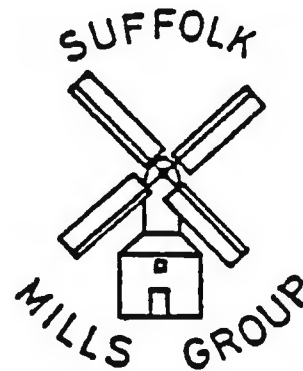


SUFFOLK MILLS GROUP

Newsletter

No. 47
JANUARY 1990

Secretary: PETER DOLMAN
The Mill, Thorington Street,
Stoke by Nayland, Colchester CO6 4SS
Editor: MARK BARNARD
41, Melbourne Road, Ipswich IP4 5PP



It was pleasing to see such a good turnout of members at the celebration of Drinkstone post mill's 300th. birthday (tercentenary I believe they call it) and at our social evening in December, despite the fog! If you have ideas for other events, or mills you would particularly like S.M.G. to visit, your hard-working (not to mention long-serving!) organising committee will do its best to oblige.

The next event will be the public meeting at Ipswich Town Hall on February 17th; full details appear inside. Please also note the other dates in your diary.

The 1990's will undoubtedly see many changes to our mills. Some more will be lost as buildings of interest, others now restored will deteriorate, and a few will continue to be repaired and saved. What the net effect will be by the turn of the century is anyone's guess, but the signs are not particularly encouraging. There are few young people taking an active interest (especially noticeable in Suffolk), public-sector funds are drying up, and the wholemeal flour and tourist markets will become more competitive and harder to exploit. The effect of the new Uniform Business Rate on working and tourist mills is as yet unclear, but the signs are very worrying. Against this background we have many disused mills which receive hardly any maintenance, steadily rising property values in the medium - long term, and an established trend towards the conversion of redundant rural buildings. Unless there is a large increase in public interest and above all practical support for our mills it is hard to see how statutory protection through listing and scheduling will be able to ensure their survival as the buildings we know and love.

Mark Barnard

VANISHED MILLS PETER DOLMAN

SWILLAND

Swilland post mill (Grid Ref. 190,539) was one of the largest post mills ever built in Suffolk, and probably anywhere. It stood 51 feet high with a 25ft. high roundhouse containing three floors. It is first recorded on Greenwood's county map of 1825 although a note in the Lummis Collection in the Suffolk Record Office states it was built in 1800, without giving any provenance. It was probably built for Frederick Buttrum, whose family also owned similar large post mills at Burgh and Ipswich. Frederick died c.1849 and was succeeded by his son John. Kelly's Directory of 1853 names William Buttrum as miller and farmer. In 1858 J. Buttrum (possibly John) is listed and in 1868 another William Buttrum. By 1883 William Smyth was miller and in 1896 he is listed as possessing, in addition to the windmill, 'Steam Roller Mills'. This stood adjacent to the windmill, indeed the

flyer hardly had enough room to clear the wall and a bridge could be put across to the roundhouse from the steam mill. In December 1903 he sold the mill to Robert Collins, who in turn sold it in April 1820 to Cyril A. Barron who continued to use the windmill until 1936. It stood derelict for a few years after the war and is believed to have been pulled down c.1953. The roundhouse stood as a broken down shell until the early 1970's when Bernard Rooke, a potter who used the steam mill building as a studio, re-roofed it and now uses it as a gallery to display his work.

Robert Collins' wife had a brother who had been apprenticed to John Buttrum at the mill and he used to say that John Buttrum built it. This is plainly untrue but could instead refer to a rebuild as it was no doubt raised and re-equipped at some time in the 1830's or 1840's.

It was a typical tall East Suffolk post mill with a 26ft. high buck built large from new (12ft.x 21ft. floor size) without any lengthening. Unfortunately we have no real idea who built these large post mills in the early nineteenth century, although one of the Collins family could be a strong contender for the honour. In later years various millwrights worked on it and early this century Robert Catchpole of Stowmarket and Henry Brewer of Long Melford did major repairs.

Power came from four large patent sails of nine bays (about 71 feet span) and these were able to drive two pairs of stones in most winds plus other machinery. The gearing was very similar to that at Friston and Ramsey (Essex), the clasp-arm brakewheel with a second row of cogs to drive auxiliary machines powering two pairs of stones in the head with iron spur gearing overdrift and the iron mortise tailwheel driving a further pair in the tail through underdrift iron spur gearing. The important difference from most other mills however was that a fourth pair of stones had been in use at one time. Latterly these were removed and the stone nut drove a short layshaft through bevel gears which then drove an oat-crusher on the meal floor. The left-hand pair of head stones had also been removed. The headstones were independently regulated by governors mounted on the stone spindles and the tail stones by a single governor belt-



driven from the upright shaft. The flour dresser had been long removed as after the roller mill was built only gristing was done in the windmill. At one time the flyer was mounted above the roof as at Ramsey mill and drove onto a wheel fixed to the quarterbars under the buck. This had obviously been found wanting in some way as a normal step-mounted flyer was fitted latterly, with its six blades painted green. The mill was very well constructed and equipped, and even had electric light in the buck. What a pity it didn't survive another 25 years into our preservation-minded age.

