

MILLS POWERED BY CANALS

180. EMSCOTE MILL - GRAND UNION CANAL

SP 299655

This mill was built on the north bank of the canal in 1806. It was operated by the firm of Kench and Sons, in conjunction with Rock Mills, until 1961.

Excess water from the canal was used to drive an overshot waterwheel. This was replaced by a steam engine in the 1850's. In 1905 the mill was completely rebuilt and modernised. From 1918, electric motors drove the machinery until a four-cylinder Allen diesel was installed. This was later replaced by a five-cylinder engine by the same maker which generated 175 h.p.

The rapid disappearance of small bakery firms in the area, and a severe labour shortage, brought about the closure of the mill in 1961. The machinery was removed and the building converted for use as a pie factory.

181. ARBURY MILL - ARBURY PRIVATE CANALS

SP 344886

Sir Roger Newdigate commenced building the canal system around Arbury Hall in 1764. The mill must have been erected at about this time. It was certainly in existence by 1787.

By 1845 the miller was W. Thomas, followed by C. Baker in 1850. W. Baker was at the mill from 1860 until 1876. No other millers are known, but the mill certainly continued to operate for many more years. After ceasing work, all the machinery except the waterwheel was removed, and the building became a cattle shed. Restoration was proposed in 1976.

The brick building dates from the eighteenth century. It shows signs of many alterations. The direction of the roof line has been changed, and the outline of a high, arched entrance can be seen in the south wall. It may be that an existing building was converted into a mill when the canal system was built. The internal, high breast-shot waterwheel is intact, measuring 18ft. diameter by 4ft. wide.

The section of canal which fed the wheel is now virtually dry, though this may be restored. The tail race from the wheel ran underground for some distance before emerging near a small stream. This stream eventually ran back into the canal at a lower point in the system.

182. BEDWORTH MILL - ARBURY PRIVATE CANALS

SP 357883

There was a watermill at Bedworth in 1666, when Thomas Roberts, the miller, was indicted for stopping a watercourse from Asdey to Foleshill. Whether it stood on this site is not known.

A worsted mill was built here by Sir Robert Newdigate at the end of the eighteenth century. A fine drawing of c.1800 shows the mill in operation with its centrally placed 18ft. diameter waterwheel. A drawing made a few years later, showing the canals and tramroads in this area, also includes the mill. By then a new waterwheel, 38ft. in diameter, had been installed. The old wheel was still in position, and the new wheel was erected in a side wing, just outside the main mill building.

The mill was converted to silk spinning in the early nineteenth century, but all of the machinery and the old waterwheel had been removed by 1849. An inventory of the fixtures in the mill, dated February 23rd 1849, shows that the 38ft. diameter wheel

Rock Mills, Leamington Spa:-

West wheel - breast-shot, compass arm, 15ft. 3in. diameter, 7ft. 8in. wide
axle - iron, 12 sided, 13in. across

hubs - iron, circular

arms - iron, T-section, 3 sets of 8, curved braces

rims - iron

floats - wood (originally iron, replaced during World War II when there was a shortage of iron), 23in. deep on iron starts, angled, 40 in number
sole plates - wood, 10in. deep, (originally iron)

East wheel - low breast-shot, compass arm, 18ft. diameter, 4ft. 7in. wide

axle - iron, 14in. across

hubs - iron

arms - iron, 2 sets of 8

rims - iron

floats - iron, curved, 24in. deep approx., iron starts, linked by iron tie bars, 48 in number
sole plates - none

Sarehole Mill:-

North wheel - high breast-shot, compass arm, 12ft. diameter, 6ft. wide
axle - iron, octagonal, 14in. across

hubs - iron, circular

arms - iron, 2 sets of 8

shrouds - iron, 10 1/2in. deep, shaped extensions where arms are bolted on
buckets - wood, 36 in number
drumboards - wood

South wheel - overshot, compass arm, 10ft. 4in. diameter, 5ft. 2in. wide
axle - iron, hexagonal, 18in. across

hubs - iron, circular

arms - iron, 2 sets of 6

shrouds - iron, 13in. deep
buckets - iron, curved
drumboards - wood

Stoney Thorpe Mill, nr. Southam:-

breast-shot - compass arm, 10ft. diameter, 7ft. wide approx.

axle - iron, square section, 6in. across

hubs - iron, circular-cast in 2 parts

arms - iron, 2 sets of 6

shrouds - iron

buckets - iron, L-shaped, formerly 36 in number
drumboards - iron

The wheel is partly destroyed. The buckets and drumboards are missing

Sutton Mill, nr. Sutton Under Bratles:-

high breast-shot - compass arm, 12ft. 4in. diameter, 6ft. 6in. wide
axle - iron, octagonal, 8in. across
hubs - iron, circular
arms - iron, 2 sets of 8
shrouds - iron, 12in. deep
buckets - iron, L-shaped
drumboards - iron

Inscription on one arm - 'T. & W.L.'

