# I N D U S T R I A L  S I T E S
# IN THE
# V A L E  O F  C A S T I A R D

The Work of William H. Townley
recorded by
R. J. Mansfield

Price 10p.

A Gloucestershire Community Council Publication.

# FOREWORD

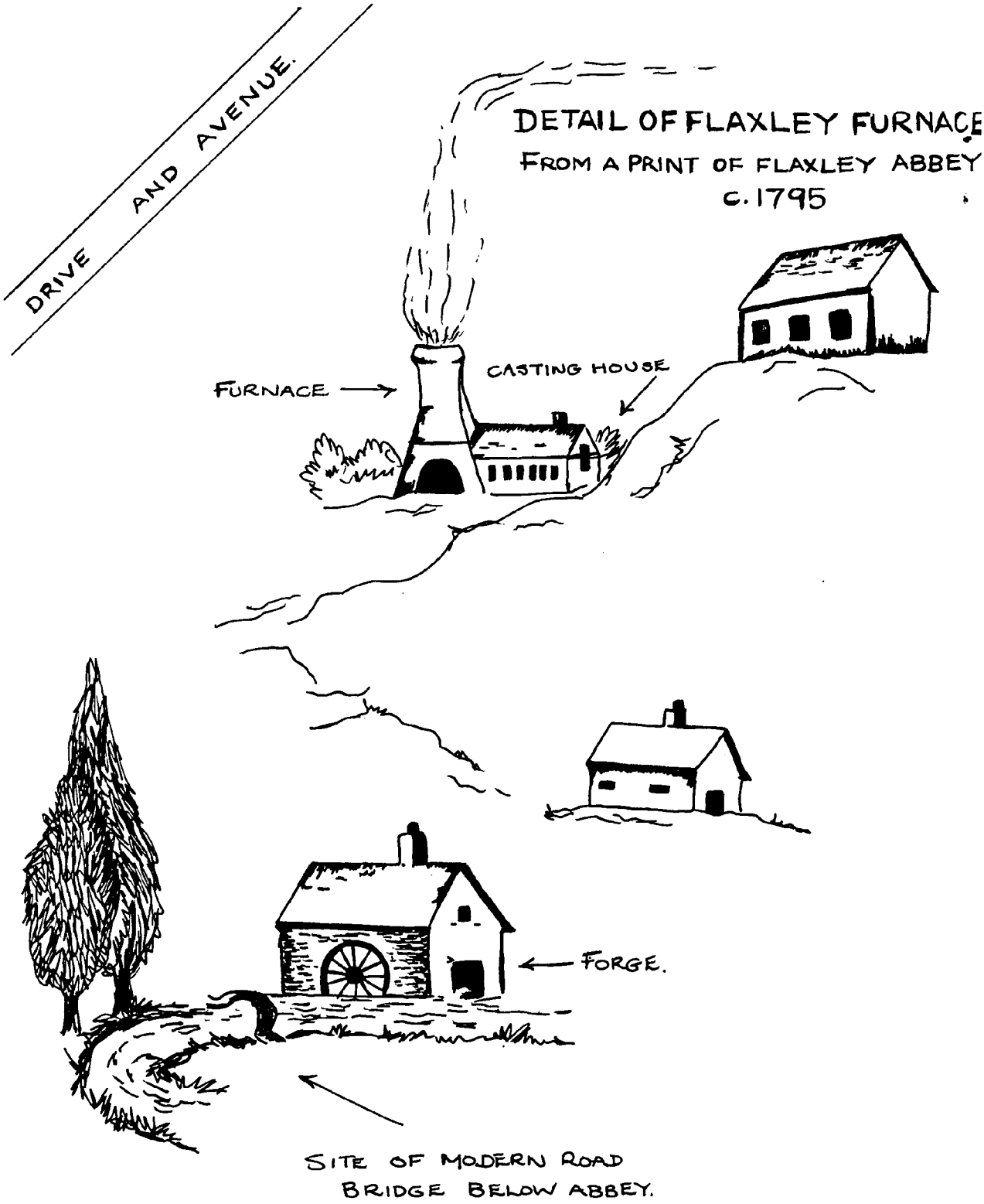
Mr. William H. Townley has performed an invaluable service to Industrial Archaeology in his survey of the industrial sites of the Vale of Castiard, more especially in view of the fact that while he was working on them several of the sites were being demolished and his observations and many of his measurements are no longer available to anyone who might follow him.

Both Mr. Townley and his wife were born in the locality and he has spent most of his working life in the district and has enjoyed the confidence of his neighbours from whom he has gathered many of his facts.

Blessed with a keen historical sense, with powers of observation and a great deal of practical experience, he is insistent that his work should be made available to those who are interested, and that what he has done is a more preliminary survey of a district which has changed its aspect from industrial to pastoral and which still offers much opportunity for further exploration.

I consider it a privilege to have worked with him a little, too little, in the field, and to have been entrusted with recording his notes and presenting them to a wider public in their present form.

Newnham, Glos. R.J. MANSFIELD


DRIVE AND AVENUE.
DETAIL OF FLAXLEY FURNACE
FROM A PRINT OF FLAXLEY ABBEY
c. 1795
FURNACE
CASTING HOUSE
FORGE.
SITE OF MODERN ROAD
BRIDGE BELOW ABBEY.

INTRODUCTION.

THE VALE OF CASTIARD, as the Flaxley valley was once known, is one of the most pastoral scenes in Gloucestershire West of the Severn. It is a gently sloping vale along which runs the Westbury Brook between wooded hills such as Shapridge and Welshbury. The stream is fed by springs, one of which rises near Abenhall church, while the other flows from St. Anthony's Well.