THE SAIL DEBATE: A FRENCH ALTERNATIVE ROY BERRY

Whilst in Newsletter No.45 Chris Hullcoop mounted a telling argument against the patent sail, Claude Aldridge's vivid account of operating a common-sailed, tailpole-winded mill in winter, at night and in adverse weather conditions, convinces me that the numerous faults inherent in properly made and fitted patents, and even the others attributable to bad workmanship, were a fair price to pay for the easier operation and the added safety conferred by their use.

There are, or were, of course other alternatives of which perhaps the best known, the spring sail, might be seen as offering the worst of both worlds! Annular and roller-reefing sails were also used in British mills and I believe in the far south-west, the primitive cylindrical thatched tower mills may have used the simple Mediterranean multiple-sailed arrangement.

One type of sail construction which is generally thought never to have been used here is the French Berton system, although a Mr. Paul Baker, a member of the Newcomen Society, suggested in the discussion following a paper by H.O. Clark and Rex Wailes to the society in 1951, that the type had been anticipated by a William Sampson of Liverpool. It is perhaps a pity that no-one tried Mr. Sampson's idea.

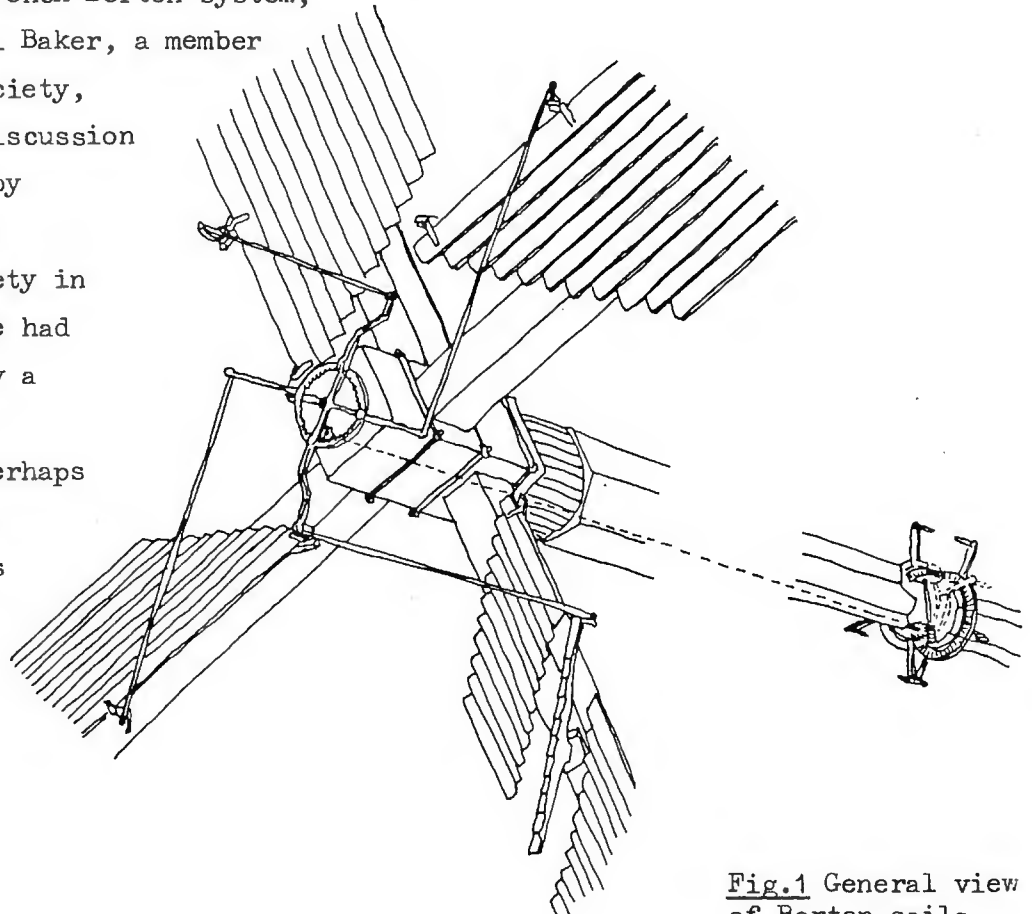


Fig.1 General view of Berton sails

The Berton design began with M. Pierre Theophile Berton (1803-1861). It was developed by his son of the same name who was born in the Nord region in 1827 but spent most of his life in Anjou where he died in 1894. Both held numerous patents on items of agricultural machinery as well as mill sails. One design, by the elder, of 1839 shows shuttered sails, similar to the British spring or patent sails but controlled by a small vaned device at the poll-end of the windshaft. It seems that it was not proceeded with. On the other hand, the 'Ailes a Planche', variously dated between 1840 and 1848, have been widely used (Fig.1).

Each sail has a number (all I've seen have 11) of thin planks about 150-200mm wide and 6-7mm thick running the length of the hardwood stock. The planks fold ingeniously over each other and when fully folded, are equal to the width of the stock. When fully extended they lie edge to edge. They may be 'opened' or 'closed' from within the mill by a control system consisting of one or two sets of handles which move gearwheels co-axial with the windshaft. In the most common form, one set is turned to extend the planks to start the mill. Thereafter, holding one set stationary against windshaft rotation reduces the sail area by retracting the planks and holding the other set increases it.

