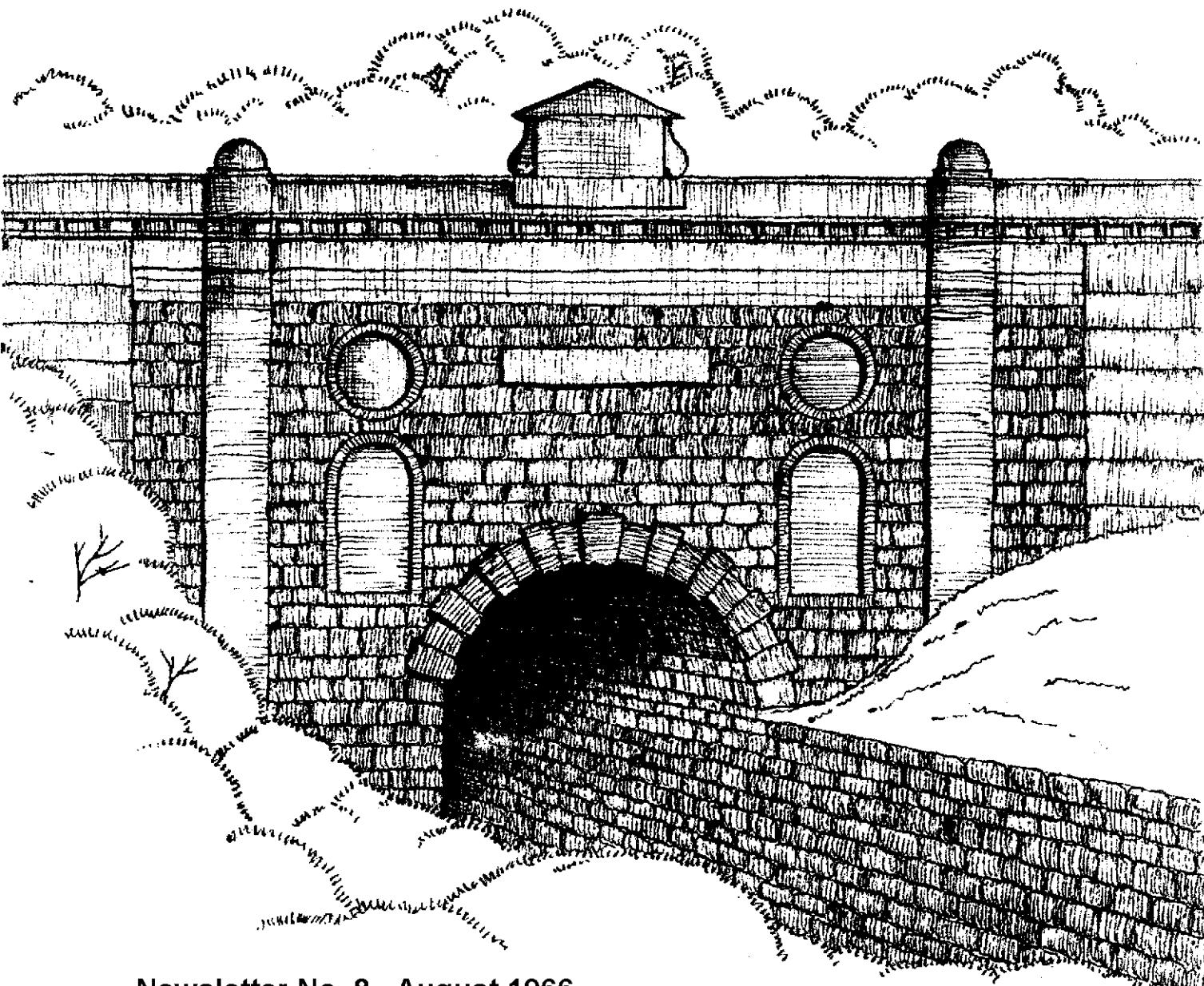


THE NEWSLETTER OF  
THE GLOUCESTERSHIRE  
SOCIETY FOR  
INDUSTRIAL ARCHAEOLOGY



Newsletter No. 8 August 1966

GLoucestershire Society for Industrial Archaeology

NEWSLETTER

Number 8

AUGUST 1966

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## EDITORIAL

Many people try to limit the study of industrial archaeology from the date of the Industrial Revolution onwards and confine research to a specified list of subjects... Others say that dates do not matter and anything even remotely relevant can be included. Books issued so far tend to keep to the former view, but the television series of programmes on industrial archaeology certainly broadened the scope to include many fringe subjects.

I consider that we should approach the matter from a different angle. Before embarking upon any research we should ask ourselves the question "Is this subject likely to have been dealt with by any other type of society or organisation, and, if not, could it better be left to someone other than ourselves ?" After ascertaining this I then suggest we should proceed with all appropriate research, as otherwise many subjects are likely to be left in a 'no-man's land' ignored by all.

Those in favour of a restricted period of study will say that our forces will be dissipated if we investigate too much and the study of industrial archaeology will suffer accordingly. But the history of industry goes back over thousands of years and I see no reason why an arbitrary date, like the start of the Industrial Revolution, should be chosen for the beginning of our research, especially in a predominantly agricultural county.

It is possible, too, that experts in fringe subjects may be drawn into the general field of industrial archaeology and take an interest in other aspects of the subject. For example there could be someone specialising in the study of the different types of cast iron lamp standards who, if introduced to a society like ours, would probably become interested in the names of foundries where these posts were made. This could result in research into the location of foundries generally.

Let us therefore be broadminded on this issue and recognise that all research is valuable, always providing that we are not duplicating work others have embarked upon previously.

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The Editor regrets that due to personal reasons this Newsletter is late in being issued. See change of address at the end of the number !

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The editorial does not necessarily express the views of the Committee.

## LECTURES IN GLOUCESTER 1966

28th October	Pilot Survey of Industrial Archaeology	Mr. R. Sherlock.
4th November	The Archaeology of the Textile Industries	Dr E.R.R. Green
11th November	Pin Making in Gloucester City	Mr. R.A. Lewis
18th November	Canals	Mr. E.C.R. Hadfield
25th November	The Gloucester and Cheltenham Tramroad 1809-1861	Mr. D.E. Bick
2nd December	Records of Gloucestershire Industries	Mr. I.G. Gray

Held in conjunction with the W.E.A. at Mansbridge Centre  
Wellington Street, Gloucester - 7.30 p.m.

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## LECTURES IN CHELTENHAM 1966.

5th October	The Industrial Archaeology of Railways	Mr. R.D. Abbott
12th October	Thomas Telford	Mr. L.T.C. Roit
19th October	Kilns	Mr. K. Barton
26th October	No Meeting	
2nd November	Steam Engines	Mr. G. Watkins
9th November	Canals	Mr. E.C.R. Hadfield
16th November	To be announced.	

Held at Parmoor House, 13 Lyplatt Terrace, Cheltenham - 7.30 p.m.

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DUE ACKNOWLEDGMENT SHOULD BE GIVEN BY ANYONE PUBLISHING AN ARTICLE, OR PART OF AN ARTICLE, INCLUDED IN THIS NEWSLETTER.

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Contributions and letters for the next issue will be welcome and should be sent to: Hon. Editor, G.S.I.A. Newsletter, G.N. Crawford, c/o County Architect's Dept., Shire Hall, Gloucester.

LECTURES IN STROUD 1966/67.

30th September	A.G.M.	
7th October	The Iron Industry	Mr. N. Mutton
14th October	River Severn	Mr. F.W. Rowbotham
21st October	Lancashire Domestic Metal Trade	Dr. J.R. Harris.
28th October	Railway Archaeology of South Wales	Mr. R. Bowen.
4th November	The Early Development of the Cotton Textile Industry	Mr. R.L. Hills.
11th November	Industrial Archaeology of Plastics	Mr. R. Rose.
18th November	Local Inventors	Mr. H.A. Randall
25th November	Steam Engine	Mr. G. Watkins
2nd December	Decorative Cast Iron	Mr. R. Lister
9th December	Lighthouses	Mr. D.B. Hague
13th January	Society Evening	To be announced
20th January	Society Evening	To be announced
27th January	A Photographic Record	Mr. L.F.J. Walrond
3rd February	Industrial Archaeology of the Bristol Region	Dr. R.A. Buchanan
10th February	Development of Heavy Mineral Transport	Mr. W. Slatcher
17th February	Records of Industrial Archaeology	Mr. B. Smith
24th February	The History of Man Made Fibres	Mr. W.G.H. Robins
3rd March	Sources of Industrial Archaeology Information	Mr. D. Morgan Rees.
10 & 17th March	Society Evenings	To be announced.

Held at The College of Art, Lansdown, Stroud - 7.30 p.m.

In addition a series of six meetings entitled

TECHNIQUES OF INDUSTRIAL ARCHAEOLOGY

conducted by Specialists in their own field will be held at Community House, 15, College Green, Gloucester, beginning Wednesday 28th September, 1966, 7.30 p.m.- 9.30 p.m.

This course has been planned to provide instruction in the more important practical skills involved in field work

28th September Planning Fieldwork

Mr. K. Hudson M.A.  
Centre for Adult Studies,  
Bath University of Technology.

5th October Sources of I.A. Information

Mr. D. Morgan Rees.  
Keeper, Department of Industry  
National Museum of Wales.

12th October Sources of I.A. Information

Mr. D. Morgan Rees.

19th October Archives and I.A.

Mr. E. Welch, M.A.  
City Archivist, Southampton.

26th October Maps, Plans and Drawings

Mr. G.N. Crawford  
County Architect's Office  
Gloucester.

2nd November Techniques for I.A.

Mr. J.P.M. Pannell  
Author of "Techniques for  
Industrial Archaeology".

THE KENNET & AVON CANAL TRUST

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The April/May number of their quarterly journal "The Butty" illustrates how highly organised is the Trust. Besides the central executive there are also four branches, Bath & Bristol, Wiltshire, Newbury and Reading, each with its own Chairman and Secretary and, in addition, a London branch is being proposed. Money is of course required for the various restoration schemes and large sums are raised; for example nearly £300 by a Christmas draw.

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VISIT TO THE COOMBE HILL CANAL ON FRIDAY, 20th MAY 1966.

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The Coombe Hill Canal was the object of a visit by members of the Gloucestershire Society for Industrial Archaeology and their friends on Friday.

Starting from the wharf at Coombe Hill, where the canal terminated, the towpath was followed for  $2\frac{3}{4}$  miles to the River Severn near Wainlodes. At the confluence of the river and canal, the remains of two locks were examined, one of which bore the date 1795. The lock gates were washed away by floods in 1875, which led to abandonment in the following year.

Mr. D.E. Bick gave a brief history of the venture and remarked that many details were given in Mr. Charles Hadfield's book, "The Canals of the West Midlands," recently reviewed in the "Gloucestershire Echo."

