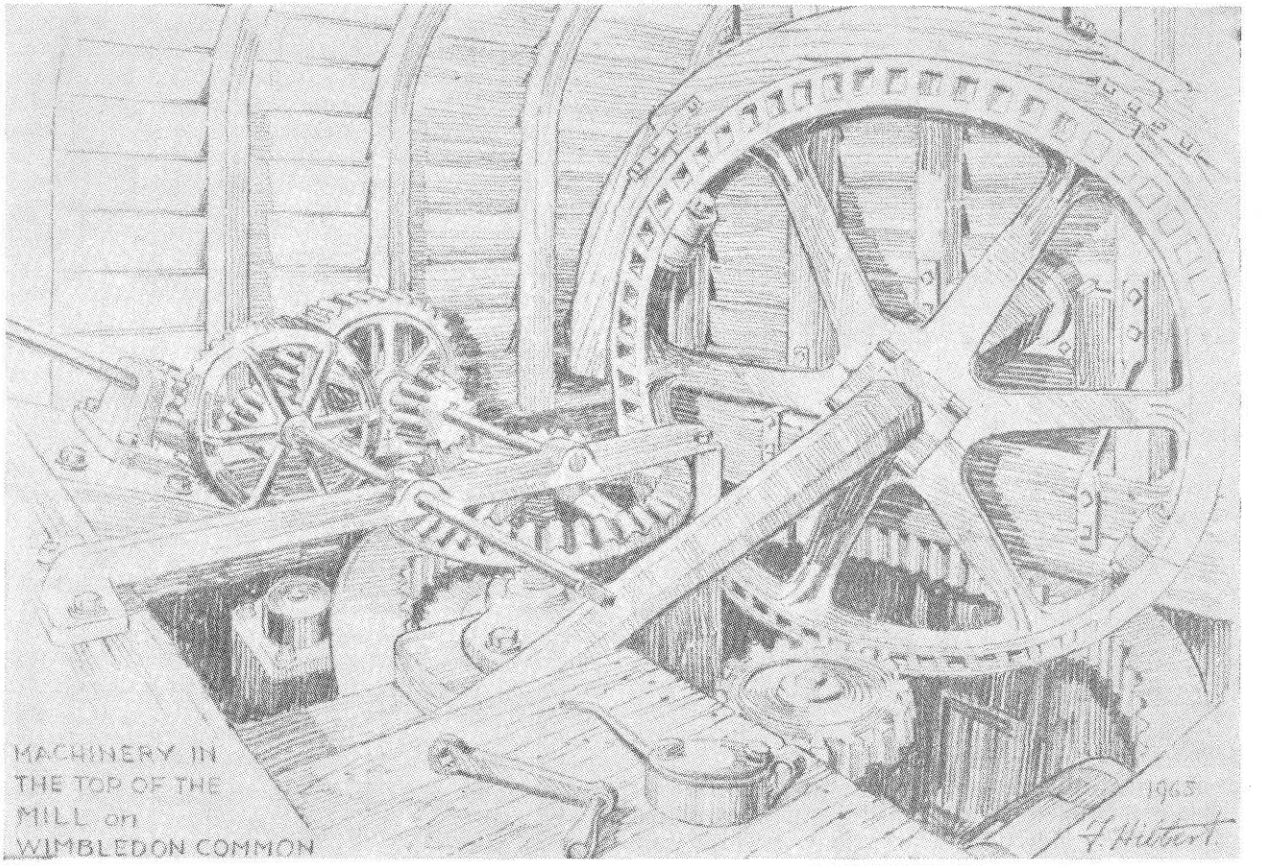

Fig. 1. A sketch of the machinery

Wimbledon Common Windmill

NORMAN PLASTOW

VERY LITTLE has been written about the Windmill on Wimbledon Common, although passing references to it will be found in most books on windmills. The present mill was constructed in 1817, but an earlier mill is known to have existed on the Common near Tibbet's Corner. This is believed to have been built by Edward Hall in 1613; it certainly appears on a map dated 1626. It was eventually dismantled and moved to a site at Wandsworth on the bank of the Thames. In 1799 a John Watney, probably related to the Watney brewing family who lived at South Side, Wimbledon Common, applied to erect a mill on the present site but was refused because he failed to produce a plan. An application 18 years later by Charles March, a Roehampton carpenter, was accepted and he constructed the windmill shown on the cover. The type of mill which he built was a hollow post mill, very unusual for this country, although quite common in Holland. Only three such mills are known to have existed in this country, one in Southwark, another at Mitcham (the round house of which still exists) and the mill on Wimbledon Common.

