

## MEMBERSHIP CHANGES

### New Members

S. Ginman, Top Flat, 11 Shanklin Road, Brighton BN2 3LP  
P.S. Hicks, 73 Braeside Avenue, Brighton BN1 8RN  
A. Martin, 9 Clyde Road, St. Leonards-on-Sea, TN38 0QE  
A.R. Miller, 3 Crabtree Lane, Lancing, West Sussex. BN15 9PF  
W.H. Knott, 76 Worthing Road, Horsham, West Sussex RH12 1TD  
Mrs. M.F. Mullins, 1 St. Michaels Road, Farnborough, Hants GU14 8ND  
Miss L. Alpin, 25 Pearson Road, Pound Hill, Crawley RH10 7AJ

### Change of Address

C. Bryan, 9 Brandy Hole Lane, Chichester PO19 4RL  
L. Oppitz, Laurel Cottage, Maesbrook, Oswestry, Shropshire SY10 8QP

## OFFICERS

President A.J. Haselfoot  
Chairman Air Marshal Sir Frederick Sowrey, Home Farm, Herons Ghyll, Uckfield  
Vice Chairman J.S.F. Blackwell, 21 Hythe Road, Brighton BN1 6JR (0273) 557674  
General Sec: R.G. Martin, 42 Falmer Ave, Saltdean, Brighton, BN2 8FG (0273) 303805  
Treasurer & J.M.H. Bevan, 12 Charmandean Rd, Worthing BN14 9LB (0903) 235421  
Membership Sec:  
Editor B. Austen, 1 Mercedes Cottages, St John's Rd, Haywards Heath RH16 4EH (0444) 413845  
Archivist P.J. Holtham, 12 St. Helen's Crescent, Hove BN3 8EP (0273) 413790  
Publicity G.E.F. Mead, 17 Hollingbury Park Avenue, Brighton BN1 7JG (0273) 501590  
Mills Group:  
Chairman B. Pike, Stream Cottage, Coggins Mill, Mayfield, East Sussex TN20 6UP (0435) 873367  
Secretary D.H. Cox, 3 Middle Road, Partridge Green, Horsham RH13 8JA (0403) 711137  
Committee F. Gregory, P. Hill, J. Muddle, P. Pearce, S. Potter, T. Martin

### Area Secretaries

Eastern Area -  
Western Area R.M. Palmer, 11 Arlington Close, Goring by Sea, Worthing BN12 4ST (0903) 505626  
Central Area J.S.F. Blackwell, 21 Hythe Road, Brighton BN1 6JR (0273) 557674  
Northern Area E.W. Henbery, 10 Mole Close, Langley Green, Crawley (0293) 23481

## COMMITTEE MEMBERS

B. Austen, Brig. A.E. Baxter, Mrs. P.M. Bracher, C. Bryan, D.H. Cox, Mrs. D. Durden, F.W. Gregory, E.W. Henbery, P.J. Holtham, G.E.F. Mead, R.M. Palmer, B. Pike, G.G. Thomerson.  
Copy for the newsletter should be sent to:  
G.G. Thomerson, 42 Gander Hill, Haywards Heath, West Sussex RH16 1RD (0444) 450722

Copy for Mills Group section should be sent to D.H. Cox, whose address is above.

LATEST DATE FOR COPY FOR APRIL NEWSLETTER IS 10th MARCH 1992

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## SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

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Replica "Bow Bells" Milestones  
Sussex Mills Group news

## PROGRAMME OF ACTIVITIES FOR 1992

Friday 28 February 8.00 p.m. Annual General Meeting of the Mills Group followed by a talk at Bridge Cottage, Uckfield. TQ 472209. Contact D.H. Cox (0403-711137)

Tuesday 10 March 7.30 p.m. The Committee Room, East Pallant House, Chichester. Joint Meeting with Chichester Museum Society. A talk on Trade and Industry in Chichester by Maurice Wilson-Voke. Contact C. Bryan (0243-773158)

Sunday 15 March 11.00 a.m. Working Party at Coultershaw Pump, Petworth at SU 972194. Bring picnic lunch and some tools. Contact R.M. Palmer (0903-505626)

Saturday 21 March 9.45 a.m. South East Regional Industrial Conference at Southampton University. "Serving the People - Public Utilities". Application forms being circulated. Contact R.G. Martin (0273-303805)

Saturday 2 May 10.30 a.m. Visit to Tenterden including the Kent and East Sussex Railway. Meet at Tenterden Town Station TQ 882335. Contact G.G. Thomerson (0444-450722)

Sunday 10 May National Mills Day. Contact D.H. Cox (0403-711137)

## DITCHLING MUSEUM

Ditchling Museum is mounting an exhibition of "Sussex Windmills and tools of many trades" from 1 February to 5 April 1992. The museum is open on Saturdays 10.30 a.m. to 4.30 p.m. and on Sundays from 2.00 p.m. to 4.30 p.m.

## GENERAL SECRETARY'S REPORT FOR YEAR 1990-1991

This has been a good year. Our finances are sound, we have a larger membership than ever in our history and we have had one or two very successful projects which have achieved fruition this year.

One of the functions of this Society is to liaise with other groups and bodies. We continue to be represented on various local and national bodies such as the Sussex Archaeology Forum,

Subterranea Britannica, South East Regional Industrial Archaeology Conferences, the Federation of Sussex Local History Societies Local History Forum, W.S.C.C. Coast and Countryside Committee and the South East Panel for Industrial Archaeology of the Council for British Archaeology. The Director of the Amberley Chalk Pits Museum also sits on our Committee.

Of the Society's own projects:

**Coultershaw Beam Pump** has had one of its best years for visitors and due to the wetter summer has managed to run whenever open.

