

## Friends of Lowfield Heath Windmill

NEWSLETTER No 9.

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Dear Friends,

I'm sorry the Newsletter is late, life is so busy, and we've not really got enough people to do everything. However life is good, so we mustn't complain.

You will see an improvement in the Mill this year, for the skirt is now almost complete. Peter, Jack, Barry and Gordon have been working on it every Sunday morning, 9.30-1.30. The skirt is the downward projection of the weatherboarding of the buck (or body) towards the roundhouse roof. It must not of course touch the roof or the buck could not be turned!

The other thing that is happening at the moment is the new brakewheel which is currently being made by our millwright and he will shortly assemble it onto the windshaft. It fits between the main post and the breast of the mill, that is the sail side. The cast iron tailwheel is on the rear side of the main post, that is the side we enter the buck. The brake fits round the brakewheel, its purpose being to stop the sails as required.

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The two sweeps (or sails) that we have at present will have canvas to catch the wind. We have been to High Salvington in Sussex to see their canvas and practised fitting it on. Our canvas is on order, it will be made up for us by a retired sailmaker.

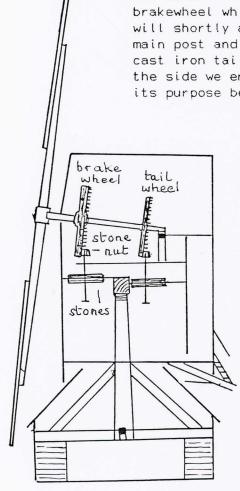
You will have noticed that the paintwork looks tatty. This summer we are going to have it professionally cleaned, treated against fungus, and painted, using motorized ladders instead of scaffolding. We have got the money for this, and look forward to it being done soon.

Our stock of new oak from Beggars Gill (thank you, Mrs Girling) was planked and stacked for drying a year ago and should be ready in a years time for the permanent floors in the buck and the roundhouse.

Meanwhile there are two more mundane things to be dealt with. We get quite a lot of water on the roundhouse floor in the wet periods of the winter. The floor needs a seal and this will hopefully happen before next winter. Also you will notice

that the flat area around the mill has been extended to meet the needs of turning the tailpole, (to turn the sails into the wind), but the ground still needs further attention before it is ready for seeding. Many thanks to Tony Thorpe from the Zoo for keeping us tidy by mowing.

While looking over equipment not yet fitted Peter found the sack hoist drive pulley (which bolts on to the tailwheel) had '1741 TOYE' cut into it. He was delighted, it seems a likely date, you will remember the mill is shown on the 1762 map. Any suggestions for the 'TOYE'?



## THE BRAKEWHEEL and BRAKE DETAILS. (by Peter James)

For those of you whom would like to know more about the workings of the brakewheel, I will attempt to explain.

With reference to figure 1, a cast iron square is fixed on to the cast iron windshaft, and the centre of the brakewheel is fitted onto a cast iron square using wood wedges. The brakewheel has clasp arms made of oak, each of which sandwich the elm cants, which in turn are plated each side with elm fellies. Around the periphery are fitted 112 cogs.

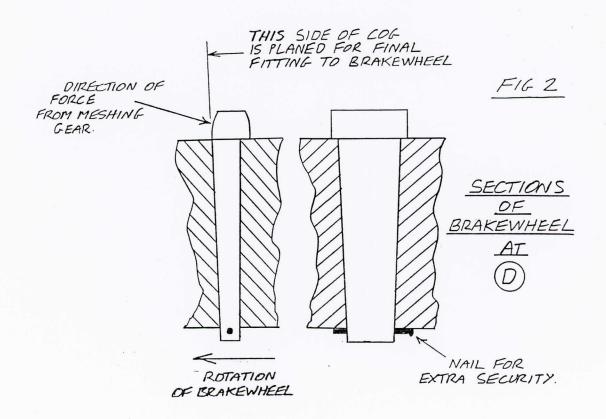
Wrapped around the outside of the brakewheel at 'C' is the brake, this is made in four sections of elm joined by wrought iron straps. One end of the brake is secured to the side of the mill. The other end is attached to the end of the brake lever at 'A'.