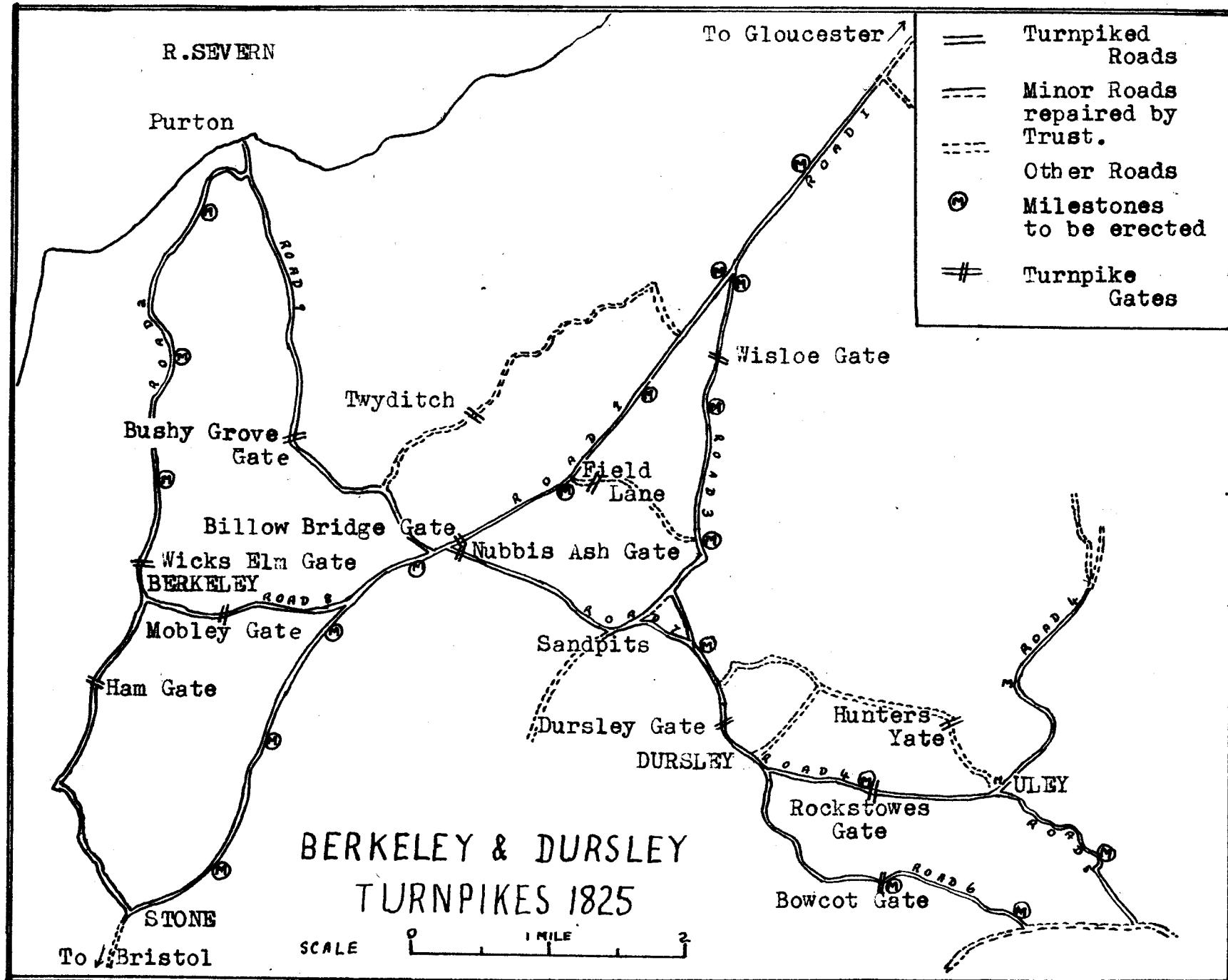
The canal was built to assist the carriage of river-borne coal to Cheltenham, but the final five miles of horse and cart transport jeopardised the venture from the start. The canal company, never prosperous, suffered serious setbacks by the opening of the Gloucester and Cheltenham Tramroad in 1811, and the main line from Birmingham to Cheltenham in 1840.

At the time of abandonment, tolls for the previous half-year had amounted to only £8.

Members were interested on Friday to see the comparatively good state of preservation of the canal after 90 years of disuse; although heavily overgrown in places, it still contained water over its full length.

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Gloucestershire Society for  
Industrial Archaeology  
Newsletter No. 8 August 1966



SOME NOTES ON THE TURNPIKE ROADS IN THE  
BERKELEY AND DURSLEY AREAS

1800 to 1830

R. A. Lewis

In 1726 that part of the Gloucester-Bristol road that lay between Gloucester and Stone was turnpiked. This Turnpike Trust grew in size as successive Acts of Parliament brought increasing numbers of the side roads into its care. By the nineteenth century the Trust had divided into several districts each operating as a separate Trust but combining whenever the expense of a new Act had to be borne. One of these districts was that covering the Berkeley and Dursley areas. The roads which this district Trust repaired in 1826 are shown on the map. At that time the Clerk to the Trust was a Dursley solicitor, Henry Vizard, a number of whose papers including the minute book of the Trust from 1800 to 1820 are now in the Gloucestershire Collection of the Gloucester City Library and have formed the main source of this account.

Before 1800 the Trust was responsible for the main Gloucester - Bristol road (Road 1), the road from Berkeley to Dursley (roads 7 & 8) and the road from Cambridge through Dursley (roads 3 & 6). There were gates at Bowcot, Billow Bridge, Nubbis Ash, the south eastern outskirts of Dursley, and Wisloe with a side gate at Field Lane which had fallen into disuse before 1800, but in that year the Trust ordered it to be re-erected on the same site as before.

Under a new Act in 1800 the Trust was extended to the roads round Uley (roads 4 & 5) which were widened and improved. At the same time the Dursley Gate was given up and a new gate erected at Rockstowes with a side gate at Hunters Yate (or Gate).

The Trust later attempted to stop evasion of toll by adding a number of side gates on the main Gloucester - Bristol road. In 1810 four side gates were erected on lanes leading eastward from this road between Berkeley Heath and Stone; these side gates had certainly fallen into disuse by 1830 and were probably out of use ten years before that. A further side gate at Twyditch on the stream which divided the parishes of Berkeley and Slimbridge was authorised in 1806, rebuilt in 1822 and was still being used in the 1830's.

A further Act was obtained in 1821. The Trust had intended under this Act to de-turnpike the road to Purton (road 9) on which there was little traffic and no gate. However, a number of Trustees called a special meeting at which not only was this road retained but an additional road from Purton to Stone through Berkeley (road 2) was brought within the responsibility of the Trust.

Even before the Act was passed authorising these extensions the Trust had begun to build three new gates and toll houses at Wicks Elm, Ham, and Bushy Grove. In June 1820 new gates were also erected north east of Dursley and at Mobley. The gates as they existed in the 1820's are shown on the map. Further changes took place in 1828-9 when a new gate was erected at Cambridge with a side gate at Hunters Lane, and Rockstowes Gate was replaced by Uley Gate on the same road but probably not on the same site.

Before 1823 the only milestones on these roads were those along the present A38 from Bristol to Gloucester. These are indicated on Isaac Taylor's map of Gloucestershire (1777) by figures at the side of the road giving the mileage from Gloucester. One of these stones is shown pictorially on a map of about 1820 among Vizard's papers like this.



but one cannot be certain that the original stones were of this type.

In 1823 because of the increased traffic on the roads the Trustees decided to erect milestones on all nine roads shown on the map except numbers 5 and 6. The more detailed list drawn up by the Clerk, also in 1823, shows considerable changes in that roads 5 and 6 were to have milestones but not roads 7, 8 and 9. Minor changes were also made to the names on the plates. The Clerk's list seems to have been used when erecting milestones and all those shown on his list are marked on the map. It is clear that the Clerk and Surveyor felt free to vary the instructions received from the Trustees within quite wide limits.

Each milestone was to be six feet long, one foot thick and eighteen inches wide. To this was to be fastened a cast iron plate one foot wide giving the name of the parish and the distances of certain places. The letters and figures were to be painted black and the background white. A contemporary note states "the part for the parish and letters to be circular" but it is uncertain whether this refers to the stone or means that the plates had semi-circular heads like those illustrated by C. Cox in 'Transactions B.G.A.S.' Vol 83 page 124. For the sake of uniformity new plates were ordered for the existing milestones but the Surveyor soon realised that the existing stones were too narrow to take a plate one foot wide. New stones were therefore ordered and the old ones taken up and sold in 1828 for 47/-.

The Trustees decided which places were to be named on each series of stones and ordered their Surveyor, Thomas Waight, to fix the exact site of each one. On the "Great Road" the distance

from Gloucester to the nine mile stone where the Trust's roads began was remeasured, but the error in its positioning was so small that the new stones along this road were sited where the old stones had stood. Elsewhere the Surveyor measured the roads with a chain and made reports such as the following for road 4 - measuring from the Market House in Dursley the first milestone should be at the fifth elm tree on the left, the second should stand opposite the first fir tree in the bunch of firs, the third three perches below the wood in Crawley Hill, the rest to the post on Frocester Hill wants only 5 perches for another mile.

The process of measuring the roads, dressing the milestones and erecting them was lengthy. Most of the stones were bought in the summer of 1825 (the Treasurer's entry dated 8 November is at least 4 or 5 months after the stones were received) but dressing them went on through much of 1826. The name plates were delivered early in 1826 and much of the erection carried out by the Surveyor in the summer of that year. The totals given in the accounts suggest the following approximate figures for the cost, the stone itself 30/-, dressing it 25/-, cast iron plates 9/-, fixing the plates, moving and erecting the stone 35/-. The total cost of each milestone was thus nearly £5.

The place names on each series of stones were to be as follows :-

- |        |  |
|--------|--|
| Road 1 | Bristol and Gloucester.  |
| Road 2 | Purton, Dursley and Wotton.  |
| Road 3 | Gloucester, Dursley and Wotton. The stone nearest Dursley also had the distance from Berkeley. |
| Road 4 | Dursley, Uley and Stroud.  |
| Road 5 | Uley and Tetbury.  |
| Road 6 | Dursley and Tetbury.   |

In 1817 direction posts had been erected at three cross roads "for the convenience of travellers". In 1823 the Trust decided to replace these posts and increase their number. A list of sites and names to be used on each post was drawn up. Three Trustees (Rev. W.L. Baker, H. Clifford and P. Purnell) were asked to supervise the work on the Dursley side of the Great Road and two others (R. Jenner and S. Ellis) the work on the Berkeley side. Once again there was considerable variation between the original list and that eventually used. For example the post on Uley Green was to have had two arms, one pointing to Dursley and one to Stroud, according to the original list. At a later date a third arm to Owlpen was suggested and finally the original two arms were dispensed with and a post with a single arm pointing to Owlpen was erected. Other posts were altered in similar ways before they were erected either in 1824 or early in 1825.

Also in 1823 the Surveyor was asked to erect stones at the side of the road where two parishes met. Presumably these bore the names of the parishes or their initial letters but no details have survived.

A number of problems remain unanswered, particularly the origin of additional milestones found on roads 7 and 8. Perhaps some member of this Society with time to undertake intensive 'road' work in the area will enable a more complete account to be written.

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#### FAMILY PLANS OLD FOUNDRY AS MUSEUM

A dilapidated iron foundry on the edge of Dartmoor is to be restored as a museum if the descendants of its one-time owners can start a trust to acquire the property and convert it.

Three members of the Finch family which ran the foundry at Sticklepath, near Okehampton for 150 years, and Mr. J.L. Smith, Conservative M.P. for the Cities of London and Westminster, are hoping to start the trust soon.

Mr. Robert Barron, one of the Finch family, believes the museum would have considerable educational value in the study of industrial archaeology.

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The foundry was opened at the beginning of the 19th century when a woollen mill which had provided the main local industry for the village became obsolete because of the industrial progress in the north of England.

The power was supplied by three water wheels turned by the River Taw which operated a pair of trip hammers, believed to be the only ones in the South West. A fan conducted air to the forges.

Scythes, hooks, hay knives and other sharp edged tools were produced until 1945 when, because of mass production competition and the decline in the use of hand tools, the foundry went out of business. The roof fell in and the timbers collapsed.

Daily Telegraph 13.4.66.

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LINCOLNSHIRE LOCAL HISTORY SOCIETY

The July number of their I.A. Newsletter has an interesting account of turnpike roads in one area and a first progress report on a toll house survey. 'Twenty tons of Industrial Archaeology' is the title of an article concerning the efforts, unfortunately unsuccessful, of a Lincoln firm to preserve probably the oldest forced lubrication steam engines in this country. Various museums and societies were contacted but all regretted their inability to help due to the size and weight of the machinery.

G.N.C.

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THAMES AND SEVERN CANAL ROUND HOUSES

Mr. Duncan Young said that the houses were occupied by the canal lengthmen and were made round in order to be distinctive and easily found by anyone in trouble on the canal.

Extract from 'The Citizen' Gloucester  
25th May, 1966.

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MORE PYROMANIA

In 1866 an unpopular millowner in Blockley who set fire to his mill for the insurance money, so enraged the villagers that they set fire to his house and burnt it to the ground. When he called the police, they turned the tables on him by exposing his own arson.

Extract from 'I Remember - Social Life in Gloucestershire Villages, 1850 - 1950.'

