

Hampshire Mills Group Newsletter



No. 71 Winter 2005

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Wishing you a Merry Christmas and a Happy New Year



City Mill, Winchester circa 1903

HMG Dates for your Diary

Friday 16th December 2005 - H.M.G. Christmas Meeting.

7:30pm at City Mill Winchester. Our thanks to Anne Aldridge & Bob Goodwin for allowing the use of this lovely National Trust Mill for our Christmas bash. As usual, there will be an American Supper. Cutlery, cups, plates, bread rolls & butter will be provided. The rest is up to you!!! Make sure you wrap up warm.

Saturday 11th February 2006 - SPAB Mills Section Spring Meeting at The University College London, incorporating the Rex Wailes Lecture

Friday 24th March 2006 - H.M.G. Spring Meeting. Venue TBA

If you have (or know of) a mill that you would like to share with the members of HMG for any of the meetings in 2006, please let our Chairman know.

Friday 31st March - Sunday 2nd April - H.M.G. Dorset Mills Visit.

4th - 11th June 2006 - TIMS Mid term excursion. Mills of South Western France

The views expressed in this newsletter are not necessarily those of the Hampshire Mills Group.

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Poets Corner

Chain Gang

John wheels the corn on the old sack trolley
 To Mick the Miller he's no corn dolly!
 Mick loops the chain around the sack
 Which 'til he shouts is nice and slack
 But when he hollers, "Haul away!"
 The sack heaves up without delay
 And slaps the flaps as it goes through
 Up to the bins where, right on cue,
 Basil frees the corn sack from its chain
 Which drops back down to Mick again.
 Mr Silman, foot on stair, keeps watch for empty sacks with care
 As they're slung down from floor to floor
 He carries out this safety chore.
 Meanwhile, Bill weighs out the flour
 Plus alongside Sheila by the hour
 Labeling and bagging up
 Longing for a cheering cup
 Of tea to whet the dry old whistle
 When Brian appears and says, "Okay, this'll - do".

S. M. Viner - 17th May, 2005..

HMG Spans the World

In the first seven months of its life the hampshiremills.org website has been visited by people interested in mills from as far away as Japan, Canada, South Africa, Trinidad, Brazil, USA, Hong Kong and Israel, to name some of the 28 countries. The bulk has been from the UK, with substantial interest from Canada, Australia and Japan.

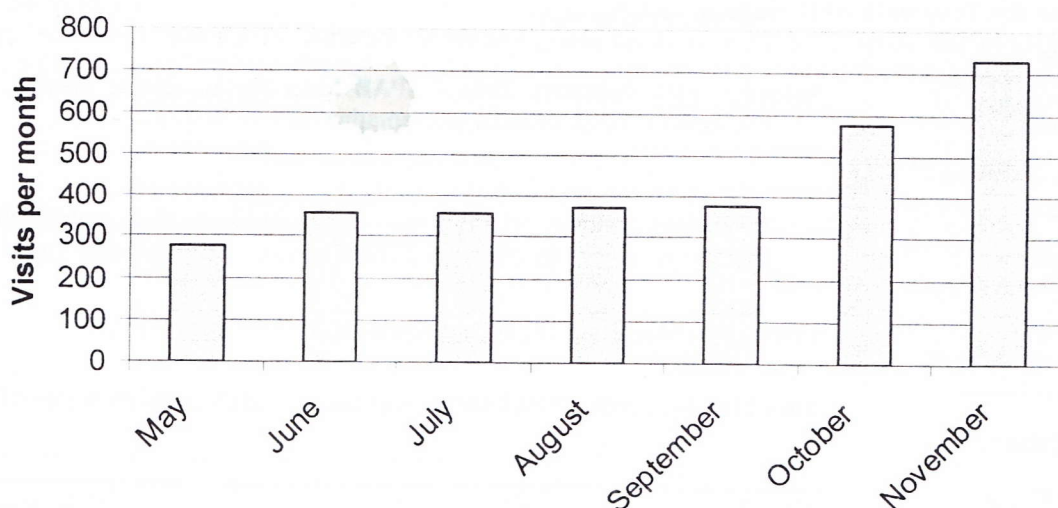
Through the summer we had 10 visitors a day, which has shot up in October and November to over 20, so the interest is growing! It is good for our group that this new window on our activities is spreading the interest we have in mills.

We have also received a number of enquiries about specific mills or people from the email contact and Tony Yoward especially has provided much information. One testimonial to him "This is fantastic information and I am very grateful. Thank you very much for all your assistance to date."

Please send me anything you would propose for the website, especially news of upcoming events and suggestions for improvements.

Ashok Vaidya

Visits to the HMG website



Chairman's Diary

Thursday 8th September - John Dee called in to collect some original documents found in the attic at Armfields Works at Stuckton. Tony had taken some detail from them but they were mostly relatively recent invoices for "silks" for high milling.

Friday 9th September - Went to Chase Mill to borrow key from Jeremy for opening the mill on Sunday on National Heritage Weekend. (They will mill there then).

Saturday 10th & Sunday 11th September - Went To "Hockley" Mill to open to the public for Heritage Weekend. I was delighted to have Nigel & Angela's help all day on Saturday and on Sunday, Eleanor (not having done it before!) looked after the mill and visitors while I rushed off to meet John (Lovell) at Heyshott Harvest Show. Heyshott's Historical Harvest is a very good show incorporating many aspects of the harvest as I remember it as a boy.