Tanworth Mill, Danzey Green:-

overshot - compass arm, 11ft. 8in. diameter, 5ft. wide
axle - iron, cruciform, 10in. across approx.
hubs - iron
arms - iron, circular section, 2 sets of 6, keyed into hubs
shrouds - iron
buckets - iron, curved, 14in. deep, 36 in number
Inscription on shroud reads 'Erected for G. F. Muntz Esq. by R. Summers
Tanworth 1867.'

Temple House Farm Wheel, Temple Balsall:-

pitchback - compass arm, 19ft. diameter, 3ft. 2in. wide
axle - iron, cruciform, 12in. across
hubs - iron
arms - iron, T-section, 2 sets of 8
shrouds - iron
buckets - iron, curved
drumboards - iron
Inscription on penstock - 'W. G. Massey Newport Salop.'

Washford Mill:-

low breast-shot - compass arm, approx. 15ft. diameter, 4ft. 10in. wide
axle - iron, circular, approx. 8in. across
hubs - iron, circular
arms - iron, 2 sets of 8, diagonal braces from hubs to rims
rims - iron
floats - iron, curved, approx. 11in. deep, iron starts
sole plates - none
'E. White Maker Redditch' on rim

Wellesbourne Mill:-

breast-shot - clasp arm, 17ft. diameter, 6ft. wide
axle - wood, hexagonal, 26in. across
hubs - none, wood packing between arms and axle
arms - wood, 3 sets, strengthened with iron plates
shrouds - iron, 10½in. deep, iron rim on centre set of arms with wood starts
floats - wood, 8in. deep
sole plates - wood, 10in. deep

eleven days to fill the large pond, and the waterwheel, working at optimum speed, would only take seven hours to empty it. The practicality of the scheme was thus questioned, and the owner of Halloughton Hall advised not to continue with it. Accordingly, later in the same year, a tender was accepted for the completion of the pump house only, to supply water to the Hall and a nearby farm.

The system appears to have been used well into this century. The pump house still stands, having been converted into a dwelling in 1973. The outline of the pond, the sluices and the position of the internal waterwheel can still be determined.

177. CUTTLE MILL

SP 191952

Little is known of the history of this mill, though it certainly existed by the end of the eighteenth century. In 1845, William Wood was the miller, followed by W. Smart in 1860. The mill is thought to have operated until the early 1900's.

The mill building still stands, though the wheel and machinery have been removed. The waterwheel was sited externally, but enclosed in a wheelhouse.

178. LANGLEY MILL - LANGLEY BROOK

SP 154967

Timothy Starkey was the miller here in 1828, but the mill had been demolished by the 1880's. Only the mill pond remains on the site.

179. HILL HOOK FLOUR MILL

SK 105004

The last mill here was built in the early eighteenth century, no doubt replacing an earlier structure. Thomas Bickley was the miller in 1828, followed by John Stevenson in 1841. Later millers were Thomas Marshall in 1868 and Austin Pindold in 1892. The last recorded occupant was Mrs. Harriet Goldsby in 1904.

The mill ceased working c. 1910, and part of the building was demolished. The mill pond had become popular as a boating lake, and a cafe was built near the remains of the mill. A fire in the 1950's destroyed the remaining buildings including the adjoining mill house.

The pond remains, and some brickwork marks the site of the mill.

the mill, and work started early in 1972. The waterwheel had not turned since c. 1960, and the water supply to the pond had since been diverted. It was necessary to install a pump to lift water from below the mill to make the wheel operational.

The majority of the mill building dates from the early eighteenth century, but the adjoining part timber-framed cottage may have been built in the preceding century. The three storey mill is built of brick with an unusual wooden structure rising centrally from the roof. Originally, a waterwheel was sited internally at the northern end of the building. Its wheelpit has been partly filled and now houses a diesel engine. The tail-race from this wheelpit passes directly underneath the mill cottage. The existing wheel is housed externally against the east wall, at right angles to the original position, and is covered by a small wheelhouse. It is an overshot wheel measuring 11ft. diameter by 6ft. wide. The 10ft. diameter iron pitwheel is geared to a 2ft. diameter iron pinion on a horizontal shaft which carries two 4ft. diameter bevel gears driving the 21in. diameter stone nuts. An iron pulley on the shaft was connected by belt to overhead shafting which operated the sack hoist. After the installation of the engine, a new system of belt drives was installed to connect it to two hammer mills and the sack hoist. The hoist mechanism is operated by an unusual friction drive.