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VISIT ON 17th APRIL 1966 TO SEE TOLL HOUSES, TURNPIKES AND  
MILESTONES IN THE STROUD DISTRICT

It was a cold overcast afternoon when twenty-nine members and friends, together with three children, set out by coach for the Society's first excursion of the year, a tour of turnpikes in the Stroud district, ably led by Christopher Cox. Mr. Cox started by saying that he had visited the sites of seventy-five turnpike houses, including one just before the tour, though some had not yet been verified.

After a brief stop at a toll house site where the Bisley Road joins the Old Bisley Road, we looked at Lypiatt Cross, adjacent to Lypiatt Park which Mr. Walrond stated is an ancient site, possibly older than Bisley or Stroud. The Curator of Stroud Museum also gave us an interesting description of the Cross, of which only half remains, saying that it was Saxon, of the 8th century and Northumbrian in style. Here the verges of the road are wide so that travellers could avoid potholes in the turnpike road.

We soon reached Stancombe Pike, an ancient cross-roads over which Charles I's army passed on the way from Cirencester to Gloucester. The toll house is typically three faced, to give good vision either way, and has two rooms down and two up, with a porch added later (some have only one room on either floor). The toll board was probably where the upper window is now.

Bisley was our first village and here we admired a pleasant milestone half hidden in a wall, marked X miles to Gloster and named J. Clissold. Nearby was further item of interest, the village lock up, dated 1824 and divided into two, presumably for males and females. Just beyond the village was Holloway Pike, now two cottages, at the corner of the roads to Chalford and Cirencester.

We went along the Chalford road down to the London road where there was a toll house site at the junction of the two roads. Up Cowcombe Hill we passed another pike house position, now only a mound but the garden well can still be seen. At the top it was seen that the road system is still under change.

Along the road to Minchinhampton we stopped at the Ragged Cot crossroads which was once fairly important though is now staggered. A few yards down the Hyde road is the Hyde Gate turnpike house; more difficult to identify but the outlines of a door and window can be seen. As the cottage is so close to the road it was probably specially built for the purpose of collecting tolls.

On Minchinhampton Common we passed a tall standing pillar, a milestone, before stopping at Bownham Park, just above the Bear Inn. Here are two parish boundary stones on opposite sides of the road; one has fine lettering and the other simply 'R and H'. Turning down past the Bear towards Woodchester we reached a milestone opposite the site of Sir G.O. Paul's home, Hill House (which was burnt down) and here our leader gave us an interesting biography of this important figure. The milestone was deciphered as '102 miles to London' and also mentioned Hampton and, possibly, Bristol.

The junction with the Bath road had a toll house known as the 'Spout' but nothing now remains. Another site we passed was at Inchbrook by the bend at the Crown Inn. Arriving at Nailsworth, most of the party had a cup of tea, some in the car park cafe.

Leaving Nailsworth by the Horsley Road, we could see a turnpike cottage with arch on the old road to Horsley, and soon came to the Horsley Road pike house, of typical shape with bricked-in doorway and arch above for the toll board. The gate was of iron.

On past two sites, the 'Ragged' at the junction of the old road to Nympsfield and 'Latterwood' at the Wotton/Nympsfield junction on the old Bath road. At Cockadilly, after clearing the snow away, we saw that the milestone read 'BATH XXV GLOU XIII. Shortly afterwards we stopped at another stone at the top of Frocester Hill, this one dated 1823 with the top of the plate circular.

Our next stop was at the gates of Woodchester Park where the Nympsfield Barrow toll house on the other side of the road is now unrecognisable, being used as a barn. Here Mr. Cox told us how Massey escaped from his captors when the horse he was tied to stumbled on the track down to Frocester.

Before coming out onto Selsley Common we passed the site of a brickworks on the right. Down to Dudbridge and we were soon at our last stop, the Cainscross pike house by the present traffic lights. The whole afternoon had been made even more interesting by the numerous maps, articles and photographs which Christopher Cox passed round from time to time, the most interesting of which was a copy of a report of over sixty pages on the Stroud District Turnpike Sites for the National Survey of Industrial Monuments.

Neville Crawford.

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## BOOK REVIEWS

INDUSTRIAL ARCHAEOLOGY OF THE EAST MIDLANDS. D. Smith. David & Charles 1965. 304 pp. 68 photographs. 31 maps, house plans and other drawings.

This welcome addition to the series of books covering the Industrial Archaeology of the British Isles covers a very much smaller area than the volume on Southern England and, as future volumes will deal with Derbyshire and Staffordshire, it is in fact limited to an area enclosed by East Retford, Market Harborough, Burton-on-Trent and Derby.

The geographical and historical background is clearly described with the help of maps, and it is emphasised that the expansion of hosiery manufacturing during the eighteenth century led to the ultimate emergence of the East Midlands as a specialised industrial region.

The writer must come out into the open at this point and confess to a limited interest in this industry, and all credit must go to the author for holding one's interest all the time. The excellent plans of workers' houses showing specialised rooms help to create a clear mental picture of conditions leading to the modern factory system.

The chapter on the coal and iron industries outlines the development from shallow pits such as the 'bell' pits to deeper mining in the second half of the nineteenth century made possible by improved technique. Incredible as it may sound there still survives at Bentinck Colliery training centre, Kirkby-in-Ashfield, a horse gin and capstan, originally set up at the old Green Pit at Pinxton for pumping purposes. The National Coal Board are to be congratulated on transferring and preserving these two vital pieces of equipment. The iron industry moved from the expensive charcoal fired system which survived until the mid-eighteenth century, to the more efficient coke fired system pioneered at Coalbrookdale, Salop and new sites were made possible by the development of the canal system.

There is a fascinating account of colliers' housing schemes developing from tight blocks of dwellings round a central space, relying on a nearby town or village for amenities, to complete self-contained settlements demanded by the increased size of collieries and ironworks. The final stage in the development is represented by New Clipstone, east of Mansfield, built in the 1920's.

Another chapter has details of the brick, ceramics, glass, gypsum (alabaster and plaster), stone, light engineering, corn milling and leather industries.

As the author wisely points out, a valuable body of literature already exists on canals and railways, and in this volume an outline of their development in this region is sketched in. However, some sites of unusual interest are described, including the famous Foxton inclined plane on the Grand Union Canal in use for only ten years at the beginning of this century. It proved too expensive and Telford's original staircase of locks was re-used. There is a short account of railway station architecture, a subject of surprising depth and interest, as these buildings sometimes relate to nearby country houses or 'town styles' like Ashby de la Zouch, which was a spa in the 1840's.

A fresh aspect of industrial archaeology is opened in the chapter dealing with urban development created by industrial expansion. This is important as the surveying of individual sites can so easily blind one to the development of a whole district.

As in previous volumes in this series, the Gazetteer is of vital importance and here most of the sites are clearly described complete with Ordnance Survey grid references. No comment can be made as the writer confesses to almost complete ignorance of this region.

The bibliographical notes helpfully comment on books which cover the subjects mentioned, and are therefore of much more use than a simple bibliography.

Although our Society has not yet turned its eyes on the East Midlands, it is perhaps pertinent to ask whether a two-day visit should not be arranged before some relics disappear for ever.

Ian Parsons.

THE RAILWAYS OF BRITAIN. Jack Simmons. Routledge and Kegan Paul. 264 pp. 25 plates, mostly photos. 20 drawings and maps.

I can only begin by quoting complete the first paragraph of the preface.

"This book represents an attempt to study the history of a great British institution by the use of two sorts of evidence: the written word and the object itself, considered as evidence when visually examined. One main purpose in writing it is to encourage such joint study of history and what we are now coming to call industrial archaeology. I do not claim that this method is new. It was used with brilliant effect, though not self-consciously, by W.M. Acworth three quarters of a century ago in his 'Railways of England' and 'Railways of Scotland': two of the best studies ever devoted to the subject and my models in writing this book. The importance of combining both these approaches still seems to me, however, to need

emphasis. Too many historians who have discussed the subject have paid scanty attention to the railways themselves, and far too many people have written about railways as technical devices without looking at them in their full historical perspective."

The long first chapter describes the development of the railway system and it is excellent to have a concise reminder of how the actions of one company affected other companies. To take one example. The Midland Railway in 1872 said it would now admit third class passengers to every one of its trains. Two years later it abolished the second class altogether, and lowered first class fares to their rate of 1½d a mile. The next year it decided to upholster all third class carriages. To quote again: "The Midland's policy of deliberately fostering third class travel was, in fact, very shrewdly calculated. It seized the movement of the time and drew every possible advantage from it."

The second chapter, "Works and Permanent Way," opened by describing why the railway from Swindon to Cheltenham is 44 miles long, whereas the direct distance is 25. The moral of course is that, given conditions at the time, the railways had clear reasons for the routes they chose. There follows a summary of the development of civil engineering works on the railways, including a good photograph of Brunel's timber viaduct near Lostwithiel.

The third chapter covers railway buildings. For example King's Cross station in London is clean and functional today, but how extremely simple it must have looked when opened, with 14 carriage sidings between the one arrival and one departure platform. In most towns one would not accept that the best example of town planning and architecture is to be found near the railway station. However in Stoke-on-Trent the former North Staffordshire Railway station and hotel group still shows how carefully the companies could build. Nevertheless if one is looking for unchanged relics of Victorian times, one need hardly look elsewhere than at country stations. However they are now being ripped up by bulldozers, so time is running out.

The fourth chapter is called "Locomotives". The story of its development has been dealt with many times and the author is not trying to compete obviously with thicker volumes. Again he relates one subject with another. To quote again: "This must not be taken as proof, however, that the London and North Western service was inferior in quality. At no time - except momentarily during the Races to the North, when 'this dignified corporation started up with the animation of a schoolboy' - did that company attempt to compete for the first prize in speed. Its trains, if their schedules were a little slower than its neighbours, were superior in three other respects. They were more comfortable to travel in since they ran at a steady speed and their coaches were excellently built, unlike those of some other companies. The London and North Western trains had a

## CHEW VALLEY INDUSTRY

Barbara Sydenham

### 1. The Course of the Chew.

The Chew rises at Chewton Mendip, to run roughly north to Chew Magna and then east and again north to join the Avon at Keynsham.

From Chewton Mendip it passes by Litton and Sherborne, Coley, runs east of the Harptrees to Chew Magna. From there by Stanton Drew and Pensford, Publow, Compton Dando to Chewton Keynsham and Keynsham.

### 2. Mills on the Chew.

SHERBORNE. Parts still stand in the valley close to Litton reservoirs. "A tithe map of 1839 shows two mills at Sherborne, within a few yards of each other, the lower mill being specified as a grist mill." The upper mill was probably a paper mill. Its ruins include "a facade centred upon a surprising little classical doorway with a delicately moulded architrave." Local tradition says the mill was later used as a button factory, Elihu Tucker being recorded as a button dealer in the Litton census returns of 1851. Only three houses survive in what was once a thriving and prosperous hamlet. A network of lanes led to the mill from almost every direction, some now used for farming purposes while others are abandoned and overgrown. Only the double hedges and deeply trodden trackways show how much traffic the lanes once carried. (Atthill).

COLEY. The Ordnance map marks a mill here.

HERRIOTT'S MILL. Ceased work by 1830; site now beneath the new Chew Lake. (Atthill).

STRATFORD MILL. There was already a mill here by Domesday; the later one was probably built on the same site. The first reference to the present mill occurs in a ratebook of 1790. On the death of the owner in 1930 the mill was sold to the Duchy of Cornwall and in 1939 was bought by the Bristol Water Works, who later presented it to Bristol Corporation. The mill was removed to Blaise Castle Folk Museum, when the original site was flooded for the Chew Lake reservoir, and re-erected in the

grounds. It is still in working condition with the original machinery - applewood machinery driven by a 12 foot undershot waterwheel. After being out of action for many years it was used during the 1939 - 45 war to grind dredge corn from newly-ploughed land on local farms. It was always a corn mill. (The pamphlet published by the Bristol Museum gives full detail of the machinery).

MORETON MILL Site now under reservoir. In 1817 it appears as 'Powder Mill' but as a Flour Mill on the 1886 Ordnance Map. The Parish Register of Compton Martin records the death of a man who was burnt in an accident at the Powder Mills.

CHEW MAGNA The Ordnance Map marks a mill at Chew Magna.

