller type but in this case further intuition had increased the strength of the girders by 40% to 100%. Stephenson was cleared of criminal charges when Brunel blinded the Commission of Enquiry with science and supported Stephenson's honour. The Commission report "... behove the Company to traverse these bridges with caution, until the Commission, by its labours, shall have proved them free of hazard". The public opening of the line was delayed, but to demonstrate the complete confidence that the Company had in their engineer the official opening went ahead on the date that had been arranged.

The official opening ceremonies are reported in detail in the Rugby Advertiser of 3rd July, 1847. A special train, with Robert Stephenson aboard, arrived late at Rugby, from Euston Square, as a brand new locomotive had been allocated and a bearing had overheated. Trains from the "Midland Railway", with George Hudson and George Stephenson (Robert's father) aboard; and a train from Birmingham were waiting at Rugby and proceeded in convoy along the new line to Tamworth where trains from Liverpool and Manchester were waiting. The guests were welcomed by Sir Robert Peel; a dinner was "... served in a commodious tent near the station" and speeches heard by 1,300 persons. It was pronounced that the new line would "... diminish any impediment that might still exist to unite the peoples of this country in the bonds of good feelings with their neighbours". The speeches were very patriotic and are reported in detail in the Rugby Advertiser.

Meanwhile, the cast iron bridges that were under suspicion were being scrutinised both by the Company and by armchair engineers in letters to the Times. Heavy test trains were hauled over them at 60 miles per hour. A wood floor was laid below the ballast to

reduce the risk of the brittle cast iron failing due to a de-railed train. All fears were overcome. The bridges were all replaced when the line was widened.

The line was opened to general traffic by the "London & North Western Railway" on 30th November, 1847 using locomotives from their Northern (Crewe) Division. This involved considerable locomotive changing at Rugby. Initially there were seven trains each way each day with three each way on Sundays. The Royal Mail was carried along the line from the day after the opening and on the day upon which ^{the use of} Greenwich mean time became standard throughout the "London & North Western Railway": until then clocks in Rugby had been set to a true midday time by the sun; 4 minutes, 45 seconds behind Euston and 2 minutes, 30 seconds ahead of Birmingham.

The "Trent Valley Railway" brought true junction benefits to Rugby. The "Midland Railway" junction was always controlled remotely from Derby. New employment was created and a new class of worker evolved. It must have been very much like the arrival of a new international airport is to our present generation. The good and the evil of regular employment and shift working must have been debated much in the public houses. With little doubt the "Trent Valley" junction changed the fortunes of Rugby relative to its neighbours and with little doubt the distinct bend westwards in the "London & Birmingham Railway" enabled the junction to be made at Rugby.

Chapter 11.

THE MIDLAND COUNTIES RAILWAY AT RUGBY.

The "Midland Counties Railway" was the second railway to reach Rugby. It arrived from beyond Leicester, crossed the Leicester Road and River Avon on the eleven-arch viaduct and joined the "London & Birmingham Railway" where the latter, after arriving from London, swings sharply westwards towards Birmingham. In contrast to the "London & Birmingham" the "Midland Counties" was conceived to carry coal rather than to carry passengers and manufactured goods. Things went wrong in the course of its fulfilment and it did not serve either the intended destinations or the intended purpose. It is closed now; but it is not forgotten; because it was the "Midland Counties" that really put Rugby on the map.

The story of the "Midland Counties Railway" starts in the valley of the River Erewash, a small river flowing southwards from Pinxton in Nottinghamshire to join the River Trent near Long Eaton between Nottingham and Derby. The coalmasters of the Erewash Valley had a bitter rivalry with their opposite numbers of the Coalville area in Leicestershire. The advantage had swung several times from one party to the other and the "Midland Counties Railway" was the tool conceived to regain the advantage for the Erewash party.

The coalmasters of the Erewash Valley and Coalville both viewed the city of Leicester as a valuable market for their coal. A canal had been built from the Erewash, using the River Soar in part, to Leicester and with a branch canal, using inclined plateways or tramways in two places, crossing Charnwood Forest towards the Coalville mines. This nominally put the two parties onto equal footing until disaster struck after only one year of operation of the Charnwood Forest Canal, in 1799, when "a very deep snow-fall was followed by a rapid and disastrous thaw, the embankments of both the reservoir^{*} and the canal were broken down, and much

*rebuilt 1800 but dismantled 1804.

property was destroyed. The works were partially restored in 1800 but not put to use $\ll \ll$ and in 1838, an Act was obtained to authorise the abandonment of the line and the sale of the land". The advantage was then with the Erewash party. The Coalville party enlisted the support of George Stephenson, who took a very successful financial interest in a coalmine at Snibson, and the "Leicester & Swannington Railway" was opened on 17th July, 1832 -- retaining the advantage for Coalville.

Coal taken by the railway was now "less than 10/0d. per ton" and the Erewash party needed "a reduction of 3/6d. on every ton of coals delivered at Leicester". Attempts were made to reduce tolls on the canal, but a more radical solution was needed; so much so that a month later, on 16th August, 1832, a meeting at Eastwood resolved that "that there remains no other plan for their adoption than to attempt to lay a railway from these collieries to the town of Leicester". William Jessop, a one-time pupil of George Stephenson, was appointed to survey a line from Pinxton to Leicester.

Thus the first proposals for the railway that was eventually to make Rugby into the most important junction in the country did not even consider making a line further south than Leicester -- it was only to be, like the "Leicester & Swannington", a local affair. However, we must not forget that the "London & Birmingham" Act had been rejected by Parliament in July 1832, just prior to the decision to proceed with the "Midland Counties", and that the "London & Birmingham" Act was not secured until May 1833. The promoters of the new line were still pioneers in a new field of enterprise and it is no disgrace that their vision was restricted.

The contemporary transport situation was that for "haberdashery" from London to Leicester cost "£2-15-0d. a ton by canal; 5/0d. a hundredweight by waggon; and a penny a pound by coach". The equivalents per ton are 35 by waggon and £9-6-8d. by coach. Robert Stephenson in evidence before the House of Lords in June 1832

said that the coach time from Leicester to London was 11 hours and that this would be reduced to $6\frac{1}{2}$ hours when the rail connection from Rugby to London was available. The cost would be reduced from £2-2-0d. to £1-1-0d. at the same time. In fact, six years later, the first class rail fare from Rugby to London was £1-4-0d.

While Jessop was establishing contacts in London, prior to putting a Bill before Parliament for the Erewash Valley line, he met people who did have a greater vision, and he then advised, in early 1833, against making a premature proposal. George Rennie, also from the Stephenson school, was employed to assist Jessop, to confirm the initial plans, and to extend them to Rugby. The route was very easy from Pinxton to Leicester but thereafter, as the engineers reported, "the line from Leicester to Rugby, though passing through a more varied and irregular country", could be made without "any difficulty which could not be overcome at comparatively moderate cost". Revised plans were lodged with Parliament and the various local authorities in November 1833.

It was announced that the projected line was "intended to connect the towns of Leicester, Nottingham and Derby, with each other, and with London: a junction for the latter object being designed with the 'London & Birmingham Railway' near Rugby". It was also announced that "the works north of Leicester might, it was thought, be completed within two years from the passing of the Act, and the portion between Leicester and Rugby would be ready by the time the London and Birmingham line was opened".

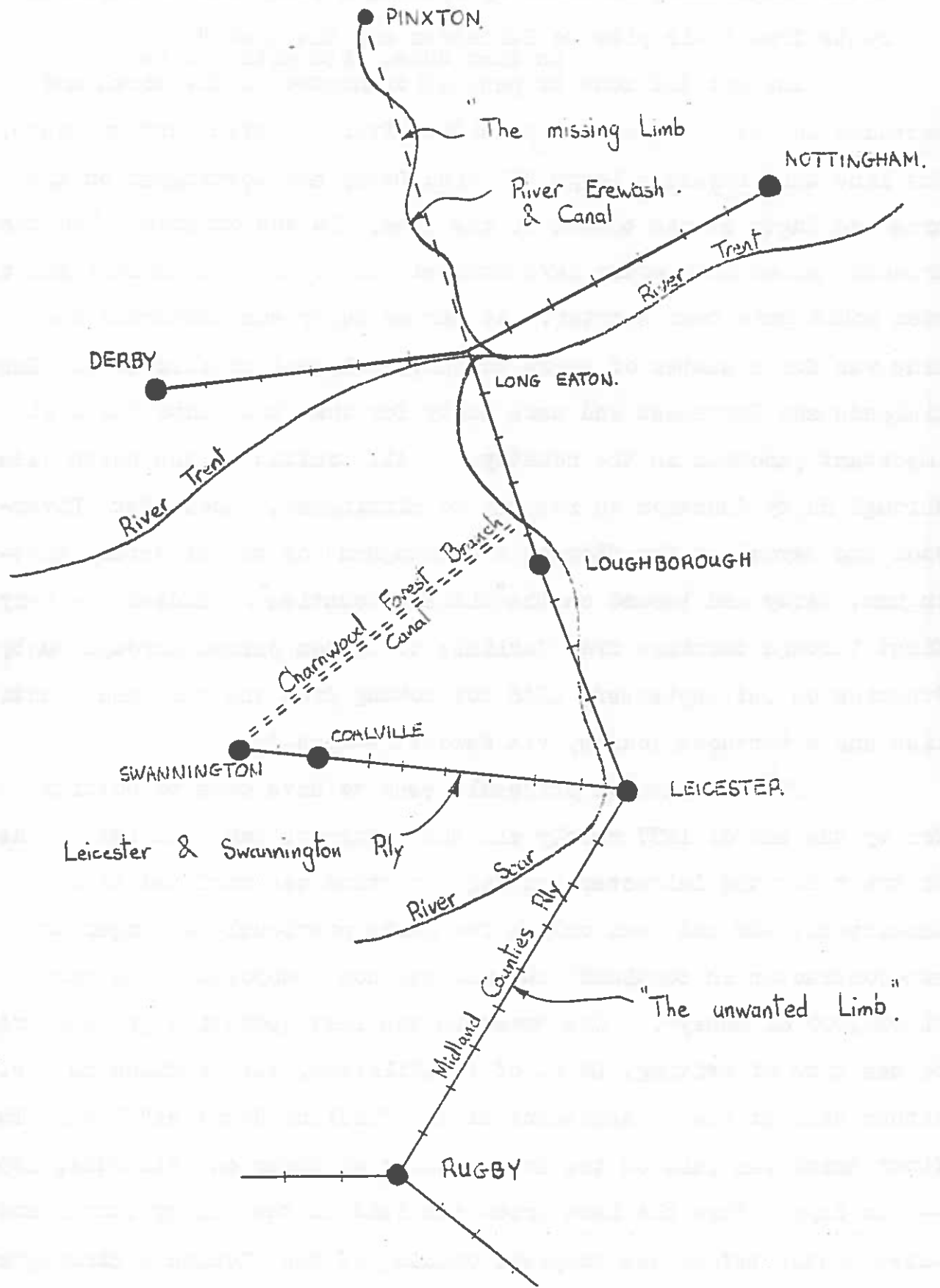
Financial preparations had been inadequate, however, and the subscribed shareholding was insufficient to justify the application. The plans were withdrawn and the project put into abeyance for another year. The year was not wasted; Charles Vignoles was now employed to prepare further plans for Parliamentary purposes "as though no other engineer had been engaged on it" and "to find out the very

best line to join the London and Birmingham Railway". His report in January 1836 made higher estimates for the line in general and recommended that "a tunnel, which it had been intended to make between Rugby and Leicester, should be avoided, and that other material improvements should be effected".

Meanwhile an important new twist for the possible future development of Rugby had emerged during November 1835. Northampton put a suggestion forward "to alter the course of the projected 'Midland Counties' line so that it pass through Northampton instead of Rugby". They undertook to raise the additional capital on behalf of the railway Company. Northampton lost again; they had, after initial opposition, realised the full implications and striven to have the "London & Birmingham" pass through Northampton. They were informed that all the plans and documents were prepared and that it was too late to contemplate a change. The Northampton lobby did not give up and had a clause added to the Parliamentary Bill preventing the start of the Rugby to Leicester section until further consideration had been given to the line via Northampton.

The next blow to the project is recorded by F.S. Williams thus:-

"The Midland Counties Bill survived the ordeal of the House of Commons, only, however, to encounter more searching hostility in 'another place'. The Erewash Valley projectors of the undertaking had, to their sorrow, to learn that for great coal-masters, as well as for common mortals, there is many a slip 'twixt the cup and the lip." Powerful foes were in the field. The Midland Counties line had been originated with the avowed intention of breaking up canal monopoly, and the local canal interests were not unready for any reprisal..... And thus it came to pass that the Midland Counties Bill became law minus the portion that was most dear to the hearts of the original projectors of the Company; minus that very part which they had fondly hoped would have restored



THE MIDLAND COUNTIES RAILWAY (Diagrammatic Only).

their languishing fortunes by opening a cheap and expeditious route from their pits to Leicester and the south".

on 21st June, 1836 with a line

The Act did come to pass {{{ truncated in the north and extended in the south with a possible diversion even further south. The line thus formed a large "Y" with Derby and Nottingham on the arms and Rugby at the bottom of the stem. In the original plan the Erewash Valley line would have changed the "Y" into a trident and the stem would have been shorter. As far as Rugby was concerned the line was for a number of years to carry all rail traffic to the East Midlands and Northeast and make Rugby for that time into the most important junction in the country. All traffic to the north came through Rugby Junction on its way to Birmingham, Manchester, Liverpool and beyond on the "London & Birmingham" or to Leicester, Nottingham, Derby and beyond on the "Midland Counties". Indeed the very first through carriage from Carlisle to London passed through Rugby Junction on 1st September, 1846 but coming from the "Midland Counties" line and a tortuous journey via Newcastle-upon-Tyne.

The Northampton proposals seem to have come to nothing for by the end of 1837 nearly all the contracts had been let. "The contract for the Leicester and Rugby portion was confided to Mr Mackintosh, who had been only a few years previously a ganger or sub-contractor in Scotland" but who was now "supposed to be worth £1,000,000 of money". The "now" in the last quotation probably refers to the time of writing, 1876, of F.S. Williams, the previous author, rather than at the commencement of the "Midland Counties" line. The first brick was laid on the Avon viaduct at Rugby on 13th June, 1838 -- six days before the last brick was laid in the Kilsby Tunnel and three months before the complete opening of the "London & Birmingham Railway".

The second Annual Meeting of the Company received a report including:-

"The cutting at Leire Hill, between Leicester and Rugby was the most serious earthwork on the line and here, to facilitate his operations, the contractor had erected a steam engine, and had made an inclined plane from the cutting to an embankment where the material was to be deposited, the plane descending in the direction of the embankment, at an angle just sufficient to enable the waggons to run down with their burdens to the plane of their destination. The empties were drawn back by an engine. The building of the Avon Viaduct, consisting of eleven arches of fifty feet span, had been commenced, and, despite unusual delays, arising from the severity of the weather in the early part of the year, would, it was anticipated, be completed by the winter".

The "London & Birmingham" station was just off the Newbold Road and on an embankment; it was not possible to make the junction with the "Midland Counties" so that this station could be retained. A completely new site was chosen about half a mile to the east (directly at the bottom of what is now Railway Terrace but for a while was Station Road) where there was neither cutting nor embankment. Railway Terrace was built to provide access to the new station and was fenced on either side with sleepers (these must have been from the contractor's 'temporary way' as opposed to the 'permanent way' where they were not yet likely to be lifetime expired) such as to make it "about a mile long, and it is very much like a tunnel with the top off. The only thing you see in it is dust which is never out of your eyes". Other contemporary correspondence in the Rugby Advertiser indicates that it was a mud-bath when it was not a dust-bowl. Railway Terrace remained railway property until the end of the century and the sleepers were not replaced by an iron fence until 1891. Unfortunately very little is known about the station itself -- it lasted for only two years before it was rebuilt.

It was built entirely at the cost of the Midland Company and it is not certain when the "London & Birmingham" started using it. The "Midland Counties" opened the section of their line northwards from Rugby on 30th June, 1840 and southwards towards Rugby on the following day using a temporary terminus at Rugby Wharf.

If the "Midland Counties" had not initially wanted a connection to London they certainly knew, when the line opened, where their future lay. Their first problem was an intense price-cutting war with the "Birmingham & Derby Junction Railway" for the traffic between London and Derby. The other Company had, on 12th August, 1839, almost a year before the "Midland Counties" line was opened to Rugby, deviously opened a line from Derby to a junction with the "London & Birmingham" at Hampton-in-Arden. The "Midland Counties" line was some ten miles shorter but even so they had to fight tooth and nail for the traffic. Prices were cut well below cost and a legal battle was entered into. The merger of the two Companies into the "Midland Railway", on 10th May, 1844, resolved the issue in favour of the direct line to Rugby.

Traffic did not establish itself as quickly on the "Midland Counties" as it had on the "London & Birmingham" and the first dividend was only 4% compared to 10% on the "London & Birmingham". Some of the canals had started with much higher dividends, often rising to 50%, and on the Oxford Canal holding at 26% even after 10 years of competition with the railways. The line, unlike the "London & Birmingham" had been built within the estimates but extra money had to be raised immediately for remedial work. The lack of instant success was clearly due to the line being conceived to carry coal from the Erewash Valley, but not reaching the Erewash Valley, and having to fight for passenger trade to a destination that it had not been intended to reach. An extension of the line was opened into the Erewash Valley was opened in 1847 -- but by this time

the canal had cut its prices to maintain trade anyway. The "Leicester & Swannington", the original reason for the "Midland Counties" being conceived, was also absorbed into the "Midland Railway", in 1845, and coal traffic was allowed southwards from it over the "Midland Counties" lines to Rugby and southwards.

The carriage of coal traffic underlines the different outlooks of the promoters of the "Midland" lines and the "London & Birmingham". The arrival of the first consignment of coal took the "London & Birmingham" by surprise, and even with disgust, so that one indignant official was impelled to comment that they would be asked to carry dung next. George Stephenson is alleged to have replied that when that official travelled by rail then the Company did carry dung. Reluctantly the "London & Birmingham" began to accept coal traffic -- provided that it was covered by tarpaulins. The first consignment was not despatched until July 1845 and was destined only as far as Welton. The "Midland Railway" established a coal wharf at Rugby to permit local distribution by canal.

Chapter 12.

THE MIDLAND RAILWAY AND RUGBY.

The "Midland Railway" was born on 10th May, 1844 by amalgamation of the "North Midland", "Midland Counties" and "Birmingham & Derby Junction" railways. "The Leicester & Swannington" joined a little later. Other lines were absorbed and from these local railways emerged a major national railway. But major national railways must have their own main line and capital was being poured into this long after other main lines were well established. The "Midland", like the "Midland Counties", was beset by troubles from the outset like the original hard luck story. It quickly went into a self-inflicted financial crisis which was followed by the heavy capital expenditure over several decades and an inexplicable failure to snatch the glamour from the "London & North Western" in spite of technical achievements and developments second to none. Rugby was its all important southern extreme for many years and the junction there was the busiest in the country. The junction, as an outpost of the "Midland" system, was operated by 'remote control' from Derby so that it did not have the same influence on the development of Rugby that the "Trent Valley" junction had. The "Midland", which had nevertheless put Rugby on the national map, was reduced to a branch line at Rugby when its own main line was completed to London.

The "Midland", like the individual companies from which it was formed, fought to survive in its first years and in a strange and temporary alliance with the "London & North Western" successfully opposed, in 1846, proposals for an East Coast route to the north. This secured for Rugby a temporary reprieve for its status as the junction for the north of England and Scotland. After struggling from crisis to crisis it seemed that a saviour had been found in a new Chairman -- tycoon George Hudson, 'the Railway King'. Hudson,

however, overplayed his financial hand and charged certain running expenses to the capital account. His exposure, in 1849, when it seemed that everything that could hit the "Midland" had already done so, precipitated a financial crisis that rocked the Company, the nation's financial institutions, and the nation's confidence in railway investment. The 'railway mania' was over. The ensuing crisis affected Rugby with the dismissal of a driver, a fireman, two fitters and two cleaners, and also the cancellation of plans to enlarge the turntable by four feet.

If we now turn from looking at how national events in the "Midland" affected Rugby and consider how Rugby affected the "Midland" we learn that congestion on the new railways soon became chronic; delays on the "London & Birmingham" being the worst because it carried such a lot more traffic. F.S. Williams records the situation as:-

"Many complaints had been made that the only access for "Midland" passengers to London was by the circuitous and uncertain route of Rugby -- uncertain because the arrangements for the meeting of trains so frequently broke down. One gentleman, for instance, declared at a public meeting at Leicester that he had three times in succession been detained three hours at Rugby; and it was declared that many persons 'hated the name of Rugby'."

Later than this, and indicating that the "London & Birmingham" (which had by then become the "London & North Western Railway") had overcome their reservations about undignified coal traffic, Williams also reports:-

"In fact, in 1862, the "Midland" Company paid the..... "London and North Western" no less than £193,000 for traffic by Rugby; and such was the overcrowded state of that company's line, that, though they had laid a third pair of rails for fifty miles for the up trains, from Eretchley to London,

they were unable to accomodate the traffic. On one occasion they suddenly gave notice that they could not convey the mineral traffic from the "Midland" system: and the coal trains accumulated at Rugby till they were five miles long, to the infinite annoyance of the sellers in the field, and the buyers in London who were depending on the arrival of the coal for the supply of their customers. The embarrassment of the "Midland" Company, too, may be imagined when they received such messages as, --"Stop all coals from Butterley Colliery for Acton, Hammersmith, and New, for three days, as Willesden sidings are blocked up." "The 'North London' are blocked with Poplar coals for all dealers, Camden cannot receive any more from Poplar." "You must stop the whole till London is clear." "Rugby is blocked so as not to be able to shunt any more." Camden and the 'North London' are blocked with coals."

The up trains (to London) were heavy and slow but the down line coal trains were empty and could clear more quickly.

It is not surprising that the "Midland" looked for alternative routes south. An Act was obtained on 9th July, 1847 for a line from Leicester to Hitchin on the "Great Northern Railway". The chosen 'host' line was itself crowded at the southern end and was lukewarm to the proposals being foisted upon it. The Act was relinquished three years later and, in 1852, a brief courtship followed with both the "Great Northern" and the "London & North Western" during which amalgamations were discussed. These came to nothing and the Hitchin proposals were revived by an Act of 4th August 1853 and the new line opened on 8th May, 1856, with running powers into London.

The route mileage from Leicester to London was the same on the new route as the old. There was, however, far more traffic than could be handled by only two routes into London. The established

route via Rugby was considered to be the lesser of two evils and in 1862 80% of the "Midland" traffic to London still passed along it. On 1st October, 1868, the "Midland Railway" opened their own route to London and a new main line terminal at St Pancras.

Immediately the status of the ex-"Midland Counties" line between Rugby and Leicester fell to that of a country branch line.

Towards the end of the nineteenth century the line was offered to the "Manchester Sheffield & Lincolnshire" ("Great Central") for their London extension. The offer was declined; partly through pride as the new line was to embody all that had been learnt in seventy years of railway engineering and to use part of one of the very earliest railways would hardly have created the desired image; and partly because the connections at Rugby, on the level, would have created operating difficulties or expensive flyovers. It is hard to imagine them more expensive than the massive works that were built for the "Manchester Sheffield and Lincolnshire" a short while later.

Major repairs were completed to the Avon viaduct in September 1929. Passenger traffic, and goods facilities from Leicester to Rugby Wharf, were withdrawn on 1st January, 1962.* The rails were lifted the same year. Indignity followed: the cutting at Newbold being filled by a domestic refuse tip between the years 1969 to 1971.

We can but speculate on what might have been the fate of the "Midland" line if either the "Manchester Sheffield and Lincolnshire" offer had been taken up or the closure had been delayed until the decision to close the "Great Central" had been taken. Perhaps today we would still have a railway, electrified even, from Rugby to Leicester! Rugby would have had a great asset.

*The last train, a special with 200 enthusiasts aboard, was on Saturday 30th December, 1961.

Chapter 13.THE LONDON & NORTH WESTERN RAILWAY AT RUGBY.

The stories of most of the railways in this account begin with dreamers turning their schemes firstly into plans to obtain financial and Parliamentary backing; and secondly into the reality of tunnels, embankments, stations and rolling stock to change the way of life of whole communities and of families. The "London & North Western Railway", however, came about by amalgamation of existing railways in circumstances already related and about which the principals could not have been proud -- in the way that the entrepreneurs of the "London & Birmingham" before them could have been. However, the "London & North Western" dominated the railway scene in Rugby from 1846 to 1923 -- the longest and most stable period of railway life in the town.

Firstly we shall recall the principal dates and local protagonists:-

<u>Railway</u>	<u>Date of Act.</u>	<u>Date Opened.</u>
London & Birmingham	3rd May, 1833	17th September, 1838
Trent Valley	21st July, 1845	30th November, 1847
Rugby & Market Harborough	18th June, 1846	27th April, 1850
Rugby & Leamington	13th Aug, 1846	1st March, 1851
(Midland Railway	10th May, 1844	Amalgamation)
London & North Western	16th July, 1846	Amalgamation.

The principal constituent companies of the "London & North Western" had already been subject to preliminary mergers and absorptions and were:-

The London & Birmingham

The Grand Junction (including the Liverpool & Manchester)

The Manchester & Birmingham

The nearly complete "Trent Valley" was already jointly owned by the "Grand Junction" and the "London & Birmingham"; while the latter was itself promoting the "Rugby & Market Harborough" and was encouraging

the "Rugby & Leamington" with view to taking it over when the Act was achieved. The scene was certainly ^{to become} tidier as far as the names of companies was concerned.

