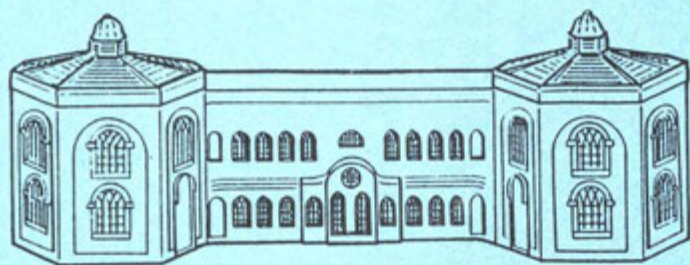


RETORT!

THE BULLETIN
OF THE
WARWICKSHIRE
INDUSTRIAL ARCHAEOLOGY
SOCIETY



SUMMER 1999

ISSUE NINE

RETORT!

The Bulletin of the
Warwickshire
Industrial Archaeology
Society

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EDITORIAL

I write this editorial after Coventry's rain-swept Godiva Weekend and the Society's appearance both at the Life and Times exhibition and on local radio. Recognition at last!!

What struck me during the course of the exhibition was the way in which the Society had built up its reputation and its connections with other groups, and that enquiries about the work of the Society continue to grow. The Society's exhibition display certainly attracts considerable interest, not least because of the high quality of Mark Abbott's photographs. Perhaps the next stage is the creation of a WIAS website, with e-mails rushing to and from enthusiasts around the world.

But that is for the future. For the present, our pace of progress continues to be that of the rural passenger train rather than the inter-city express, but movement there certainly is. Various initiatives continue, as you will read in the course of this issue. The indefatigable Toby Cave has put together another programme of talks for the next twelve months and we very much look forward to seeing you all at these meetings

Martin Green

From Long List to Short List to Gazetteer

One of the main aims of the Society is to produce a Gazetteer of sites in our area. What struck us fairly quickly was that we could not leap straight into the production of a Gazetteer. We needed a list from which to work, and such a list had to be simple to produce, with the minimum of information, so that as many members as possible could be involved. Although the task has seemed very daunting at times, there now has been sufficient progress to report that 350 sites have been recorded, albeit in the briefest of forms. This article puts in place some of the background to the process, although readers are referred to Issue Seven of Retort! which first launched the Gazetteer. Industrial activity has no regard for political boundaries, and the eventual choice of coverage has been inevitably arbitrary. It would be impossible to leave out Coventry in our survey, and some parts of Solihull fit well with the county even though most of the town tends to have much closer links with Birmingham. We did not feel that we could spread our activities to cover Birmingham. So we decided that the survey should be of Coventry, Solihull and Warwickshire. Within Warwickshire, the various Districts have been used as a basis for classification, and so we settled on the following list of abbreviations.

COV	Coventry
SOL	Solihull
Warwickshire:	
WNO	North Warwickshire District
WNU	Bedworth and Nuneaton District
WRU	Rugby District
WST	Stratford District
WWA	Warwick District
Z	Transport route covering several Districts

Each site is then given a more specific location (e.g village), and this is supported by a Grid Reference. Given the maps available to most members, location by parish is too difficult a process. A brief statement of the nature of the site is made and it is placed within the relevant industry. The industries try to follow the IRIS classification wherever possible. Just to illustrate the process, an example is shown on the following pages. In the first case (part of) the alphabetical list for Warwick within WWA (Warwick District of Warwickshire) is shown, and in the second instance a different sorting from the database reshuffles sites and shows them by industry, in this case textiles, again listed alphabetically.

The 'long list' will be available at the monthly meetings and it is to be hoped that members will be able to add extra sites. The list is a provisional first attempt, with no guarantee over accuracy, and coverage certainly far from comprehensive. It has been produced on the basis that we had to start somewhere. I am grateful for all contributions made so far.

A copy of sites listed for an area will be sent to the relevant local history society or equivalent group covering that area in order to boost coverage. Again, the simplicity of the form should aid contributions. We shall also emphasise the need to focus attention on sites that remain.

Having gathered this 'long list', the most significant sites will then have to be selected and these will form the basis of the Gazetteer. Within the Gazetteer, each of these sites will carry a brief description plus status, again according to the pattern established in the AIA Surveys. It will be organised by District so that anyone visiting the area can easily see what is significant in a particular locality.

WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY: GAZETTEER OF SITES

District	Local	Site	Industry	Grid Ref.
WWA	Warwick	Avon aqueduct, Warwick	Trans: Canal/River	SP 301665
WWA	Warwick	Coffee Tavern, Warwick	Catering	SP 283650
WWA	Warwick	Donald Healey factory, Lock Lane.	Eng: Motor	SP 279660
WWA	Warwick	Emscote Old Wharf	Trans: Canal	SP 297665
WWA	Warwick	Glover's foundry, Coventry Road	Iron	SP 287652
WWA	Warwick	Governor's House	Law: Prison	SP 278658
WWA	Warwick	Guy's Cliffe watermill	Food: Corn	SP 292671
WWA	Warwick	Ice house, Warwick Castle	Icemaking	SP 285648
WWA	Warwick	Leafield Bridge	Trans: Road	SP 280630
WWA	Warwick	Nelson company housing, Charles Street	Housing	SP 295657
WWA	Warwick	Nelson's Gelatine Factory, Warwick	Animal: Gelatine	SP 295657
WWA	Warwick	Pillar box, Eastgate	Comm:	SP 284650
WWA	Warwick	Pillar box, Westgate.	Comm:	SP 281647

An abstract from the Long List, showing (some of) the sites from Warwick within the Warwick District of Warwickshire (WWA: Warwick)

An abstract from the Long List, showing (some of) the sites listed alphabetically by industry, in this case textiles.

WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY: GAZETTEER OF SITES

District	Local	Site	Industry	Grid Ref.
COV	Coventry	Cash's factory & houses	Textile	SP 335805
COV	Coventry	Herbert Art Gallery and Museum	Textile; watches etc	SP 337789
COV	Coventry	New Buildings, off Trinity St. (topshops)	Textile; Ribbon	SP 336792
COV	Coventry	Topshops, Far Gosford Street.	Textiles	SP 346790
COV	Earlsdon	Ribbon-weaving premises, Berkeley Road South	Textile; Ribbon	SP 321778
COV	Great Heath	Courtalds factory, Foleshill Road.	Textile/Chemical	SP 338809
COV	Hillfields	Topshops, Hillfields, Coventry	Textiles	SP 339796
COV	Little Heath	Courtalds Factory, Little Heath.	Textile/Chemical	SP 347824
COV	Spon End	Topshops, Lower Holyhead Road.	Textiles	SP 329791
WNO	Atherstone	Vero & Everitt hat factory	Textiles: hatmaking	SP 305978
WNU	Nuneaton	Courtalds factory, Nuneaton	Textile/Chemical	SP 356914
WRU	Rugby	(Former) Symington's Corset factory, Spring St.	Textiles: clothing	SP 508775
WWA	Milverton	Rock watermill	Textile:Cotton; Corn	SP 301662

As many members will know, the Society has more than a passing interest in brickmaking. We are not the first to come to the scene, however, and about twenty years ago a group from within the Coventry and District Archaeological Society carried out a survey of brickmaking in Coventry.

A small pamphlet was produced under the leadership of Wilf Hopley. We feel that his work should come to the attention of a wider audience, and the following is a transcript of that pamphlet. We are grateful to the group for their original research. No alterations have been made to the text, even though it is clear that much has changed.

A History in Brick

THE STORY OF THE COVENTRY BRICK INDUSTRY

by
W. Hopley

Documentary evidence is very sparse, due to the destruction of many records by enemy action in World War II. The report is based on Ordnance Survey maps, interviews, intensive field-walking and the examination of many thousands of bricks on demolition sites all over the city.

Tiles were made at Potters Harnall and Stoke in the 14th. century. The remains of a kiln were found when Harefield Road was being constructed in 1930.

The first written reference to brick making is an entry in the Coventry Leet Book in 1542. Brick makers were required to make their bricks a standard 10"/5"/2" under pain of a heavy fine. Records refer to a brick-kiln in Foleshill in 1775 and 'The History of Stoke' records that the lords of the manor of Stoke were renting out clay and sand-pits on Stoke Heath for brick making at 1/6d. per 1000 bricks made. Clay Lane may have derived it's name from this.

Street and place-names are pointers to localities where the industry was carried on - Leicester Street, Gulson Road and Broad Street were all called Brick Kiln Lane at various times in the 17th. and 18th. centuries. There are still brick yard plantations at Rowley Road, Baginton and Gibbet Hill Road, Westwood. The latter is the site of the Stoneleigh Estate brick yard, where a substantial building still remains, with 1873 on the gable and the bricks stamped 'Lord Leigh'. With the exception of the above two sites and the factory of W. Tomlinson of Barkers Butts Lane, Coundon, the main concentrations of brick yards lay to the east of Coventry, following the main seam of Keuper Marl. Exhall, Victoria, Hawkesbury and Wyken Collieries produced bricks as a sideline to their main business throughout the 19th. century. It was a profitable way to use up what would otherwise have been waste products. No physical remains of brick making can be seen on these sites at the present time, but Victoria Colliery bricks have been found on a site near Victoria Farm.

Several yards carried on brickmaking in Longford and a building in Oban Road marks the site of the Foleshill Brick and Tile Co. (1850-1935). Many bricks of the name were found on this and other sites.

In 1850, seven brickfields existed in the south of Primrose Hill in one area known as Spitalmoor, now built on and occupied by Paynes Lane, Days Lane, East Street and Canterbury Street. Most of the bricks used in the extensive construction programme when the Hillfields and Chapelfields districts were built came from these brick yards. William Day worked in Days Lane, J. Priestly at Priestly's Bridge (the latter yard was subsequently owned by J. Snow, then Snow and Wilkins, Wilkins and Webster, Webster and Hemmings and today by Hemmings and Son and is the only yard still in operation).

