



Friends of Lowfield Heath Windmill

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Dear All,

This letter will be looking both backwards and forwards. We have almost reached our objective. The mill is in working order and the sails turn nicely by wind power, but conditions have been such that we have not yet tried grinding corn. At present our volunteers are making a 'bolter' which is a large sieve that grades the flour. It works independently from the grinding machinery and is powered by a belt off the brake wheel.

This seems the right time to remind people of who the Trustees are. We are quite proud that there have been few changes and no harsh words in the 14 years.

Peter James from Crawley. Chairman and Sunday morning organiser.

Mike Harrison. Secretary and Sunday morning volunteer.

Jennifer Smith from East Sussex. Treasurer. Jennifer spent her early days in

Lowfield Heath, she was a Constable descending from the owners of the mill.

Brendon Sewill. Retired Chairman and a primary instigator of the project.

Jean Shelley. Membership and retired treasurer.

Jane Hoyle. The odd tasks that arise.

Ted Henbury. Leader of the Ifield Watermill restoration project for which he has recently received the MBE.

Gerry Moss from the Surrey Industrial History Group.

Our important Sunday morning volunteers are -

Jack London from Merstham. Jack has been with us the whole time from Day One.

Barry Smith and Gordon Hinton, who have been with us for at least 10 years.

There are several others who help us from time to time. We thank them all.

It is time to renew the membership list and to regularize the subs. We thought £3 for one year, £5 for 2 years or £20 for 10 years. Back in 1987 we only asked £10 for life membership, those of you who subscribed thus did us a great favour because it showed us that you supported our seemingly ambitious, even crazy, project. We will of course honour that obligation. But please will you ALL fill in the yellow form to enable me to make a new card index. If you do not do so I shall assume that you have moved away or no longer want to subscribe. I expect to hand over as membership secretary at the end of this year, but I am sure that the annual Newsletter will continue. If you feel able to help in either of these areas please get in touch.

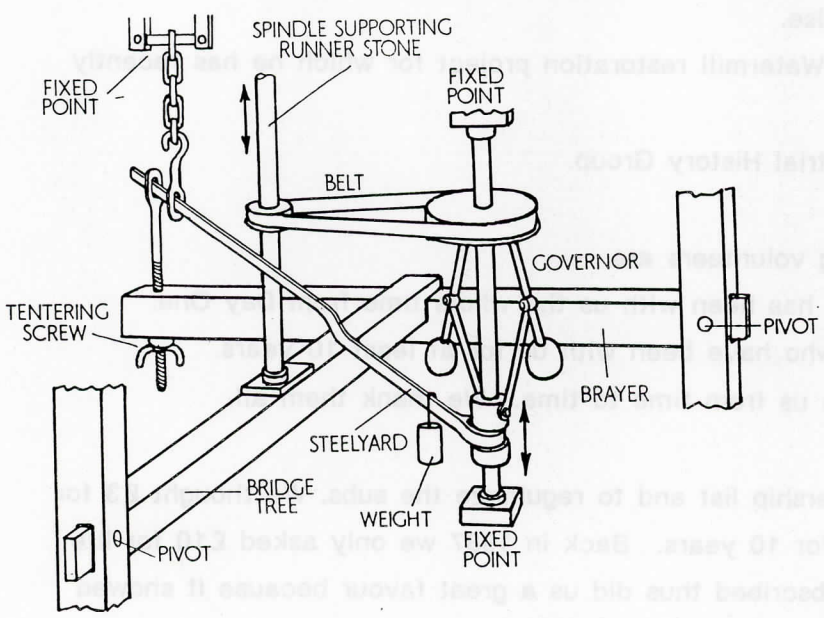
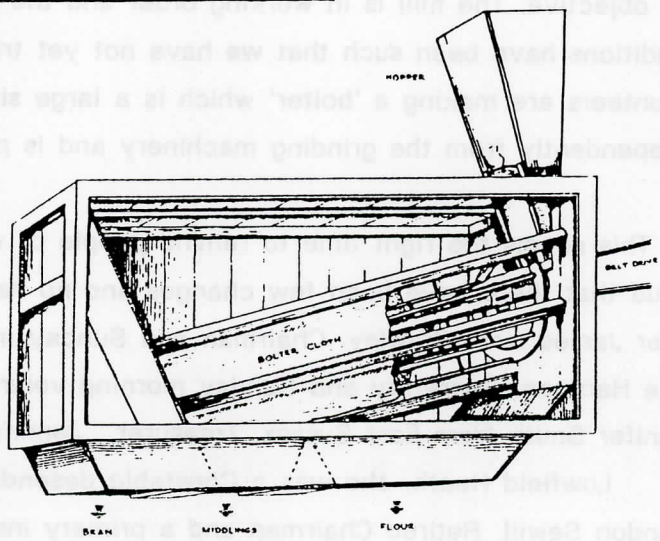
The mill will be open on the following days this year from 2pm to 5.30 pm.
 Sunday, May 13th, National Mills Day,
 The last Sunday of every month from April to August,
 Sunday, September 9th, National Heritage Weekend.

If you wonder why we do not open more frequently, it is due to the scarcity of stewards/helpers. We particularly need more people to learn about the mill and how it works in order to explain it to visitors. We also require stewards at ground level. If you are interested please phone me or come to the mill on a Sunday morning.

Jean S.

