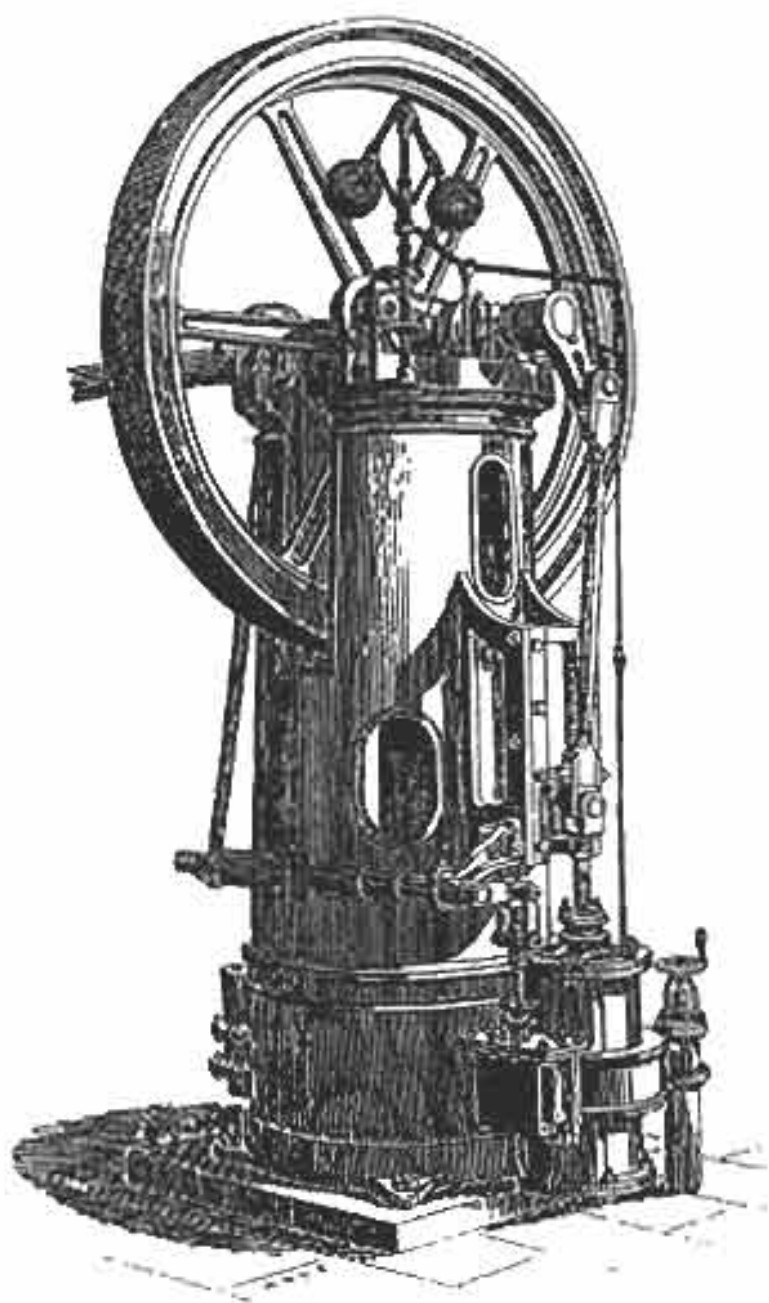


# GSIA

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# JOURNAL 1998

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## EDITORIAL

This year's Journal reflects the various activities of the society, the research work undertaken by some of its members and their willingness to publish it. This year it also reflects our sad loss of Jim Simmons who died in September. Ray Wilson has written an obituary, but I have included an article Jim wrote a couple of years ago and which it seems most appropriate to include in this issue. It is an interesting piece and throws out a research challenge, which if any of you readers care to take it up, can be produced in a future Journal as a sequel to Jim's initial work.