**Ifield Mill** has also had many visitors this year and work has been in hand in rebuilding the spur wheel and the mechanism for operating the launder.

Of projects where Society members are involved:

At **Lowfield Heath** the second pair of stocks has been fitted and the roundhouse roof has been re-constructed.

At **Shipley Mill** outstanding work has now been completed and the mill is now in a condition where grinding can take place.

At **Polegate Mill** the work is now completed and all is in working order. Work is now proceeding to the Museum and to the old engine house to create workshops and toilets.

At **Oldland Mill** two new sides have been framed up but not yet fitted and work to the breast has started.

At **Barnham Mill** work is proceeding in refurbishing some of the outbuildings before restoration of the mill is tackled.

At **Patcham Mill** there was a lightning strike in January and the sweeps and cap have been removed to repair the damage.

At **High Salvington Mill** one pair of stone is now grinding.

The **Mills Group** has been active and several meetings were organised this year. A pamphlet on Sussex mills open to the public was published and this has been very well received. A tea towel featuring various Sussex mills has been commissioned and has been sold in the mills depicted and has proved very popular. A further order is being placed for next year.

The **Brick Study Group** has virtually completed its work and the book is now being edited by Molly Beswick for possible future publishing when a suitable sponsor can be found.

**SERIAC** was this year organised by GLIAS and held at the Science Museum on the subject of "Current Themes and Problems in Industrial Archaeology".

The Society's publications continue to maintain their standard. *Sussex Industrial History* No. 19 was sent out to members in July and contained articles on Quick's Garage at Handcross, Punnett's Town Saw Mill and the Hollingbury Industrial Estate in Brighton. The *Newsletter*, in spite of various printing problems, has managed to keep up the quality but more contributions from members are always wanted.

We had a full programme of visits and meetings through the year including a walk round Brighton led by Geoff Mead, a visit to London led by Dave Perrett, a walk round the fishing area of Hastings led by Steve Peak, a tour of various mills and a visit to Brighton Railway Station followed by a talk by Peter Hay. The **Members Meeting** was held in Mr. and Mrs. Durden's home and was preceded by a visit to the recently re-housed Steyning Museum.

I reported last year that the Society had been awarded a grant by the Leverhulme Trust for a full time I.A. recorder. We advertised for applications for this post, held interviews and selected Don Cox who took up his appointment in June. He has now covered some 30% of the rural parishes and his work is proving most successful. The records are being incorporated in the Sites and Monuments Records of the two counties and to make this possible, the Society has on permanent loan from E.S.C.C. an IBM compatible computer so the entries can be input directly onto a disc which can then be held by the County.

I would remind members that in addition to the I.A. recorder's work there is still much detailed recording and research to be carried out mainly in the urban areas and this is a task which will go on for many years to come.

During this year various members have been instrumental in bringing the Society to the notice of the general public but I would particularly thank Geoff Mead who has been tireless in leading guided walks and giving talks, one of which to the Rotary Club of Arundel resulted in a donation of £100 to the Society. This has been spent on a portable tape recorder and transcriber for the use of the I.A. recorder. The total of donations received during the year has been £259.

One other project which the Society has been involved with in association with Subterranea Britannica is the recording of the Beddingham Shaft Kiln. The completed survey drawings and report was given two awards for Recording and Initiative by the Association for Industrial Archaeology. Furthermore Blue Circle Industries who own the site gave the Society a donation of £500 in recognition of this work. This figure is not included in the years accounts as it was not received until after the end of the financial year.

You will have noted in the last newsletter that I asked for members to undertake typological surveys of topics which might be of interest to them. I make a further plea for members to come forward to carry out this vital piece of research and to let me know of any research being done by them. I have recently heard of two of our members who have been carrying out very valuable research of which the Society had no inkling.

Finally I would like to thank all the members and committee for their help and support through the year. I think you will agree that, as I said at the start, this has been a most successful year.

RON MARTIN

#### TREASURER'S REPORT

I am glad to tell you that your Society has concluded another successful financial year with our income from subscriptions and investments continuing to rise. We have received a donation of £100 from Arundel Rotary Club following a talk given by Geoff Mead who has also provided us with £159 as a result of his successful guided walks. These amounts are most welcome and I would like to express the thanks of the Committee to Geoff for his efforts.

On the expenditure side our administration costs have risen sharply due to various factors. Certain expenditure last year was in fact incurred the previous year. Congratulations are due to the Editor of *Sussex Industrial History* who in defiance of inflation has produced this for two years running at a lower cost than the year before. This must be a record.

Our income from visitors to Coultershaw Mill showed a small increase. Much dedicated voluntary work goes on there and we badly need more help, both for maintenance work in the winter and stewarding in the summer. Any member who can offer a Sunday or two would be most welcome. We need more visitors and help or suggestions regarding publicity would also be welcomed.

You will see that our income exceeded our expenditure last year by £9,397 as against £757 the year before. This arises not from any wizardry on the part of your Treasurer but from the grant of £12,000 that we received last May from the Leverhulme Trust for the Sussex Survey which others will be telling you about. Of this grant only £3,568 had been paid out as at 30th September.

Our General Fund now stands at £1,843 after paying for *Sussex Industrial History* No.21 and setting off £35 owing to Gatwick Airport Ltd. for the sale on their behalf of *Sussex Industrial History* No.16. This is a satisfactory figure and your Committee considers that it justifies an unchanged subscription for at least another year, the eighth since our last increase.

We have had 27 new members (including 2 life members) during the year. Eight subscriptions remain unpaid and reminders have been sent.

Finally, I would like to thank our auditor George Martin for his hard work which is appreciated very much by your Committee. He is willing to serve for another year if asked to do so.

J.M.H. BEVAN

## OBITUARY

Long-standing members of SIAS will learn with regret of the death at the age of 84 of R.R.J. (Dick) Plummer.