Horse drawn binders, early tractor drawn combine harvesters, the earlier "Ram" balers using giant needles and wire to make tightly packed straw bales and, of course, steam driven threshing drums, so familiar to my eyes.

It was very thrilling, as a boy, for me to hear the threshing set coming down the lane into the rick yard to "set up" the drum and elevator in line with the traction engine, ready to start work in the morning.

Sorry. I'm digressing from my notes again. So, it's back to milling subjects again.

Can I thank everyone, who helped to open any of the mills for National Heritage Weekend, very much for their volunteer help.

Monday 12th September - I spoke to Fareham & District Model Engineers again (for at least the third time) this time, about my ancient set of slides on the British Canal System, which they seemed to enjoy. It would appear that Tony and I will have to go back to see them yet again to talk about a fresh set of slides and artefacts on Industrial Archaeology!!

Wednesday 21st September - I spoke again today to Frans Brouwers of "Levende Molen" in Belgium. They have decided to come to England in Late May 2006 and Simon Hudson and I are working out an itinerary for them based on East Anglia.

Tuesday 27th September - Following a telephone conversation with Simon Taylor of IT Power, I received from them a set of leaflets regarding mini and micro wind and water generation sets for individual or local generation of electrical power. Every thing from solar panels to the proposed hydro powered site on the Thames to supply power to the Royal Household at Windsor. I will bring these to the next meeting but meanwhile, any enquiries to Simon Taylor of IT Power at Grove House, Chineham, Basingstoke on 01256 392723.

Wednesday 28th September - Phone call from Andrew Bisiker of Wessex Mills Group, advising me that Grimstone Mill in Dorset - a small mill with one pair of stones - is for sale with 2 acres of land for £150,000. As far as I know, no planning permission has been granted.

Saturday 1st October - Having been kindly lent a key to Chase Mill by Dr Jeremy Nedwell, I was able to take a party of the Taylor family round the mill and took them across the road to see the famous "Sand Boils". Do you know what they are? Answers to the Editor please.

Saturday 8th & Sunday 9th October - We had a busy weekend with the Mills Research Group holding a visit to Hampshire with a conference at Whitchurch Community Centre. They kindly invited HMG members to attend. Several of us went. The conference was organised by HMG member, Shirley Kirsopp with help from husband Ken. Shirley provided an excellent buffet lunch. In the afternoon, we all visited Whitchurch Silk Mill. We also had a question and answer session with Stephen Bryer, the Silk Mill Manager.

On Sunday, we had arranged for MRG to visit Hockley, Chase and (after lunch) Botley Mills. We were able to run the machinery in both Hockley and Chase and I think they found both to be interesting and worth the visit. Lunch was taken at the Chase Inn and was enjoyed by us all.

We finished the day with an extended tour of Botley Mills, from the hatches to the new museum and to the older parts of the original structure. We also went to the roller mill section and finished our visit by looking at the Ruston Engine which will power the roller milling museum when it has been moved to the other side of the premises. Thank you very much Patrick for a world of information on Botley Mills and milling in general.

Wednesday 12th October - I was delighted to welcome Ashok our Web Master here to discuss further additions to our website. He is liaising with Tony on the use of historical material. Please may I make an appeal to all members. If you have anything information or material about the history of any Hampshire Mill or the people who worked in them, please send it to Ashok.

We need to vary the items on the website on a fairly frequent basis and Ashok wants to do this but he has to have the material to work with. This request also applies to any other related subjects such as restoration, changes, new information, problems etc.. Please help if you can. Thank you.

Thursday 13th October - Tony and I gave one of our talks to members of the Southampton Canal Society on the subject of Industrial Archaeology. This appeared to be much appreciated and a generous donation the HMG's funds was reciprocally much appreciate by us.

Chairman's Diary

Saturday 15th October – Went to Greens Windmill at Nottingham for a meeting of COGS. The Committee of Groups and Section acts as a way of transferring information between the various regional mills groups and members of SPAB Mills Section. It is also a forum for the exchange of information between mills groups.

I travelled up with Mildred Cookson (who represented SPAB) and this gave us an opportunity to talk informally of the various problems and difficulties of both mill owners and the enthusiasts that make up the regional groups. We had rather a shock in Nottingham when we tried several local pubs to get some lunch. No joy at all. In one case, the landlord said "We sell beer!" However, one of them directed us to a delightful small café, part of an Italian supermarket, where we had an excellent lunch.

The meeting brought together mills group members from as far apart as Wessex and Lincolnshire to discuss common problems. Later, we were entertained to tea and had the opportunity to visit the most interesting mill.

Thursday 20th October – To Bindon Mill at Wool to see a very interesting watermill powered by a 32" Armfield Turbine. Salmon were jumping in the bypass channel. Very good to see.

Sunday 23rd October – Margaret and I were delighted to attend a Trafalgar Day Lunch at Crux Easton, organised by Carol at the Manor House and we were able to visit the wind engine which appears to be doing pretty well. A very enjoyable day.

Monday 24th October – Nothing to do with mills or milling but a very good day for an industrial archaeology student. We were invited to visit the re-opening of the Southwick Brewhouse by the members of Portchester Brewery. The building is not restored to brew beer but is acting as a store and shop for a huge variety of beers from as far away as Russia, Belgium, USA, Spain and France as well as many English varieties. It brought back many memories of working towards the brew we did in 1985 and the building has hardly changed at all. *(David Plunkett still has two bottles left – Ros)*

Monday 31st October – Delivered a lecture on the history of milling to the good folk of Warsash Over 60's Club.