On the stone floor the two pairs of French stones are complete with tuns and hoppers, while at the other end of the building the position of the stones driven by the earlier wheel can still be seen.

174. PENN'S MILLS - EBBROOK

SP 131933

There were two mills here in 1618, of which one was a corn mill and the other was used for blade grinding. In 1742, Joseph Bell, who rented the corn mill from Joseph Scott, enlarged the waterwheel. The mills were still owned by Scott in 1776 when they were described as 'a wire mill with three wheels for drawing wire which was formerly three water corn mills and one walk or fulling mill called Penn's Mills'. They later became known as Penn's Forge, and were occupied by the Webster family, well-known ironmasters. Eventually the wire-drawing machinery was moved to other premises and the old mills demolished. Only the mill pool, in the grounds of Penn's Hall, remains today.

175. PLANT'S BROOK FORGE - PLANT'S BROOK

SP 145922

The first mill on this site was used for corn grinding, being rebuilt as a forge in 1727. It was still working in the 1820's, but a water pumping station had been erected on the site by the 1880's.

176. HALLOUGHTON HALL FARM WHEEL AND PUMPING ENGINE

SP 225939

In the 1850's it was proposed to erect two waterwheels near Halloughton Hall. One of these, a breast/undershot wheel working from a variable head of water, was to operate two pumps. It was intended that one pump would supply water to the Hall, and the other would fill a large pool nearby. The water from the large pool was to power a 30ft. diameter overshot wheel driving a single pair of millstones and farm machinery. In 1854, an estimate for the complete works, with machinery by James Beck, was put forward. The total cost would have been £1,146 15s.

However, in 1855, a report on the project suggested that the pump would take

Weston Mill:-

overshot - clasp arm, 10ft. diameter, 5ft. 5in. wide
axle - iron, octagonal
hubs - none, square casting between axle and clasp arms
arms - wood, 5½in. x 5in., bolted together and strengthened with iron plates
shrouds - wood, 9in. deep, iron braces across wheel between shrouds
buckets - wood, L-shaped, 14in. deep
drumboards - wood, 2in. thick

This wheel has collapsed on one side

Wheel at Arrow for pumping water to Ragley Hall:-

high breast-shot or pitchback - compass arm, 18ft. 8in. diameter, 2ft. 8in. wide
axle - iron, circular, 6in. diameter
hubs - iron, circular
arms - iron, 2 sets of 8, keyed to hubs
shrouds - iron, 10in. deep, arms bolted to shrouds
buckets - iron, curved, 13in. deep

Wheel near Stoneleigh Abbey for pumping water:-

low breast-shot - compass arm, 10ft. diameter, 2ft. 8in. wide
axle - iron, circular, 6in. diameter
hubs - iron, circular
arms - iron, 2 sets of 8, circular
shrouds - iron, 11½in. deep
buckets - iron, slightly curved, formerly 24 in number
drumboards - iron

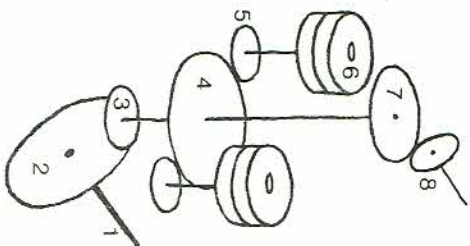
TURBINES

In later years waterwheels were replaced by turbines at several mills. However, the anticipated improvement in performance was not always achieved. Indeed, when a turbine was installed at Kings Norton Mill in 1887 it was found to drain the pond too quickly and the mill soon reverted to a waterwheel. Four complete turbines, and at least part of two others, remain in Warwickshire watermills.

