



MEMBERSHIP CHANGES

New Members

Mr. & Mrs. G.S. Scott, 7 Petworth Drive, Burgess Hill, West Sussex
RH15 8JT
Mr. R.L. Wilson The Grove House, Little Bognor, Pulborough,
West Sussex, RH20 1JT 079-882-569

OFFICERS

President A.J. Haselfoot
Chairman Air Marshal Sir Frederick Sowrey, Home Farm, Herons Ghyll, Uckfield
Vice Chairman J.S.F. Blackwell, 21 Hythe Rd, Brighton BN1 6JR (0273) 557674
General Sec: R.G. Martin, 42 Falmer Ave, Saltdean, Brighton BN2 8FG
Office (0273) 28479, Home (0273) 303805
Treasurer & J.M.H. Bevan, 12 Charmandean Rd, Worthing BN14 9LB
Membership Sec: (0903) 35421
Editor G. Austen, 1 Mercedes Cottages, St. John's Rd, Haywards Heath
RH16 4EH (0444) 413845
Programme D.H. Cox, 3 Middle Road, Partridge Green, Horsham RH13 8JA
Secretary (0403) 711137
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

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

G.Austen, Brig.A.E.Baxter, Mrs.P.M.Bracher, D.H.Cox, Mrs. D.Durden, F.W.Gregory,
E.W.Henbery, P.J.Holtham, G.E.F.Mead, R.M.Palmer, G.G.Thomerson, M.F.Tighe.
Copy for the Newsletter should be sent to:
G.G. Thomerson, 42 Gander Hill, Haywards Heath, West Sussex RH16 1RD (0444) 4507

LATEST DATE FOR COPY FOR OCTOBER NEWSLETTER IS 10th SEPTEMBER.

NEWSLETTER No. 67

ISSN 0263 516X

Price 25p to non-Members

July 1990

CHIEF CONTENTS

Medhursts of Lewes - Millwrights
Upfields of Hastings - Millwrights
Washington Sandpits
Amberley Chalk Pits Museum
The Madeira Lift Centenary Celebrations
No Escape - Industrial Archaeology on Holiday!

PROGRAMME OF VISITS FOR 1990

18th August Saturday 2.00 p.m. Visit to Hastings. A Tour led by Barry Funnell.
This visit is unfortunately cancelled due to ill health of the tour leader.
22nd September Saturday 10.30 a.m. All day Mystery Tour of Mills led by Mills
Group Secretary. Meet at Bartley Watermill just off B2169 Lamberhurst.
21st October 2.30 p.m. Sunday. Mills Group Get Together at Polegate Windmill
with talk on the mill and a guided tour, plus time for social chat.
24th November 2.30 p.m. Saturday. Annual General Meeting followed by a talk.
Friends' Meeting House, Friars Walk, Lewes.
1st February 1991 Mills Group AGM.

For all visits it is IMPORTANT to know how many people are coming. Please let
the contact person know of your intention to attend at least seven days before
the visit.

Programme Co-ordinator D.H. Cox,
3 Middle Road,
Partridge Green,
Horsham.
Tel:- 0403 711137

Further dates of interest:

I would like to draw members attention to 'Diary Items' that may interest them over
the following year

Tuesday 25 September at 10.15 a.m. Franklands Village Hall, Haywards Heath when
I talk to Mid-Sussex Local History Group on Sussex Leather trades.

Tuesday 2 October at 7.30 p.m. a 20 week course on Sussex landscapes starts at a
W.E.A. class in Union Place, Worthing.

Wednesday 7 November at 7.30 p.m. in Ecoth Museum, Dyke Road, Brighton, a joint
meeting of Brighton & Hove Geological Society and Stanmer Preservation Trust
when I will give an illustrated talk on the 'Building materials of Stanmer
House 1722-1727'.

Monday 7 January 1991 at 2.30 p.m. Corsica Hall, Seaford, a 10 week course on
Industrial Landscapes of Sussex

AREA SECRETARIES' REPORTS

WESTERN AREA

Coultershaw Pump

The number of visitors on open days is showing an encouraging increase; however, attendance on National Mills Day, for which we opened specially, was disappointing.

The National Rivers Authority has raised the level of the side weir by 6 inches, resulting in a significant improvement in pump performance - fountain height is now a comfortable 15 feet!

One of the pump beams from Bignor Park (see SIH No 19) has been added to the display.

I.A. Recording

The Worthing survey group is arranging a meeting with Joan Ham in Storrington, with a view to getting IA features there on to the Society's record sheets.

MICHAEL PALMER

NORTHERN AREA

On Saturday 12th May the Sussex Radio organised a live 'Phone in' involving many of the Mills to be open to the public on National Mills Open Day (13th). I am sure that the Mills Group would hail this event as a great success and one effect was a dramatic increase in the attendance at Ifield Mill where over 350 people visited in the 2½ hours that it was open!

May I remind Members that we will be open on the last Sunday (2.30-5.00 pm) each month until the end of September.

At the Charwood Aviaries the Lowfield Heath Windmill was officially opened by HRH Princess Alexandra on April 10th. One pair of English sweeps had been fitted (just) in time and the body was turned into wind. There was insufficient breeze available at the critical moment but they were turned by hand as a symbolic gesture. Princess Alexandra showed great interest in the project and her presence, together with the fine weather, made it a memorable day.

Much still remains to be done both to the interior and the roundhouse and Peter James would appreciate a phone call from anyone able to help.

TED HEMBERY

BREDE PUMPING STATION

About 25 Members and guests visited the Breda Pumping Station on Saturday, 21st April, at the invitation of Southern Water Services, Ltd. We were shown around the station by Mr. Phillip Moore, the Assistant Area Manager. He explained that the site was developed in the late 1890s, with three 10 feet diameter wells, 275 feet deep and 2,700 feet of connecting adits. The first pump house was built in 1904, a fine classical structure in red brick with terra-cotta dressings and a Doric door casing. There were originally two three-cylinder Tangye triple expansion engines developing 410 h.p. and capable of pumping 80,000 gallons per hour to a height of 515 feet. Only one now remains, not in working order but in reasonable condition, the boilers and chimney having been removed.