Tuesday 8th November – Spoke to Marie Perkin of the National Trust at Uppark to confirm my lecture there in March 2006.

Friday 11th November – SPAB Committee Meeting, Spittal Square.

Monday 14th November – Working party at Longbridge Mill to finish off the clearing of reeds and mud from the tailrace. Basil, Mick, Nigel, Fred and your Chairman toiled away and the tailrace now looks pretty clean. Water should get away from the wheel very quickly now.

Thanks to everyone who beavered away in the water and mud.

Mick is working out a new scheme to have regular working parties on a Thursday. This should help to get more work done in several locations.

Wednesday 16th November – In the morning, went to Hockley Mill to collect woodworm treatment fluid which belongs to Dave Plunkett and is now also needed at Eling Tide Mill.

In the afternoon, went to Caroline's Tee Shirts to order various tee shirts for HMG members.

Thursday 17th November – Inaugural meeting of the Hampshire Water Partnership in the Winchester Cathedral refectory. A highly interesting meeting of various factions interested in water and its power and other uses. Mick has kindly agreed to represent us on the partnership.

Friday 18th & Saturday 19th November – Two day visit to the Isle of Wight on behalf of the SPAB, to see if a visit to the Eastern Wight Mills could be arranged. The only complete mill on Eastern Wight is Bembridge Windmill but there are many more mills in varying states of repair and a more IA approach might produce a very interesting day out. I am very indebted to Shirley Kirsopp (who was born on the Island) for much help on the project which I much enjoyed exploring.

Wednesday 23rd November – I had the pleasure today of addressing The Somborne Society on the "History of Water and Windmills".

Saturday 26th November – Milling weekend at Longbridge Mill with the usual crew. I was delighted to see Sheila Viner looking much better. A smaller amount than usual milled successfully. Good milling with clean tail race.

Monday 28th & Tuesday 29th November – Went with Simon Hudson of SPAB to inspect the hotel and some mills for the tour of the Belgian members of Levende Molens in April 2006. I stayed overnight with my great friend Roy and Penny Berry of Essex Mills Group in their lovely home in the Stour Valley.

Thursday 1st December – Margaret and I went to meet the owner of Gordleton Mill near Lymington. It is now a hotel but with an Armfield Turbine still in place. She would like to produce electricity from the site so we gave her details of who to contact to get further information, after inspecting the waterway. As some of you will remember, the "Heavy Gang" had a look at this site but had to leave it because of pressure of time.

May I wish all members and their families
A Very Happy Christmas and All Good Wishes for
2006

John Silman

Fact File

City Mill - Winchester

Domesday and a time of prosperity

A Saxon mill, owned by the Benedictine nunnery of Wherwell, almost certainly existed on the site over 1000 years ago. The location is close to a major entrance to the city where the East Gate in the city walls led to Soke Bridge. In 1086 the Domesday survey records the mill as returning a rent of 48s (£2.40) per annum to the Abbess – well above the average mill rent in southern England. Wherwell Abbey leased the mill to a long series of medieval millers and it prospered for over 200 years until the end of the 13th century – the Abbess received a healthy £4 per annum rent in 1295. During this period the mill became known as Eastgate Mill.

Decline and Eastgate Mill becomes derelict

A series of bad harvests in the early 14th century, coupled with Winchester having lost its capital status, quickly reduced the value of the mill. The Black Death, which struck in 1348, followed by the loss of the wool trade to Calais soon after, would have accelerated the decline. The mill eventually fell out of use and it appears from records to have been derelict by 1471.

A royal gift to Winchester

King Henry VIII took the still derelict Eastgate Mill into Crown ownership at the Dissolution of the Monasteries in 1439 and his daughter Queen Mary Tudor then gave it to the city in 1554, partly to offset the cost of her wedding to Philip of Spain in the nearby cathedral and partly in response to earlier pleas for financial assistance from the impoverished city. At this time the mill became known as the City Mill. Despite many attempts with successive leases, the city failed to have the mill restored and for many years they only received 10/- (50p) rent per annum plus 'two chickens for the Mayor'.

The present mill is built

Finally in 1743 a new tenant, the tanner James Cooke, rebuilt the mill – and this is the building you see today. The central section with its fine gable was completed first and the eastern section was added later. It seems materials from an earlier building were re-used as some of the roof timbers have been dated back to the 15th century.

Private ownership, demolition threats

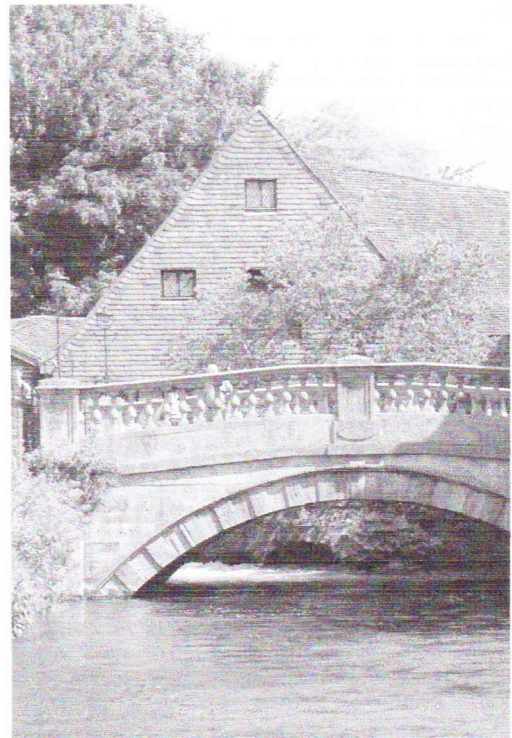
In 1820 John Benham, who became the first private owner of the mill, bought the mill and adjoining land. It remained with the Benham family for over 100 years and for much of the 19th century would probably have operated profitably as a corn mill. By the 1880s, however, roller milling, introduced initially to meet the demand for low-cost white flour, had largely replaced stone grinding and large factory mills had been developed mainly at the major ports. It is hardly surprising that the tenant miller in 1892 at the City Mill had to appeal against bankruptcy and it seems that milling ceased in the early 1900's. Following use as a laundry during the First World War, the mill was offered for sale in 1928 and only saved from demolition by a group of local benefactors who bought it and presented it to the National Trust.

