

FROMEBRIDGE MILL, FRAMPTON-ON-SEVERN, GLOUCESTERSHIRE

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Introduction

The water mill has been an enduring feature of British history for hundreds of years, having dotted the landscape since before Domesday. Initially, mills were used simply to grind corn and other cereals predominantly for the local population, and this was the role that they quietly performed for the best part of a millennium. As such, the water mill provided one of the few sources of mechanical power available and gradually, apart from grinding corn, it came to be harnessed in other ways. With the advent of the Industrial Revolution, the number of uses increased dramatically and water power was adopted to drive the machinery for a host of new industries. In and around the Stroud valleys of Gloucestershire, a thriving woollen cloth manufacturing industry grew up and eventually, over 200 mills in the area were engaged in various activities linked to wool. With the gradual demise of the local woollen industry, such was the usefulness of established water-powered sites that many redundant mills were re-used, being converted to house a variety of trades and enterprises. Thus, the history of the water mill in this part of Gloucestershire has been one of longevity, with sites being used again and again, often housing a succession of trades and industries.

During Fromebridge Mill's long history, it has reflected many of the trends that have marked the passage of time in the county during the past nine centuries. It grew from a small Domesday corn mill, passed through innumerable changes of ownership, transitions and configurations, eventually becoming involved for a time in the local woollen cloth trade. Following this, there came a fascinating period where the mill achieved national importance as a major iron and wire-making site. However, as this industry also faded, the wheel turned full circle and the mill reverted to its original purpose of corn milling and in its latter days, the production of animal feedstuffs.

Even though for a time, the mill was reliant partially on steam power, throughout its long and complex history, water power played a crucial role, being used to drive a wide range of machinery during the mill's many phases of activity. Water power was still operating all of the mill's machinery up to the end of commercial milling in 1990. Remarkably, water power outlived the use of steam power; usually, the reverse was true.

By the mid 1990s, after years of patching up and later, lack of use, the mill was beginning to show its age and areas of the roof, upper floors and structural walls had seriously decayed. Several attempts had been made to find a new use for the mill since its closure; however, it was not until 1998 that the mill was bought by Old English Inns plc. and over a 12 month period, converted to an inn, restaurant and function rooms. The cost of the renovation and conversion was somewhere in excess of one million pounds. With this new lease of life for the mill, it seemed an appropriate time to reflect on its background and working life, one of almost unbroken commercial activity stretching back at least 900 years.

Early Days

At the time of the Domesday survey of 1086, like virtually all other water mill sites, it comprised a corn mill, although with the relatively high value of 10 shillings. Not surprisingly, no visual representation of the mill's configuration exists from this distant period although doubtless it was a simple affair built largely of stone, wood and straw. Clearly, nothing survives from this early structure which was but one in a succession of buildings to occupy the site over the next 900 plus years. During these centuries, the site saw successive changes of structure and use.

As noted above, there was certainly a mill in operation here in 1086 (1). During the latter part of the 12th century, it was given by Walter de Clifford to Godstow Abbey and in 1228, the Abbess of Godstow successfully defeated a claim by the Vicar of Frampton that she should pay tithes for the mill (2). The mill was destined to remain in the Abbey's hands for several centuries, as in 1304, it was granted to William the carpenter of Frampton for an annual rent of 30 shillings, and again in 1312 to Robert FitzPain, the lord of the manor. The Abbey was still receiving its annual rent from the mill well into the 16th century.

The successive changes of owner and occupier was to be a constant feature throughout much of the mill's history, although this phenomenon was not uncommon. By 1328, the mill, by now known as Fromebridge Mill, had been leased by FitzPain's son to Roger le Walker (3). This was an interesting development as the surname "Walker" suggests that the lessee may have been active as a fuller, the alternative name for which was "walking". Thus, after several centuries of use exclusively as a corn mill, there now comes the strong possibility that Fromebridge Mill was becoming involved in the blossoming woollen cloth industry developing in and around the Stroud valleys. Here, suitable sites for the construction of water-powered fulling mills and a freedom from the increasingly restrictive practices of the urban-based Craft Guilds encouraged the woollen industry to relocate from traditional centres of manufacture such as the City of Gloucester, to rural areas, more receptive to unrestricted industrial expansion. So it seems that Fromebridge, as an already established centre of water power, was drawn into the often-profitable trade of fulling woollen cloth.

By the middle of the 15th century, there is little doubt that Fromebridge was involved in the cloth trade as in 1450, the lord of the manor of Frampton leased two mills under one roof (called Frome Mills) plus a third corn mill, to Richard Hill. He was ordered to rebuild the latter as a fulling mill (4). It may be that the two mills under the same roof already comprised both corn and fulling mills, each set of equipment being powered by its own dedicated water wheel. This configuration was by no means uncommon and a short way upstream in the parish of Eastington, the next mill (Churchend Mill) was also operating in such a manner.

By the beginning of the 16th century Fromebridge Mill was being leased by Hugh Weaver and by now it comprised a combination of corn mill, malt mill, plus a fulling mill housing two fulling stocks. By the 1540s, occupancy of the mill had passed from Thomas Haynes to John Haynes, his son; the latter was recorded as digging Fullers Earth at Alkerton in nearby Eastington, this being a useful aid in the fulling/scouring stages of cloth making. Presumably this was the source of supply for fulling operations at Fromebridge although Fullers Earth was also dug at the aptly named Claypits, also in Eastington. Here, local clothiers were held

responsible for the flooding of the road as a result of the extraction of Fullers Earth. Thus, it seems that Fromebridge Mill was well supplied from several sources within a mile or so. Like many local clothiers, Haynes looked to the afterlife and in his will specified that:

“20 shillings be paid out to Froumbridge Myles to find a priest’s stipend for the church” (5).

The changes of occupancy continued and by the 1620s, Alice Haynes had been replaced by Thomas Bowser. Not only did the tenants continue to change, the configuration of the site also evolved. In 1609, it consisted of two corn mills and two fulling mills belonging to the lord of the manor (6); by 1632, only three corn mills were recorded and in that year, they were sold by John Arundell to Urian Wise (7). By the 1670s, the mill had passed through the hands of several members of the Bowser family, before being sold to Thomas Halling in 1689. They remained with the Hallings for several decades before being sold in 1713 to Stephen Jenner who subsequently conveyed the mills, by now consisting of four corn mills, to Thomas Jenner (8). The mills were destined to remain as corn mills for another half a century or so. However, the associations with “rural” trades was about to come to an end for in 1760, the corn mills were sold to Joseph Faithorne, a “brazier” or one who works in brass, and his business partners, William and John Purnell. This ushered in a new era for the mill as it now became the base of operations of what became known as the Fromebridge Company, an industrial organization that was to develop into one of national importance and repute.