There are three articles on very different aspects of water mills in the county. Two, those by Stephen Mills and David Viner of a more historical nature, although both involve practical aspects. It should be noted that the conversion of Fromebridge Mill has now been completed and it is open for public use. The third one by John Bozworth is his recollections of the small mill at Field Farm, Coaley.

There are two articles on transport, one is on roads and the other on railways. The late Arthur Cossons who wrote the article on the roads was the father of Sir Neil Cossons, Director of The National Museum of Science and Industry, who has kindly given his permission for its reproduction here. The article includes much interesting detail on local places. Tony Youles's article is an interesting piece of observation work.

Then come four articles on unrelated subjects. Ray Wilson's adds to our knowledge of gas works in the county. Another the county's maltings is recorded and so are details of the first use of brick in Newent. Dennis Chapman's article is a shortened version of a more detailed study of Richard Clyburn, the agricultural engineer.

There is the usual section on the Society's summer visits which always makes interesting reading. Also there are two book reviews, except that one is of a CD-ROM. It is our first review of information in this medium and no doubt there will be others in the future.

GSIA continues to be active in a number of ways organising winter lectures as well as keeping abreast of local developments which will affect surviving industrial sites and making a record when possible. The Society is affiliated to the national body, the Association for Industrial Archaeology. It also works closely with the Royal Commission on the Historical Monuments of England on appropriate sites.

My thanks are due to Hugh Conway Jones and Ray Wilson for assistance with the production of the Journal.

Amber Patrick

**Cover:** An illustration from the company history of Waller's of Stroud.

## OBITUARY JIM SIMMONS 1920-1998

The Society lost a greatly valued and respected friend with the sudden death of Jim Simmons on 17 September 1998 at the age of 78. Jim was well known to so many of our members because for nearly 20 years he was responsible for the organisation of the Summer Visits Programme. Less well known is the fact that he made a great many other contributions to the well being of the Society.

Jim was born in Gateshead, but during his schooldays the family moved to Manchester when his father became employed at the Metropolitan Vickers Co. at Trafford Park. He studied engineering at Manchester University and then started his working life at 'Metro-Vick'. He joined the electricity supply industry when it was nationalised in 1948. In the next 25 years he was involved in a number of power station construction projects. He became a Member of both the Institution of Electrical Engineers and the Institution of Mechanical Engineers.

It was when the Generation, Design and Construction Division of the Central Electricity Generating Board was established in Gloucestershire in the early 1970's that Jim, Sheila and their two daughters, Helen and Katie came to live at Rodborough, Stroud. In October 1973 Jim attended his first 'Stroud Lecture', coincidentally it was the same evening as the my first involvement with GSIA. From that day on, Jim scarcely ever missed a meeting be it a lecture, visit or committee meeting.

We all greatly respected Jim's wide range of expert knowledge on all forms of engineering and much more. We appreciated his readiness to share that knowledge with us. Jim's practical skills were marvellous and he was always so willing to tackle anything that went wrong and to actually make a component when one could not be found. Indeed, a only few weeks before he died a milestone at Cam was repaired using a steel bolt made by Jim a few years before when he tried his hand as a blacksmith. It had proved impossible to find a suitable bolt and lo and behold he came up with the very thing from the many 'treasures' in his workshop.

For many years Jim took on the difficult role of Minutes Secretary at our committee meetings and the minutes were always prompt and immaculate. He would never miss helping with the packing of the news sheet and the Journal if he was available. The conversations that went on at these times made the job a pleasure rather than a chore. Over the years GSIA has hosted a number of visits by groups from outside the county and our visitors always enjoyed the guided tours he jointly led. These were sure to be a success as he always undertook the little things beforehand like checking the gates would be open.

The Friends of the National Waterways Museum also benefited from Jim's skills. He regularly went to the Docks on Wednesdays to work on the restoration of No 4 dredger. He was also a very knowledgeable Docks Guide for Gloucester Civic Trust. Nearer home, he carried out restoration work on the collection of old textile machinery belonging to The Friends of Stroud Museum, Textile Group.