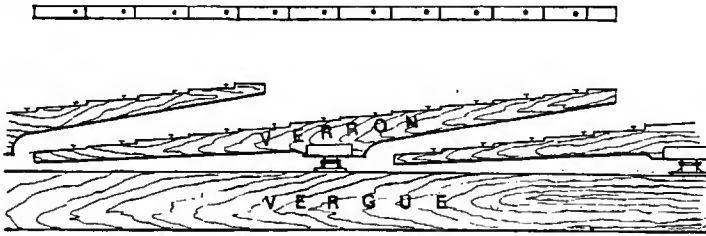
Although the Bertons produced drawings for several variants of the design of c.1844 these were, so far as I can tell, related to the control mechanism within the mill and that at the poll-end of the windshaft and not to the layout of the sails themselves.

THE SAILS The basic principle on which M. Berton senior worked was that by changing the form of a parallelogram its area can be changed, the greatest area occurring when it becomes a rectangle.

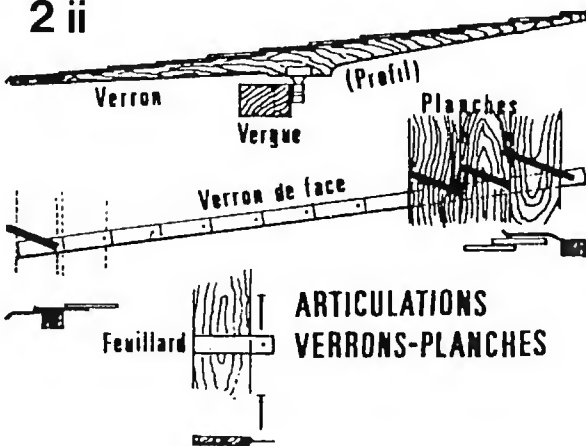
The stock (vergue) carries on its leading edge five pivots (sometimes six on larger sails), on each of which turns an arm (verron). The arms can turn through almost 90° from a position in line with the stocks to one nearly at right angles to them. When the arms lie along the stocks the sails are retracted. The 11 planks (planche) which form the working surface of the sail also run the length of the stock and remain parallel to it as the position of the arms change.

So that the planks can move over one another, and to incline the working surface to the wind, the arms have 11 faces, one for each plank, parallel to, but at graduated distances from, the stock, the face for the leading plank being the furthest from the stock (Fig.2). The planks are pivoted, by simple flat metal hangers, from one end of each face; that which is the inner end when the arms are parallel to the stock, and at the leading end when the arms are extended. Because the planks link the arms together, and the planks at one side of the pivot will be in tension, the arms and planks move in unison, providing an infinitely variable area between the retracted and extended positions. To take some of the force off the planks on larger sails, a metal

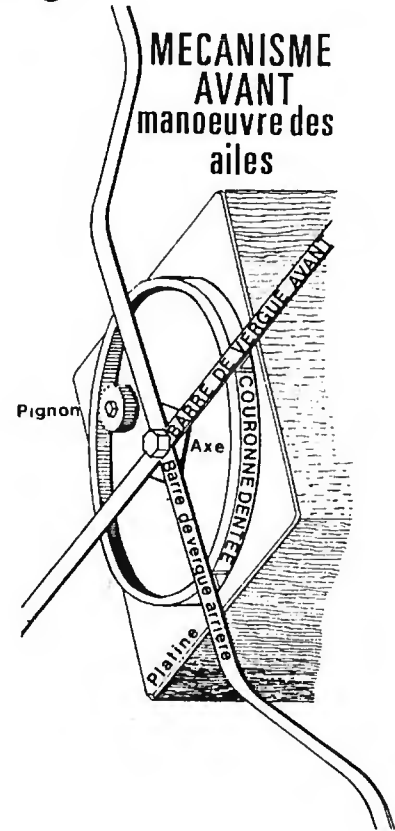
2i



2ii

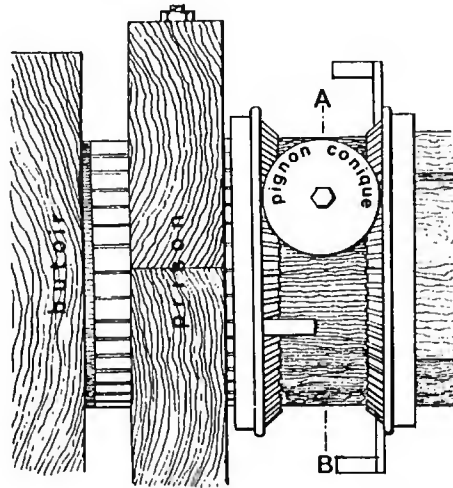
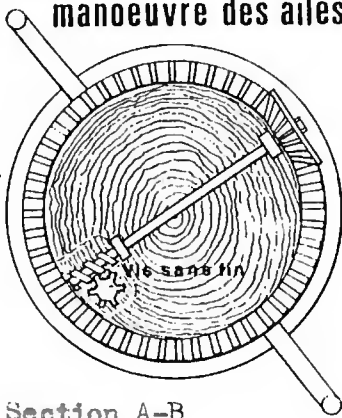


3



4

MECANISME ARRIERE manoeuvre des ailes



KEY TO DRAWINGS

Fig. 2i Plan of stock & pivoting arms

Fig. 2ii The pivoting of the planks on the arms

Fig. 3 External control mechanism

Fig. 4 Internal control mechanism

rod connects the second arm to the third and fourth.