J. Snow supplied bricks for the building of the steam-flour-mill in Cox street and took part in the banquet at the top of the chimney for the opening ceremony; in 1854. He also supplied the bricks to build the Britannia Street area. No bricks of this name have been found. W. Tomlinson of Coundon not only supplied the bricks for, but actually built the Old Market Hall in 1867. Only one brick of this name has been found in our searches.

At the time of our survey, a new sewer was being dug across the area once called Spitalmoor and this enabled us to find many named bricks that I am sure would otherwise have been lost. A complete list of all bricks found is given at the end of this report.

Most of these brickworks were in existence throughout the 19th. century, but few continued to function after 1908. Hemmings and Son are now the sole survivors and are still in business in Stoney Stanton Road. They occupy a large site of 40 acres or more between Foleshill Road and Priestly's bridge and carry out all the processes of brickmaking from quarrying their own clay to making the finished article. They make some

200000 bricks per week. The firm was established in 1880 and most of the buildings, including the chimney, are of that date - although some, of course, had to be rebuilt after damage during the last war. The present Mr. Hemmings comes from a long line of brickmakers. A predecessor was a travelling brickmaster employed by the early canal companies to make bricks for bridges etc. and a later member of the family did the same for the railway builders. Mr. Harry Webster lived at what is now the Royal Court Hotel, Keresley.

The once great industry that helped to build Coventry has nearly gone, leaving but a few signs of it's passing. Perhaps Days Lane and Priestly's Bridge are the last silent witnesses to a 'History in Brick'.

Named bricks found in Coventry:

Coventry

Wilkins; Wilkins & Webster; W&W; Webster & Hemmings

Victoria Brickworks

C. Gray Hill

G.B. Tew

Tomlinson

T. Rollason

J. Burke

Longford

Foleshill Brick and Tile Company

No note is made of the destination of the bricks, but WIAS does hold examples from the Wilkins/ Websters/Hemmings works; Victoria Brickworks; C. Gray Hill; and the Foleshill Brick and Tile Company. Specimens from other yards gratefully received, especially any marked Lord Leigh!!

An Unseen Sculpture

With the demolition of many of the early buildings that made up AP in Leamington Spa, it is re-assuring to know that there remains at least one reminder of glories past. Many are not aware of the sculpture that lies behind the hedge on the Tachbrook Road, and these extracts remind us of its place in AP's history.

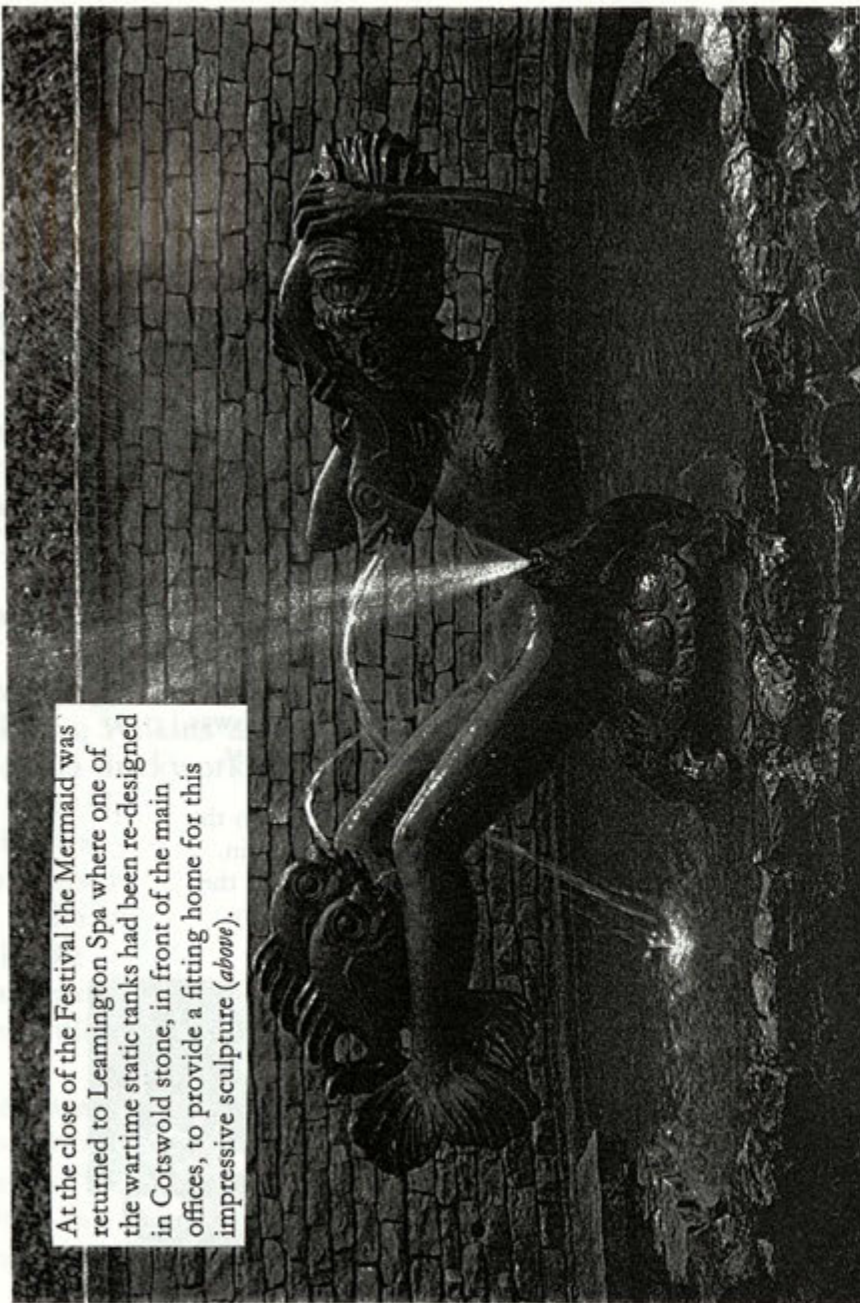
THE LOCKHEED FOUNTAIN AT

THE FESTIVAL OF BRITAIN

The 1951 Festival of Britain Gardens at Battersea Park had a felicitous feature — the bronze fountain in the centre of the 26 ft. diameter pool at the focal point of the gardens. This fine sculpture of a bronze mermaid was commissioned from the well-known artist, Arthur Fleischmann, by the Lockheed Hydraulic Brake Co., Ltd. as a tribute to the skill and industry of the people of Britain. Mr. W. Emmott, Managing Director of the A.P. Group, inaugurated the fountain by turning on the water



At the close of the Festival the Mermaid was returned to Leamington Spa where one of the wartime static tanks had been re-designed in Cotswold stone, in front of the main offices, to provide a fitting home for this impressive sculpture (*above*).



Edinburgh's Leamington Bridge

The Union was one of the last canals to be built in Britain and stretches 31 miles between Edinburgh and Falkirk. It does not follow natural contours but carves its way through cuttings and across embankments, with three impressive aqueducts over the Avon and Almond Rivers and the Water of Leith.

Of the bridges en route, perhaps the most interesting is the Leamington Lift Bridge. It has no connections with our Midland Spa town, but carries the Leamington Road across the Canal. Originally located near the city basin it was moved to its present site in 1922. The bridge was electrically operated and was raised between gantries on either side of the road. It has not been raised for many years.





Watchmaking in Coventry

Watchmaking was one of the most important of Coventry's industries, forming a crucial part of the city's industrial heritage, and WIAS has built up links with the Coventry Watch Museum Project Ltd. One of the difficulties that the Museum Project has faced for some while has been the lack of a suitable home for the collection of watches, watchmaking equipment, photographs, documents and information that they gathered together over time.

It is a pleasure to report, therefore, that the Museum Project has finally managed to secure its own temporary museum at 76 Lower Precinct in Coventry. The rent-free premises were opened to the public on Saturday May 1st 1999. The opening ceremony was conducted by Viscount Alan Middleton, the society's patron and chairman of the council of the British Horological Institute. During the ceremony, chairman Paul Shhfflebotham emphasised that this marked a turning point for the Museum Project - the first step on the way to a permanent location for the exhibits.

The museum is currently open from 10.00 a.m. until 4.00 p.m. on Saturdays. The Coventry Watch Museum project always welcomes new members and is currently looking for volunteers to help with the staffing of the temporary museum. It is hoped that this will enable opening times to be extended, and to provide assistance with cataloguing the collection.

(The Lower Precinct is also of interest in itself as a significant example of retail development in the post-war period).



Registered Charity No: 1058665
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*the Coventry Watch Museum Project Ltd
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COVENTRY'S MACHINE TOOL INDUSTRY

The Glory Years 1880 to 1980

by
Arthur Astrop

At one time Warwickshire was a major area for machine tool manufacture in the UK. Coventry was one of the county's principal centres of production, and in the City the industry flourished for about 100 years, roughly from 1880 to 1980. Today, those seeking evidence of the great days of machine tool manufacture in Coventry would be hard put to find any evidence, in terms of its original buildings, to show that such an industry had ever existed.

At the height of Coventry's power as a UK machine tool building centre, four companies of international renown dominated the scene; namely Wickman Ltd, Webster & Bennett Ltd, Coventry Gauge & Tool Ltd, and Alfred Herbert Ltd. Of the first three, not a brick of their original buildings remains to be seen, all three sited having been razed and either re-developed or left barren. Of Alfred Herbert Ltd, by far the greatest of the quartet, a minuscule remnant only survives. Somewhat ironically, that fragment still contains the private living quarters of the Company's founder, the legendary Sir Alfred Herbert who, in his later years, occupied it for a night or two each week after commuting to Coventry from his large country estate in Hampshire.

THE JEWEL IN THE CROWN

The headquarters, principal manufacturing facility and 'jewel in the crown' of Alfred Herbert in Coventry was the Edgwick Works (*see site sketch*), occupying a 40-acre site about two miles north of the City centre. It was bounded on the west by the Foleshill Road, on the east by the Stoney Stanton Road, to the north by the Coventry Canal, and to the south by Cross Road. The site was divided roughly into one quarter and three quarters by a private road, a north/south extension of Canal Road, leading off Cross Road. The larger section, to the east of canal Road, contained all the main workshops, machining bays, assembly bays, works administration offices, the pattern shop, and two iron foundries, one for large castings and one for small. In the 1990s, most of the buildings in this section were demolished and the site was re-developed as a large modern industrial estate.