As we pass along the vale it is strange to think that a couple of hundred years ago this valley was highly industrial, and although its aspect has now completely altered for the better, traces of that industry are still to be seen by the observant eye.

St. Anthony's Well issues from the quartz conglomerate of the Old Red Sandstone and its waters were renowned for many hundreds of years for its medicinal properties in curing cutaneous disorders. Even as late as the beginnning of the Nineteenth century a square basin was constructed adjoining the head of the spring and used by bathers with appropriate rites.

But below the bath the stream provided water power for several enterprises and fed a number of pools in the lower part of the valley whence the water was controlled by dams and sluices to drive water wheels of various sizes and design.

The first of these pools lay but some sixty yards or so from the source and provided power for a mill (No.1.) whose purpose remains undiscovered. It may have been a cloth mill or even a fulling mill and although some of its buildings remain its use has still to be determined.

A second pool lay just below for another mill which, whatever its original purpose, became associated with the manufacture of paper and part of the buildings, which have now completely been demolished, was traditionally known as "The Rag House."

The third pool and mill (No.3.) was nearby, close to the road, this could have been a grist mill and there is good evidence that loading and unloading was done here for there is an obvious loading bay at the road side.

The more celebrated "Guns Mill" is at the junction of the by-road with the Flaxley Mitcheldean highway. Much of the story of this mill is

known for it once contained a furnace where in 1629 six hundred and ten guns were made for the States General of Holland, and rather more than a century later it was converted to the manufacture of paper, an industry which lasted in these premises for well over another century.

Turning towards Flaxley on the main road, Flaxley Mill (No.5.) is soon reached. This was a corn mill and it is probably the oldest mill on the brook. It is known to have been at work as early as 1207, indeed it is quite possible that it was operative before the Abbey of St. Mary de Dene was founded and it remained at work until 1910. From this point much of the low lying ground beside the road was occupied by a series of pools which, though drained and cultivated, may still be identified.

Below Flaxley Mill there is a series of five forges on the brook, some of which were worked by Sir John Wintour who bought the Forest of Dean from King Charles I for £106,000, while others appear to have been under the direction of the owners of Flaxley Abbey. There is little trace left of the forges although the channels of the water may be traced and the sites of the sluices and pools estimated.

A mill (No.9) of some kind was actually within the grounds of Flaxley Abbey. Again its purpose is unknown but the pool was in existence until 1960 when the estate was sold, while the wheel was removed during the 1890's to Guns Mill where it still remains. Parts of the buildings still stand but they were used as a potting shed until 1960 and are now employed for general storage.

Just below the Abbey on the lower slope of what is now a wooded hill is the site of a busy furnace which was worked first by the Cistercian monks from 1154 and then by the owners of the estate until 1812. Relying first on local ore, in later years ore was imported by sea from the port of Whitehaven in Cumberland and brought from the Severn at Broad Oak near Newnham.

A further forge, possibly used in conjunction with the furnace, has been located close to the old Keeper's Cottage.

The largest forge on the brook was on the site of the present Waldron Cottage Farm. The road from Flaxley to Blaisdon runs over the dam which retained the water of a large pool on the upper side. The arches through which the water fed the wheel or allowed the passage of the brook may still be distinguished.

The road from Flaxley to Blaisdon is of a relatively recent construction. It replaces a track which followed the line of the brook in the direction of Boseley, and about a mile from the Abbey are the remains of what might well have been a cloth mill. Signs of a building, though existing, are scarce but a sluice is indicated about sixty yards upstream. The strongest evidence that this was a cloth mill is the presence of a growth of teazles in the vicinity. This is the only place on the brook where teazles are to be found growing.

The next site is Boseley Mill. This was a corn mill and the present house shows late Tudor features. The mill was known as Wake Mill and was working as late as 1928.

Two more mills complete the series. One is in the village of Westbury on Severn opposite the church. This was working as a water mill until about 1900. The drive was converted to a turbine, and work continued until after 1930.

The last mill is near Garden Cliff on the bank of the Severn. It was a corn mill and might have been a tide-mill. Although it has been used more recently as a dwelling there is some evidence inside of the position of its equipment.

The Westbury Brook to-day runs exclusively through farm lands, but it is well that its older function should be recorded before the last traces of industry, which are fast disappearing, are completely eliminated from this pleasant valley.

---

INDUSTRIAL SITES ALONG THE WESTBURY BROOK

ST. ANTHONY'S WELL.

Where the spring issues from the bank it is received into a small square stone basin covered by a flat stone slab. Until recently on the Right Hand side an iron bell shaped cup was secured by a chain to a staple. The cup has been lost but the staple remains.

The water flows into an oblong basin some feet away with steps leading down into it. The basin is 15' in length 12'6" in breadth and 6' deep.

No.1 POOL

The entrance to the pool was about 60 yards from the source, this pool was destroyed when a road was taken through it, cutting the pool in two

and effacing an old cart track which had formed part of the dam of the pool.

Pipes were laid under the track to carry the water from the well.

On the South side of the pool were several large steps of stone which formed a sluice. Part of the pool wall is still visible but the steps and sluice have disappeared.

No.2 POOL

Flowing from West to East the water from Pool No1 was carried across the open ground by means of a channel 60 to 70 yards long to Pool No.2 which fed the water wheel of Mill No.1.