The Fromebridge Company

The comparatively peaceful existence that Fromebridge had enjoyed up to now was to rapidly end as the mills were rebuilt to form substantial wire and iron works. The seeds of the new company had been planted in 1759, when a partnership agreement was drawn up between Joseph Faithorne, John Purnell (each putting in £150) and Thomas Smith, who contributed £70, with the aim of drawing and selling wire at Rivers Mill (just outside Dursley) and another mill in Dursley itself (9).

By 1760-1, the partnership comprised Faithorne and John and William Purnell and during this time, they took over the Fromebridge site. Each brought in some £700 in goods or money, the company being set up to specialise in the production of various types of wire as well as iron. This was but one of a number of industrial enterprises that the Purnells were involved in, having accumulated wealth through their activities in the local woollen trade. They were now wealthy industrialists, owning iron works, mills, land and property in the locality as well as further afield. For instance, in 1765, William Purnell was not only a partner of the Fromebridge Company, he was also running a second wire works, leased from his father John, at Ayleford in the Forest of Dean. John Purnell was also the proprietor of iron and wire works at Dursley.

The Fromebridge Company was energetic and innovative, continuing to develop its products and markets. For instance, in 1766, the Crown granted John Purnell a patent for the manufacture of ship’s bolts and round rods of iron and steel. It also encompassed improvements in the manufacture of iron and steel wire (10). Likewise, in 1787 William Purnell took out patent for a new mechanical process for welding and shingling iron which John had invented.

Expansion continued and by 1767, further downstream towards the Severn, following the death of the ironmaster George Wilding, Framilode corn and iron-slitting mills had been sold to the partners of the Fromebridge Company. Meanwhile, at Fromebridge, changes continued apace and by c 1775, the site had been built up into one of the largest wire works in the country. In 1779, they were described as:

“one of the largest and most compleat works in the kingdom for making iron and steel wire”. (11)

The main markets were in the local woollen cloth trade and for the manufacture of fish hooks, destined for the Newfoundland fishery. Also noted was the presence of a “brass-work lately erected”. This may refer to the manufacture of brass wire that the mill was already producing. Supplies of brass probably came along the main turnpike road from the Bristol Brass Company (12).

In 1778, the company purchased other mills on the Framilode site from John Purnell. Framilode Mills stood close to the Frome’s outfall into the Severn and was noted as a substantial iron slitting and tinplate rolling mill – yet another successful industrial offshoot of the Fromebridge empire. The Framilode venture relied initially on water power derived from the Frome although in 1803, a 20 HP Boulton & Watt beam engine was installed (13). This was one of the earliest Boulton & Watt beam engines installed in the county and its purchase helps put into context the status and progressive attitude adopted by the company. The order was placed by “William Purnell & Co” in October 1803, the engine being specified as a 20 HP double acting beam engine with a 233/4 inch diameter cylinder and stroke of 5 ft, the stated use being for rolling tinplate. Perhaps surprisingly, no such engine was ever installed at the Fromebridge site, operations relying solely on water power throughout this phase in its working life.

By now, the Fromebridge Company was a significant industrial concern and in 1778, was valued at no less than £21,000 (14). The Company was now engaged in a variety of pursuits and was producing pig and bar iron, plus iron, steel, copper and brass wire. Apart from supplying wire for the manufacture of fish hooks, other local markets at this time included the expanding Stroud woollen industry. Wire was an important item used in several ways to tease out and align woollen fibres prior to spinning. For several centuries, this stage had been solely hand-powered and made use of pieces of wood or stiff leather with lengths of wire protruding through, known as ‘cards.’ These cards were made by hand and were responsible for employing many women workers in the Dursley area. At this time, wire was also being made at Rivers Mill just outside Dursley, which may have also been in the Purnell’s hands. (15).

Although at this time, carding and scribbling processes relied predominantly on the use of hand cards, changes were afoot in the woollen industry with the appearance of mechanised processes which were being developed and gradually adopted by some local clothiers. Thus, wire from Fromebridge and the few other mills in the area may have found ready markets in the form of the circular drums studded with wire that were beginning to replace hand cards. For instance, by the 1790s, perhaps as early as 1792, these hand-powered machines were being produced for carding and scribbling by the Bristol-based firm of Guppy & Armstrong (17). They may also have been manufactured in the Stroud area.

In addition, a further market was that of pin making. There were links with the trade in that the Fromebridge Company was supplying some pin manufacturers. Local tradition suggests that mills nearby at Cambridge and Moreton Valence may have been engaged in some way in pin manufacture. However, at this time, most stages relied on hand-operated machinery, hence requirements for power would have been limited. If pin-making was taking place in these locations, it is likely to have been carried out in cottages and/or small workshops. At the time, it was common practice for most stages to be carried out in outside locations, with finishing being carried out at the mill. Possible this type of arrangement was taking place, with Fromebridge providing a conveniently local source of wire.

For several centuries, the City of Gloucester had been one of the country's most important centres for pin manufacture although by the early part of the 19th century, the industry was in a state of decline. In 1808, the pin-maker Thomas Haynes went bankrupt, having been supplied with wire by the Fromebridge Company for some years. This period may mark the end of wire making at Fromebridge (17).

In 1790, William Purnell and Joseph Faithorne assigned an insurance policy relating to Fromebridge Mill for £1500 with the Sun Fire Office to John Hicks of Berkeley (18). The policy gives a useful description of the site which consisted of "a rolling mill, tilting mill and block mill, all under one roof, with wire mill and offices adjoining and a brass nealing house". [a block mill or block furnace was a bloomery, where ingots or bars of puddled iron were brought into the form of thick bars, then left for further rolling, etc. when required. A nealing house (annealing) was where brass was toughened by exposure to continuous and diminishing heat]. However, changes were taking place within the company and in 1791, after more than 30 years involvement, Joseph Faithorne withdrew and released his interest in the works to William Purnell. A few years later, in 1800, William Purnell entered into partnership with William Veel (19); however, the end of the Fromebridge Company was in sight. In 1805, William Purnell died, ending the long-running family connection with the company. The mill continued to produce iron and brass wire for a time although by 1809, Veel found himself in financial trouble and became unable to pay his debts. Manufacture of wire appears to have ceased around this time (20) and there are no later references to wire making at the site.