The smaller section of Edgwick Works, to the west of the private road, contained Herbert's business administration blocks, design and drawing offices, directors' offices, Board Room, research and development centre, publicity department, and Sir Alfred's personal *pied à terre*.

It is in this western section that a few of the original buildings are still to be seen. Some are empty and deteriorating and others have been carved up into a multitude of small industrial units. There is one section, however, built in the early 1920s, which today remains much as it was in the company's heyday.

It is a terrace of single storey buildings (*see photo and C on site map*), which once housed the directors' offices and at the centre of which is a 2-storey section (*D*). The top floor of the latter was designed and built specifically as a self-contained flat for Sir Alfred and Lady Herbert's occupation on their visits to Coventry. Sir Alfred, even in his late 80s (he died in 1957, aged 91), made these visits both to maintain his grip on the machine tool empire he had created and, sometimes in company with lady Herbert, to fulfil their civic and social duties as major benefactors to the City of Coventry.

In the photos of the buildings *C* and *D*, the name Project Aerospace appears on the front of the building. This company operated from these offices, including from Sir Alfred's private apartments, before moving to a larger and modern unit nearby on Edgwick site.

At the southern end of this terrace, and separate from it, two further original buildings still stand. One is a rather undistinguished post-war detached 2-storey block (*B*), set back from the private road and originally having a rose garden in front. This was the dining room for Herbert directors and a hospitality centre for visiting customers. Since the collapse of Herberts (in 1983), the ground and first floors of this building have been occupied by a succession of small businesses, mostly started by members of the Asian community which is strongly represented in the Foleshill district of Coventry. At the time of writing, the ground floor is unoccupied and the first floor is a health and fitness centre. The other original building in this area (*A*), is also detached, fronts directly on to the private road, and was designed in the 1920s to house the chemical and metallurgical test laboratories, also the Publicity department of Alfred Herbert Ltd. This building has been occupied sporadically in the last decade but is currently vacant.

Two more original buildings still stand to the east of Canal Road, namely those marked (E), in which tooling for Herbert machines was made, and the block (F) which was purpose-built post-war to house the company's research and development department. Buildings in E are occupied by small businesses, but block F has been 'To Let' for many years.

As a footnote it may be mentioned that for many years Alfred Herbert Ltd., Coventry, was the largest machine tool manufacturer in Europe, with a workforce of over 11,000 and, for a brief time after the second world war, was probably the largest in the world.

The position regarding the sites of the remaining three major Coventry machine tool companies mentioned above is as follows:

Webster and Bennett Ltd (vertical turning and boring machines), had its factory on a large site in Northey Road, Coventry. Over the years, the factory became surrounded by residential properties and after the company encountered difficulties, and was absorbed into the Wickman Group, the site was cleared and redeveloped as private housing. The company name lives on in a new firm with facilities on the Aldermans Green Industrial Estate, Coventry.

A.C.Wickman Ltd (multi-spindle automatic lathes, centreless grinding machines, optical profile grinding machines) began life in 1925 in Charterhouse Works, Northfield Road, off Charterhouse Road, renting space from James J. Guest & Co, makers of grinding machines, transport equipment and special tools.

In 1938/9 it moved to its massive factory, set in landscaped grounds on the outskirts of the City, in Banner Lane, Coventry. All the buildings are now demolished and the site is scheduled for re-development. The company name lives on (as Wickman Machines Ltd) in a new firm located on the Three Spires Industrial Estate, Ibstock Road, Coventry.

Coventry Gauge & Tool Ltd. (thread grinding machines, CNC lathes. CNC machining centres and jig boring machines), was founded by Harry (later Sir Harry) Harley, a Herbert ex-apprentice. The firm began life in Earlsdon on land between Earlsdon Street and Warwick Street, with the (much altered) buildings still surviving to this day. The firm had a chequered history during the 1980s and early 1990s. The subject of several take-overs, it was finally known as TI Matrix Churchill Ltd, with effective ownership by a Middle Eastern nation. Its ultimate demise followed a *cause célèbre* in which it was accused of illegally exporting machines for the production of armaments. Its massive factory on Fletchamstead Highway, Coventry, remained empty for several years. At one time it was used for Sunday car boot sales, then it became progressively vandalised, and eventually it suffered a fire which left only the shell standing. It was finally demolished in early 1998 and the site has since been re-developed. The right to manufacture some of the Company's machine designs was acquired by BSA Tools Ltd, Mackadown Lane, Birmingham.

A SURVIVOR

One of the last, if not *the* last, long-established Coventry machine tool builders still in private hands has a medium-sized factory in Lythalls Lane, Coventry. Known as **Hey Machine Tools Ltd** it has not only survived the vicissitudes of

the industry but also resisted take-overs. It makes a range of specialised machine tools used principally by the automotive industries worldwide. Originally known as Hey Engineering Co, it was founded in 1926 by George Hey, and its registration certificate records it as having 'works and offices in Edmonton and Coventry'.

In Coventry it initially had a small design office in Queen's Road, but some time in the early 1930s George Hey acquired the front portion of the present buildings in Lythalls Lane (*see photo*), to provide enlarged facilities for his designers and draughtsmen. The larger portion of the building, which is to the rear and consists of a number of north-light bays, was still occupied at that time by (it is believed), the long-established Coventry firm Astleys. Over the years this rear portion was progressively acquired by Hey to become a machine shop and machine assembly area. Shortly after the second world war, the company was bought from George Hey by its chief designer, Mr. S.B. Wright (died 1989), who became a well-known 'character' in the machine tool industry. When Mr. Wright retired there was a management buy-out, which has continued to run the company successfully.

Editor's note:

Arthur Astrop continues to research the machine tool industry of Coventry, and is always willing to hear from anyone with memories, information, documents or photographs. He can be contacted via the Secretary of WIAS (address at the back of this book) or via e-mail. His address is Arthur@astropa.freemove.co.uk

Arthur will be updating us on his research at the March 2000 meeting of the Society.



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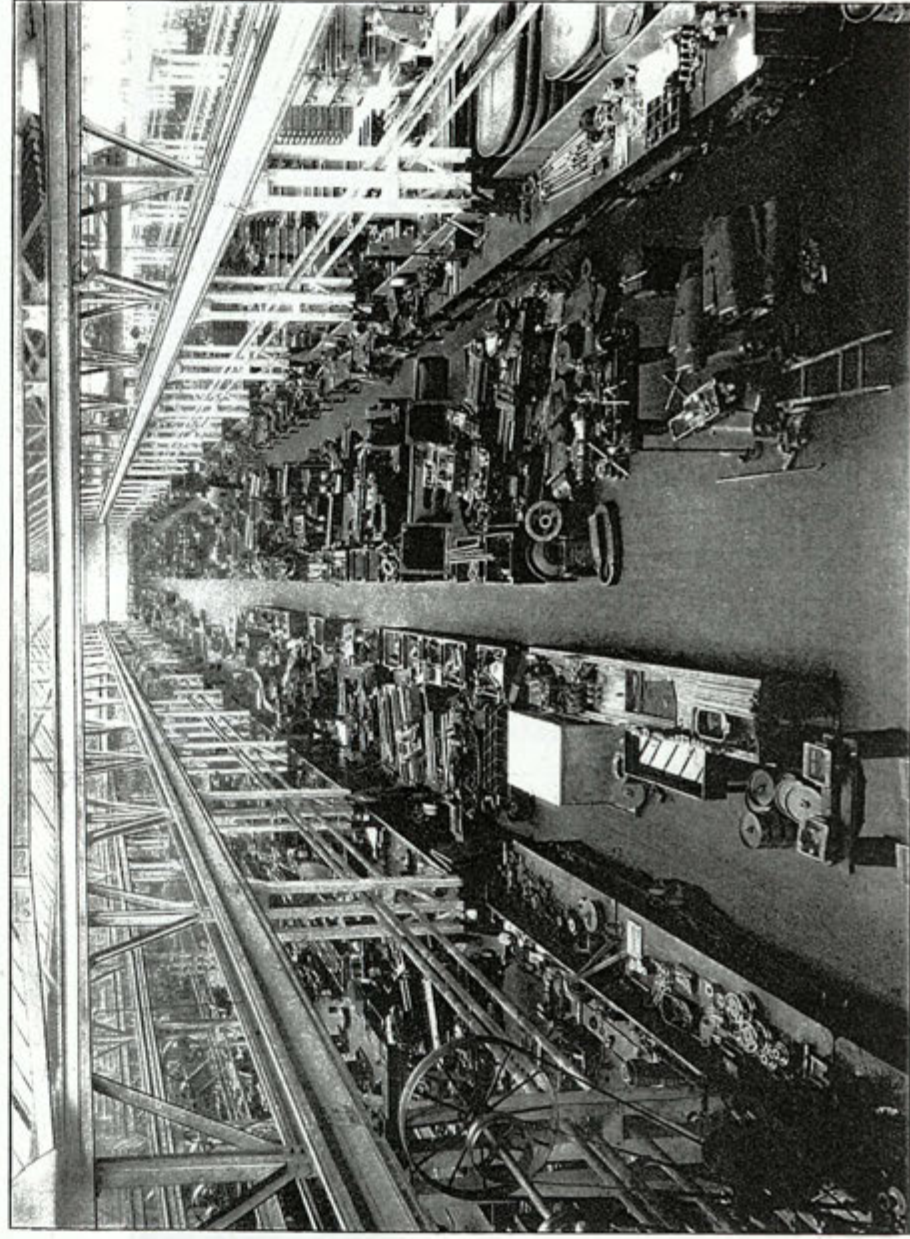
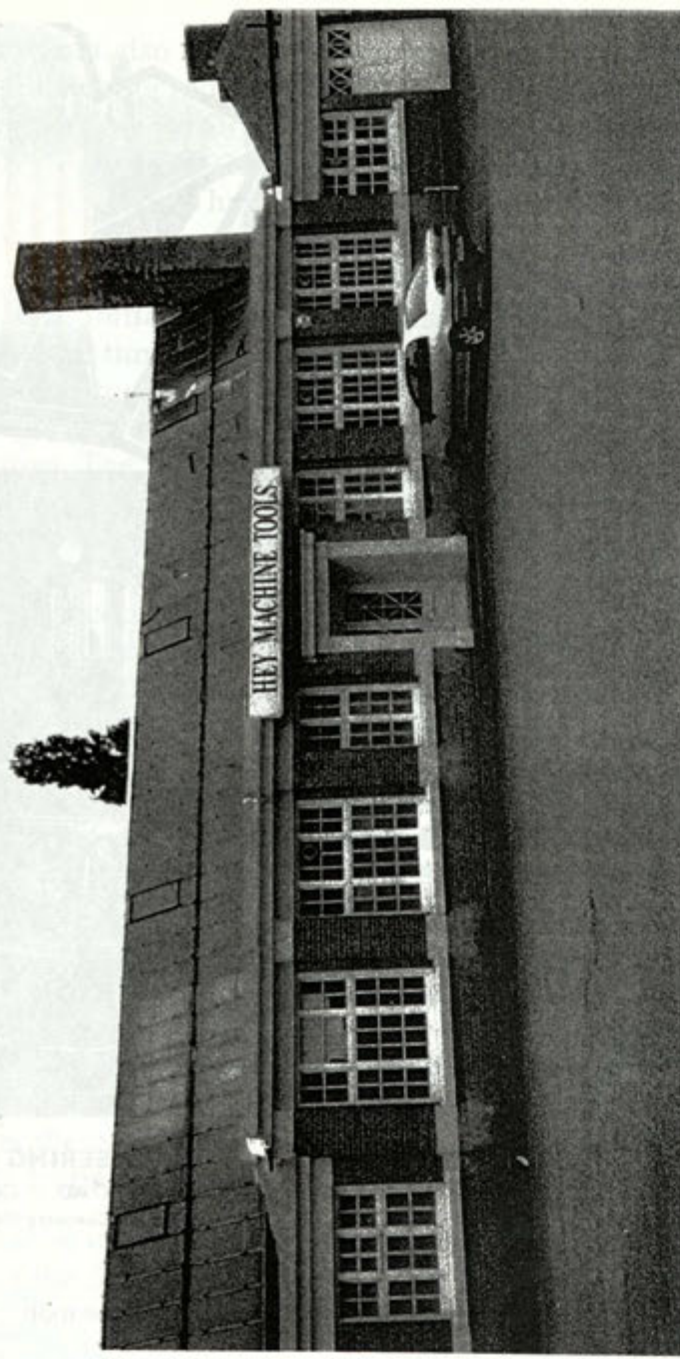