Wootton Wawen Mill - Girard, 96 h. p., installed 1904, generator
Great Aine Mill - East German make, 15 h. p., rollers, stones etc.
Broom Mills - (2) Armfield, rollers, cleaners, generator
Clifford Chambers Mill - (part only) make unknown, generator
Burmington Mill - (part only) make unknown, generator

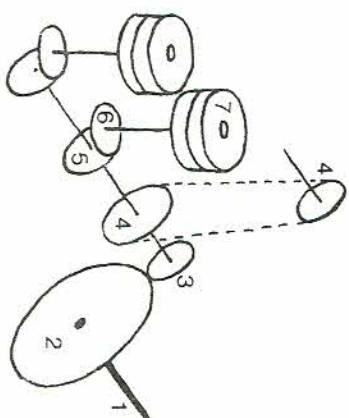
GEARING

The only complete water-powered gearing which remains is associated with corn grinding. There are two main types of gearing.



spur gear

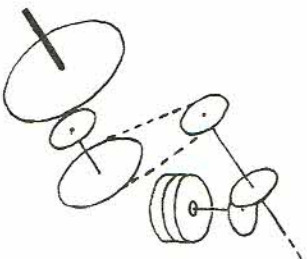
- 1 waterwheel axle
- 2 pitwheel
- 3 wallower
- 4 great spur wheel
- 5 stone nut
- 6 millstones
- 7 crown wheel
- 8 auxiliary drive to sack hoist etc.



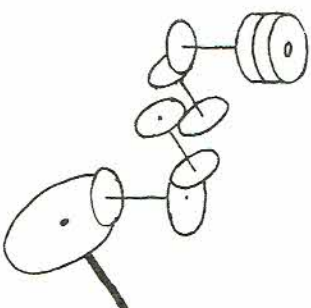
lineshaft gear

- 1 waterwheel axle
- 2 pitwheel
- 3 pinion
- 4 auxiliary drive to sack hoist etc.
- 5 bevel gear
- 6 stone nut (bevelled)
- 7 millstones

Five 'hybrids' also survive



Blyth End Mill



Temple House Farm Wheel

Two small streams which drained Sutton Park were dammed in many places to form large ponds. These ponds provided power for several mills, but nearly all had fallen out of use and been demolished by the end of the nineteenth century.

On the more northerly stream, Bracebridge Pool provided power for a fulling mill, erected in 1577. At Blackroot Pool there was a leather mill in 1759. Further downstream, at Park House, there was a blade mill which was built in 1729, and became known as Brown's Forge in the 1820's.

On the southern stream, known as the Ebrook, were Wynedley Mills, just below Wynedley Pool. Here a saw mill and forge were built in 1763. A short distance upstream is Powell's Pool where a spade manufactory was built in 1730, later known as Stonehouse Mill. William Powell was a spade maker there in 1835. This mill was still operating in the 1830's, and was standing disused in the early 1900's. The first mill on the Ebrook, at Longmoor, was the only one within the park to operate into the twentieth century.

172. LONGMOOR MILL - EBROOK

SP 096957

This mill was built in the 1750's as a corn mill and continued to operate until the early 1900's. The mill was worked by the Dutton family from c. 1820 until 1850 when J. Bridge is named as the miller. He was followed by T. James in 1864, Harry Heaton in 1884 and William George Band in 1888.

The mill was derelict by 1938 when it was finally demolished. The main upright shaft, with the iron wallower still in place, was left in the disused Blackroot Quarry.

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After joining the northern stream the Ebrook flows eastwards through Sutton Coldfield. The part of the main street through Sutton Coldfield known as the Parade once formed the dam of a large pool on its western side. This pool provided power for Town Mills which were situated at the foot of Mill Street. These mills were built in 1298 for the Earl of Warwick and destroyed by a sudden flood in 1668. They were never rebuilt and the remaining buildings were finally demolished in 1757.

Further downstream were a leather mill and Oughton's Gun Barrel Mill. Neither of them survived into the twentieth century.

173. NEW HALL MILL - EBROOK

SP 133945

It is thought that this mill was built to replace Sutton Town Mills some time after the flood of 1668. At the time of their destruction, Town Mills were owned by Thomas Gybons, who also held the New Hall Estate. New Hall Mill is mentioned in the will of George Sacheverell of New Hall, who died in 1715. The mill is thought to have been reconstructed shortly after this date.

The first miller at New Hall was probably Samuel Twanley. His family remained at the mill until the late 1830's. John Bridge was the miller in 1841, followed by William Dutton in 1850. Succeeding occupants were Mrs. A. Brockas in 1860, Henry Adcock in 1868, Benjamin John Tyler in 1876, John Knee in 1884 and Edward Caldicott in 1892. In 1904 Benjamin Styles took the mill and worked it until the 1920's when his son-in-law, Charles G. Davis, became miller. T. B. Davis took over from his father in the late 1940's and still uses the mill today.

In 1971, the late Sir Alfred Owen, owner of the New Hall Estate, decided to restore

additional power since the late 1920's. The head race from the weir has been filled in to make an attractive garden for the adjacent mill house. The tops of the brick arches of the overflow sluices are visible near the mill.