In the early 1930s the Powdermill Reservoir at Sedlescombe was built to provide additional capacity and in 1938 work on Darwell Reservoir was commenced. This was abandoned during the war years and completed and opened by the Duke of Norfolk in 1950. To cope with the anticipated additional load a new pump house was built in

1939 to house a Worthington Simpson steam engine of 420 h.p. capable of pumping 151,200 gallons per hour. This engine is also now disused.

The Station now accepts water from the two reservoirs and does not normally draw from its own wells. The water is first chlorinated by manual application, followed by clarification using polyaluminium chloride which forms a flock, attracting the dirt which then settles to the bottom as a sludge, being then transferred to sludge lagoons. Lime is added to the water after it has passed through sand filters. There is a final check with monitoring being done by Southern Water's headquarters at Falmer. The water is then pumped into reservoirs for distribution using electric pumps.

Much of the workings at the Station are now carried out manually but it is to be modernised shortly, to be replaced by a fully automated system which is due to be operational in two years time. This station will then supplement the operation at Beauport.

It is hoped that the two steam engines can be preserved in situ together with the existing engine houses.

RON MARTIN

MEDHURST OF LEWES Millwrights

I was most interested to read the account of the Medhurst grave markers in the April newsletter by Tony & Mary Yoward.

These cast iron deadboards first came to my attention during a search through the Sussex County Magazine for references to windmills in the county some years ago. Mr Aubrey Ruff gave a personal account of the Medhurst family entitled 'The Medhursts of Lewes'. Mr Ruff was a great great grandson of William Medhurst of 'St. Annes' the brother of Samuel Medhurst the Lewes millwright. He was also able to see and talk to Samuel's granddaughter Kate. I won't attempt to define the family relationship between Aubrey and Kate.

William Medhurst the elder 'of Beddingham' had two sons William 'of St. Annes' and Samuel. In 1825 these were to set up as millwrights at the yard of Jesse Pumphrey almost opposite St. Anne's church, Lewes. For one reason or another William later forsook the business to return to the family trade, milling. This left 'Samuel Medhurst & Son'. At the time the & Son was William 'of Ranscombe' but he too was to part with Samuel to take up farming and in turn had two sons William junior and Frank. I wondered whether this might have been the Frank whose grave marker Tony & Mary had found in Southover but William 'of Ranscombe' was only 15 when this Frank Medhurst died in 1843. Could it be that William of 'St. Annes' had a son Frank and this is his grave? or perhaps not related at all.

Putting the foregoing to one side for a moment, the row of grave markers in St. Anne's churchyard is a sad memorial to a dynasty that never truly was. Samuel headed the firm of millwrights for 45 years until he retired in 1870. William 'of Ranscombe' should have succeeded him, being the eldest son. In the event, Boaz, the second eldest, had worked with his father and it was he that took over until his death at the age of 36 in 1878. Samuel in his 79th year was too old to continue himself. His third son Mark did not follow on. The business was then taken on by Alfred Shaw.

The grave markers show that Samuel died in 1867 outliving 10 of his children and his wife Philadelphia, however there were 11 children. Ironically the only one to survive was William 'of Ranscombe' the intended heir. William lived at Ranscombe Farm South Malling until his death in 1915 without taking any apparent interest in the very well-known and respected firm of Lewes millwrights.

M. BRUNNARIUS

Ref:

- Sussex County Magazine 1952 p8
- SIH 17 1987 Jesse Pumphery Millwright
- Photographs of the grave markers and Samuel Medhurst at his yard may be found in "The Windmills of Sussex".

M. BRUNNARIUS

UPFIELDS OF HASTINGS Millwrights

Of equal interest to the above note was the request for information by Mrs. Dorothy Shrimpton again in the April Newsletter.

The earliest reference that I have for the Upfield firm of millwrights is for Thomas Upfield who is shown in Kelly's Directory for 1855 at Warbleton as Millwright. He is understood to have built the smock mill at Dallington in 1851. Tradition has it that he constructed most of the mill on Rushlake Green before carting the structure in pieces the four miles to be erected on the mill site. A portion of the base is still standing there today. Steven Neve took on the business and is shown at Warbleton in 1858. Mr Sidney Ashdown of Cross-in-Hand Mill understood that Thomas Upfield was Steven's uncle. Be that as it may, Upfields the Catsfield firm of millwrights was started by John Upfield in 1849 and whilst the firm carried the Upfield name through until modern times, he actually retired in favour of his sons-in-law Mr Alfred Blackman and Mr Frederick Hobbs of Catsfield in 1884.

John Upfield was involved with a great deal of wind and water mill work in East Sussex, one of the most outstanding of which was the erection in 1867 of a new smock mill with four pairs of stones for Mr Draper at Silverhill in Hastings. This stood for almost 100 years before being taken down. Much of the firm's work is still in evidence today.

Some time ago I contacted the firm in Hastings, still known as Upfield & Sons, and Mr Harold Rogers, who had started with them in 1929, was kind enough to supply me with some details of the history of the families involved. Most of the information is to be found in an article published in the Hastings & St Leonards Observer in 1929 with photographs of John Upfield and members of the Blackman family.