MILL No.1

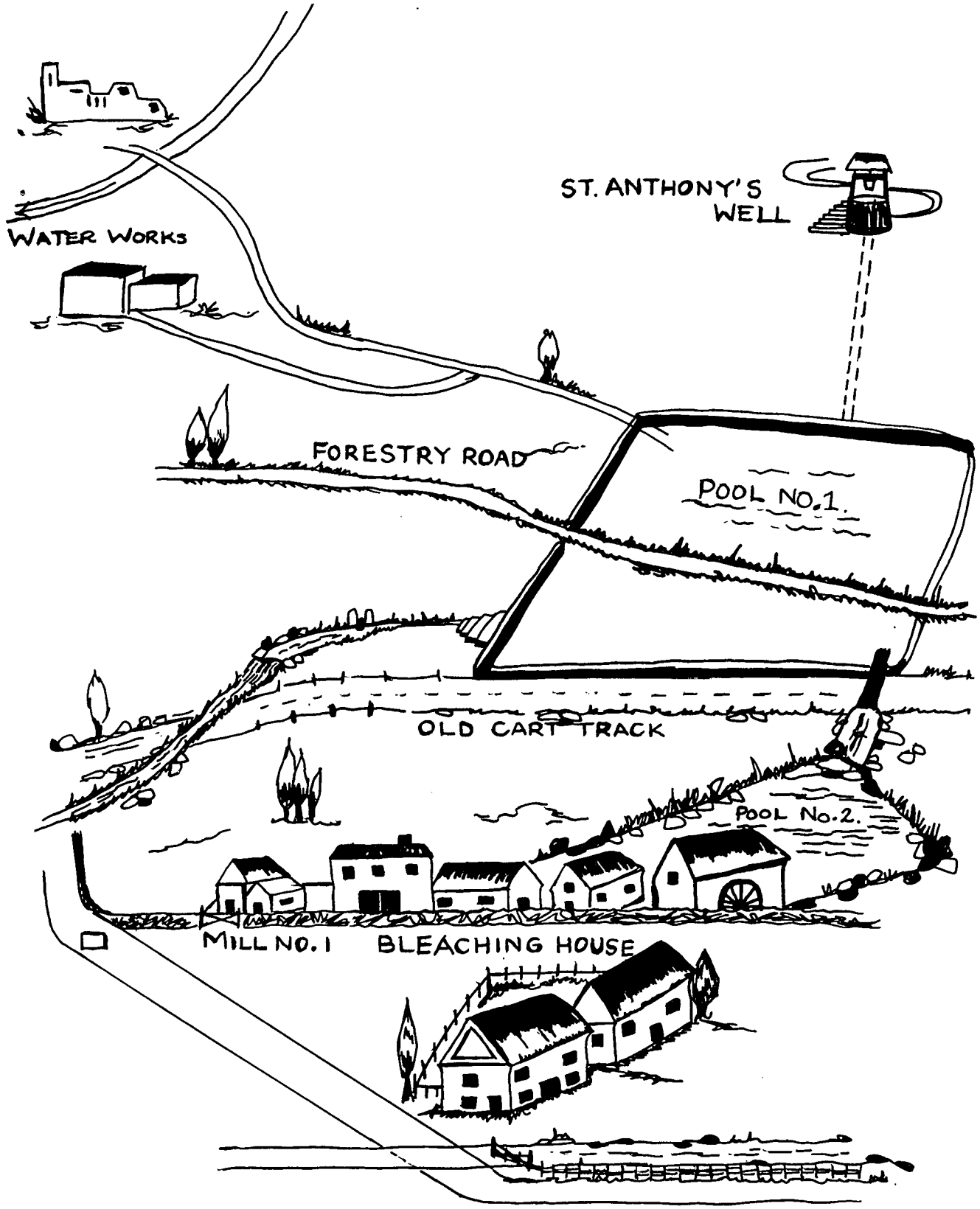
The mill had an overshot wheel about 18' x 3' x 4'. The spindle opening is blocked by infilling, and is now almost level with the ground and the race is partly filled in. The main buildings measure 33' x 22'. This is a two-storey building with another smaller one-storey building on the Left. The upper floor of the main building has gone and the front and back of the mill, 5' down from the eaves front and back are open. The opening had vertical slats 4" wide some of which remain. This opening could have been for the purpose of ventilation.

It is supposed that this storey was used for drying the paper or perhaps for a particular treatment of rags in which ventilation was necessary to diffuse fumes from chemicals which may have been used.

There is a small chimney to the West of this building, indeed this is the only mill which has a chimney at the gable end, but no trace of a fireplace is to be found.

Inside on the ground floor, where the axle of the wheel came through the wall are two large stone slabs about 5' square and 3' high. Their purpose is not known but they may have carried the bearings of the wheel or perhaps the base of a vat.

A little way above the spindle hole of the wheel is a square opening (8") running the length of the wall. It appears to have been an aqueduct. It is not possible to trace it further, but it could have connected at the back of the mill to a source from springs just below No.1 pool so that clean water for washing the paper could be supplied which would have been essential to the process. Further investigation shows that the feed to the aqueduct goes through the brook from the spring and on through open ground


ST. ANTHONY'S
WELL
WATER WORKS
FORESTRY ROAD
POOL NO.1.
OLD CART TRACK
POOL NO.2.
MILL NO.1
BLEACHING HOUSE

to the West end of the mill and into the built in channel in the back wall. In the middle of the wall there is a recess 7' across, 6'4" high and 12" deep in its deepest part. The water was carried across this recess in a wooden trough which is no longer there. It seems to have been of a similar depth to the aqueduct in the wall and to have been lined with lead for scraps of wood and lead have been found there. The question arises: Could this trough have supplied water to another vat? What was its purpose? Why was the recess formed, since the aqueduct could have been built in and continued straight through?

Just outside there is a small blocked up arch in the retaining wall of the bank to the East of the wheel. This could have been used to drain the pool when necessary.