Leased to the Youth Hostels Association

In 1931 the Trust leased the City Mill to the Youth Hostels Association and it became one of the first hostels in Southern England. A condition of the lease was that public viewing should be allowed by the YHA at convenient times but more recently the Trust has taken responsibility for opening the mill to visitors. The YHA hostel closed at the end of September 2005.

Milling once again

In March 2004 the City Mill successfully milled flour again after a gap of at least 90 years. A new waterwheel was constructed in February 2005.



*Information & picture supplied by
Bob Goodwin*

Front cover picture supplied by Tony Yoward

Your News & Letters

Hampshire Corn Windmills - continued

| | Grid ref | Built | Working | Dem | Notes |
|--------------------------------|----------|-------|-----------|-------|---|
| Hale | SU199192 | | | | Windmill Ball |
| Hambledon, Barn Green | SU663118 | 1815 | 1815-1907 | 1922 | Denmead Mill, Gale's Mill, some remains |
| Hambledon, Broadhalfpenny Down | SU674162 | | 1723-1807 | c1826 | |
| Hambledon, Glidden | SU6714 | | 1558-1618 | | Denmead Molens |
| Hambledon, Denmead | SU6714 | | 1780-1895 | c1897 | Denmead Mill, Merrett's Mill |
| Hambledon, Denmead | SU672144 | | 1594-1618 | | |
| Hambledon, Speltham Hill | SU651148 | c1780 | 1784-1871 | c1972 | Byerley's Mill, ruin pre 1894 |
| Hambledon, Windmill Down | SU649161 | | 1283 | | |
| Hannington | SU541556 | | | | Windmill |
| Havant, Langstone | SU721051 | c1780 | 1780-1865 | **** | converted to house |
| Headley | SU836366 | | | | windpump? |
| Herriard | SU655465 | | 1307-1366 | | |
| Highclere, Wash Common | | | 1748 | | |
| Hinton Daubney | SU679141 | | 1791 | | |
| Horndean | SU7013 | | | #### | Frith's name for Chalton |
| Hound, Netley Manor | SU456086 | | 1536 | | |
| Hound, Weston | SU449106 | | 1790-1823 | | |
| Hursley | SU429248 | | | | |
| Hurstbourne Tarrant | SU369529 | | 1756-1834 | | Ibthorpe |
| Hurstbourne Tarrant | SU353540 | | 1277 | | Vernhams Dean |
| Kimpton | SU280472 | **** | 1785-1836 | 1838 | moved from Pewsey 1785, blown down |
| Kings Sombourne | SU396359 | | 1318 | | Little Sombourne |
| Kingsclere, Ewhurst | SU5757 | | 1315-1316 | | |
| Kingsclere, North Oakley | SU537530 | | 1544 | | |
| Kingston, Shorwell | SZ481811 | | 1296-1305 | | |
| Lymington | SZ318952 | | | | Burns map 1794, a watermill ? |
| Martin | SU082192 | | | | Windmill Hill |
| Medstead | SU664374 | 1857 | 1857-1870 | | moved from Wield |
| Medstead | SU672354 | | | | Windmill Piece |
| Micheldever | SU537366 | | | | mill mound |
| Milford | SZ287920 | | | | Windmill Plot |
| Milton, Fernhill | SZ2396 | | | | |
| Milton, South Chewton | SZ223948 | | 1330 | | |
| Nether Wallop | SU294361 | | | 1803 | burnt down |

Your News & Letters

Tour of Lincolnshire Windmills, 21st to 23rd October 2005

I spotted an advert for a guided tour of windmills in Lincolnshire in AIA News in the summer and as I enjoy occasional forays with members of the heavy gang it was appealing. Hampshire is a county rich in water powered mills, but windmills are rare so this tour seemed a good way of learning more.

The course was based in Lincoln and run by an organisation called LINDVM Heritage (*Lindvm being the Roman name for Lincoln*) who have previously been involved in running conventional archaeological digs and courses. Friday evening started with a welcome reception, drinks and nibbles followed by a slide presentation by Ken Ledbetter who is the miller at Ellis mill in the city. This covered the technical and historical development of windpower using many well chosen illustrations. We were all given folders with comprehensive briefing notes about the mills on the tour and additional information about Lincoln and the surrounding area.