It is possible that competition from elsewhere played a part in the demise of the Fromebridge Company. For instance, there was a wire mill operating in Gloucester around this period, being worked by the Gloucester pin-making company of Hall & Lander. The mill, known alternatively as Whitegoose or Goosewhite Mill, stood close to Millbrook Street and was still producing wire in 1838 (21). It may be that the company was set up as a consequence of the end of wire making at Fromebridge or that it was a contributing factor in the latter's demise; there is no clear evidence either way. Presumably Hall & Lander manufactured wire for their own use although they may have also supplied other pin-makers as well as other industrial users in and around Gloucester. Another effect of this loss of local supply may have prompted George Lister to buy the Rivers Mill site near Dursley and establish himself as a wire drawer and card maker (22) in an area long steeped in the manufacture of wire cards for the woollen industry.

There now follows a period in the mill's history where events become a little hazy and at some point either during or after Hick's period of ownership, significant alterations once

again took place. At some point after 1819, the mill building that had formerly straddled the main stream was demolished, its location being taken up by the installation of two water wheels; however, there is no evidence that these events took place at the same time. At this date, there was not yet an engine house at the mill and the large lean-to section had not yet been added (See maps of 1819 and later). However, there are indications that significant industrial activity continued to take place at the mill. In 1839, a wide-ranging report was produced by the Assistant Commissioners, investigating numerous aspects of the local woollen trade. In this, a list of donations to the striking weavers union is given (23). This comprised largely donations from various mills and workers' communities, the size of the individual donation helping to provide an indication of the extent of the activity taking place. For instance, some of the larger cloth mills made substantial donations: "Ebley Mill and Friends" donated £17-12-6 and Lodgemore Mill £9-8-11, not inconsiderable sums. What is perhaps surprising is that Fromebridge Mill was recorded as donating £6-6-10, quite a large amount and one that suggests that there was still a sizeable workforce at the mill. Thus, it seems likely that an industrial-scale workforce was present, as opposed to the relatively small number that might be expected with simple corn milling operations.

Wheel Turns Full Circle

During this period, up to 1859, no miller was listed in local trade directories, seemingly indicating a period of inactivity at the site. However, by 1859, the resident miller was listed as Uriah Godsell of Frampton. By now, the mill had clearly reverted to corn milling (24), hence significant changes must have been made to the interior of some of the buildings, although not necessarily to the exterior configuration. Godsell was recorded as the miller from 1859 through to 1879, although from 1876 he also advertised as a corn and seed merchant. It appears that during the latter part of Godsell's occupancy, the business was in decay and it was apparently in a very run down condition when it was taken over by Charles White, c 1889. Under his control, a process of revitalisation was gradually put in place.

Charles White was a single man in his late teens and was also a skilled carpenter and it was thanks to his skills that he was able to renovate the derelict buildings and bring the mill back into operable condition. Once this had been achieved, he began to grind small amounts of corn for himself whereupon he was approached by a number of local farmers who asked him to process their crops. He obliged, and soon the mill was back in full commercial operation. This appears to have been an opportune time as there were few mills still operating in the area and the reopening of Fromebridge was doubtless of great benefit to local farmers. The result was that the mill prospered. As well as grinding corn, Charles White also continued to make good use of his carpentry skills and produced various turned items. One of these was a wooden cattle feeder, once popular and in widespread use on local farms (25).

At some point, the mill was re-equipped by the Gloucester-based firm of William Gardner & Sons, who advertised as "millwrights, millstone manufacturers and engineers". In 1861, Gardner had taken over the millstone manufacturing business of J G Francillon and rapidly expanded the business to encompass a wide range of millstones, grain cleaners, flour graders, etc. Evidence suggests that the mill was re-equipped during Charles White's period at the mill. Other steam-driven equipment was also supplied by the Gloucester-based engineering company of Fielding & Platt, operating from the Atlas Iron Works from 1866.

During much of the time under the White's control, the mill acted as something as a milling centre, grinding corn and other cereals for surrounding parishes that lacked milling capacity or, like nearby Eastington, whose mills had long been turned over to the woollen and other trades. In this area around the lower reaches of the River Frome, there were few mills still operating as corn mills, and for much of the 19th and into the 20th centuries, these were limited to Fromebridge itself and Ayliffe's steam-powered mill built adjacent to the former Darrell Arms on the banks of the Severn at Framilode. This operated from the 1840s up to the time of the Second World War (26). In fact, when the mill ceased milling operations, at least one pair of redundant mill stones went to Fromebridge Mill (27).

Under what arrangements the White family had been running Fromebridge Mill since their takeover in the 1880s is not clear, although it appears to have been on some form of lease. It was not until the Bengough Estate was broken up and sold in 1927 that the mill finally became the family's property. The vendor was Nigel James Bengough of Tocknells House, Painswick, who was described as "late a captain in His Majesty's Royal Flying Corps". When the auction took place, the Fromebridge site formed a single lot that was sold to Charles White on October 7th 1927, the auction being held nearby at the Whitminster Hotel (28). Charles White was subsequently followed in the business by his son Geoffrey and later by his grand son, Stanley.

During the latter part of the 19th and well into the 20th century, the mill settled down to a steady trade as a corn mill of some local importance. This was quite an achievement as increasingly, the country miller was being driven out of business by large milling companies, often with premises situated advantageously at ports or docks. In the case of Gloucestershire, the main source of competition came from steam-powered roller mills operating in and around Gloucester Docks, as well as Healings large steam mill in Tewkesbury. In all cases, bulk transport of grain came by water, this minimising transport and handling costs. Clearly, this was an advantage that the country miller rarely had although in the case of Fromebridge, it appears that it continued to provide a local service, doubtless based largely on locally grown crops. However, the White's did not limit their activities exclusively to their locale, and it was not unusual for flour prepared at the mill to be delivered by horse and wagon to places as far afield as Tetbury. However, for many small country millers, the intense competition from large milling companies was too much, and as a result, many either closed down completely or switched at least partially, to the production of animal feeds aimed at the farming community. Eventually, the latter route was pursued at Fromebridge and the changing market place, coupled with significant changes in legislation, resulted in the mill's latter working life being centred solely upon animal feed, as opposed to cereals destined for human consumption. For many years, the mill had the reputation for some of the finest rolled oats in Gloucestershire. By this time, at least some grain supplies were coming by rail from Avonmouth to Frocester Station, from where they were collected by waggon.