There was another mill in Kingsbury, at SP 224962, in the early nineteenth century. It had been demolished by the 1880's and no traces remain.

168. FISHER'S MILL

SP 203983

This may have been on the site of the mill at Middleton recorded in the Domesday Survey. In 1291, two watermills are mentioned, and one was owned by Sir Thomas Willoughby in 1702.

Joseph Dutton was the miller by 1850, followed by T. George in 1854. Robert Brown held the mill from 1864 to 1884 when Thomas Cooper is recorded. It was last used by a Mr. Evans in 1905.

The buildings were demolished c.1925 in the course of river improvements. Only traces of the foundations and watercourses remain.

THE MILLS ON TRIBUTARIES OF THE RIVER TAME

Within Birmingham there were mills on both Hol Brook and Hawthorn Brook, but all had been demolished by 1880. On Hockley Brook there were at least seven mills, including the Soho Manufactory, but only two survived into the twentieth century.

169. ASTON BROOK MILL - HOCKLEY BROOK

SP 078385

This seems to have been a fulling mill until the late eighteenth century. After this time it became a flour mill, and remained in operation until the beginning of the First World War. Edward Evans was a corn dealer there in 1908.

170. THIMBLE MILL - HOCKLEY BROOK

SP 087890

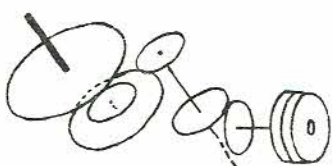
This became a rolling mill in the late eighteenth century and remained as such until closing. In the late 1880's it was known as the Nechells Metal Rolling Mill. When the nearby railway was built, the mill pond was filled in, but the mill continued to operate with steam power until 1918.

171. WARD END MILL - WASH BROOK

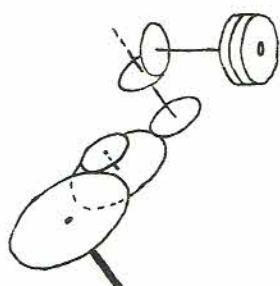
SP 114392

There was a mill here in the fifteenth century, and it was noted as belonging to the Ward End estate in later centuries. In 1759 it was occupied by 'Widow Jordan'. Henry Drake was the miller in the 1860's, followed by John Drew and A. J. Tongue. In 1900, William Black, farmer and corn merchant, was living at the mill. The mill pond has been levelled, and the buildings demolished.

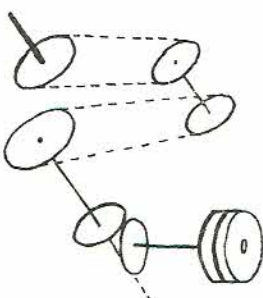
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Clifton-on-Dunsmore Mill



Rock Mills



Great Aine Mill

Blyth End Mill is thought to have been the only watermill in Warwickshire with over-driven stones.

Of mills used in other processes, minimal gearing remains. However, the needle mills at Washford and Ragley do retain part of their primary drive.

MILLSTONES AND THEIR MOUNTINGS

Four types of millstones occur in Warwickshire watermills. French burr, usually fitted with Messrs. Clark and Dunham's adjustable balance weights, Peak, composition and one emery runner.

The remaining stones vary in diameter from 3ft. 10in. to 4ft. 4in., 4ft. diameter being by far the most common.

Maker's names are cast on the iron collars of the stones in a few mills. Noted examples include:-

Varley and Sedgwick, Leeds
W. R. Dell, 72 Mark Lane, London
R. G. Handley, Moor St., Birmingham
T. A. S. Avery, Birmingham

One or two stones carry the name of R. Summers of Tanworth. Robert Summers was the millwright who installed the stones, but they were manufactured by R. G. Handley or their successors McCardle and Thompson.

In the majority of Warwickshire watermills the stones were mounted on a heavy wooden hurst, the bedstones being levelled by wedges inserted from below. Sometimes, part or all the wooden hurst was replaced by cast iron in the second half of the nineteenth century. In such cases the stones were mounted on circular iron pans with built-in levelling screws.

In most of the mills with wooden hursts, tentering was effected by raising one end of the heavy wooden bridge tree which supported the stone spindle. Occasionally this system was replaced by a fixed iron bridge tree with centre-lift tentering gear where the stone spindle was lifted from below by a screw or worm gear. Most of the later iron hursts incorporated this kind of gear.

Disengaging the stone nuts was usually by a jack-*ring* operated from below by a screw. Those without jack-*ring*s were put out of gear by a sharp blow from a heavy mallet and held up by wooden wedges.