It was always a pleasure to be with him and it goes without saying how much he will be missed. We can all feel very privileged to have had him as a colleague for so many years.

Ray Wilson

## **SUMMER VISITS 1998**

Once again the Society's thanks are due to the late Jim Simmons and Ray Wilson who organised a full programme of local visits and two excursions further afield by coach. Sadly Jim died suddenly on 17 September 1998, two days before the final coach trip. However, it was the wish of Jim's family that the trip should take place as arranged. We were extremely fortunate to have had Jim looking after our visits programme so well for so many years. The following reports have been compiled by Ray Wilson.

### **Thursday 5 March 1998**

#### **Visit to the Woodchester Piano Company.**

The first half-day visit was heavily oversubscribed. The fortunate twenty members were able to see all the processes involved in the assembly of a piano. En route we learnt some remarkable statistics, such as the average piano contains over 7500 components and the forces on the frame from the fully tensioned strings exceed 20 tons.

We started in the showroom that boasts no less than four Broadwood pianos. One made in 1817 had once belonged to Mendelssohn and one had belonged to Chopin. Entering the factory we saw how case parts are veneered. Nowadays, Medium Density Board (MDF) is used extensively in preference to solid timber as it offers greater stability in centrally heated homes. The veneered surfaces are sanded by machine and then by hand. If a very polished finish is required the boards are sprayed with several coats of polyester varnish. Sadly, it is more economic today, for the cast iron frames to be bought in from Denmark, Belgium or France. The sounding board is made from Bavarian spruce which is very slow growing and hence is very close grained and has good acoustic properties.

The 250 strings are successively tensioned a total of eight times over a period of eight weeks to accommodate settlement. The 88 complex key and hammer mechanisms all have to be individually adjusted. We were surprised to learn that the final tone of each instrument is adjusted by puncturing the felt 'noses' of the hammers.

It was a pity that no one in our group could play and hence demonstrate the quality of one of the finished instruments. Pianos have been manufactured on this site since 1911 although the present company only dates back to 1994. We learnt that one of the small old buildings still in use was once used for tentering the cloth when the site was a woollen mill. Unfortunately, Woodchester Mill seems to have been particularly troubled by fires over the years. The most recent was in 1989 when much of the factory was destroyed. However, most of the production is now carried out in the attractive red brick replacement building. Finally, we thanked Mr Peter Freke the managing Director and his colleague for a most interesting and informative tour.

### **Sunday 19 April 1998**

#### **Coach Trip to Wirral**

The spring coach trip was well supported with nearly fifty members and friends on the coach. The leaders were Jim Simmons and Ray Wilson and the guide was our member, Roger Jermy,

who now lives in Stroud but was brought up on Wirral. (Roger stressed it should be “Wirral” and not “The Wirral” as most of us were guilty of saying.) Our first stop was at Port Sunlight where in 1888 William Hesketh Lever established a new site for his expanding soap manufacturing business. He also built the picturesque garden village with its many facilities for his workers. We picked up a local guide from the Heritage Centre and went on a tour, by coach, around the village. We heard about the development of the factory and village and the role of each of the major ‘public’ buildings. Back at the Heritage Centre we saw the impressive scale model of the village, plans of the houses and displays of the history of the factory. There was a video of early film footage and some very nostalgic displays of period advertising and soap packaging. Our lunch break was taken here and at least one member took the opportunity to visit the splendid Lady Lever Art Gallery. Lever, was famous for the use of fine paintings in his soap advertisements. The best known example of this is perhaps “Bubbles” by Millais.