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'Phone : Coventry 3567

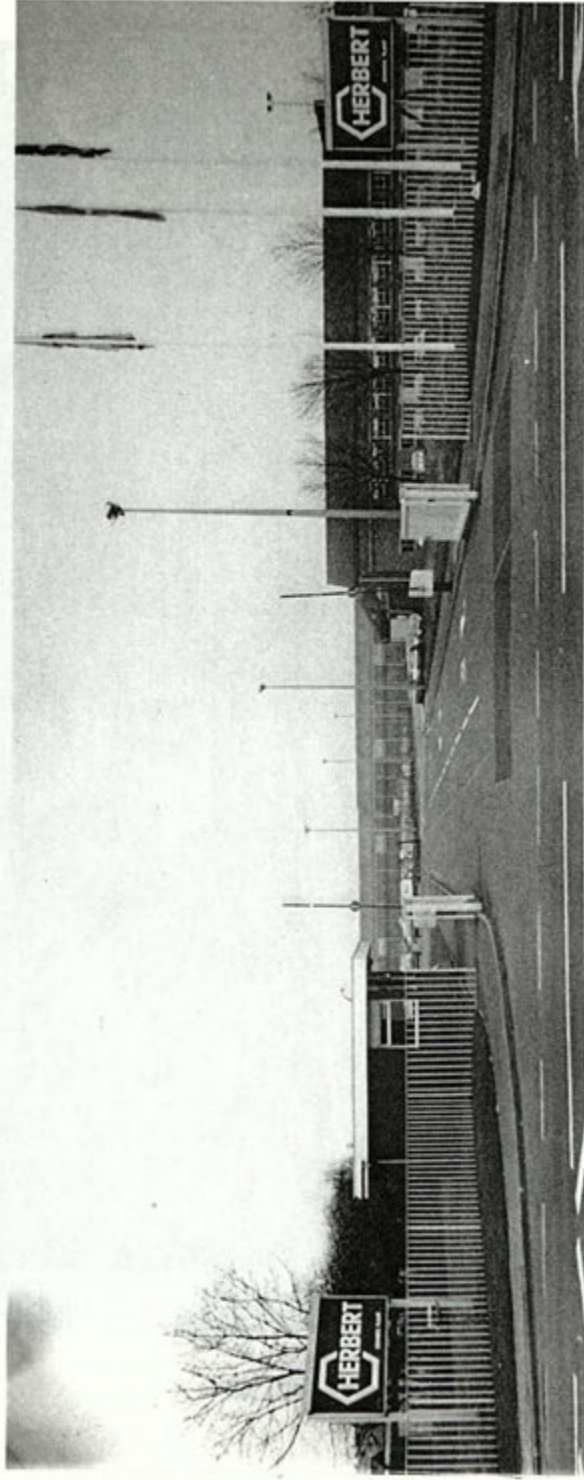
An advert from the 1930s for Hey machine tools

Hey Machine Tools Ltd., Lythalls Lane, Coventry.
Photographed July 1998.



The Reconditioning Department of Alfred Herbert Ltd., Coventry, photographed at a time when the firm was the largest machine tool makers in Europe.

The entrance to Herbert's Edgwick Works from the Stoney Stanton Road, Coventry. The gate house on the left was permanently manned, and all visitors had to check in before being allowed to proceed. The buildings seen in the far background are a part of the 26 massive manufacturing bays where machine tools were built. This entrance now leads to a trading estate which has been built on the Edgwick Works site, and it has been necessary to build a large roundabout in the Stoney Stanton Road to regulate traffic flow in this busy thoroughfare.



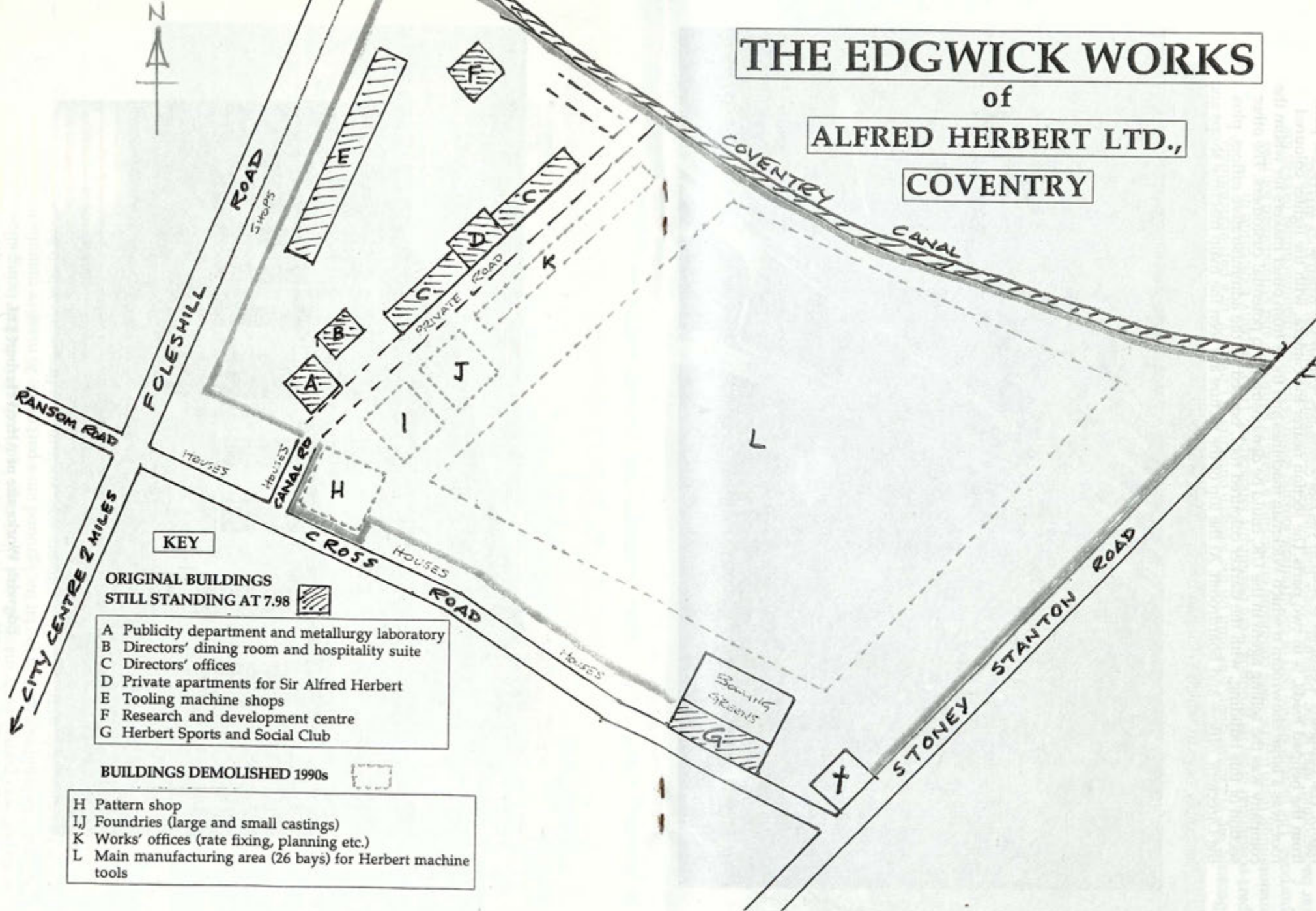
Edgwick Works site of Alfred Herbert Ltd.
Former Directors' Offices and (centre) the private apartment of Sir Alfred Herbert.
Photographed July 1998.