All early windmills were of the post mill type with a large buck or body mounted and pivotted on a central post supported on a timber trestle. Although

later mills of this type were refined to incorporate them, the chief problem of the post mill was that the whole of the machinery had to be contained within the large buck or body as it was not possible to transmit the power of the machinery from the revolving buck into the stationary round house below without causing the buck itself to rotate. Smock mills and tower mills overcame the problem by rotating the cap on a ring bearing instead of a central post. The hollow post mill achieved the same result by a hole bored through the crown tree (the main timber supporting the cap) and down through the centre of the post so that the drive shaft could be taken through it (Fig. 2).

The Wimbledon mill has an exceptionally large round house which is, in fact, octagonal in shape, 40ft. across and two storeys high. Originally the ground floor only was of brick and the first floor was of timber construction with a weatherboarded finish. The cross trees supporting the post were at roof level and the eight quarter bars which braced the post formed a skirt below the buck. Although the buck housed nothing but the wind shaft, brake-wheel, wallower and the fantailed mechanism, it was still of much larger size than the cap of a smock or tower mill. A rear staircase led from the flat roof of the round house to a door in the buck and the fantail, which was cantilevered from the buck, also carried the striking gear for the patent sails. For those not familiar with patent sails, these consisted of a series of hinged shutters or louvres which were normally kept shut, to catch the wind, by means of a counter balance weight operating on a rod through the centre of the wind shaft. Strong gusts of wind would force these louvres open to allow the air to spill through the sails and avoid overstraining the mechanism. The shutters could also be opened manually in order to stop the sails.

Corn was hoisted onto the roof of the round house from waggons and stored in grain bins within the skirt of the mill. The grain was released through chutes into the hoppers over the millstones, of which there were two, placed centrally on the first floor. After grinding the flour descended into flour bins on the ground floor The mill was unusually spacious, if not extravagant in its design, and this may have been due to the fact that the builder was a carpenter rather than a millwright, who probably copied the design of the Southwark mill which had been constructed on the roof of an existing building. There was sufficient space for the miller to take up residence within the round house during the first year of its working while a mill cottage was being built and after the mill stopped working in 1860 the two floors of the round house were converted into six small cottages. At this time, all the machinery from the

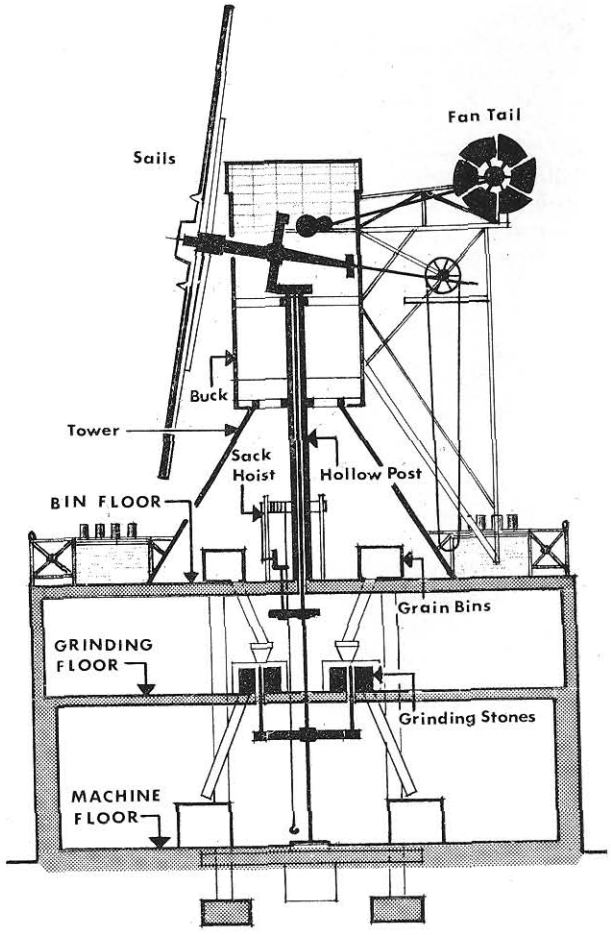

Fig. 2. A section across the windmill illustrating the working machinery; see also front cover for an external view.