Saturday was to be a very full day with a prompt start at 9.00am outside our hotel where with 13 delegates and 2 tour leaders we joined our comfortable mini bus and set off for the first visit at the 8 sailed Heckington Mill. This was followed by Maud Foster Mill in Boston where we were able to wander at will while the mill was working followed by the option to be taken into the town centre for a lunch break. Angela and I opted to stay longer at the mill and patronise the excellent tea shop to sample home made cakes – in fact stops for tea and cakes became a feature of the tour as most of the mills visited had an adjoining tea shop and the tour arranged that tea and cakes were provided inclusive – you could say that we ate and drank our way around Lincolnshire!



Maud Foster Mill, Boston

In the afternoon we visited Sibsey Trader Mill near Skegness and Alford Mill near Mablethorpe. The final mill for the day was at Burgh Le Marsh which is unusual in having left handed sails – in fact all the mills visited that day had between 5 and 8 sails. En route between sites we often caught sight of other tower mills now converted into residential use or just derelict. The evening was rounded off with the course dinner with much convivial conversation about mills and all else besides.



Sibsey Trader Mill, near Skegness

Sunday was down as half a day with the course due to finish at 2.00pm to allow people time to travel home. The first visit was the short distance to Ellis Mill in Lincoln itself where we again met Ken Ledbetter and assistant who demonstrated many aspects of working the mill machinery. Unfortunately the weather on the tour days was unusually calm and all the mills visited had trouble trying to run the sails even out of gear. But at Ellis there was not a trace of a breeze. Then on to Mount Pleasant Mill in Kirton-on-Lindsey where we took the obligatory tea and cakes after a thorough guided tour by the current miller.

The owners of this site have developed a wide ranging health food and organic bakery using an 18 ton wood fired oven imported from Spain. This mill was built in 1875 on the site of an earlier post mill and only one pair of stones are currently in use, but there is another set in an iron hurst frame made by Marshall Sons & Co in 1917 which is driven by an oil engine. The final visit of the tour was to Wrawby mill in the north of the county and is the only post mill we were to see, sadly it is minus its sails and the keeper explained that funding to effect a repair was not readily available partly due to the unusual ownership status. We did explore the interior of the structure (at our own risk!) and it was fascinating to compare the simple design of this 1760 built post mill with that of the more complex and advanced tower mills.

All told we all enjoyed the tour which had something for the expert and novice alike and we were allowed access to parts of mills not normally open to other visitors – we made suggestions as to what could be included in subsequent tours even perhaps the odd watermill....



Alford Mill, near Mablethorpe

Nigel Smith

Your News & Letters

Mills Section Autumn Meeting

The SPAB Mills Section Autumn Meeting was held at the Royal College of Surgeons, London, on Saturday 12th November 2005. The theme of the day was "The History of Paper Making"

Jim Woodward-Nutt, Vice-Chairman of the Section, welcomed the members and their guests and made just two announcements. Firstly the sad news that Chislet windmill in Kent which burned down a few weeks ago. Secondly a plea for mill websites to be kept up-to-date. This said he handed over to Alan Crocker who was to be the chairman for the day's proceedings. In his introduction Alan gave a brief outline of the British Association of Paper Historians. This Association was founded in 1989 and has members all around the world; these international connections are a most valuable asset.

Keith Falconer of English Heritage announced that English Heritage was considering a survey of paper mills and that he hoped a report would be commissioned in 2007 or 2008. In the meantime, any information on paper mills would be very welcome. Alan Crocker then introduced the first speaker of the day, Dr. Richard Hills. Dr. Hills is well known as a writer on Industrial Archaeology, he was the first Chairman of the British Association of Paper Historians (BAPH) and he is now its President. His talk was entitled "Paper Mills and Water Power".

Paper making originated in China and the knowledge diffused along the old trade routes, passing through Samarkand and reaching Spain in the 11th Century and Italy some time later. The early Chinese papers were made from the bast fibres of the paper mulberry but flax and hemp were grown around Samarkand so it is likely that the fibres of these plants were used in that area. In Europe rags, of linen or hemp, were the principal source of paper. Whether the paper is made of mulberry or rags, the first step is to beat the material to break up the fibres to make the pulp and some early arrangements comprised hammers worked by foot power. Edge runners were also used for grinding the rags, driven by animals or by water power. Some time later a type of trip hammer was developed where three or four hammers worked in a stone trough containing water and rags. After several hours of pounding, the rags were eventually reduced to pulp. These machines were, almost invariably, worked by waterwheels.

Around 1650 the Hollander beater, which ground the rags under a rotating cylinder, was introduced. This rapidly displaced the old trip hammer type stampers to the extent that by 1790 it was said that only one mill remained in England where the old stampers were still in use. Most of the Hollander beaters were driven by water power but, as there are only a limited number of good water-power sites, many fulling mills closed and re-opened as paper mills. This was a frequent occurrence during the 19th Century.

A steam engine was installed at Wilmington, near Hull, in 1786 but the change to steam was slow. In part this can be explained by the fact that copious supplies of water are needed for the paper making process so, in many cases, the same source of water could be used to drive a waterwheel.

Once the pulp had been prepared, individual sheets of paper were formed by hand on a mould and this technique continued for many years. But, around 1804, the first successful machine was installed at a paper mill in Hertfordshire. It was driven by a waterwheel although steam should, in theory, have been an attractive as the steam could also have been used to dry the paper. Coal, however, was expensive in the days before the arrival of the railways.

Despite the availability of steam, water power continued for a surprisingly long time. Turbines replaced waterwheels and, as late as 1930, 65 mills out of a total of 186 were still using water power. But by 1969 only nine were using water power and now, in England at least, there are none.