On the West of this building is a smaller building 19' x 16' which was added at a later date. According to evidence this could have been the Bleaching House. The use of lime has left plain evidence, and the marks of a roof pitch on the end wall of the mill denotes that a smaller building had once stood there. The size of this smaller building, from marks and parts of a brick foundation, was 12' to the apex, 10' wide and of uncertain length. Only 6' of the brick foundation is left the floor being of pitching and stone. This could have been the first Bleaching House, but being too small a larger one was built.

There are joist holes about 15" centre and 7' to 8' above the ground level on the inside across the front wall, but there are no joist holes on the opposite walls. This would suggest that a part of the building might have been divided off. High up on the mill wall there is what appears to be a round flue hole which was too high for inspection from the ground. This is in line with the Bleaching House. It suggests that there had been a flue pipe which made a connection with the chimney on the end of the mill to take any fumes arising during the process of bleaching.

The upper storey of the mill was called "The Grass House". The origin of the name is obscure. It may have been used for or with chemicals used in the bleaching process, or it may have been a repository for the Esparto Grass sometimes used in the manufacture of paper.

In fact the purpose of the mill is unknown. It has been suggested that it may have been a cloth mill, cloth being made on the ground floor and taken to the upper floor with the slatted sides for drying or some other

purpose.

There are however no signs of any growth of teazles nearby, used for raising the nap on the cloth. In fact there are no teazles in the Guns Mills area.

Mill No.2

The wheel here was overshot, 15' x 3' and water from the pool was led by an iron pipe, 15" in diameter, over the wheel. There is no sign on any valve or control to regulate the flow of water and thus control the speed of the wheel.

The outer wall of the mill was against the mill race and there are several circular marks on it made by the revolution of the wheel. This gives a good indication of its size, but there are no remains to indicate its nature or type. The opening in the wall of the race suggests that it could have been an oak axle and from the diameter of the wheel at Flaxley Mill this could have been 22".

Very little is left of the buildings but the dam was 130' in length and the buildings stood against and on top of the dam wall. The first part at the Southern end was the Rag House where rags were sorted, graded and washed and the buttons and any other unwanted matter were removed.

The house was approximately 62' in length and 22' in width with a floor of pitched stone - laid on edge - and one storey in height. It was built on three sides of grey stone but the Western side which faced the pool was open.

Adjoining the Rag House on the North end was an "L" shaped building of two storeys, 50' x 20' and on the floor was part of a stone slab 5'6" x 5' x 4", the remains of a vat.

Leading from this was another two storeyed building 14' x 16', again "L" shaped, and all of the buildings had slate roofs.

The Rag House was dismantled during the 1930s and the slates from the roof were used on a new building at Guns Mills.

Mill No.3

The mill wheel here was undershot, possibly 16' x 4', and the building was of two or three storeys close to a narrow lane once a private road to these mills.

Very little of the building nearest the lane remains since it was cleared during the 1939 war by H.M. Forces engaged in hauling timber.

The opening for the axle on the north side was small suggesting that the wheel might have been of metal.

A previous owner, Mr. Fred Ryder who took the mill on the death of his father, Mr. John Ryder, reported that there were two stone vats here, used for the washing and making of paper. These vats were dismantled by Mr. John Ryder and used to cover a water tank at a bungalow which he built at Abenhall.

At an earlier date this mill might have been either a grist or a fulling mill. Records state that there were two grist and one fulling mill in this district. From its appearance the building seems to have been one of the grist mills being a two or three storey building rather than Mills 1 or 2, both of which had open sides.

A decision is difficult since there is no trace of mill stones. There may have been a hoist on the lane side to lift loaded sacks, controlled either by hand or by water power since there seems to have been a loading bay beside the lane. This hoist could have been either inside or outside. There was a doorway into the lane, and if it had ever been a grist mill there must have been a way to get 2½ cwt. sack up and down.

There was another building on the West side of the mill which could have served the purpose of a coach house or wagon shed, or even a stable.

GUNS MILLS

This mill was built by Sir John Wintour of Lydney in about 1628/29, and stands just below Mill No.3. There was a very large pool between these two mills which has recently been filled in.

The mill wheel was overshot 22' x4" evidenced by marks on the wall of the channel. This wheel worked the bellows for the Blast Furnace in 1629 when 610 guns were made for the States General of Holland.

It was worked by Capt. John Brayne of Littledean in 1645 but in 1650 it was destroyed by order of the Commonweath and rebult in 1683.

On the inside and outside walls of the furnace five cast iron lintels (pig iron) are built into the walls, two on the inside and three on the outside. They bear the dates 1683, 1683, and once which is almost illegible, seems to be 1684.

Guns Mills is the best remaining furnace of the earliest period of British Blast Furnace practice in the country, and iron was still cast here several times between 1700 and 1732, but in 1743 the mill was adapted for paper making and steam power was introduced.