The first event of significance was the official opening of the "Trent Valley" on 3rd July, 1847 and in practice, due to problems with cast iron bridges, on 30th November, 1847. The following day the use of Greenwich Mean Time became standard throughout the "London & North Western" system instead of local time at each longitude -- midday thus became later as one travelled westwards. The traveller had to put his watch 4 minutes 45 seconds back when going to Euston or 2 minutes 30 seconds forward when going to Birmingham. Another change of significance was in the Rule Book, Section IX, "Regulations for Policemen and Pointsmen" which gained an addendum to Rule 9:-

"NOTE: The Trent Valley is henceforth to be considered the MAIN Line, and the Rugby & Birmingham the Branch."

The Rule Book, Section IV, "Regulations for Enginemen", Rule 60 read:-

"60. Enginemen proceeding to the Trent Valley Line are to open their Whistles once when they arrive within a quarter of a mile of the Junctions at Stafford and Rugby, motion with their hand, or hand-lamp, as a signal to the man at the Junction Points and must invariably slacken speed to FIVE miles an hour. Engines to or from Birmingham are to give TWO CLEAR WHISTLES, with an interval between them, on approaching the Junctions. The slackening of speed is especially enjoined on the Enginemen from Birmingham in case a Train to or from the Trent Valley being in the act of crossing."

For the next forty years until the construction of the Northampton Loop there was almost continually some work in hand on widening, doubling tracks, adding sidings and passing loops and adapting station buildings. The "London & North Western" was an increasingly important public corporation in the life of the nation

and built up an image on the assumed title "The Premier Line". Public corporations such as the "London & North Western" were still comparative rarities and were distinguished by a Parliamentary requirement that obliged them to prove that there would be a resultant good to the nation as a whole, in addition to the financial gain to the promoters; and in return accepting the right within Acts of Parliament to compulsorily purchase land it needed.

The early authoritarian attitude of the "London & North Western" is shown in an incident in 1850 when it had a dispute with the newly formed Rugby Local Board of Health. The railway company, without prior announcement or consultation built the first "wooden bridge" over their lines for the footpath to Brownsover Hall at the bottom of what is now Park Road. The dignity and feelings of the Local Board of Health were wounded and they felt obliged to take a stance and to establish their status for all time. Until this time the footpath had crossed the "London & North Western" on the level and then went under the "Midland" lines in a short tunnel. (Readers are asked to try to picture the scene as it was then with separate embankments each of which had only two pairs of lines.) Numerous accidents had occurred and when in 1850 the "London & North Western" were adding three more pairs of lines they erected the footbridge over their lines at a princely sum of £260 and of a design that left much to be desired -- there were large gaps between the footboards and very steep steps. The Local Board of Health objected on the grounds that the bridge was inconvenient and that it violated a right of way. The matter was taken to the Coventry Assizes in August 1850 on the point of whether the Act of 1849 setting up the Local Board of Health superseded the Act of 1848 permitting the railway to build the new sidings. The railway won; but conceded that it must improve the bridge. The reports of the incident note that there were 200 train movements each day.

The Rugby Advertiser of 30th March, 1850 reached the following conclusion over the incident:- ^{the interpretation of which is left to the reader:-}

"We cannot say what Rugby would be without the railway.

Neither can we tell what the railway would be without the towns through which it passes, but we suppose mutually injurious or beneficial to each other".

The Rugby Advertiser of 19th June, 1851 reports the improvements to widen the bridge from five to six feet and to put ramps in place of the steps:-

"The bridge is now more pleasing to the eye; has a gentle and easy ascent instead of an abrupt rise of steps and if the bridge were now continued over the Midland Railway, so as to avoid the rabbit-hole to Brownsunder a great bore will be done away with" (the underlined words were italics in the original script).

We also have reports of "layabouts" causing an obstruction by watching trains from the footbridge!

A new bridge (the present 1981 structure except that part of it was raised ready to provide clearance for electrification in 1964) was opened on 24th October, 1875 and is to this day known as "the wooden bridge". The reports of the opening refer to the old footbridge as having been built piecemeal as the lines were widened and that it retained traces of its origin by being "as straggling, ugly and inconvenient a structure as could be imagined". It had been replaced by "a neat and substantial structure that reflects great credit ..." on all concerned. During the electrification work part of the old tunnel was found to be still intact and in good condition.

It is quite likely that the lazy "layabouts" who obstructed the footbridge were looking for the vermilion red locomotives of the "London & North Western" Southern Division based at Wolverton and the dark green locomotives of the Northern Division based at Crewe.

Rugby was the changeover point for traffic from the Trent Valley line and as the station was then closer to the footbridge, and the view not obscured by electrification equipment, a particularly good view should have been obtained. The locomotives of the "Midland" were red (crimson lake) coloured and they too had to changeover at Rugby for "London & North Western" locomotives. (The latter were standardised in 1873 to "black with a hint of red" or "blackberry".) The "layabouts" on the footbridge would also have seen a variety of rolling stock -- all four-wheeled at that time; the passenger stock of the "London & North Western" being white above their "waist" level and "rich sepia brown with a hint of purple" below this line, that of the "Midland" being crimson lake with green^{*} locomotives. Through carriages from other companies would regularly be seen and would have added to the spectacle of colour. The variety of goods and coal waggons was even more diverse in colour, quality, road-worthiness and design than the passenger stock -- and frequent derailments would add greatly to the interest from the footbridge. ("Layabouts" indeed!) Shunting and the frequent removal of defective stock (with over-hot bearings the most common cause) was achieved in the station by the use of small turntables pushed round by hand so that by the use of a pair of these, and a short set of rails at right angles to the running rails, a coach or waggon could be speedily transferred to the parallel set of tracks and removed or replaced in the middle of a train.

The "Midland Counties" probably had an engine shed on "their" side of the railway from its opening and the "Trent Valley" had a small shed just west of the "wooden bridge" (location 5 on the plan on page 123); the first engine shed proper was an integral part of the second station (see the plan on page 165). H.Lodge recorded in 1908:-

".... in 1851 a second shed, to hold 25 engines was built on the site now occupied by the waggon repair shops (location 4 on the plan on page 123 near the gas works. This was no doubt

* See page 205 for further details..

enlarged when necessary and the sheds remained here until the present one (location 20 on page 123) for 125 engines was opened in 1878."

The Rugby Advertiser of 19th July, 1851 describes the second shed as a gigantic building with separate compartments for each locomotive.

H.Lodge further records that:-

"... the shunting yard was probably commenced about 1850 and has gradually grown since. For some years before the present station was erected the up goods were dealt with at what was known as South Bridge. This was an over-bridge close to where the Great Central viaduct now crosses, and at the time of the alterations to the station all rights to it were bought by the company and it was demolished."

The Rugby Advertiser of 12th June, 1875 reported in a leading article that work was now in hand levelling an area for a new (ie the third) engine shed and erecting shop. Earth from the Spoil Bank was being used and the spade and barrow work is described. The contractor was Mr Mead of Leighton Buzzard; who was also the plate-laying contractor between Bletchley and Rugby. Over £1,200 was reported as being paid weekly in wages at Rugby Station.

The opening of the third shed is fully reported in the Rugby Advertiser of 2nd March, 1878. It comprised two very spacious buildings, the roof of each being supported by 5 rows of iron columns with 17 columns in each row -- the columns being hollow to act as water spouts. The roof pitches were slated on one side and glazed on the other. The sheds had 12 sets of rails; each set of which could house 5 engines making 60 engines per shed. A "great improvement" over the old sheds was an inverted wooden trough over the rails to conduct smoke away. Each set of rails was equipped with full length inspection pits and cleaning facilities. Other facilities included extensive use of gas lights for night work, a

high pressure water distribution system for cleaning, and a furnace to dry sand for sanding greasy rails -- this eliminated the need for an unofficial and dangerous practice of drying sand in locomotive smoke boxes.

"Between the two sheds is an open space^{*}, down which three lines of rails run into the fitting shop. This is a lofty building at the north-west end of the sheds, about 120 feet long and 40 feet wide, where such repairs as cannot be done while an engine is standing in the sheds, are effected. The outside lines are used for engines, the centre rails for running wheels on. Overhead is a travelling crab, of a very powerful description, worked by two men, the transverse beams of which run on wheels, on the side walls, and it is, therefore, capable of traversing from end to end ... The facility with which it can be worked is remarkable; an engine is brought in, and after the various connection (rods), bolts &c., have been removed, it can be lifted and propped up, clear of the wheels in about twenty minutes."

Wheel turning seems to have been a forte -- all the machines and the fan for the forge were driven from a single shaft by a stationary vertical engine. Water was provided for the entire complex from a large open reservoir taking rainwater via culverts from the new buildings and supplying it via three "throw pumps" also driven by the stationary engine -- the rainfall was sufficient to supply all the water needed without supplement from the pumping engine at the Old Station. A new coaling stage was provided 200 yards south of the sheds. About 110 engines were reported to be stabled at Rugby and 500 persons employed in the sheds requiring £650 each week in wages.

A further facility was provided, but this time to cater for the human element; it was an Enginemans' Lodging House for the crews who found themselves in Rugby at the end of their shift.

^{*}There is no evidence of this on later maps.

"It is three storeys high, and the outside walls are about 16 inches thick, and built hollow, so as to admit of a current of air passing all round, and into the various rooms, by means of air-grates."

It had messing and drying facilities, a matron's apartment, 21 small separate sleeping rooms on the first floor and 42 on the second. It had entry to the first floor by a ramp and was lit by gas.

The Rugby Advertiser of 2nd November, 1878 reports that annoyance was being caused by engines signalling which siding in the shed they wanted by codes on their whistles. Suggestions were made for an "electric system with one of the poles of the battery taken to earth".

The "fitting shop" graduated to "repairing shops" and "erecting shops" and as a branch of Crewe Works relieved the pressure of work at Crewe. The Rugby Advertiser of 5th November, 1892 records:-

"The New Repairing Shops - The extensive London & North-Western repairing shops at Rugby have been opened during the past week, and already 30 men, including joiners, fitters and millwrights, have commenced work, but operations will not be in full swing for about a month, when no fewer than a hundred men will have been drafted here, mainly from Crewe. In addition to the powerful gas engine and the two travelling cranes, there are in the workshops a dozen machines of various kinds".

Lodge's article in 1908 also records:-

"There are between 1300 and 1350 persons employed by the L & NW Railway at Rugby. Towards this total the loco sheds contribute 570 and the erecting shops 112".

Correspondence following the publication of Lodge's article on 26th December, 1908, confirmed the figures for the numbers employed and revealed that at that time the number of engines stabled at Rugby fluctuated between 90 and 100 and that typical

"turns" or diagrams of duty for locomotives were 685 miles three times a week: "some of the best figures on the L & NW Railway".

Writing of the 1950's Mr P. Weston states:-

"Rugby shed[†] itself comprises two bays; of which shed 1 with 12 roads is the running shed while shed 2 with 11 roads is for light repairs. There are two wheel drops and a Keystone sand drier and a 55,000 gallon water tank that supplies the shed with the necessary. In the commodious yard is a coaling plant with two 150 ton bunkers, one for passenger and one for freight which usually contains some briquettes, a 60,000 gallon water tank and a locomotive weighbridge; as well as the usual ash-pits; whilst at the yard entrance, through the "Great Central" bridge is a 60 ft turntable.

To the north of the running shed, and at a lower level, is the locomotive repair shop (often referred to locally as the Erecting Shop - PHE) for intermediate repairs only, of which about two per week are turned out. The largest engines tackled are Class 5MT 4-6-0's and Class 8 2-8-0's and many ex-LNWR 0-8-0's are repaired here. There is a provision for wheel skimming but no new tyres are fitted and apart from that most repairs can be effected with the exception of changing boilers which is classed as a major repair."

Until the year 1888, apart from a short spell in 1846, all trains stopped at Rugby for inspection and taking on water or changing locomotives. The installation of water troughs in lxxx* at Newbold reduced the need for locomotives to stop at Rugby and thus permitted more non-stop runs. 1888 was also the year that the "London & North Western" locomotive stock became common user and drivers ceased to have their "own" locomotive: it was also the year that the company started using the "fail safe" vacuum brake.

Lodge also records that the number of passenger trains per day (all routes and both directions) through Rugby rose from 14 in

* between 1857 and 1888. † The sheds were re-roofed in 1955.

1839, 60 in 1846, 120 in 1881, 154 in 1890 and 210 in 1908; of which 40 did not stop. The best time to London in 1908 was 95 minutes.

One of the topographical features bequeathed by the "London & North Western" to Rugby was an enormous signal gantry just on the London side of the "Great Central" viaduct. It is variously reported as the largest or second largest such gantry in the country - the rival being at York and it being difficult to compare structures of different shapes ! It was certainly huge; it was built and maintained at the expense of the "Great Central" as part of the wayleave agreement when the latter's new girder viaduct in 1897 would have made a confused background to the existing signals. The whole gantry was duplicated so that the upper set of signal arms or "dolls" were seen against a sky background above the new viaduct. It was built at Crewe in 1896, it had forty four arms, was 60ft 3 inches high and of overall width 86ft 3 inches. It was replaced by electric colour light signalling in 1939, dismantled and rebuilt into four separate gantries at Newbold, Rochdale West, Beeston South and Brewery Sidings.

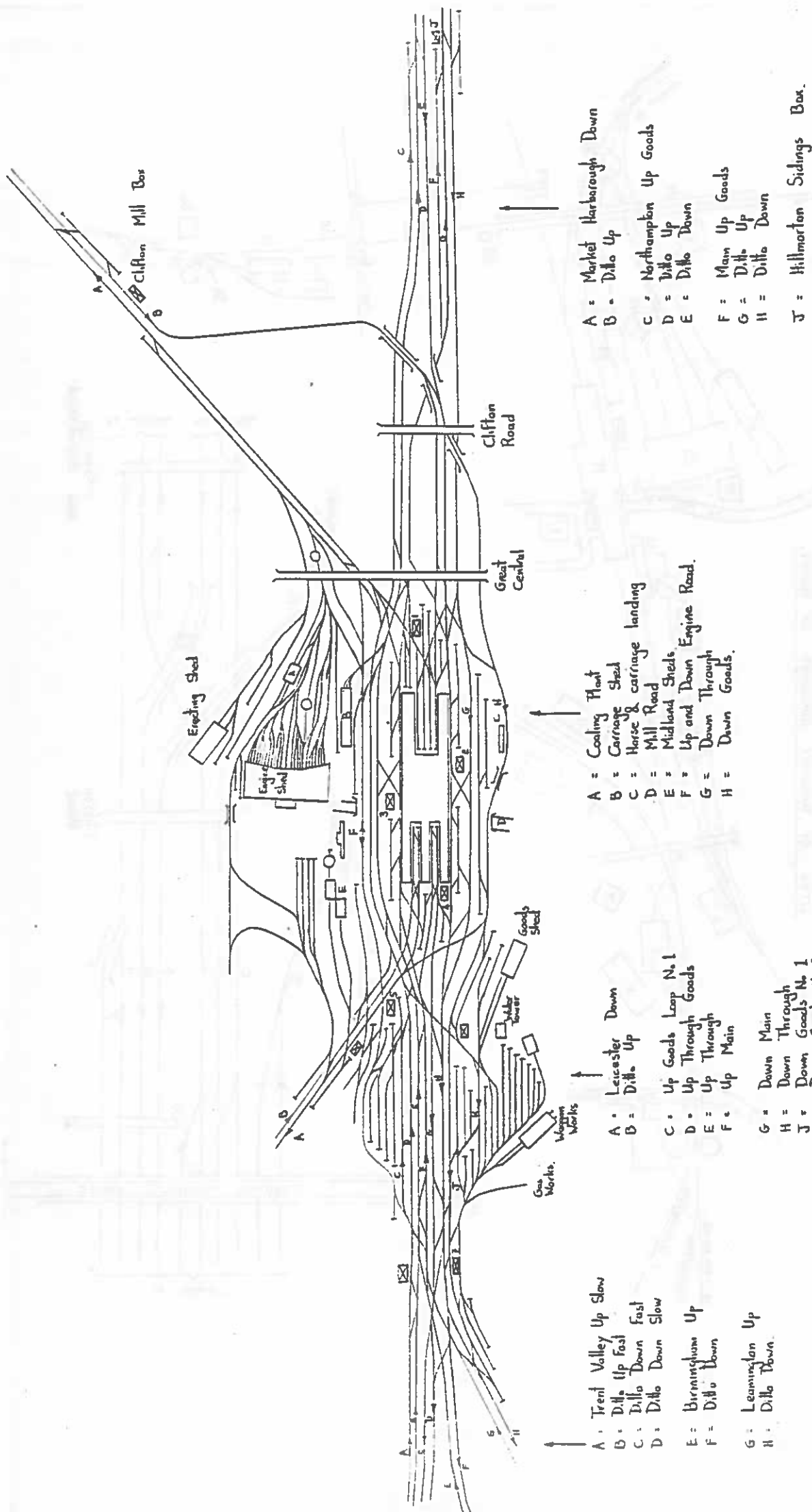
Topographical features and even delays in waiting rooms have contributed to Rugby's railway image, but mercifully major accidents have not. "Minor" accidents were a way of life and the Rugby Advertiser regularly reported horrific details of accidents to railwaymen in the course of their duties. The "London & North Western" frequently had to put on special trains to rush the unfortunate victims to better facilities at Coventry and Birmingham. One of the most spectacular accidents occurred on 5th April, 1856 when, according to a manuscript extract of the Telegraph Office Log Book:-

"a boiler of a locomotive burst at Rugby engine shed, causing great alarm for upwards of eight miles around - the inhabitants of Lutterworth taking it for an earthquake. Mr J.E.M. Connell, Loco. Supt. of the LNWR stated that the engine was made to stand a pressure of 100 lbs to the square inch, but

judging by the screws it had been screwed down to a pressure of 200 lbs at least, how much more he could not say. An engine cleaner was killed, his brains had been dashed completely out, and the top of his head nearly severed. The engine was completely destroyed, one piece weighing upwards of 3 cwt was carried more than 200 yards, and a piece weighing 10 cwt was cast 150 yards".

Some of the events in the story of the "London & North Western" are told as chapters in their own right elsewhere in this account and a cross reference to them here is needed for completeness but will avoid duplication. The opening of the "Trent Valley" in 1847 has been referred to earlier. The opening of the "Midland's" new route to St Pancras in 1868 and the temporary relief that this brought to the congestion south of Rugby is told earlier. The effective doubling of track capacity between Rugby and Euston was completed in 1881 (a hundred years ago to the day as these present words are being written) by the opening of the Northampton Loop. The flying junctions south of Rugby are described in the story of the Northampton Loop although they were only announced at the time of the opening of the loop and are contractually associated with the third station (the present one) opened in 1885 --- the stories of all these follow.

An era came to an end on 1st January, 1923 when under the provisions of the Railway Act 1921, following wartime control of the railways by the Government, the Premier Line was "grouped" with its rival, the "Midland Railway" and with numerous other companies to form the "London, Midland and Scottish Railway". This had little effect upon Rugby but is the closing point of this chapter.



- A = Market Harborough Down
- B = Ditto Up
- C = Northampton Up Goods
- D = Ditto Up
- E = Ditto Down
- F = Main Up Goods
- G = Ditto Up
- H = Ditto Down
- J = Hillmorton Sidings Box.

- A = Cooling Flant
- B = Carrage Shed
- C = Horse & carriage landing
- D = Mill Road
- E = Midland Sheds
- F = Up and Down Engine Road.
- G = Down Through
- H = Down Goods.

- A = Leicester Down
- B = Ditto Up
- C = Up Goods Loop No. 1
- D = Up Through Goods
- E = Up Through
- F = Up Main
- G = Down Main
- H = Down Through
- J = Down Goods No. 1
- K = Down Goods No. 2.

- A = Trent Valley Up Slow
- B = Ditto Up Fast
- C = Ditto Down Fast
- D = Ditto Down Slow
- E = Birmingham Up
- F = Ditto Down
- G = Leamington Up
- H = Ditto Down

SKETCH PLAN SHOWING THE EXTENT OF THE RAILWAY INSTALLATION AT RUGBY.

Not to scale. Re-drawn from various sources. Siding detail shown in principle only.

NOTE: Details were changing constantly.

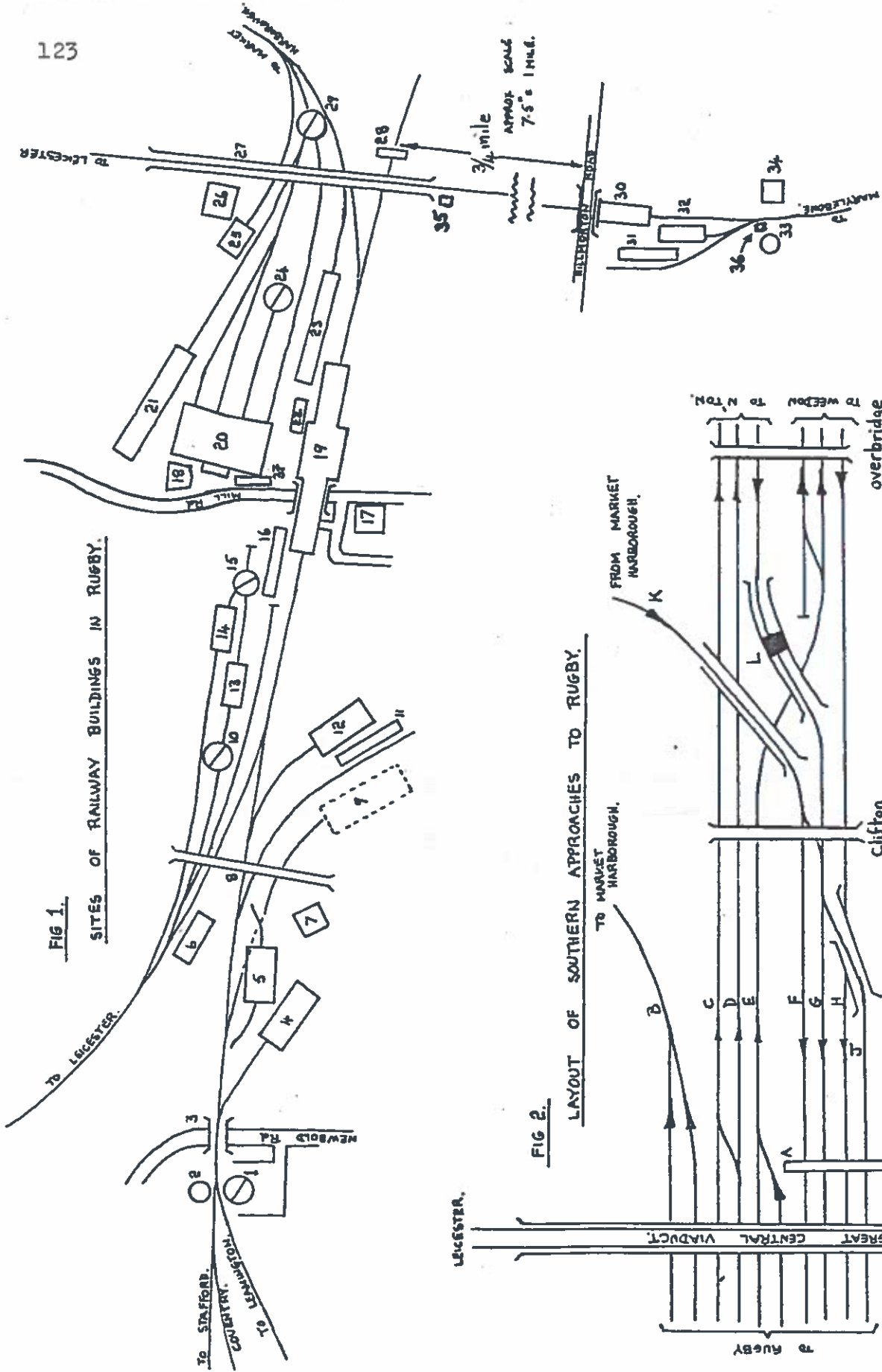


FIG. 1.
SITES OF RAILWAY BUILDINGS IN RUGBY.