Apparently Mr Upfield was involved in the removal of the last Sussex tilt hammer at Ashburnham forge in his early days. His interest in innovation led him to establish a working relationship with the young hydraulic press manufacturing company Tangye Brothers which was to last through three generations, continued by Alfred Blackman. He was responsible for installing many Tangye suction gas and oil engines in the area. Early work in water pumping, gas producing and electricity generation was carried out in turn as technology progressed. Thomas (Earl) Brasey the son of the pioneering navy contractor employed Upfields for gas producer and pumping plant when Normanhurst Court was built. Much of the engine work was with plant rated between 50 and 150 ihp, totalling over 3,000 HP by 1929. However no mention is made of steam working. The pumping engine at Brede recently visited by S.I.A.S. is a 410 HP triple expansion steam engine and would I think have been erected and commissioned by Tangyes themselves, perhaps assisted by Upfields the local agents.

The firm moved to George Street, Hastings in 1893 and then to High Street in 1897. They still supported a lot of wind, water and power mill work at the time as well as engine installation. The First World War brought munitions work and afterwards a move was made towards general engineering under Henry and Bernard Blackman.

During 1947 Mr R. Carr Taylor acquired the company and continued until 1981 retaining the name 'Upfield & Sons'. The company was liquidated and until recently (if not still) trading as Upfield Engineering a division of Fermar Avionics Ltd:

Mechanical Engineering, machine installations, welding and structural engineering.

M. BRUNNARIUS

Ref:

Hastings & St Leonards Observer 23 Feb. 1929 "Eighty Years of Engineering"
My thanks for kind assistance from Mr Harold Rogers.

WASHINGTON SANDPITS

I am undertaking some research into the series of sandpits north of Washington, West Sussex, variously known as Rock or Rock Common workings. Very little appears to be written on these quarries but I have been able to piece together a few facts - mostly geological - and I need some historical depth.

The 1910 O.S. 6" map shows a small pit south of Rock windmill and a larger one west of the A24. These probably supplied a small quantity of building sand and sandstone blocks to the local area and originated from commoners rights to extract sand from Washington, Rock and New Commons. In some instances this right was granted by the Lord of the manor and a fine was paid for the privilege.

The quarries lie on the Lower Greensand, Folkestone Beds, a poorly consolidated quartzose sand, 100 ft thick at Washington. The extracted sand is used as a washed soft building sand, the finer material is used as an aggregate in hot asphalt work and coarse material compressed into wall blocks, concrete roof tiles, paving stones and calcium silicate bricks. Seams of Carstone - a ferruginous sandstone - are exploited for use as a hard building stone, with an increasing quantity going to garden centres for use as rockery stone.

The four pits at Washington are easily worked with no blasting needed or dredging, two have washing facilities but all four produce unwashed sand. The eastern pit has now ceased production and is being used as a landfill site for domestic and building rubbish.

At Pulborough, six miles west, there are sand quarries and mines which were excavated in a 'pillar and stall' method but this is the only reference I have found to historical activity in this industry which has had such a visual impact on the heathlands of West Sussex.

If members have any information they can let me know of I would be most grateful if they could contact me direct or through the Newsletter. I am interested in both historical or contemporary information.

GEOFFREY MEAD

References:-

- B. Young and R.D. Lake, "Geology of the country around Brighton and Worthing" (1988)
- Proceedings of the Geologists Association vol 86 part 4 (1975)
- Paul W. Sowan, "Mining in Sussex" SIH 14 (1984)

AMBERLEY CHALK PITS MUSEUM

Work on the rebuilding of the Horsham Wheelwright's Shop has been temporarily halted until further funds are available. The quality of workmanship in brick and stone-work is excellent and it is hoped that work will resume very soon.

Meanwhile, the Museum carpenter is making replicas of the window frames and hopefully a glazier will shortly begin the delicate task of transferring the many pieces of crown glass from the old frames to the new.

Work is well in hand with the conservation of one of our farm waggons, and on a baker's barrow; whilst Gordon Thomerson has begun to conserve the winch for the carriage hoist.

A chance offer of a wheelwright's scrapheap provided us with some very useful items of equipment and stock, including a boxing engine and some waggon axles and fittings. More tools and particularly furniture and equipment are still required and we would be grateful for information leading to their acquisition.

The machine shop extension is well underway with Gerry Nutbeem and his Wednesday team; and two working machines, a planer and a slotter, are expected from Messrs. Holes of Burgess Hill. The range of engineering machinery provides an excellent exhibit and a vital service for the Museum as well.

The new wood turner's shop in our timberyard is now in operation with power supplied by an interesting Longborough College engine. Also new in the timberyard is a gulletting machine made from two machines acquired, by coincidence, in the same month from Knepp castle and Leconfield Estates. The Marshall portable and the Smith crane have both been in steam this season, usually on the last Sunday of each month, with oil engine-driven machinery operated more frequently.

As ever, more volunteers would be welcomed to help in all aspects of running the Museum. As the busiest part of the season approaches, anyone with the odd afternoon to spare could provide an important stewarding service around the site talking to visitors and ensuring security of exhibits. If you can offer some time please contact the Museum office.

MIKE WALL
Curator

MADEIRA LIFT 1890-1990

A visit to Brighton cannot be considered complete without experiencing Madeira Terrace, a unique example of Victorian engineering which stretches for half a mile along the sea wall between the Aquarium and Duke's Mound. The development, which includes a working lift and a Shelter Hall is of an Oriental design similar to the Royal Pavilion, and is both functional and fascinating.

Controversial at the time it was built, the Brighton Gazette and Sussex Telegraph reported only a few years later that its building had been justified. Owned by Brighton Borough Council and protected as a Grade 2 listed building, it looks much the same today as it did a hundred years ago, and continues to be enjoyed by both residents and visitors.

In spite of a threatened injunction from residents who objected to the scheme and which delayed building work, the Madeira Terrace development was officially declared open to the public just in time for the busy Whitsun holiday, on Saturday May 24th 1890 - Queen Victoria's 71st birthday.