Even though most of Fromebridge's competition was reliant on steam power, remarkably, the mill was still listed as using water power alone in 1889 and it was not until after this date that alterations were made in driving the mill. This took the form of a steam engine of unknown provenance, located in the rounded section at the mill's southern end. The surviving distinctive square chimney stack is associated with this phase.

At the time of the mill's eventual closure in 1990, the work force was very small compared to its heyday. One particular stalwart was Basil Gymer who had worked at the mill for 50 years. One of his duties was dressing the millstones used to grind many of the cereals processed at the mill, remarkably still in use at the end. He was also responsible for disconnecting the drive from the surviving water wheel.

Cider Making

For a significant period during the mill's last century of operation, alongside corn and animal feed milling, it also functioned as a cider mill. Up to the mill's conversion in 1998, in the section of the building attached to the rear of the main mill (that had formerly been in domestic use) large rotting wooden sherry barrels bore silent witness to this once important rural trade. Much of the cider produced was for purely local consumption, destined for farms and agricultural communities in general.

Perhaps surprisingly, much of the mill's cider-making equipment was of local origin, having been built and supplied by Workman & Sons of Slimbridge. From this unlikely location, from 1861, Workmans supplied cider makers on a national basis, sending out a variety of cider mills, presses, pumps, and general supplies by road and railway, the latter via Coaley Junction. The company was of some repute and had been awarded several medals at agricultural shows such as the 1892 Royal Agricultural Society's of England Trials (29). Fromebridge was the recipient of some of Workman's expertise and Charles White commented:

"I am very pleased indeed with the Combined Cider Mill and Steam Presses you supplied me with. The Machine having given both me and my customers great satisfaction. I may mention that last season we made 260 gallons of cider in an hour with it, the Fruit being perfectly ground, and the Pulp pressed thoroughly dry". (30).

The cider press was apparently located under the lean-to section of the mill.

A near neighbour, Mr T White of Halmore Mill, noted that his Workman's cider mill was being used to produce about 25,000 gallons of cider per year, and that although the mill had run for 17 years, the costs of repairs had been "trifling". These comments help to give an indication of the scale and at least local importance of the trade.

In later years Basil Gymer commented that:

" Fromebridge Mill always had a fine reputation for its cider. I remember the time when Stanley and I made 1000 gallons of cider in a single day – that was really hard work. Before the war we made cider for farmers and charged three-ha'pence a gallon. We started up again for a few years after the war, when we charged 4d a gallon. We always had a cider house at the mill and anyone calling was invited to drink as much as he liked". (31).

Like most other cider-making enterprises, most of the cider produced was strictly for local consumption, predominantly in and around local farms. Much of the fruit came from orchards in the vicinity, brought in by farm wagon.

The Saw Mill

A large cast iron saw bench capable of reducing sizeable baulks of timber was situated under the lean-to section of the mill. The precise arrangements for the transmission of power to this are obscure as the result of their removal. However, several large iron bearing houses and evidence of line shafts survive in the lean-to. Presumably, in later years, power was provided by the water turbine, although there is evidence to suggest that the surviving water wheel once powered the saw bench (32).

Power Sources

During the latter part of the mill's working life, power to drive the machinery was provided in three different ways. During the second half of the 19th century, it came from two breastshot water wheels, located side by side, although these were not identical. The inner wheel was later replaced by a water turbine (see below) although the outer one still survives. The face of one outer rim of the surviving wheel incorporates a large internal gear wheel which meshes with a small pinion gear. This system was known as "rim gearing" and was a great advantage over earlier installations which had relied on a heavy axle to carry the entire weight of the water wheel and to transmit the power directly into the mill. The advent of rim gearing resulted in water wheels and axles of much lighter construction as the power was now taken into the mill via the separate small pinion gear driving a lightweight high-speed shaft.

The surviving wheel provided power to a single pair of mill stones, carried in an iron cradle. In addition, it also drove a large horizontal iron shaft which took power along the outside of the mill, possibly to drive ancillary machinery such as cider-making equipment and the saw bench.

One of the two water wheel was subsequently replaced with a water turbine during the period 1915-1925 (33). These units had a number of advantages in that they were smaller, usually used less water for a given power output, and were generally more efficient. In the case of Fromebridge, the turbine continued to provide much of the mill's power throughout the 20th century, driving the mill's machinery via a series of gears, shafts and belt drives. The main drive went to a large vertical shaft that took power to all floors of the mill. On the ground floor, the vertical shaft carried a large diameter gear (the spur wheel) which, as it rotated, drove three small gears (stone nuts) situated at points around the periphery. These in turn drove smaller vertical shafts that took the drive to three sets of millstones located on the floor above (the stone floor). Each gear could be disconnected by raising it so that it no longer meshed with the spur wheel; the mechanism used to achieve this was known as the "jack ring" and several types appear to have been used at Fromebridge.

Power was also provided by the turbine to a main line shaft that ran the entire length of the mill on the stone floor. This carried various belt wheels which drove leather belts and provided power to an assortment of machines. These included two vertical conveyers (elevators) which carried grain from the ground floor using endless belts carrying a series of small buckets; three horizontal conveyers (augers), one on each floor; an oat roller; a cake crusher; a kibbler; a "fountain mixer"; two grain cleaning machines; and two sack hoists. At the cessation of milling c 1990, most of this machinery was still being operated using power provided by the water turbine.

The third source of power was provided for a time by a steam engine. The engine was installed at some point between 1884 and 1903, although it seems that it may have been out of use by the 1920s (34). This, and its attendant boiler, was located in the engine house added to the southern end of the mill. Of the horizontal type, the engine drove a shaft which passed through the wall into the ground floor of the mill. Here, it powered three sets of millstones located on the stone floor and carried in a massive cast iron framework. The latter also located the main drive shaft which carried three large bevel gears which meshed with smaller gears and drove three individual vertical shafts which drove the millstones. It seems likely that this stand-alone unit was added in order to boost flour output, as opposed to compensating for inadequate water supply to the water wheels as Fromebridge had one of the best water supplies along the River Frome. Like much of the mills' equipment, it came from a local supplier, namely Fielding & Platt, of the Atlas Iron Works in Gloucester. They may have also supplied the steam engine, sadly, long gone.

Even though steam power was now meeting a percentage of the mill's requirements, water power was not abandoned. Up to this time, this had taken the form of two large iron breastshot water wheels, fitted side by side. At some point, the inner wheel was removed and subsequently replaced with a Gilkes water turbine, this providing the power to drive three sets of millstones plus various allied equipment via a set of large bevel gears. It is likely that the turbine was bought second hand as the Gilkes company records do not list an order to Fromebridge. Much of the turbine, power transmission system and corn milling equipment remained intact even after the mill's conversion. The millstones were made of French burr stone, a type of quartz quarried in the Paris basin and much prized for producing good quality flour for human consumption.