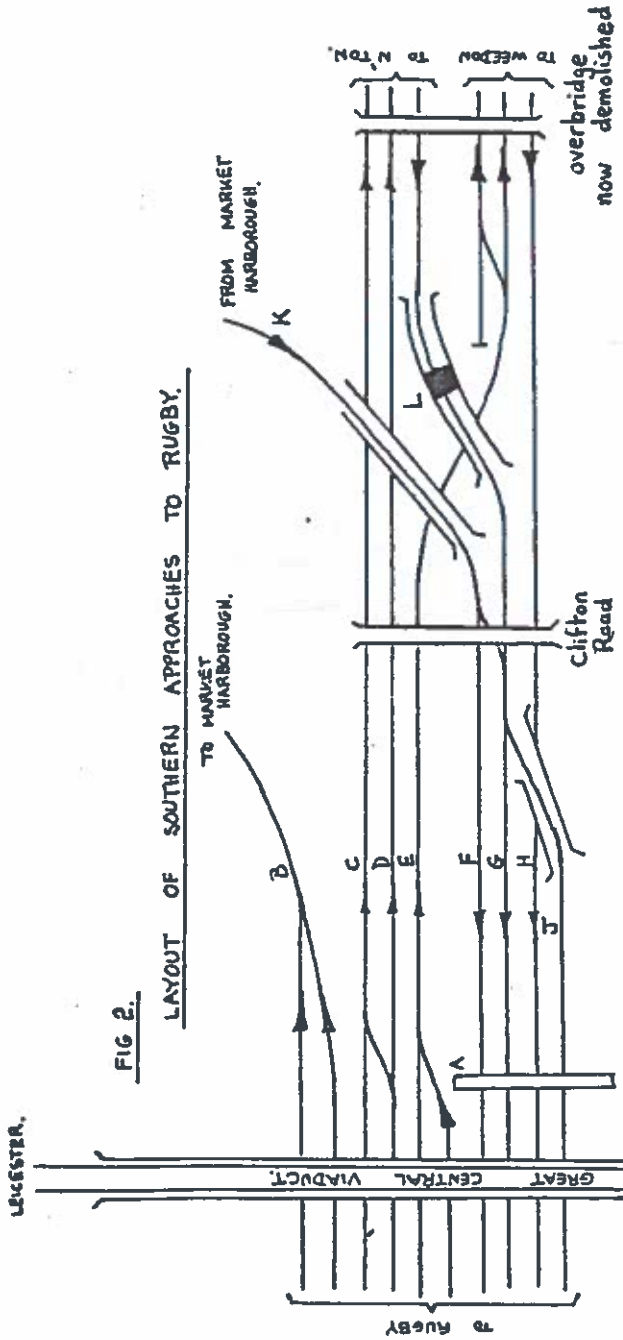


FIG. 2.
LAYOUT OF SOUTHERN APPROACHES TO RUGBY.

1. Site of first station 1838-40. Site of turntable.
2. Site of LNW water works and pumping engine.
3. Newbold Road bridge.
4. Waggon repair sheds. Site of second engine shed for 25 engines
5. Site of first engine shed.
6. Site of waggon repair shops
7. Site of water tank.
8. Footbridge to Brownsover - the "wooden bridge".
9. Goods yard.
10. Site of turntable.
11. Cattle pens.
12. LNW Rly Goods Shed (opened 1881).
13. Site of Midland engine shed shown on maps of 1889 to 1925 but
14. Ditto. not 1939.
15. Site of turntable.
16. Site of buildings remaining from second station until 1966.
17. Site of Post Office Sorting Office on 1914 map.
18. Site of Reservoir.
19. Third station (opened 1885).
20. Site of "third" engine sheds.
21. Site of Erecting Sheds opened 1892 - rebuilt as District Electric
22. Site of horse dock. Depot 1966.
23. Site of carriage sheds.
24. Site of turntable.
25. Site of engine shed.
26. Locomotive Testing Station (opened 1948).
27. Great Central viaduct.
28. Site of "Rugby Bedstead" signal gantry.
29. Site of turntable.
30. Rugby Central Station (opened 1898, closed to through traffic
31. Site of G.C. cattle pens. 1966).
32. G.C. Goods Shed.
33. G.C. Reservoir.
34. Ditto.
35. Site of G.C. cattle dock.
36. Site of G.C. pumping station.
37. Site of Enginemens' Lodging House.

LAYOUT OF SOUTHERN APPROACHES TO RUGBY.

- A. Signal gantry.
- B. Down Market Harborough.
- C. Up Northampton Goods.
- D. Up Northampton.
- E. Up Main.
- F. Up Market Harborough.
- G. Down Northampton.
- H. Down Main.
- J. Down Goods.
- K. Up Market Harborough.
- L. Clifton Road Junction Signal Box. (closed 1939 when colour
light signalling was installed).

Chapter 14.

THE NORTHAMPTON LOOP.

Northampton has been exceptionally unlucky as far as its railway connections are concerned. The "London & Birmingham" could not, for geographical reasons, pass via the town; and the "Midland Counties" decided not to do so and instead to take the cheapest route from Leicester to the existing "London & Birmingham" line at Rugby. Northampton had a branch from the "London & Birmingham" main line at Elisworth from very early days -- but a branch is always a branch and by definition does not provide main line services. This situation was remedied by the building of a loop line from the main line at Roade, via Northampton, to rejoin the main line at Rugby. The loop was part of a more comprehensive project including the quadrupling of track capacity between Eetchley and Rugby and the concept of a loop line gave two additional advantages: it provided Northampton with a better service and it avoided the need to double the Kilsby Tunnel.

The construction of the line caused little comment at the time, probably because it was, in the eyes of Rugby, an internal "London & North Western" affair to increase track capacity. The Rugby Advertiser on 21st November, 1874 announced that the company had given notice of its intention to apply to Parliament for authorisation to build the line; and on 5th December, 1874 gave a map "at great expense" of the proposed line. The Act received its Royal Assent on the 29th June, 1875 but it was not until 2nd June, 1877 that the Rugby Advertiser announced that the "London & North Western" were inviting tenders for the construction of the new line.

The lines from Rugby to Northampton and Northampton to Roade were separate Acts and separate contracts. The Annual Meeting of the "London & North Western", reported in the Rugby Advertiser of 23rd February, 1878 heard the following:-

"Active operations are now in progress to continue the

the widening of the Railway from Eetchley to Roade and via Northampton to Rugby. Between Eetchley and Northampton about one-third of the total excavation of 1,560,000 cubic yards has been removed. Of the 70 bridges, 22 are complete, and 23 in course of construction; at the Tunnel (ie the one just south of Northampton - PHE) near Dane's Camp (1144 yards in length) 176 yards are finished. Between Northampton and Rugby the land is fenced off, and the earthwork has commenced."

An early application of mechanical power is reported in the Rugby Advertiser of 15th June, 1878:-

"A STEAM NAVVY has at length been set to work on the new railway works near the Spoilbank, and the saving of labour seems very great. The services of a great many men have been dispensed with, and there is a perceptible diminution in the number of navvies coming into the town to seek work."

Following an incident in which the contractor's name had mischievously been used in support of an application to sell liquor at a navvies' camp the contractor for the new railway, Mr Walter Scott told magistrates that quite to the contrary he was "doing all I possibly can to hinder any licences being granted to premises anywhere near our new railway work" as reported in the Rugby Advertiser of 7th September, 1878.

Northampton is about 125 feet lower than Roade and about 100 feet below Rugby. The new line had to descend at a rate of 1 in 200 or 26 feet per mile for most of the six miles from Roade and then ascend at 1 in 230 to the 500 yard tunnel about one mile east of the main Kilsby Tunnel. At $23\frac{1}{2}$ miles in length the loop is $2\frac{1}{2}$ miles longer than the main line. There is a tunnel of over 1000 yards just south of Northampton but the most notable feature, observable to passenger in trains, is the deep cutting and heavy retaining wall at Roade. A year after the line was opened there was a bad landslip and then another ten years later on 14th November,

1891; the latter costing £2,000 to repair and the line from Northampton to Rocde not re-opening until 11th April, 1892. The problem was eventually resolved by erecting the heavy iron girders that we see today.

The existing but misnamed "Crick" station on the main line was renamed "Welton" and the four stations on the new line were named "Kilsby & Crick", one mile north of Kilsby village, "Long Buckby" half a mile south of the village, "Althorp Park" and "Northampton Castle". "Church Brampton" was opened later.

The Rugby Advertiser on 30th July, 1881, awarded no more status than the following to the item "The New Line from Rugby to Northampton, it is expected, will be opened for mineral and goods traffic on Monday next." Nothing more is said until 13th August, 1881 when "We hear that the Government Inspector has now passed the junction of the new line from Rugby to Northampton to the main line at Rugby". A further silence on the subject and on Saturday 3rd December, 1881 "The New Line from Rugby to Northampton was opened for passengers on Thursday morning, when upwards of 80 passengers travelled by the first train from Rugby. The new station at Northampton is not yet complete". The platforms were complete but not the facilities. There were said to be six passenger trains daily from Rugby to Northampton and five in the reverse direction - although only four are shown on the timetable.

The Northampton Herald published on the same day gave little more information:-

"The first train from Rugby arrived at the Northampton Castle Station on Thursday morning (ie 1st December, 1881) at nine o'clock. It consisted of an engine, two brake vans, three carriages and a truck. Twenty one passengers from Long Buckby and four from Kilsby and Crick alighted; and a few others continued their journey. S^busequent trains, notwithstanding the unfavourable weather, have been more largely freighted; and

at the three country stations the first day's arrival and departure of the 'iron horse' has awakened much gratified interest".

The line was in fact opened for goods throughout on 1st August, 1881; for passengers from Rugby to Northampton on 1st December 1881; for passengers from Northampton to Roade on 3rd April, 1882 and for passengers from Roade to Bletchley on the new slow lines on 31st July, 1882.

The first accident on the new line was reported by the Rugby Advertiser on 20th August 1881: "Off The Line - On Saturday evening last three waggons of a goods train, running on the Rugby and Northampton Line, were thrown off the metals near the junction with the main line by something falling off underneath the wheels. They were expeditiously replaced, and very trifling delay was occasioned to passenger traffic." In fact, so many minor accidents were reported on all lines together and so many waggons were smashed to pieces that one wonders where they all came from.

The new loop line arrived from Northampton to join the alignment of the main line at Hillmorton, but at a higher level; it then gradually fell to the level of the main line. This was not to last for long. Before it had lost its shine there was to be a complete remodelling of the southern approaches to Rugby associated with the building of the new station. Indeed on the same day as reporting the opening of the new line to Northampton for passenger traffic the Rugby Advertiser reported that the "London & North Western" had made application to Parliament and had deposited plans with the parish clerk for "two further railways"; this being the required terminology for legal purposes. Line No 1 was to be from a junction with the second line along a viaduct 606 yards long and an embankment 45 feet above Clifton Brook; through a 33 feet deep cutting and joining the Stamford line at Clifton Mill Station. Line 2 was to be a "viaduct 730 yards long, to make a junction

with the new Northampton line at Hillmorton, so that the down trains on that line will pass over the main line instead of on the level, (and so avoid a dangerous crossing) into the station. The Clifton Road bridge will have to be raised two feet."

In practice the "new lines" meant that the down line from Market Harborough was carried over the main up lines by a "flying junction" and a diversion from north of Clifton Mill Station over a 45 feet high (to the top of the parapet) viaduct of thirteen 25 foot span brick arches. The new Northampton down line (towards Rugby) was now made to climb back up a low brick viaduct of sixty-five arches to a high level junction with the Market Harborough line. The Clifton Road bridge was altered from three brick arches to a girder bridge to give more headroom but, in the event, without disturbing the level of the roadway. The delays to main-line trains as they waited for local and goods trains to weave across junctions in front of them were thus largely avoided. The contractor for these works was Messrs Dranfield & Smith whose Resident Engineer was Mr F.D. Woodward. The new works were probably brought into use in stages and were probably formally innaugurated on 5th July, 1885 on the same day as the opening of the down side of the new station as related later in the story of the railway stations of Rugby.

The additional capacity provided by the new line was dependent upon the speed with which trains could gain access to and leave it; and the number of additional conflicting movements that this created. The flying junctions south of Rugby reduced many of the conflicting movements and an operating procedure had to be employed for another major problem -- this was to route the down Leicester empty coal trains (ie returning from London) via the Northampton Loop and the Northampton to Market Harborough direct line to avoid a movement that would have taken them right across

the remaining down lines and across all the up lines (see the map on page 122) immediately north of the Rugby station to gain access to the Leicester "Midland" branch. Up coal trains from Leicester to London could run through Rugby without conflict with other movements.

Like other chapters we close on less happy aspects, Church Brampton station closed on 16th May, 1931, Kilsby and Crick station closed on 1st February, 1960 and Althorp Park on 13th June, 1960. A frustrating search of both the Rugby Advertiser and the Northampton Herald as, unfortunately, not revealed many of the details of the construction of the Northampton Loop - not a happy position for the author.

Chapter 15.THE GREAT CENTRAL RAILWAY AND RUGBY.

The "Great Central", or the "Manchester, Sheffield & Lincolnshire Railway" as it was when it reached Rugby, was a provincial railway with a rather apt name for the territory it served and with rather "middle of the road" achievements and performance. However, in its new chairman, Sir Edward Watkin, in 1864, it led the field. This was a great manager with great ambition and an even greater vision of an international railway network, including a Channel Tunnel, with express trains running from the north of England through to all continental destinations of significance. One of the first of the necessary links was to be the "London Extension" through Rugby to a new terminus at Marylebone. The rather provincial title of "Manchester, Sheffield & Lincolnshire" was abandoned for the grandeur of the "Great Central Railway". It was said at the time that "M.S. & L." stood for "money sunk and lost", and that "G.C." stood for "gone completely". For Rugby that is also the epilogue of the last main line to be built in Britain.

The new line to London was to embody all that had been learnt in the previous seventy years of railway engineering. The "Midland" offered to sell its little used line between Rugby and Leicester to the new project; but such "make-do-and-mend" was not good enough for the grand design. The offer was declined. The first attempt failed, in 1891, to get an Act of Parliament for a completely new line.

After the initial failure, an Act for the "Manchester, Sheffield & Lincolnshire" London Extension was obtained on 28th March, 1895 for a line that would have passed through Hillmorton rather than Rugby and that would have crossed the Hillmorton Road at about its junction with Ashlawn Road. A deviation of 100 yards on either side of the line was allowed. To reduce the risk of failure

of the entire Act due to a minor problem in part of it, the Act was in fact for eleven separate railways each making an end-on junction with the next. We are concerned with "Railway No 5" through Rugby. A connecting spur was planned to the "London & North Western" Market Harborough branch at about the site of the Clifton Mill station. The Local Board of Health had requested that a link be made to the LNWR station. This would have required a curve of minimum radius 30 chains and going "out beyond the Spoilbank". At the same time they opposed the proposals because their water collecting mains at Barby Lane would be disturbed. Protective clauses were incorporated concerning roads and drainage; compensation of £5,000 was paid; the Local Board of Health dropped its opposition. The distance to London was to be 90 miles on the new railway compared to $82\frac{1}{2}$ on the LNWR. The preferred site for the new station was in Clifton Road but that part of the line was to be on a gradient of 1 in 176 and as legislation required that for safety during shunting stations should be on a level part of the line, a Hillmorton Road site was resorted to.

The following year, in 1894, a deviation Act was obtained to make the proposed line almost a mile closer to the centre of Rugby and as it was then built and as the remains are today. The connecting spur to the Market Harborough line was still shown but never built. The contract for the Rugby section started just north of the Oxford Canal and extended initially to Charwelton but was later extended to Woodford making 14 miles in all. The contractor was Messrs T. Oliver & Son of Forsham, Sussex with a contract price of £513,308. A temporary rail link was made with the LNWR Daventry to Leamington branch line. The main depot was about three miles south of the "Central" station and adjacent to the canal which was used for the transport of materials. Working on the contract were 2000 men, 20 locomotives, 8 steam navvies and 550 waggons.

The original plans were for a three rather than four span

girder bridge over the Oxford Canal and thought was given to extending this right across the River Avon. A four span girder bridge and separate brick arch over the river were built in the event. The agreement with the Oxford Canal was for a penalty of £10 to be paid for every hour that traffic was stopped, with £10 per hour additional if the stoppage was of longer duration than 3 days or if it was avoidable. £1 was to be paid for every 1000 cu ft of water lost.

The most prominent feature of the works was their vast scale. They were enormous. The embankment between the canal and the LNWR lines* was 56 ft high and 280 ft wide at the base. The viaduct over the LNWR lines was 385 yards long and 42 ft high at maximum. The cutting through Rugby was $1\frac{3}{4}$ miles long and 48 ft deep at maximum. The slope of the cutting and embankment sides was 1 in 3 as required by legislation to try to overcome the problem of landslips that even then still troubled the earlier railways. When the height or depth was less than 20 ft the requirement was eased to 1 in 2. The first sod was cut on 17th January 1895 - the Rugby Advertiser reporting that "at Lutterworth rumour has it that a certain well known tonsorial artist is to cut the first sod of the new railway".

A report in the Rugby Advertiser of 1st February, 1896 on the completion of the first year of work on the project states that the brickwork at the southern end of the viaduct was almost complete with 1,770,000 bricks used so far and 120 tons of the 660 tons of steelwork already in place. There were substantial temporary timber structures over the LNWR lines and temporary connections to these lines for the delivery of steel -- the girders being lifted by crane and rivetted. The steelwork was expected to be complete by the summer -- the viaduct had to be completed first to enable the spoil to be carried to the Arches Lane embankment. The foundations

*Levelled in 1981 to provide the Arches Lane Industrial Estate.

of the southern abutments to the Oxford Canal bridge were reported to be in place. The cutting through Rugby had 370,000 of the 1,329,000 cubic yards already excavated by 3 large Ruston & Proctor steam navvies. Messrs Oliver & Son "are quite sanguine of completing the work" ready for autumn 1897 given suitable weather. Any difficulty, it was anticipated, would be in the Rugby cutting.

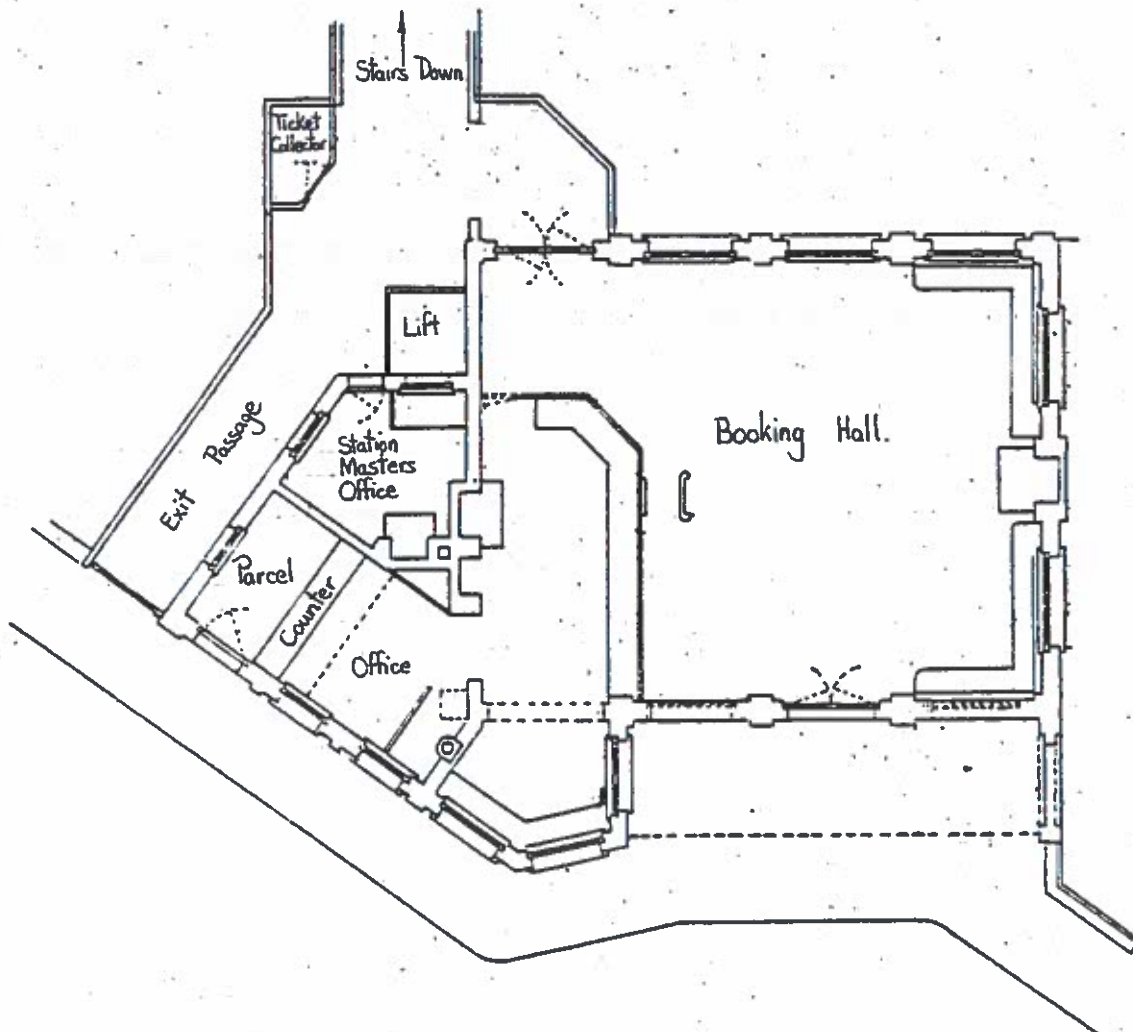
A rather tenuous link between the first railways to reach Rugby and the "Manchester, Sheffield & Lincolnshire" London Extension was through a navvy William Falgate (alias Riley) who died in Rugby in 1898 at the age of 80 after navvying for 62 years. The Rugby Advertiser each week carried little items such as "...another drunken navvy.....fined 2s-6d". More seriously, on 4th September, 1897, they reported that eight boys had placed a log on the rails and "endangered the lives" of 200-300 navvies on the train, the engine had been damaged -- the boys were birched and fined from 5/0d. to 20/0d.

The Rugby Advertiser on 1st May, 1897 reported that there was a prospect that work on the new station "will be immediately proceeded with". The proposed small engine shed was now to be at Woodford; probably because water supplies at Rugby were not adequate. The contractor was reported to be concentrating on the tunnel at Charwelton, the viaduct at Catesby, "tipping the bank" between the canal and the LNWR lines, and the Rugby cutting. This latter was reported to be "no sinecure" -- much of this "now out and attention being devoted to the excavation of the 'grip' - 10 feet thick, which forms the bottom of the cutting". The girder bridge over the Oxford Canal had been the subject of "hard and steady work" with much temporary staging. Cylinders had been sunk 30 feet, to avoid damage to the canal, and then filled with bricks and concrete. The tunnel at Charwelton "should be complete this month" -- a record for 3000 yards of tunnel building.

The "Manchester, Sheffield & Lincolnshire" Board discussed

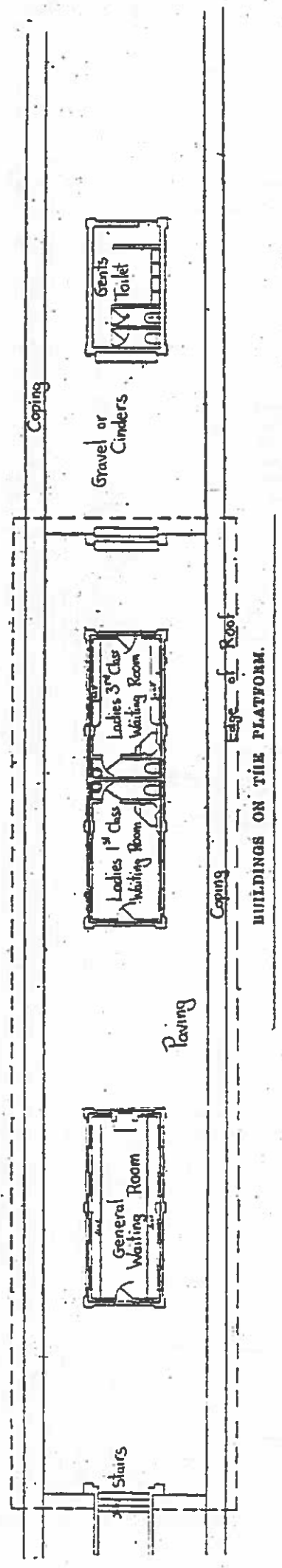
RUGBY CENTRAL STATION.

FRONT ELEVATION OF BOOKING HALL AND OFFICES.

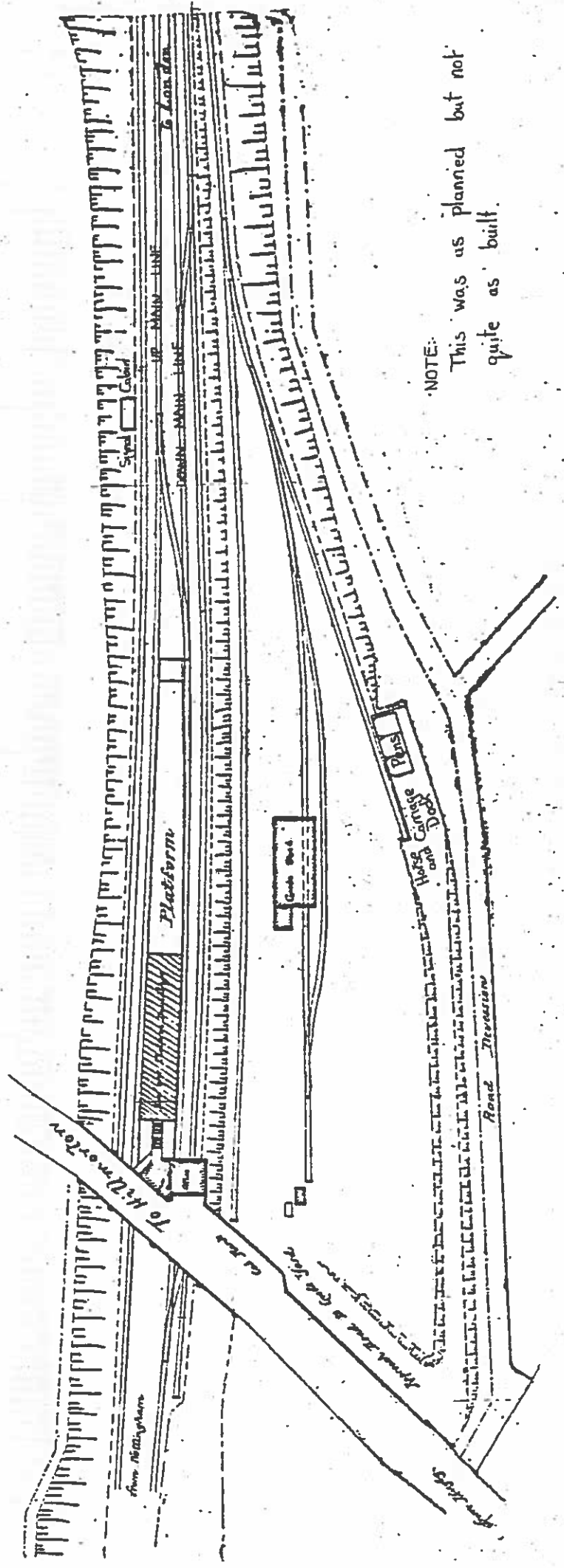
GROUND PLAN OF BOOKING HALL AND OFFICES.