PENSFORD "Bye Mills" are marked as disused on the map, on the north bank towards Stanton Drew.

PUBLOW On the south edge of the churchyard is a drain which took the backwater from a copper mill at Church Farm. It is now an overgrown ditch. (From a notice in the church). This may be the mill marked on the map half way between Publow and Compton Dando, but another map marks a Brooks Mill near Woollard. On a road running out of Woollard high above the valley stands 'Old Tannery Farm'. Below it on the water's edge are ruins - possibly of the tannery ? or the mill ?

CHEWTON KEYNSHAM 'The Old Mill House', now a private dwelling, has a large millstone (prostrate) in the garden.

KEYNSHAM At the foot of Dapp's Hill. "0.71 miles from the confluence with the River Avon; crest level of weir above Liverpool Datum is 44.6. It was known as Albert Mill, was a Colour Factory, owned by Messrs. Gerald Thomas & Co., Dye Manufacturers, and it is believed production ceased about 15 years ago. Dye and Colour grounding took place mostly from wood. There were two waterwheels and various woods were ground to a very fine powder." (Information supplied by the Bristol Avon River Authority). The millpond and weir remain, also a huge iron waterwheel outside, and another wheel, even larger, and the grinding stones remain inside. Some of the buildings seem to be used as storehouses for a local farm as lorries were unloading when I was there.\*

On the opposite side of the stream a group of cottages bear a name (street name) plate saying 'Steel Mills'.

On the farther side of the main road, nearer the junction with the Avon, remains of another mill have been incorporated in the public park, the water being utilised in a swimming pool. Here is a wooden waterwheel in a good state of preservation and well protected from vandals.

\* A photograph of the mill appears in a booklet "Come out with me" by Lewis Wilshire, pub. 1954.

I note also on the map at Littleton near Chew Magna 'Colour Mills' are marked on a tributary stream. Presumably the same as the Ochre Works featured on another map.

Near Stanton Wick a 'Glasshouse Farm' is marked, possibly deriving from local industry.

3. Possibly Industrial - hardly Archaeological !

BRISTOL WATER WORKS Founded in 1845. In order to compensate for loss of water to the Chew Valley small reservoirs were constructed and cash payments made to mill owners. Water taken to Bristol in culverts.

Litton Reservoir constructed about 1850 to provide compensation water in Chew Valley when headsprings at Chewton Mendip were tapped for Bristol's water. Also a small compensation reservoir at Chew Magna.

Sherborne Spring piped direct to Bristol in 1885.

Chew Valley Lake - (project authorised 1939 but delayed by the war) - first appears on Ordnance map 1959.

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EARLY FIRE ENGINES

Among records deposited with the Gloucestershire Records Office by a firm of Tewkesbury Solicitors are a number of early 20th century catalogues and photographs of fire engines and fire-fighting equipment. These were sent to one of the partners in the firm who was Town Clerk at the time in the hope of persuading Tewkesbury Corporation to buy a fire engine. The catalogues, while not having any specifically Gloucestershire connections, contain many illustrations of early 20th century fire engines. These include horse-drawn and steam fire engines. The catalogues are to be kept at the County Fire Brigade Headquarters at Cheltenham for exhibition purposes and will, no doubt, be available for the public to see.

Hilary Wint.

Gloucestershire Records Office.

Gloucestershire Society for  
Industrial Archaeology  
Newsletter No. 8 August 1966

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SECOND SOUTH WALES TOUR - SATURDAY, 25th JUNE/SUNDAY, 26th JUNE

In order not to occupy too much space in the Newsletter, a brief gazetteer is given of the places visited, with National Grid map references, so that those who were not able to join this highly successful tour, may find their own way to points of interest. However, all credit must go to our friends there, Raymond Bowen and Gordon Rattenbury, for all their pioneer work in the field which has taken, and will continue to take, so much of their own time. Without their tremendous enthusiasm and effort, many of the sites visited would have remained unknown, as little of this kind of information is available in books. As infectious guides they are hard to equal. It is well worth re-reading John Strange's spirited account of the first G.S.I.A. Excursion to the western valleys in our Newsletter No. 6. The present tour covered the eastern valleys.

SATURDAY

10.30 a.m. Coach left Newport with 18 on board.

10.45 a.m. Map reference ST.278885 Cefn, near Risca, Monmouthshire Canal. Crumlin Branch - 10 miles long. Staircase of locks, some with side ponds, nos. 6 - 20, numbered from Malpas Junction on Main Line of canal. Could take boats about 60 feet long and about 8 feet 6 inches beam, carrying 20 tons. Canal was opened to Newport in 1799 and extended there in 1814. Peak of traffic about 1850. Taken over by Great Western Railway. Closed in 1930. Staircase follows shape of slopes and is not straight as at Devizes. Masonry excellent. One lock about half way down had masonry ledges on each side, presumably to pass two boats. Cottage at road bridge had number plate over door 'M.R. & C.C.O. 35' (Monmouthshire Railway and Canal Co.) Cast iron legal notice put on N.W. side of bridge, along towpath 'M.R. & C.C.O.' Mile post down staircase 'From Potter Street Lock 3 miles. M.C.C.O.'

11.35 a.m. Map ref. ST.235908 Dan-y-graig. Site of Sirhowy Railway viaduct. Former Crown Copper Works was at N.W. end. In slope of quarry was projecting length of tramroad 'U-shaped' plate with toothings on both flanges like a rack railway. No details known.

12.20 Map ref. ST.177946 Gelligroes. Small corn mill with water wheel and attached machinery in full working order, and in use. Present wheel replaced earlier wheel in 1900.

12.55 p.m. Map ref. ST.214986 Crumlin. Famous viaduct now dismantled leaving almost no trace. See 'British Railway Bridges' by David Walters. Published by Ian Allan. Erected 3 years after Britannia Railway Bridge over Menai Straits in 1853. Tremendous advance over this in technique. First large scale use of Warren girders, where no individual member is subjected to bending or shearing, but only to tension or compression. Warren was partner

of contractor Kennard. 1250 tons of cast iron from Falkirk; 1300 tons wrought iron from Blaenarvon Iron Co. All fabrication in workshops at Crumlin. Demolished in 1964.

Crumlin also head of Crumlin Branch of Monmouthshire Canal, former warehouse now disused cinema.

2 p.m. Map ref. ST.252994. Glyn Pits on N. slope of Mynydd Maen, approx. 4 m.W. of Pontypool. 1840 Pump House with superb masonry and finely cast iron beam engine pump with 'Grecian' detailing. To E. similarly detailed winding engine house, again with 'Grecian' detailing on engine, which had valve gear operated by hand levers. Between two buildings, 600 ft. stone lined shaft with lower partition out of alignment caused by movement under ground. The early deep mines in this region had stone lined shafts. Probably raised iron ore and coal from the same pit. Nearby was a semi-sunk Lancashire boiler in steam. This region was very remote and for some time iron ore and coal were taken away by large numbers of pack horses until the position became so desperate that canals and tramroads feeding to them had to be built.

(NOTE: should any members wish to visit this particular site, they are warned that conditions underfoot are DANGEROUS.)

4.15 p.m. Map ref. ST.293003 Pontymoyle, Junction of Brecon and Abergavenny Canal (33 miles from Brecon to Pontymoyle) and Monmouthshire Canal (9 miles from Newport to Pontymoyle), attractive toll house. Unusually high stone aqueduct above waterfall. Two companies amalgamated in 1863. Later taken over by Great Western Railway.

4.45 p.m. Map ref. ST.314063. Parkybrain Wharf at right angles to Brecon and Abergavenny Canal to feed limestone into top of battery of six well built lime kilns, having road access at bottom of bank. Recently developed with fleet of cabin motor boats for daily hire.

## SUNDAY

10.55 a.m. Map ref. ST. 210018. Aberbeeg. Road high above valley looks down on town and large Great Western Railway engine shed, now empty, which probably had almost fifty tank engines allocated there, hauling both goods and passenger trains. Now the passenger service is no more and the goods trains are worked by diesel electric locomotives stored in the open. The marks in the hillside above the shed were remains of small surface workings by individual miners during the depression of the 1930's.

11.15 a.m. Map ref. ST. 198082 Blaina Colliery formerly large iron works. Remains of one blast furnace with high access embankment behind. Like many industrial sites in this region, it has been repeatedly worked over, thus making archaeology extremely difficult. The little engine shed here contained two industrial tank engines, both in use.

1145 a.m. Map ref. SO. 192107 Nantyglo. Site of Crawshaw - Bailey iron works, built on line of Monmouthshire Railway down valley to Blaina. Nearby house was formerly the carpenters' shops. This

was upper limit of Great Western Railway from Newport. To the North was former Brynmawr and Western Valley Railway taken over by G.W.R. and the London and North Western Railway which had invaded this valuable region from Abergavenny. To the west are remains of two towers which were connected to Crawshay's house (now demolished) by underground tunnel. This provided an escape route from riots organised by the chartists, in spite of the fact that the police were ruled by Crawshay.

11.55 a.m. Map ref. SO. 192116 Brynmawr . The former L.N.W.R. goods yard and buildings are almost entirely removed to make way for the extension to the huge Dunlop Rubber Factory, one of the great examples of modern industrial architecture in this country.

12.10 p.m. Map ref. SO. 218110. Waenavon. Highest station on L.N.W.R. line from Brynmawr to Blaenavon and on the whole of their system. Approx. 1400 ft. Ponds visible which were to collect water for operating pit cages which had tank below the cage, which was filled with water, so that loaded cage at bottom of shaft could be raised. Tank was emptied at bottom of shaft as most pits in this area had natural drainage.

12.20 p.m. Map ref. SO. 248092 Blaenavon Iron Works. This high and sunny spot created an immediate impact on the whole party as it was obviously the high light of the weekend. This huge ironworks was in full production from 1790 - 1870 and even after 100 years of decay, still looks somewhat like the ruins of Ancient Rome. There were visible six huge blast furnaces projecting from the cliff face, a well-built masonry tower and pit shaft formerly containing water-operated balance cages, extensive casting shops, upper tramroad system bringing in iron ore, and lower tramroad system for carrying away finished products and for filling a deep valley with a large plateaux of waste ! In addition, much of the original housing remains in use, including one attractive U-shaped terrace round a former chimney stack. In short, this site alone is well worth a journey into Monmouthshire.

2.10 p.m. Map ref. SO. 245117 Pwll-du. 1400 ft. up on the N. side of the hill from Blaenavon, with the remains of the tunnel mouth half hidden in a bank. An 1815 tramroad carried iron ore through the mountain to the Blaenavon Iron Works and brought some finished castings back for a journey down the Bloreng to the Brecon and Abergavenny Canal at the bottom. There was also an incline over the hills to Hill Pit - Map ref. SO. 233105.

2.50 p.m. Map ref. SO. 258118 Pwll-du. Tramroad down to canal had to be protected in later years as it passed through this Iron Works by enclosing it in a masonry shelter, which has become a shallow tunnel.

3.40 p.m. Map ref. SO. 285131. Llanfrist. Wharf on Brecon and Abergavenny Canal, Abergavenny being one mile away at this point, Brecon 21 miles and Pontymoyle Junction 12 miles. The handsome open sided warehouse is in such good preservation that the route of the tramroad inside can be clearly seen, including a point, and many of the stone tramroad blocks are in position. There was a triangular tramroad layout here, to make complete reversal of trains possible, as this

was at the foot of the long incline up the Bloreng to the iron works already described. The wharf owner's house is built on a tunnel which carried a former public road belonging to the parish under both house and canal.

On the main road at the bottom, an eighteenth century brewery was actually being demolished as our party watched.

We thanked our guides at Newport station and returned to Gloucester.

Ian Parsons.

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### TWO TEWKESBURY BRIDGES

Recently I have been engaged on cataloguing records deposited at the Gloucestershire Records Office by a firm of Tewkesbury solicitors, Messrs. Brookes and Badham. Among these are records which throw light on the design and building of two Tewkesbury bridges, the Key Bridge and the Severn or Mythe Bridge.