THE EXTERNAL CONTROL MECHANISM The control linkage from the windshaft connects by a pivot to the leading (or inner) edge of the second arm. This is to provide the most effective angle between the link (tringle) and the arm. At its other end (in the most common form¹), the link is connected to one end of an iron cross-arm, spanning an internally toothed ring, co-axial with the windshaft and turning on a stub axle (axe) attached to a steel plate (platine) bolted to the front face of the windshaft (Fig. 3). Meshing with the ring gear is a small spur pinion (pignon) which is turned by a long shaft passing through an off-centre drilling, or a groove, through the windshaft to the internal control mechanism. Rotation of the pinion turns the ring gear in the same direction taking with it the cross-arms, pulling or pushing the link to rotate the second arm on the stock and extend or

retract the planks of the sail. The tringles for the rear sails have to be quite severely cranked.

THE INTERNAL CONTROL MECHANISM Having described the events at the front of the windshaft and the sails, it remains necessary to explain the means by which the long shaft to the spur pinion is turned. There are several variants (I have seen four). In the most common, a spur pinion at the 'indoor' end of the long shaft is meshed with a phosphor bronze worm which is attached to one end of a short shaft which passes through a cross drilling in the windshaft, terminating at its other end in a bevel pinion (pignon conique). The bevel pinion spans two bevel gears which run on the outer surface of the windshaft. Each of these gears has protruding from it four or five levers, each terminating in a handle (Fig.4). Turning either bevel gear relative to the windshaft will cause the bevel pinion to turn, this movement being transmitted via the cross shaft, worm and 'indoor' spur pinion to the long shaft, and as previously described, to the sails.

Having described the construction and operation of Berton sails we can now consider their strengths and weaknesses and compare them to the more familiar patent and common sails. It should be remembered that these sails were fitted to mills which were generally rather smaller than those in Britain, many using only one pair of stones, albeit perhaps nearly two meters in diameter.

Aerodynamically they are inferior since only a little 'weather' is possible. From an engineering standpoint too, they can be faulted, especially when one considers the long tringles joining the poll-end mechanism to the sails. These will be entirely satisfactory when operating in tension to retract the planks, less so when extending them in compression. In this condition the tringles are very prone to bending and it is very common to see this sort of damage. Unlike patents, the Berton system is not self-regulating, although drawings exist of self-regulating versions (one resembles, in principle, Hammond's sweep governor as used in Sussex). In several mills a simple remote control allows operation from the lower floors or out of doors. The Berton system did not require too much maintenance. Periodic greasing of the poll-end gear could be done via a storm hatch and internal lubrication was easy, but the five or six pivots per sail would require the use of a ladder. Minor repairs were also within the ability of most millers, the replacement of a tringle or a sail plank being relatively easy. In my view, the Berton system offers some of the advantages of the patent system and requires less expert maintenance and repair. However, it has some considerable shortcomings and is perhaps best suited to small mills. I would be interested in the opinions of members.

Notes

- 1 I am aware of two mills having an early control system consisting of a central spur pinion meshing with four racks which moved the arms on the sails. This seems to be superior in an engineering sense, but heavier, more costly and more difficult to maintain.

CROSSWORD Compiled by MARK BARNARD

Below is the 1990 crossword competition. We are again offering prizes of book tokens, the first prize to the value of £15 and a second prize of £5.

As usual I have managed to make all the clues relevant to mills and milling, with nothing especially difficult (I hope!). Most of the words are new but a few will be recognised from previous crosswords (I've lost count how many I've done for this Newsletter!).

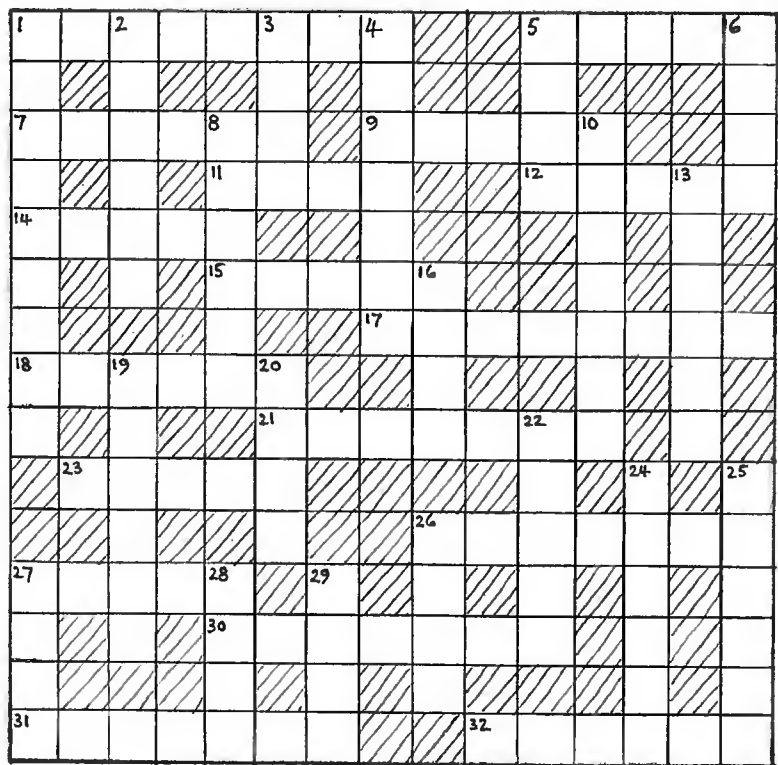
To enter, please complete the copy at the end of this Newsletter and post it to reach me by the post of Saturday June 9th. The draw for the winners will take place at our A.G.M. on the following day. Past experience shows that you have a very good chance of winning (something like 1 in 10) so why not give it a go?