The millstones are surrounded by the usual wooden 'furniture'. A circular or octagonal tun is surmounted by a light framework known as a horse which supports the hopper and shoe.

OTHER MACHINERY

All the corn mills have an internal hoist to lift sacks to the various floors. Most also have an external hoist so that sacks of grain could be lifted directly from a cart outside the mill. At many mills the pulley of the external hoist is mounted in a projecting dormer known as a *lucam*. Most sack-hoists are of the 'slack-belt' type driven by a pulley on a horizontal shaft. The belt was tightened either by raising the pulley end of the hoist shaft or moving an intermediate jockey pulley. One example of a friction drive also exists.

The hoist was set in motion by a rope passing through the floors beside the double flap trap-doors or the external loading doors. For the internal hoist the miller normally listened to the sound of the closing trap-doors until the sack reached the desired floor. However, in two mills automatic stop systems are incorporated on the attic floor, necessitating a manual stop rope for sacks to be landed on the stone floor.

Many mills had a wire machine or occasionally a bolter to dress the meal.

In later years a variety of hammer and roller mills were installed to supplement, or even replace, the millstones. Those mills which remained in commercial operation into this century often include purifiers, sifters, aspirators and automatic bagging machines. A few mills had completely automatic systems which obviated handling throughout the several processes.

Mills attached to farms, and the one remaining farm wheel, have shating taken into adjoining buildings to drive agricultural machinery such as chaff cutters and threshing machines. One or two even had a cider mill, comprising an apple crusher driven by water power and a press. A few mills contain grindstones, no doubt used for sharpening mill bills and agricultural implements.

Little remains of the machinery of other processes using water power. One complete set of needle scouring machinery remains in daily use, though not water powered for many years. At Sarehole Mill a blade grinding workshop has been established, with the grindstone powered by the south waterwheel. A few mills contain the remains of electricity generating plants, usually powered by turbines.

drawing in the 1850's. The waterwheel continued to be used until c. 1928. The site is now occupied by a large factory.

164. CASTLE BROMWICH MILL.

SP 138903

This probably stood on the site of the mill in Castle Bromwich which is mentioned in many deeds from the thirteenth to the eighteenth century. It was operated as a corn mill by Zachariah Twainley from c. 1820 to c. 1870, and is thought to have ceased working at the beginning of the twentieth century. The buildings have been demolished leaving no trace.

165. MINWORTH MILL.

SP 165915

There was a mill in Minworth in the fourteenth century and it remained in operation until the late nineteenth century. The last known miller was George Warner who occupied the premises in 1872. The site has been developed as a fertiliser plant, but traces of the watercourses are still visible.

166. FORGE MILLS - COLESHILL.

SP 199909

This mill is marked on Beighton's map of 1725, but its early history is not known. John Holmes was a corn miller there in 1828, followed by John Clarke in 1835. At this time part of the premises was used in the manufacture of paper. By 1845 Richard Jenkins was using the mill for corn grinding, and he was followed by John Palmer in 1860. Alfred Tranter held the mill from 1884 until 1912, when Blackwell Brothers are recorded. This firm operated the mill until the 1930's.

The buildings have since been demolished and the site is now used for industrial purposes.

167. KINGSBURY MILL.

SP 216956

There was a mill in Kingsbury in 1086, valued at 9s. 4d. In the twelfth century it was granted to Polesworth Abbey. It remained a possession of the Abbey until the Dissolution, being leased to various tenants, including John Mason who held it in 1513 for a sum of 66s. 8d. In 1586 the mill was bought by Sir Francis Willoughby, lord of the manor. In 1646, 'Thomas Corbett of Kynsbury, millner, Dorothy his wife, and Anne Corbett of the same, Spinster' were indicted for 'an assault and riot committed upon one James Hewitt at Kynsbury'.

Sarah York was the miller in 1828, followed by Charles Thornley in 1835, and George Mills in 1841. Members of the Adcock family ran the mill from 1845 until 1888 when Thomas Watson took over the business. The firm of Philip and Pearman operated from Kingsbury from 1904 until Herbert Adcock became the miller in 1916. From 1936 the mill operated under the name Kingsbury Mill Limited, and is still working today. Part of the building is used as a store for a garden centre, while in the remainder, modern, electrically operated machinery is used to produce animal foodstuffs.