#### Key Bridge

There had been a bridge over the River Avon probably from the middle of the 15th century and by 1808 it was in a state of disrepair. In that year an Act of Parliament to rebuild the bridge was obtained (48 George III, cap. 62). Trustees to supervise the building were appointed by this Act and it is some of their records which has survived. These include copies of the Act of 1808, Minutes (up to 1851), Accounts (up to 1861), leases and mortgages of tolls and papers and bills. The Trustees apparently did not consider starting the building work until they had amassed a certain amount of money probably from mortgages of the tolls. (Bennett's 'History of Tewkesbury' 1830, p. 292 and the Act of Parliament). On 28 August 1821, however, they made an agreement with Benjamin Ball of Willy Wharf, Salop, ironfounder for furnishing and erecting a Cast Iron Bridge over the River Avon for a payment of £660. This gives details of the work to be done and the materials to be used and has a plan of the bridge by Thomas Holland of Gloucester, surveyor, attached to it. Another agreement between the Trustees and James Westcott of Barnwood for the building of a temporary bridge and abutments for the new bridge was made on 20 November 1821. Again details of its construction and materials are given and a plan is attached. It was to be made of timber baulks and after its completion the old bridge was to be removed.

The iron bridge was completed in 1822.

#### Tewkesbury Severn Bridge (The Mythe Bridge)

In 1823 an Act of Parliament to build a bridge from the Mythe, Tewkesbury to Bushley, Worcestershire with approach roads was obtained (4 George IV, cap. ii). Trustees were again appointed by

this Act. The bridge was to be built in five years at a cost of £20,700. The Trustees made an agreement with William Hazledine of Shrewsbury, esquire in August 1825 for the iron-work of the bridge. (This is, unfortunately, partly defective). Attached to the agreement are detailed plans for the bridge signed by Thomas Telford, London, 26 March, 1824. Bennett in his 'History of Tewkesbury' has a print of Telford's design and also gives Telford's report on the bridge. (p. 287 ff).

The bridge was opened in 1826. It had cost about £35,000 (Bennett p. 291).

Hilary Wint  
Gloucestershire Records Office.

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....continued from page 16

#### BOOK REVIEWS

good reputation for punctuality, whereas those on the Midland line - then as now - promised one thing and were apt to perform something quite different. Lastly, and perhaps most important of all, the North Western trains were substantially longer and more crowded than their rivals and so brought a better profit to the company's shareholders. The Manchester Flyers weighed no more than 80 to 100 tons. The corresponding North Western expresses of the eighties were at least half as heavy again."

Steam, electric and diesel locomotive is neatly summarised.

The remaining chapters follow summarising various aspects of railway operation: Carriages and Wagons; Equipment and Operation. Then a change in technique: Railways on the Ground. This examines in more detail certain lines in order to underline certain features in their development: London, Fenchurch Street to Rochester, via Tilbury - Gravesend Ferry: The Railways of Suffolk: Derby - Manchester: Glasgow (Queen Street) - Edinburgh (Waverley). This chapter comes nearer to Industrial Archaeology than the others.

Excellent as this book is, the last chapter is probably the most useful of all as it covers literature and maps. This is a full and critical bibliography.

Ian Parsons.

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Gloucestershire Society for  
Industrial Archaeology  
Newsletter No. 8 August 1966

## THE INDUSTRIAL HISTORY OF DUDBRIDGE

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R. L. ROSE

While industrial archaeology is our immediate interest, industrial history is the setting in which the artefacts of industrial archaeology are conceived. Only by discovering why the buildings or machines were built, and finding what impact they had on the life of the community, can we bring meaning to our work. Dudbridge was chosen for an investigation of this kind as it presented many features of interest. It has a variety of archaeological features; it was known to have included a range of industries, cloth making, dyeing, flour milling and engineering; canal, road and rail transport were all represented, and lastly the area was compact and clearly separated from surrounding communities by open land.

The study is still far from completion, but a stage has been reached where the general lines of development can be traced and where to some small extent, the interaction of different industries can be demonstrated.

Dudbridge consists of a small area round the crossing of the A.46 road and the River Frome, lying about a mile west of Stroud, just south of Cainscross ref. ST.835046. Its backbone is the old Cainscross - Cirencester Turnpike, part of the A.46. Crossing this are the Stroudwater Canal and the Frome; on one side of the road lie the factories of Redler Conveyors, the Stroud Metal Company and Copeland-Chatterson (6-9); on the other the old canal wharf (3), a few private houses, the foundry now occupied by Lewis & Hole (13), Pye's warehouse and Ratcliffe's Garage (14). Between the last two a road runs up to Selsley passing Dudbridge House (15) and crossing the railway. This is Dudbridge today.

Geographically it lies at the junction of the Nailsworth and Frome valleys. With both the Frocester and Rodborough high ground sloping fairly gently to this point, compared to the steeper scarp face, it makes a convenient crossing place from one to the other, while the geology of the district suggests that this crossing place is comprised largely of gravel, so being well drained.

It is not surprising, then, that Dudbridge was an early route centre. The name dates from before 1235 so we can assume that the bridge was in existence in the 1100's. Geography helped Dudbridge again later. It was the junction of three turnpike roads, the Stroudwater Canal passed through it, and later the railway, even if only a branch line, crossed it. With a good stream for power,

road, canal and later rail communications, we would expect Dudbridge to develop industrially.

Its years of industry have bequeathed us a variety of relics and these are the starting point in discovering its history. We have the three turnpike roads, two leading onto the hills, one down the valley -

1. The Cainscross - Rodborough - Cirencester road
2. The Dudbridge - Selsley - Frocester road
- and 3. The Dudbridge - Nailsworth - Tiltups End road.

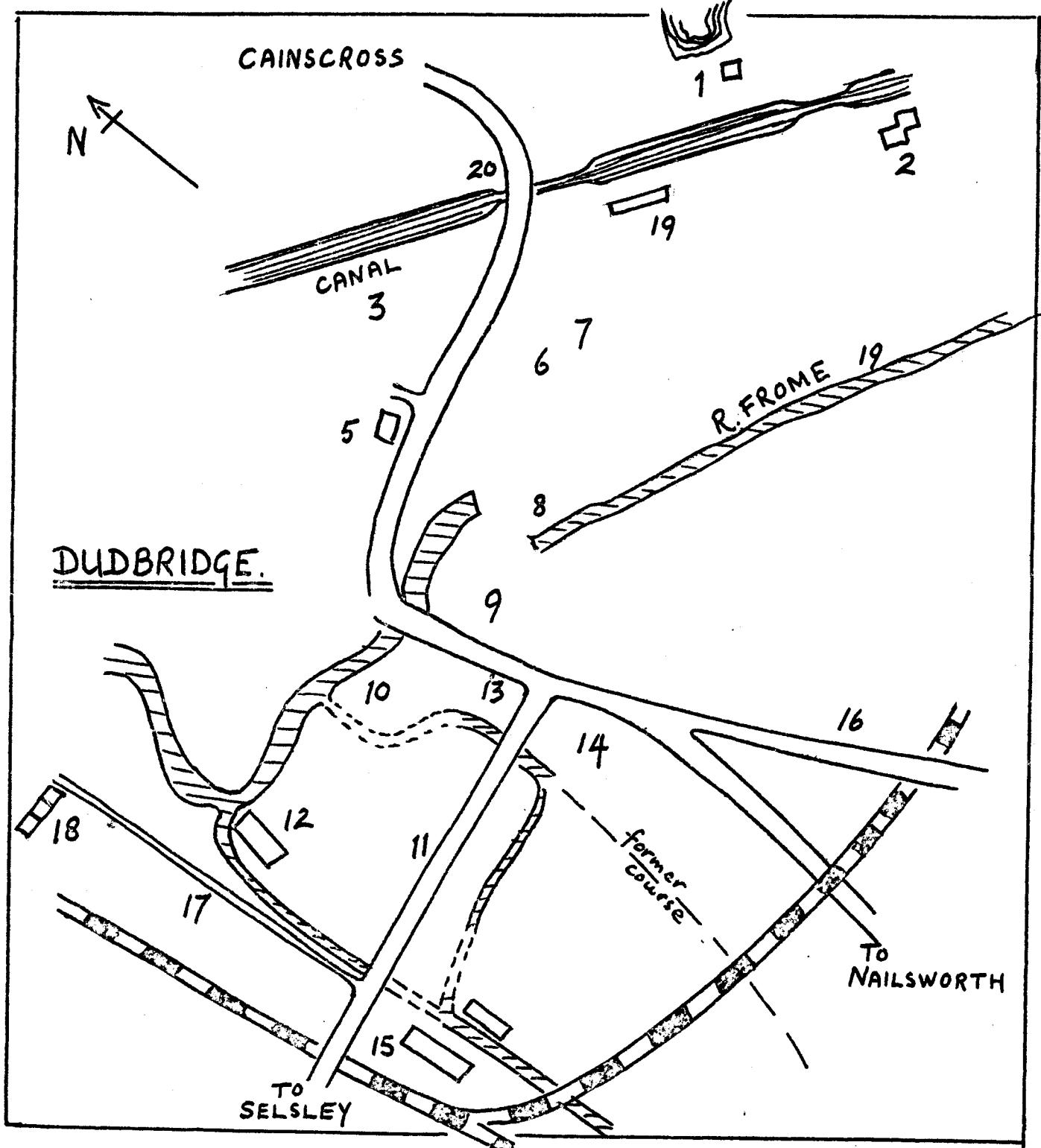
If we extend our boundaries a few yards we include a pike house at Cainscross. There is the Stroudwater Canal with a fine bridge, the Keystone dated 1778. Next to this is the wharf area of Dudbridge Port with a crane of probably mid-nineteenth century date.

The railway is under sentence of closure but we have the 1867 Stonehouse - Nailsworth line, the old Midland line to Stroud, the station and part of the sidings. Even the streams have archaeological features. The Frome diverges in places from the parish boundary (1922 O.S.) which presumably marks its original course, probably running in a new cut made by the millowners. Similarly the Nailsworth stream has been completely re-routed, the old bed across the 'Erinoid' sports field now being filled in and the stream flowing in a late 18th century cut to a small mill by Dudbridge house before dividing, part flowing over a sluice and rejoining the old bed before passing under a bridge, invisible from the road, dated 1787, the rest running on to Kimmins mill (12) and so into the Frome.

Of the old dye works little remains, though parts appear in the scattered buildings of Ratcliffe's Garage; but behind them is an attractive mill carrying the date 1779 and the initials of John Hawker. Behind this, again, is Dudbridge House built by Hawker in about 1770, a testimony to the prosperity of the 18th century clothiers.

Following the stream across the Selsley road we find Kimmin's mill (12), built as a flour mill in 1849, with five storeys, three of them supported by cast-iron pillars. Inside is an interesting hoist probably a century old. An interesting feature of this mill, apart from the lack of a mill pond, is the fact that the wheel was set at an angle to the mill. On the mill wall, and across the nearby lane are the remnants of the bridge which carried a narrow gauge track from the railway sidings, over the lane, stream and yard, into the mill's second storey.

Between the flour mill and the Nailsworth road lies a mass of buildings, mainly of brick, making up the former Dudbridge Ironworks.



The most important feature here is the porch (11) opening onto the Selsley road, the only relic of the home of the Fowler's, clothiers of Dudbridge. On the yard side of this porch are the initials AF, DF and the date 1646. It is believed that this porch has been rebuilt in this century.

Next to the Ironworks is the bridge itself. Though widened for modern traffic, one side shows only two arches, this bridge is most probably the triple arched stone bridge rebuilt after floods in 1751.

On the eastern side of the road we have a large group of buildings occupied principally by Redlers Conveyors. These have not yet been examined at close quarters but the most interesting are two small stone mill buildings, a larger stone block of about 1830 and a house dating from before 1825, and possibly a century before that.

Nearer to Cainscross, on the left of the road is the brick-built house and workshop now occupied by the Sandling basketry business (5). This particular business has operated here for 101 years and before that the premises were used for soap and candle making.

Apart from three brickyards which have left no remains except the predominantly brick appearance of Dudbridge and Cainscross, the last place of interest as we return to the canal is the Victoria Inn some hundred yards along the bank towards Stroud. This occupies the site of the foundry operating in 1824 if not earlier.

This then is Dudbridge today, or rather these are the visible relics of Dudbridge's past, the bones we must clothe as we follow the history of these various sites.