THE ADVERTISER, SATURDAY, MAY 1, 1897.

THE MANCHESTER, SHEFFIELD, & LINCOLNSHIRE RAILWAY STATION AT RUGBY.

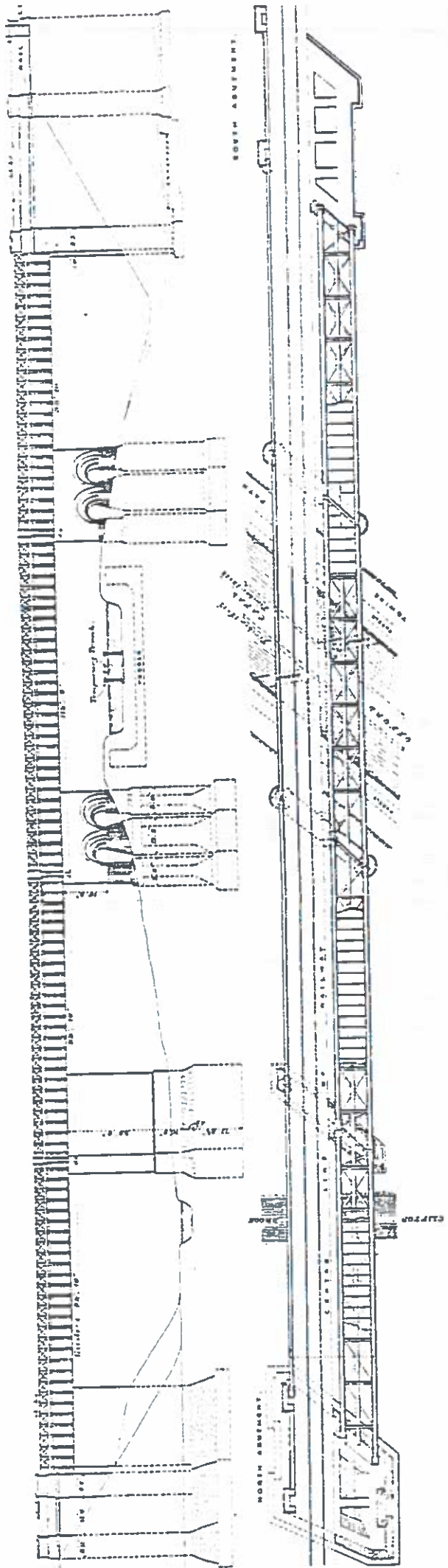


BUILDINGS ON THE PLATFORM.



NOTE: This was as planned but not quite as built.

PLAN OF THE STATION PREMISES.



THE VIADUCT OVER THE OXFORD CANAL AT RUGBY.

on 1st April, 1898 proposals to build a line from Rugby to Coventry and Birmingham along Stephenson's original line and three miles shorter than the LNWR route. Nothing more was heard of this folly.

The new station, shown in the sketch, was typical of those on the new route -- an island platform with access by stairs from a road bridge over the railway lines. Statistics are given in the Appendices. The booking office and other offices were at road level. At first there were only two sets of rails although excavation had been done for more and they had been shown on the plans. The outer sets of rails being added during the last war -- the up side being a passing loop but the downside being only a siding. The signal box was on the Rugby side between the down main and the siding at the southern end of the platform. The goods yard covered 3 to 4 acres with a goods shed and a horse and carriage dock. A cattle dock was provided at Bridge Street near the viaduct.

The enormous scale of the earthworks and viaduct at Rugby were matched by an equally enormous signal gantry that the "Manchester, Sheffield & Lincolnshire" were obliged to provide and maintain over the LNWR tracks on the eastern side of the viaduct. The new viaduct would have presented a confused background for the signals on the existing gantry and the height of the "dolls" was almost doubled and duplicate signal arms provided at a height sufficient to give a "sky" background. The gantry, said to be the largest in the country, was affectionately known as the "Rugby Bedstead" and was removed in 1939 when colour light signals were introduced.

The "Manchester, Sheffield & Lincolnshire" became the "Great Central" on 1st August, 1897. The formal opening of the London Extension took place on 9th March, 1899 but had been poorly advertised in Rugby and only 40 to 50 people went to the station to see the specials "in addition to the few who were to travel by the first (special) train". The Rugby Advertiser printed photographs

of the occasion but complained bitterly of the poor quality of the photo-block which had been specially prepared for them by a London firm. Viewers on the platform were "impressed by the comfort and fittings" of the corridor coaches of the specials -- although one of the six coaches had been removed before reaching Rugby due to a hot axlebox. The opening for passengers took place on 15th March, 1899 with 5 up and 6 down stopping London trains daily together with a local to Nottingham starting from Rugby. The journey to London took 2 hours 1 minute. Two down and 3 up trains did not stop at Rugby. The Sunday service was 2 up and 2 down trains. A speed limit was observed until 30th June, 1899 when the earthworks were declared safe.

The "Great Central" became ^{part of} the "London North Eastern Railway" on 1st January, 1925 and part of "British Railways" on 1st January, 1948. In spite of the line "embodying all that had been learnt in the previous seventy years of railway engineering" it was not a financial success. The last main line to arrive was the first to go. The viaduct at Rugby was in need of major repairs and the route was closed south of Rugby on 5th September, 1966 and north of Rugby on 3rd May, 1969. Within days of the closure the new M6 motorway embankment severed the line north of Rugby and was only temporarily re-opened to allow the track to be lifted in 1970. The station was raised the same year. The viaduct has been removed in stages up to 1981 and the embankment between the canal and the main line removed in 1981. Gone Completely !

Postscript: Not written as a final epitaph, but it might have been; from "The Great Central Railway Sheffield Victoria to Eanbury" by John Betjeman:

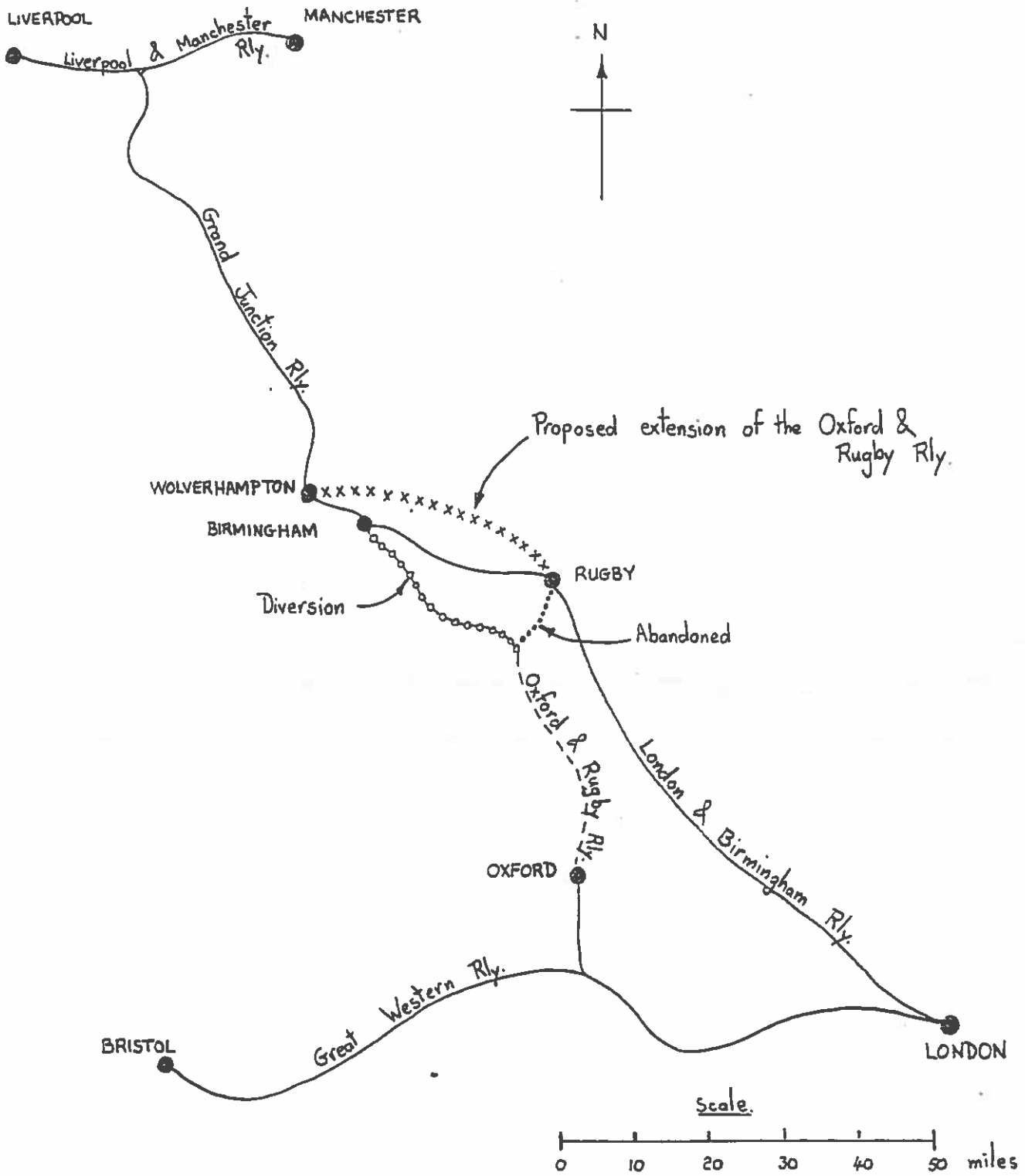
"And quite where Rugby Central is
Does only Rugby know."

Chapter 16.THE DREAM RAILWAYS OF RUGBY.

Rugby had more than a fair share of projected railway schemes that failed to reach maturity -- they remained the unfulfilled dreams of speculators and idealists. The dreams were part of the "railway mania" -- a surge of public belief that railways had brought a whole new age to civilisation and that to participate in the benefits of the new age every town, village and hamlet had to have ready access to a railway. New railway schemes were devised with completely inadequate planning or finance in a scramble to be seen to have the wisdom to recognise the new age and in a scramble to invest in it. The "railway mania" proper lasted for about seven years from 1840 until the oversubscription was recognised and the bubble of confidence burst. Fortunes were lost. The mania recovered in part and for the remainder of the century there was a steady trickle of proposals to criss-cross the existing railway network with further lines. It is significant that very few of the lines built after 1850 remain in existence today -- last to come: first to go.

The first unfulfilled dreams concerning Rugby had in fact greater than average substance and the dreams of the promoters of the "Tamworth & Rugby Railway" (1837), the "Stone & Rugby Railway" (1838) and the "Stafford & Rugby Railway" (1840) did eventually come to fruition as the "Trent Valley Railway" (1844) as related in an earlier chapter. All four of these proposals recognised and sought to exploit the long detour via Birmingham caused by the bend westward in the "London & Birmingham Railway" at Rugby.

Projected railways usually took the name of the towns along and at the extremes of the line -- others that were planned to join existing railways took as part of their own title that of



The Oxford & Rugby Railway.

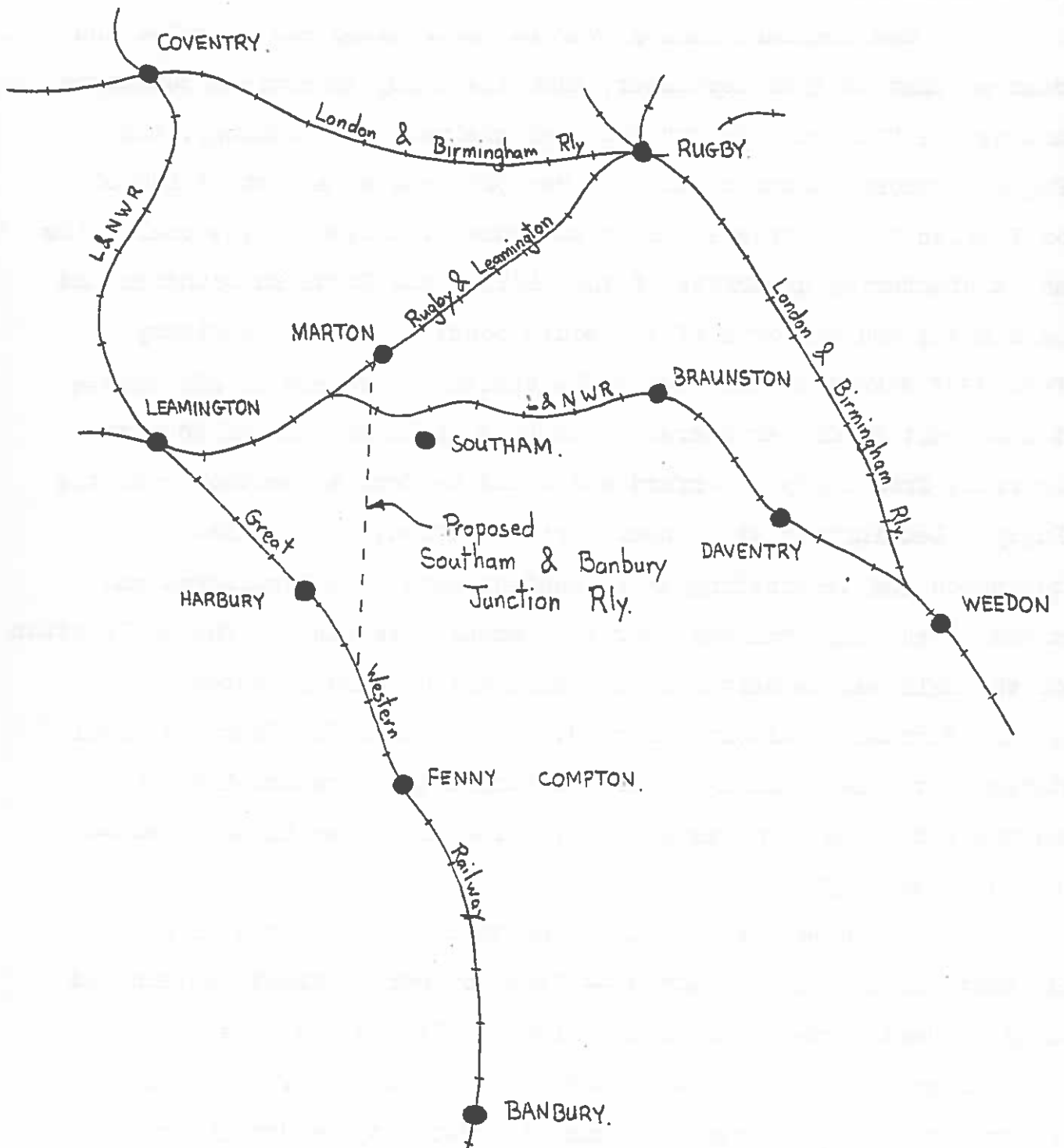
the other together with the suffix "junction". Some of the titles were quite cumbersome — imagine a reader of the Rugby Advertiser on 1st January, 1848 contending with reports of proposals for extending the "Rugby & Leamington" line to Warwick to make a junction with the proposed "Coventry, Banbury & Oxford Junction Railway" which itself would make a junction with the "Oxford & Rugby Railway". It continues that the "Oxford & Rugby" was seeking extra time for the purchase of land: whether by design or omission is not clear but it does not add to the readers confusion by mentioning that somewhere the gauge would change from the narrow 4' 8½" of the "London & Birmingham" to the 7' 0" broad gauge of the "Great Western".

The story of the broad gauge battle for Rugby is also told elsewhere and only the salient points will be repeated in the context of the dream that became a nightmare for the promoters of the "Oxford & Rugby Railway". In fact as early as 1836 a "North & South Junction Railway" had been projected from Rugby through Oxford to meet the "Great Western" and continue on to Basingstoke. The promoters were to learn that one did not enter the "Great Western" empire without invitation: the dream was fleeting. The "Oxford & Rugby" was projected in 1844 as a broad gauge railway to give the "Great Western" access to the north. A separate company was formed for the purpose and the Act obtained on 4th August 1845 authorising 51 miles of railway that would have entered Rugby from the south much as the "Great Central" was to 50 years later.

The "Grand Junction" had given encouragement in this and had suggested that if the "Oxford & Rugby" were to extend its line to Wolverhampton then they would convert the "Grand Junction" to the broad gauge. If this had happened then the "London & Birmingham" would have been deprived of access to the northwest. The evil intention of the "Grand Junction" was achieved — they virtually took over the "London & Birmingham" and abandoned their false interest in the "Oxford & Rugby". The latter had meanwhile been built towards

Rugby as far as two miles north of Fenny Compton. An Act of Parliament had to be obtained to divert it towards Birmingham. Only a quarter mile of the completed works could not be used on the new route and the last $15\frac{1}{2}$ miles to Rugby via Southam were finally abandoned after expensive legislation during which the "London & North Western" maliciously exercised their rights by a Board of Trade directive on 25th July, 1846 and the Gauges Act of 15th August, 1846 to insist that narrow gauge rails be laid in addition to the broad gauge rails even though they had no intention of permitting them to be used. The diverted line to Birmingham Snow Hill, which became the "Birmingham & Oxford", was opened on 1st October 1852. The "Oxford & Rugby" dream had not yet finished -- but it was to be very fitful.

The next phase of the dream was the proposed "Rugby, Southam & Banbury Junction Railway" provisionally registered with a capital of £70,000 to be issued in 3,500 shares of £20 each. The temporary offices were in Little Park Street, Coventry and a provisional list of directors was published, together with other details, in the Rugby Advertiser of 4th December, 1852. The intended line was less than seven miles from a junction on the "Rugby & Leamington" near Marton to a junction on the "Birmingham & Oxford" about two miles south of Harbury. The survey was by Mr Edward Dixon, previously of the "London & North Western", and plans were submitted to Parliament on 30th November, 1852. The intention of the promoters was "to (i) open a direct route from Rugby to Oxford, (ii) to open new markets and help the distribution of Leicestershire, Derbyshire and Erewash Valley coal into parts of Warwickshire hitherto unserved and (iii) to assist the movement of blue lias limestone from the Southam area". It was said that the coming of the railways to the east and to the west of Southam had deprived it of its coach services without the substitution of an alternative into the town itself. It was claimed, but it is not clear how the claim would



PROPOSED SOUTHAM & BANBURY JCN RLY.

have been substantiated, that the new line would reduce the route mileage from Rugby to Banbury by 41 miles from 68 miles to 27 miles. Perhaps the demise of the dream was because the other claims were as well founded as this -- we don't know.

The dreamers turned over in their sleep and repeated the dream so that on 29th September, 1860 the Rugby Advertiser commented that as the "Oxford & Rugby" had been shelved a new railway, the "Rugby & Oxford Junction Railway" was proposed at a cost of 280,000 for 7 miles "to provide a direct communication between the coalfields and manufacturing districts of the Midland and Northern Counties and the markets and seaports of the south coast". The preliminary prospectus suggested that the whole capital be raised in £10 shares at a deposit of £1 per share. The line would save 18 miles over the route from Rugby to Oxford and would be from a junction with the "Rugby & Leamington" at or near Marton Station, through Long Itchington and terminating at a junction with "the Birmingham and Oxford mixed gauge railway near the Harbury Station". The application for the Bill was deposited with Parliament on 23rd December, 1860 as the "Marton & Harbury Railway". A report of 7th February, 1861 states that "the standing orders of Parliament were complied with" and the estimated cost was £70,000. The dream was interrupted -- we don't know why.

The dream took a whimsical turn as far as the title of the next project was concerned -- "The Coventry & Great Western and Rugby & Great Western Junction Railway". It was the same as the previous schemes but extended northwards to Coventry. The Mayor of Coventry presided over a meeting in that city to "consider the propriety of promoting the construction...." of a railway that "would give the people of Coventry their entitlement" -- a second route to the capital that would break the monopoly of the "London & North Western". It would also open up new feeder connections with the

"Great Western" from the Derbyshire and Leicestershire coalfields. The commentary continued that the existing "Rugby & Leamington" was single track and steeply graded and its owners, the "London & North Western" were "not felt to be anxious to develop such a feeder to the "Great Western". The report, in the Rugby Advertiser of 14th November, 1863, refers to "the 1846 scheme which fell through because of LNW objections" and also that "a few years ago" a deputation saw the "Great Western" directors "but failing to obtain their pecuniary assistance, the scheme fell through". A company with offices in Southam was incorporated and £20,000 promised to promote the line, for survey expenses and Parliamentary fees. The line of the proposed railway was to be from a junction with the "Great Western" at Bishops Itchington, 3 miles north of Penny Compton, and running through Southam and Marton (where there was to be a junction, as before, with the "Rugby & Leamington" to give access to Rugby and the north), Princethorpe, Ryton-on-Dunsmore and to Coventry. Powers would be taken in the Act to make a junction with the "Coventry & Nuneaton Railway". The estimated cost was £160,000 for a total length of 17 miles. No steep gradients or engineering difficulties were foreseen and the line would not "interfere with any gentlemen's seats or ornamental grounds". For legal reasons the line would be built as three railways each with its own Act of Parliament. If insufficient capital was subscribed the line would stop short at Southam — but we cannot say whether this was from the north or the south! Only one week later there was a second report — that the proposals had been postponed because the "London & North Western" had promised "to strive to accommodate the public better than they have hitherto done".

For twenty years there was no known new dream of significance until on 30th July, 1863 a public meeting heard of the need for a "Rugby & Cheltenham Railway". An approach to the "Midland Railway" had "not been unfavourable but had not been definite". It was also

explained that it was not intended to antagonise the "London & North Western" as the proposed line was on the western side of their area. The line would "help towards continued prosperity of Rugby by bringing £1,000 a week in wages, and reducing the dependence of the town on the "London & North Western" by creating a huge timber depot in the town". The line would be easy with only three cuttings required in the first 30 miles. Further meetings were held, new support announced, and "only limited reservations were expressed". A letter in the Rugby Advertiser suggested a route into Rugby at Hillmorton along the Oxford Canal and described how the line would satisfy the need for a diversion around the Kilsby tunnel when the "inevitable disaster caused its blockage".

A committee was formed and the "Great Western" also approached. £500 was raised towards expenses. The proposed route was Rugby, Southam, Harbury, Shipston-on-Stour, Broadway, Winchcombe and Cheltenham. The hoped for sources of trade were:-

- (a) Stockton - 100,000 tons of limestone each year
- (b) Southam - "tonnage would be heavy" of grain, cattle and local trade
- (c) Napton - large brick works
- (d) Harbury - large lime works and further works expected
- (e) Burton Hills and neighbourhood - ironstone
- (f) Tysoe - thickly populated area
- (g) Shipston - 30 villages within 6 miles
- (h) Broadway - market gardens, orchards and paper mill with 3,000 tons each year
- (i) Cheltenham - 15,000 visitors each year.

In addition to these more important industries would be the general trade from 130 villages on the route. The line would reduce the distance to Bristol by 40 miles and provide the shortest route to an Atlantic port. It would generate important through traffic to Bristol and Gloucester in general trade of grain, coal, cattle and

timber. Many landowners were reported to be prepared to exchange land for shares. A junction was proposed with the railway line from Leamington to Northampton; a station was proposed at Dunchurch; and New Bilton, with an output of 1,000 tons of bricks and lime each week, would benefit, so it was claimed; thus indicating the actual route proposed into Rugby. An article in the Rugby Advertiser of 10th November, 1883 comments that "no disadvantages whatsoever could be envisaged". However, they must have existed because the dream was shattered and no further reference is found to the scheme.

Southam, as related, had nearly had a second station on several occasions - probably it would have been as inconvenient as the first and there is a hint of desperation in the report in the Rugby Advertiser of 26th January, 1889 that a bill had been lodged in Parliament for a company to promote a "Marton, Southam & Stockton Tramroad" at a cost of £40,000. This dream was as short lived as it was unambitious !

In turning to tramroads the purity of the dream was lost; the slide became worse with the announcement of the "Rugby & District Light Railway" in the Rugby Advertiser of 29th November, 1902. Notice was given "of intention to present application to the Light Railway Commissioners under the Light Railways Act of 1896 to authorise the promoters to construct work and use the Light Railways in the County of Warwick hereinafter described with all proper stations sidings approaches and works connected therewith". A network of mainly single track lines and heeding reversals is then described and starting from the Midland Station with branches to Lawford Road (beyond Addison Road), Clifton Road (beyond South Street) and Hillmorton Road (to the Green). Detailed plans can be seen in the County Records Office at Warwick. "The proposed railways are intended to be constructed on a gauge of 3' 6" or such other gauge as may be authorised by the Order and the motive power proposed to be used is electrical power applied according to a system approved

by the Board of Trade supplemental by animal power or any other mechanical power." A generating station and carriage sheds covering two acres would be located to the east of the Central Station. The cost would be £40,000 to £50,000 and would yield a rate of £1,000. The Rugby Urban District Council Highway Committee was not able to establish exactly who the promoters were; they gave a guarded blessing but wanted a few changes, corners eased, and suggested that the Council's own electricity supply be used. They defined a minimum service as "not less than 2 cars or trams per hour between 9.00am and 7.00pm" (so much for the workers!). It was noted that nowhere else in Great Britain was wayleave paid for by the tramway company. The dream was suddenly interrupted and not resumed.