THE EDGWICK WORKS

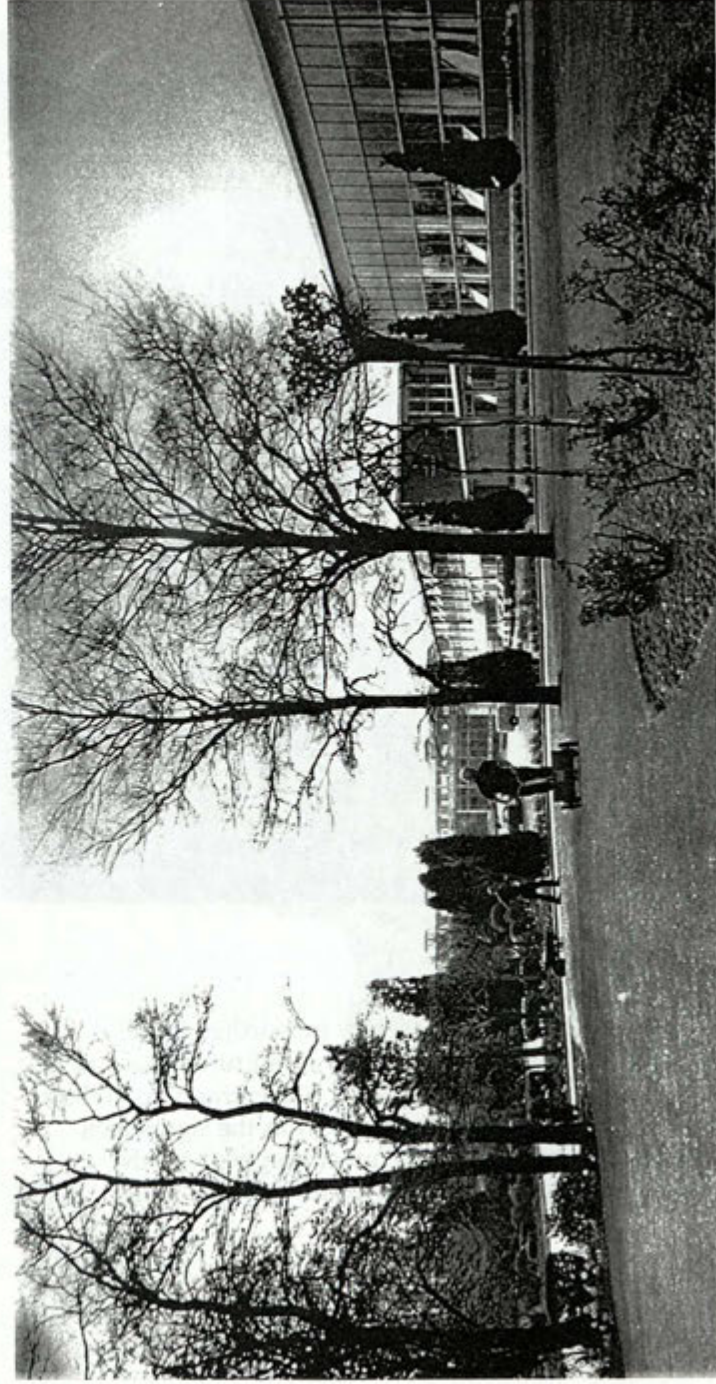
of

ALFRED HERBERT LTD.,

COVENTRY



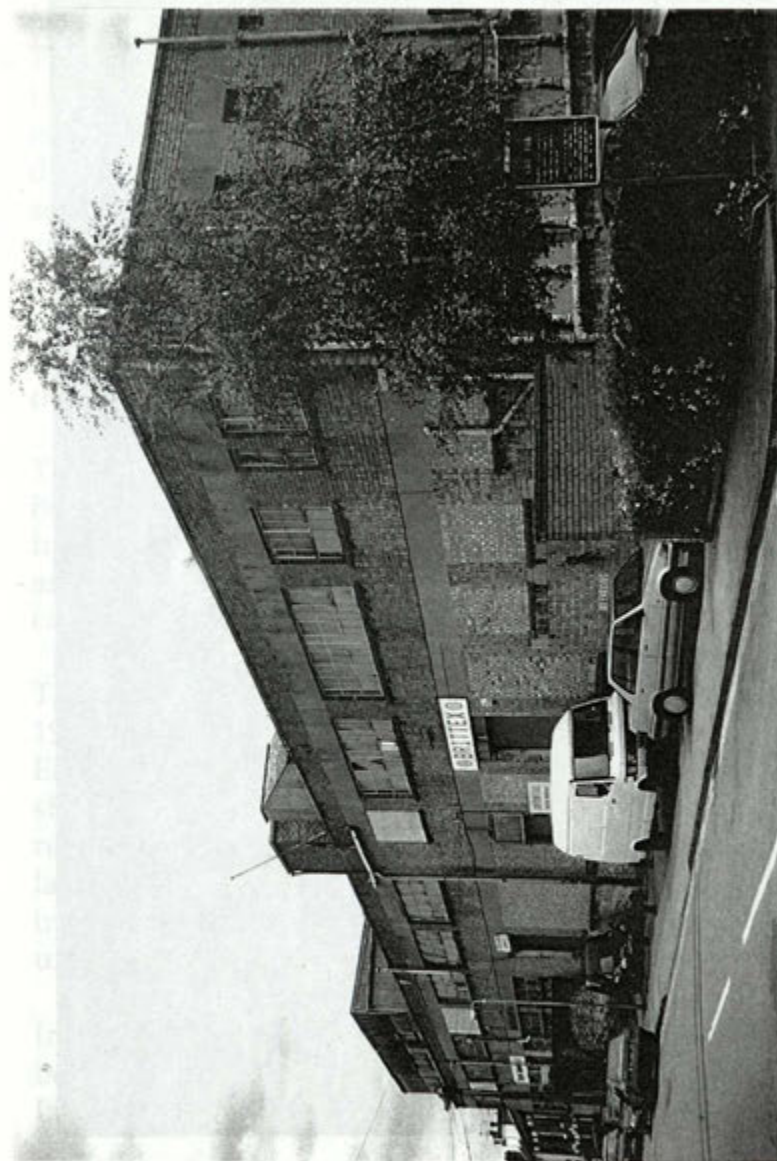
An aerial photograph of the Banner Lane site of Wickman Ltd. in its heyday, probably taken in the late 1970s or early 1980s. (Banner Lane is just out of shot at the foot of the picture, running left to right). The company's helipad is seen at the right, and the long, low building, to which the path from the helipad leads, is in two parts. The section nearer the camera, with the lighter coloured roof, was a large showroom in which Wickman machines and those from other makers for whom the company was the selling agent in the UK, could be demonstrated to potential customers. The other section of this building, with the darker coloured roof, housed all the administrative offices, plus the Directors' offices and Boardroom. At the top of the picture are seen the main machine shops and assembly bays in which Wickman machine tools were built.



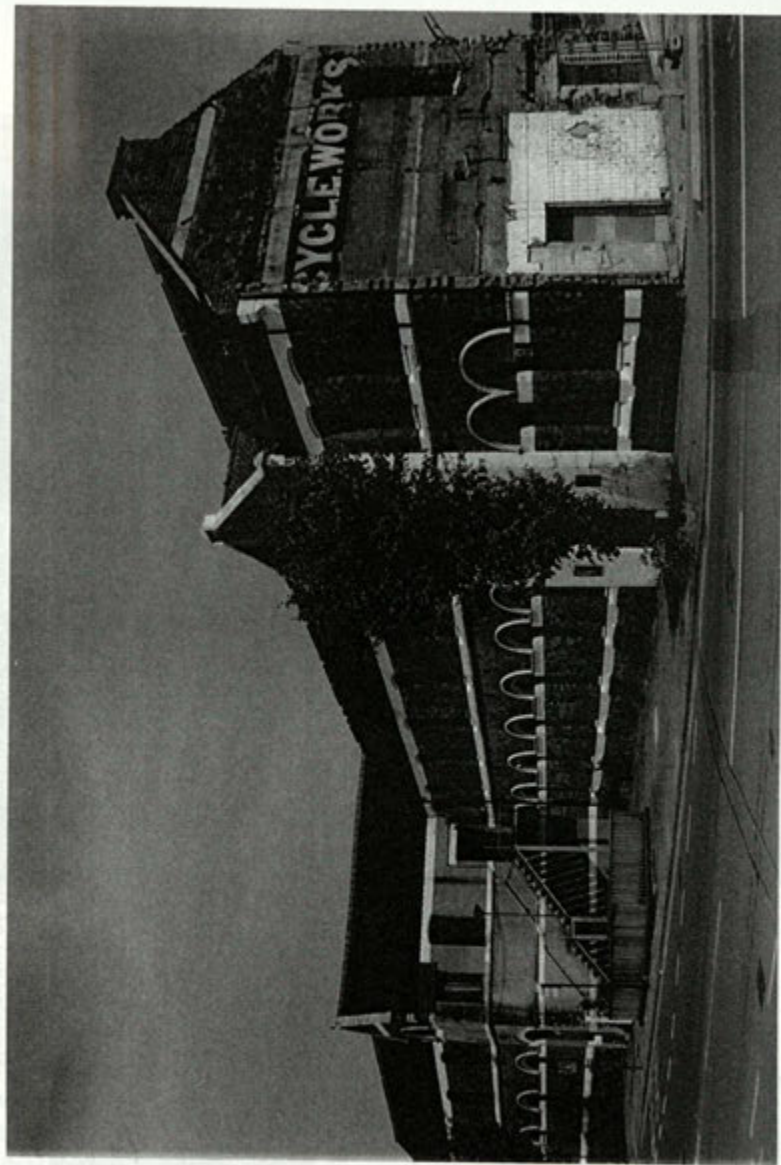
Because the Wickman plant was built on the western outskirts of Coventry, in a part-agricultural/part-residential area, its grounds were beautifully landscaped. The Company took pride in maintaining them in first-class condition, employing a team of gardeners and groundsman for that purpose. The picture shows part of the grounds, looking towards the main manufacturing bays in the far background, and is the 'pastoral' view that visiting customers would see when they arrived. The buildings on the right are the Company's showroom and administrative offices.