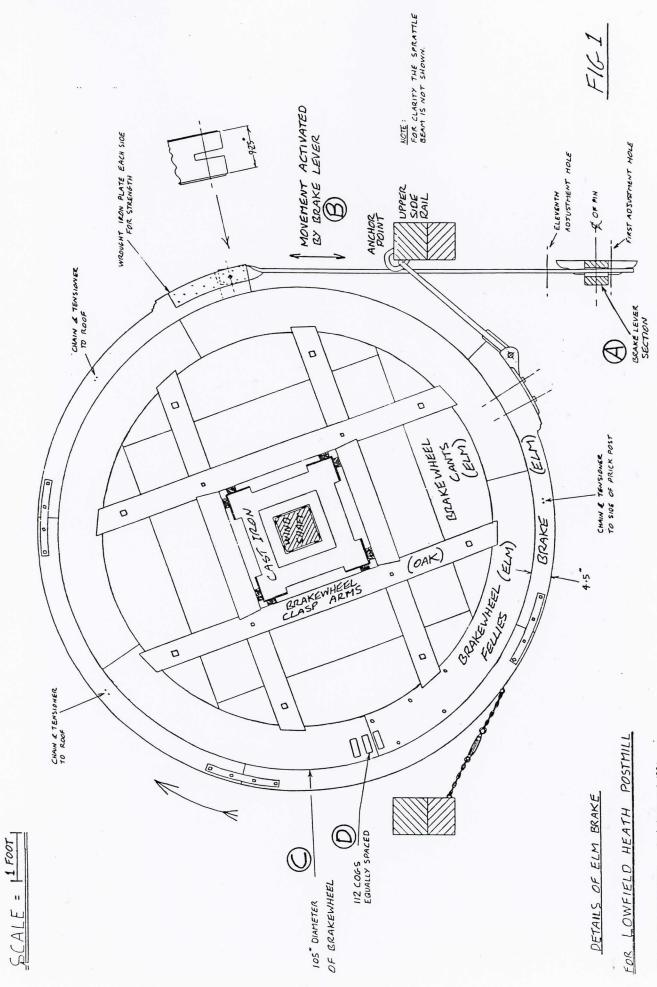
The brake lever is about 12 feet long and runs along the side of the mill. The brake operates by a combination of weight applied to the lever and the natural tightening of the brake due to the rotational direction of the brakewheel. The movement of the brake lever is shown at 'B'.

The wedge shaped cogs at 'D' are secured into the brakewheel by tapered mortices. Additionally they are pinned at the rear, see figure 2. These cogs in turn drive the stone nut which turns the actual millstone.

Notice the head of the cog is offset, this is to allow for the final fitting of the cogs into the brakewheel by planing one edge. The opposite shoulder of the cog transmits the bending movement to the face of the brakewheel (due to the force exerted by the meshing gear).

At present the tailwheel is secured by ropes to prevent the windshaft and the sails rotating. Once installed the brake will allow us to control the sails. Wind power with our new sail cloths will turn the sails for the first time for about 115 years!





DRAWN BY: P. J. JAMES 244 FEBRUARY 1994

Some of the recipients of this Newsletter live a distance from Charlwood; those who do may or may not know of the great threat to Charlwood of a second runway at Gatwick, this time to the north of the village. Charlwood would be between the two runways, with terminal buildings immediately on the east, the village would be rendered uninhabitable. If you know about the threat you may wonder what would happen to the windmill; as plans stand at present the mill itself is not directly threatened.

We are fighting very hard against the whole project. Most people think the idea is crazy. I think of it under two headings. Firstly, the impact on people — it will need so many people to staff it and to serve the extra staff, it will bring noise, extra roads, cause the destruction of a whole village, with a very good community and way of life, a Norman Church, and about 60 Historic Buildings, and three Ancient Woodlands. Secondly, there are the earthworks, which includes cutting 100 feet down through a hillside and over a kilometers wide; and all the related problems and astronomical cost. It is an horrific thought. We continue work on the Windmill, hoping that common sense will prevail.

The windmill will be open every Sunday afternoon, April to September, from 2.30 to 5pm. In July and August we will extend the time to 2 - 6pm, those stewarding will be on one of two shifts, 2 - 4pm or 4 - 6pm. WE NEED MORE STEWARDS, please let me (Jean Shelley 862646) know if you can help occasionally. No experience needed, we work in twos, one to go up into the mill, the other to stay below, but there is no need to volunteer in twos. We provide information and a few instructions.



NATIONAL MILL DAY is on May 8th. Mills all over the country will be open in the afternoon. Why not visit several? There are some excellent mills not far away.

IFIELD WATERMILL. TQ 245 364. Near the junction of Rusper Road & Hyde Drive.

OUTWOOD WINDMILL. TQ 328 456. A fine old working postmill.

NUTLEY WINDMILL, TQ 451 291. A postmill on Ashdown Common.

SHIPLEY WINDMILL. TQ 144 219. A smockmill.