After a lifetime concerned with industrial transport affairs, Dick and his wife Mary retired, first to the Heathfield and later the Ringmer districts of Sussex.

Dick was one of the very small band of our members who set out to restore the National Trust watermill at Batemans, Burwash, his particular responsibility being the supply of materials wherever these could be obtained on favourable terms. He accompanied the writer on numerous visits to builders' yards and the like and struck some useful bargains. All this help towards meeting successfully an admittedly tight budget estimate for this project. Later, both Dick and Mary continued for some years at Batemans as guides where their considerable literary insight was greatly appreciated by visitors to the house and mill.

Bearing in mind his transport background, it was not unnatural that Dick should look closely into the used and disused roads and trackways of his area. The maps and information resulting from this study still remain the foundation of continued research into this aspect of industrial growth and decline.

Always cheerful and ready to help, Dick's fund of humour, his keen perception and his deep underlying personal convictions will be greatly missed by his many friends and our sympathy goes out to Mrs. Plummer and the family.

W.R. BESWICK

## LOCAL SOCIETIES WEEKEND AT IRONBRIDGE 3 - 5 APRIL, 1992

Every year there is a weekend held at the Ironbridge Gorge Museum which is specifically organised for members of affiliated societies of the Association for Industrial Archaeology. Our Society is affiliated so any of our members are eligible to attend. You do not have to be a committee member or nominated or approved by the Society. The weekend starts with an informal dinner on the Friday evening with talks and discussions during the Saturday and Sunday mornings. During the Saturday afternoon we are free to visit any of the Museums at Ironbridge. On Saturday evening there is a dinner in the New Inn at Blist's Hill. The week finishes after lunch on the Sunday. The cost is £25 per head which includes lunch and dinner on Saturday and lunch on Sunday together with a free ticket for all the Museums at Ironbridge. Accommodation can be organised by the Museum.

The theme of the weekend is "Protecting the Industrial Heritage" with talks planned on The Role of National Heritage Bodies, Working with the Planners, Listing and Scheduling Problems, Databases for I.A. recording and a forum on locating and preserving industrial records.

There are usually 30 to 40 present from all over the country and it is a very informal and pleasant weekend where a lot of useful information can be exchanged. If any members are interested in coming to this weekend would they please get in touch with me.

RON MARTIN

## ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY CONFERENCE 11-13 SEPTEMBER

The Annual Conference of the Association for Industrial Archaeology is based this year at the Cheltenham and Gloucester College of Further Education from 11-13th September, with the supplementary programme following to 17 September.

There will be talks on and visits to various sites during the course of the week such as Gloucester Docks, the Forest of Dean, Leckhampton Quarries, Tewkesbury, Stroud, Berkeley Power Station and hopefully Metfords Flour Mill in Gloucester. Full details will be made available in the Spring but may not be ready to go into the April Newsletter, so make a note of the date in your diary and let me know if you want an application form and programme.

RON MARTIN

## RECORDING

Progress continues to be made with the work of visiting the rural areas to find out the existing sites of industrial archaeological interest. I have visited approx. 90 parishes out of the 250 that there are in East and West Sussex. I am about to take photograph number 1,000 and expect to complete 1,000 record sheets by Christmas in time for some celebration.

The autumn and winter months obviously provide less daylight hours and poor weather conditions for photography. This means a close check on the weather forecast and get out when the weather is suitable. However the winter does mean less foliage on the trees and some remote sites are better to photograph once you get there.

Regarding my request for help in the last newsletter, perhaps I should explain that while I am working full time on this project I am producing work on behalf of the Society. By helping me you will be helping the Society to obtain a better and more complete list of I.A. sites. What I need is your knowledge of local areas in order that that area is covered better and all sites included. My brief is to cover the rural areas leaving the towns to the end to utilise any time available. Your assistance could mean a better coverage.

I have been able to get some *Thompson Directories* but I am short of three - those for Tunbridge Wells, Alton and for Portsmouth. Failing the *Thompsons* then the *British Telecom Yellow Pages* for Tunbridge Wells, Guildford and for Portsmouth. Do you have a copy that you do not use? Any offers! Please phone me and I will collect.

D. COX 0403 711137

## SURVEYOR'S LADDER

The Society has recently purchased a surveyor's ladder, which is a four-piece aluminium ladder with a total extended length of 12ft but which will take to pieces to enable it to be transported in the boot of a small car. If any members of the Society wish to borrow this piece of equipment for use on Society business please contact me and I will arrange to get it to you.

RON MARTIN

## PLANNING APPLICATIONS

The Society tries to keep a watching brief on all planning applications throughout the two counties in order to monitor endangered industrial sites. We have coverage of most of the major urban areas, however there are still many of the Districts which are not being investigated. We would be grateful for any assistance in this respect. This would involve looking at all the list of planning applications within the area designated and ascertaining whether there are any industrial sites which need further investigation. The lists are available either at the planning offices or public libraries and are also published in the local newspapers.

If any members might be interested in assisting us in this way would they please get in touch with me and let me know the District that you would be able to cover.

RON MARTIN

#### TOY FRIENDS!

An urgent appeal has been received from the newly opened Sussex Toy and Model Museum. Situated in beautiful vaulted arches under the front of Brighton Railway Station, the museum, which is a charitable trust, has one of the finest collections of toys and models in the world.

At present the museum is being run by the Trustees and a small group of dedicated helpers. However, the pressure of keeping a rota of staff going six days a week is taking its toll. Do you know of anybody who might like to help by becoming a 'Friend of the Toys'? The duties involve helping to make the public feel welcome, keeping an eye on the exhibits and perhaps assisting with the shop and admissions. The Trust can offer little in return except travelling expenses, endless cups of tea and the pleasure of being among the exhibits. Even two or three hours each week would help.