wallower down was removed and the brickwork of the ground floor was extended up to enclose the first floor, although all the timber structure was left intact within the walls. It was in this building that Lord Baden-Powell lived while writing his book *Scouting for Boys*

Wimbledon Common and its Mill were in the ownership of the Lord of the Manor, Earl Spencer, until 1871. In that year, under the Wimbledon and Putney Commons Acts, responsibility for the Commons was handed over to an elected body of Conservators. They found that the mill had been neglected and was in danger of collapse, but it was not until 1893 that they appointed a millwright, John Saunderson, to restore the building. Soon after he started work, John Saunderson found that he had considerably underestimated the extent of restoration needed. The Conservators insisted upon hold-

ing him to his original quotation and the work was therefore carried out using old materials whenever possible and a great deal of improvisation. The roof of the round house was completely rebuilt and the lower part of the buck, which had rotted, was cut away, reducing its overall height by about 3ft. The angle of the skirt was raised so as to meet the buck and the proportions of the mill were therefore changed, giving its present appearance as shown in Fig. 3. From time to time further repairs have been carried out and in 1961 a new set of stocks and sails were fitted. The lower floors remained in occupation and it was not until 1974, when the cottages were vacated, that rot was found to exist in the floors and part of the roof.

Removal of the floor boards and the plaster from the walls has revealed the original timber structure. Those parts which have been encased in brickwork have been affected not only by dry rot but by furniture, death watch and longhorn beetle. In some cases the timbers are so decayed that they can be powdered in the hand but it is hoped to preserve some of the original structure by injecting it with epoxy resin. Fortunately the main weight of the tower is not carried on these timbers but on four large posts at first floor level which rest upon 18in. x 12in. beams spanning the full width of the round house. These beams are in turn supported by four posts which are more widely spaced and bear upon heavy timber laid under the ground floor. The posts have large mortices cut into them at a height of about 5ft. which indicate that they were braced horizontally by 18in. x 18in. timbers in each direction. The present sails have a span of 40ft. (the earlier ones were probably over 50ft.) and are mounted in an iron wind-shaft which carries a 6ft. diameter cast iron brake wheel. The main vertical shaft was thought to have terminated at first floor level, the two mill stones being over-driven, but removal of the boarding at ground floor level shows that one of the foundation timbers carried the main bearing for the shaft so it must have extended the full height from the ground floor to the brake wheel, a distance of about 45ft. This would indicate the great spur wheel and the stone nuts were housed within the timber framework on the ground floor so that the stones were under-driven. However, the recent discovery of a cast iron shaft, which appears to be a quant used with over-driven stones, in a nearby garden tends to contradict this.

Fig. 3. The windmill today showing the change in the skirt—compare it with the original construction shown on the front cover.

Having discovered that extensive repairs were needed, and since there was no money available from existing funds, an appeal was launched this year to raise £20,000 towards the cost of repairing and restoring the mill. It was also decided that a new use for the mill might be considered and that a Windmill Museum could be established on the first floor of the round house. This provides an area of approximately 950 square feet in which pieces of windmill machinery, displays and models showing the evolution of the windmill in this country could be shown. Many mills have collapsed or been destroyed since the last war and the machinery has either been lost or abandoned. It is hoped to recover some items of machinery and equipment and to restore them for display in this museum. £20,000 is the absolute minimum required to carry out this work and so far only about £5,000 has been raised. Any contributions, either financial or practical, would be welcomed. Contributions and enquiries should be addressed to the Appeal Fund, the Windmill, Wimbledon Common, London SW19.

Books

THE Editor regrets that for the second consecutive issue it has been necessary to omit the regular book reviews; this time, the very large correspondence on previous issues has caused this pressure, which has also been sufficient to push out an article on a medieval pottery group.