The next speaker was Jean Stirk, a member of the BAPH and the editor of their newsletter. Her talk was entitled "People in Paper Mills" and she has recently been awarded a Doctorate for her work on this subject. Paper was a prestigious product because of its association with books and learning and work in a paper mill was regarded as a high status job.

John Tate opened the first recorded paper mill in England in 1495 and it is likely that he brought skilled papermakers in from Europe. Huguenots settled in England after 1685. Some set up small paper mills whilst others, were more ambitious, like John Spilman who established a mill at Dartford. Nevertheless most mills were only small before 1800. After 1800, when paper making machines came into use, problems of finance became more pressing and financial backers, such as stationers, stepped in.

Success in the paper business required a market, access to materials, water power, transport links and a skilled labour force. Most of the proprietors were men but widows often took over to keep the business running, possibly with the assistance of a manager or a skilled paper maker.

Fire and flood were constant dangers and many took out insurance. The records of these insurance policies are now an important source of information. Other dangers lurked for the workers in the mill. Sorting and cutting rags brought the danger of disease and dust. Later it became the practice to boil the rags in chemical solutions this meant that the workers were exposed to unpleasant, and sometimes dangerous, fumes.

Continued

Your News & Letters

Mills Section Autumn Meeting continued

Unguarded machinery and guillotines for trimming the paper were just some of the other hazards yet children just ten or eleven years old were regularly working twelve hour shifts. They left school at ten yet a Royal Commission in 1843 found that most of these children could read and many could also write. Perhaps this also reflects the scholarly associations the paper industry enjoyed.

An apprentice would be expected to learn all the skills of the team, culminating with the vat man. He was the man who created the sheet of paper on the mould and he was regarded as the most important, and the most highly skilled person in the team

The trade was tightly controlled, at least from 1800, by the Society of Papermakers. Everyone was obliged to join and they all paid a subscription. In return they enjoyed benefits such as sick pay, unemployment pay and funeral expenses. In order to restrict the number of skilled craftsmen, and to keep wages high, the Society sometimes paid the fares for members to emigrate.

After lunch, Mr. Phil Crockett, Chairman of the BAPH, presented his talk on "Paper, Paper Mills and Engineering". He began by demonstrating the qualities of a sheet of paper: tear strength, pinholes, weight per square metre, texture, finish rattle, wet strength etc. To a great extent, these qualities could be achieved by controlling the way the fibres were beaten.

The Hollander beater appeared in the 1660s and remained almost unchanged for almost 300 years although the size of the machines did increase considerably over this period.

Also during this time, a washer drum was added and this allowed the water to be changed continuously as the work proceeded. The knives in the drum and in the stationary part were of steel or bronze and, as mentioned above, the way in which the fibres were crushed gives strength or bulk to the paper.

In the 1930s the Hydropulper, which is something like a food blender, became available as an alternative to the Hollander. Conical pulp refiners have also been introduced and nowadays the standard machine is the Disc Refiner which can do in seconds what the Hollander took hours to do.

Early mills used prodigious quantities of water, possibly 40 or 50 tons of water to each ton of paper.

Even today some 10 tons of water are required per ton of paper. Paper makers now make the paper and dry it by passing it over successive rollers heated by steam

As the paper dries it shrinks and this means that each pair of rollers must run at a slightly different speed and a clever arrangement of cone pulleys is employed for this purpose. Paper making machinery has seen many changes over the past 200 years and it is still developing.

Alan Crocker gave the final talk of the day entitled "Neckinger Mill, Bermondsey" Neckinger Mill was situated on the river of the same name to the South East of the Tower of London

The site had originally been a bleach field but in 1774 chemicals were introduced for bleaching - a process which would subsequently be used to bleach rags for paper making.

Paper making needed copious supplies of clean water and this was not easy to find in London. So, although the rags were collected in London, the paper mills were usually established out of town, as far as 30 miles away. But, with steam engines to provide the power and chemical bleaches for the rags, it became possible to operate a paper mill nearer to the centre of the town.

Neckinger Mill was one such enterprise. It had six vats and this made it the largest paper mill in England.

By the 1800s, rags for papermaking were becoming scarce and Mathias Koops, at that time the owner of Neckinger Mill, began to search for alternatives. He took out patents for making paper from straw, from waste paper and from wood. These were, perhaps, ahead of their time but he did produce a book "An Historical Account of Paper" on paper made from straw and half of the 2nd edition of 1801 was printed on recycled paper and half on paper made from straw. A number of copies still remain.

Despite these innovations the mill had problems and in 1805 it was advertised for sale; by this time it had reverted to using rags for its paper. In 1812 it was sold and converted to a tannery.

There then followed individual members contributions from: Duncan Brettles, Peter Philby, Peter Hill, David Plunkett, David Lindsey, Mildred Cookson and David Jones.

Michael Harverson announced that the SPAB Mills Section Spring Meeting will be held at University College, London, in February 2006. During the course of this meeting Professor John Langdon will present the Rex Wailes Lecture "Mills in the Medieval Economy". Other speakers will continue this theme of Medieval Mills.

Jeff Hawksley, 23rd November 2005

Your News & Letters

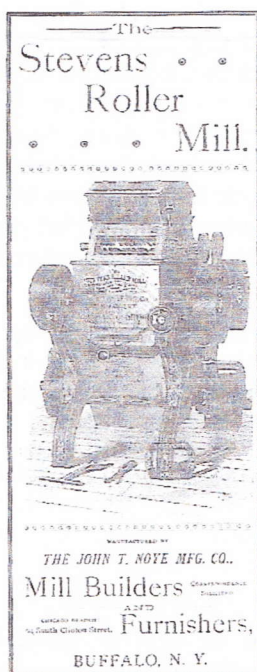
Who invented the Roller Mill ?