The reputation of this fine museum will soon grow and, as one of the only new attractions in Brighton for many years, it deserves all the help it can get. The telephone number to ring is: (0273) 749494.

#### NEWS FROM AMBERLEY CHALK PITS MUSEUM

Now that the 1991 season has ended we can look back to see what we have achieved during the year. The total number of visitors to Amberley was 75,736 which is just a few less than the previous year's total. Considering the recession this is a very good performance and we can look forward to the future with a degree of confidence.

One of the major projects for the closed season is the erection of a building to house the library of the Milne Electrical Collection. This library contains a wealth of Seaboard archival material as well as other reference material of use to students and those researching aspects of electrical and social history. Progress on the Milne scheme as a whole has been hampered by the difficult economic times which have prevented the sale of the existing Milne building in Tonbridge. However because of the importance of the library material and its vulnerability in a damp building, the Trustees have decided to proceed with the construction of a high quality prefabricated building. The presence of the Milne library at Amberley will provide a new resource as well as keeping the Milne name alive in the period before the complete move can take place. The library will be available for use by appointment and anyone requiring further information should contact John Norris, the Curator of the Milne Collection.

During the winter we will also be continuing the development of the telephone exchange and Wheelwright's projects with the intention that they will be open to visitors for next season. The next few months will also see a start on the long-awaited refreshment room scheme. The present tea room is now too small for our needs and is to be replaced by a totally new refreshment facility. It will be sited next to the existing water pump area in a central site which is accessible to all our visitors. By next spring we plan to have the site prepared ready for the building, and a new drainage system installed and connected to the sewer on the main road.

For next season we are also intending to refurbish some of our existing exhibition areas and develop new ones. The Arundel Gin Building and the Concrete Exhibition should receive electric light during the winter which will enable our visitors to see the exhibits better on dull days. With new exhibitions planned on the development of the Amberley site, the history of the garage and petrol station, and major changes to the brickyard exhibition, we hope that there will be plenty of new attractions for our visitors next season.

ROBERT S. TAYLOR  
Director

#### BRITAIN'S WORLD WAR II DEFENCES

On Saturday 2 November about ten members of SIAS attended a symposium at Guildford University on Britain's World War II defences. The chairman was Gordon Knowles of the Surrey Industrial History Group (organisers in conjunction with Kent Defence Research Group, Fortress Study Group, and United Kingdom Fortifications Club) who said that although special interest groups existed, this was the first time that the subject was opened to a wider audience and therefore in the initial stages of preparation he had no idea what the response would be. He need not have worried: it was a sell out with 140 attending.

The first speaker was Henry Wills who introduced the subject by relating his experience in 1965 when he saw a pill box being demolished in a Wiltshire village. As a journalist he followed this up by enquiring why it was there in the first place. No information was forthcoming from the War Office or Ministry of Defence, so he set about placing adverts for information in the local press and in shop windows. As a result a local paper gave him a write-up including his name and address, which brought forth about 60 letters from local people. He then decided that he should make a survey of pill boxes all over the country.

There was no specific design for pill boxes, they came in all shapes and surprises according to the whim of local builders and materials available. About 15,000 were built, mainly in Southern England, using some 50,000 tons of concrete. However they were never fully manned as most of the rifles and machine guns they were designed for were lost at Dunkirk.

The second speaker was Peter Cobb whose subject was "The History of Anti Invasion Defences". His lecture went back to William the Conqueror, whose Pevensey Castle was shown on a slide with a WW II pill box incorporated. Amongst other former fortifications shown were Southampton city gate, Guildford Castle, Southsea Castle, Fort Amherst (Chatham), and Newhaven and Shoreham Forts, all being put to good use for WW II defences. Also of local interest was a slide of the pill box disguised as a newsagents built in the middle of Preston Circus, Brighton once the old tram lines had been removed and despatched for making armaments, which older members will remember.

Brigadier J.R.E. Hamilton-Baillie, whose interesting lecture on the history of concrete in the military context at SERIAC held in the Royal Engineers depot at Gillingham two years ago will be readily recalled by those who attended, then told the story of how he constructed a pill box in Northern France before the fall of France, and returned after the war to see how it had fared. He was able to identify it positively. The Brigadier spoke of the construction of fortifications, the materials used, and the tests to which they were put.

"Armament of Defences" was covered by Terry Gander who gave a very clear idea of how desperate was Britain's situation in the summer of 1940. With most of the small arms and larger guns left behind at Dunkirk there was virtually nothing with which to arm the fortifications. He spoke of the various types of weapons which eventually became available for his purpose, but fortunately for us the threat of invasion receded in June 1941 with Hitler's invasion of Russia.

After lunch Colin Alexander spoke on "The GHQ Line - a case study". This line stretched from Taunton through Reading and Oxford up to the Wash, and consisted of a continuous tank trap defended by pill boxes, incorporating obstacles such as waterways and railway embankments. Every road crossing and bridge on the line was defended. It was the brain child of General Ironside who was Chief of the Imperial General Staff and Commander-in-chief Home Forces, and sought to protect England's manufacturing heartland. Churchill thought otherwise: "We will fight them on the beaches .....", and promptly sacked Ironside. The GHQ line made an interesting, if theoretical, study as explained in detail by Colin Alexander.

The final two speakers spoke of the Surrey (Chris Shepherd) and National Survey (John Hellis). Details of the methods of surveying and recording all sites were explained, so that a consolidated survey might eventually be compiled.

LESLIE MARTIN

ODE TO INDUSTRIAL ARCHAEOLOGY

Why do you stir me, ugly things?  
Factories, chimneys, each one brings  
Salute to man, a sense of pride  
As towering, brick-built viaducts stride  
Across the greenest countryside.