The entrance to Webster and Bennett Ltd. factory in Northey Road, Coventry. This gate is at the point where Northey Road turns sharp right through ninety degrees to join Station street West. The entrance to Webster and Bennett was never very impressive, nor indeed was the sign which announced its name, and both were curiously out of keeping with the international reputation the Company earned for its machine tools.



Rear view of the original location in Earlsdon of Coventry Gauge and Tool Ltd.



"One of the greatest monuments to early car production anywhere in the world"

This is how the Ironbridge Institute described the 1908 Daimler erecting shop in Radford, but the derelict factory has now been demolished. The old Daimler building's fate was decided when reports from two firms of planning consultants said it would be too difficult and costly to convert. The first said parts of the building could be saved if there was market interest, but the second, commissioned by the government's development agency English Partnerships, concluded that no tenants were likely to move in. The cost of repairing structural damage at the erecting shop was put at £1.85 million.

The (reluctant) decision taken by the Council to demolish the building will have been a blow to Dr. Paul Collins of the Ironbridge Institute who surveyed the 7000 sq metre building and tried to highlight its significance in the development of car production.

The survey concluded that, although the exterior reflected 1950s modifications, large parts of the interior retained its Edwardian splendour. The northern end of the long erecting shop was later separated from the rest of the building and retained almost all of its Edwardian brick walls, riveted latticed stanchions and north-lit roof pattern. Indeed, the way in which the roof is bridges and held up by the girders was a unique feature.

In the manner of many former industrial sites, the land will be used for housing, with perhaps only the name Daimler Lane reminding residents of its illustrious past.

The latest in a long line ...

The 1990s has not been a happy time for many of Coventry's historic motor industry buildings.

- Rootes Group, Ryton former aero-engine test shop, later used for car engine testing and experimental work. Demolished 1998
- Maudslay factory, Parkside. Demolished in 1996.
- Velox/Iden works, Parkside. Part of the Armstrong Siddeley complex. Demolished 1996.
- Armstrong Siddeley Burlington works, Parkside. Demolished 1996.
- Ivy Cottage, Canley. Original office block for the Standard Motor Company. Demolished 1995.
- Paynes and Bates factory, Foleshill Road. One of the best examples of Coventry's early car industry, dating from 1898. Demolished 1994.
- Singer factory, Canterbury Street, Hillfields. Demolished early 1990s.
- Alvis factory, Holyhead Road. Demolished 1991.
- Humber factory, Stoke. Demolished 1990.

One small remnant has been saved. The Quinton works, Mile Lane will be incorporated into the new development on the vacant land behind this important cycle and car factory.

Thomas Telford and the Holyhead Road in Warwickshire

by

Roger Cragg

At the beginning of the nineteenth century Parliament was increasingly concerned about the state of communications with Ireland and in particular with condition of the road from London to Holyhead. A Committee on the Holyhead Roads and harbour was set up and first reported on 21st. March 1810. In its second report, dated 9th June 1810, the Committee noted that the two roads through Wales, from Shrewsbury and Chester to Bangor, were in a very bad state. By May 1811 the Committee was reporting that the road was now worse than before and would become impassable. Thomas Telford had been asked to report on the Shrewsbury to Holyhead road and a possible bridge over the Menai Straits. Telford recommended a 'new' road through Wales rather than repair the old route. Telford's proposed route would be from Shrewsbury via Chirk, Llangollen, Corwen, Bettws-y-Coed, Capel Curig and Llyn Ogwen to Bangor. He also submitted a design for iron arch bridges across the Menai and at Conway.

Nothing seems to have been done for about four years but in June 1815 a Select Committee was reporting that the road in North Wales was now in the "worst possible condition". For the route from London to Holyhead they recommended Telford's route via Coventry, Birmingham and Shrewsbury as being the "shortest and best". The English section of the route, from London to Shrewsbury was then under the the control of 15 different Turnpike Trusts and the Select Committee recommended that public funds should be used to carry out

the necessary repairs and improvements to the road as the likely income from tolls would be inadequate for this purpose. They also suggested that Commissioners should be appointed to oversee the project.

In 1815 an Act of Parliament established the Commission for the Holyhead Road and the work of improving the Holyhead Road was started. Thomas Telford was appointed as Engineer to the Commission and reported regularly on the progress being made under his direction. For the English section, between London and Shrewsbury, the task of repairing the road was left in the hands of existing Turnpike Trusts which carried out improvement work as directed by Telford and his assistants. The route chosen on Telford's recommendation started in Islington and proceeded via Barnet, St. Albans, Dunstable, Fenny Stratford, Towcester, Weedon, Dunchurch and Coventry to Birmingham. From Birmingham the route was via Wolverhampton, Shifnal, Wellington and Shrewsbury where commenced the Welsh section of the route previously described. It will be noted that although most of this route follows what is nowadays regarded as the 'Holyhead Road' (the A5), the route through the Midlands between Weedon and Wellington did not follow the present route.

The road entered Warwickshire just south-east of Willoughby on what is now the A45 and followed this road through Dunchurch and Ryton on Dunsmore to enter Coventry along the modern B4110 and the A4114 through Whitley. From Coventry the road passed through Allesley and Meriden to Stonebridge then along the route of the present A45 again to Birmingham. Leaving Birmingham by the modern A41, the road left what was then Warwickshire between Birmingham and Wolverhampton. The Turnpike Trusts concerned were:

- Dunchurch & Stratford Trust (part) (Stony Stratford to Dunchurch, 29 miles)
- Stonebridge & Dunchurch Trust (Dunchurch to Stonebridge, 18 miles)
- Birmingham & Stonebridge Trust (Stonebridge to junction of Coventry and Oxford roads in Birmingham, 8 miles)
- Birmingham & Wednesbury Trust (Constitution Hill, Birmingham to High Bullen, Wednesbury, 7.5 miles)

The improvement works were numerous but in general can be summarised under four main headings. Firstly, the road was to be widened where the existing width was inadequate. Telford recommended an overall width of about 35 to 40 feet with a 30 foot wide carriage way and one or two footpaths about five feet wide. Secondly, the alignment of the road was to be improved where necessary. Thirdly, steep gradients were to be eased, usually by cutting through the top of hills and using the excavated material to form embankments at the bottom. (in the days of horse drawn coaches and wagons the reducing of gradients was a major benefit). Finally, the road pavement was to be rebuilt to Telford's specification using layers of broken stone. A typical specification is quoted in Telford's 'Life' which may be summarised as:

A level base with a bottom course of broken stone 7 inches deep in the centre and 5 inches deep at the edge. An upper course of stone passing a 2½ inch ring with a weight not less than 6 ounces, to a depth of 6 inches. A gravel surfacing course 1½ inches deep.

Telford's frequent reports to the Commissioners and the various Committees of Parliament make interesting reading. He details for each Turnpike Trust the work already carried out, the present condition of the road and the work required to be done to bring the road into a condition which would meet with his approval. As each Trust had its own Surveyor who oversaw the day to day progress it was inevitable that some sections of the road would make better progress than others and Telford's reports make frequent reference to the lack of progress of some of the Trusts whilst others were producing a satisfactory standard of work.

Telford oversaw a number of major improvements to the Holyhead Road through Warwickshire. In a report of 1817 Telford's assistant William Provis reported that the 'last mile' up to Dunchurch from Braunston was in 'good condition but cut up'. It was too low in the middle and required fresh gravel. In a later report Telford recommended the use of Nuneaton stone on this and other sections of the road in this area even though this had to be brought 30 miles by canal. The section between Dunchurch and Knightlow Hill was found to be overhung by trees and these were required to be cut back by Mr. Astley, the Surveyor, in order to allow the road to dry out. At Knightlow Hill, the top of the hill was lowered and an embankment made at the bottom of the hill in order to reduce the gradient from the original 1 in 15 and 1 in 16 to a more manageable 1 in 27. The hill between Ryton and the River Avon was also lowered to reduce the slope from 1 in 17 to 1 in 30. Similar measures were recommended for hills at Willenhall and Whitley on the road into Coventry.

At Coventry, Telford proposed a major diversion of the old road to avoid the ascent and descent of the hill on what is now the Allesley Old Road and a new road (Holyhead Road) was built from the City to rejoin the old road just east of Allesley. In Allesley village, the Rainbow Inn is mentioned with a comment that there the road was 'hollow' with water running down the centre. Beyond Allesley the next problem to be tackled was Meriden Hill. The descent into Meriden was an unacceptable gradient of 1 in 12 and Telford cut a new length of road into the hillside on the south side of the road for about 400 yards which reduced the gradient to 1 in 20. Both the old road and Telford's improved line are still in use to this day. (See illustration). In 1826 Telford reported that the County Council had rebuilt Stone Bridge and that the Stonebridge to Birmingham section of the road was much improved.