The Church Rooms at Brinklow were the inspiration of a dream in 1912 by the Parish Council of a branch railway from the "Great Central" at Lutterworth via Pailton, Brinklow and Binley to Coventry. Brinklow already had a station on the "Trent Valley" line and the proposal highlights the importance of branch railways to village life during the first half of the twentieth century. A beautiful description of the volume and variety of traffic at country stations in the vicinity of Rugby can be found in "Recollections of Country Station Life" by Harry Aland (1980) to which the reader is recommended. However, the Brinklow dream progressed to the reality of a circular to the Lutterworth, Monks Kirby, Stretton under Fosse, Pailton and Binley Parish Councils and to the Coventry City Council. A joint meeting was held on 25th June 1912: Coventry were unable to attend although they had initially reacted favourably to the proposal. It was decided "that the best thing to do now would be to get the Coventry People to take it up..." and to approach the Coventry Chamber of Commerce. The dream was interrupted; its demise is not recorded; probably the war intervened. The circular is a typical crystallisation of such dreams and is reproduced as such:-

"Gentlemen,

The Brinklow Parish Council have for some time past been considering the advisability of securing better railway facilities for the village.

The rapid growth of the City of Coventry is making felt the want of a greater residential area for those employed in the Town, and this should easily be secured in the surrounding villages if the means of communication were adequate, it is suggested that the Great Central Railway management should be approached with a view to the construction of a Branch Line of Railway from their main (line) at Lutterworth through Pailton, Brinklow, Binley and to Coventry. This would open up a lucrative Goods and Mineral traffic, as at present, Coventry is entirely dependent on one Railway, and there is no competition. The proposed line would also tap the new coal district in the neighbourhood of Binley, it would secure to the Villages mentioned communication with a good market for their Produce, and at the same time the Passenger service should induce an influx of that new life into the Villages which is so much needed. The Proposed Line is short, probably being only 15 or 16 miles in length, and so far as we can see presents no great engineering difficulty (and) consequently, need not be expensive -- it would give this Council considerable satisfaction if you would consider this matter, and we should be pleased to receive your opinion upon it and any suggestions or assistance you are willing to offer, as it concerns a considerable District it is thought advisable to ascertain the wishes of each Town and Village affected, and should the undeniable advantages be generally recognised, a Meeting of all those interested in the Scheme could be arranged at a later date.

Yours faithfully &c,

A.Pegg - Chairman,

H.Newitt - Clerk.

March, 1912."

The dreaming was not confined to Rugby -- dreamers elsewhere made plans involving Rugby as a destination. Some of these progressed as far as depositing plans with the local authority and are still stored in the County Records Office at Warwick -- but some of them did not even achieve a mention in the Rugby Advertiser in spite of considerable sums having been spent on their promotion -- these dreams are listed in the appendices but there is little doubt that the list is not complete and other dreams are forgotten or waiting to be brought from the subconscious elsewhere. Some dreams were about money and some dreams were just dreams about schemes.

Dreaming continues today: what if the "Midland" line was still open to Leicester: what if a link had been built between the "Great Central" and the "London & North Western: What if the "Rugby & Leamington" carries the output of the south Warwickshire coalfield: what if it is restored through to Leamington: what if the "Midland" was restored through to Leicester ??? ah! what dreams. Today's dreams are not of fortunes to be made but rather of the perfection of ideals and the bringing about of an order from the chaos of other forms of transport. These ideals have attracted enthusiasts and followers since the first flanged wheel rolled on a rail.

THE RAILWAY STATIONS OF RUGBY.

Rugby has at different times had three completely different railway stations on the line to London Euston and one on the line to London Marylebone. For many many years "Rugby" meant only "a railway station" to several generations of travellers. Even more hours had been spent by those travellers waiting for connections at Rugby, savouring the delights of the refreshment rooms, and never putting a step outside the station. The distance to the town centre has emphasised the isolation that the travellers felt; as equally it has reduced the impact on the town plan of the station. Worlds apart. Before taking up residence here the present author thought of the town by the name "Rugby Midland", as in the timetable, for several years !

The first station was just to the west of the present Newbold Road bridge. No signs remain today except the name "Old Station Square" on maps. It provided fairly modest facilities and was complicated by being on an embankment -- this site being of necessity adjacent to the principal road crossing the line. Until the completion of the railway through the Kilsby Tunnel it was the point where Birmingham passengers joined or left the train for the coach shuttle service to or from Hetchley where the railway to London had also opened. This hectic period lasted from 9th April, 1838 to 17th September, 1838 when the tunnel was opened. Things then probably settled down a little with principal originating traffic being for the stage coach to Leicester and beyond. This traffic too was reduced on 12th August, 1839 when a railway route to Derby via Hampton-in-Arden was opened -- leaving the awakening town, the School, and the Leicester coach as the only originating customers.

Lieut. Lecount, in 1838, records that at this time each porter received each year a green coloured uniform of two jackets, two corduroy trousers, two pairs of laced boots and one cap. This is

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perhaps a commentary upon the quality of clothing at the time -- it would see severe duty and each garment would probably be soaked by the rain several times. Each employee had a distinct number.

A description of the first station can be found earlier in the chapter about the "London & Birmingham Railway". It was probably only ever regarded as a temporary structure as it was anticipated that due to the local topography the junction with the "Midland Counties" would have to be about half a mile to the east. On 30th June, 1840 the "Midland Counties" opened to Leicester and traffic transferred at about that time to a new station on a site at the end of Railway Terrace -- a new road specially built for the purpose. According to a manuscript summary of the Rugby Telegraph Office Log Book the "Midland Counties" had a temporary station at the north end of the viaduct "for a few weeks until the completion of the junction with the "London & Birmingham"". Probably there was then a transfer by road to the station just off Newbold Road.

By 1851 the detailed survey of the town by Capt. Beatty shows few signs of the old station -- just cottages in Old Station Square, several pigsties, a pumping engine and a small wooden platform on the up (northern) side. It is probable that the earth-works for the "Rugby & Leamington" branch junction had obliterated the down side buildings. Of the cottages, Osbourne (1843) records:- "owing to the difficulty of gaining lodgings for the servants of the Company a number of wooden cottages were erected on the left of the station". These survived until 1875. The haphazard layout of the pigsties indicates that a temporary camp for navvies had existed to the north of the line. Of the pumping station Roscoe (1839) records "close by the bridge on the east side (ie the northern side at this point) of the railway is a lofty chimney belonging to the pumping engine, which supplies the tank with water for locomotive engines". The report of the General Board of Health in 1849 describes the engine as an 8HP condensing engine. The demand being 31,000 cu ft of water per day.

The second station, about a half mile east (closer to London) than its predecessor and 90 yards to the west of the present structure was not an ordered development. Professor Simmons in "Rugby Junction" (1969) refers to the "London & Birmingham" Minutes Book and says:

"The first proposal, in 1839, had been that the two companies should own the new premises jointly; but this was rejected by the London & Birmingham. In February 1840 that company agreed that the new station should be built at the expense of the Midland Counties and let at £100 a year for a term of ninety-nine years to the London & Birmingham, which should exercise the 'sole control' of its management and receive an annual payment for transacting the business of the Midland Counties Company."

In the early days of joint operations between railway companies the "London & Birmingham" and the "Midland Counties" probably eyed each other with suspicion and the station grew in phases as required. It must have been still being built when it was brought into use -- hence doubt as to when the "London & Birmingham" started using it. Nevertheless with the establishment of the junction and the handling of all traffic to the north, with locomotive changes for all trains, it must have been a busy place even if it was a hotch-potch of inconvenient facilities. By 1848 an old Rugbeian, C.F. Newmarch, recalled a return to Rugby:

"But when we at length stopped at the station, a great change was indeed perceptible. We remembered nothing of the long range of buildings, with its engine houses and immense establishment; when we left Rugby, a little wooden station of very modest dimensions was found sufficient for all the traffic that then existed, whereas now we have a platform some hundred feet in length, and even more accomodation is still required."

The narrative continues to describe the much loved "Regulator" (the "Pig") -- a stagecoach of nostalgic memory, but having only two horses,

and how it was eclipsed during the shuttle before the completion of the Kilsby Tunnel.

The community life of the railway was now evident and the "London & Birmingham" Minute No 1237 of 27th March, 1840 records:

"Resolved - That permission be granted for the use of the waiting room at Rugby for the performance of Divine Service on Sundays and that the Chairman and Deputy Chairman be requested to give the necessary directions herein".

Early writings about railways ignored the blemishes and one of the first notes of discord was in the London Illustrated News of 30th December, 1848:

"A Reading Room (has been) set up at Rugby Station adjoining the Midlands shed on the up side to which passengers may obtain access by payment of 1d. to read newspapers, journals and periodicals a much pleasanter occupation than walking up and down the long dull cold platform at this inclement season for those persons who are obliged to do so two or three hours before they can proceed on their journey, as is the case since the alteration in time of running the trains along the different lines that join at this station."

The platforms were very low and required "quite an acrobatic feat to climb in and out of the carriages". A much quoted letter in the Rugby Advertiser of 2nd October, 1847 from a visitor to Rugby complains of the sleepiness of the town and perhaps with a little literary licence describes:

"a long metallic roofed piazza and platforms; its legions of corduroyed porters; its labrinth of interlacing lines of rails; and its dozens of spluttering, hissing engines...."

The road to the station is then described:

"about a mile long, and is very much like a tunnel with the top off. The only thing you see in it is dust which is never out of your eyes."

Railway Terrace was then fenced on either side with old sleepers as it ran almost through open country to the station. In 1891 the "Rugby Town & Trade Improvement Association" asked for the sleeper fence to be repaired and the "London & North Western" offered to substitute an iron fence.

A detailed plan of the second station taken from the Beatty Survey of 1851 by a Mr H.Lodge in 1912 and reproduced herein (as a tribute to the work of Mr Lodge^{*} in compiling and binding the sets of the Rugby Advertiser now in the Public Library -- including copying out by hand the missing issues -- advertisements and all) shows a truly immense establishment. The up side had a canopy over the platform and a bay for the Midland local trains. The little circles are mini-turntables for the sorting of and removal of defective waggons and carriages. The narrow platforms outside the main station were for the collection of tickets. It was virtually on the level with no excavation down to where the present entrance is. The report, also much quoted, by Mr G.T.Clark in 1849 for the General Board of Health states that about 450 persons live in 89 houses about the railway station and this was slightly less than the density in other parts of Rugby which was 5.7 persons per house.

The prospect of the arrival of the 7'0" gauge of the "Oxford & Rugby" brought proposals for the station to cope with the transfer of passengers, luggage and freight from trains of one gauge to the other. The story of the "Battle of the Gauges", the influence of Rugby and the proposals for the station has been told earlier. The death knell of the "Oxford & Rugby" was sounded on 16th July, 1846 when the "London & North Western" was formed by amalgamation of other lines to obstruct its progress. We conclude that the implications of this

* Mr Lodge, a traffic manager at the Midland Station, died 3rd May 1932

unhappy episode were not generally realised when on 1st August, 1846 the Rugby Advertiser commented that the station "is at present very considerable" and that when the "Trent Valley" and "Oxford & Rugby" lines are completed it will be of even greater importance, especially with the change of gauge. Seven acres of land were reported to have been bought for extensions. A further article on 5th December, 1846 states that there is no need to describe the present station as it is well known to all the readers ! However, it continues to state that railways would soon be radiating in seven directions from Rugby, the present station would be inadequate, and consequently:

"nearly 13 acres of additional land (would be) purchased at the back and adjoining the present station, whilst the latter will be pulled down and an extensive one built on its site and adjoining ground. The front will be in the form of a crescent the passengers instead of crossing the line will walk safely underneath the railway by means of a tunnel, or over it through a gallery thrown from one side of the station to the other.

Was this the seed of the idea resulting in the present tunnel entrance but built 40 years later ? An additional line of rails was to be provided for the transit of freight and there were to be separate booking offices for the different companies. The number of main line passenger trains using the station at the time was 15 up and 14 down on the "London & North Western; and 11 up and 10 down on the "Midland".

A map of "the new station together with the adjoining fields" was given in the Rugby Advertiser of 1st January, 1848 and is also reproduced herein. It does not show any sign of the "Oxford & Rugby" although its diversion to Birmingham did not commence until 1849.

Proposals for a bridge over the platforms are "confirmed" in the Rugby Advertiser of 3rd November, 1849. The Beatty Survey of 1851 does not show such a bridge but it is probable that one was built at about that time. Piecemeal work continued and the Rugby Advertiser of 11th May, 1850 reports that considerable changes had

occurred at the station during the previous fortnight with increased accomodation for horses, cattle and stock being brought into use:

"To effect this a number of buildings south of the station, adjoining the railway yard, and extending nearly to the junction of the Rugby and Stamford Railway with the London and North Western Railway, have been pulled down and a large space thus obtained, which forms a most convenient and roomy dock for the reception of cattle prior to loading or unloading; whilst the 'landing' place is also most admirably adapted to the purposes intended."

Mystery surrounds the next phase of the development of the second station. The Rugby Advertiser of 24th April, 1852 reports:

"We understand that Messrs Braunston & Guyther of Birmingham have obtained a contract for a portion of the work at our station. We are told that £10,000 was the price. There will be a great deal of glass and iron used in the construction of the building."

There had been 16 competitors for the work but it is not clear what it would have involved. The price is too much for the overbridge mentioned earlier. The mystery deepens when we examine plans for an entire new station re-drawn earlier this century from the original and annotated:

"Taken from drawings of proposed alterations prepared for the Midland Railway by John Sanders, Architect, and dated 16th August, 1852. Although on 25th September, 1852, a contract was signed with J.E.Hall as contractor, the work was never carried out and it must be assumed that the building to be seen today (ie earlier this century) is the one erected circa 1840 when the Midland Counties extended its line from Leicester to Rugby."

This annotation is on the sheet concerned with the "up" side of the station. A similar sheet exists for the "down" side and is clearly

related to an original "London & North Western" drawing. We conclude that the "Midland" was to take responsibility for the 'up' side, and the "London & North Western" for the 'down'. The re-drawn plans are reproduced herein. The original 'up' side building facade (where the present Postal Sorting Office is) remained even after the eventual rebuilding in 1885 and was sketched for E.Lodge in 1912 as page 166. We conclude that the Braunston & Guyther contract was also withdrawn.

It would seem that the most important event in the next thirty years was the unintentional and prolonged interruption of a journey by Charles Dickens and the unfortunate encounters that he had with the station and refreshment room staffs. He caricatured these in a magazine article entitled 'Mugby Junction', a copy of which is available in the Rugby Public Library, and gives an excellent if libellous account of the day to day life on the station and the happenings in the refreshment room with its five entrances, 60ft long counter, stale buns and tea/coffee from the same urn. The Goods Manager at the time wrote to a friend in 1866 saying:

"It isn't London; but mind you, Rugby is not to be sneezed at although our refreshment rooms do not come up to the wishes of cold, tired, ill-tempered and over-pampered authors nevertheless Rugby is a neat clean town with good shops, and gentlemanly boys, and civil tradesmen, and an excellent church choir which my daughter is about to join."

A 'non-event' of great importance to Rugby station was the opening by the "Midland Railway" of its own through route to St. Pancras in London on 1st October, 1868. The "Midland" line to Leicester immediately lost its status and effectively became a minor branch line. The importance of Rugby as a junction was reduced slightly but a steady expansion of trade soon replaced the lost traffic and the familiar congestion was restored.

The Rugby Advertiser of 12th June, 1875 states that over £1,200 is paid weekly in wages at Rugby station.

* see page 201.

Until 1888 virtually every train stopped at Rugby for a locomotive change. The piecemeal hotch-potch of the second station, parts of which by 1882 were 42 years old, had become so unsatisfactory that in February of that year, two months prior to the formal opening of the new line via Northampton, the "London & North Western" allocated £70,000 to rebuild it. This was a major event and was accompanied by the construction of the flyovers to the south of the station as related earlier in the chapter entitled "The Northampton Loop". The work followed the rebuilding of the goods station and cattle sidings in the two years previously and must have caused disruption to traffic and inconvenience to passengers on a scale hard to imagine.

The new station was some 90 yards nearer London than its predecessor and differed from it in every possible manner. This is the station that we see today (1981) with its huge island platform 37 yards wide and 470 yards long with passenger access by a subway and all the offices and facilities in a central block on the island. The local trains were to be accommodated in bays at either end of the island. The platform was to be 1' 9" above the rails -- this being 6" higher than the then 'down' side and 12" to 14" above the then 'up' side. The platform height was limited in this way to permit examination of carriage wheels -- the work of raising the platforms to their present height did not commence until 2nd February, 1914. The work for the new station was to involve excavating a 13' deep cutting and building a huge retaining wall and a new road leading down to the subway entrance and the path to Brownsver Mill. An overall roof of two spans totalling 117' was to be provided. However, the feature that was to become most famous among railway enthusiasts was the 'scissor' junction opposite the middle of each main platform -- although normally a through road, the platform was so long that many trains could be accommodated in half its length and could gain access or leave the platform over the 'scissor' even if the other half platform was occupied. An excellent article was

published in the "Midland Times" of 24th January, 1883 and is appended to this account.

The opening of the third station was described by H. Lodge in a further excellent article in the Rugby Advertiser on 26th December, 1908 on the history of the "London & North Western Railway" in Rugby:

"On 5th July, 1885 about 300 men were employed in getting the points etc. altered in readiness for the first train to run into the new down side. After the mid-day train had left the old down side, the next train due at Rugby was the one from Market Harborough at 6.45pm. About 1500 people assembled on the platform to see it arrive and some 200 people walked to Clifton Mill and joined the train there. The engine was driven by Mr Cooke, Assist. Loco. Superintendent, and crowded upon the engine were Mr Trench the Resident Engineer, Messrs Ellison, Butcher and other officials. On 10th April, 1886 the up side was brought into use and in June of the same year the work was completed."

The station opening had been celebrated on 3rd July, 1885 with a dance on the platform at which 2,000 persons were present. The proceeds from the 6d. (2½p) admission charge were given to the new St Cross Hospital; music was provided by the steam sheds band suitably located in two trucks beside the platform.

At the time of opening of the new station more than 120 trains passed daily -- only one of which did not stop. In peak seasons goods or mineral trains were despatched every nine minutes throughout the night; and coal trains from Lancashire, Yorkshire, Leicestershire, Warwickshire and Cannock Chase were made up at Rugby.

The "Midland" activity was not immediately swallowed by the impressive new facilities and manuscript extracts from the Rugby Telegraph Office Log Book for 12th November, 1908 record that:

"Mr Johnson, Midland Station Master, Rugby, left the station. The whole of the station put under one Station Master and the Midland Yard under a Yard Foreman. The Midland Station Master's clerk put in the L & NW Station Masters Office, and the Midland Station Masters office (which stood at the opposite end of the building containing the L & NW Station Masters office) closed. All traffic messages dealt with in the yard, and goods messages at the North Western goods shed. Mr Walton being appointed joint agent. Passenger messages dealt with (by) Mr Hodge. Most of the Midland engines removed to Leicester."

A further entry in April 1909 records that the Midland engine sheds had been closed and all engines and men sent to Leicester.

The "Midland" retained a very low platform and parts of the 1840 buildings (see page 166). The platform was used within living memory, access being via the main entrance tunnel, but most traces of the building^{*} were removed at the time of electrification in 1964 and the construction of the Postal Sorting Office in 1965.

The railway stations of Rugby include of course the "Rugby Central" station on the line to Marylebone opened in 1899 and closed in 1969. This too was of the island type but reached from a road bridge above rather than a subway below. A description, plan and sketch are given in the chapter "The Great Central Railway in Rugby". The "Great Central", or "London & North Eastern Railway" as it became always had its own faithful supporters and provided a good alternative service to London and half a dozen through expresses a day to and from Sheffield with services also to Bradford, York, Hull and Newcastle. Perhaps the most valuable additional facility was a service to Southampton, Bristol and Cardiff via Cheltenham or Oxford rather than a detour through Birmingham or London.

* The Midland office in the old up-side building closed 8th March, 1930.

Rugby has been lucky in its railway stations; the junction status has ensured that the service to London and virtually all other parts of the country has been better than average for a town of its size. For the first half of this century, with the addition of the Central station, even the West Country was readily accessible. Regrettably this is not as true as it was but it is still impressive. Happily the station has never dominated the town centre and the contraction in services has not left a white elephant there. Rugby has every reason to be grateful for this combination.

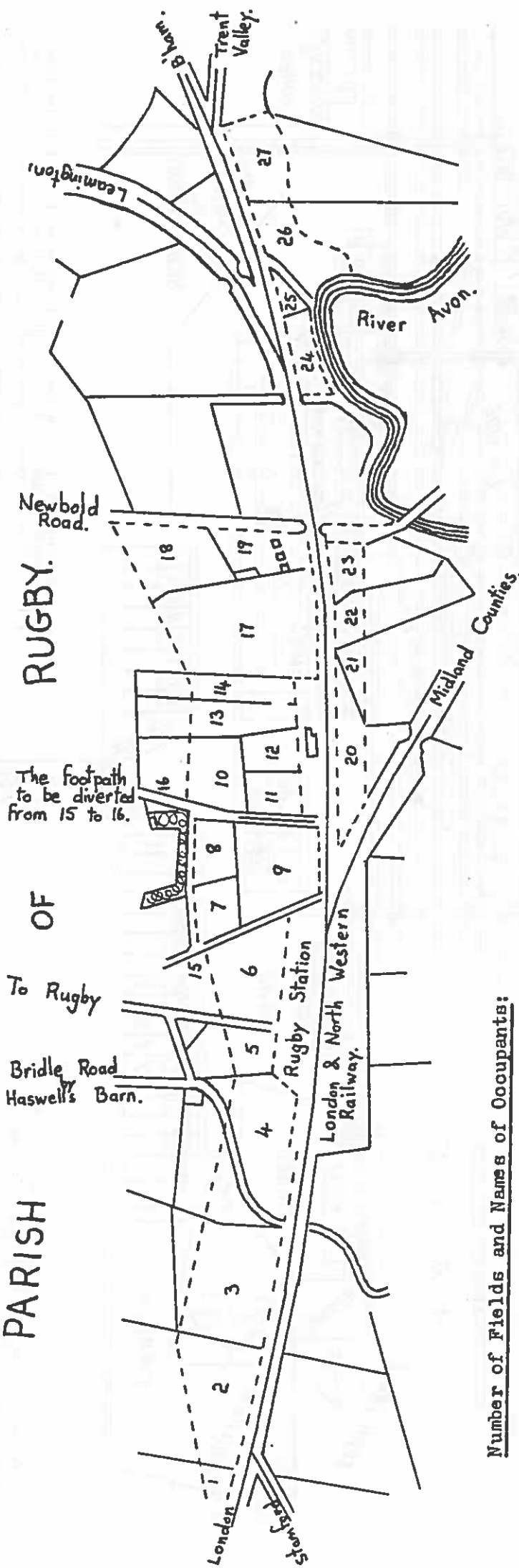
In postscript, some snippets do not readily fall into the main narrative. Two such snippets are (i) that at the same time, 18th February, 1882, that the Minutes Book of the "London & North Western Railway" records agreement to spend £70,000 on re-building Rugby station, it records agreement to spend £30,000 on an hotel in Rugby. The present author has found no further reference to this. (ii) The Rugby Advertiser of 23rd July, 1881 records "The New Goods Shed in Wood Street opened on Monday last and the old shed has been closed".

The dotted lines show the land required for the enlargement of Rugby Station, One Mile, Two Furlongs and Eighty Links in length.