We then moved on to the waterfront at Birkenhead. Unfortunately the rain started and continued “on and off” until we left. We parked at the Woodhead ferry terminal which lies directly opposite the Liver Building on the other side of the Mersey. The local council have recently put a lot of effort into the promotion of Birkenhead’s industrial heritage. Replica trams now run a regular service on newly laid tracks. A ride on one of these took us past the small transport museum. Here we could look at other trams that were undergoing restoration. There were some very enthusiastic volunteers at work who were able to explain in detail what was going on. The terminus for the trams is at Egerton Bridge. This is one of several bascule bridges in the dock system that can be lifted to permit the movement of ships. Egerton Bridge and its machinery is effectively preserved as the bridge is now lifted very infrequently. We were able to climb up into the cabin to inspect the gears and motors and see some interesting displays on the history of the Docks. Returning by tram, we went to the Shore Road Pumping Station. This still has one of the two ‘Grasshopper’ steam engines that were used to pump water from the rail tunnel under the Mersey. This type of engine gets its name from the peculiar nodding action of the overhead beam which is supposed to resemble the action of the rear legs of a grasshopper. We saw a slide show about the pumping station, but unfortunately a “Big Bang” sometime in the previous week meant that it was not possible to turn over the engine during our visit.

Leaving Birkenhead, there was still time for two further quick stops. The first was a walk through Storeton Woods at Rest Hill following the embankment of the Storeton Tramway. The line was built to transport sandstone from Storeton Quarry down to the River Mersey at Port Sunlight where we had been that morning. A notable use of the fine quality stone was for facing blocks on the Sankey Viaduct. The quarry has long been filled in. However, in the wood we found some fish-bellied rails (from another part of the tramway) which had been re-erected there along with a descriptive plaque.

Our final stop was at the former Hadlow Road Station where the main station buildings have been preserved. This was on the LMS-GW joint line between Hooton and West Kirby. There was a large RAF transit camp at West Kirby and one of the members recalled passing through this station in his service days. Here we thanked Roger for providing us with a very varied and interesting day and set off for home.

**Sunday 17 May 1998**

**Lydney Dock and Bullo Pill**

It had been some time since we last visited this extremely interesting area. Our intention was to take a close look at the remains of the two docks which were constructed early in the 19th century and were so important in the shipment of Forest coal. We were very pleased to have as our guide, our member, Gordon Higgs who has a long-standing knowledge of this area. We also enjoyed a lovely warm Spring afternoon.

We set off from a meeting point at the bridge over the canal at Lydney and inspected the derelict vessels on the foreshore. There are still plenty of remains but they seem to get significantly less on every visit. The Dock was developed from about 1810 by the Severn and Wye Railway Co and was served by the company's tramroad. The canal was cut in 1813 and the tidal basin constructed in 1821. Down at the harbour entrance we had a clear view across to Sharpness Docks. This was a very important route for coal traffic, although this diminished after the Severn Railway Bridge opened in 1879.

The future of this area has been uncertain for some years. A development company did get planning permission for extensive housing and leisure facilities. However in the prevailing economic climate of recent years the scheme was not carried out. Control of the site has now passed to the Environment Agency and there has been some talk of conservation measures with some 'interpretation' of the site for visitors. This is something that the Society cautiously welcomes.

Happily the attractive signal lamppost with its mechanism to rotate the light still survives (nearly intact) at the dock entrance. Hopefully this and the old limekiln will in due course receive some attention from the Environment Agency.

Leaving Lydney Dock we pass Cookson Terrace. This attractive row of dwellings was built by the S&W Co. in 1858 for their workers.

At Bullo Dock, some four miles to the north of Lydney Dock we saw the dock built by the Bullo Pill Railway Company in 1810. In addition to the dock basin with the entrance gates there was an upper basin for water storage. At low tide the water could be released from the upper basin to flush mud from the dock basin back out into the river. The conditions were right and we were treated to a demonstration of this process.

Today little trace could be found of the extensive wharves that once existed on the riverbank to the south of the dock. We were intrigued to learn of the 'Bullo Pill Patent Marble Works' that was in operation in the 1820's. As at Lydney the main export was coal. Trade had all but stopped here at some time between the two world wars. However, in 1991 the owner, the late Bill Hardy, fitted new entrance gates so that the dock remains in working order. It was now time to part company and we thanked our guide for sharing his knowledge with us and giving us a very good afternoon.