Quarries scar the face of land  
Lifting rock and chalk and sand,  
Inclined planes descend by rail  
The trucks which on the water sail  
An age in which canals prevail.

Clicking, turning watermills,  
Wheels and sails upon the hills,  
Windmills up there, white and pretty  
More attractive than the gritty,  
Smokey foundries in the city.

Harbours, basins, cuts and docks,  
Flights and staircases and locks  
Chambers lined with green and slime  
Dank and mossy, wet with grime  
Relics of a far-off time.

These facets have no natural beauty,  
They smack of work, harsh times and duty  
And yet, despite this I can say  
They are attractive in their way,  
These artefacts we call "I.A."!!

Diana Durden

(A poetess in I.A. – whatever next?)

SUSSEX COUNTY MAGAZINE - gleanings (continued)

- Vol 16/4 April 1942 p.105-6 'Two modern blessings and some memories' – Maude Robinson.  
The making of rush lights, tallow candles and paraffin wax candles.
- p.116-7 'Memories of Haywards Heath Fair' – A.R. Pannett.  
production from sheepskins especially fellmongering and making of leggings known as 'bootligs'.
- Vol 20/9 Sept 1946 p.226 'Vanished industry' – the Socknersh Furnace.
- Vol 29/6 June 1955 p.302 'written by readers' – A Greyhound Sign.  
"Thank you for the photograph and description of the Greyhound East St, Brighton on page 252 of your May number. I made the sign at the Old Forge in North St Brighton in the late 1920s. The forge is now demolished. The Greyhound was designed by Mr Charles Knight ARWS, R.O.I. and kindly commissioned by Mr John L. Denman the well known Brighton architect"  
G.H. Champion FRSA 16 Brookside Ave. Rustington
- [The forge was at 100a North St on the north side of Regent Row opposite the present rear entrance of Gamleys toy shop, a turning off the Dyke Road.]
- Vol 24/4 April 1950 p.124 'The house that Kipling built' – William A. Ramsay.  
Details of aspects of Batemans including the brickyard where many of the estate bricks were made.
- p.139 'In search of our potters' – J. Manwaring Baines.  
The Brede family of Weller were potters for nearly a century. This article gives details on them and various employees.
- p.146 'Sussex Tradesmen's Signs' – L.N. Candlin.  
Notes on traders in Lewes, Brighton, Shoreham, Rye and Hailsham.

- Vol 21/7 July 1947 p.238 'Written by readers'  
Note on Samuel Brown developer of Brighton Chain Pier and his connection with the Welsh chain making industry.
- Vol 24/10 Oct 1950 cover & p.440 Eastwood Cement Works, Southerham, Lewes – photo.
- p.436 'Sussex Craftsmanship' – Norman Wymer.  
Ladders and rakes being made (detailed photos) at E. Hoathly
- p.439 The approach to the Old Mill, Polegate – photo.  
"This view is unlikely to be obtained much longer as building is encroaching from all directions"
- Vol 26/12 Dec 1952 p.599 'Gatwick and Crawley' – W.A. Barron.  
An interesting contemporary account of the developments in north Crawley and the emergent Gatwick international airport.
- Vol 26/3 March 1952 p.114 'The actors are come hither' – Robert Gunnell.  
The development of theatres in Brighton in the 18th & 19th centuries.
- Vol 26/2 Feb 1952 p.53 Bolebrook water mill – drawing.
- p.79 Aerial photo of Balcombe viaduct

MICHAEL FARADAY, 1791-1867

Two hundred years ago last September was born Michael Faraday, the outstanding scientist who, amongst many other discoveries, first revealed the key principles on which our modern electric world depends. The anniversary has provided a welcome opportunity to bring his life and work back into prominence.

Michael Faraday was born at Newington in Surrey on 22nd September 1791, the son of a Westmorland blacksmith who had moved south in the hope of finding better prospects. The family was poor and Michael's education rudimentary. In 1804 he went to work as an errand boy for Mr George Riebau, a bookseller and stationer in Blandford Street. The following year he was apprenticed for seven years to learn the art of bookbinder, stationer and bookseller, Riebau waiving the usual premium 'in consideration of his faithful service'. The apprenticeship served him well for the books that passed through his hands introduced him to the world of science.

Conscious of his limited education, Faraday seized on opportunities for self improvement, reading, and later contributing, to the scientific discourses at the City Philosophical Society. He followed the topics of the lectures, afterwards writing them up and binding them, and carrying out experiments himself in a small 'laboratory' at the back of Mr Riebau's shop. Early in 1812, one of Riebau's customers, who had seen some of Faraday's lecture notes, gave him tickets to a series of lectures on Chemistry by Sir Humphry Davy at the Royal Institution in Albermarle Street. These further fuelled Faraday's enthusiasm and by the completion of his apprenticeship in October he had become determined on a career in Science.

Faraday wrote to Davy at the Royal Institution, sending him the notes he had made of Davy's four lectures and seeking a position. Providence took a hand. An explosion in the laboratory filled Davy's eyes with glass and he called on Faraday's assistance for a short period as a secretary. Four months later the laboratory assistant at the Royal Institution was dismissed after a brawl and Faraday was appointed in his stead. In 1813 he accompanied Davy on a tour of France and Italy. Britain and France were then at war but scientists were above such matters. This 'Grand Tour' was an invaluable experience and education for Faraday, meeting and working with some of the leading scientists of Europe and establishing enduring friendships.

Returning to the Royal Institution in 1815, Faraday soon became an accomplished chemist in his own right, with an established reputation as an analytical chemist and scientific expert. In the 1820s he was much engaged in sponsored research on alloy steels and on improved optical glass. He also discovered benzene and liquefied chlorine and other gases for the first time. However, electricity had long interested him and he returned to it when opportunity allowed.