We will begin with the corner where Rodborough parish touches the bridge (9). There are references in the Minchinchampton Custumal and the Spilman Cartulary which give us our first record - so far - of Dudbridge. These mention Sir John Matravers who held land at Achards and at Dodebrigge Mill; there is another reference in the same documents to an acre of land at Dudbridge Mill in 1235 and also to Ralph the fuller of Dudbridge who in 1271 was fined for illegally cutting timber in Rodborough parish.

We know, therefore, that a bridge and a mill existed from before 1235, that the mill was a fulling mill, and thirdly, as the records refer to Rodborough affairs, the mill must have been in this Rodborough part of Dudbridge.

We have to jump now to 1519 when Edward Haliday, clothmaker, died and left his house, mill and dye house in Rodborough to his wife, and after her to his eldest son. Was this Dudbridge Mill? We don't know but ninety years later Henry Haliday, Edward's great

grandson turns up in the records as Henry Haliday of Dudbridge, dyer. So Dudbridge had already seen four hundred years of cloth working.

We come next to a long line of clothiers - the Chance family, whose memorials are in Rodborough Church, running from Daniel Chance of Dudbridge, Clothier 1640 - 1715, through his son - they're all Daniels, 1670 - 1724, grandson 1706 - 1782, and great grandson 1747 - 1790. Apart from the clue given by the presence of the memorials in Rodborough Church, we can pin-point the Chance mill from a canal plan of 1775 which clearly shows Dudbridge Mill by the bridge as Mr. Chance's Mill.

In 1794, four years after the last of the Chance mill owners died, John Apperly began his cloth business in this area of Dudbridge and it seems likely that this was in the Chance mill. This is to some extent substantiated by the remark in the 1824 poem, Stroudwater :-

" An ancient clothing factory stands alone,  
And though this noted place can claim but one - "  
- and so on

If the mill the Apperly's occupied was ancient in 1824 it must have been the Chance mill, yet even in 1795, a year after Apperly's foundation date, the tax records fail to list the mill.

Very strangely, too, the 1840 Tithe Map loses the Apperly's completely except for a rack field. The buildings on the Rodborough bank of the river are marked as a grist mill, the land on the Stroud bank as John Apperly's rack field. Neither map marks any mill as occupied by Apperly. It is hoped that the Rodborough Rate Books may clear this up.

From the look of the existing buildings, it seems as though there was a move to larger stone buildings in the same corner earlyish in the nineteenth century, then possibly in about 1860 the Rodborough side of the river was abandoned and new brick buildings were built across the water (8).

In 1862 a corn mill here was sold by Peter King and this sale included the mill house; this more or less confirms the reference to a grist mill in the Tithe Map.

The successors to the Apperly's in the old stone mills are not yet straightened out, but Tubbs Lewis were making elastic fabrics here before they moved to Wootton after 1876. Bond Worth were here in 1890 employing some 250 hands in carpet manufacture. After this the Empress Chair Company under a Mr. Holborow, and on his death under Mr. Pace, occupied part, at least, of the premises.

Returning to the Apperly's - power looms had been introduced in 1845. In 1851, at the Great Exhibition in the Crystal Palace they won the supreme award for the world's finest block superfine cloth, and this was followed by a succession of awards in later years. Early in the 1890's a fire destroyed much of the mill, but this was rebuilt, and in 1910 extended by new buildings flanking the road. With a hundred and fifty years behind them, with the excellence of their cloth proved by numerous awards from all over the world - why did Apperly's fail in 1931? Probably three factors played a part. The general economic recession, a rigid adherence to quality which no longer could be sold, and thirdly the steady drain of money into a subsidiary company, Hampton Cars. Someone well qualified to judge has said "If Hampton Cars had never existed, Apperly's would be making cloth today." Whether this is true we do not know - it is one more aspect of Dudbridge's history that has to be explored. So there is still a great deal of work to be done on this one site - the dating of buildings, a clarification of owners and trades in the nineteenth century, a definite identification of the clothiers house, and so on.

If we cross the road we come to the former Hawker - Fowler site (14), with the last remains of the Fowler house across the Selsley road.

In 1659 with Cromwell ruling England, Daniel Fowler, a clothier, leased or renewed a lease of a house, fulling mill, meadows and rack fields, all of which he later purchased for £200 in 1664. It seems likely that the actual home of the Fowlers was not part of the transaction - presumably it was already owned by them - for the deeds do not mention a house in Kings Stanley parish as part of the property. Although the house was later demolished - except for the porch - in about 1910 - 20, a description of it exists in a paper by Playne in 1879. This reads :-

"There is a good specimen of the old style of cloth manufacturers house, at Dudbridge. It is, as usual, gable ended with mullioned windows and rooms only  $7\frac{1}{2}$  feet high. In one room is a handsomely carved stone chimney piece; on the door head is the date 1646 panelled with the initials AF and DF. A porch of two storeys elevation and containing a stone seat has been added with the date on it 1661 and the letters DF ."

You will notice that this carries the Fowler occupation back further than the 1659 of the deeds, to 1646.

The Fowlers continued at Dudbridge, working their cloth business for about a century from this time, one daughter marrying another Dudbridge clothier, Thomas Chandler, another marrying Richard Hawker who in 1743 bought the estate - that is a house, fulling mill, gig

mill and napping mill and rack fields.

The Hawker family were already connected by marriage to the Clutterbucks and to Thomas Roberts of Lightpill - the family network of the eighteenth century clothiers would be an interesting study.

Under the Hawkers the business specialised in dyeing. Rudge's history written in 1803 says "It is said that seven furnaces are continually employed and often 42 pieces are dyed in one day.. The process is curious and assisted by machinery." The Dyeing Book of Hawker's business is preserved in the Gloucester Records Office. It covers the years 1797 to 1804. It is only when one begins to analyse this book that its peculiarities appear. Rudge mentions the works as dyeing 42 pieces a day, yet over the period of the book - the very years Rudge was referring to - the average dyeing recorded was five or six pieces a week. Every dyeing job in the book has included in the information what was thought to be the cloth maker's mark. It was found, however, with the help of Mr. Walrond at the Stroud Museum, that these marks were in fact those of Spanish wool suppliers. It would appear, therefore, that this book is not the record of Hawker's main business, dyeing cloth for other makers, but of a sideline, the making and dyeing of cloth on his own account.

Whatever the significance of the book, with its intriguing names of colours, Drake's Head, Mudd Colour, Paris Dirt, and the old dyes, Fustick, Madder, Logwood, it is a fascinating document. It is particularly interesting to observe that all blue dyeing was sent out, being marked 'To Timbrell for blue'.

In 1824 Lawrence wrote, in 'Stroudwater':

'Dudbridge is famous for a scarlet dye  
Which makes the cloth look splendid to the eye  
Fit to adorn the noble and the great  
Or mighty monarchs when enthroned in state.'

Does this suggest that Dudbridge was perhaps the true home of 'Stroud Scarlet'. If so the reputation certainly predates the Hawkers for we read in 1661 "At Stroud .... they dye scarlet, the water there ... having a peculiar property to give the right tincture, which other waters generally lack."

In a book published as this was in London, dealing with all Britain, the distinction between Stroud and Dudbridge could quite forgiveably be disregarded.

If Dudbridge was the original source of Stroud Scarlet were the Halidays the originators in 1500 - 1600 ?

In any case, we can believe with good reason, that while the Battle of Waterloo was won on the playing fields of Eton, the colour of its thin red line was brewed and boiled in Dudbridge on the site

of Mr. Ratcliff's garage.

Business, even a hundred and fifty years ago had its problems as these communications from John Hawker to Mr. Paul of Tetbury indicate.

First, in August 1812 a bill for £50. It looks as though Mr. Paul could not pay and dare not collect his cloth from Dudbridge, for in the November Hawker wrote : - "I cannot help feeling anxious that you should get out your cloakings now as the season will soon be over, and as they are not of the best quality.

To Mr. Hicks I have mentioned them but he says they are not good enough to suit his demand.

You should however push them somehow or other as should cloakings fall you might be still worse off, besides, I am sorry to say, this Article from change in fashion is becoming every year less and less in demand."

Then, the next summer : - "This being the commencement of the cloaking season we take leave to remind you (this sounds rather a stiff note) of the pieces which have been resting here for near a twelvemonth. Now cloaking is 40/- you would have a chance of disposing of them were the proper exertions made .." and so on.

After walking round Dudbridge, seeing Hawkers house and the remains of his works, one cannot express the thrill of holding these actual letters of Hawker's in one's hands - and one wonders how the episode ended. For a moment you are there, with the roar of the waterwheels, the jingle of the hauliers' horses and the scratch of the quill.

At all events the business flourished, the Hawkers building a fine house on the slope behind the mill and extending the mills themselves, making, as we have noted earlier, a new cut for the stream to feed the 1779 mill.

By 1840, while the Hawkers still owned the property, the dye works were occupied by John and David Watts and later, 1862, A.C. Smith is recorded as the occupier. Still later than this, in 1906 we find a directory reference to the Dudbridge Dye Works, and according to local knowledge this must have been round about the time the dyeworks closed down - although rather mysteriously there is a 1936 directory reference - despite the fact that Dudbridge Ironworks, Whitfield's Engineering Works and the present occupiers had all been in the premises by that date.

Looking over the history of this one site a host of unanswered questions arise.

Why did the Hawkers begin to specialise in dyeing ?

Was this part of a general pattern of specialisation in the cloth industry?

Then why, after a hundred and fifty years, did the trade disappear on the site? Was the business too small, or too old fashioned, to hold its own? Was it part of the decline of the West of England cloth trade? These are the sort of questions we must ask and hunt out answers for as we follow the fluctuations of Dudbridge's industry.

A few hundred yards from the Hawker site is a row of cottages known as 'Blue Row' (18). This immediately suggests a possible location for Mr. Timbrell who did the blue dyeing for Hawkers. A little stream runs behind the cottages, insufficient for power but possibly enough to fill the dye and washing vats. Again, this suggestion is, as yet, only supposition.

Between Blue Row and the Selsley road lies Kimmens' Mill (12). Built in 1849 this was the first building on the site and made use of the stream flowing in the 18th century cut past Dudbridge House, there being a fall of some feet at the stream's point of entry into the Frome. The mill was built by Stanley Marling, the story being told that as a staunch Liberal, he resented the main millers in Stroud being Tories. One cannot help wondering, however, whether the repeal of the Corn Laws in 1845, played a part.

In 1873 a lease of the mill to Mr. Sims, continuing a lease held by his father, gave an inventory listing a pair of steam engines - these were beams - and a water wheel 18 feet wide and 15 feet in diameter. These drove, apart from the dressing machines, twelve pairs of four foot stones, and as far as is known, the wheel was in use till the end of the mill's life as a mill in about 1936, though by this time roller milling was used in addition to stone milling.

From a miscellaneous collection of receipt stubs salvaged from between the joists of the office loft, something of the mills operations under the Kimmens Drew ownership can be worked out.

J.C.C. Kimmens came of a milling family and spent his boyhood in the mill house of the old Chance mill, by 1850 a flour mill. After working at Ryeford flour mill, where his father was now a partner, he later took Hedley Ford into partnership and set up his own business soon after 1870. By about 1890, if not before, he was in what is now called Kimmens mill.

In the years 1891 - 2 Kimmens was buying wheat worth about £50,000 a year, mostly from Bristol and Gloucester, and so possibly imported, some direct from the U.S.A. In addition to these bulk purchases, wheat was bought from farms scattered from Wootton to Bisley, Tetbury to Painswick, about 70 sacks a week through the year.

Most of the flour and meal was sold sufficiently far away to make use of the railway, only about a fifth going by local carter to customers in the locality. So this was a fairly substantial business, not just a local miller grinding local corn.

Two other corn mills probably fell into this category. One in the old Chance mill (9) where, as we have seen, Kimmings grew up; the other just across the canal from Foundry lock (1), but so far there is very little information on these two mills.

Between Kimmings Mill and the main road we have the assortment of buildings which for convenience we can call Dudbridge Iron Works, though they were under one ownership for only a short time.