Post script:

Fromebridge Mill opened as a restaurant, inn and function rooms at Easter 1999. Many artefacts have been displayed around the mill and a significant amount of the mill's machinery has been left largely intact and in situ. Some is easily viewed from public areas of the inn although the "museum" section on the upper floor requires permission to view. Numerous photographs and panels describing segments of the mill's history are also displayed around the ground floor.

References:

- 1 Dom. Bk. (Rec. Com.) 1, 168v.
- 2 VCH. Glos. x. p150.
- 3 GRO. D 149/T 171.
- 4 GRO. D149/T 172.
- 5 Glos. Citizen. 14/1/87.
- 6 Glos. Collection. 16256 (46).
- 7 GRO. D 149/T 175.
- 8 Glos. Collnt. Deeds 137.87. Thomas Jenner was President of Magdalen College, Oxford.
- 9 For a detailed examination of John Purnell and developments at Fromebridge during this interesting period see Chatwin A. *Some Gloucestershire Ironmasters*. Paper presented at Annual General Meeting of Historical Metallurgical Society. Gloucester. 1982. pp7-11.

- 10 Glos. Jnl. 8 September 1766; also Chatwin. p7.
 11 Rudder. Glos. p452.
 12 Day J. *Bristol Brass. The History of the Industry.*
 13 Information from Boulton & Watt Collection. Birmingham Central Library Services.
 Details in Engine Book and Portfolio 343, plus Letter Books 27 & 28, and Order
 Books 339 & 340.
 14 Chatwin. p8.
 15 Evans D. *Listers - the First Hundred Years.* 1995. Alan Sutton Publishing. p18.
 16 Rogers K. *Warp & Weft.* Barracuda. 1986. p71.
 17 Chatwin. p10. For further details of pin making in the Stroud area see Mills S J. The
 Stroud Pin Makers. *GSIA Jnl.* 1995. pp37-42.
 18 *Glos. Citizen.* 24 January 1987.
 19 Glos. Collnt. Deeds. 137. pp119-120.
 20 GRO. D2193. Purnell business papers.
 21 VCH. iv. 175, 407; Bryant's Dir. Glouc. 1841. 60, 64, 70; Pigot's Dir. Glos. 1842. 115.
 22 Pigot's Dir. Glos. 1830.
 23 Reports from the Assistant Commissioners. Gloucestershire. W A Miles. PP1839-40.
 HC220. xxiv. 454).
 24 VCH. x. p151.
 25 Information from Mrs S Koutsoupas (nee White), Charles White's grand-daughter.
 26 Mills SJ & Riemer PFW. *Mills of Gloucestershire.* 1989. Barracuda. p35.
 27 Information from owners. 1988; also *Mills of Gloucestershire.* p35.
 28 Copy of maps and papers relating to the sale in the Author's possession. Auctioneers
 were Geo. Nichols, Young, Hunt & Co. in conjunction with Davis, Champion &
 Payne. Lots were spread over the parishes of Wheatenhurst, Eastington and Frampton-
 on-Severn.
 29 Trade catalogue for Workman & Sons, c 1895, in the Author's possession.
 30 ibid. p12.
 31 Quoted from an interview with G Webb of Gloucester *Citizen*, 1987.
 32 Information from Mr P Turner, Milton end Farm, Arlingham. 1995.
 33 Information from Mrs W J Howkins (nee White). 1999.
 34 ibid.

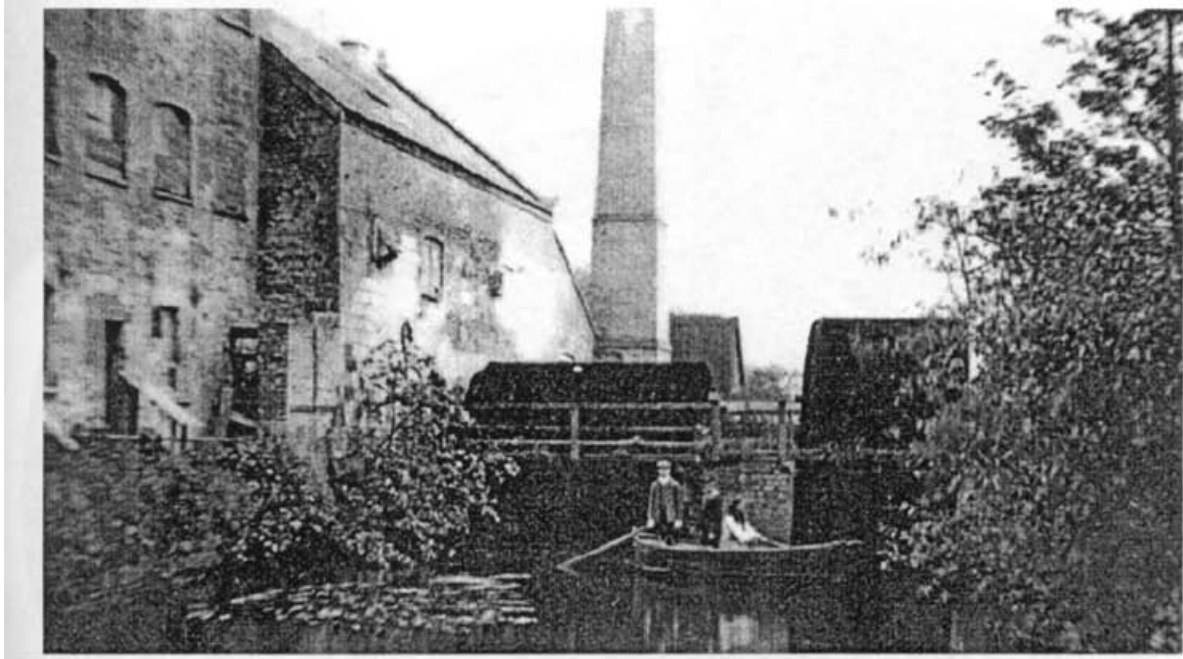


Plate 1. Looking up the millrace, c1920. Note the two non-matching breastshot waterwheels. The left hand wheel was subsequently replaced with a water turbine. The people in the boat are members of the White family.