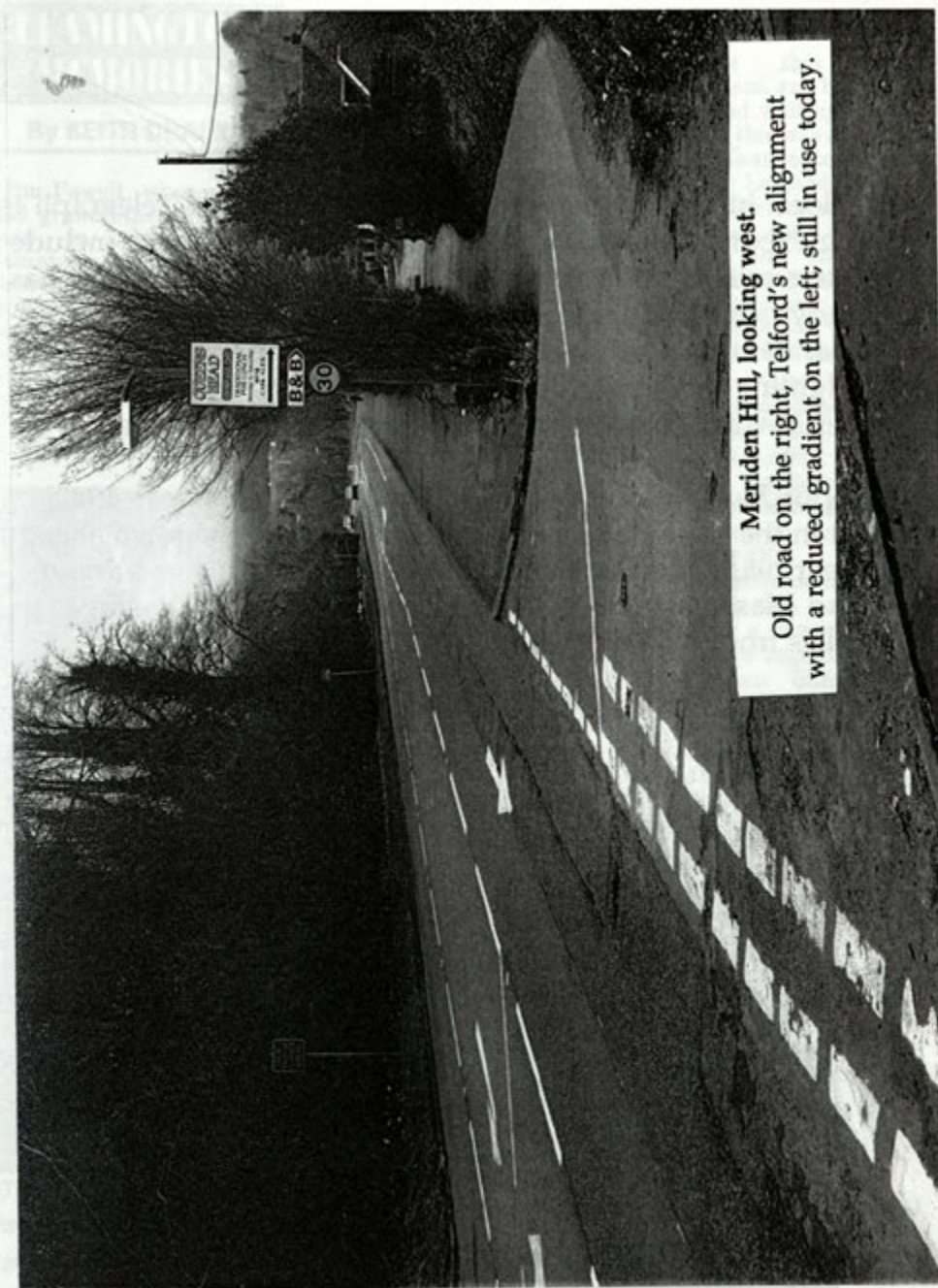
In 1817 Telford was asked to report on the possibility of carrying the Holyhead Road across the Menai Straits by means of a suspension bridge and in June 1818 the foundation stone was laid in the Anglesey pier. The bridge, with its wrought iron suspension chains and a main span of 579 feet, was completed in 1826, the Resident Engineer being William Provis and the ironwork being cast by William Hazeldine at Upton Forge, near Shrewsbury. In addition to the great bridge over the Menai, Telford also designed the elegant iron arch bridge at Bettws-y-Coed, opened in 1815 and embellished by the legend cast in its outer ribs that "This arch was constructed in the same year as the battle of Waterloo was fought".

By 1826 when the Menai Bridge opened the Welsh section of the road was largely completed, a new road across Anglesey having been built in 1822. Work on the English section continued for several more years and was not completed when Thomas Telford died in September 1834.

The Holyhead Road was furnished with a series of 15 Tollhouses built to Telford's design, bungalows with overhanging eaves on the mainland and two storey buildings on Anglesey. Several of these remain, with one preserved at the Blists Hill Museum at Ironbridge and one remains in situ on the old A5 road just to the west of Wellington. Telford also designed the elegant milestones which were placed along the whole route of the road.

By the time the road was approaching completion, the London and Birmingham and the Grand Junction railways had opened (in 1837 and 1838) and by 1850 with the opening of the Chester and Holyhead Railway, the road had lost most of its long distance traffic and in particular the mail traffic which now used the railway. In 1851 the Commissioners reported that they did not consider that the road was of sufficient importance to justify public expenditure on its maintenance.

The fact that the Warwickshire section of the road is still an important through route today is a great testimony to the genius of Thomas Telford and those who worked with him on this great enterprise.



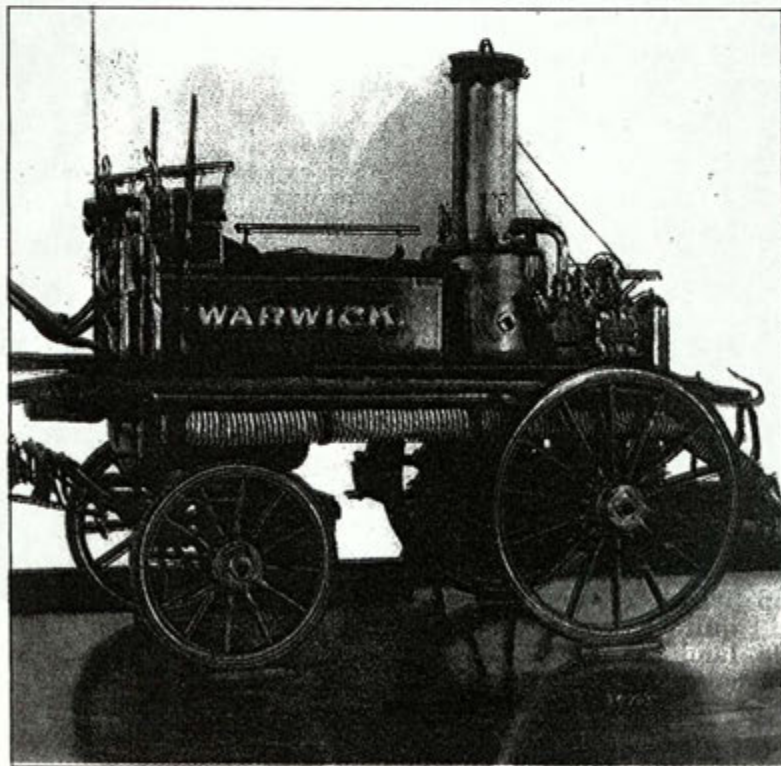
Meriden Hill, looking west.

Old road on the right, Telford's new alignment with a reduced gradient on the left; still in use today.

Get your Evening Telegraph!

The local history section of the Coventry Evening Telegraph is being expanded through the efforts of Keith Draper to include features relating to areas beyond Coventry and the Society has already been involved in two such articles, with more in preparation. On 10th. May 1999 an article appeared covering fire fighting in Warwick and Leamington and much of the material was provided by our own member, Jim Powell.

The purchase by Leamington of a motor fire tender in 1903, built in the town by Charles Crowden, placed the town ahead of near neighbour Warwick who clung to their horse-drawn Shand Mason steamer right up until 1927. The following extracts from the article take up the story ...



FIRE ENGINE: Warwick's Shand Mason steamer

LEAMINGTON MEMORIES

By KEITH DRAPER

Jim Powell, whose father and grandfather were firemen in the Warwick Volunteers, devoted years in retirement tracing the brigade's history. He searched hard for its historic steamer, and the story he tells has more than a few twists and turns.

"Town representatives were wedded to horse-drawn

steamers much later than any of the other local councils," said Jim.

"Its first Shand Mason had performed well for 40 years, and as late as 1911 they were ordering another one.

"Then in 1924 the borough surveyor was asked to look into the possibility of towing the town's steam fire pump using a corporation lorry.

Solutions

"Other authorities found this a useful temporary solution, but as it happened in Warwick, the horse-drawn pump with its iron shod wheels was unsafe at greater speeds and a danger to other road users."

According to Jim's fascinating papers, the following year the chairman of the Fire Brigade Committee and the Borough Surveyor visited Nuneaton to see its Morris Guy motor tender demonstrated. Afterwards Warwick were still reluctant to make a decision, and it appears there were moves to use an ordinary lorry as a fire tender. Events though, on March 6, 1926, quickly changed Warwick's thinking.

"It was a serious fire at Stratford's Shakespeare Memorial Theatre that brought matters to a head," said Jim.

"Assistance was requested from neighbouring brigades, including those of Warwick and Leamington.

"Warwick received the call at 3.10pm and set off nine minutes later.

"They are reported to have had two jets in play soon after four o'clock.

INTEREST: Jim Powell with some early firemen's uniforms



Achievement

"Despite this proud achievement, and being only the second visiting brigade to arrive, this was overshadowed by Leamington's newly acquired Leyland passing them on the way and arriving first - a point delicately avoided in subsequent Warwick newspaper reports.

It was of course the spur which Warwick Council needed, and by February the following year it had resolved to purchase a motor fire engine "at a cost not exceeding £1,000."

Seven tenders were received, resulting in recommendations to purchase a Dennis for £813.

It was delivered later that year with the committee attending a demonstration of their new engine. And the horse-drawn Shand and Mason? That's another story as Jim soon found out.

"The old steamer was sold to the Henry Ford Museum in 1929, and remained in that collection until quite recently," he said.

"Then several years ago the museum sold it on, probably to a private collector in Illinois.

"Unfortunately the trail went cold when we last tried to locate it, but it would be a really tremendous achievement if we could get it back to Warwick."