In 1831 he made the fundamental discoveries in electromagnetic induction for which he is chiefly remembered. In August he experimented with his 'induction ring' - an iron ring bearing coils of wire, one connected to a battery, the other passing over a compass needle. He found that at the moments of connection and disconnection of the battery the compass needle briefly moved; one way on connection, the other way on disconnection. This, in principle, was the first transformer. When current was changing in one coil, a changing current was induced in the other. In October, he demonstrated the direct production of electricity. When a bar magnet was moved in and out of a coil of wire wound on a paper former, electricity was induced in the coil. Here was the principle of the generator - when a conductor is moved across a magnetic field, electricity is induced in the conductor.

Years of further research followed, advancing the understanding of electrical and magnetic phenomena. His evolving theories on magnetic fields and lines of force, viewed with scepticism by other scientists when they were first voiced, laid the basis of the modern concept of field theory. They were put into mathematical form by James Clerk Maxwell, whose predictions on electromagnetic wave propagation led in turn to Hertz' work on radio waves.

Faraday was the foremost scientific lecturer in England for over thirty years and the Friday Evening Discourses and the annual Children's Christmas Lecture, which he initiated, continue at the Royal Institution to this day. Many he gave himself, perhaps the most famous being The Chemical History of a Candle, which has been published in many European languages and is still to be found on bookshelves.

Michael Faraday was a Sandemanian, a small religious sect springing originally from the Scottish Presbyterian Church, and in the Sandemanian congregation he found and married Sarah Barnard in 1821. They were united by a deep and enduring love and though the marriage was not blessed with children Faraday's love of children was lavished on his nieces. Happy family parties were held at the Royal Institution and on appropriate occasions the resources of the laboratory were put to the manufacture of soda water, sweets and ginger beer. He was a boy at heart.

Faraday was a brilliant scientific experimenter; a discoverer not an inventor. Though content to leave the exploitation of his discoveries to others, the same enquiring mind that made him such a brilliant scientist led him also to take a keen interest in manufacturing processes. It must have given him pleasure, as scientific adviser to Trinity House, to report on the introduction of electric arc lighting into lighthouses, using the Holmes magneto-electric generators that were a practical application of his discovery of electro-magnetic induction nearly thirty years before.

He died on 25th August 1867 at Hampton Court, in the grace and favour house provided by Queen Victoria and Prince Albert in 1858.

JOHN NORRIS

#### REPLICA 'BOW BELLS' MILESTONES

A survey of East Sussex Milestones in *Sussex Industrial History* No.5 (Winter 1972-73) gave due to attention to the so-called 'Bow Bells' series along the A22 (pp.3-8), including a modern cast iron replica in Tunbridge Wells Museum and a proposed replica at Hailsham.

In the East Grinstead Society's *Bulletin* 4 (Sept. 1970) a query was printed about the 'Bow Bells' milestone, which once stood outside the Open Hearth Cafe, 61 High Street, East Grinstead. In the next issue (*Bulletin* 5, Jan. 1971) Mr. I.D. Margary, the authority on Roman and later roads, revealed that it was 'entirely bogus ... only made of plaster or cement suitably painted on the wall of the shop'. It duplicated the authentic milestone 30 in London Road and had 'suddenly appeared a few years ago'. He therefore persuaded the Urban District Council to get the person responsible to remove it. The plain projecting shape can still be seen outside the cafe, now called Anne Tree.

In 1989 East Grinstead Town Museum was given a wooden and plaster replica 'Bow Bells' milestone 30 which it put on show. It had been found in the front garden of a house at Ashurst Wood, East Grinstead and handed in to the police as lost property. On clearing out unreclaimable items the police gave it to the Museum.

The suggestion has recently been made that it might be the same one as once stood outside the cafe. If it is not, then there seems to have been quite an industry of making realistic replicas, though why and for whom is hard to guess. If it is the same, then it seems to have been dumped or allowed to be 'found', perhaps as an embarrassment, perhaps because stolen. The replicas seem as much of a puzzle as the original design, but perhaps it is not too late for information to come to light.

M.J. LEPPARD

#### PITFALLS OF USING O.S. MAPS ...!

As a geographer, and an historical geographer at that, I find maps fascinating items, whether as a research tool or as a time-wasting browse. However, I have been recently using relatively modern maps and was mildly astonished at the additions and omissions between 2 sheets. I was researching for a talk to Hurstpierpoint Historical Society and realised I had both a 1949 and a 1958 2½" OS sheet TQ21 which covers the area between Shermanbury, Burgess Hill, Patcham pylons and Upper Beeding.

Industrially this an area of hidden charms. It is a region bordering the Downs set in the Low Weald cut through by the Adur and its tributaries. I have noted those changes that have occurred over the nine years - or rather those noted by the map-makers.

	1949	1958
TQ 298139	Clayton Lime Works	Works
281139	(symbol)	Old Chalk Pit
296155	(symbol mineral line) extensive pits	line missing - few pits
292155	blank	sand pits
286155	blank	Roman Tile Kiln
279182	building	works (sewerage?)
279175	sewage farm	housing estate!
279151	large pond	woodland
275136	quarry	extended quarry
265118	long pond	woodland
266154	Sandpit Cottage (no workings)	extensive workings
265185	workings	two lakes
257189	Stuckholds Farm	Stuccles
255169	Rossetti Gates	Gretta Gate
252162	two lakes	southern lake missing
251156	blank	Old Quarry
251126	ford	missing
258111	blank	buildings (Dyke Hotel)
260104	blank	Poynings Place & Devils Dyke Farms
243103	Perching Hall Barn	Perchinghill Barn
243120	Perching Drove	name missing
233136	Catslands Lane	name missing
234125	blank	Edburton Sands
223108	blank	masts
225107	blank	Radar Station
216151	pond	missing
216142	blank	clay pit and works
215145	Newbarn Lane	name missing
218138	blank	millpond (Woods Mill)
211122	blank	workings (Horton Pit)
209116	windpump	missing
204123	mineral line and pit	quarry & large lake, min'l line missing
203145	Pokerlee Farm	missing

202158 Hollands Lane  
207168 Parsonage Farm  
209183 Outlands Farm

name missing  
The Lodge  
Wychwood Farm

I am certain I have missed some obvious discrepancies but I hope this exercise has shown that OS maps are not 100% accurate, that older maps do not necessarily show items we now know were actually there, and that landscape change is continuous both physical, e.g. silted up lakes, and man made additions to quarry sites. Tracing industrial development is a rewarding activity but a range of sources must be utilised for a truer picture to emerge.