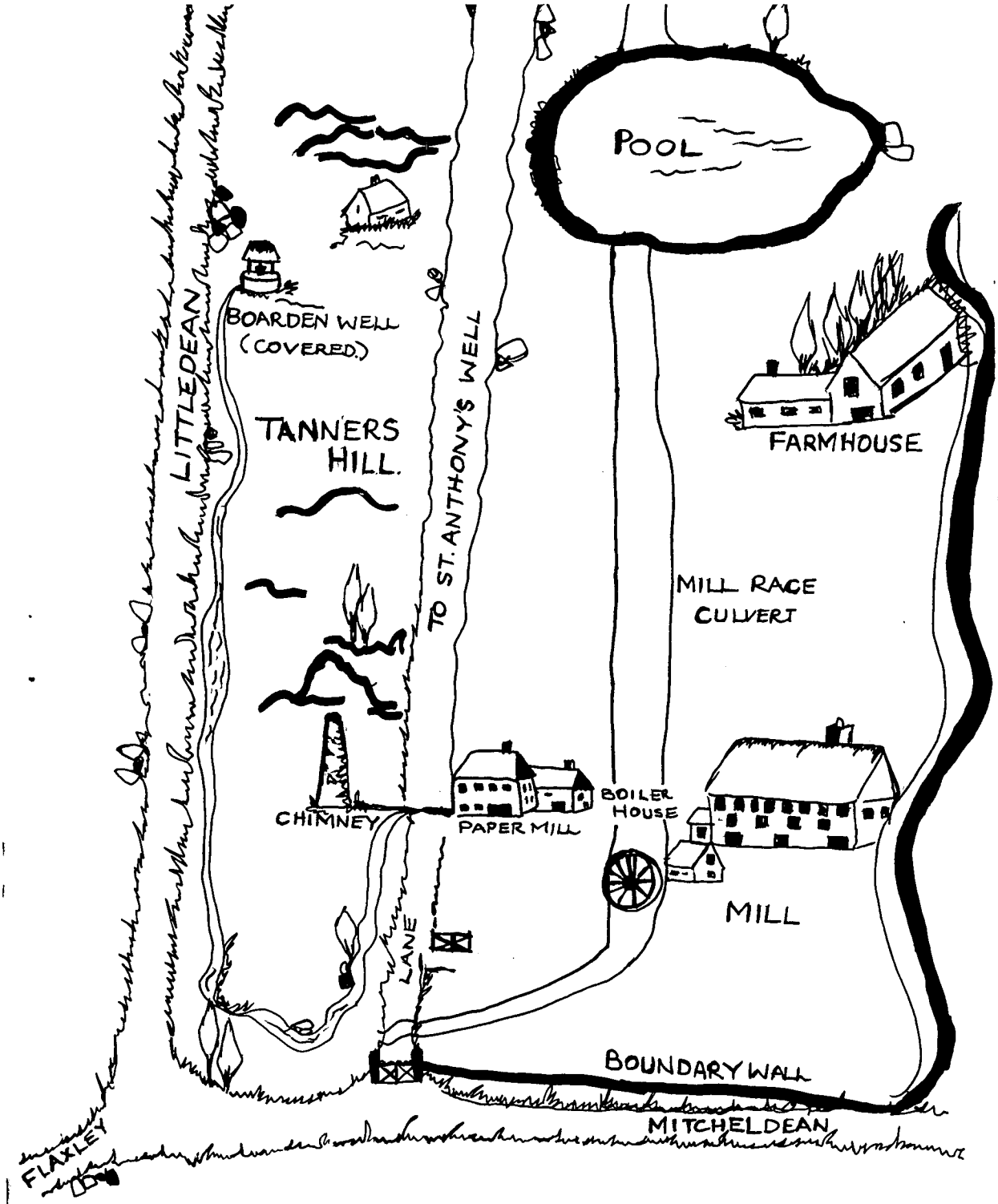
The buildings which housed the boiler and machinery were part of the boundary wall next to the road and opposite to the blast furnace. The flue from the boiler was remarkable. It went almost horizontally under the road, sloping gently upward over the water channel from the pool and under a stone wall which existed on the Southern side of the road into the hillside, and emerged in front of the cottage, now in ruins, on Tanner's Hill and led into a chimney stack.

The chimney was taken down between 1885/1890 as far as can be ascertained. Fifteen yards of the flue are still there in good condition, 4'6" high and 2'6" wide with an arched top, the firebrick floor is flat and still shows traces of soot. The flue was exposed several years ago when the Forestry Commission removed the wall to widen the road for the easier extraction of timber.

On the road to Littledean is an oblong stone built well now sealed by the Water Authority, called "Boarden Well". From this well a stone aqueduct, 8" square ran round the edge of Tanner's Hill underneath the existing flue. It continued for several feet then passed under the road and over the water channel into the building which adjoined the engine house to carry pure spring water into the vats used for washing and making white writing paper. This paper was reputed to be of the best quality obtainable.

At one time the lane was closed by a pair of iron gates hung from a pair of stone pillars. The gates were discarded many years ago but the pillars survived much longer carrying the remains of the gate hooks.

The paper mill was closed between 1880 and 1882 when the manager for Mr. Joseph Lloyd of Abenhall was Mr. Henry Affleck. The tenancy of the property passed to a farmer, Mr. William Grindon, a brother to Mr. John Grindon of the mill at Westbury, and in 1890 Mr. John Ryder bought Guns Mills with 22 acres of land for farming. There was no machinery there when Mr. Ryder bought the mills. It is said to have been sold to Dilloway of Gloucester, a marine store dealer, and even the water wheel was beyond repair. Mr. Ryder bought another wheel from Sir Thomas Crawley-Boevey at Flaxley Abbey. This wheel was an all-metal one, smaller than the original being 9' x 3', which came from a mill at the Abbey. Mr. Ryder used it for agricultural purposes, chaff cutting etc. and even for cider making. The wheel is still in position but is no longer capable of use. Compared with the one it replaced it is quite small.


POOL
BOARDEN WELL
(COVERED)
TANNERS
HILL.
LITTLEDEAN
TO ST. ANTHONY'S WELL
FARMHOUSE
MILL RACE
CULVERT
CHIMNEY
PAPER MILL
BOILER
HOUSE
MILL
LANE
BOUNDARY WALL
MITCHELDEAN
FLAXLEY

Beyond the house at Guns Mill there are several buildings which were used for sorting and processing rags, but later some of the two storeyed buildings were reduced to one storey, and on the mill building there was a fire mark of the "Sun" Insurance Company.

The present farm house originally possessed three storeys but in 1921 John Ryder had the top storey removed. The work was done without removing the roof. Mr. Eli Haile and his son, Lewis, of Pope's Hill, both master masons, and Joe Stoddard of Littledean working with Mr. Ryder and his two sons, lowered the roof without removing a single slate by the use of jacks and ropes.

