Frampton Cotterell Mill

Henry Baker Hopkins



The site included the mill with two iron water wheels, a brewery, bakery, malthouse and fishery, as well as yards, buildings, a large garden and well-stocked orchard, with perhaps twenty acres of land attached. The whole appears to have been designed and constructed in one operation, and must have represented a large capital outlay. The plan shows the site as it was in 1920 but is not to scale, either as a whole or relative to adjacent parts. If this is the mill recorded on the 1828 OS map it may have been fairly new at that time, as there was a stone in the west facing wall of the mill which bore a date in the eighteen hundreds, the last two figures of which I cannot recall. The wall is now plastered, but if a large window there has not been moved from its original position it is likely that the date stone is still there.

An old photograph, which must have been taken before 1914 was published in the *Bristol Evening Post* in July 1980 and shows part of the weir and other remains. This, as far as I know, is the only existing illustration, although the place was a favourite haunt of artists.

The Weir Wall. The photograph shows about a third of the wall at the northern end with a pair of hatches, and an eel trap shown as a dark patch. A large excavated area extending from the far end of the weir was undoubtedly a quarry, from which much of the stone was obtained. It has now been filled in. The hatches were moved up and down by an iron bar placed in the slots of vertical iron-plated timbers and secured by a bell crank. From these hatches, the 10ft high weir continued south-wards on its solid rock foundations to a similar pair of hatches with eel trap, and between the two weir gaps, 'the island' was formed, described on the 1841 tithe map as a withy bed. Access to it was by means of spikes driven into a buttress. Between the hatches the weir wall was surmounted by a cat-walk set up on iron brackets and having a single iron handrail. The weir continued to the east wall of the mill, and the two sluices, where a parallel wall divided the small-wheel head-race from the large wheelpit.

The Small Wheel. It has been suggested that this was overshot, but this seems doubtful, as the gearing was the same as that of the large wheel, which was certainly high breast. If overshot, the stones would have turned against the sun, moreover, although the level at the sluice was high, the floor of the race came down in steps of brick. I originally assumed they had been removed for other purposes, but have since thought that they may have formed a cascade to even out the flow to the wheel. The wheel was of iron and housed within the mill. Access to it was by steps from an arch in the east wall of the building. When looking at it from the steps the wheel had an internal tooth rim gear driving a pinion set at about two o'clock with the pinion shaft carrying the pit wheel at the inner end. The tail race was a culvert under the engine room, boiler house, a hauling way and the coach house, where it issued from an arch

into an open race to rejoin the river at the existing stone bridge. A pinion wheel leaned against the wall in the culvert perhaps a damaged one. The wooden upright shaft driven by this wheel did not extend up through the stone floor and had no crown wheel. The stones were still in their tuns and were considerably smaller than those driven by the larger wheel. The gearing was below ground-floor level, in a very dark space, and I can only add further details when considering the beam engine. It will be seen that the water entered this wheel, alongside, but separated from the tail water from the other wheel. The two tail races met under the mill.

The Beam Engine. This is believed to have been doubleacting, with a flywheel perhaps nine feet in diameter, The rimwas the width of the spokes and ran in a narrow wheel race, the crankshaft being near the flagstone floor. The crankshaft bearing was fixed to a long timber beam running the length of the engine room. The iron engine beam was mounted on another timber beam set across the room. The connecting rods at each end were missing, the cylinder cover lay on the floor, and the piston was rusted into the cylinder with its rod protruding from it. I do not recall seeing any valve or parallel motion gear, but a large pipe stood vertically at the cylinder end, with an elbow facing a hole in the wall. Outside there were two stone pillars between the engine room and the weir gap as shown, these may have supported the pipe. I have assumed that the engine was double-acting as, not only did it have a cylinder cover with a gland box, but there was a protuberance halfway up the cylinder which enclosed the rectangular ports, and which I took to be a valve chest. Probably the large pipe was the exhaust. The crankshaft went through the engine room wall to a point near the wallower, and a loose object on the end was probably a pinion that could be put in or out of gear with the wallower. It would follow that the main pit wheel could also be put out of gear. The governor had also gone, with no indication as to how it was driven. The engine room was plastered with cow hair and lime mixture, as was the whole mill, and there had plainly never been any access to it from ground floor level.