PARISH

OF

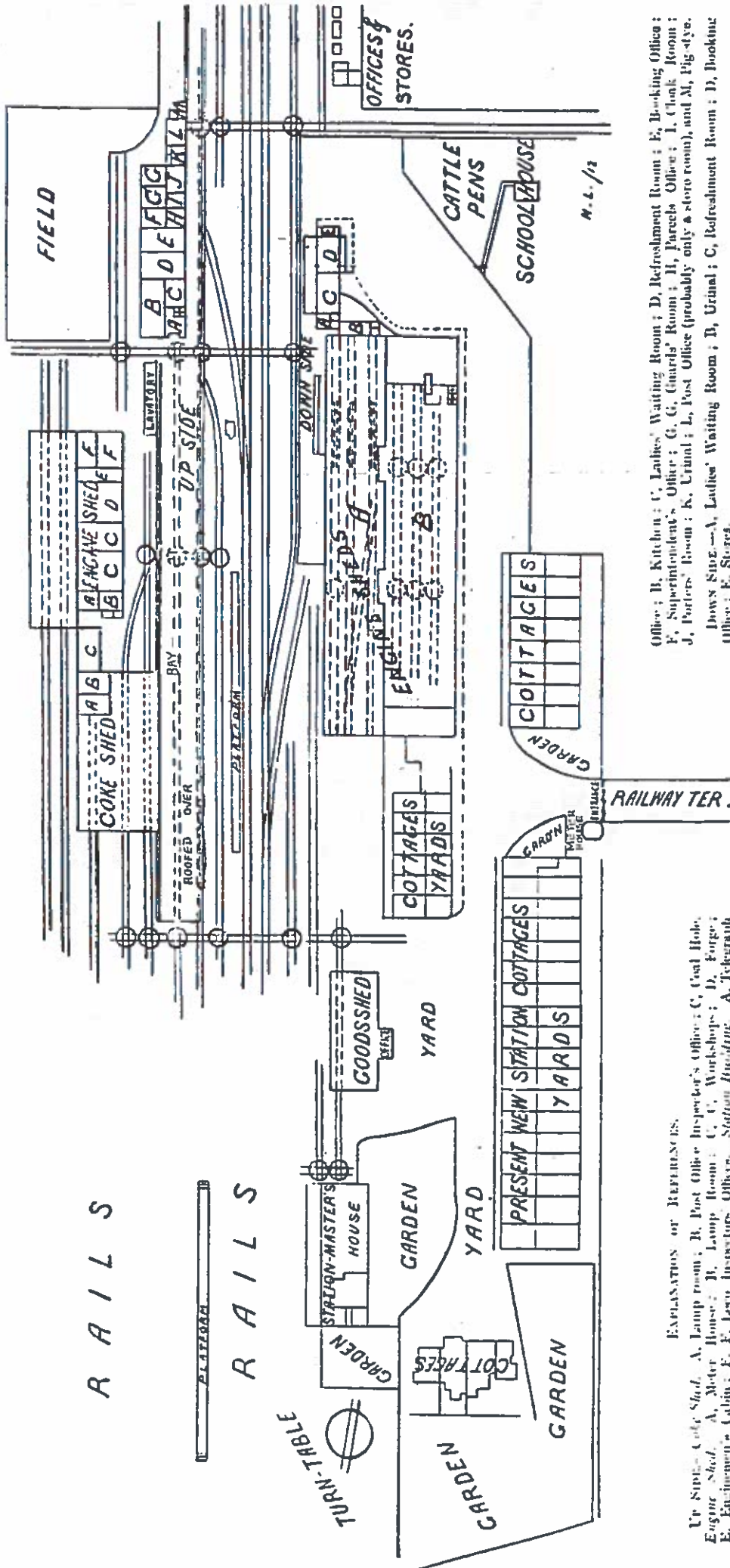
RUGBY.



Number of Fields and Names of Occupants:

- 1 Grass, James Ward, Esq.;
- 2 Grass, Samuel Jeffery;
- 3 & 4 Glebe, E. Haswell;
- 5 & 6 Arable, Richard Clarke;
- 7 & 8 Grass, T. Caldecott, Esq.;
- 9 Arable, 11 & 12 Arable, 13 & 14 Grass, T. Caldecott, Esq.;
- 15-16 Footpath diverted;
- 17 Arable, T. Caldecott, Esq.;
- 18 Arable, Ditto;
- 19 Brick Yard, Wm Parnell;
- 20 Grass, T. Caldecott, Esq.;
- 21 Grass, John Bagshaw;
- 22 Ditto, Geo Wrighton;
- 23 Arable, Ditto;
- 24 Arable, John Reynolds;
- 25 Grass, Wm Bliok;
- 26, 27 Grass, John Reynolds.

BASED ON H. LODGE'S COPY OF A MAP IN THE RUGBY ADVERTISER 1st JANUARY, 1848.



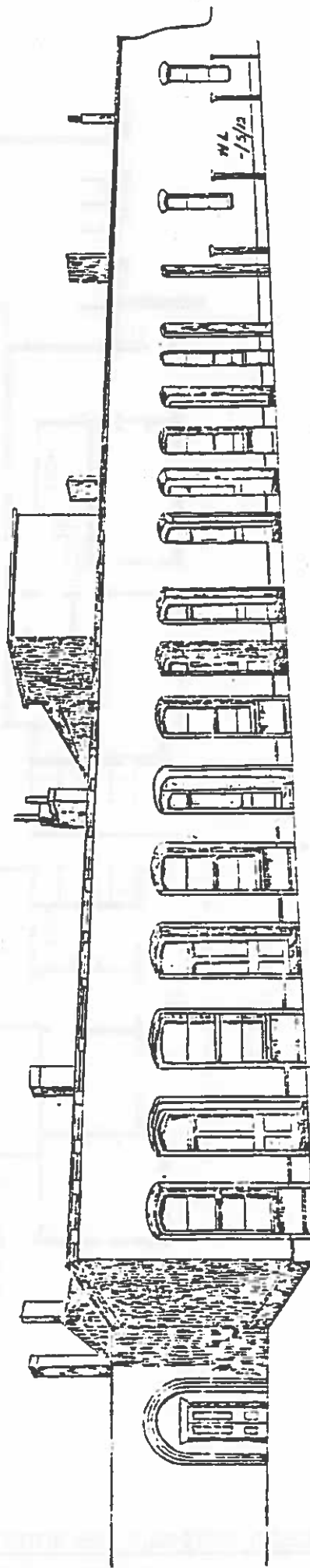
Office; B, Kitchen; C, Ladies' Waiting Room; D, Refreshment Room; E, Booking Office; F, Superintendent's Office; G, G. Guards' Room; H, Parcels Office; I, Clock Room; J, Porters' Room; K, Urinal; L, Post Office (probably only a store room), and M, Pig-stye.
 Down Side --- A, Ladies' Waiting Room; B, Urinal; C, Refreshment Room; D, Booking Office; E, Stores.

EXPLANATION OF REFERENCES.

UP SIDE - Coking Shed. A, Lamp room; B, Post Office Inspector's Office; C, Coal Hole.
 Engine Shed. A, Meter House; B, Lamp Room; C, Workshops; D, Forge;
 E, Engine-men's Cabin; F, F. loco Inspectors' Office. Station Building. A, Telegraph

PLAN OF RUGBY STATION AND PREMISES IN 1850

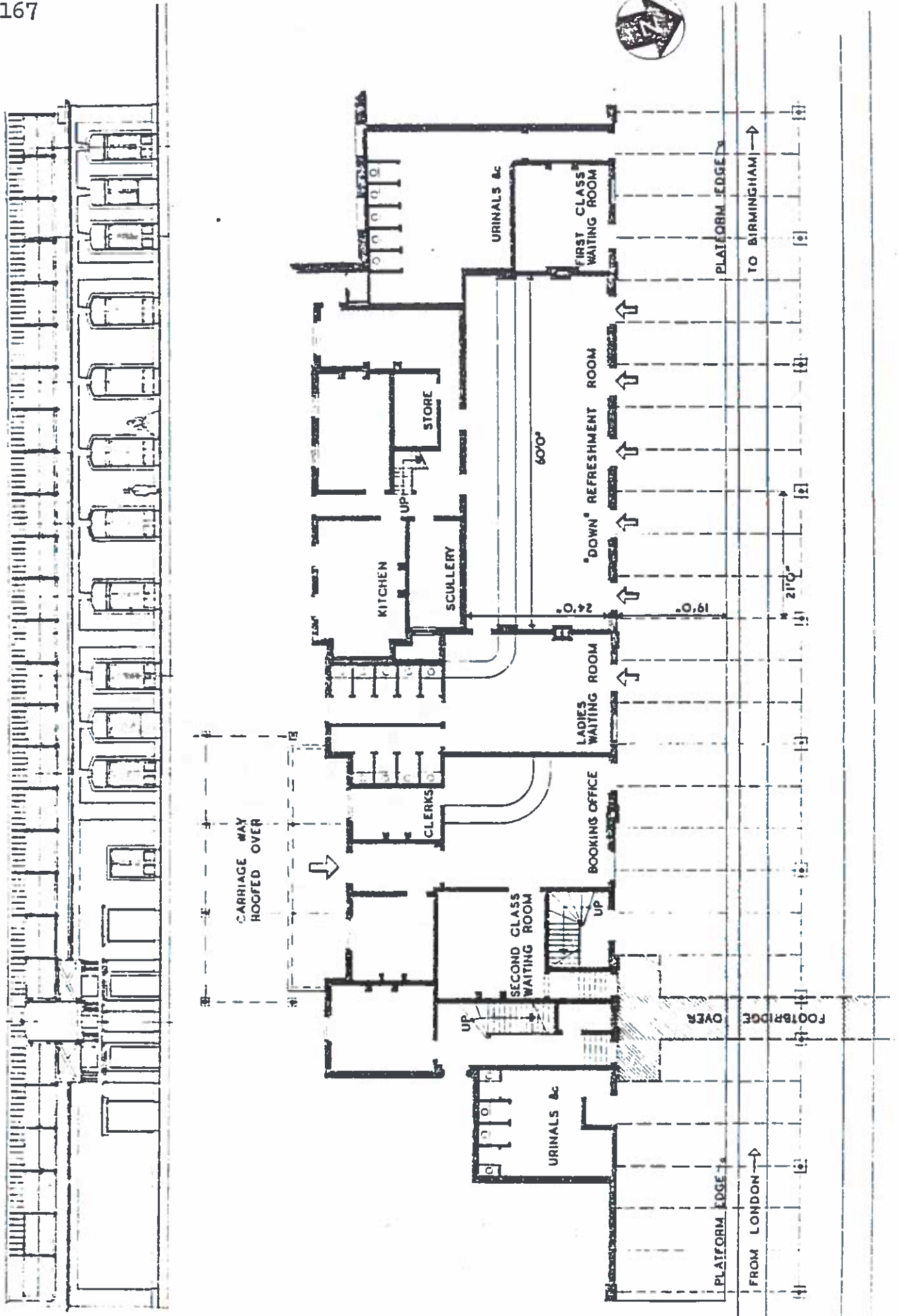
Taken from the Beatty Survey by H.Lodge (1912)



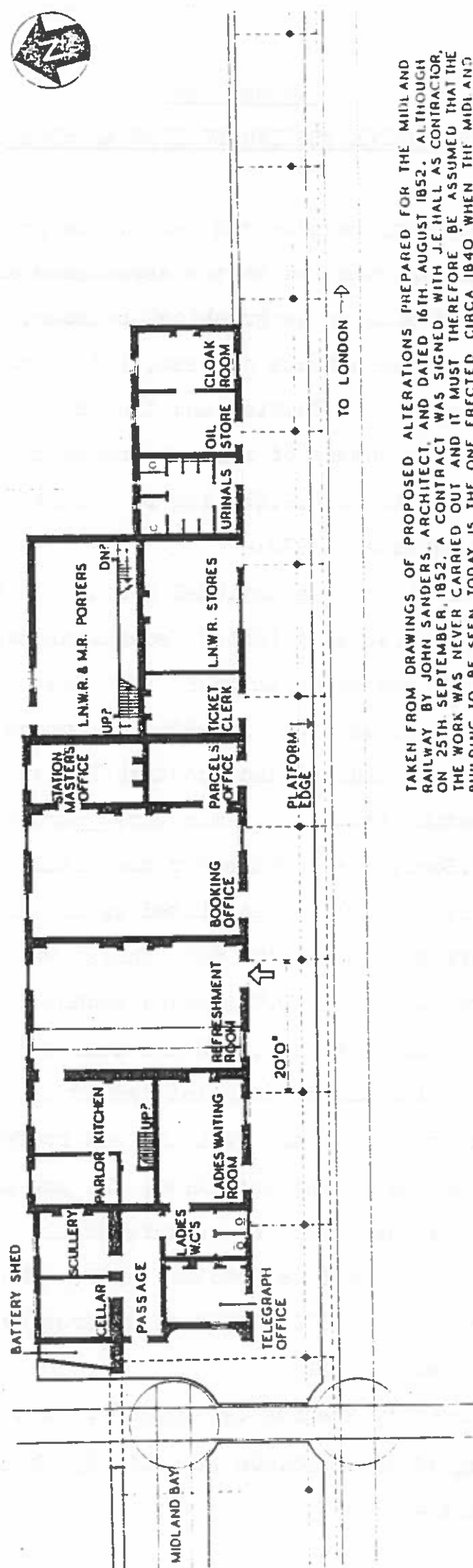
SKETCH OF BUILDINGS BELONGING TO THE OLD UP SIDE AS THEY APPEAR TO-DAY.

RUGBY'S SECOND STATION.

SKETCH PRODUCED FOR THE RUGBY ADVERTISER IN 1912.



UNFULFILLED PROPOSALS FOR RUGBY STATION DOWN
PLATFORM (LONDON & NORTH WESTERN) IN 1852.



TAKEN FROM DRAWINGS OF PROPOSED ALTERATIONS PREPARED FOR THE MIDLAND RAILWAY BY JOHN SANDERS, ARCHITECT, AND DATED 16TH AUGUST 1852. ALTHOUGH ON 25TH SEPTEMBER, 1852, A CONTRACT WAS SIGNED WITH J.E. HALL AS CONTRACTOR, THE WORK WAS NEVER CARRIED OUT AND IT MUST THEREFORE BE ASSUMED THAT THE BUILDING TO BE SEEN TODAY IS THE ONE ERECTED CIRCA 1840 WHEN THE MIDLAND COUNTIES' RAILWAY EXTENDED ITS LINE FROM LEICESTER TO RUGBY.

UNFULFILLED PROPOSALS FOR RUGBY STATION UP PLATFORM (MIDLAND SIDE) IN 1852.

Chapter 18.

THE LOCOMOTIVE TESTING STATION AT RUGBY.

Geographical reasons had led to the growth of junctions at Rugby that in turn had led to the ascendance of Rugby as a railway town. Rather simpler geographical reasons, being the point where L.N.E.R. and L.M.S. main lines crossed, led to the location at Rugby of the Locomotive Testing Station and the last major contribution by the town to the development of railway transport in the country.

According to Mr D.R.Carling in a lecture to the Newcomen Society on 22nd November, 1978:-

".... the idea of a national locomotive testing station was proposed by H.N.Gresley (Chief Mechanical Engineer of the L.N.E.R.) in 1927 and again in 1931, 1934 and 1936. But the times were not propitious, till in 1936 the London and North Eastern and the London, Midland and Scottish Railways jointly decided to build a testing station. The first Superintending Engineer was Mr R.C.Bond, responsible for the final design. In 1939 the author (D.R.Carling) was appointed as his assistant, but did not take up duty because of the war, whilst Mr Bond moved to more urgent work Mr D.W.Sanford became Superintending Engineer as the war neared its end, but his health gave way and the author succeeded him as from 1st January, 1948.

At that time the main building was roofed; the crane was in; the machinery was being assembled; the preparation shed was roofless; and the office was a bare shell. The official inauguration was on 19th October, 1948. The locomotive appropriateley was A4 No 60007, "Sir Nigel Gresley" (Sir Nigel had meanwhile died in 1941).

The Coventry Evening Telegraph of 20th October, 1948 reported the opening of the £200,000 facility by Mr Alfred Barnes, Minister of Transport:-

".... standing on a decorated platform overlooking the main test bed Mr Barnes pulled a chord attached to the whistle of the famous locomotive, 'Sir Nigel Gresley', which was standing there.

"This was the signal to the crew and immediately the huge wheels of the locomotive started turning. They gathered speed until they were flying round on massive rollers at an equivalent speed of 62 miles an hour, but without moving the locomotive a fraction of an inch from its original position

"After the 'Sir Nigel Gresley' had been 'put through its paces' the crew - Driver Ernest F. Moore of King's Cross Depot (a Royal Train driver), and Fireman Leslie H. Goode, of Rugby Depot - were presented to the Minister, who also had other railway representatives presented to him.

"The 'Sir Nigel Gresley' was then moved off the test bed and taken alongside another famous locomotive - the 'Sir William A. Stanier FRS' (Sir William was the former Chief Mechanical Engineer of the L.M.S. and was also present at the ceremony - PHE) which was standing outside the station with its crew Driver A.J.Nicholls and Fireman A.C.Mace, both of Rugby."

The testing techniques, the successes and the failures of the testing station are discussed in detail by Mr Carling in his paper to the Newcomen Society. The plant is also described in that paper but for our present purposes we will reproduce the contents of the official explanatory leaflet issued by British Railways:

"When the British Railways Locomotive Testing Station at Rugby was opened by the Minister of Transport on October 19th, 1948, Sir Eustace Missenden, Chairman of the Railway Executive, described the occasion as 'an important technical event in the history of the British Railways'. He went on to express his confidence that the Testing Station would prove 'an invaluable asset in the further evolution of the steam

locomotive, in the economical use of our coal resources for railway purposes, and in maintaining our country's position in the forefront of locomotive design and development.'

"The orthodox testing of locomotives in this country has hitherto mainly comprised the haulage of test trains: drawbar pull and other performance features of the locomotive under test being recorded in a dynamometer car coupled between the engine and its train. It is also possible, by means of special braking units, to carry out 'constant speed tests' on the road, in which the locomotive can be set to work at a constant indicated horsepower and results observed. Much valuable information has been gained from such tests, but operating schedules, signal checks, curves, gradients and varied weather conditions make it difficult to obtain strictly comparable data.

"The purpose of the Testing Station is to enable locomotives to be tested under running conditions (although actually stationary) and independently of weather and track conditions; it also has the great advantage that the apparatus can be closely observed at first hand instead of remotely as is necessary on the track.

"The Testing Station stands on a site of about $7\frac{3}{4}$ acres adjacent to the L.M.R. Motive Power Depot at Rugby, and consists of two buildings with rail and road approaches. The larger building comprises the actual test house with preparation shed, coal bunkers, and, above the boiler room, foreman's office and messroom; the smaller building nearby contains the offices and chemical laboratory.

"The testing plant itself consists of seven pairs of rollers which support the locomotive; up to five of these are driven by the coupled wheels of the engine and each pair is coupled to a 'Froude' hydraulic brake or dynamometer designed for a maximum speed equivalent to 130 m.p.h. The capacity of the whole plant

is rated at 4,500 h.p. capable of being increased to 6,000 h.p. if required. Each roller will carry an axle load of 30 tons.

"The torque transmitted by each driving wheel of a locomotive under test is indicated by electrical means in the Control Room as tractive effort at each axle. Measurement of the power of the locomotive is finally made at the drawbar by means of an Amsler dynamometer. The pull exerted by the locomotive is shown on a gauge and automatically recorded on a chart; the pull is exerted on a hydraulic cylinder mounted on a heavy vertical steel joist braced to the grillage which forms the basis on which the whole plant is mounted. This grillage contains about 60 tons of steel girders and is embedded in a concrete block varying from 6 to 17 feet thick and weighing about 2,000 tons; to avoid damage by vibration to the building structure, special steps were taken to avoid such vibrations.

"The main building of the Test House is 171 feet long by 66 feet 6 ins. wide. The adjacent Preparation Shed is 170 feet long by 41 feet and has two tracks equipped with inspection pits, and a 35 ton wheel drop. The Coal Bunker Annexe has six 12-ton bunkers fed from an adjacent track; coal is drawn from bottom doors in the bunkers and conveyed to the Test House by a travelling hoist.

"The main Test House contains, in addition to the testing plant, an internal two-storied brick building on the upper floor of which is the Control Room where most of the recordings are made. The room is sound-proofed and has double windows and doors. Here are situated the Amsler Recording Table, Control Desk, and, on a panel, recording instruments for temperatures of flue gases, inlet and exhaust steam, feed water, etc.; pressures of boiler, steam chest and exhaust; vacua in smoke-box, firebox and ashpan; and instruments for continuous analysis of the smoke-box gases.

"As various locomotives have differing wheel spacing, the roller units, brakes, drawbar and firing platform are all adjustable. The firing platform, which takes the place of a tender while the locomotive is on the plant, supports a coal bunker and shovelling plate forming part of a recording weighing machine so that the amount of coal supplied and fired can be accurately known; water is also carefully measured and the amount of exhaust steam used by any injector or feed-water heater is metered.

"There is a small workshop at the rear of the Test House where experimental fittings can be made and minor repairs carried out.

"The Administration Building includes a drawing office where any special fittings can be designed and where all compilation of results of tests, preparation of reports and proposals for future tests are undertaken."

Life in the Testing Station during a test was full of excitement. The noise must have been quite fantastic; one has only to stand near a steam engine drawing into a station and extrapolate the noise to that at full speed in the confines of a building and add to that a good measure of vibration to conclude that it was not for the faint hearted. Mr J.G.Click, former Assistant Works Manager at Eastleigh on the "Southern Railway" recalled some of his experience in part of an article in "Steam World" November 1982 issue:-

"In 1951 I transferred to Rugby Test Plant. When No. 35022 'Holland-America Line' arrived there, it began showing what it could do. Oil leakage was a worse problem than out on the road -- it got onto the rollers and ruined many a test, but the boiler never faltered.

"On one never-to-be-forgotten occasion, we were probing

the steaming limit and had settled down to a rate of 44,000 pounds per hour. Unfortunately, a frightful slip brought proceedings to an end too early to confirm what would have been an all-time record at Rugby.

"Because it was the rule, we ran all the Rugby tests at full regulator and at very short cut-offs, but at these short cut-offs vibration was excessive. Sometimes, after a test was over, and as a party piece to impress visitors, we left the cut-off unchanged and, whilst tapping the regulator partly closed, would release the load on the plant brakes and let the speed up into the 90s.

"Like that the engine rode with perfect steadiness and without the slightest trace of hammerblow. No other engine we tested ever ran so well. It was an interesting vindication of the Southern drivers, who usually drove on the regulator and in that way instinctively got the best compromise between efficiency and kindness to the machine.

"The test results were later compared with those obtained from a 'Britannia' Pacific, and were used to support the case for modifying O.V. Bulleid's Pacifics. Some interesting facts about thermic syphons, about brick arches and how not to re-draught the loco were also found out! "

Mr Carling, giving an impression that things could have been busier, summarised the achievements of the Testing Station:

".....(It) was used by 37 steam locomotives; the tests included some on the same engine before and after it was modified while some engines were tested more than once, so the total number of tests in eleven years could be counted as 46 (with 2152 'runs'), to which may be added two gas turbines, one electric, a diesel and a railcar. An unusual steam engine was the B.R. Class 9 with Crosti boiler. (This incorporated a boiler feed pre-heater leading to a curious arrangement with a chimney

on the side of the boiler just ahead of the firebox - the idea was not a success mainly due to corrosion by condensation from cold smoke in the pre-heater - PHE.) The English Electric Company's gas turbine locomotive, later GT3, came unfinished in the 'Lady Godiva' state - but she looked more attractive fully clad ! This is believed to be one of the few occasions when a test plant was used to get as much information as possible before a new design was finalised. Electric locomotive E2001 was used to investigate adhesion between 'rails', more strictly rollers, and for this a single axle running sufficed. As no adequate electric power supply was available, gas turbine locomotive No 18000 was used as a mobile generator just outside, but did not itself run on the plant.

" so ends the story, for B.R. had no further use for such a facility. The last test was made in 1965, and the plant (ie the machinery - PHE) was dismantled in 1970."

The building has continued in partial use as a minor outpost of the British Rail research unit at Derby for a variety of important but undramatic projects and for waggon repairs. The Testing Station has ensured that the tradition in Rugby of knowledgeable enthusiasm for steam locomotives has continued well into the next generation and beyond. For a while the Testing Station partially restored the importance of the town of Rugby to the national railway system; alas it has again lapsed to the status of a remotely controlled junction.

Chapter 19.LATER DAYS AT RUGBY MIDLAND.

The "London, Midland & Scottish" era at Rugby was dominated by the war. Rugby was, for a junction of its importance, surprisingly lucky with the bombing; the "Great Central" viaduct could have closed two main lines for the price of one. The traffic increased considerably; staff and equipment shortages, as elsewhere, led to long hours being worked in poor conditions. The L.M.S. era came to an end on 1st January, 1948 with the nationalisation of virtually all the railways in the country, the formation of "British Railways" and a bureaucratic addition of '(Midland)' to the station name.

One of Rugby's roles was in keeping the vital wartime traffic moving and an indication of how difficult things must have been during the war is given by the urgency with which the Rugby Traffic Control Office was modernised in 1946. The Nuneaton and Eretchley Offices were merged with the Rugby Office which then took over control of all traffic between Roade Junction, Stafford, Coventry, Leamington and Market Harborough; 339 route miles in total including 71 miles of the West Coast Main Line. Six men controlled all train, locomotive and stock movements through 162 signalboxes and 96 stations by telephone and telegraph messages. During the 1946 modernisation 362 miles of wiring were needed in the office on the first floor of the buildings on Rugby Midland station.

In the immediate area of Rugby station were six signalboxes, all manually operated but with the large levers, since 1939, operating colour lights in most cases rather than the heavy linkages to semaphore signals; the even heavier linkages to the points remained though. Number 1. Box at the London end of the platform had 185 levers, Number 2. Box with 27 levers on the down side and Number 3. Box with 28 levers on the up side were of less strategic importance. Number 4. Box at at the north end of the platform (although the station actually lies east-west the terms north and south convey a better impression of traffic flow and are used in this sense in railway jargon), with 84

levers, controlled all down traffic; Number 5. Box with 175 levers controlled all traffic up and down and on the Leicester branch; Number 7. Box with 124 levers (Number 6. was taken out of service probably in 1939) controlled up and down traffic on the Trent Valley lines, the Birmingham line and the Leamington line.