The buildings date from the eighteenth century, but the earlier parts are almost totally encased in nineteenth century additions. There were once three waterwheels, side by side at the west end of the building. However, these, and most of the machinery they operated, had been removed by the early 1940's. An oil engine had been used for

THE MILLS ON THE RIVER TAME

The Tame enters the region in the north west and flows approximately east through the northern suburbs of modern Birmingham. Although once crowded with mills of all sorts, little remains on the ground today. Industrial and housing developments have totally obliterated the majority of sites.

159. HAMSTEAD MILL

SP 048923

This was the last surviving corn mill on this stretch of the river. It may well have stood on the site of the mill in Handsworth recorded in the Domesday Survey, and was still operating in 1920 when Frank Andrews was the miller. After falling out of use it remained intact with all its machinery until being demolished in c. 1960.

The mill was a substantial brick building which stood close to Hamstead Mill Farm. It had two waterwheels driving a total of four pairs of stones. The earlier waterwheel, probably low breast-shot, was enclosed in a wheelhouse which formed a full-height extension to the main building. It drove two pairs of stones via an upright shaft and spur gear. The second wheel was positioned externally, at right angles to the first, on a gable wall of the main building. This wheel appears to have been breast-shot, and drove two pairs of stones via a lineshaft.

160. PERRY MILL

SP 064913

This mill was demolished in the 1890's having operated as a corn mill until about two years previously.

161. HOLFORD MILL

SP 079916

This was a blade-grinding mill until 1855 when it was converted for gun barrel boring. It was acquired by National Arms and Ammunition Company by 1875. The remains of the mill are within the I. C. I. complex, part of the buildings still being in use as a store and office in 1954. There was another mill, known as Stanton Mill, a short distance downstream, but this had been demolished by the mid-eighteenth century.

162. ASTON MILL

SP 089901

This mill was owned by the Birmingham Waterworks Company from 1833, operating as a corn mill until c. 1860. It was replaced by a pumping station in the 1880's.

163. BROMFORD MILL

SP 115898

This may well have stood on the site of the mill at Erdington which is mentioned in the Domesday Survey. It seems to have been a corn mill until the beginning of the seventeenth century. After this time it operated as a forge. A drawing of 1808 shows part of the buildings and an external waterwheel. It may have been used in the manufacture of paper in the early nineteenth century, but turned to steel rolling and wire

MILLWRIGHTS

The names of several millwrights occur on waterwheels and various parts of the mill machinery, and others are known from trade directories or surviving documents. One or two of these firms are still at work though in other branches of the engineering trade.

The most prolific firm, judging by existing machinery, was Summers of Tanworth-in-Arden. This business was started in c. 1814 by Robert Summers, a blacksmith, and had moved into millwrighting by the early 1830's. Work on mills had effectively ceased by the early 1940's, motor engineering having been the mainstay of the business since 1914. The firm finally closed in 1953 on the death of the founder's great-grandson, Norman Summers.