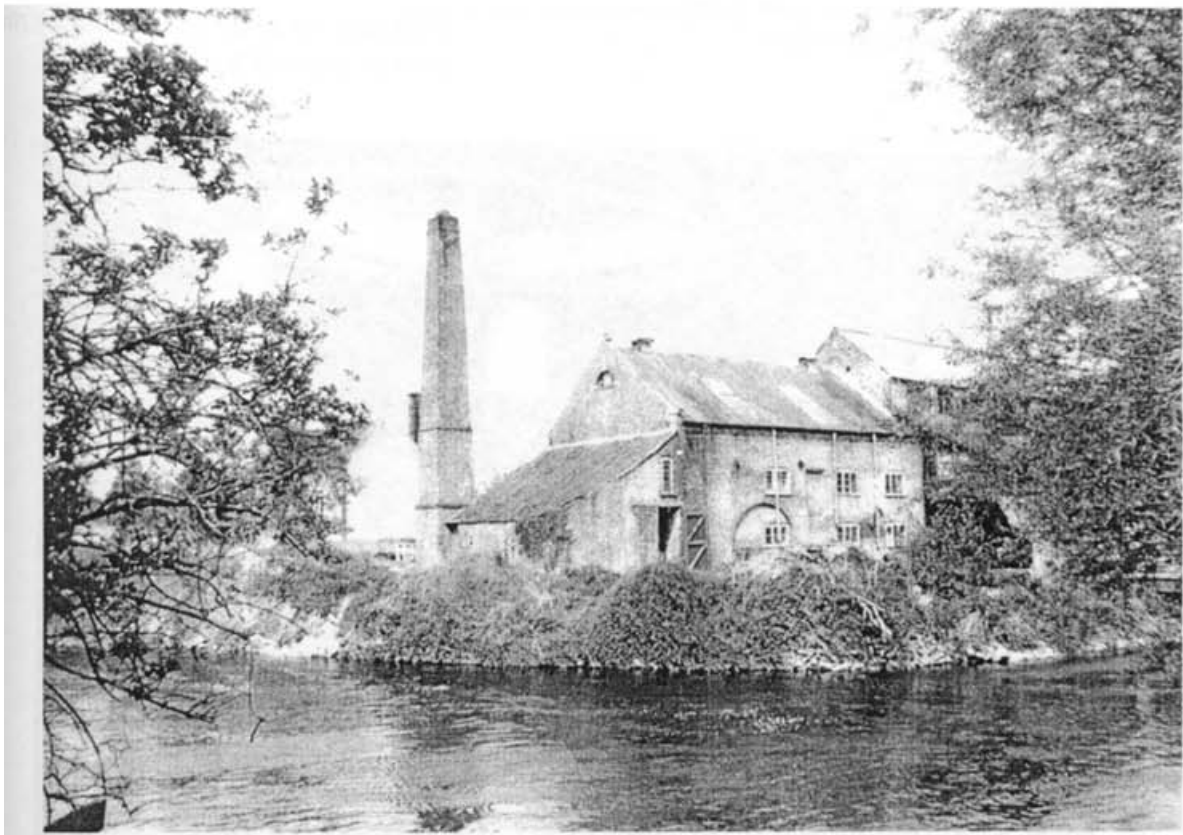


Plate 2. Fromebridge Mill just prior to closure. The extension formerly housed the steam engine

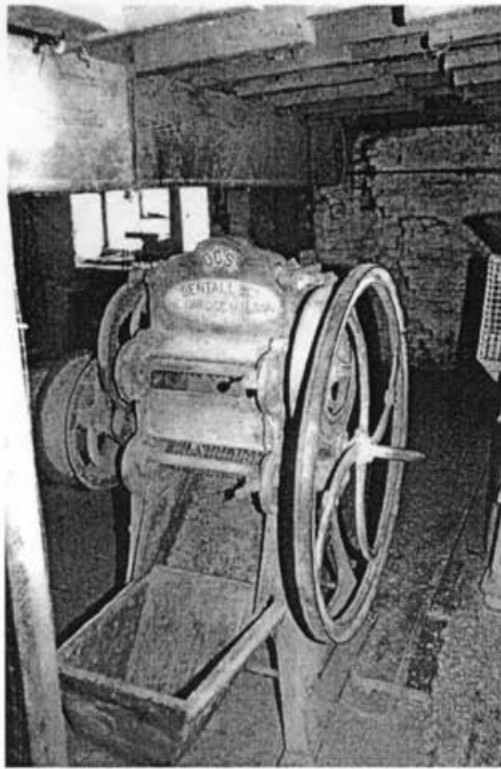


Plate 3. Cattle cake crusher by Bentall & Co. installed on upper floor

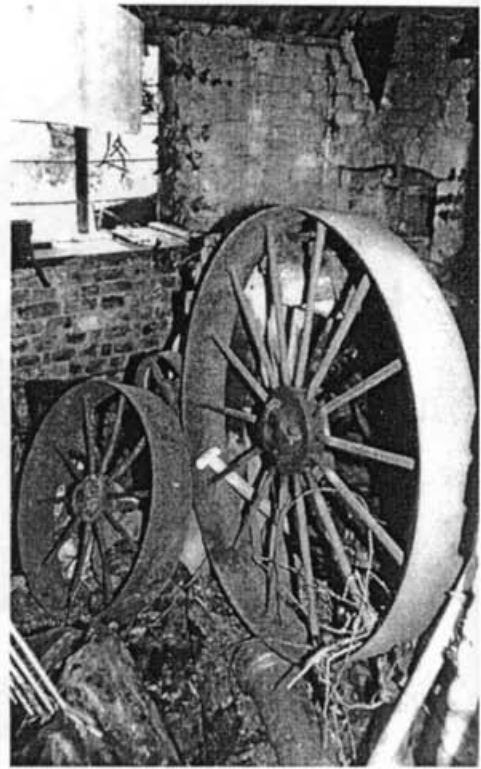


Plate 4. A reminder that nothing was ever thrown away by the country miller! Part of the mill's interior c1989.