According to Mr P. Weston in an excellent article in the "Steam Railway" October and November 1981 issues (to which the reader is thoroughly recommended and from which much of the following information about the steam sheds is extracted) in 1950 the Rugby running shed (2A)^{*} had a stud of 106 locomotives - being so close to London there were no "top link" locomotives for the principal passenger expresses among them. The stud was made up of 6 compound 4-4-0's for main line passenger duties; 43 4-6-0's for passenger, parcels and semi-fitted freight duties; 7 2-6-4 tanks mainly for Leamington and Leicester branch duties; 1 2-6-2 located at Seaton for Seaton-Uppingham branch duties; 4 0-6-0's mainly for Market Harborough branch duties; 16 2-8-0's for through freight and mineral trains; 16 0-8-0's for coal, empties and freight duties; 2 2-6-0's and 7 0-6-0's for shunt and trip duties; and 4 shunting tanks.

Rugby shed (2A) had responsibility for Nuneaton (2B) with 75 locomotives, Warwick (2C) with 16 locomotives and Coventry (2D) with 10 locomotives. Many of the locomotive duty rosters took 3, 4, and 5 days and they only returned home once per week.

Although without top link express locomotives of her own, Rugby did provide crew changes for a number of turns. On the freight side also crews had to be changed: but also more frequently the locomotives themselves were changed. In the 1950's between 50 and 60 freight trains passed through Rugby each way each day. Most of these stopped for water, examination (Rugby was just within the 85 mile limit permitted between examinations from both London and Crewe) and crew changes. The crews were divided into "links" according to the category of duty they were qualified to undertake and to share duty

* The shed numbers were subject to several revisions see Page 205.

rotas within the link, and in 1950, according to Mr Weston these were:-

- 2- passenger links each with 12 crews
- 6- freight links each with 12 crews
- 1- freight link with 6 crews
- 1- shunting link with 12 crews
- 1- disposal link with 8 crews
- 1- shed link with 6 crews
- 1- control relief link with 7 crews (under the jurisdiction of Traffic Control)
- 1- special link with 9 crews (reliefs for sickness, holidays and special workings etc).

Moving on to the almost recent past, Rugby was earmarked for electrification from an early date and the first phase of the post-war Modernisation Plan had little effect on the town. The throughput of traffic was expected to increase considerably with electrification and one of the first new facilities was a new flyover north of Rugby to avoid a surface crossing of the up Birmingham line with the Trent Valley lines. Announced on 5th March, 1957 the flyover was to cost £870,000 and to be made of reinforced concrete - a material not available when the southern flyovers had been built in 1881. The up Birmingham trains were to have direct access to the main up fast and the up goods lines, but the flat junction was retained until much later to allow the up Birmingham trains to gain the up slow line without crossing the path of a train on the up Trent Valley fast line. The flyover was brought into use on 19th August, 1962.*

The next development had to wait until the new signalbox and equipment was available. The first part of the new "power signal box" was commissioned on 14th September, 1964 and it became fully operational on 27th September, 1964. It covered what at that time was the largest track mileage of any "British Railways" signalbox and had the most extensive area to control of any in Western Europe. Its territory comprised 35 miles of the West Coast Main Line from

* see page 202.

Castlethorpe to Brinklow; parts of the Northampton loop but excluding the Northampton area itself; the Birmingham line nearly to Coventry; and short lengths of the Market Harborough and Leamington lines. This totalled 59 route miles and 159 track miles. It replaced 22 mechanical signalboxes and, together with increases to the speed limit on the fast lines through the station from 45 mph to 60 mph, allowed the headway for following expresses running unchecked to be reduced from 7 minutes to 3 minutes. The signalbox and its operation is well described in "Modern Railways" February 1965 issue: it was supplied and installed by SGE (Signals) Ltd.

Electrification was at 25kV 50Hz with overhead catenary. The catenary was energised along the Trent Valley and into Rugby on 30th November, 1964. Diesel traction continued southwards for another year and to ease the procedure for locomotive changing, the Market Harborough line was electrified as far as Clifton Mill station to permit electric locomotives from up trains to run on to Clifton Mill and return to the opposite line along the viaduct over the golf course and the flyover by Clifton Road to reach the main down lines. This move avoided the alternative of a double shunt from the up lines into the south end bays to gain the down line; or the use of crossovers at the extreme north end of the station from the up and down engine line and right across the up goods, up fast and up slow lines to reach the down lines. The catenary was energised southwards on 8th June, 1965 with full electric traction to Euston commencing on 3rd January, 1966 and westward to Birmingham on 2nd January, 1967.

Facilities at Rugby associated with electrification include an electric traction feeder station located where the Trent Valley and Birmingham lines divide. The single phase traction power supplies are provided at 25kV via two CEGE-owned 18.75MVA 132:25kV transformers operating in parallel. Under normal conditions the Rugby feeder station supplies traction power between Weedon and Church Erampton

to the south, Berkswell on the Birmingham line and Nuneaton on the Trent Valley to the north.

A further facility associated with electrification is the Electric Maintenance Depot. Initially, in 1965, called the District Electric and Diesel Depot, the intention was to perform routine inspection and minor repair of locomotives and multiple units between their visits to the main works. This facility has proved to be unnecessary and the depot, with two 300 ft roads has performed a variety of tasks before finding a specialist role in the maintenance of "on track" machinery for ballast cleaning, tamping and other specialist tasks for the entire district including Euston/Hampton-in-Arden/Rugeley, St Pancras/Bedford and Marylebone/Aylesbury. The overhead line or catenary is also maintained from the Electric Maintenance Depot for routine and emergency purposes over an area bounded by Northampton and Weedon in the south and Canley and Tamworth in the north. This covers 74 route miles or 210 electrified track miles. The equipment to be maintained comprises approximately 1,700 structures, 200 tension lengths and 20 neutral sections. The Maintenance Train at the heart of this organisation consists of seven coaches and a drum carrier, the coaches are equipped to carry stores and tools and to provide messing facilities; one is equipped as a generator van to power the internal lighting and the roof mounted fluorescent lights. The Maintenance Train was replaced with a similar but brand new unit in 1982. Another function of the Electric Maintenance Depot is carriage and waggon repairs, performed (1982) in the two-road annexe to the former Steam Locomotive Testing Station which is equipped with a wheel drop and a 6 ton capacity gantry crane.

Attached to the Electric Maintenance Depot is an Electrical Control Room, brought into use on 20th June, 1964, and which controls and supervises the supply of electric traction power at 25kV 50Hz to lines bounded in the south by Weedon and Church Brampton (just north of Northampton) and to the north by Rugeley on the Trent Valley

line and Queensville on the line via Birmingham. This constitutes 160 route miles covering the entire Birmingham area including New Street station and Bescot marshalling yards. The Control Room is continuously manned throughout the year 24 hours a day. The operator can remotely open or close any circuit breaker or bus coupler switch in the control area by operation of switches on a console 48 feet long. He can also monitor local power supplies to signals and points and he can contact by telephone staff at the lineside, stations, traffic control rooms, signal boxes, feeder stations, track section cabins and adjacent Control Rooms at Willesden and Crewe - and even the CEGB. Many of these links are by direct line and are to be augmented shortly (1982) by personal radios and radios in strategic vehicles and rolling stock.

The name was trimmed to "British Rail" in January 1965, and the work of Dr Beeching in trimming the branch lines has been referred to earlier. The last locomotive to be overhauled in the Erecting Shop was 0-8-0 48927 (2B) outshopped on 4th July, 1959. The locomotive shed slowly faded until closure on 25th May, 1965 as steam locomotives had been progressively banned from running "under the wire" and polluting the insulators. This last event changed the relationship between Rugby and the railway and a great tradition was broken. The "(Midland)" part of the name of the station was dropped in the early 1970's: perhaps this symbolised the end of the special relationship between railway and town.

APPENDICES.

APPENDIX 1.THE NEW RAILWAY STATION AT RUGBY.

Re-printed from "Midland Times", 24th January, 1883.

We should not like to say how long the prospect of a new railway station at Rugby has been talked about, but for years past it has been amongst one of the things that "were to be", and it has from time to time formed one of the staple topics of conversation. It would, doubtless, be a more difficult task to speculate upon the time it has occupied the consideration of the railway authorities -- the heads of departments and directors -- how many plans and ideas have been broached and designed, only to be consigned to forgetfulness. One thing is certain -- that with increasing traffic, the laying down of a third line on the Trent Valley railway, a double line of rails on the Leamington and Stamford branches, and latterly the opening of the new line to Northampton, the inefficiency of the present passenger station must have been felt to be slowly but surely increasing. Add to this the fact that several other important stations on the L. and N.W. system have been rebuilt and enlarged on an improved plan, and the necessity for doing something becomes much stronger. Not that the directors of the company have had their eyes closed to this necessity. The erection of the new engine sheds some years since and more recently of the new goods and waggon repairing sheds afford ample evidence that, at least, the broad outlines of the future Rugby station were settled. At the last general meeting of the company a sum of £70,000 was voted for the erection of a new station, and since then many of the minor details have been decided upon. We are now enabled through the kindness of Mr L.Trench, the company's resident engineer at Rugby, to give the public a definite idea of what the new station will be like.

We should imagine that almost every one who has travelled to or from Rugby within the last twelve months must have been aware that extensive works in connection with the new station have been in

progress, and we may say that it will be probably as much unlike the present one as that is unlike the one which preceded it near the Newbold-road (which many in Rugby can still remember), or even more so, as the platform on either side will be replaced by one huge platform in the centre, which is termed an "Island platform", 470 yards (over a quarter mile) long, by nearly 37 yards (110 feet) wide. It will reach from about its present north end as far towards London as to be opposite the end of Cambridge-street, and on it will be placed all the various offices, waiting-rooms, &c.; whilst trains will arrive and depart from either side.

The work necessitated in the first instance, the lengthening of the bridge under the railway, through which the road to Brownsover Mill passes, by 150 feet (sic) on the down side and a few feet on the other, and widening it from 11 feet 6 inches to 15 feet, the new portion being 24 feet wide. This was in order to give room for the new platform (of which we give a plan), with an increased number of lines on each side of it and to afford room for the down-lines of the Stamford and Northampton lines, which are to pass over the up main line by means of a viaduct, and will terminate in a bay at the south end of the platform. Messrs. Dransfield and Smith, of Sheffield, are the contractors, for the general works and approaches, and Messrs. Parnell and Son for building the station.

Railway-terrace will continue (to be) the principal approach to the new station, though we imagine it is only a question of time for direct access to be gained from Oxford and Cambridge-streets, the residents of which till then have to pass along Craven-street and by the Cattle Market into Railway-terrace. The road at the bottom will be brought forward by about its entire width, passing over the site of the row of cottages that were pulled down about a year ago; whilst the present road by the old goods sheds will be absorbed by the permanent way, laid with metals, and bounded by a strong wall, starting from a point opposite the new water tank at the bottom of Railway-

terrace. The road, on turning out of the Terrace, will begin to descend to about 15 feet below its present level, ending at a handsome glass-roofed entrance, 90 yards beyond the present one. From this a subway will pass under the rails, and access to the platform will be gained by two inclines of 1 in 10 (not steps), so that crossing the rails (which people are very fond of doing) and going over the bridge (which is generally objected to) will therefore both be things of the past

On each side of the platform will be four pairs of rails, two being for passenger and two for goods trains. In the accompanying plan only the former are shown. In the centre will be a scissor-like arrangement of cross lines (indicated by the large x), which it may be seen, will enable trains to pass from one line to the other. For instance, supposing a train to have pulled up at the rear half of the platform, a second could be brought on in front of it, and the two either connected or that behind could start first. The arrangement of the "bays" at either end of the platform will avoid the necessity of the Midland Co's trains having to cross the L. and N.W. down lines upon starting out of Rugby, as used formerly to be the case when they left the latter Company's down platform. Of course there are numerous sidings and other connections between the various pairs of rails that not only would be difficult for us to show, but would perplex the general reader.

The whole of the platform will be covered by a roof, which will extend over one line of rails on each side. This will be an immense convenience, and an effectual protection against the eccentricities of our variable climate.

The height of the present platform, especially on the up side, is generally voted as being only abominable, but in the station of the future there will be no room for complaint, as it will be simply an ordinary step below the floor of the carriages. Its height will be 1ft. 9in. above the rails, or 6in. higher than the present down side,

and 12 or 14in. above the level of the up side, whilst the paving will overhang on each side sufficiently to allow anyone who may fall down to roll out of the way of a passing train.

There is one very slight drawback to the new "island platform, which is inseparable from it whilst other stations have double or treble platforms, and that is, it will necessitate a constant locking and unlocking of doors, as passengers will enter and alight from the carriages at the opposite side to that by which they joined or leave the train elsewhere. This, however, is more than counterbalanced by the greater security it will give to the lives and limbs of the public generally.

Provision for the loading of horses and carriages will be made upon the landing already constructed, which is opposite the Northampton and Stamford bay, on the down side. The two walls now being built will be on either side of a road leading down from it, between the passenger and goods lines, under the latter of which it passes to the glass covered entrance. The present horse landing on the Stamford side will remain unaltered.

The down lines from the Stamford and Northampton branches are, as above stated, to be brought over the up lines. The former will diverge just after passing the Clifton Mill Station and after taking a sweep something like the bow of a large hand written s (S), will pass under the Clifton-road between Clifton Vicarage and the cottages known as Vicarage Hill, pass over the river Avon (sic) by means of a viaduct, and then crossing the Northampton up line, unite with its down line and then pass over the old up line to London on the Hillmorton side of the present bridge on the Clifton-road. The central arch of this bridge will be filled up as far as may be necessary to afford the required incline, and powers have been obtained to take down the two central arches and substitute a flat girder bridge so as to allow of more headway. The level of the roadway will not be disturbed. The lines will then descend to the level of the other

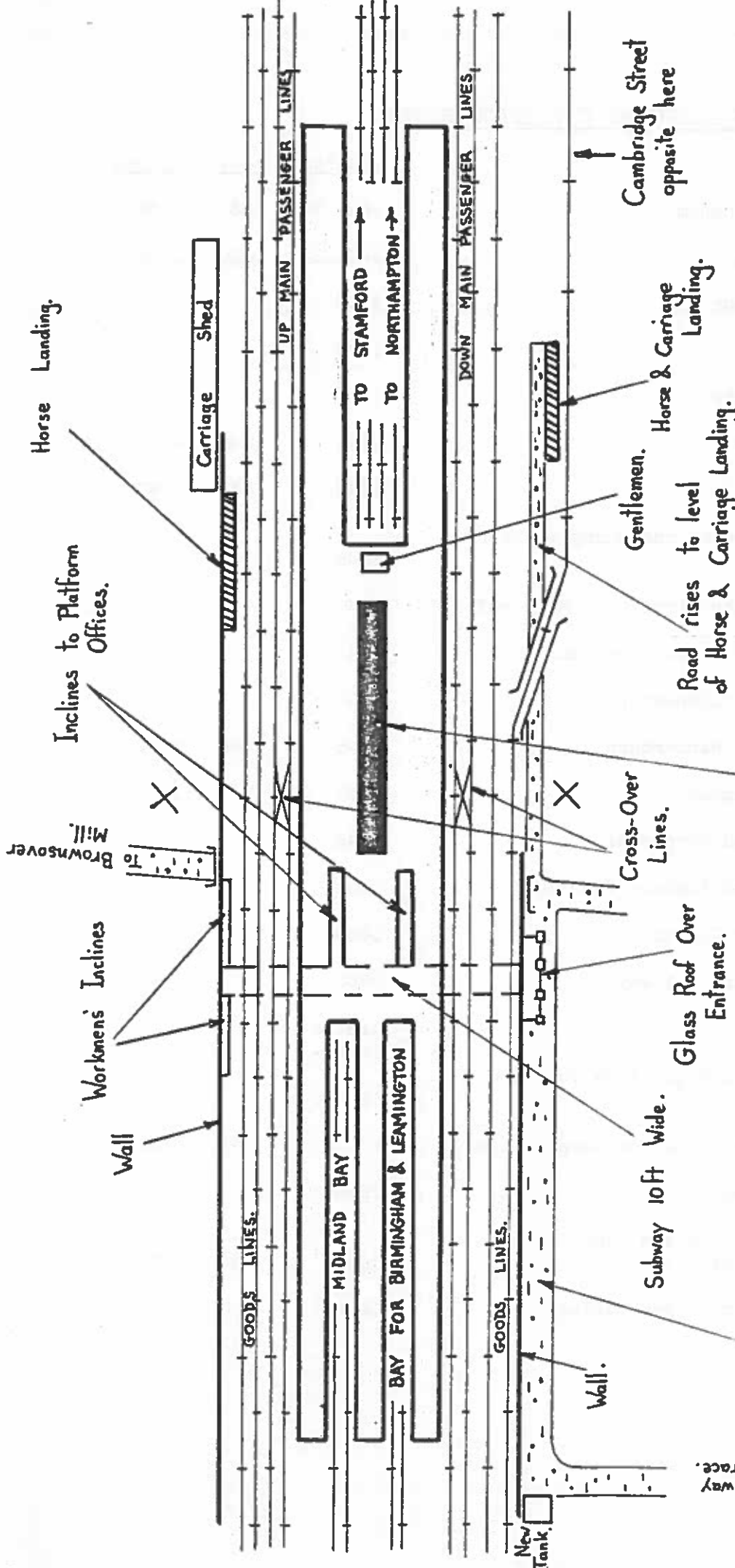
rails, the passenger lines ending in the central bay at the platform, and the goods lines having connections with the main goods, which will, however, be quite distinct from the passenger rails.

Considerable alterations will also be made at the north end of the station. The present Trent Valley Junction will be dispensed with, and two additional lines laid for the Birmingham branch (beside the present ones up to about where the Leamington line branches off,) where the junction will actually be placed, and all the points worked from one signal cabin.

It will be seen that the work of building the New Rugby Railway Station is a very intricate task, its cost will be very heavy, and it will take about two or three years from the present time to complete it, but when completed there is little doubt but that we shall be able to boast of having the finest railway station in the kingdom.

We cannot conclude without acknowledging the kindness and courtesy of Mr L.Trench, the resident engineer, who has most readily afforded us every information, with exact measurements, and has approved of the correctness of the general outline of the plan, which will, we trust, be sufficiently clear to our readers.

(Note: the said plan was not sufficiently clear to the present author; a form of patterned shading had been used that obscured the detail - an interpretation is given on the next page -PHE)



Inclined Road to Railway Terrace.
Road gradually falls to a depth of 13ft.

Main Block of Buildings 300ft by 40ft.
Waiting Rooms, Booking Office, Refreshment Rooms, Lamps, & etc.

THE NEW RAILWAY STATION AT RUGBY.

Based on the map in 'Midland Times' 27th January, 1883.

APPENDIX 2.DATES OF PROJECTED RAILWAYS INVOLVING RUGBY.

	<u>Title</u>	<u>Planned</u>	<u>Act.</u>	<u>Opened</u>
1.	London and Birmingham	1823/30	1833	1838
2.	Midland Counties	1832/34	1836	1840
3.	Tamworth and Rugby	1837		
4.	Stone and Rugby	1838		
5.	Stafford and Rugby	1840		
6.	Oxford and Rugby	1844	1845	-
7.	Trent Valley	1844	1845	1847
8.	London and Worcester and Rugby & Oxford Railway	1845		
9.	Manchester & Rugby direct via Macclesfield	1845		
10.	Rugby & Huntingdon Junction Railway	1845		
11.	Rugby Derby and Manchester	1845		
12.	Rugby and Market Harborough	1845	1846	1850
13.	Rugby and Leamington	1845	1846	1851
14.	Rugby Warwick and Worcester	1845		
15.	Rugby Southam and Banbury Junction	1852		
16.	Rugby and Oxford Junction	1860		
17.	Marton and Harbury Railway	1861		
18.	Southam Railway	1862 & 1865		
19.	Coventry and GW & Rugby & GW Junction Railway	1863		
20.	Bletchley & Rugby (the Northampton Loop)	1874	1875	1881
21.	Rugby and Cheltenham	1883		
22.	Manchester Sheffield and Lincolnshire (The Great Central)	1890	1893	1899
23.	Rugby and District Light Railway	1902		

APPENDIX 3.NORTHAMPTON.

There has been much debate over the years as to whether or not Northampton prevented the "London & Birmingham Railway" from passing through the town.

Folklore maintains that it was Northampton's lack of vision that compelled Robert Stephenson to take the westerly route involving the expensive Kilsby Tunnel. Certainly, in 1839, Thomas Roscoe's account of the "London & Birmingham" highlights this version of events.

There have been attempts ("Northampton Vindicated" by Joan Wake (1935)) to retrieve Northampton's tarnished reputation. Without doubt in 1833 at the time of the preparation of the final plans for Parliamentary approval Northampton was actively striving to influence the proposals so that the route would pass closer to its boundary. Decisions had been taken by then.

In all probability Robert Stephenson was more influenced by the additional gradients involved in the descent to Northampton and climb back to the Watford Gap than he was by the citizens of Northampton. It has also been suggested ("The Iron Roads of Northamptonshire" by C.A. Markham (1904)) that strategic reasons required the line to pass the military barracks at Weedon. However, the following extract from "Records of the Borough of Northampton" Volume II by Rev. J.C. Cox (1898) shows that the folklore is not without foundation:-

"In January, 1831, the assembly (of the Town Council) curtly decided that 'no consent be given by this House to the projected plan for making a Railway to and from London and Birmingham.'

However, in August of the same year, they felt obliged to consider the question more fully. Captain Moorson and Mr Currie, two of the directors of the proposed line, attended a meeting of the inhabitants, and laid estimates of expected rates for passengers and goods before them; they also stated that a railway

between London and Birmingham would certainly be proceeded with, so that if Northampton was not favourable, the line would be taken farther westward, and would probably pass near Aylesbury, and would not touch nearer than twenty-four miles to Northampton. The directors declined to pledge themselves in this event to make a branch to Northampton, but said that would be a matter for future negotiation. A committee of that meeting reported to the assembly to the effect that if a railway is fully determined to be proceeded with, that then every endeavour be made to have it as near as possible to the town of Northampton. The assembly, however, contented themselves with appointing a committee to confer with the town's committee, and declined to approve or disapprove. Here the matter seems to have dropped so far as the corporation were concerned, and Northampton, like many prejudiced towns, lost a golden opportunity."

APPENDIX 4.THE GREAT CENTRAL RAILWAY - STATISTICS.

1. Engineers: Sir Douglas Fox & Mr Francis Fox.
2. Resident Engineer: Mr A.W.H.Casson.
3. Contractor: Messrs Olver & Son, Horsham, Surrey.
4. Contract: £513,308; southwards for 14 miles from and including the Oxford Canal Viaduct.
5. Oxford Canal Viaduct:
 - (a) 4 spans each made up of 4 parallel steel girders.
 - (b) 2 spans 91 ft, 1 span 90ft and 1 span 120 ft.
6. Embankment over Clifton Brook:
 - (a) Nearly 300,000 cu yds of material required.
 - (b) 56 ft high, 280 ft wide at base.
7. Viaduct over LNWR lines:
 - (a) The northern end commenced with 13 segmental arches of 26 ft span and 1 of 14 ft span.
 - (b) Then followed 2 plate girder spans of 58 ft and 75 ft.
 - (c) Then 3 lattice girder spans of 105 ft, 165 ft and 105 ft; these girders were 20 ft deep.
 - (d) Finally a 40 ft plate girder span over Abbey Street.
 - (e) The viaduct is 385 yds long; 26 ft 3 ins wide between parapets; and is 32 ft to 42 ft above the LNWR lines.
 - (f) The viaduct climbs at a gradient of 1 in 176 and follows a left hand curve of 120 chains radius when travelling south.
 - (g) The steelwork was fabricated and erected by John Butler & Co of Stanningly Iron Works, Leeds. The weight of steel: 660 tons
 - (h) Refuges were let into the parapets at 60 ft intervals each side
 - (i) Blue Brindle brickwork was employed.
8. Cutting south of viaduct:
 - (a) 3,000 yds long; max depth 48ft.
 - (b) 1,329,000 cu yds of material removed.
 - (c) Slope of embankment 1 in 3 where depth greater than 20 ft and 1 in 2 otherwise.

9. Road Bridges:

- (a) Abbey Street as above.
- (b) Bridge Street - girder bridge 25 ft wide between parapets.
- (c) Clifton Road - oblique angle 34 ft 6 ins between parapets.
- (d) Lower Hillmorton Road - 3 segmental arches 25 ft between parapets.
- (e) Hillmorton Road - 2 x 36 ft girder spans 36 ft between parapets.
- (f) Ashlawn Road - oblique 3 x segmental arches 55 ft 6 ins span and 35 ft between parapets.

10. Rugby Central Station:

- (a) Contractor - J.Parnell & Son, Rugby.
- (b) Booking hall level with road - $17\frac{1}{2}$ ft down to platform by 3 x 10 steps. Roof of open timber with pitch-pine principals varnished and stained and varnished boarding.
- (c) Island platform 420 ft long x 32 ft wide - roofed for 157 ft.
- (d) General waiting room 29 ft x $10\frac{1}{2}$ ft.
- (e) 1st class, 3rd class and ladies waiting rooms each $18\frac{1}{2}$ x $10\frac{1}{2}$ ft
- (f) Station frontage 70 ft; height from rails to top of chimney 60 ft.
- (g) Style - "free gothic" with red pressed bricks and white Mansfield stone dressing.

11. Embankment south of Rugby:

- (a) $1\frac{1}{2}$ miles long; max 49 ft high.
- (b) 518,800 cu yds material required.
- (c) Intersected by 4 bridges and 2 culverts.