Erected under the provisions of the Improvement Act of 1884, the plans had been drawn up by the Borough Surveyor, Philip C. Lockwood, in response to the increasing competition among seaside resorts to attract visitors, various schemes for the development of the eastern seafront - both fantastic and very expensive - had been proposed, but few had been adopted. The present sloping sea wall had been built below Marine Parade in 1837 and Madeira Road was made into a promenade in 1872 - the same year that the Aquarium opened. In 1883 Magnus Volk started to run his revolutionary electric railway along the seafront. Madeira Road with its 'singularly mild and agreeable' weather 'found increasing favour with the public, and especially with invalids for walking and carriage exercise.'

It was hoped that the new Lift would enable many more members of the public to reach Madeira Road where the covered walkway and the Shelter Hall with its reading, refresh-

ment and toilet facilities would encourage them to stay there whatever the weather. Brighton Corporation contracted Messrs. Longley and Sons of Crawley to carry out the new development at a total cost of £28,000. By 1890 they had only built the easternmost section of the Terrace, between the Royal Crescent and Paston Place steps, on either side of the Shelter Hall. The full length of 2,836 feet was completed in 1897.

Girders and columns, linked by decorative cast-iron lattice work arches with moulded heads of Neptune and Aphrodite at their apex, support the Terrace and form an interesting framework along the covered walkway below. A small gap was left between the sea wall and the terrace, which projects from it, to allow the ivy and euonymous planted in 1879 to grow freely up the wall. This gap was condemned at the time it was built as a 'patent draft collector' and a danger to small children, who might roll under the continuous wooden seating at the back of the Terrace and down to Madeira Road. It is now covered by grilles and concrete plant troughs, and the continuous seating has been replaced by smaller benches. A verandah covers the Lift entrance on the Terrace.

The entrance to the Lift on Marine Parade - 'an elegantly constructed kiosk' of Indian teak - has a domed roof covered in ornamental style with copper. A griffin decorates each of the four corners, with four dolphins and an iron weather vane on top. At one time covered seats surrounded the building on three sides, but the seat on the seaward side has been replaced by an addition to the building itself.

The Lift, built by the Hydraulic Engineering Company of Chester was originally operated by water pressure. The red brick lift shaft was designed with ventilation flues from the main sewer pipe running up each of its four corners and into the roof of the kiosk. The original lift cage, supplied by Messrs. Hughes and Company of Euston Road, London, rested on a hollow steel ram, four and three quarter inches in diameter, worked up and down by water from the town mains - up to 90 gallons each time the cage was raised from Madeira Road to Marine Parade. It was considered to be extremely safe, providing such a smooth ride that the Sussex Daily News commented: 'when the cage arrives at the top one can scarcely realise that the journey has been commenced.' Described as a 'beautifully fitted little compartment in walnut wood' the cage was decorated with mirrors, gilt panels, and medallions. It had a roof made of glass so that it was 'well lighted at all points of ascent.' A 'handchair' could be easily transported and from 8 to 15 people could be carried at any one time (estimates varied) for a charge of a halfpenny each way. The present electrically-powered lift cage carries only 6 people and has none of the adornments of the original.

On Madeira Road the doors in the centre of the two hundred foot long Shelter Hall lead into a small lobby with an inner screen designed to prevent draughts, and then into a central hall, originally 87 feet long and 33 feet deep, at the back of which is the entrance to the lift shaft. On each side of the central hall there was a room, each measuring 56 feet by 26 feet, with wood panelled ceilings and walls.

Today one can only imagine these 'light, airy, artistic, and altogether pleasant' rooms where visitors could browse through newspapers and periodicals in the Reading Room for a charge of one penny, consult timetables, and obtain refreshments.

The sea-facing side of the Shelter Hall is mainly glazed. The semi-circular shaped floral designs in the top windows contained stained glass which can still be seen from inside the present Ladies' toilet. A verandah front originally 'neatly painted in Oriental style' was designed to reduce the glare of the sun in mid-summer.

While the exterior of the Terrace development has remained virtually the same, Madeira Road (or Madeira Drive as it is now known) has changed considerably over the years. In 1890 it was only 60 feet wide (including the width of the Shelter Hall) but after the great storm of 1896, which washed away part of Volks railway line and damaged the roadway, it was widened to 100 feet and the railway was moved to its present position.

The first 'motor tour' from London to Brighton - now called the Veteran Car Run - was celebrated here in November 1896. In the same year a drinking fountain was erected to the west of the Shelter Hall on Madeira Road - a marble plinth with an inscription is all that remains.

By the end of the 1890s a bandstand of similar design to the Terrace development had been erected opposite the Shelter Hall between lawns which had been laid on the beach in 1889. Both the bandstand and lawns have since disappeared along with Victorian bathing machines and the horse-drawn carriages which once paraded along the promenade.

By 1905 tarmac has replaced loose chippings on Madeira Drive, largely due to a campaign by Sir Harry Preston who pioneered the Speed Trials. During this century Madeira Drive has been increasingly used as a venue for large national and international events which sometimes attract tens of thousands of people who use the Lift and Terrace to enable them to get a grandstand view.

Main historical sources:

Brighton Examiner May 27th 1890
Sussex Daily News May 24th 1890
Brighton Argus May 24th 1890
The Brighton Guardian and Hove Recorder May 28th 1890
Brighton Gazette and Sussex Telegraph May 5th 1898
WH Attwick Jubilee of the Brighton Corporation 1854-1904
Ward Lock & Co. Illustrated Guide Books
East Sussex County Record Office
Brighton Borough Council Plan Registry

MADEIRA LIFT CENTENARY CELEBRATION

As part of the centenary celebrations the Lewis Cohen Urban Studies Centre at Brighton Polytechnic has put together a display of original plans - mainly contract drawings which are attractive to look at and technically interesting - and photographs which have been enlarged from postcards and original photographs of the 1890s and early 1900s - including one taken by A J Henderson of the official opening in 1890.