**Sunday 7 June 1998**

**The Mills of the Little Avon River (Kingswood to Huntingford Mill)**

About 25 people joined this walk which was a continuation from two years ago when we met at Alderley and followed the Little Avon River as far as Kingswood. Again the leader was Ray Wilson and as before a car shuttle was organised and so we only needed to walk one way. Not industrial archaeology, but the opportunity was taken to inspect the interior of Kingswood Abbey Gatehouse. This is all that remains of the Cistercian Abbey and the 16<sup>th</sup> century building is one of the last pieces of monastic building in England.

We then started with another look at the Kingswood cloth mills seen last time, that is Walk Mill and Abbey Mill. Then it was then time to set off across the fields to Langford Mill. The earliest records for this site are from the late 18<sup>th</sup> century when it was a fulling mill. Later on it came into the ownership of Humphrey Austin who also owned or occupied several other mills locally. The present stone-built five storey mill bears the date 1822. The mill was a silk mill in the mid 19<sup>th</sup> century. Today it is the headquarters of a building firm of H. B. Lewis & Sons Ltd. and we noticed that extensive work was being carried out to the watercourses and sluices.

Continuing westward along the path, we reached the Wotton-Charfield road just below the circular toll-house at Bushford Bridge and just above New Mills. The latter with its mill pond is a fine landmark and dates from 1810 when it was rebuilt in brick by Humphrey Austin. From 1870 it was owned by Tubbs Lewis and successor companies and used for weaving elastic. Since the mid 1980's it has been the headquarters of Renishaws. This phenomenally successful company developed the 'trigger probes' which are now used to control machine tools all over the world. Renishaws have extended their products and now design and manufacture a wide range of metrology products.

In complete contrast no buildings have survived at the next mill downstream, Ithell's mill, another former cloth mill. However we could relate the weir and bends in the river to the watercourses shown on the map of 1889 which also shows the buildings. It was convenient to miss out Charfield Mills for the moment and leave it for the final stop as this was where we had left the cars. We therefore went across the fields straight to Huntingford Mill. The site had been used for cloth and was leased by the Austins (yet again!) in 1824. The early 19<sup>th</sup> century building became a corn mill and was operated by Workman Bros of Draycott Mills, Cam in the 1960's. It has been a popular hotel and restaurant for some years now. At least one waterwheel survives inside the mill.

Following the road we got back to Charfield Mills which is a fascinating complex. The three main blocks were built between 1815 and 1829. Although constructed for cloth manufacture the site has seen many uses. At one time one of the mills was a pin mill. Another had a spell as a bone mill. The site was the home of the Cotswold Collotype Company before 1910 when it moved to Wotton. Today the site is in multiple-occupation by mainly engineering firms. There was just time to thank the leader for taking us along a very pleasant route and showing us some very interesting sites.



### **Saturday 12 July 1998**

#### **Newent and the Herefordshire and Gloucestershire Canal**

About 20 members met on a rather wet afternoon in the Church Street car park in Newent. Our aim was to visit some of the more interesting IA sites in Newent and then move on to Oxenhall to look at the tremendous changes taking place on the Herefordshire and Gloucestershire Canal in the locality. We were fortunate to have our member David Bick as our leader for this return visit to his 'home patch'. We went to the outskirts of the town to the site of the Newent iron furnace. Some fragments of an agricultural building are thought to be the remains of the structure. Nearby is the very fine stone-built charcoal store of the iron furnace. The weather had cleared up by now and we made our way to the canal at Oxenhall.

The H&G Canal Trust had acquired the lock keeper's cottage here and made it wind and weatherproof prior to selling it by tender. This was a rare chance to purchase such a unique residence. A lot of work has also been done repairing the Oxenhall lock and the nearby aqueduct which carries the canal over the Ell brook. We walked on along the towpath to the southern Portal of the Oxenhall Tunnel. We were surprised how much had been achieved on the tunnel approach since our last visit which was only in 1995. The accumulated silt that had been many feet deep has been removed exposing the full height of the tunnel opening. We retraced our steps pausing only to thank David for bringing us up to date and giving us an enjoyable afternoon.