Industry dates back about a century on this site, as the Tithe Maps show the front portion as orchard and the rear occupied only by the old Fowler house and cottages. In 1862 the front part was sold and by 1876 we find two engineering firms working on part of it. On the edge of the Frome (10), H.G. Holborow, listed in a directory as cloth machinery makers, and, by the Selsley road Cook, Vick and Co. (11) whose advertisement reads

Cook Vick and Co  
Dudbridge Patent Machine Works  
Manufacturers of Patent Cross Feeding Machines  
Diagonal Feeding Machines. Carding Engines.  
Sliver Machines. Iron Grinders.  
Improved Woollen Shawl Fringe Twisting Machines !  
All classes of Mill work. Brass and Iron Casting.

The name of the premises, Dudbridge Patent Machine Works, is the same as that given in 1871 to the premises of James Apperly and Co. cloth machine makers, and we know that in 1851 James Apperly and William Clissold patented a self acting feed for carding machines. It seems that there is some thread of continuity here but so far, that is all. Cook Vick and Co. were followed by Vick, Lydiard & Co., Mr. Lydiard living in the old Fowler house.

In 1891 Humpidge and Snoxell (surely they must have been created by Dickens !) set up an engineering business in this area, Humpidge possibly being connected with a Gloucester firm of engineers of the same name, and in 1894 they took over Holborow's business next door. I think this indicates that Humpidge and Snoxell occupied the Vick Lydiard site.

So from 1894 we had one engineering business here, known as Humpidge and Holborow in 1897 and by 1902 as Dudbridge Iron Works. For some reason the cloth machinery manufacture stopped and the Iron Works specialised in building the Dudbridge Gas, and Oil, Engines. These ranged from 1 to 160 H.P., the gas producers being built by T.H. & J. Daniels just up the road. Very recently it has

been found that engines were often built for other suppliers, with the apparent makers name even cast in the bed. So engines of this type may well be of Dudbridge origin despite someone else's name on them.

By 1904 the number of employees had risen to 200 from only 40 ten years earlier, and almost every year had seen the premises grow, covering the open land reaching to the main road. Among these new buildings was a large foundry and this was connected to other parts of the plant by a light railway using presumably hand-pushed bogies.

During the 1914-18 war the French designed Salmson aero engine was built here, and after the war, as the demand for gas engines declined, a variety of machines were produced, including rubber extruders and tyre moulds.

The Ironworks seems never to have recovered from the post-war slump and in the early 1920's the original directors sold out to a group of ex-Army men. These, too, failed to cope with the new problems and in 1925 the entire property went under the auctioneer's hammer, leaving us an interesting sale catalogue listing every item down to the last hammer. The premises housed a variety of engineering and metal working firms after 1925. The Hampton Car Company, of whom more later, bought part of the site. Ballingers, now of Woodchester, occupied buildings fronting on to the Selsley road. Birds, now of Gloucester, ran a lawn mower distribution and repair depot from the old Holborow section of the buildings, and Wesley Whitfield, engineers at Dudbridge from at least 1886 moved into the foundry and other buildings, where they were later followed by Bloodworths and, today, Lewis and Hole.

One might think the engineering businesses found so far to be pretty good measure for Dudbridge - but though we have done with this site we have not finished with engineering.

We can go back, in fact, to 1824, and the Stroudwater poem by Lawrence :

'A foundry near the water side appears,  
Which furnishes our mills and engineers  
With iron wheels and every implement  
According to the form or model sent.'

It is rather interesting to find in the Tithe Map, that this foundry was occupied by a Lawrence - it looks as though we have a neat 'commercial' slipped in the poem. The Tithe Map leaves no doubt that this foundry was where the Victoria Inn stands (2) but so far I cannot comment on the continuity of the buildings.

In 1852 we read of John Battershill, at Dudbridge Foundry. This has not been positively located but I would suspect him to have been a successor of Lawrence on the canal-side site.

Nearby, in 1899, the Stroud Metal Company was set up by the Apperly's "To acquire the business of brass founders and manufacturers of umbrella fittings which had formerly been carried on in the district for several years. The main aim of the company was to prevent the works from being closed."

This quotation immediately raises the question as to who the previous manufacturers were - but unfortunately we cannot answer the question yet. The new business erected new buildings (7) and in 1904 advertised as makers of "fittings for umbrellas, steam and water valves, gauges and specialities for electrical and motor engineers". The firm was also, at this time, proud of the fact that it was lit throughout by electricity !

In this same area, between the canal and the Apperly mill, Hampton Cars began; (6) initially as Hampton Car Bodies Ltd. and later as Hampton Cars (London) 1920. I am not yet at all clear on the story of this firm, which appears to have been founded on Apperly money. After the demise of the Ironworks, Hampton Cars moved across to occupy the Ironworks fitting shop - and today one can read on the wall on the Selsley road corner, in very faint letters the name 'Hampton Cars'. The employees numbered about 100, output was something like one car a week - a luxury article with real leather upholstery and silver plated fittings. The engines were, originally at least, the French designed Salmson aero engine built by the Ironworks, and later possibly the Gnome engine, also French. Unfortunately, the future of cars did not lie in the luxury, hand built model, and in the 1930's the Hampton died, killed by the Austin 7 and the Ford. Had it not, Dudbridge today might have been another Cowley or Coventry. Perhaps we should be thankful it is not.

Yet another engineering business in Dudbridge, and one of the longest lasting, was that of Wesley Whitfield, which can be traced back to about 1786 when a Mr. Holmes started a millwright's business at Paganhill specialising in flour mill work rather than in the more complex cloth mill trade. Nearly a century later, in about 1880, a later Mr. Holmes decided to sell the business and it was bought by Wesley Whitfield. He was the son of a miller of Thornbury, who from his own observations thought that being a millwright was more lucrative than being a miller. So young Wesley was apprenticed to William Pope in Bristol. After seven years there he began a period of travelling round southern England till he settled at the Orchard Iron Works in Gloucester.

Then came the chance to buy the Holmes business - and Whitfield not only bought it, but married Annie Holmes as well. Soon after this, in 1886 or so it was decided to move the business into the developing area of Dudbridge and a brick building was put up by a William Knight (19) on the edge of the canal between the bridge and the Victoria Inn.

For some 40 years the Whitfield business was based there, doing general engineering, building machinery for Strachans and other mills, later for Erinoid, maintaining the equipment at Kimmins flour mill, building stick and umbrella machinery and employing 30 to 40 men.

By 1925 the growth of Apperly's, and of Hampton Cars threatened to over-run Whitfields, who moved out to the now empty dye works (14). But the buildings were inconvenient and when the Ironworks folded up, Whitfields bought the foundry (13) where they remained till recent years, when under new control but the same name, they moved to Gloucester.

At this point we come to yet another industry, brickmaking, represented in the area by three brickyards with a fourth just outside our limits. Luckily, three of these four yards belong to one company, Samuel Jeffries. Jeffries was an engineer connected in some way with the coal trade.

It seems likely that his first venture into brickmaking was the opening of the small yard (17) by the railway station probably before 1870, using clay dug in the building of the Nailsworth railway. Then in 1875 Jeffries bought, from the Marlins, a small yard part way up Dudbridge Hill (16). He replaced the clamp kiln with a Hoffman continuous kiln and installed a tunnel drier instead of air drying. This equipment was capable of producing 10,000 bricks a day, and was the most advanced plant in the district.

In 1890 clay digging had levelled the hill back as far as the lower bank of the railway cutting and Jeffries obtained permission to cut this bank away during the next three years - this accounting for the somewhat peculiar contours at this point.

Jeffries' engineering was not wasted, as he designed a new brick cutting machine, made for him either at Daniel's or Dudbridge Ironworks. The power in the brickyard was provided by a Humpidge and Holborow steam engine - the only reference I have to engines made by this firm.

Where did the bricks go to? Large quantities went to the Army on Salisbury plain. Many of course went to local sites, to Gloucester and Swindon. It is almost certain that many went into

the bridges and viaduct of the Midland line from Dudbridge to Stroud, as, although these are faced with blue brick, the main structure is of local red brick.

Before 1914 clay was running out on Dudbridge Hill and a pit was begun on the slope down to the river. However, very soon, almost as much stone as clay was being dug. Then in 1914 the war brought production to a halt, and when in 1918 the possibility of re-opening was considered, the prospects of finding sufficient clay seemed poor and the site was abandoned in favour of the already existing Stonehouse brickyards.

Apart from the brickyard on the Nailsworth road just beyond the railway, where Selby's yard now is, which was also a Jeffries site, there was a fourth yard behind Apperly's mill (9). This was quite small and was worked by Mr. Pearce who also had a wheelwright's business in the sheds opposite the Ironworks.

We have completed our tour of Dudbridge's industries and seen how each developed. But we have looked at each independently, in isolation. Now we want to see how the pieces fit together, how the presence of one affects another. Is this particular collection of industries in this particular place logical, or is it quite fortuitous? Is there a pattern?

This is something we can see properly only when we know far more about the development and functioning of each firm than we do now, but we can begin to see certain relationships. It should be made clear that this part of this paper is mostly surmise - theories - which further evidence will prove or disprove.

First of all, why this peculiar concentration of engineering in Dudbridge? For any production process to grow there must be an accessible market for its products, and accessible sources of raw materials. There must also be a source of labour.

In the early days of Dudbridge's engineering, the market was given by the numerous mills of the Stroud valleys. Many of these were being built or rebuilt in the period around 1800, requiring new machinery. To some extent the engineering businesses sprang from the cloth mills themselves.

In 1851 Apperly and Clissold invented a new carding engine feed. Some years later we find James Apperly operating as a cloth machine maker, and following him, Cook Vick and Co. whose range of cloth machinery we have noted. We have seen too, that this firm became the foundation of the Dudbridge Iron Works. The other half of the Ironworks merger was H.G. Holborow - again <sup>machinery</sup> cloth manufacturers. So far I have not found how this business originated but we may yet find it to be a breakaway from the original Apperly business.

Continuing our search for the reasons for the origins of engineering here, let us think of raw materials, coal and iron. The Stroudwater Canal gave access to the Forest of Dean and South Wales and to a water route to the Midlands. It is not surprising that the first evidence of a foundry is on the canal bank. Another raw material needed is sand. On one side of Dudbridge lie the Cainscross gravel pits, and all around are clay pits. In sedimentary deposits like this it is quite probable that sand can be found. Is this the factor that pin-pointed the first foundry ?

And once a bed of good sand has been made for casting work, this tends to be a permanent asset of the plant, taken over by successive occupiers. Certainly this has been the case with the old Dudbridge Ironworks premises. Sheet metal work, car assembly, mower repair, bus depot, warehouse - all these have occupied parts of the premises. Only the foundry has stuck to its trade despite three changes of ownership. This suggests that a site, once given over to foundry work will tend to retain that usage more so than most other buildings.

In 1867 the railway came to Dudbridge. Very soon after this we find, not a small foundry making 'iron wheels and every implement' but two machinery manufacturers building carding machines and other textile equipment and by 1900 pretty large gas engines up to 16 tons in weight. And these factories, not by the canal but within two hundred yards of the railway sidings. How would these machines have been handled without the railway ? Can we suggest that the coming of the railway had an important influence on the growth of Dudbridge's engineering industry ?

I am sure the railway had a profound effect on local corn milling. We have seen that the area had three corn mills in the C.19 and we know that the canal was an important factor in supplying them with corn. It is on record that four vessels used to bring wheat up the Stroudwater in the 1860's, and others, brought it down the Severn - Thames canal.

Of these mills, however, only one survived well into this century, and this one, admittedly the largest, was the mill having direct access to the railway. The fragmentary records found so far suggest that in the 1911 - 1918 period over 80% of the grain for Kimmins Mill was received by rail, and the same order of percentage of the output was despatched by rail.

Was this easy and direct access an important factor in this mill's survival ? Would it have lasted as long as it did if every load had had to be put onto carts to be hauled by horses up to the railway, and then unloaded onto railway waggons ? We don't know, but this could be a significant factor.

Returning from our consideration of the effects of the railway on industry, can we come back briefly to two other engineering firms. The Stroud Metal Co. was, we know, the result of the Apperly's stepping in to prevent the closing of a local business, and the Metal Co. found its immediate market in local mills engaged in the stick and umbrella business - once again a logical choice of product. The Hampton Car Co. also fitted very neatly into the local scene. The original conception was ideal - engines by Dudbridge Ironworks, bodies by Stroud Metal Co., upholstery by Apperly's, all assembled by Hampton Cars.