The display can be seen at the Brighton Centre, King's Road, Brighton during European Tourism Week - Saturday 28th July until Saturday 4th August - excluding Sunday - daily 10 am to 5.30 pm (or later when a show is on).

Copies of some of the photographs in the display are available to order. Order forms will be available at the Brighton Centre and from the Lewis Cohen Urban Studies Centre at Brighton Polytechnic.

The display has been sponsored by James Longley & Co. Ltd and Brighton Borough Council.

For further information please contact:

Denise Francis, Lewis Cohen Urban Studies Centre at Brighton Polytechnic
68 Grand Parade, Brighton BN2 6RF Tel: (0273) 673416.

LIFTS AND CLIFF RAILWAYS

If any member has any information on cliff railways and lifts will they please pass it to M.F. Tighe who is researching them. His address is Beech Cottage, Priory Road, Forest Row RH18 5HP.

NO ESCAPE INDUSTRIAL ARCHAEOLOGY ON HOLIDAY!

As the holiday season seems to last the whole year for some people! - I thought it might be useful if members could write a short piece for the Newsletter on items of I.A. interest spotted on their hols. It would solve a dual role, firstly Gordon is always looking for extra material and new correspondents, secondly it might solve the holiday dilemma of "what do we do today?"

This April I made a return visit to St Agnes, Cornwall, which is on the north coast between St Ives and Newquay and about 9 miles from Truro which has main-line B.R. expresses and a National Express bus station. The town of St Agnes is about the size of Steyning and similar in form with a long high street and all facilities - including 4 pubs! This is the heart of the Cornish mining district and the remains of this once vast industry are enormous in number and size.

Geologically the area is one of compressed gritstones and shales into which molten igneous rock - granite, quartz and mineral rich waters were injected. The area about 300 ft above sea level is dominated by the granite 'boss' or intrusion of St Agnes Beacon which rises to 628 ft. The tremendous heat of this granite forcing its way to the surface caused the surrounding area or aureole to change its character leaving veins or lodes of minerals coursing through the surrounding grits and shales. The remains of the mines for these minerals litter and scar the country for miles around. Tin principally, but copper, zinc, lead and arsenic were all worked and the 'deads' or crushed discarded stone-waste form great heaps all along the coast, most still sterile and unclad by any form of vegetation. Engine houses built to pump out the mine water run in line ahead along the lodes, some are restored, some very romantic ruins akin to ruined churches. There are literally scores of them and in some form or other intrude on any view or photograph. They are natural postcard subjects!

The mines closed down mostly before WWII and now only South Crofty at Cambourne remains open though Geevor near Lands End is still quoted on the Stock Market. The area has some affinity to our own Weald, a difficult farming area with an historic mineral industry that suffered economic decline and left a legacy of remains. Except in the case of Cornwall, the remains are only 60-70 years old and their appearance must bear some resemblance to that of the Weald in the 1700s.

As a social historian I found the uses the land has been put to after the mining demise very interesting. Again similar to the Weald, villages are not compact but straggle and sprawl up hillsides, down valleys with little form or structure, in obscure coombes, a waste of mining debris sprouts car breakers, garages, workshops, caravan sites, small factory units.

The scenery is spectacular and off-peak season quiet and deserted, natives very friendly and shops stay open incredible hours! I can recommend the spot for a relaxing, strolling, non-nightlife holiday.

GEOFFREY MEAD

LIONEL SMITH - A WANTED MAN

Following the piece in Newsletter 66 about the horse bus found at Pyecombe, I have received a letter from Lionel Smith of Upper Shoreham Road, Shoreham-by-Sea. Unfortunately Mr Smith did not put a house number or telephone number on the letter and I have been unable to trace him. He saw the article in a Newsletter shown him by an acquaintance, presumably one of our members.

If anyone knows this Mr Smith could they either contact me or ask him to let me know.

Lionel says in his letter that - "on a walk last year I saw a similar car in a somewhat better state of preservation on a piece of waste ground to the south of the railway land between Lancing and Shoreham airport."

Perhaps members in that area could check on this and if possible give an exact grid reference so that the Society could contact its owner.

GEOFFREY MEAD

BOOK REVIEW

Janet Pennington, The Chequer Inn, Steyning. Lancing Press 1990 pp 56 £4.50

This book is a labour of love for Janet Pennington. The Chequer is her local! but what luck to have such a local and what skill of Janet to write this scholarly work. As a geographer I was pleased to note it opens with a section of an 1985 map locating the inn and its attendant lands and that the Chequer does indeed have a 'sense of place', for the history of the town flowed past and through its taproom and bars.

Mentioned in a 1653 quote as having - "my hostess fat and fair," the Chequer continued to delight travellers and residents over the following 337 years! indeed longer, as the inn was well established in its medieval hall house long before that.

Members of this Society will find many items of interest in the book. During the seventeenth century the land behind in Chequer Lane was used by clothworkers in the preparation of their product and at a later date, flaxdressers were involved in the pub lands. Its transport function as a posting and coaching inn is obvious but in spite of Steyning being referred to as "a mean and contemptible place" in the eighteenth century, the town contained a variety of industries. The book refers to the tanyard, soapworkers, woolstaplers and timber hauliers and, of course, brewers; a curious fact concerning the latter being that in 1461 Steyning had four 'common brewers' but only three innkeepers!

A well written account, backed up by three good maps, fifteen photographs and nine copies of contemporary documents. Most importantly, it is referenced and sourced impeccably, with 82 reference numbers listing 128 separate documents plus 2 pages of primary sources and one of secondary. It is no more than we could expect from the daughter of our late member and distinguished historian Eric Holden.