### **Friday 14th August 1998**

#### **Social Evening: A Walk Round Winchcombe**

This year we returned to the north of the County for our social evening. As in previous years, the spotlight was off industrial archaeology for the night and we took a more general look at the town. Poor weather did not deter members and the turnout was about 25. A local resident, Mr Graham Stephenson, kindly acted as our guide.

We set off from the Back Lane Car Park and were given a brief history of many of the interesting buildings we passed. It was surprising to learn that the seemingly ancient facade of the George Inn was much more modern than it looked. There was industry here and we passed the sites of the North St Brewery, a silk mill, a tannery and the gasworks. This was one of the places in Gloucestershire that once aspired to tobacco growing, but sadly there are no remains available for public inspection. We also learnt about the development of local roads and the 21 pubs that the town once boasted. On the social history front we speculated about the stocks with its odd number of seven holes.

In the main street we admired the Chandos Almshouses built in 1573 and nearby were the Sudeley Almshouses designed by Sir Gilbert Scott in 1865. To the north east of the church is the site of the great Benedictine Abbey but effectively nothing remains today. It was raining hard when we reached the Church. Here we could see at close quarters the huge grotesque gargoyles. It was now time for those who wished, to retire to The Bell Inn to continue the discussions, having first thanked our guide for a most interesting walk.

## **Tuesday 25th August 1998**

### **Evening Visit to the Royal Mail Sorting Office Gloucester**

This event could be described as a visit to next years industrial archaeology! The Royal Mail has invested heavily in recent years in automated equipment. However, the current pace of change will make even this obsolete before long. We were kindly permitted to bring a party of twenty to the Gloucester Sorting Office during the early evening peak in activity. The interest from members was high and we had a lengthy waiting list for any cancellations. Our guide was Mr Paul Jones.

We started by seeing the arrival of a constant stream of vans from most of the county bringing all the evening collections to one central sorting office. We then saw the equipment which separated out the small sized items (smaller than A4 size and not more than 6 mm thick). The high speed at which the letters moved along the conveyor system meant that they were scarcely visible. The stamp detecting machines can work at 10 items per second giving a throughput of up to 36,000 items per hour. Wherever possible the post code is read automatically by the equipment and the letter has a code printed on it to facilitate automatic sorting for the rest of the chain. If the postcode cannot be recognised then it is photographed using a TV camera and this image is presented later to a keyboard operator who types in the postcode (if any) and this is printed on the front of the letter as in the automatic recognition process. Having seen the long trains of letters being routed to bags for the major centres in the country we took a break and had coffee upstairs in the canteen.

Feeling suitably refreshed we saw how special services such as overseas mail are handled. In the final part of the tour we saw how the local mail coming into the building was prepared for delivery. We thanked Mr Jones for kindly giving up his evening to show us round and provide us with such a clear insight into how the post is operated today. If there was one thing that we all learned that evening, it was "Use the Postcode".

## **Saturday 19 September 1998**

### **Coach Trip to Staffordshire**

Agriculture, canals and steam engines all featured in the Autumn coach trip. We had 48 aboard the coach but we were saddened that the person who had done most to organise the visit was not with us. A fast run up the M5 and M6 brought us in good time up to the Shugborough Estate just outside Stafford. We had a good view of the house as we took the short walk from the main car park to Great Haywood village to see the fine pack horse bridge over the River Trent and some attractive industrial cottages.

We then took the towpath of the Trent and Mersey Canal to the important junction with the Staffordshire & Worcestershire Canal. Here at Haywood Junction we saw a number of typical canal features. These included a fine 'roving' bridge, toll house, boatyard and the aqueduct over the River Trent. The boatyard is operated by Anglo-Welsh Boats and as it was 'change over' time there was a small army of cleaners getting the boats ready. The main feature missing was the lack of a canal side public house. We were grateful to John Foley who acted as our guide for this part of the day.