The Society's stall at the Life and Times exhibition at the Godiva Weekend held in the Memorial Park, Coventry June 5th/6th 1999. Treasurer - and chief photographer - Mark Abbott was largely responsible for the stall, although son Nick stole the show when interviewed by Carl Chinn for local radio by demonstrating intimate knowledge of the collection of Warwickshire bricks on display.



Association for Industrial Archaeology Annual Conference

Newton Abbot, Devon September 1998

John Selby continues to represent the Society at the Annual Conference, and his report, as always, conveys the pleasure and interest of these gatherings.

The 1998 Conference venue was at Seale-Hayne College, Newton Abbot, in a lovely location in open countryside with a glorious view down to the sea. The weekend's official business and AGM was followed by a week of day visits and lectures in the evening. Over the weekend, I presented a Members' Contribution on the Hillmorton Pump House, Oxford Canal; (and later in January this year, with more research undertaken, gave another Members' Contribution at the Newcomen Society in Birmingham).

Our first visit on Saturday was to the Kelly Mine, Bovey Tracey, which mined micaceous haematite, and used as Devon Sand for drying ink (i.e. blotting paper) and then in anti-corrosive paints. The Preservation Society has made an excellent job restoring drying and dressing sheds, a turbine, waterwheel, leat, Californian stamps and inclined tramway. It was pleasant to end the visit in the snug of the Miners Dry!

Sunday was a very wet day for the walk around Exeter in the restored Quay area, although the former maritime museum no longer exists, with the collection now dispersed. In another part of the city a restored cast iron bridge with six 40 ft spans makes an impressive approach to the centre, built by Exeter Turnpike Trust in 1834-6 to ease the gradient into the city.

With the weekend over, on Monday we visited the Coldharbour Mill, Uffculme, and the full range of woollen spinning and weaving was demonstrated, with worsted combing and spinning. We also saw the restored Pollitt & Wigzell 300hp cross compound horizontal steam engine. An 1867 Kellow & Brotherhood beam engine has also been restored to working order, and received an AIA Dorothea Award in 1991.

Our last visit of the day - to Heathcot's Mill, Tiverton - is a good example of an old 18th. century works formerly making lace and net (bride's veils), now with high technology machines (not British) making specialised fabrics for engineering, and fire retardant fabrics (used by fighter pilots and firemen). Luckily after Coats Patons ownership and running down/asset stripping, it is now back in the ownership of John Heathcoat & Co. (Holdings) making the sort of high-tech., high-value products that British Industry should focus upon.

Tuesday ... another wet day for the visit to the Simonsbath water-powered sawmill, currently under restoration with the aid of a grant from the Heritage Lottery Fund. Unfortunately the sawyer was not well, and we were conducted round by a member of the National Park Authority, who seemed to spend her whole time worrying that we were going to wreck the place, fall down a hole or run away with the contents! To make matters worse, the return coach journey was much delayed because of the difficulties of negotiating a bend and hump-backed bridge. Fortunately, the weather improved for the afternoon, and we travelled across Dartmoor for a trip on the Lynton and Lynmouth Cliff Railway with a talk on site by the manager.

Wednesday started with a visit to Meldon Viaduct, Okehampton Hamlets which is an impressive iron lattice-girder viaduct built for the London and south Western Railway in 1874, and then widened in 1878 into an odd inter-laced structure. It appears that it will survive as part of the 'Sustrans' National Cycle Route. As part of the deal, Sustrans has agreed with the government that the route would be made available again for rail use if needed. A very sensible way of preserving our railway heritage. In fact, twenty historic viaducts will be refurbished as part of the transfer to Sustrans. The next trip was to the Mary Tay Hydroelectric Power Station which was built by the Devon Mining and Power Company. At the time of construction in 1932, it was England's largest. It is still working with Francis turbines, and remains open to help National Power to meet its quota for renewable energy. A fascinating place, and part of our industrial heritage still performing a useful function! We had a brief visit to Wheel Betsy engine house, and ended the day at Shaugh Bridge clay works..... a beautiful setting, very overgrown, slipping into peaceful decay and slowly reverting to nature.

For me the highlight of Thursday's programme was the visit to Haytor quarry and tramway on Dartmoor. The setting is superb. The granite was quarried for many prominent London buildings. A splendid walk from the car park up to the quarries and back down the old tramways - not to be missed should you be in the area. We ended the afternoon with a visit to a former gunpowder mills at Cherry Brook, Postbridge, with various types of mill, plus offices and stores. Other ancillary buildings, with reservoirs, leats, and willow bed, completed the rather bleak setting. The entrance is marked by a proving mortar still in situ. The route home passed Princetown prison. The evening was spent at the traditional

Tuckers maltings, Newton Abbot, still supplying speciality malts to smaller brewers. A fascinating and aromatic building. Difficult to resist sampling the brews

The last day, Friday, was a splendid day starting with a brief visit to Plymouth Hoe and the rebuilt Eddystone Lighthouse (Smeaton's Tower) and we then embarked at Phoenix Wharf to start the trip to Sutton Harbour, out to Plymouth Breakwater, past Drake's Island, Millbay Docks, Royal William Yard, HM Naval Base, Devonport (HMS Drake), Bull Point, and under the Royal Albert and Tamar bridges. A completely different view from the water as we negotiated our way around the harbour amongst the naval ships and submarines.

We then disembarked at the Flagstaff steps for lunch, before visiting the older South Yard in the afternoon. This included the 1200 ft ropery (1773) and the Number One Covered Slip built in the eighteenth century and covered in 1814/1821. The only other surviving slip is at Chatham. It now provides cover for former ship's figureheads. We had a guide for the day - a retired RN Engineering Officer who had been on a course at Ironbridge and will take on the responsibility for the heritage of the Dockyards. To have a well-informed guide added much to the enjoyment of the visit.

Those seeking further information should consult 'A Guide to the Industrial Archaeology of Devon' 1998, although I also have guides and notes available.

The 1999 AIA Conference will be in Chatham, Kent.

Friday 10th to Sunday 12th September 1999

Additional programme:

Sunday 12th to Thursday 16th September 1999

Seen and Heard

- The last issue of Retort! contained an article by John Brace on 'Stratford Underfoot'. This has now reached a wider audience as it has been published in the Winter 1998 edition of Industrial Heritage.
- Our knowledge and coverage of the town of Rugby is not as detailed as it should be. Members might be interested in the latest edition of 'Aspects of the Past' Volume 4, issued by the Rugby Local History Research Group. It includes articles on:
 - R.&W.H. Symington, Spring St.(corset manufacturer)
 - Rugby Radio Station
 - The Carriers of Rugby
 - Lodge Plugs: A Rugby Institution
 - Rugby's Roller Skating Rinks
 - A History of Rugby and District in Time Chart Form
- The **Hatton flight of locks** remain one of our more significant industrial landmarks, and the associated workshops could be transformed into Europe's first dedicated **waterways training centre**. If all goes to plan, the new centre will offer practical workshops in heritage masonry, brickwork and metalwork, alongside educational training and theoretical tuition.
- Huw Jones, who has spoken at our meetings, has produced an excellent small booklet on J. and J. Cash, entitled 'Still Weaving'. Priced £1 from Coventry Museums and Galleries, it is an essential read.
- We finish this issue of Retort! with an appeal for **volunteers** and the **programme** for 1999/2000

COVENTRY LIVES

MILLENNIUM ORAL HISTORY PROJECT

Volunteering Opportunity

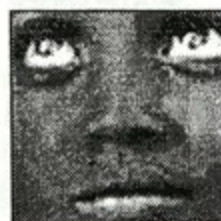
Coventry Lives is a project to record people's memories, experiences and views of life in Coventry.

We are looking for volunteers to help us to carry out some key tasks, such as:

- interviewing people about their lives
- summarising interviews and storing them on computer
- undertaking historical research
- taking photographs of people and places

If you would like to be involved in any of these tasks we would be very pleased to hear from you. You will receive training in oral history interviewing and recording. We hope you will also find it a rewarding and enjoyable experience.

Please contact Martin Roberts at the Herbert Art Gallery and Museum (tel 832377) to register your interest.



Programme 1999/2000

Meetings of the Society are held on the second Thursday of each month in the Sixth Form Centre at Warwick School, starting at 7.30 p.m. A map of how to find the Sixth Form Centre at Warwick School is available from the Secretary.

1999

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|----------------|---|
| 9th. September | Anthony Coulls: 'Adventures of an Industrial Archaeologist'. |
| 14th. October | Roger Bailey: 'The Development of the Coventry Transport System'. |
| 11th. November | Richard Drew: 'The Early History of Electricity in Leamington Spa'. |
| 9th. December | David Hooper: 'What the Butler saw at the end of the Pier'. A look at the history of slot machines. |

2000

- | | |
|---------------|---|
| 13th January | Roger Butler: 'A further look at our Canal Heritage'. |
| 10th February | Donald Rushton, M.A., C. Eng: 'The Victorian Engineers that Changed the World'. |
| 9th March | Arthur Astrop: 'More recollections of the Machine Tool Industry'. |

- 13th April Robin Leach: Mill End, Kenilworth: the last 150 years'.
- 11th May A speaker from the Midland Air Museum
- 8th June Annual General Meeting and Members' Evening.
- 13th July Members' Research Evening

The majority of the time at these meetings is occupied by our speaker, followed by refreshments, and a subsequent period for questions and follow-up material.

The final part of the meeting is then usually taken up with a brief contribution from one of our members, often concentrating on an aspect of the industrial archaeology of Warwickshire. We are always keen to find members who would be willing to contribute to these sessions.

Time is also taken to update information on the various projects being undertaken by members. Principal amongst these is the preparation of a gazetteer of sites for the County of Warwickshire, Coventry and Solihull.

Occasional additional events also take place during the year, and members are duly notified of these. This usually includes a Warwickshire Summer Walk, with a broadly industrial theme.

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CV32 5LT.

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CV32 5EY.

Details of membership of, and subscriptions to, the Warwickshire Industrial Archaeology Society can be obtained from:

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