A BOLTER

Similar to the one that we will be building. Ours may be the first to be built for over 100 years.



A GOVERNOR

Described as an automatic device which adjusts the distance between the stones as the sails turn faster or slower.

(The stones are above).

Mike and Peter will write the technical part of this newsletter.

The journey of a sack full of grain through the mill.

The miller must inspect the mill prior to running, this consists of opening all the doors, window shutters and hatches. Now that he has light he must go round checking that all of the 60 wedges that keep the adjustable parts in position, are securely in place. He must then see that there are no loose bits of wood or metal that are unaccounted for and that all moveable objects are stowed in a secure place, usually on the floor.

The task of oiling and greasing the bearings of the windshaft, quants, sack hoist and striking mechanism is next on the list.

To run the mill, canvas must be put on to the common sails (setting the sails). The brake rope is lowered outside and the brake released; using the pole, the sails are moved to the St George Cross position and the brake put on again. Taking the ringed end of the canvas someone has to climb to the top of the sail, thread it on to the rail and then secure it with the ropes to the stock and sail as you come down. Turning the sails through 180° this process has to be repeated on the other common sail. Now we are ready to face the mill into the wind and this is done by raising the steps using the talthur and then pushing on the tail pole until it is in the correct position and lowering the steps.

Providing that there is enough wind to turn the sails the mill can be run, freewheeling (without the stones engaged) to provide the power for the sack hoist. The sacks of grain start their journey from the roundhouse. The miller pulls the sack hoist chains down and attaches the sack onto the end of the chain by making a loop and drawing it tight round the neck of the sack. By pulling on the sack hoist rope the sack will then be carried up to the spout floor, through the trap doors. As there isn't a straight unobstructed run up to the bin floor through the Lowfield Heath Mill, the sack has to be detached from the front chain on the spout floor. Then it is hauled across to a position close to the door and re-attached to the rear sack hoist chain to continue its journey upwards to the bin floor. The grain is then ready to be poured into either of the two rear bins. However, if the miller wants the grain to be ground using the front stones, the sack will have to stop off on the stone floor and be taken back across to the front hoist chain, reattached and then continue on up to the bin floor, so that it can be put into the front bin which feeds the front stones.

Once the grain is in the bin the miller prepares to grind. So, providing there is sufficient wind, starting on the stone floor, he opens the grain feed spattle to allow the grain to fall down the chute into the hopper. The spattle on the hopper side adjusts the amount of grain going onto the shoe and so down into the eye of the runner stone. Next the stone nut is engaged onto the wheel (brake or tail) before the miller descends to the spout floor, from where the whole operation is controlled. He hangs a starting bag onto the appropriate chute and turns the tentering gear handle down one complete turn (reducing the gap between the stones). Then he takes the striking chain weight to the door and while there he checks that everyone is ready and standing well clear of the sails. He releases the brake and returns to the door to close the shutters of the patent sails by pulling down on the inside chain and hanging the weight onto it.

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The sails turn the windshaft, which has the brake and tail wheels on it and in turn whichever stones have been engaged. The quant (the square shaft that the stone nut is on) knocks the side of the shoe making the grain move down its sloping surface and fall into the eye of the stone. Then it is ground as it passes horizontally between the stones to the outer edge, where it falls onto the floor of the tun (the wooden case around the stone). With every revolution it is swept round to the top of the chute and then down to be collected as flour in the bag on the spout floor. All the time it is working the Miller listens to the sound of the mill for indications of how things are going –too fast, too slow or of anything going wrong. He also has to keep an eye on the strength and direction of the wind, the speed of the mill, the grain feed and supply. If the hopper empties the bell on the tun will ring and the mill must be stopped as to run 'dry' (no grain going through the stones) could cause a spark, explosion or fire, additionally it wears the stones very quickly.

With the mill turning happily and everything sounding OK, the tentering handle is turned down half a turn. If the texture of flour coming down the chute is not as required, keep coming down a fraction at a time until it is right. Once the miller is happy with the quality of the flour he closes off the chute door for a moment, takes the starting bag off, replacing it with a clean bag to receive the finished product.

If the Miller wants to grade the flour, it has to go back up to the top of the mill to be put into the bolter hopper ready for processing through the bolter. When complete, the bolter will be along the rear wall of the stone floor and will be powered by a belt from a pinion engaged with the brake wheel, along the left-hand side of the mill. From the bolter it again descends to the spout floor to be collected at the bottom of three chutes, giving fine, course and bran grades of flour.

(We have only scant remains of the original bolter consisting of the centre shaft and an odd frame member. There is a photograph taken in 1955 of the remains then, also a description written in 1933. From these we have identified a complete bolter at Keston mill near Bromley, which is almost the same size and certainly of a similar date. All the volunteers have been along to see this bolter and have produced various sketches and photographs so that we can start construction this year, if we are successful in obtaining a grant for the materials.)

Stopping the mill, whether it is because of horrible noises, shortage of grain or just finishing the work for the day is always done by taking the weight off the striking chain and opening the shutters of the patent sails (pulling down on the outer chain). Once the sails have slowed down the brake is gently applied to bring them to a complete standstill.

So, from the sack of grain entering the Roundhouse to the bags of flour being collected at the end, you will now have a fairly comprehensive idea of the milling process. The next move is for you to take a bag of flour home and make your own delicious bread!

Postcards of the mill are available from Jean Shelley or Charlwood Copiers & Fax price 30p