The present house was not the original one. Joseph Lloyd insured his "New Dwelling" in 1871 with the "Sun" Insurance Co. for £200. The brick building was built in front of and adjoining the old house. It would appear that the brick building was put up about 1780/81, and originally the house of three storeys was built at an angle - one part facing South and the other West, The Western part was taken down during the 1930's. It contained six bedrooms and one room on the ground floor which was large enough for a ballroom. The other part of the old building is still in use. The brick portion behind the old building was erected during the 1930's to replace the older one.

An old mill stone, used for grinding corn was discovered which appears to have been converted for cider making but the cider mill is no longer there.

On the upper side of the pool from the road and in front of the farm-house was a lovely walled garden with a high brick wall on three sides. It stood on an incline sloping towards the pond. It has now disappeared except for a Cypress tree which was in the garden although since the pool was filled it appears to have stood in the pool. Entrance to the garden was by a small iron gate in front of the farm house.

The original front gate to the house was up several steps from the road. These steps covered the culvert which took the overflow and which was used to drain the pool when necessary. Inside this gate there was a straight path to the house which ran along the pool wall and formed a part of it, it was covered by paving stones and led into the courtyard.

About half way across the front of the pool was a smaller pool in the shape of a crescent, it was about one third the width of the larger pool and was called the Settling Tank. As the name implies it was used to clear

the water for paper making.

On the outside was a low box hedge which it was advisable to follow when approaching the courtyard after dark. It led over the mill race but no trace of it now remains.

FLAXLEY VALLEY - WATER MILLS AND POOLS.

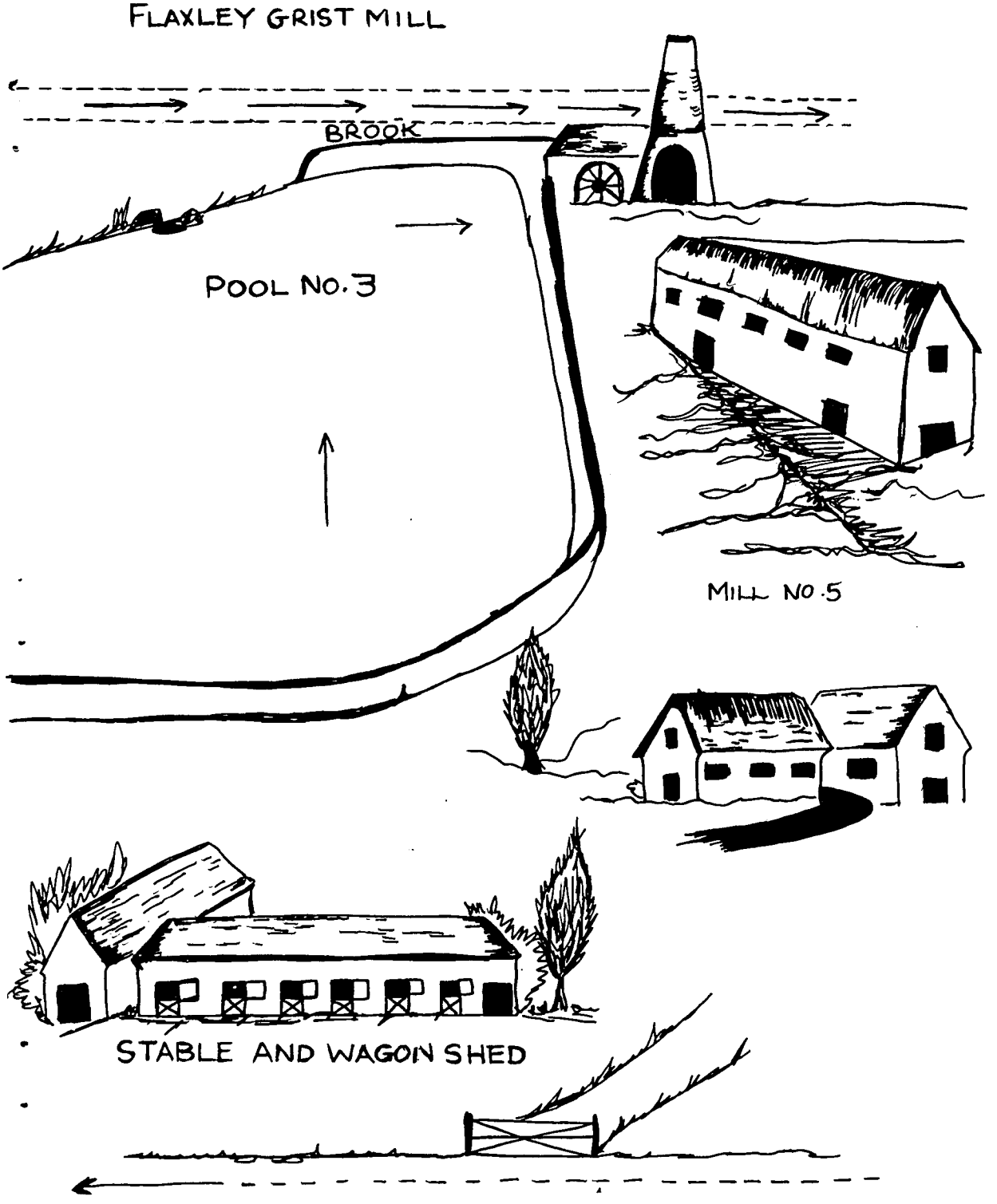
MILL No.5. THE GRIST MILL.