Thus, in a very real sense, the oldest site in Dudbridge was the parent of much of its industry. From this site, reaching back into the thirteenth century or earlier, the Apperly's moved over the river. From there they branched into making cloth machinery and this gave rise eventually to the Ironworks, the Metal Co. and the Hampton Car Co. On their old site other industries moved into the empty mills, elastic, carpets, chairs, corn milling. To me this is a fascinating story of development.

The cloth industry - if not the Apperly's - lay behind two other developments, dyeing and soap boiling. Dyeing, in the Hawker's case, developed by specialisation from the Fowler clothier business, and we saw how this continued, under one name or another till the 1900's.

Soap boiling, across the road from the Chance and Apperly mills, almost certainly provided material for the cleaning of wool and the fulling and dyeing of cloth.

Brick making is an example of an industry serving, until recently, a very local market and itself localised by the need for on-site raw material. Requiring, too, good bulk transport facilities even within its fairly local district.

Nature itself provided one reason for Dudbridge's brickyards - local clay deposits. But there is no evidence of these being worked prior to the latter half of the nineteenth century - though the Sandling house, over 200 years old, is brick built.

The canal does not seem to have stimulated brickmaking. In fact in the period 1822 - 1827 covered by the Dudbridge Port Book, bricks were a small but steady import into Dudbridge wharf.

Then in 1876 we find an advertisement for Jeffries brickyard and in 1881 the O.S. map shows three yards in our area and others nearby.

Was this a result of the railway? It could be in two different ways - one, the obvious means of bulk transport to hand; the other the actual demand by the local railway for bricks in its

constructional works. Look at the old Midland line from Stroud to Dudbridge, a viaduct and five bridges in barely a mile. Look at the viaduct over Merrywalks - are these the reasons behind the local brickyards, one of which was placed right by the Dudbridge sidings before the later branch to Stroud was built.

And then, these brickyards in existence, how convenient for the ugly stretch of brick houses between Dudbridge and Cainscross, and for the rebuilding of Apperly's, destroyed by fire in 1891.

Or was the demand for brick an outcome of the growth of Stroud in the late nineteenth century ?

Possibly both these demands lay behind the growth of the local brick industry - but as has been admitted so frequently, the reasons are not yet known for certain.

This paper has examined a very small area. One can walk from one end to the other in less than five minutes, or flash through it in a car without seeing a single item worth stopping for. Yet we have here engineering from the cast iron wheels of the millwright to aero engines and motor cars. We have cloth from the twelfth century fuller to the complexities of a twentieth century cloth mill. We have the rise and fall of brickmaking and flour milling, the interplay of road, rail and canal transport; the elegance of an eighteenth century clothier's house and the grime of a modern foundry.

I believe that the history of a site, such as Dudbridge, is a record of logical development; that every new phase depends on the conditions existing at the time, the geographic facts, the existing industries, the general economic outlook, the characters of the men who built and planned.

We have taken the pieces of a jig-saw puzzle and begun to put them together. The picture is incomplete; many pieces do not yet fit, even more pieces are missing, but in finding the picture, in discovering the reality, there is interest and satisfaction.

It is hoped, too, that those who from time to time pass through Dudbridge, will see it in a new light - a condensed version of industrial history.

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#### LOCAL HISTORY BULLETIN, GLOUCESTERSHIRE COMMUNITY COUNCIL

In Bulletin no. 13 the notes of the Local History Committee record that the documents obtained in the Canal Survey, conducted in 1961, have recently been handed over to the County Records Officer

for the County archives. The notes say that although the survey does not give by any means a complete history of the canals in the County it contains some interesting details about canal traffic and a number of old photographs.

Under the results of the Schools' Essay Competition, the bulletin mentions that the most interesting work comes from the Severn Vale Secondary School, where pupils are obviously encouraged to select a topic that can be made the subject of field work. The results of these inquiries are then combined with material from books. In the class for group projects this school came first and second with articles on Framilode and on the Fromebridge Mills.

After an account of some of our activities by Dr. Annis comes a paragraph on the recently formed Kingswood Local History Society. They are planning to investigate the beginnings and development of the boat trade in Kingswood; the Avon and Gloucestershire Railway and also to make a photographic survey of an area in Kingswood scheduled for re-development.

The usual articles on the latest acquisitions of the local museums and libraries are always interesting. Cheltenham Art Gallery and Museum, for instance, has received a map of the town showing turnpike and other roads, as well as a watercolour of "The Old Westgate Street Bridge" at Gloucester, by an unknown artist signed "Edwd."

Gloucester reports that the Golden Anchor Clothing Company has presented the complete cash transmission system which was in use in their premises in Southgate Street up to the end of last year. The system is the one in which the cash and invoice were placed in a wooden cup which was then clipped into an overhead holder. By means of the tension of rubber thongs, the holder and cup were shot along overhead wires to the cashier hidden away in a remote corner. Another system for transmitting cash between floors was also included in the gift. Here the cash was placed inside a wooden ball which was dropped down a chute and thence rolled gently towards the cashier. An ingenious system of manual hoists returned the ball to the upper floor again. Both systems were photographed *in situ* before they were dismantled, and it is hoped to install them in the Folk Museum.

Also mentioned is the gift of one of the old Gloucester horse trams which were withdrawn from service in 1904. For many years the tram, which lacks its undercarriage, has done duty as a garden shed and as a result has suffered much from the weather. The tram still retains signs of its original livery of crimson lake and cream, and several advertisements and notices remain intact. Restoration work will be extensive but it is hoped eventually to put the tram on view to the public.

(This tram was also mentioned in an article in the Gloucester 'Citizen' of the 27th May which also had several photographs. The Gloucester Railway Carriage & Wagon Company thought that they built it about 1880. It had seven windows along the side, compared with six on one illustrated by an old photograph).

In Stroud a candle from one of the stone mines near Nailsworth has been given. This had evidently been attached to the wall of the gallery in the simplest way, using a ball of soft clay, as was frequently done in the Forest of Dean.

The Gloucestershire Records Office has received letters of Thomas Telford and others about the Gloucester & Berkeley Canal, 1802 - 20; draft history of the Gloster Aircraft Co. 1915 - 65; deeds 1739 - 1833, papers, plans and drawings 20c. of Redbrook Tinplate Co.; accounts of Wotton-under-Edge ironmonger, 1871-88; deeds 1746 - 1925 and day book, 1835 - 51, of Longhope saw mills; Nailsworth miller's accounts, 1841 - 57; farm accounts of Hailes & Winchcombe, 1792 - 1867.

G.N. Crawford.

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#### TRIP ON GLOUCESTER - SHARPNESS CANAL

SATURDAY, 11 JUNE 1966

#### ARCHITECTURAL NOTES ON THE CANAL BUILDINGS.

The buildings on canal property fall into two main groups: first, the swing bridge keepers' cottages, dock houses and weighbridge house (Southgate Street, Gloucester); second, the warehouses.

The first group all make use of stucco, that is oil painted plaster on rough brickwork, and pairs of columns, probably of painted stone. The columns are modelled on the Doric columns used on temples in Greece. These were in fashion for many types of buildings from approximately 1800 - 1850, because the Renaissance style of variations on the classical architecture of Greece and Rome had used the Ionic and Corinthian columns, but hardly ever the Doric, from 1600 to 1800, by which time architects were heartily sick of correct design and were becoming intrigued by the earlier temples now being re-discovered in Greece and Sicily. A brief list of buildings shows how wide-spread the new fashion was, especially for buildings connected with engineering works :

1799 Dodington House. Round Lodge on Bath Road, Gloucestershire.  
Architect: James Wyatt.

- 1802 West India Docks, London. Engineer: Rennie.
- 1813 Stanley Mill, Stonehouse, Gloucestershire.
- 1827 Carlton House Terrace, The Mall, London. Architect: Nash
- 1828 St. Katharine's Dock, London. Engineer: Telford.
- 1835 Shrewsbury Canal Terminus Howard Street, Shrewsbury.
- 1839 London and North Western Railway terminus, Euston, London.  
Doric Arch. Architect: Hardwicke.
- 1840 Gloucester and Birmingham Railway Station, Lansdowne, Cheltenham.  
Architect: Dawkes.
- 1845 Albert Docks, Liverpool. Engineer: Hartley.

The drawings of the Gloucester - Sharpness swing bridge keepers' cottages are dated 1845, and until further evidence comes to light, one can only assume that they were constructed from this date. It is possible that they were designed well before this date, perhaps by the original architect/engineer for the canal, Robert Mylne. Because of the protracted history of this canal he had left the scene early and had retired by 1800. The cottages are not identical but fall into two main types, both of which have had extensions in later years to keep them up to contemporary standards.

The second group of buildings, the warehouses, are far more important for one or two reasons. There are of course earlier multi-storey buildings in this country, but these are mainly mills. These warehouses were however designed for much heavier floor loadings than mills; and achieved the strongest and cheapest solution by using brick footings with inverted arches to spread the point loads of the internal cast iron columns continuously along mass concrete foundations on what was probably Severn valley mud; brick external walls reducing at each floor as they rise; and cast iron columns internally connected through heavy timber beams by cast iron dowel pins, joining column head to column foot above and roofed with conventional queen post timber trusses, rafters and slates. The small openings have bars for security, with internal hinged timber shutters to control the ventilation. These shutters have been painted at Sharpness, thus lightening the openings and emphasising the wall thickness. Using simple traditional building construction, the designer has achieved buildings expressing their function clearly and with a real sense of proportion. So well has this been done, that it is not surprising that the first design was repeated over and over again at both Gloucester and Sharpness.

As with the cottages, one can only date these buildings from dated records and drawings, until further evidence comes to light.

- 1820 Gloucester Docks. North Warehouse. Stone plaque near eaves inscribed 'Gloucester and Berkeley Canal Company Warehouses. Erected by W. Rees. Anno dom. 1820 "
- 1826 West Warehouse.
- 1836 Pillar Warehouse, South of Llanthony Bridge. Here the wharf goes under the first bay of the building which means that the hoist mounted on the gable is immediately over the vessel below.
- 1840 Reynold's Mill. (Fourth warehouse down east side of Old Basin). Architect/Engineer: Hack. Contract sum £3222. Contractor: Wingate, Cooke, Jacques. Owner: Vining, merchant.
- 1870 Alexandra Warehouse (between Llanthony Bridge and dry dock).

Ian Parsons.

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#### POTS AND PANS

Busy among the documents on show at the National Library week exhibition at Stroud Technical College was Mr. Lionel Walrond, curator of Stroud Museum, who came across one item which even he had never seen before.

Under the heading "Stroud Invention" was a copy of a licence to Samuel Loveridge and Charles Clarke of Wolverhampton, iron founders, to "use and vend an improvement in saucepans, kettles and other utensils invented by Edward Sampson, of Thrupp Lodge, Stroud, in 1867."

As Mr. L.T.C. Rolt pointed out when opening the exhibition, there is a mass of facts about early engineering in the Stroud valleys which needs collating and publishing in book form, and he urged some enthusiast to undertake the task.

If such a person emerges I hope he will find out a little more about Edward Sampson and how he came to be interested in improving iron pots and pans. Nowadays one seldom sees such things but it is not so very long since they were to be found in every kitchen.

Stroud News & Journal - 25th March 1966.

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#### RESIGNATION OF DR. G.S. ANNIS

No doubt most members will have heard that our Secretary has unfortunately had to resign due to a posting for about two years to a job in the United States. Only those members with experience of work on your Committee will realise how many scores of letters have to be written and it is only when the Secretary reads through the correspondence that one realises the vast amount of work that is carried out behind the scenes.

Mr. Warren Marsh had previously set a very high standard, but this was kept up by Dr. Annis and we owe him our grateful thanks for all the time he has put in on our behalf. He has asked to be kept in touch with the Society and we wish him the best of luck in the New World.

Meanwhile, Mike Eastwood is Acting Secretary until an election is held in the early Autumn. He has already organised our summer excursions most efficiently.

Neville Crawford.

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