Some of the answers

Following his article in the last HMG Newsletter, David Plunkett has asked if I would throw some light on the question. For anyone who has not read the article it put forward a claim that John Stevens, born in 1840 in Wales and emigrated to North America in 1850, invented the rollermill. A patent was granted for his invention in 1880.

If I were running a quiz for molinologist this is definitely one of the questions I would never ask. First of all let us be more precise. There is a piece of equipment for size reduction generally known as the rollermill, there is also the process (or indeed processes) by which cereal grains can be reduced in size and separated into different fractions which when employing rollermills, is known as roller milling, and generally the plant which carries out this process in known as a roller mill¹. The question therefore has two possible answers (machine or process) before we get into any further detail.

As the American claim appears to refer to the rollermill (the machine) we will start there. It would

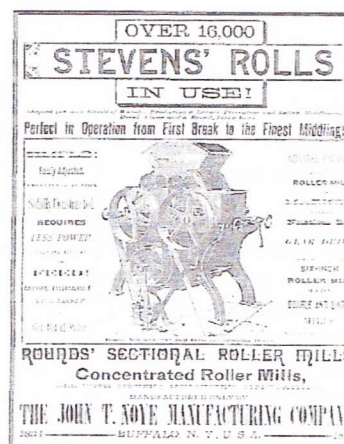


Advertisement for "Stevens Roller Mill" in *The Roller Mill*, February 1888.

be easier to ask who did not claim to have invented it. Answer: us, the Brits! That leaves the French, the Swiss, the Italians, the Hungarians, the Russians and of course the Americans. (I have probably left someone out). A number of years ago Dr Mühler gave an excellent lecture on the subject to a meeting of the SPAB. He observed that rollers were used in the sugar manufacturing process before they were taken up by millers. H. Marston's booklet 'The Development of the Modern Roller Mill'² states "the first rollermill and certainly the first patent in this country was constructed in 1753". Perhaps someone might like to follow this up. This machine does not seem to have been adopted and probably did not work so we cannot say that it was the first invention of the working roller mill.

Marston then mentions the "invention" of several rollermills in Paris, Venice and Switzerland which were not successful. We then come to a point where

(if I remember correctly) Dr Mühler in his lecture, Marston's booklet, Kosmin and significantly, Glyn Jones in his authoritative book on the development of roller milling in England all agree: in the 1830's Jacob Salzberger of Frauenfeld, Switzerland, produced a rollermill which he introduced into several locations in Europe.



Advertisement for "Stevens' Rolls" in *THE MILLSTONE*, Oct. 1884.

Although these were successful at times all but one mill abandoned the use of roller milling. The exception was the Pesther Walzmühle in Hungary where roller milling continued until the plant was destroyed by fire in 1850. It was rebuilt in 1851 and expanded in 1868-69 and used rollermills.

As many know, the story goes on from there with various developments, ideas and improvements which continue to this day. What is clear is that although John Stevens may have developed and patented a specific design or designs he was not the first to invent the rollermill.

We now come to the second question: who invented roller milling (the process)? Having read so far one might be tempted to say Jacob Salzberger and hence the Swiss. If there has to be a single winner then this might be the right answer. However this is far too simplistic. From even a limited knowledge of milling and its history it is clear that it developed from single 'sudden death' stone milling, through high grinding, improved sieving, purification, the use of rollermills, plansifters and many other processes, to the 'gradual reduction' process in common use today. This is a complex process in which the rollermill itself is a vital component but nonetheless can only operate as part of a whole milling plant.

It is well known that this process developed both in mainland Europe, North America and the UK in the latter part of the 19th Century. It seems likely that there was a great deal of cross fertilisation of ideas, false starts and adaptation to suit individual and regional needs.

continued...

Your News & Letters

Some of the answers continued ...

For those who want to know more about this history I would recommend Glyn Jones book 'The Millers'³. As even this short article shows, the early development is not a simple story and it starts to become clearer when we reach the 20th Century as the technology begins to consolidate itself.

However, do not fall into the trap of thinking that all was over by 1945. Like all industrial processes, milling continues to develop to this day. Don't ask me how because if I have any ideas simmering I will keep quiet about them until the patent application has been filed!

In summary, my answer is, for both machine and process, possibly the Swiss and certainly not a Welsh born American.

In reality, no one should make this claim. Such a fundamental need as the production of flour from wheat starting so far back in the history of civilisation is bound to have many stages of invention which we can only define as development.

¹ *I personally use the convention that the word 'rollermill' applies to the piece of equipment, the two words 'roller mill' apply to the plant in which the equipment is housed and operated and the process*

² *NJIC Technical Education Series 1931*

³ *Carnegie Publishing Ltd., Carnegie House, Chatsworth Road, Lancaster, LA1 4SL. ISBN 1-85936-085-8*

Patrick Appleby

Mills Research Group Weekend Conference

This small group spent a pleasant weekend in the company of members of the Hampshire Mills Group. It was unfortunate that our Chairman, Bill Bignell and Secretary, Melica Vernon, were unable to attend at the last minute.