The Boiler House, Office and Chimney. The boiler house and office were lean-to buildings, both with flues into the chimney, that from the office serving a small fireplace. This room had a wooden floor, and a halved door. Outside was a low cobble stone platform with a large kerb stone fronting it, undoubtedly acting as a wheel stop. As there was another door above the office door and access from a store room above to the main stone floor, no doubt there was a sack chute here. The boiler had long gone, and little known of it except that the flue led into the chimney about three feet above ground level. The chimney was of stone up to about two thirds its height, then of brick to clear the mill roof, the base may have been five feet square. All this was taken down in the mid-1930s when conversion to dwellings was completed.

The Large Wheel was in the open, and the water approached the wheel over a thick timber sill. An internal tooth-rim gear drove a pinion set, similar to that of the small wheel. The pit wheel was iron and although I have no personal knowledge, I have been told that the wallower was iron with wooden cogs. A descent into a pit was necessary to attend to the pinion-shaft bearing, and a low pair of double doors gave access into the wheel pit from the ground floor. This was a large waterwheel and the axle seemed a long way down to a small boy, and the top of the wheel was well above a window over these doors, within inches of the top of the general level of the sluice and weir walls. Both wheels were in excellent condition in 1920, including the buckets. and both wheels were heavily made, with shallow channeliron shaped spokes, and not of light construction as were many rim-gear wheels.

The upright shaft driven by the large wheel went up through the stone floor to a bearing fixed to the joists above. It had a wooden crown wheel with spokes morticed into it, and wooden cogs which drove line shafts at either side. I often heard my elder brother point out to visitors that both upright shafts were made from the trunks of oak trees, and these, or more probably the long one sawn in half, stood as massive gate posts at the entrance to the mill yard in the 1930s. The line shafts had many pulleys on them, and the hoist, a dresser and a large fan which I took to be part of a winnower were still there.

An iron wheel was mounted on the wall inside the mill, and by means of a reduction gear and a spindle going through the wall it moved the sluice up and down, no doubt through racks and pinions. I think the remains of these still hung there. The washing away of this sluice during floods some time before the First World War finally halted the mill, although no doubt it had stood idle for some years previously. The gearing ran uncontrolled, vibrating the structure so much that ornaments on the shelf in the bedroom adjoining the stone floor were worked off and broken. The owners, at that time were the Bristol Waterworks Company, my grandfather being tenant, and my father worked for them in the Somerset pumping stations. He was sent to immobilise the mill machinery. which he did to such effect that it never moved again, although in time of flood the water would pour around the wheels and out of the tail race tunnel. My father told me that the Bristol Waterworks Company had bought the mill property to acquire riparian rights and 'to keep an eye' on the West Gloucestershire Water Company, who had begun to erect extensive steam plant to pump water from the adjacent iron mine that had suddenly flooded a few years before.

The large diameter stones driven by the large wheel lay haphazardly on one another, the spindles having been removed. The tuns had gone, and my impression of these stones is that they were not iron banded, and were of a creamy-white colour, which may give someone an idea of the type they were. I am told that none of them are to be seen on the site today, and assume that they were trundled into the wheel pits; an easy way of disposing of them.

The Ground Floor was stone flagged, clear of supporting columns, and still had a set of platform scales let into a shallow pit with the platform at floor level. The sack hoist

landed near these scales, not very conveniently placed in relation to the entry from the office or the bakehouse. Two large bins with sloping covers stood under the spouts from the stones, which made the hursting area very dark. I do not know what arrangements were made for sack filling. Another pair of smaller bins existed, one used for poultry corn which stood in the mill, the other in the meal house next to the pig-sties.

The Malthouse stood to the north of the mill, having doorways connecting with the main stone floor and the ground floor. Much had been demolished, and the whole area was littered with broken tiles, perforated bricks without mortar which may have been part of a maltroasting floor, and other mortared bricks.