CLUES ACROSS

1. Constable's watermill (8)
5. This peg is one of the miller's grinding controls (5)
7. Stone dresser's marking dye (6)
9. Well known C18 American mill improver (5)
11. See 32. Across
12. Kentish smock mill under repair (5)
14. Found on 8. Down (5)
15. Ufford and Wickham Market are two mills on this Suffolk river (5)
17. Essex tower mill (8)
18. Converted smock mill not far from 12. Across (6)
21. Sussex post mill near Keymer (7)
23. (& 19. Down) Attached to 29. Down (and 5. Across!) (5,6)
26. Millstones' grooves (7)
27. See 27. Down
30. (& 26. Down) Broadland windpump featured in 'The English Windmill' by Rex Wailes (7,4)
31. Often found in a round-house (7)
32. (& 11. Across) Tallest windpump in the country (6,4)

CLUES DOWN

1. Cloth sail setting (5,4)
2. Suffolk milling family - eg. at 10. Down (6)
3. Cambridgeshire windmill (4)
4. Sieving machine (7)
5. Stone furniture (4)



6. Powers mills at Woodbridge and Eling, among others (4)
8. Raised by the talthur (6)
10. Suffolk post mill (7)
13. Device for lifting small gearwheels (6)
16. Essential fixing for boarding, etc. (4)
19. See 23. Across
20. Mounting for edge-runner stones (4)
22. Type of horizontal watermill, suggesting its area of origin (5)
24. A mill in France (6)
25. Smock mill on Suffolk-Cambridgeshire border, burnt down c.1960 (6)
26. See 30. Across
27. (& 27. Across) West Norfolk windmill (4,5)
28. One of the most complete windmills in N.E. England, now under repair (4)
29. Found below the hopper (4)

REPLY TO REPLIES CHRIS HULLCOOP

It was good to read the interesting letters following my article on windmill sails in Newsletter No.45. Matthew Licence clearly outlines some major factors in the windmill's decline. Transport costs then and now are high and distance from the great steam-driven roller mills of the towns and ports adds to costs.

While patent sails are heavy, expensive and difficult to maintain, common sails can be uncomfortable to run. The four common sails at Herringfleet drainage mill on a wet day with variable wind send water down the neck and arms and we are soon praising good old Sir William. Climbing over patent sails only a few years old and probing for the inevitable rot finds us envying the Dutch with their everlasting rot-proof sails. Neither experience gives us the full picture though. The speed and efficiency of a good Dutch miller reefing his sails needs to be seen to be believed. The majority of patent sails today are made from poor quality materials and receive little or no maintenance. They do not compare with those fitted by Whitmores in the nineteenth century, which were then worked hard and were well maintained by local millwrights, all sustained by the resources of a prosperous business.

George Chapman makes some very interesting points on efficiency, progress and conservation applied to watermills. One can imagine a nineteenth century water-miller sending for an Armfield brochure. He liked his old waterwheel but friends had told him of the modern efficient turbine which although expensive to install would soon pay for itself in increased profits. For many who had a suitable river and site the change was profitable, but for those with a small variable flow with much debris their trusty old waterwheel was more flexible, more forgiving and easier to maintain. Windmillers must have faced similar decisions when the man from Whitmores called with details of their latest 'state of the art' patents.

The choice between changing to new methods which may have disadvantages and staying with tried and familiar ways is more than ever a part of life today. When a computer 'goes down' many must recall the old clerks with their ledgers and files and perhaps mutter 'Come back old and faithful servants, all is forgiven'. Technical development in industry, whether nineteenth century choices between waterwheels and turbines, commons or patents, or twentieth century choices between computers and clerks, printers or electricians, has everything in common. It takes in the real economic context of business, profit and loss, supply and demand in the market and with real jobs sustaining families.

Restoration of old wind and watermills with very few exceptions is done for sentiment and not for our material survival. This is a fundamental difference which is so often lost sight of by those restoring mills. Like modern factories old mills were designed as plant, to be replaced when worn out or

outdated, and the men who built them would be puzzled by our sentimental attitude. If you apply factors governing progress in industry to the restoration of old mills for sentiment the whole thing becomes pointless. So often though this is done, with the comment that if modern materials had been available to the old millwrights they would have used them.