Returning to the coach it was only a short drive through the park to Park Farm. This is a Georgian farmstead designed by Samuel Wyatt, featuring an agricultural museum, rare breeds centre and a working corn mill. The livestock are all historic breeds. Traditional methods of farmhouse cooking, butter and cheese making, were demonstrated by costumed guides, with the working mill producing flour. There was plenty to see and we took our lunch stop here. Nearby we were able to inspect one of Shugborough's fine follies. The two storey 'Tower of the Winds' is an unusual octagonal building that was once converted into a dairy on the ground floor. It has now been restored and beautifully decorated.

We then moved on via Stafford and Eccleshall to Mill Meece Pumping Station. The two magnificent horizontal tandem steam engines supplied water to the potteries between 1914 and 1979. Here we also saw exhibitions on the history of the pumping station and water supply in the area. A 'Yesteryear Weekend' where enthusiasts bring in vintage cars, motor bikes and stationary engines was in progress which was a bonus. The leaders were Ray Wilson and at very short notice, Alan Garnett, who kindly stood in following Jim Simmons untimely death.

### **Saturday 19 September 1998**

#### **Mills of the Painswick Stream (South)**

The 35 who came on the last walk of the season could count themselves as pioneers! A search through the list of GSIA visits from 1963 onwards had shown, to our surprise, there had never been a Society walk along the Painswick stream between Painswick and Stroud. The walk concentrated on the five lowest mills on the Painswick Stream and one in Pitchcombe which lies on a tributary. Each of these sites has a very interesting and varied history although it has to be said that there is not much to see of the actual mills now at most of these sites. To make up for this, the walk was an extremely pleasant ramble taking in both sides of the valley and the charming village of Pitchcombe.

The leader was Ray Wilson and we met at the car park at Stroud Leisure Centre and set off through Stratford Park. Here we saw Stroud Mansion House which is due to become the new Stroud Museum. It was looking very sad and forlorn with all its windows boarded up. It was not worthwhile looking for the site of Stratford Mill as from 1989 this has been the Tesco supermarket and car park. There was a cloth mill here in the 17<sup>th</sup> century but the site was associated with corn milling from the 19<sup>th</sup> century onwards. It was being used for the preparation of animal feedstuffs when it closed in 1984.

Dropping down on to the A46 we followed the main road northwards until we came to the site of Salmons Mill. This also had a long history as a cloth mill and there is still a very fine 16<sup>th</sup> century clothiers house on the site. From 1853 it was Godsell's Brewery until the firm was taken over by the Stroud Brewery in 1929. One of the buildings still bears Godsell's emblem of a raised hand clenching a malt shovel. The large red brick building running along the main road is a former maltings. It had just received planning permission to be converted to a furniture store.

To reduce the road walking we took the track up to the tiny hamlet of Callowell. It was noted that the open fields here were prime candidates for housing in the new few years. We came back down to the A46 at Rock Mill. Only a bend in the stream and a small bit of masonry

indicates today where the former cloth mill stood. In the mid 19th century pins were being made here and later on it was used for the unusual job of dyewood-grinding. We now followed the footpaths on the eastern side of the valley until we came to the site of Wades Mill. The former cloth mill has been demolished. An unusual use of this mill was that in 1879 it was the Artificial Manure Works of Peter Matthew and Son.

Walking through Pitchcombe we admired Pitchcombe House, a former clothiers house, and could just catch a glimpse through the conifers of Pitchcombe Mill. This has been converted to a dwelling and was formerly a cloth mill and then a saw mill. We continued back along the footpaths to Callowell and for the last time descended to the A46. This time we took a quick look at Grove Mill. The cloth mill has long since gone and the principal interest here now is the stone built former malt house. This has been a dwelling for many years. It was now just a short walk back to the cars where the leader was thanked for a most interesting walk (despite the lack of physical evidence on the ground!).