On the Saturday, we met in the Community Suite at Testbourne Community Centre, Whitchurch, for papers, discussion, slides and food. Although Melica had been due to give a paper, we managed to fill the time! Outside the suite was spotted a surprise sculpture – an Armfield Turbine Arch. The caretaker discovered that it was brought from Town Mill, Whitchurch. At three pm, we moved to Whitchurch Silk Mill for a tour, talk and discussion with Stephen Bryer, the General Manager of this Working Mill Museum.

On the Sunday, thanks to John Silman and Mick Edgeworth, we visited Hockley, Chase and Botley Mills armed with booklets produced by Tony Yoward, about each of the mills visited. At Hockley, which was once lying idle and neglected, we were told that it was as a result of John Reynold's book on windmills and watermills that the plight of such mills was recognised. It was good to see both wheels turning at Chase Mill and members were able to see how much work has been done.

After lunch at the Chase Inn, we visited Botley Mills for a long and interesting tour with Patrick Appleby. Work is in progress toward a museum and some machines 'in situ'. New flooring and stairs are gradually being constructed but there is still much to do. Progress is hampered by regular bouts of vandalism in addition to the sheer volume of cleaning and moving yet to be tackled.

No other mills were visited as some members had to drive back to Cambridge and Essex, two needing to return to work on Monday morning

Shirley Kirsopp

Membership 2006

It's that time again - to decide if you wish to remain a valued member of this impressive group of enthusiasts!! Subscription charges have not changed

| | | | |
|------------------------|--------|--|-------|
| Hampshire - Individual | £8.00 | with an extra person at the same address | £9.00 |
| Out of County | £5.50 | with an extra person at the same address | £6.50 |
| Corporate | £15.00 | | |

I will be at the December meeting, ready and willing to accept your money. Cheques are preferable to cash because my arithmetic is so bad that at reckoning time, I always seem to have either too much or not enough in the kitty. Please do not forget that renewals are due on the 1st January and you can pay for many years in advance if you wish.

The Library

Additions

The Town Mill, Lyme Regis : Archaeology and History AD 1340 - 2000 - by Alan Graham, Jo Draper and Martin Watts. 2005 ISBN 0955152609

A History of Beeleigh Mill by Maldon Archaeology Group 1997

Wiltshire Windmills by Martin Watts 1980 history and gazetteer

Windmills of Devon by Walter Minchinton 1977 history and gazetteer

Cornish Windmills by H. L. Douch history and gazetteer

Bedfordshire mills by Hugh Howes 1983 Both Water & Wind Mills history and gazetteer

The Windmills and Millers of Brighton by H. T. Dawes history

Scottish Windmills : A Survey 1984 by G. Douglas, M. Ogilethorpe & J. R. Hume (covers Orkney as well - history, drawings & photographs)

Mick Edgeworth

Book Review

Title: WINDMILLS a pictorial history of their technology

Author: Rev. Dr. Richard L Hills

Published by: Landmark Collector's Library

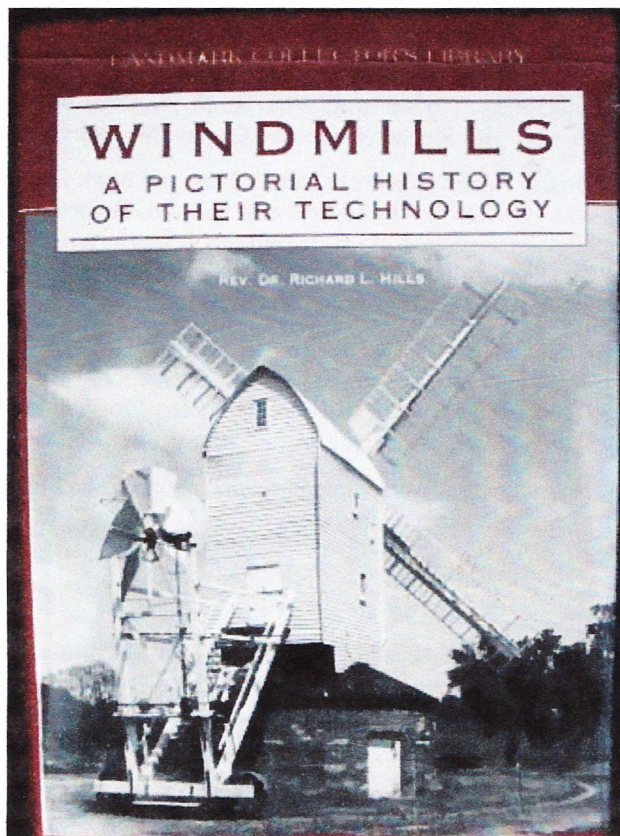
Price: £21.99p

This is simply a marvellous book for anyone with an interest in windmills. It sets out to convey the development of windmill technology and history in the UK and abroad by the use of photographs supported by extended captions and short textual introductions.

The approach is both learned and accessible so it should appeal to the novice and expert alike. All types of windmills are covered including the obvious applications for corn milling and drainage, but also oil crushing, sawmills and papermaking. There is even a section that deals with the reuse of the structures after the cessation of milling.

Many close-up photographs illustrate how the various parts of a windmill function and include information on construction or restoration techniques applied now or in the past. Although not meant to be a comprehensive guide to all surviving UK windmill sites it does manage to mention over 100 plus 50 or so foreign examples.

Highly recommended – go out and buy a copy or pester your local library to get it on their acquisitions list.



Nigel Smith October 2005