12. Sources of photographs:

- (a) Viaduct over Oxford Canal - "Great Central" vol 2 G.Dow P320.
- (b) Signal gantry before viaduct built - "History of L & NW Railway" W.L.Steel P285.
- (c) Completed signal gantry - "Great Central" vol 2 G.Dow P320.

- (d) Rugby Central Station - Opening Day Special Supplement, Rugby Advertiser 13th March, 1899.
- (e) Girder bridge over L & NW lines - ditto.
- (f) Viaduct over Oxford Canal - ditto.
- (g) The first special corridor train at Rugby Central - ditto.

13. Post Script:

- (a) The opening to goods traffic is recorded as 1st October, 1898 but coal may have been handled as early as 25th July, 1898 and general goods not until 11th April 1899.
- (b) The western chimney of the Central Station was struck by lightning and knocked off around 1950.
- (c) The platforms were built for 8-coach trains but were lengthened for 11-coach trains during the second world war.

14. Newton Collection.

A complete photographic record of the construction of the "Great Central" was made by a Mr S.W.A. Newton. His collection is now housed in the Leicester City Museum and selected photographs from it have been reproduced in 'The Making of a Railway' by L.T.C. Rolt.

APPENDIX 5.Midland Red at Rugby.1. Establishment in the Early 1960's.

49 buses and 2 coaches in service.

a) <u>Traffic Dept.</u>	b) <u>Engineering Dept.</u>
70 Drivers	1 Engineering Supt.
70 Conductors	2 Shift Foremen
5 Traffic Inspectors	3 Skilled Mechanics
1 Engineering Inspector	2 Labourers
4 Waybill Clerks	2 Night Cleaners
2 Wages & Schedules Clerks.	3 Women Day Cleaners.

2. Establishment in early 1983.

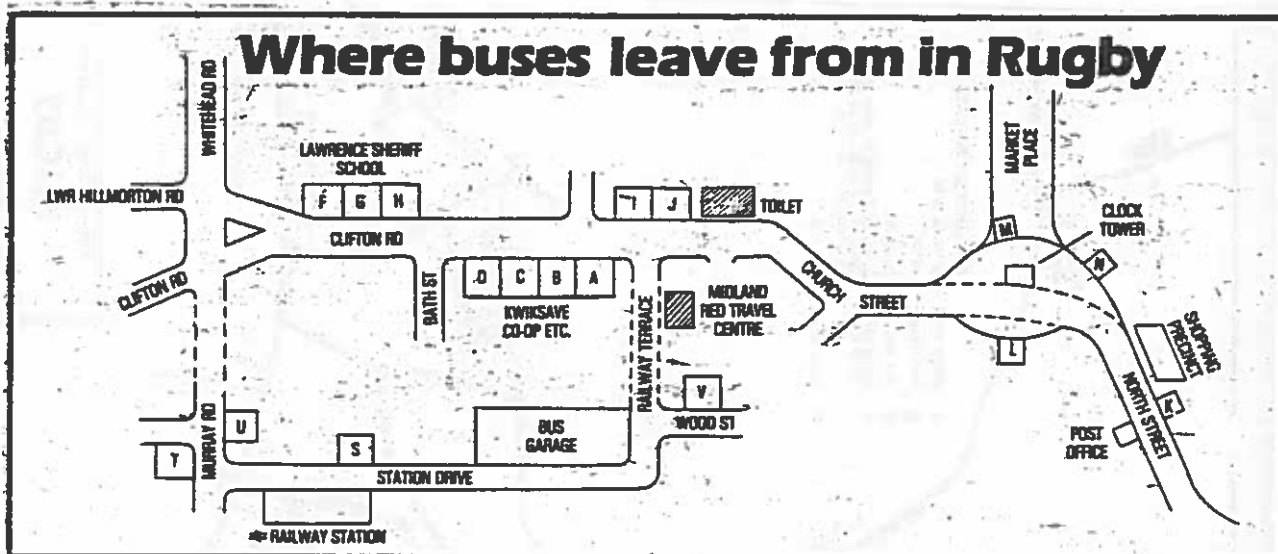
21 buses in service including 2 dual purpose coaches.

a) <u>Traffic Dept.</u>	b) <u>Engineering Dept.</u>
39 One Man Only Drivers	1 Engineering Supt.
1 Traffic Inspector	9 Skilled Fitters
1 Inspector in Charge	2 Cleaners
2 Traffic Clerks	1 Part Time Women Day Cleaner.
2 Part Time Sales Clerks	
2 Part Time Office Cleaners	
2 Part Time Canteen Staff.	

c) Midland Red South Head Office Staff.

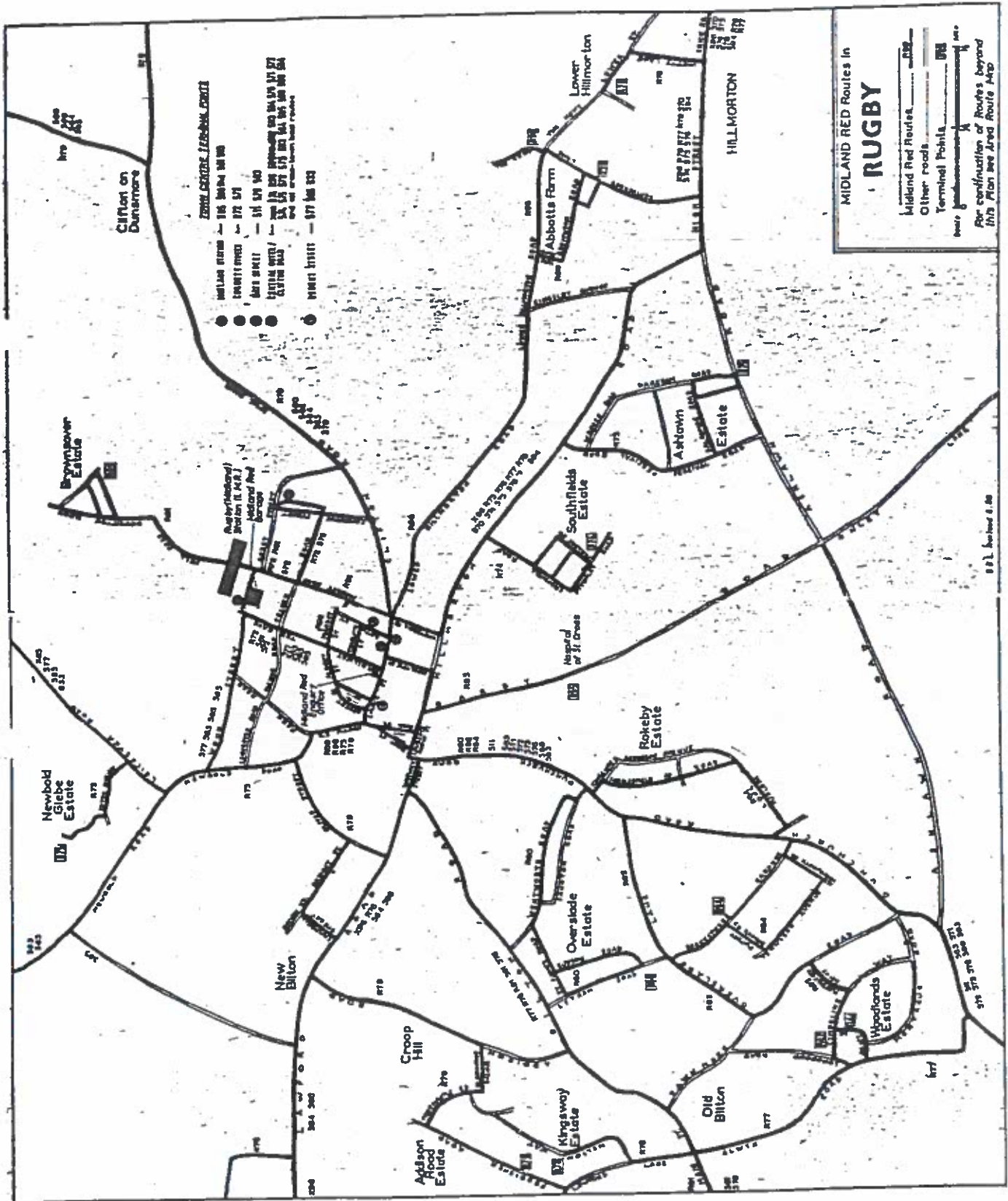
1 Company Manager
1 Traffic Manager
1 Chief Engineer
1 Asst Chief Engineer
1 Staff Officer
4 Traffic Assistants
4 Secretaries (Traffic)
4 Secretaries (Engineering).

3. Midland Red Bus stops after M.A.P. in 1981.



Places	Stops	Routes	Places	Stops	Routes	Places	Stops	Routes
Abbotts Farm	LC	R96/7	Harborough Magna	IK	583, 585	Onley Park	HM	582
Addison Road	FNT	R92/3	Harlestone	LD	596	Overlade	GM	R90, R96/7
Admirals Estate	FNT	R92/3	Hatton Hospital	HM	581	Pailton	IK	585
Ashby Parva	ASV	642, 643	Hillmorton	LD	586, 587, 596	Parkfield	IK	583, 585
Binley Woods	JK	586, 587, 596	Hillside	GM	R96/7	Princethorpe	HM	581
Bitteswell	ASV	642, 643	Husbands Bosworth	A	584	Rokeby	GM	R96
Blaby	ASV	640, 642, 643	Kingsway	ASV	582	Saint Lukes Hospital	LC	R96/7
Brandon	JK	586, 587, 596	Lawford Heath	FNT	R92/3	Sawbridge	HM	582
Bretford Turn	JK	586, 587, 596	Leamington Spa	FN	R91	Shakespeare Gardens	GM	R96/7
Brinklow	JK	583, 585	Leicester	HM	R90, 580	Shawell	ASV	640, 642, 643
Broughton Astley	IK	643	Leire	HM	581	South Kilworth	ASV	562
Brownslow	ASV	R92/3	Lennon Close	ASV	640, 642, 643	Station	A	564
Calthorpe	LBU	642	Long Buckley	ASV	642, 643	Stretton-under-Fosse	A	R90, 562,
Church Lawford	AU	584	Long Lawford	ASV	642, 643	Swinford	A	580, 582,
Churchover	A	586, 587, 596	Lower Hillmorton	LD	586, 596	Theddingworth	A	640, 642, 643
Claybrooke Magna	JK	640, 642, 643	Lubenham	LD	596	Thurlaston Turn	B	R92/3
Clifton-on-Dunsmore	JK	642, 643	Lutterworth	JK	586, 587, 596	Uilesthorpe	IK	583, 585
Coombe Abbey	A	R94, 564	Market Harborough	A	564	Walcoate	A	564
Cosby	IK	585	Marston Trussell	ASV	562	Walsgrave Hospital	ASV	562
Cotesbach	ASV	643	Monks Kirby	A	562, 640,	Warwick	HM	581
Coventry	ASV	640	Nelson Way	IK	642, 643	Watford Turn	ASV	642, 643
Crick	JK	585	New Bilton	FNT	564	West Haddon	LC	R91
Croop Hill	JK	586, 587, 596	Newbold	FNT	562	Weston-under-Wetherley	HM	642, 643
Dadlington	LD	596	Newton	JK	582	Whetstone	ASV	562
Dunchurch	HM	R93	Northampton	FNT	585	Willoughby	HM	585
Dunton Bassett	FN	580, 581,	North Kilworth	LD	R92/3	Wiltbybrook	LC	596
Easenhall	ASV	582, R90	Old Bilton	IK	R93	Wolston	HM	581
East Haddon	ASV	R91, R92	GM	LD	596	Woodlands	ASV	643
Frobisher Road	IK	640, 642,		LD	583, 585	Yelvertoft	HM	582
Frolesworth	LD	643		A	R94		IK	585
Glebe (Newbold)	FNT	583		ASV	586, 587, 596		JK	586, 587, 596
Grandborough	ASV	596		FN	R91, R92/3		FN	R91
	HM	R91, R92		R90			GM	R90
		640, 642,					LC	596
		643						
		583						
		596						
		R92/3						
		642, 643						
		583, 585						
		582						

4. "Midland Red" in 1969.



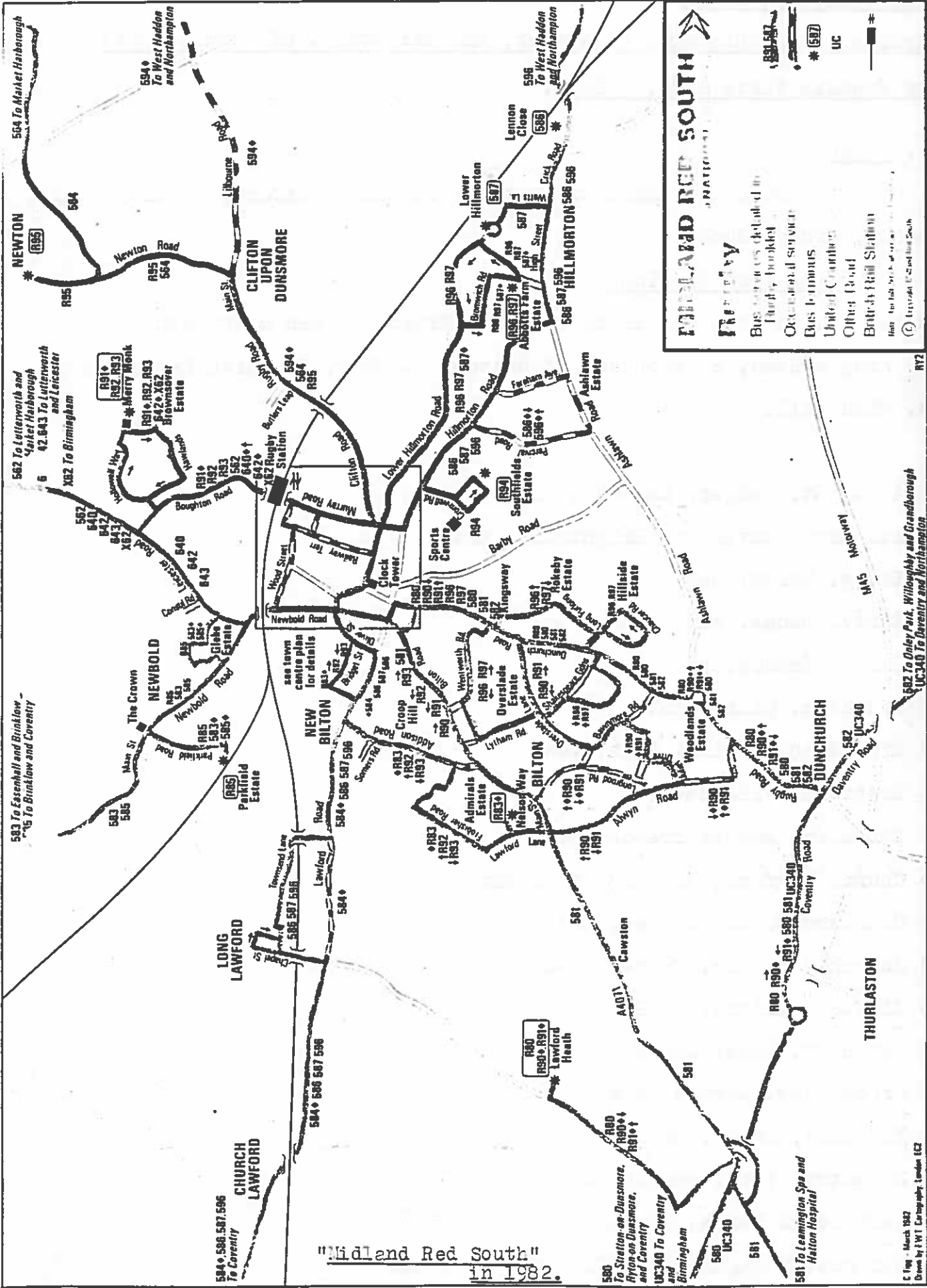
MIDLAND RED SOUTH
NATIONAL

Frequency

- Bus services detailed in Family booklet
- Occasional service
- Bus terminus
- United Counties
- Other Board
- British Rail Station

Map for full details of services see Family Booklet

© Travel & Transport South



"Midland Red South" in 1982.

C 1982 - March 1982
Drawn by I.W.T. Cartography, London, E.C.2

APPENDIX 6.CARRIERS FROM RUGBY.Extract from "History, Gazetteer, and Directory, of Warwickshire"by Francis White & Co. 1850.1. Coach

From the Eagle to Southam, Banbury & Oxford, at 11.30 a.m.,
daily, except Sunday.

2. Carriers from the Inns

Marked 1, go from the Black Swan, 2, Crown, 3, Hen & Chickens,
4, King's Head, 5, Shoulder of Mutton, 6, Star, 7, White Hart, and
8, Wind Mill.

1 Ashby St. Ledger, Hammons, thu & sat

8 Banbury & Daventry, Brightwell, sat

6 Barby, Smith, sat

3 Barby, Lucas, sat

5 Barby, Haddon, sat

4 Boughton, Clark, sat

8 Braunston, William Dunn, mon

4 Bretford, Wilkins, sat

8 Brinklow, Samuel French, sat

6 Church Lawford, Gibbins, tu & sat

7 Churchover, Buckingham, sat

8 Churchover, Mrs. Carvell, tu & sat

8 Clifton, Allard, daily

5 Coventry, Thos. Benson, tu & fri

7 Crick, Jas. Martin, sat

5 Flecknoe, Hands, sat

5 Daventry, Thos. Benson, wed

8 Harborough Magna, Gamble, tu & sat

2 Harborough Magna, Mrs. Flavell, tu & sat

4 Hill (sic), Cockerill, sat

- 8 Hillmorton, Chas. Atkins, tu & sat
 2 Hinckley, Lord, sat
 4 Kilsby, Sleath, sat
 5 Leamington and Warwick, W. and E. Blyth, fri
 5 Lutterworth, Thos. Benson, thur
 2 Lutterworth, Willey, sat
 5 Pailton, Wiston, sat
 8 Pelton, Chamberlain, sat
 5 Princethorpe, Wm. Ward, sat
 8 South Kilworth, Bennett, wed
 8 Swinford, Turvall, sat
 6 Willoughby, Drinkwater, sat
 8 Yelvertoft, Jas. Kendrick, tu & sat

3. Carriers by Railway

London and North Western and Midland Companies, to all parts of the Kingdom, John Robins, jun., agent.

Pickford & Co., as principals or agents, Little Church street, and Railway Station, Wm. Butcher, agent.

APPENDIX 7.MUGBY JUNCTION

Extract from "The Railway Magazine" October 1938; part of an article by John Thomas entitled 'The Railway Adventures of Charles Dickens'.

"The iron road, besides entertaining the famous author, provided him with ideas and adventures. His journeys involved him incidents of great variety. Among other things, he had humorous encounters with his fellow passengers, was involved in fire and flood, played a part in a curious mishap on an Irish line, and narrowly escaped death in an English disaster of first magnitude.

"Dickens's best known railway piece is "Mugby Junction". It is a satire on the fare provided by the catering department of a railway company, and this is how it came to be written.

"While he was travelling from London to Manchester, the carriage in which Dickens was a passenger caught fire. A stop was made at Rugby, and while the burning vehicle was being detached the author and one of his friends made their way to the station refreshment room. They ordered cups of coffee, and while Dickens's companion was fumbling in his pocket for small change, Dickens himself leaned across the counter to obtain some sugar. Before he could reach the bowl, however, the lady attendant snatched it away with the remark, "You sha'n't have any milk and sugar till you two fellows have paid for your coffee." A small page boy was so amused at hearing the distinguished passenger being "ticked off" that he burst into loud peals of laughter. That young employee of the L.N.W.R. was fated to become a leading character in a story that was bought by 250,000 people in its first week of publication."

Of the tea urn featured in "Mugby Junction" Dickens is later reported to have said that the vessels had been "for goodness knows how many years the cause of poisoning the passengers with a beverage produced under the agency of hot water and a mixture of decomposed lead, copper and a few other deadly poisons".

Varia et addenda6. "Midland Railway" Locomotive Liveries.

Mr Matthew Kirtley, the "Midland" Loco Supt until 1873, used a 'rather deep bluish shade of green' for his locomotives. Unusually, the frames were also green. His successor, Mr Samuel W. Johnson, initially used a brighter shade of green before settling on crimson lake.

7. Locomotive Shed Numbers.

<u>Location.</u>	<u>1 Jan 1948.</u>	<u>2 Apr 1950.</u>	<u>2 Mar 1952.</u>	<u>Apr 1958.</u>	<u>1963.</u>
Rugby	2A	2A	2A	2A	1F
Market Harborough	(2A)	(2A)	(2A)	2F	
Seaton	(2A)	(2A)	(2A)	(2A)	
Bletchley	2B	4A			1E
Northampton	2C	4B	2E	2E	1H
Nuneaton	2D	2B	2B	2B	5E
Warwick	2E	2C	2C	2C	
Coventry	2F	2D	2D	2D	
Woodford Halse	Eastern	Eastern	Eastern	2G	1G

8. Trackwork.

The flat Birmingham up Trent Valley junction remained in use for several years after the flyover was opened. It, like the famous scissor junctions, gradually fell out of use and were lifted in about 1972 - the precise date not being known to the author in spite of considerable research.

9. Market Harborough Line

The bridge over the Oxford Canal at the Golf Course was dismantled during the week commencing 7th March, 1983.

10. Great Central.

a) Under British Railways and British Rail parts of the former GC route were operated at different times by Eastern, Western and Midland Regions.

b) The gas turbine locomotive GT3 (rebuilt from a Stanier 5MT 4-6-0) was tested on the GC line.

c) G.W.R. locomotives were regularly worked over the GC line to Leicester on Bournemouth-York and Newcastle trains.

11. Mill Road Tunnel

Southern half iron girders replaced by steel - April 1992



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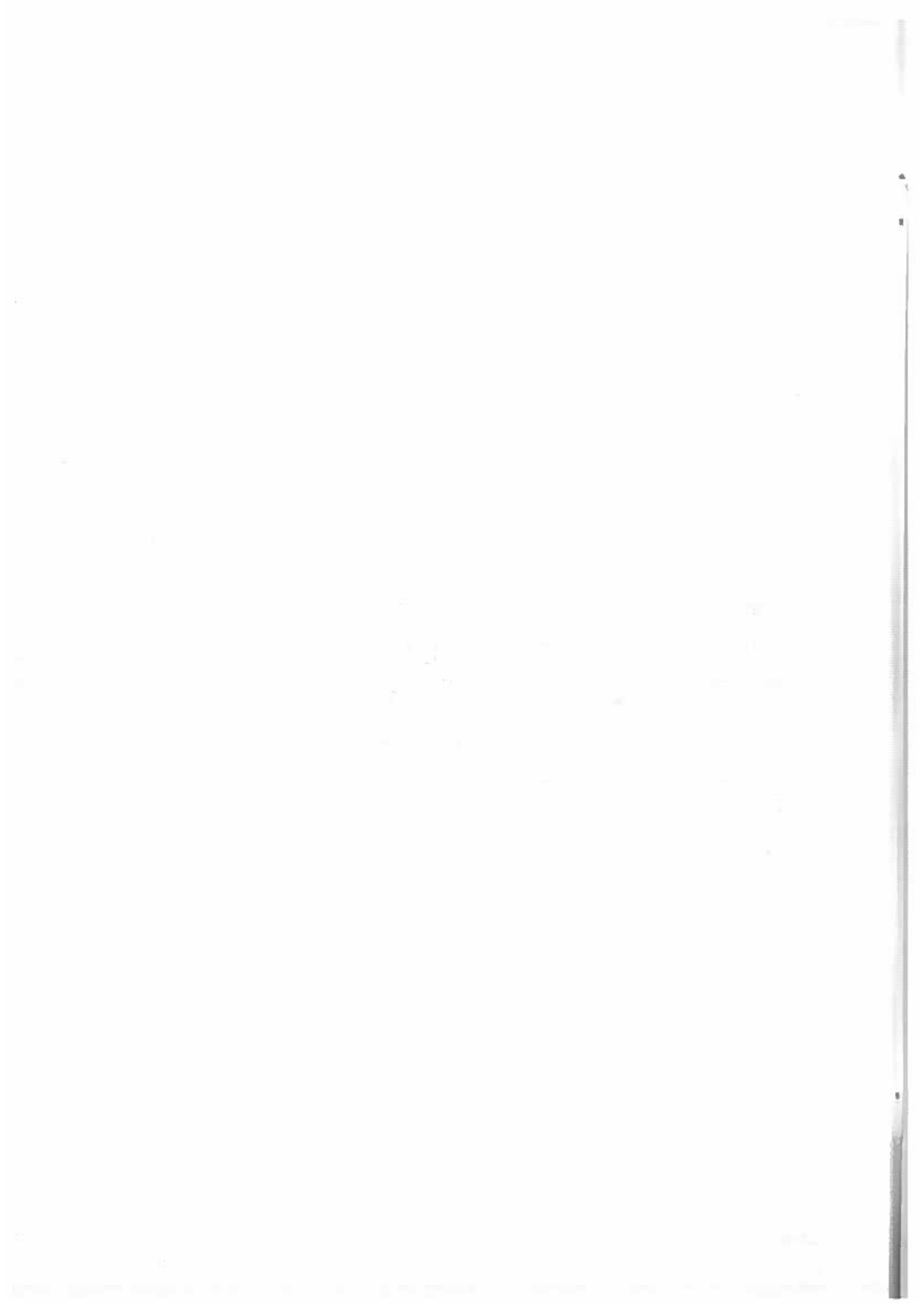
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