David Barton mentions that the Dutch don't have reservations about combining old and relatively modern materials. Dutch windmills kept their true economic context for half a century longer than British mills. Development here had ceased before the end of the last century, although it's surprising to see Norfolk drainage mills dated 1910 and 1912. In Holland the mills continued to develop in the 1920's and 1930's with Dekkerised sails. The large corn-grinding smock mill at Vragender was built in 1958 - not in a park or museum site but as part of a modern milling complex. Such a thing would have been unthinkable in Britain. The Dutch developed iron and steel stocks long before the end of the last century but stayed with thatch for covering smock mills. It lasts far longer than boards and is continuous with no leaking joins; there are smock frames 350 years old in fine condition! Thus while the mills were still in their true economic context the Dutch kept to their thatch and developed the steel stock, the best of both worlds.

Many of our old mills have survived because of the move to a small number of large plants, making the small milling sites redundant rather than being swept away and replaced. Our best and most complete mills should be preserved as museum pieces, with some working if this is possible without replacing so much that the whole mill becomes a replica. Many mills though survive just as a building or in a very incomplete state and doubtless they will be converted into houses if they have not been already. Certainly a GRP waterwheel driving a generator is a worthy addition to a house-converted or gutted mill. Cast iron, wrought iron and quality timber are all very expensive and GRP is an alternative which will bring back life to the mill. I don't have such faith in modern materials though but another century will tell. At Wicken smock mill the cast iron fittings for the patent sails are being cast in aluminium, a very cheap and light alternative which when painted and weathered should look like iron. Thelnetham has an aluminium spider and only time will tell if what seems a good idea works and is long-lasting in practice. We now need some brave soul to fit a well-designed GRP stock to a working windmill and we can see how it progresses!

David Barton wonders how Dutch sails were assembled. On p.34 of Rex Wailes' 'Windmills in England' is a series of photographs showing this. The stock plus one fitted sail is raised and then the bars of the second sail are fitted to the stock up on the mill.

It is most pleasing to see correspondence and to hear different opinions and ideas. Only from debate amongst those with ideas and experience can we learn

the best way of doing things. However, we must never lose sight of the principles outlined by William Morris in his manifesto for the Society for the Protection of Ancient Buildings which he founded in 1877.

LETTERS

A BYGONE POST MILL from Guy Blythman

I thought readers might be interested in the accompanying photograph of the post mill which stood at Heston, Middlesex, overlooking Hounslow Heath (the site is now in south-west London). I decided to send it in particularly because it had East Anglian-type patent sails with large clamps, a feature which suggests that a millwright from Norfolk or Suffolk had a hand in its construction. Or perhaps the millwright had visited that area and been influenced by the design trends there. If anyone can throw any light on this matter I would be most grateful. The mill had a fantail (not visible in the photograph) but this was mounted on a carriage attached to the tailpole, instead of on the ladder in the Suffolk fashion.

It was a very fine mill and must have been an extremely powerful one; together with the adjacent steam mill it would have comprised a thriving business. Judging from this and other photographs I have seen, it must have been one of the largest post mills ever built in this country. Sadly it was destroyed by fire in 1895.

P.S. If any readers are interested in setting up a North Eastern Mills Group,



could they please contact me at 54, Sunna Gardens, Sunbury on Thames, Middlesex TW16 5EF.

IPSWICH WINDMILLS from David Barton

Referring to Monson's Map of Ipswich of 1848 and taking a clockwise route round the town starting from Wherstead Road we have:

1. Wherstead Road: between Croft Street, then unnamed, and Railway Street, now Station Street and opposite Stoke Green baptist chapel.
- 2.&3. Belstead Road: 'Stoke Mills' with one to the north near the tunnel mouth at the end of Chesham Road and the second to the south at the west end of Philip Road. The former must have been endangered by the subsidence in October 1845 during the construction of the tunnel. These mills were amongst the favourite subjects of the painter John Constable whose father was a miller.
4. Bramford Road: at the south end of Tower Mill Road.
- 5.&6. Anglesea Road: then called Peddars Lane with one to the south at the south-west corner of Oban Street. Cumberland Street which links this to Norwich Road was originally called Windmill Street. The second was to the north opposite the top of Newson Street.
7. Henley Road: between Dale Hall Lane and Henley Road / Park Road corner.
8. Tuddenham Road: at the entry to The Albany estate.
9. North Hill Road: about 60 yards in from Woodbridge Road.
10. Haslemere Drive: at the astern end thereof.
11. Belle Vue Road: to the west, opposite the entry to Post Mill Close. The mill did not stand on the site of the new flats.
- 12.&13. Belvedere Road: 'Albion Mills', one a little to the north end of Parade Road and the second further along. These mills were close to the cutting of the Felixstow(e) Railway in 1876 and stood 132 feet above datum and in a good position in relation to the prevailing westerly winds.
14. Sidegate Lane: adjoining the allotments opposite the school. The road turns right around the former site.
15. Bishop's Hill: on the north side on a site which remains intact with its iron gate thought to be a product of Whitmore & Binyon's works at Wickham Market where similar spiked finials can be seen on the iron gate posts.