This appears to be the oldest mill in the valley. It was certainly working in 1207 when the miller's name was Bosco or Bisco. It is even possible that the mill antedates the foundation of the Abbey of St. Mary de Dene at Flaxley. The mill is built of local red sandstone possibly quarried a few hundred yards away at the foot of Shapridge hill. Until 1910 it was still working as a corn mill with an overshot wheel 15' x 3'.

The mill was fed from three pools. The first, probably a reserve pool, ran along the side of the Mitcheldean road at the foot of Shapridge in front of three cottages called "The Bridge Houses" in the parish of Abenhall. The brook rises at a spring called "Sciving Well" at Abenhall on the East side of the church being joined by the stream running from St. Anthony's Well at Guns Mill. There is a culvert running through the garden of the Bridge Houses on the East side for several hundred yards then it emerges into open fields. Another stream runs from in front of the Bridge Houses under the Mitcheldean road which takes water from springs in Spout Lane. This brook runs from Silver Street Mitcheldean picking up from other springs on the way.

From the first pool there is a stone culvert which was controlled by a sluice connecting with St. Anthony's Well and feeding Pool No.2 which burst its banks during the 1920's. This pool again was controlled by a sluice running into Pool No.3. The sluice was of cast iron and the slide measured 22" x 14". It seems that the slide was operated by a long iron bar fixed to the top of the slide for there is provision for this to regulate the water to Pool No.3. from the second pool which had a depth of some 6' to 8'. The bar would have been in some kind of guide fitted to the top of the dam and made either of iron or of wood.

The spindle of the water wheel was made of oak, 13'6" long with a diameter of 22". It is still there, decaying in an orchard close by, but the wheel is missing.


FLAXLEY GRIST MILL
BROOK
POOL NO. 3
MILL NO. 5
STABLE AND WAGON SHED

There is quite an amount of the original machinery inside the mill and probably the millstones are still there, but since the building is in a state of collapse and the light is poor it is difficult to trace what actually is there.

A John Hazell was the miller in 1700/31, and between 1830 and 1910 millers included Palmer, Ebborn and Holder, while the last of the millers was Winter.

A notice board, now in the Folk Museum at Gloucester, bore the

RULES OF THE MILL.

| | s. | d. |
|---|---|---|
| For Grinding wheat Bushel of 8 gallons | | 8. |
| For do. Beans Pease Barley etc | | 7. |
| Bolting per bushel | | 2. |

FORGE No.1. (Just below Flaxley Mill)

This appears to have had an Undershot wheel, though it might have been Breast type, there is nothing to suggest its size though an estimate may be made from the size of the race. The hole in the forge wall, now filled in, where the shaft of the wheel went through to drive either a hammer or a bellows or both for the forge, is evident, the wheel could have been about 12' x 4'.

Inside the forge went up through the roof but in recent years it was taken down to roof level and tiled over.

The inside measurement of the forge inside at its base was 7'6" square tapering to about 2' at the top. It is said that nails were made here and other ironwork forged.

The pool is rather large. It was fed from the brook just below Flaxley Mill and there are still traces of the place where the stream was diverted to the forge pool. In more recent years it was made into a garden and planted with fruit trees but it is now overgrown. The main stream runs in front of the forge, there is a weir or waterfall where the water was dammed back to turn the water higher up the stream into a channel to feed the forge pool. This water was controlled by a sluice at the weir.

The forge is fairly large, 25' x 20' and adjoins the cottages called "Upper Stream Cottages" which in earlier days may have formed a part of the forge buildings. The mill race at the back of the forge ran into a culvert and then came out just below the cottages to rejoin the main brook.

A 5' mill race ran along the side of the forge and cottage walls with a wall on the other side which must have been part of another building, for at some time the house wall and the mill race wall were used to support a roof for a back kitchen and toilet, while a water pipe from a spring, higher up the old pool was laid to supply drinking water.

There are other signs of stone foundations implying that the forge was once larger than it would appear at first sight.

NOTE ON THE SLUICES.

Examination is difficult owing to the overgrowth of bramble and scrub obstructing a former footpath running alongside the brook. It ran between the brook and the forge pool at least 7' above the brook, and a stone wall runs along the whole length of the path to give strength to that side of the forge pool.

After clearing, another sluice was observed 109' upstream from the weir of which one side was in good condition while the other was damaged. This was the sluice for the forge pool and is only a few yards from where a depression which led into the forge pool may be seen.

The brook from the weir upstream is 9'/10' wide at the bottom, and the bank on the South side slopes sharply. There are signs in places of stone walls. If this had been dammed there could have been 5'/6' of water and the wheel could have been breast type. But without excavation there is no indication of the work performed by this sluice though it must have been of practical value.

Just below this weir where the No.1 forge tail-race rejoins the main brook, another sluice may be observed. This controlled the flow of water into the pool of No.2 forge.

Summary: From the point where the Flaxley Mill rail-race meets the brook, a depression, which has almost disappeared, is reached. This is the point from which No.1 forge pool was fed.

A short distance below, after cutting through the brambles, the sluice controlling it was revealed. Proceeding downstream to the weir another sluice, the purpose of which is obscure, is reached though it may bear some relation to the one higher up.

The clay banks which formed the dam for this pool have recently been levelled but it is still possible to see the situation of the pool.

Further down the brook to the point where the tail-race from No.1 forge joins it, is another sluice which controlled the flow into the pool for No.2 forge.

All three sluices are within a very short distance of one another.

FORGE No.2.

All that is left of this forge is the weir and a part of the mill wall. The pool has been partly filled in and is planted with fruit trees. Where the race from No.1 forge meets the main brook is a small weir. A sluice controlled it here, retaining the water until it was high enough to be directed into the pool for forge No.2.