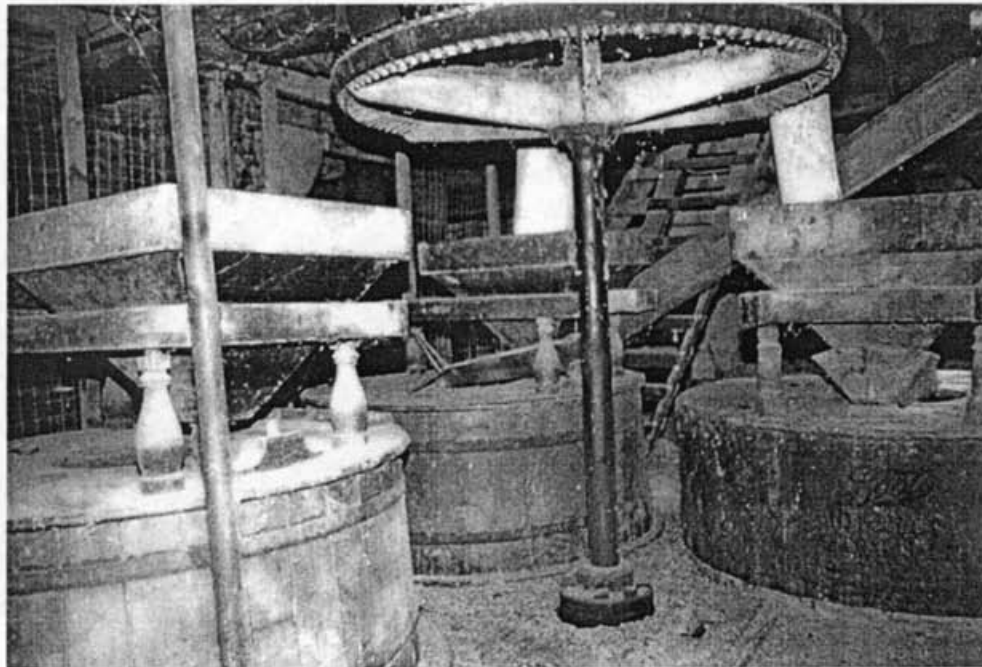


Plate 5. The (upper) stone floor, showing three sets of stones, etc.