Not included on Monson's Map is the 'Lattice Barn' mill which stood near the junction of Goring Road and Halliwell Road within living memory. White's Map of 1867 shows many of the mills cleared by development leaving only Philip Road, Bramford Road, North Hill Road, Belle Vue Road and the 'Albion Mills'. Rosehill Crescent was originally named Windmill Street. The 1884 Ordnance Survey shows a windmill adjoining the east end of the grounds of the Lunatic Asylum in Foxhall Road. What appears to have been the mill house flanks the present Chilton Road. This would make a total of seventeen mills in Ipswich.

The answer to my question in the last Newsletter is the No.11 bus which takes

one past Nos.9-14 above and returns to town as the No.5, passing site No.16.
Editor's note A full account of the windmills of Ipswich, by Peter Dolman, was published in S.M.G. Newsletters 9 and 10 in 1979.

NEWS

THELNETHAM WINDMILL ANNIVERSARY

This year is the 10th anniversary of the start of the S.M.G. restoration work at Thelnetham windmill. To mark the event there is to be a reunion for people who have worked on the project at the mill on Easter Saturday, April 14th. The exact form of this is yet to be decided, being dependant on numbers attending to a large extent but will certainly include refreshments and a display of the progress of the work. Invitations will be going out to those whose names (and addresses!) we have on record in early February but if you have had some involvement (no matter how small) and would like to come and don't receive an invitation, please let Peter Dolman know and your name will be added to the list (telephone Ipswich 42388).

THORINGTON STREET WORK

A 'work day' was held on 30th December at which several members and friends helped. Scrub clearance to the tailrace removed a lot of the 'jungle' and a tree which was threatening to bring down one of the retaining walls was removed. The failed joint on the flood gate sill was patched up and the old gates were lifted out to allow their repair / replacement.

Further work on the gates will probably be the subject of another work day at the mill in late February or early March. Replacement guide channels for the gates are being organised in cast iron as the present steel ones have rusted away in little over ten years. Anyone interested in helping is asked to telephone Peter Dolman on the above number. (P.D.)

UNIFORM BUSINESS RATE

First indications are that as far as mills are concerned, the new Uniform Business Rate will be anything but uniform! Unfortunately the rateable values are set by local District Valuers who when faced with an old mill don't have a convenient reference table to look up for their assessment. The result is that depending on individual judgement one mill may escape entirely while others are 'hammered'. One of the worst examples in this region is Sutton windmill in Norfolk where Chris Nunn has received a R.V. of £7,000, compared to just £683 at present (although his large museum building probably accounts for a good proportion of this). Locally there are wide variations in treatment, even within the same valuation district where seemingly identical cases can vary by as much as 300%.

S.M.G. will try to make its voice heard in this matter for we believe that no mill owner should be further penalised if they are already struggling to

maintain what are surely obsolete and almost worthless (in terms of rateable value) buildings. (P.D.)

WICKEN CORN MILL IN 1989 AND 1990

Progress has continued to be highly encouraging during the third year of the restoration. Work has taken place on many fronts, the most noticeable changes being that the cap has been craned down (to make thorough repair easier and quicker), and a further four sides of the smock have been renovated and re-clad. Help has included several S.M.G. members and trainees from the Eastern Electricity Board who came for a fortnight in July.

We are keeping to our plan of restoring the mill to its 1900 condition (so far as we can gauge it) but will make commonsense improvements to increase reliability and durability, provided they are reasonably in keeping with traditional mill-wrighting. Accordingly this year the cap roof will be rebuilt to a strengthened design, with more and stronger ribs. Also, in order to minimise disturbance to the smock tower we are putting a first layer of plywood cladding to make it sufficiently robust to carry working sails. We will not attempt to hide this change, but the plywood will be whitened in partial simulation of the old plaster work.

The 1990 work will be on three main fronts.

At the present rate of progress, the once seemingly endless task of recladding the smock could well be completed in the next twelve months.

The cap is progressing rapidly. The decayed tails of the sheers were cut back last summer, and new overlays fitted. In December the new fan trestle (designed from remnants and photos) was erected in one piece, using home-made sheer-legs engineered by Alan Wallis. Alan Loasby has made good progress with the fan. This year the main cap work will be the fitting of a new roof, based on the original design. This will replace the present dome fitted by Chris Wilson in 1971; this undoubtedly saved the mill and it was a hard decision to replace it. The original slightly conical dome with its large rear cowl was very distinctive, and a very strong structure will be needed to withstand loadings from the 'Cambridgeshire' roof top fan braces.

Now that the windmill restoration is well under way, we will be working on a parallel project - to refurbish the outbuildings as a granary and an engine mill. It is not immediately obvious that the brick farm buildings contain the essence of the original granary and steam engine house. Ultimately, we wish to erect a replica of the original pitched roof of the main shed. Work is in progress on the hurst frame / one-pair milling set kindly donated by Miss P. Nichols of Coton (Cambs.). This hurst has been re-assembled, but will need strengthening. An interesting find was the chimney base for the steam engine: it may be that we will be able to erect a new stack as part of the granary project, but in the meantime the Coton stones shed has to be rebuilt and reroofed - more jobs for this year!

As well as these first priority tasks we will continue to bring the mill's

internal machinery back to running order. Looking further ahead, 1993-4 is still the target for having the sails turning and the mill externally complete.