A.I.A. REVIEW INDEX

CONTENTS Vol IX No.2 Spring 1987 continued

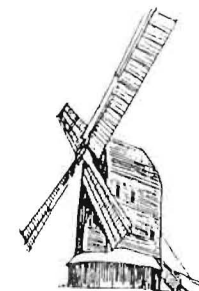
BOOK REVIEWS

Tin in Antiquity, by Roger D. Penhallurick (P.T. CRADDOCK)
The Mines and Miners of Dartmoor, by Tom Greeves (PETER A. NEAVERSON)
Mechanical Arts and Merchandise: Industrial Espionage and Travellers' Accounts as a Source for Technical Historians AND Ferner's Journal 1759/60, An Industrial Spy in Bath and Bristol, by A.P. Woolrich (J.R. HARRIS)
Dockland. An Illustrated Historical Survey of Life and Work in East London, ed. by R.J.M. Carr (R.C. RILEY)
Dead Tech, A Guide to the Archaeology of Tomorrow, by Rolf Steinberg and Manfred Hamm (R.J.M. CARR)
Essex Windmills, Millers and Millwrights, by Kenneth G. Farries (J. KENNETH MAJOR)

Also Received 207
AIA Abstracts 211
Notes and News 215



Batemans Watermill



High Salvington Windmill

The aims of the group are:-

- (a) to promote the preservation and restoration of mills and related objects of historical or technical importance,
- (b) to record the physical remains of mills and their related activities in the counties of East Sussex and West Sussex,
- (c) to study and preserve documentary and other types of records relating to the milling history of East and West Sussex,
- (d) to publish the results of such recording and study,
- (e) to provide a forum for related societies,
- (f) to promote educational involvement with related projects before, during and after restoration.

The officers of the group are:-

Chairmen	F.W. Gregory, "Maldon", Maldon Road, Brighton, East Sussex BN1 5BE	0273 505754
Secretary	D.H. Cox, 3 Middle Road, Partridge Green, Horsham, West Sussex RH13 8JA	0403 711137
Committee	P.J. Hill, 97 Holmes Avenue, Hove East Sussex BN3 7LE	0273 776017
	J. Muddle, Upper Mill, Plumpton Lane, Plumpton, Lewes, East Sussex BN7 3AH	0273 890418
	P. Pearce, 24 Angus Road, Goring by Sea, Worthing, West Sussex BN12 4BL	0903 41169
	B. Pike, Stream Cottage, Coggins Mill, Mayfield, East Sussex TN20 6UP	0435 873367
	S. Potter, Clayton Holt Lodge, Clayton, Hassocks, West Sussex BN6 9PL	0791 83297

With no volunteer for the position of editor for the mills group, here goes again with yours truly having another go at putting together some news etc.. Time is a bit short as I am about to go on holiday. I have asked to group ALL the mills news together. That might improve the mills group section.

The following is an extract from the Chairman's Report in the newsletter from the Friends of High Salvington Mill.

THE MILL

The last six months have seen a major change in the appearance of the mill, in the replacement of the old octagonal concrete roundhouse with a circular one of wood and brick construction, similar to that at the turn of the last century.

Over the past year work inside the mill has progressed at a slower rate than was anticipated, due to problems encountered when securing the bed stone at the front of the mill. However, two grain bins have been built on the dust floor at the top of the mill and the drive wheel of the lower chain hoist has been replaced.

This is an extract from the Friends of Lowfield Heath Windmill newsletter for May 1990 from Jean Shelley.

From the end of October the volunteers had five very busy months, starting with weather-boarding the mill. There were many jobs to do. The complicated weather-boarding on the breast was all done by Keith. One had to admire his patience and good humour as he persevered with the same job every Sunday throughout the Winter. Peter James, the leader, worked out the solutions to many problems and did many tasks, especially the striking gear on the rear of the mill. Andrew remade the wheel of that assembly and deserves our congratulations for it. Barry took on the window shutters and their awnings and did a meticulous job and then made the doors, which are fitted with hinges, probably as old as the mill itself. How to reach the top of the mill to put on the top coat of paint needed a bit of thinking about but we got over the problem by erecting tower scaffolding on top of the ordinary scaffolding, plus a ladder on the tower and Andrew and Jack at the top of the ladder!

In March two big problems were solved by the combined efforts of Peter and John. The first was changing the rear bearing under the windshaft and the second inserting the striking rod (26 ft long and 1½ inch diameter) through the hole in the windshaft, which is horizontal and 37 ft above the ground. Both tasks had tense and exciting moments, but were very satisfactorily achieved. Also during March the oak steps which we had hoped to renew but had neither the money nor time to do, were reconstructed and lengthened. Other volunteers helped with many varied tasks, especially Jack and Ron, who were there every Sunday and their skills came into the picture all the time. A very big thank you to you all.

March 26th was the day that the scaffolding was removed by the contractors and so ended a memorable period of the mill's restoration. Although it was Winter, many bright sunny days had been spent on the scaffolding - and a few cold ones, damp ones and windy ones. It was great up there! The following Sunday the steps were lifted with winches etc. and fixed into place. They added stability and balance to the mill. At that point the volunteers work was done and it was the millwrights' turn.

The new stocks had been shaped in Edolphs Barn and the sweeps themselves made at millwrights' workshops at Charlton in West Sussex. On April 5th the stocks and one pair of sweeps arrived at the mill, also a crane. Firstly they were fitted together on the ground, then taken apart again and then the crane lifted the stocks and put them in place in the canister. Peter Darby then fixed them, both entertaining and alarming his audience by his precarious position on the canister (the metal part into which the stocks fit). Eventually the sails were fixed and then a snag was discovered. The sails just touched the top of the mill as they turned! The reason, we realized too late, was that when the roof was rebuilt in 1958, the top of the cap had not been shaped back enough. It did not matter at the time as there were no sails. The short term answer was to remove the top two or three weather boards, but in the next few months some alterations must be made to reshape that part of the cap and also move the stocks forward three inches.

The remaining work was the erection of the tail pole, the removal of the underpinning, (a moment of truth), and the turning of the mill itself! All this was achieved by sunset on April 9th. We congratulate Peter Darby and his team.