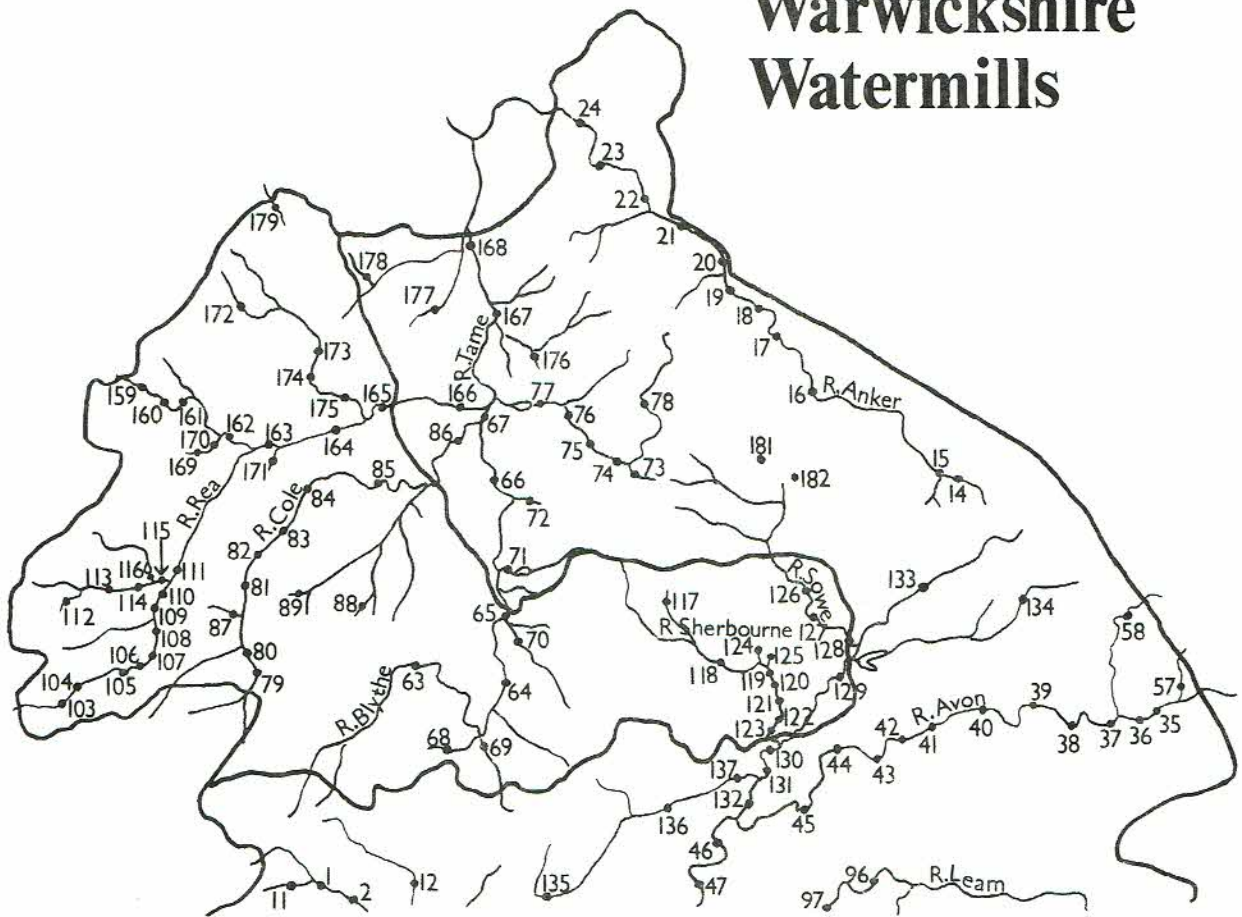
The main competition was provided by William Glover of Warwick, Ball and Horton, later Ball Brothers, of Stratford-upon-Avon and Edward White of Redditch. In the north of the region Job Toon operated from Abersstone. Lampitts and James Bagnall, both of Todenham in Gloucestershire, carried out some work in the southern part of the county.

PRESENT CONDITION

Seventy-eight mill buildings remain more or less intact, though a few are derelict or altered so drastically as to have lost much of their original character. Where the mill buildings have been demolished some traces usually remain. Often the water-courses are intact, and a mound of rubble marks the mill site, sometimes including part of the machinery. Indeed, at two sites the buildings have almost completely disappeared but the waterwheels remain, one with most of its gearing. Of the seventy-eight standing buildings twenty-one contain waterwheels and machinery, ten retain the waterwheel alone, and a further five have most of their internal gearing but no wheel. Complete turbines exist at three mills, and parts of turbines remain at two others. The present use of the buildings may be summarised as follows:-

working mill (commercial)	4
industrial premises	8
shops	1
animal shelters	6
stores	15
restaurants or inns	7
restored and preserved	4
disused	9
derelict	5
dwellings	19
	(waterwheels turning at 4)
	(waterwheels working)

Warwickshire Watermills



nuts, and the stones it drove, has been removed. The hurst frame and bridge trees are of wood. On the stone floor is the remaining pair of stones, complete with an octagonal tun. A short lay-shaft from the wood cogged crown wheel drove auxiliary machinery and the sack hoist. This hoist was operated by a pulley and belt, being controlled by rope or a foot lever on the bin floor.

157. RED MILL - NETHERCOTE BROOK

SP 259359

Very little is known of the history of this mill, though it may have been one of the mills on the Deerpur Estate in 1086. The only known millers are J. and W. Barrett who are recorded from 1854 to 1868. The buildings are marked on the 1886 O.S. 6in. map, but the watercourses seem to have gone by this time.

Some of the brick buildings still stand, but all the machinery was removed many years ago.

158. GREAT WOLFORD MILL

SP 246346

There was a fulling mill here in 1232. The mill is marked on eighteenth century maps, and appears on the O.S. 1in. map of the 1830's. It is not marked on the 1886 O.S. 6in. map. All that now remains are a few mounds near the site of the mill.

OXHILL AND TYSOE MILLS

The mill at Oxhill was valued at 16d. in 1036. In 1241, John de Wanton conveyed it to Simon de Wanton, who later gave it to Bordesley Abbey. Tysoe Mill was mentioned in the early thirteenth century, being close to the church. Nothing now remains to suggest the exact site of either mill.