On behalf of the group, I'd like to invite you all along to help in 1990. Windmill restoration can be fun, and think of the sense of achievement. This year's work-ins will be July 21st-29th and August 18th-27th. For more details, please telephone Dave Pearce on Melton Mowbray (0664) 822751. (D.P.)

EVENTS

◆ S.M.G. PUBLIC MEETING: SATURDAY 17th FEBRUARY at 7.30pm at IPSWICH TOWN HALL

This year's public meeting, called 'Through the Mill', looks at the milling process with both stones and rollers, and the nutritional value of the flour produced. Our main speaker is Mr. John Jordan, head of the well-known family firm of W. Jordan and Son of Biggleswade, Bedfordshire, one of the U.K.'s largest and most successful independent millers. Mr. Jordan will also be telling us something of the history of his firm. Jordans use rollers of course, and to redress the balance (sorry - twice over!) Chris Wilson of Over windmill will speak on stone milling. Chris is experienced with both rollers and millstones.

This should be a most popular evening given the topicality of health foods. Please can you help with publicity by displaying our A4 poster if you are sent one with this Newsletter.

◆ VISIT TO WICKHAM MARKET WATERMILL: SUNDAY 22nd APRIL at 3pm

By a strange co-incidence it will be exactly 11 years (to the day) since our last visit to this fine and complete watermill on the River Deben. Long in the Rackham family, it has not been used by water power for many years, but is believed that feed milling is still done using electric power. Besides the watermill there is a former Whitmore and Binyon roller mill (sadly gutted) and mill house. Together they make a fine group, easily found by the old A12 on the northern outskirts of the village.

◆ HERRINGFLEET OPEN DAY: NATIONAL MILLS DAY, SUNDAY 13th MAY, 2-5pm

As usual on National Mills Day, a contingent from S.M.G. will be spreading the sail cloths of one of our few working marsh mills. We will try to give a bit more publicity locally to N.M.D. this year, and get some other mills opened.

◆ S.M.G. ANNUAL GENERAL MEETING: SUNDAY 10th JUNE at EARL SOHAM POSTMILL ROUNDHOUSE, commencing 11am

Please make a note of this date; further details in the next Newsletter.

Other Dates

Saturday 17th March: S.P.A.B. Windmill Meeting, London
Easter Sat. 14th April: Thelnetham Reunion, at the mill
Saturday 19th May: S.P.A.B. Day Tour to Warwickshire
Sunday 20th May: Friends of Norfolk Windmills A.G.M. at Old Buckenham
Sat.26th - Sun.27th May & Sat.2nd - Sun.3rd June: Thelnetham working parties

.....

STOP PRESS Gale damage January 25th 1990: Thorpeness post mill fantail blown down.

CROSSWORD ENTRY FORM

To enter the crossword competition on p.7, please fill in the copy below and your name and address and post to The Editor, Suffolk Mills Group, 41, Melbourne Road, Ipswich IP4 5PP. Entries must be received by June 9th 1990.

Name

Address

.....

.....

CLUES ACROSS

- 1. Constable's watermill (8)
- 5. This peg is one of the miller's grinding controls (5)
- 7. Stone dresser's marking dye (6)
- 9. Well known C18 American mill improver (5)
- 11. See 32. Across
- 12. Kentish smock mill under repair (5)
- 14. Found on 8. Down (5)
- 15. Ufford and Wickham Market are two mills on this Suffolk river (5)
- 17. Essex tower mill (8)
- 18. Converted smock mill not far from 12. Across (6)
- 21. Sussex post mill near Keymer (7)
- 23. (& 19. Down) Attached to 29. Down (and 5. Across!) (5,6)
- 26. Millstones' grooves (7)
- 27. See 27. Down
- 30. (& 26. Down) Broadland windpump featured in 'The English Windmill' by Rex Wailes (7,4)
- 31. Often found in a round-house (7)
- 32. (& 11. Across) Tallest windpump in the country (6,4)

1		2		3		4		5			6
7			8			9			10		
				11				12		13	
14											
			15			16					
						17					
18	19			20							
				21				22			
		23								24	25
							26				
27				28	29						
				30							
31								32			

- 6. Powers mills at Woodbridge and Eling, among others (4)
- 8. Raised by the talthur (6)
- 10. Suffolk post mill (7)
- 13. Device for lifting small gearwheels (6)
- 16. Essential fixing for boarding, etc. (4)
- 19. See 23. Across
- 20. Mounting for edge-runner stones (4)
- 22. Type of horizontal watermill, suggesting its area of origin (5)
- 24. A mill in France (6)
- 25. Smock mill on Suffolk-Cambridgeshire border, burnt down c.1960 (6)
- 26. See 30. Across
- 27. (& 27. Across) West Norfolk windmill (4,5)
- 28. One of the most complete windmills in N.E. England, now under repair (4)
- 29. Found below the hopper (4)

CLUES DOWN

- 1. Cloth sail setting (5,4)
- 2. Suffolk milling family - eg. at 10. Down (6)
- 3. Cambridgeshire windmill (4)
- 4. Sieving machine (7)
- 5. Stone furniture (4)