For clarity I omitted the extension of buildings around villages and towns although this in itself is a feature worth studying as is the loss of orchards and spread of ribbon building e.g. south of Shermanbury Grange.

GEOFFREY MEAD

## BOOKS

*THE FULLER LETTERS: GUNS, SLAVES AND FINANCE, 1728-1755*, edited by David Crossley and Richard Saville

xxxviii + 307 pages; index and 10 illustrations.  
Sussex Record Society Volume 76; ISBN 085445 037 8  
Price £17.50

This letter book is one of the most important collections of business and social correspondence from a leading eighteenth century county family to be published in recent years. It records the rise to wealth and influence of the Fuller family of Brightling Park. Originally from humble beginnings in an inhospitable and forested part of the Weald in Sussex, they had in the eighteenth century diversified into slave owning in Jamaica, expanded their ironfounding and gun-casting in the Weald and greatly enlarged their Sussex estates, and by mid-century held significant holdings in London stocks. The letters explain how these business interests worked, and give the reader unique insights into the life of an eighteenth century landowner.

The letters also contain the only major surviving record of the charcoal iron industry to include substantial comment on the technical problems, how furnaces were operated, how guns were cast, and where they were sold. The Fullers were one of the major gun producers for the Navy and the Army at this time; their products were in demand as far away as Sardinia and the Austro-Hungarian Empire.

There is much information on Wealden weather and road conditions, on the difficulty of running a Jamaica sugar plantation, and the problems of involvement in the London sugar-refining trade. There is extensive comment on Wealden agriculture, based as it was on the more intractable soils in Southern England, on how tenants were dealt with, and the way they grew. As befitting a county family there is material on political affairs – the Fullers were Tories – on social and educational questions and the arrangements made for sons to go into business. Of interest to all who want to know more about Sussex history, this volume will also stand on its own as an important contribution to our knowledge of gun casting and ironworking, Wealden agriculture, the Jamaican sugar trade, and how eighteenth century landowners organised their estates.

David Crossley is a Reader at the University of Sheffield. He teaches archaeology over the historic periods, from the medieval to industrial, as well as economic history. His excavations have largely been on iron and glass making sites, subjects involving the study of water power and the history of woodland management. He edited the journal *Post-Medieval Archaeology* for ten years, and is now joint editor of *Historical Metallurgy*.

Richard Saville is a Lecturer at St Andrews University. He teaches economic history from the seventeenth century, and his publications include work on both Scottish and English history.

Copies can be obtained from the Sussex Record Society at Barbican House, High Street, Lewes, BN7 1YE, price £17.50 plus £2.00 post and packing



Ifield Watermill

## SUSSEX MILLS GROUP



Shipley Windmill

Trust the programme for the mills group that is incorporated with SIAS visits.

1. Annual General Meeting of the Mills Group. Friday 28 February 1992 starting at 8.00 p.m. at Bridge Cottage, Uckfield. We are trying to get a speaker and you will know details later. Please try to get there. We do want to know your views on what we are doing and make some suggestions for the future.
2. National Mills Day. 10 May 1992. details elsewhere. Please try to help at your nearest mill. National Mills Day is getting well known and help is needed at the mills.
3. Tour of mills. Sunday 16 August 1992 starting at 11.00 a.m. at Michelham Priory Watermill. Arrangements are in hand to visit other mills.
4. Members' Meeting. Sunday 4 October 1992 starting at 2.30 p.m. at The Engineerium with possibly a talk on the work of The Engineerium on the repair of mills. T. Martin agreed to see what could be arranged. A bonus will be that the engines will be 'in steam'.

It is sometimes difficult to know so far ahead what can be laid on so see later newsletters for more details where appropriate.

### Photographs of Mills

I have recently come across a shop in Brighton that sells old photographs. About 45 mills are listed. They are £5.75 each. Larger prints also available. Their total list mainly of Sussex goes into the hundreds. Must be a lot of I.A. here as well. The people are Old Local Prints, 36, Queens Road, Brighton. Tel 24827. Must be worth a browse at least.

### Other newsletters

As part of our arrangements with other societies I get copies of newsletters from other groups. Suffolk Mills Group for October 1991. This gave a list of steam mills in Suffolk, a report of the AGM, a review of some new books, a trip to Norwich by sea as well as general news of Suffolk

Lincolnshire Mills Group for November 1991. This had a desperate appeal for a secretary, details of a one day course on mills on 28 March 1992, some news from the Canadian Grain Museum and some general news.

Newsletter from the North West (Wind & Water) Mills Group. This was a tenth anniversary edition and covered the AGM, news of mills, National Mills Day report, various other reports. 16 pages in all, very good.

My East Kent Newsletter comes via SIAS so takes a long time to reach me.

I have not had a newsletter from the Welsh Mills Society lately but usually get their news.

Remolo is the newsletter for Jack & Jill and this tells of their progress.

### News of Sussex Mills.

Brewhurst Water Mill.