The next day, April 10th, was the great day we had been working towards; the visit of Princess Alexandra to our Ceremony of Restoration - and a very happy afternoon it was. She was so friendly yet regal and talked to a great number of people. The sails were turned by the millwrights using ropes and turned quite quickly, then the mill itself was rotated to the crowd's surprise.

A Sunday tidying up, a couple visiting other mills and now-work has started again. The tail pole will have the temporary rope replaced by a metal chain shortly. A proper floor will be put on to the lowest floor of the mill, called the spout floor. The floor above that, on a level with the crown tree, is called the stone floor. One day, a spout will bring the flour down into the waiting sacks! A major job to be tackled this Summer is constructing a roof to the roundhouse. By the way, the sails will normally be left facing west as in the event of a gale this is usually the best position.

Future progress in completing the restoration of the windmill, for example making the second pair of sails, now depends on how much money we can raise. On May 13th, when the mill was open to visitors we collected over £30 in donations. Would anyone like to help us by offering to be at the windmill on other days to collect donations? If you would be prepared to sit in a chair in the sun on any Sunday afternoon, please give me a ring on 862646.

MILLS DAY 1990

This came and went all too quickly. We managed to produce a list at the last minute showing that 16 mills would be open in Sussex on that day. Next year I hope that you will all have a copy of the list so there will be no excuse for not at least visiting a mill or two, and even perhaps lending a hand at those that are desperate for help.

Simon did us proud on Radio Sussex with the whole of their 3 hours Saturday morning programme centered around mills. Simon was in their studio and radio visits were made to several people who spoke about their mills. Well done Simon and all who took part.

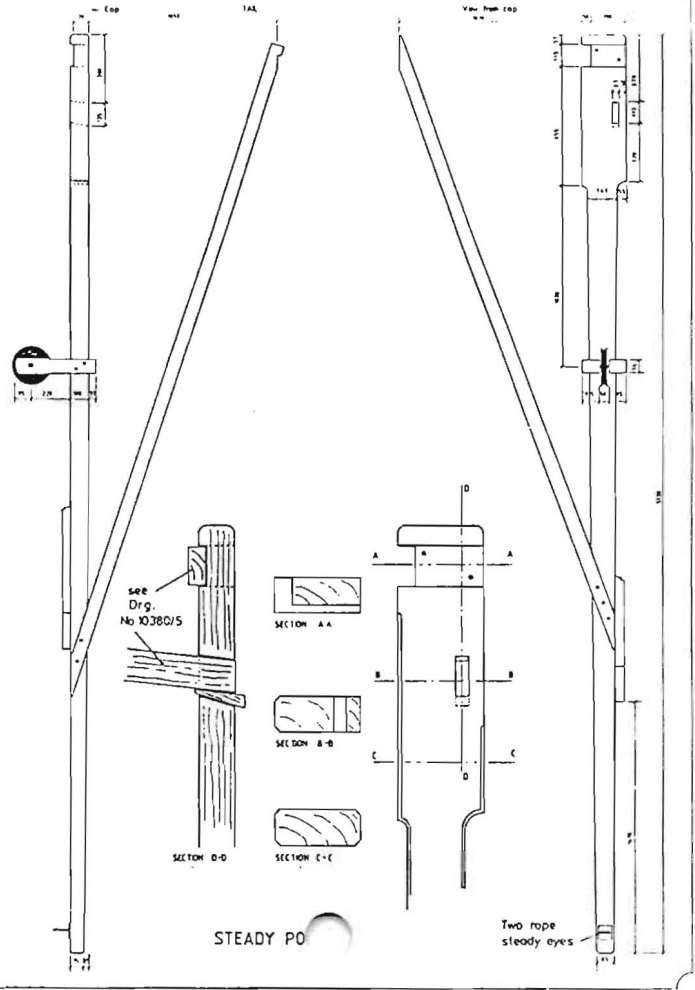
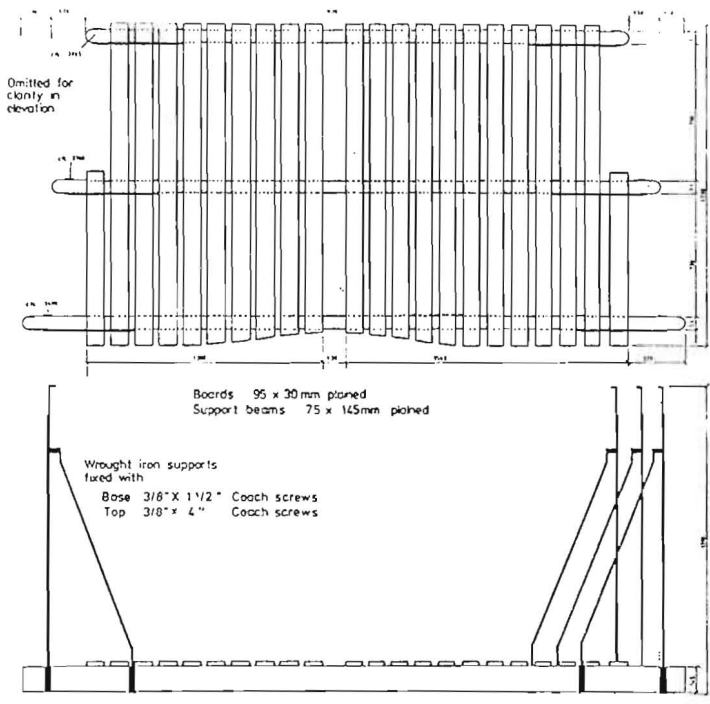
MILL REPAIRS - PATCHAM

In the 1989/90 Autumn and Spring gales, Patcham Windmill in East Sussex suffered severe structural damage.