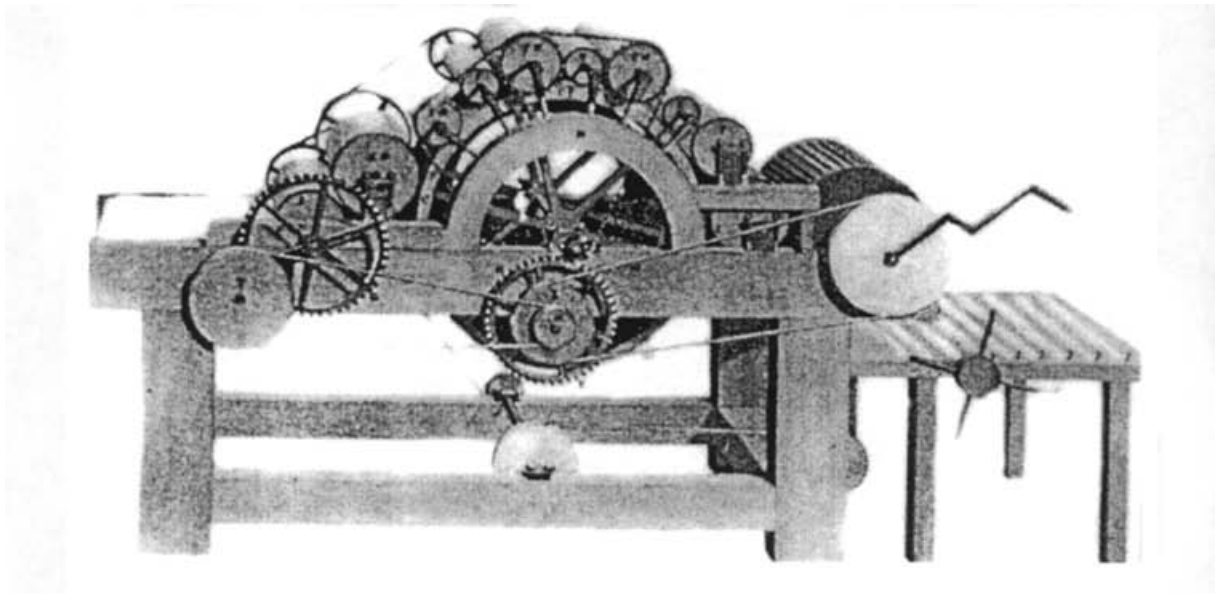


Figure 2. Early hand powered carding engine

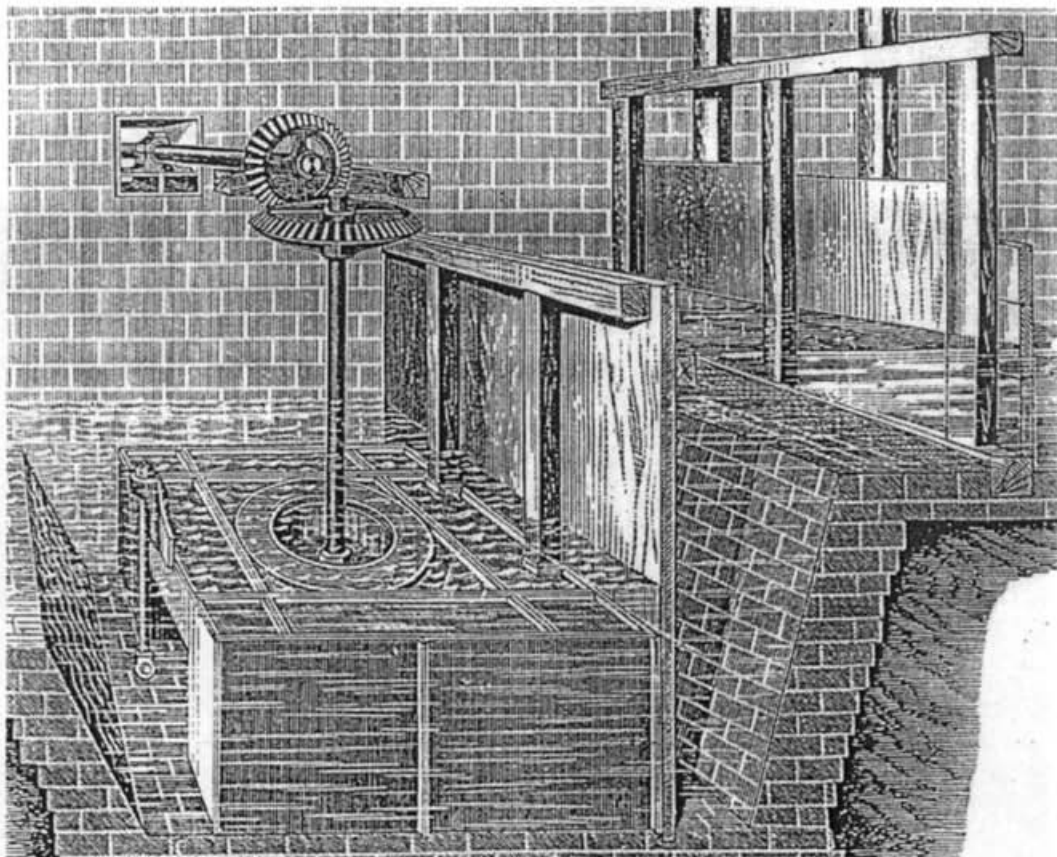
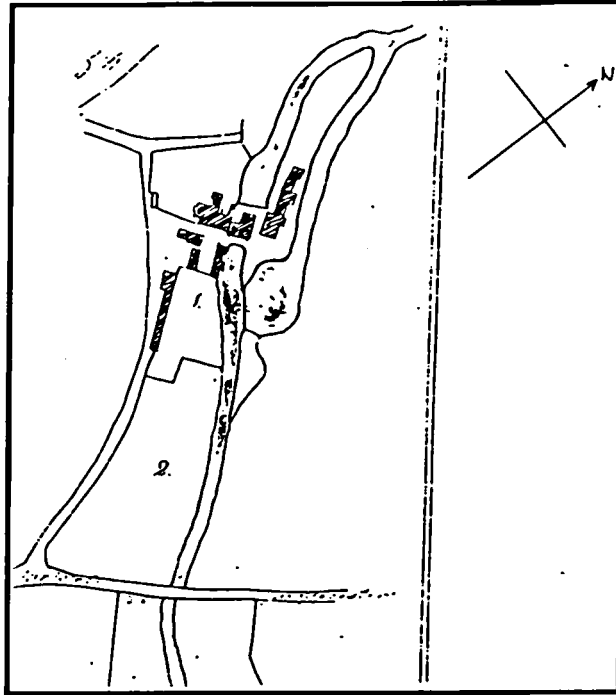
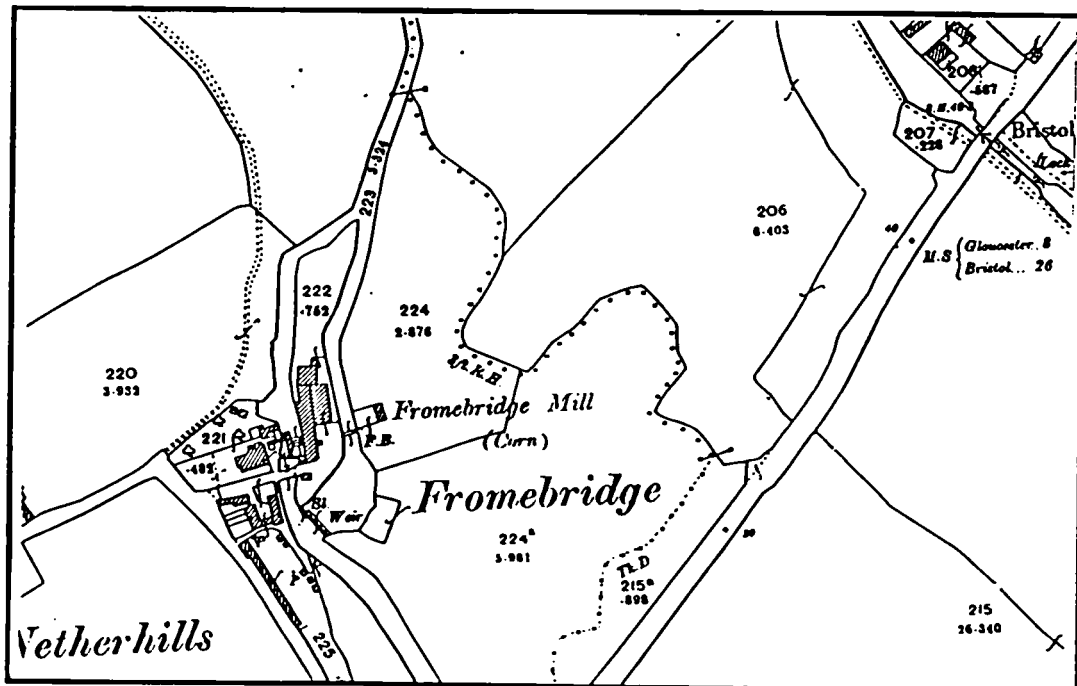


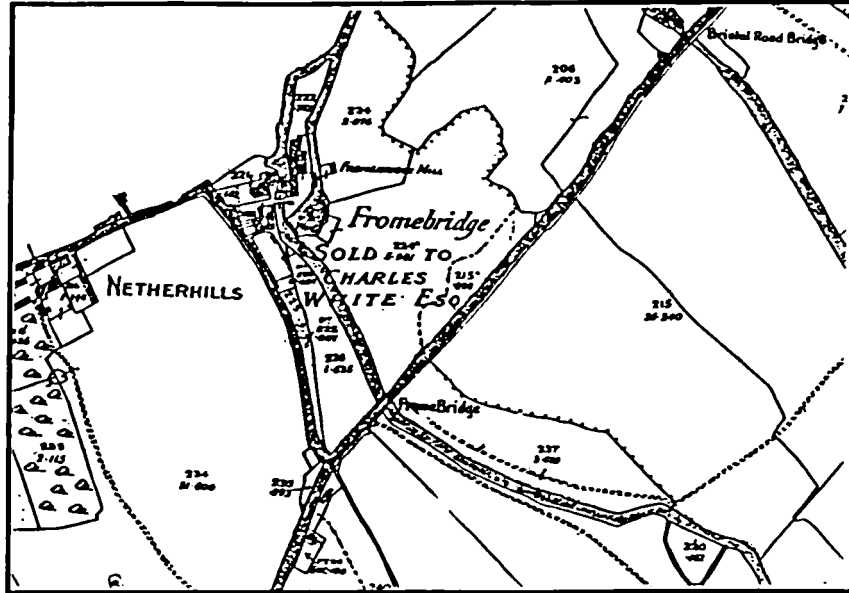
Figure 3. Gilkes water turbine c1900, showing similar power transmission system to that used at Fromebridge.



Map 1. Showing the site in 1819. Note the detached block straddling the mill race. (GRO D2193)



Map 2. The site in 1879, similar to today's layout (OS 25". 40.12. 1879).



Map 3, from the sale of the Bengough Estate in 1927, showing the Fromebridge Mills site. The Stroudwater Canal runs across the top right hand corner.