With the recent death of the owner of this estate the water mill is now up for sale and full particulars can be obtained from King & Chasemore, Batram House, Station Road, Pulborough, West Sussex RH20 1AJ Tel 07982 2081. Last used by being driven by a Blackstone Oil Engine (still there) in 1968 with occasional use up to 1981 when it finally closed down. SIAS had a day working there several years ago to clean up the place for the previous owner.

Pulborough Water Mill.

Also up for sale is this mill converted to a residence in 1936 and greatly extended in recent years. No machinery survives. Offers in the region of £295,000 to Martin & Basset, 20 London Road, Horsham, West Sussex. RH12 1AY Tel 0403 54707

### Teatowels.

Just in case you have not visited one of the Sussex mills recently, Peter Hill has organised on behalf of Sussex Mills Group for some teatowels to be printed bearing pictures of 12 Sussex Mills. Most mills have had some but if you missed them Peter still has some and so do I. The price is £2.95, postage extra if you cannot collect.

### Leaflet of mills open to the public.

Our initial effort last year was well received and plans are in hand to produce something a bit better for next year.

### Proposed book on the Watermills of Sussex.

Derek Stidder who recently published the book on the Watermills of Surrey is now working on a book on the water mills of Sussex. Derek is a member of Sussex Mills Group. I exchange information with him and he has completed several record sheets on mills in East Sussex and would be pleased to know of any old photographs of mills.

### Recording

As part of my other hat as recorder of I.A. in Sussex I, of course, include all mills so here are a few comments on water mills that I have come across so far.

Ashington Mill. This is now an animal feeds company with some warehouse type buildings.

No sign of having been a mill

Brewhurst Mill. In good condition and up for sale. It will be interesting to see what happens here.

Burton Mill. Still there complete but not operational.

Cooksbridge Mill. Only the mill pond remains. No signs of the building.

Duncton Mill. Building and some machinery there but used as a store. Building in good condition.

Durford Mill. The building is just recognisable as part of other buildings. The water ways have been filled in. Was used by a manufacturing firm but now empty. No mill machinery.

Fittleworth Mill. Now converted into a dwelling but recognisable with water way still there.

Wassell Mill, Ebernoe. Now used as a dwelling but basic building still recognisable

Hurst Mill, South Harting. Building there but in much need of repair. No machinery. Used as a store.

Halfway Mill, Lodsworth. All demolished and new buildings built over the top.

Stedham Mill. No remains of the building but the mill race can be seen.

Terwick Mill. Used as a dwelling but recognisable as a mill. Not sure how much machinery inside since SIAS last visit several years ago.

Iping Mill. Building now a dwelling but as this was a large site a closer examination is really called for to check how much of all the original area remains.

### IFIELD MILL

The open days at Ifield Mill have been very well attended again this year (1991) with an average of over 200 on each occasion. The June open day was linked to local craft workers exhibiting their skills and this boosted the attendance dramatically. This could well be considered for similar occasions at other mills etc.

Work is progressing on the new spur wheel with the timber now acquired for the clasp arms and jointing well in hand. The only space available for this exercise is on the top (bin) floor and once completed it will be necessary to dismantle the whole wheel, move it down three flights of stairs and then to re-erect in position around the main shaft. Hopefully this will be completed during the winter period. The follow-on to this will be the setting up of hurstings etc. to achieve final drive to one pair of stones.

Further progress has also been made on constructing the remote control system to the main launder. Some of the new metalwork is now to hand and this part of the project which has been outstanding for over 10 years is likely to move forward during 1992.

TED HENBERY



WIND AND WATERMILL SECTION

SUSSEX INDUSTRIAL  
ARCHAEOLOGY SOCIETY  
Registered Char. No. 27159



SUSSEX MILLS GROUP  
Hon Sec D. H. Cox  
3, Middle Road  
Partridge Green  
Joreham  
West Sussex.  
RH13 8JA

Partridge Green 711137



# NATIONAL MILLS DAY

## SUNDAY MAY 10

### Visit Your Local Mill



SUSSEX MILLS GROUP

Sussex mills that we understand will be open to the public

Watermills	Time	Contact
Coultershaw Water Pump, South of Petworth	11 am to 4 pm	R.M. Palmer 0903 50562
Bartley Mill, Bells Yew Green, Frant.	10 am to 6 pm	P.A. Garnham 0892 890372
Woods Mill, Small Dole, Henfield	11 am to 6 pm	Administrator 0273 492630
Lurgashall, Weald & Downland Museum, Singleton	11 am to 5 pm	N. Wilkins 0243 63348
Michelham Priory, Upper Dicker	11 am to 5.50 pm	A.C. Gottlieb 0323 844224
Park Mill, Batemans, Burwash	11 am to 6 pm	Administrator 0435 882303
Ifield Watermill, Crawley	2.30 to 5 pm	E. Henbery 0293 23481
Windmills		
Jill Windmill, Clayton	12 noon to 4 pm	Simon Potter 0273 843297
Polegate Windmill, Nr Eastbourne	10 am to 5 pm	Lawrence Stevens 0323 27765
Kings Mill, Shipley	2.30 to 5 pm	R.L. Spencer 0403 783188
West Blatchington, Hove	2.30 to 5 pm	Peter Hill 0273 776017
Halnaker Mill, North of Chichester	All day	
Lowfield Heath Windmill, Charlwood	2.30 to 5.30 pm	Jean Shelley 0273 862646
Nutley Windmill, Nutley, North of Uckfield	2.30 to 5 pm	B. Pike 0435 873367
High Salvington,	2.30 to 5 pm	Betty Potts 0903 60218
Chailey Heritage Windmill	2.30 to 5 pm	James Down 0825 72 3007

SEE APRIL NEWSLETTER FOR CHANGES & ADDITIONS