The wedging blocks around the brake wheel were smashed away, allowing the skeletal sweeps to turn. The brake shoe was discovered to be worn out, being rotted at the top and providing a much sought after feeding ground for wood boring insects of various types (mainly *Ptilinus pectinicornis* and *Anobium punctatum*). This brake shoe has been replaced in ash using existing metal work where possible.

In the January storm the fan suffered the severest damage with the spines of some blades being broken, the spider-casting on which they were fixed being cracked and the square shaft it was keyed on to being damaged beyond repair. The British Engineerium based in Hove, has repaired the casting and made a new shaft and bearings. The fan will be replaced with a skeletal frame to reduce the future strain on an already weakened cap frame. The lower staging and tail pole were removed along with the luffing and striking gear to reduce the load on the rotten timbers of the cap frame. The metal work which was removed has all been labelled and dimensioned drawings produced of the timbers removed to aid rebuilding at a future date. The drawings provide enough information to enable new parts to be produced to match those which have deteriorated beyond reuse and repair. This type of documentary information is essential when buildings and machinery are dismantled. Without such information, backed up by written accounts of disassembly and copious photographs, their future may well be jeopardised and their functional appearance lost. The original drawings are A.1 size and are held by the author.

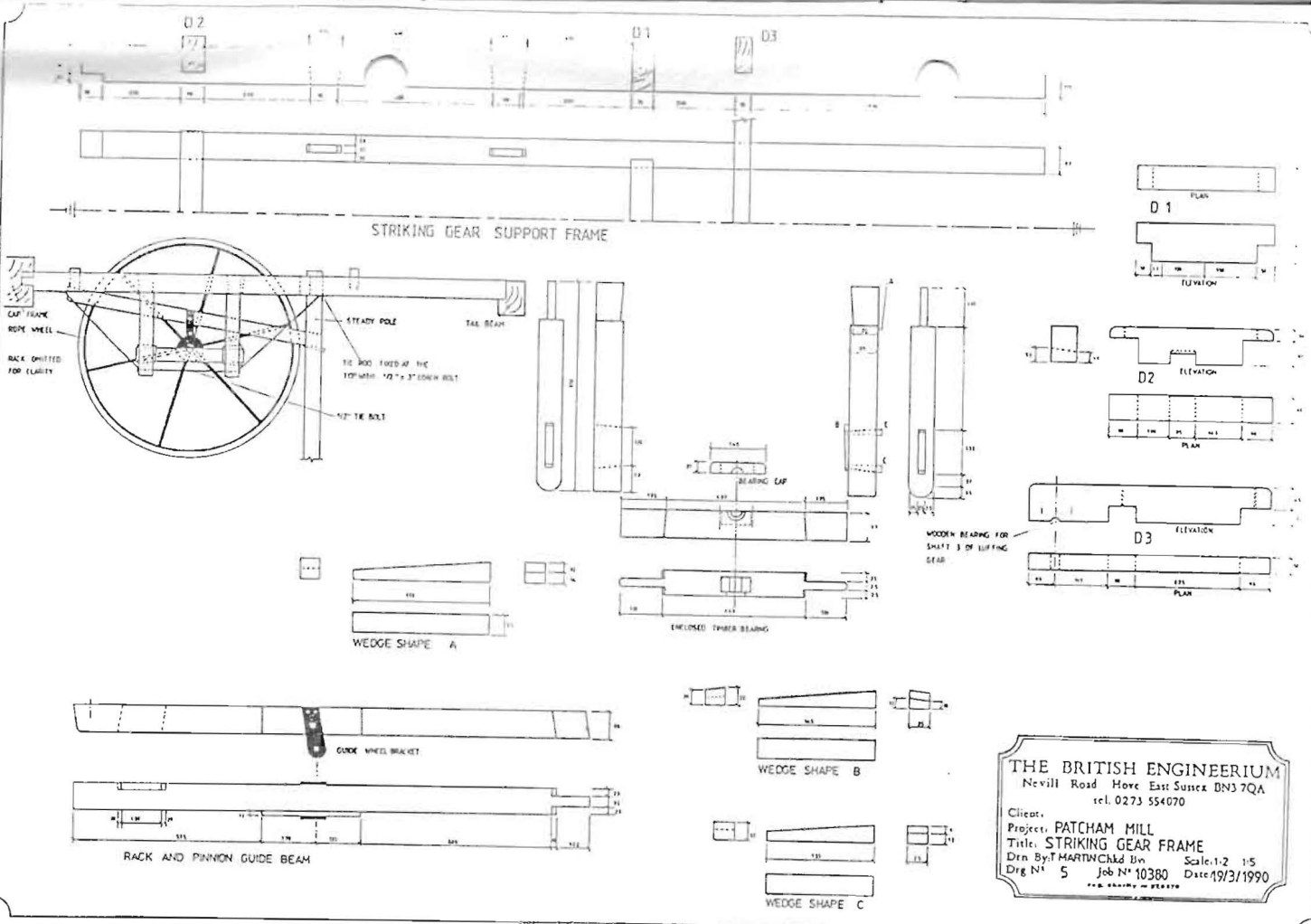
I.J. MARTIN (Building Surveyor, The British Engineerium)



LOWER STAGE

THE BRITISH ENGINEERUM
Nevill Road Hove East Sussex BN3 7QA
tel. 0273 554070

Client: PATCHAM MILL
Project: LOWER FAN STAGE
Title: LOWER FAN STAGE
Dwn By: Chkd By: Scale: 1:10 1:5
Drg N° 4 Job N° 10380 Date: 12/3/90



THE BRITISH ENGINEERUM
Nevill Road Hove East Sussex BN3 7QA
tel. 0273 554070

Client: PATCHAM MILL
Project: STRIKING GEAR FRAME
Title: STRIKING GEAR FRAME
Dwn By: MARTIN Chkd By: Scale: 1:2 1:5
Drg N° 5 Job N° 10380 Date: 19/3/1990