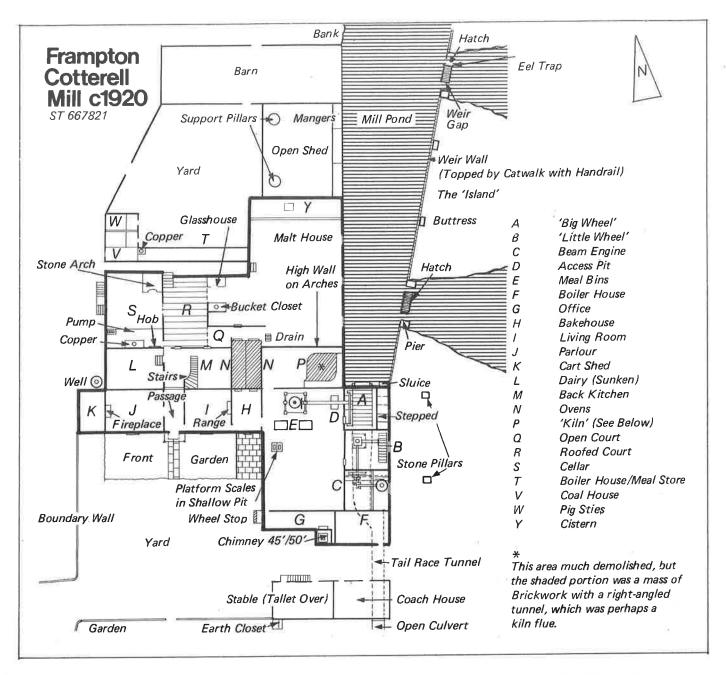
The roof was gone, although sockets in the wall adjoining the mill pond showed that it had been roofed. This wall had perhaps three windows in it, but all had been blocked with slate slabs sealed with mortar. At the north end there was, and I think still is, a cistern encased in stonework with a freestone kerb. When, against dire warnings of the danger, an iron manhole cover was lifted, dirty water was revealed. I do not know its purpose.

At the southern end, a solid mass of brickwork, marked P on the plan, enclosed a right-angled blackened tunnel which may have been part of a roasting kiln. A large spare millstone leaned against the wall at one end of this tunnel in 1920. A high wall supported on arches, also shown, was unsafe and demolished a year or two later by my eldest brother. The barn to the north of the malthouse was burned down in the 1950s and a modern workshop was built, but the open shed with round supporting columns is still there, now serving as an office.

The Brewery consisted of a cellar, S, and an adjoining room with a pump, a large-cast-iron boiler, and a hob grate. Next to this was a room with a sunken floor reached by steps, marked L and called the dairy. We used it as such but it was probably connected with the brewery originally. In the cellar there still exists a stone vault; a feature of old breweries, probably to maintain an even temperature. The brewing floor above was the first part to be converted to a dwelling; the slats which let out the steam now replaced by a wide window. Between the malthouse and brewery were two flagged courts, Q and R, one roofed and one open, which I think remain as original.

The Bakehouse situated between the house and the mill had doors to both these places and one leading to the yard over a flagged court. Two large ovens were fronted by an ornate frame which carried the doors, with the maker's name cast in large letters, which I cannot remember. The flues projected into the court Q, where there must have been a chimney. There was, what seemed to be, a warm room above the flues, reached by a doorway from whatever existed before demolition of the malthouse and connecting with the stone floor. The roof had been taken down, and probably a chimney with it, the whole having been re-roofed with corrugated iron.

The Mill House. This seems to be much as it was in 1920, except that, no doubt, the flagstone floors have been replaced. The only wood floor was that in what we called the parlour, J.



There were five bedrooms arranged on two levels, with two large landings and an attic reached by a narrow staircase which I do not recall ever entering.

The Roof Space. There was a floor above the stone floors which had slats nailed to it showing where the bins had been above the stones, but these were gone. Under the north and south roof of the main stone floor there was another narrow floor at eaves level, being under the roof apex. At its south end was a 'gothic' shaped window, right under the ball finial which is still there. This was the entry for bats and swallows, but is now filled in. At the north end of the narrow floor the hoist was situated, driven by a belt from the line shaft below. At some time the belt had been let get too long, and the large pulley when raised up for hoisting had rubbed on the rafter above, reducing it quite considerably. I do not think that this roof has ever been disturbed so this little bit of evidence is likely to remain. Further, up in the apex was the bracket which once held the wheel over which the hoist chain ran. This bracket almost certainly remains, but

the wheel is missing. A boy from the village and I removed it, perhaps 55 years ago, for some scheme of our own. Since it will now be an attic, it is possible that the hoist remains.

My grandfather was a brewer before going to the mill, keeping the 'New Inn' adjoining the churchyard, where he brewed his own beer and also supplied inns in Castle Street, Bristol, and at Clifton. He continued this activity after going to the mill, but not at the brewery there. My mother told me that he used The Malthouse at the bottom of Winterbourne Hillat that time. In church records he described himself as a miller after leaving the New Inn, and as a miller and farmer in his will made in 1912.

My father took over the tenancy about 1913, and about this time the Gloucestershire County Council became the owners, We left about 1926 and all the machinery was broken up by council workmen, using explosives to break up the heavy parts. The mill premises were then sold with a small part of the land, the rest was either let or incorporated into an adjoining council-owned farm.