The water wheel could have been a breast type, perhaps 9' x 3'. In 1634 there were two single forges on the Westbury Brook, probably owned by Sir John Wintour who held the woods, and operated by John Typer. Forges 1 and 2 below Flaxley Mill are considered to be those forges. Excavation to find the forge has produced some dressed stone from the old Abbey buildings, iron dross, broken Spanish tiles and some old nails.

It is difficult to estimate the size of the building, possibly it would be comparable with its neighbour above. The mill-race must have run under the floor of the building and the evidence would point to the water wheel having been inside.

FORGE No.3.

Following the brook from forge No.2 two cottages are passed. These are called "Upstream Cottages". Another weir is reached with the remains of a sluice and the site of another forge.

This is obvious from the presence of iron waste still containing charcoal as found on the other sites, and there are still signs of the mill race. The weir appears to have fed a breast type wheel approximately 9' x 4' and the tail race from the wheel is some 90' long. There is a shallow place upstream where another sluice may have been.

In line with this forge near the main road there were other buildings whose purpose is completely unknown. These buildings with the dam ran all the way from the road to the forge and during a dry spell were visible at least until the line was ploughed over during the 1939 war, when in this operation ploughshares were damaged by striking obstructions.

The existance of these buildings has practically-been forgotten.

A depression on the side of a dam nearest to the Flaxley road led back to the dam of forge 2. Though little is left it may still be traced and it may have been a leat.

THE PARTING, or FLOOD GATES

This "Parting" lay on the border of Well Meadow and has disappeared since 1960.

The sluice gate controlled the flow of water to Mill 9 at the back of the Abbey, thence water continued round the Deer Park at the bottom end of "Monks' Walk" (an avenue of lime trees) and so to the Iron Furnace, but this has all been filled in quite recently.

When the sluice gates were removed and the pools were drained the culvert of the main brook remained. Years ago the brook found its way on its present course through the old dam close to a small plantation known as "Esau's Garden" close to the main road. The name comes from the work of Esau Young, who was employed by Mr. Palmer, the miller, who after his day's work at the mill worked on the plot before returning home.

Forge No.4 (in Church Meadow).

The site is reached from "The Parting" towards a weir close to "Esau's Garden" bordering the Flaxley road. There is plenty of iron waste here but no trace of building.

The wheel was probably overshot and the depth of the chase 10'/12' while the width of the weir was 10'6". At present the thickness of the weir is 3'6" but it was probably wider once. The length of the tail-race is 79' and its width 3'6".

There is little left of the chase or of the mill race which goes back 28' from the weir.

The pool was probably the largest in the valley.

With the Flaxley furnace making 20 tons of iron a week, eight tons were sent to the forges since roads were bad and in most cases the presence of the ponds made access difficult.

NOTE.

In the days of Mrs. Catherine Boevey (ob. 1726) three forges were at work. Shortage of charcoal made it difficult to keep the furnace in blow for more than nine months in the year so that the forges must have been idle as well. The numbers of the labour force is unknown. The iron sent to the

forges was hammered into bars and ploughshares ready for the smith.

There were five forges on the brook, two have already been referred to as probably worked by Wintour, the others were the property of the owners of the Abbey.

MILL No.9 (behind Flaxley Abbey).

The age and purpose of this mill is difficult to define. No records appear. It was said that cloth was made at the Abbey so it might have had some connection with that but the absence of any growth of teazles argues against this.

It would have been difficult to supply clean water if the building had been used for fulling or cleansing since the water of the pool would have been unsuitable.

Other mills, higher up the brook, were equipped with aqueducts or clay pipes for spring water. Signs of these are not to be found here, besides the building has rather a low roof.

The pool and chase were to be seen during the early 1960's but the chase has now been filled in and concreted over while the mill is now a store shed.

In the latter part of the Nineteenth century the old mill was used by the Abbey gardeners as a potting shed for the kitchen garden which then surrounded it but these gardens have now been converted into a field.

THE FLAXLEY FURNACE

The furnace was situated just below the Abbey in what was called "The Furnace Yard" adjoining the park. Some excavation has been carried out here and some of the foundations have been found, more excavation is needed but as the plot has now been planted with conifers it is difficult to carry out.

Examination varied from a few inches to 3' and charcoal has been found at all levels. Although it has been buried for 160 years it is as good as it was the day it was first burned.

The dross or waste from the furnace has much more charcoal content and is lighter in weight than that found at the forges. The blocks at the forges, though not very large, are extremely heavy for their size.

The glassy appearance of the slag reveals that coal was later used about 1800 instead of charcoal.

The furnace must have had a stone tiled roof and excavation revealed broken stone tiles with a few whole ones. On the site of the casting house broken Spanish tiles were found, and broken and unidentifiable clay pipes.

Work at the furnace ceased in 1812.

The Furnace began working under the Cistercian monks who came to the valley in 1154. After the dissolution in 1536 it was carried on by Sir William Kingston in whose family it remained until 1648 when the estate, including the iron works, was sold to James and William Boevey.

It remained in the family of Boevey until 1726 when, on the death of Mrs. Catherine Boevey, it passed to a cousin, Thomas Crawley, who took the surname Crawley Boevey. The estate remained in the Crawley-Boevey family until 1960 when it was purchased by Mr. F.B. Watkins who gave permission for the examination of the site.

A MILL OR FORGE (Close to the old Keeper's Cottage)

A record of the existence of this site is to be found in "Atkyns History of Gloucestershire" but once again its purpose is hard to determine and so far no records have come to light.

The wheel was breast type, and a part of the frame of the sluice is still in its original position and shows 6" of a bolt also built in. The bolt was used to hold the sluice frame in position but the wood has decayed to leave the bolt visible.

After a fairly long examination of this site it would seem that this was another forge for waste iron dross, similar to that found in other forges, has been found here.

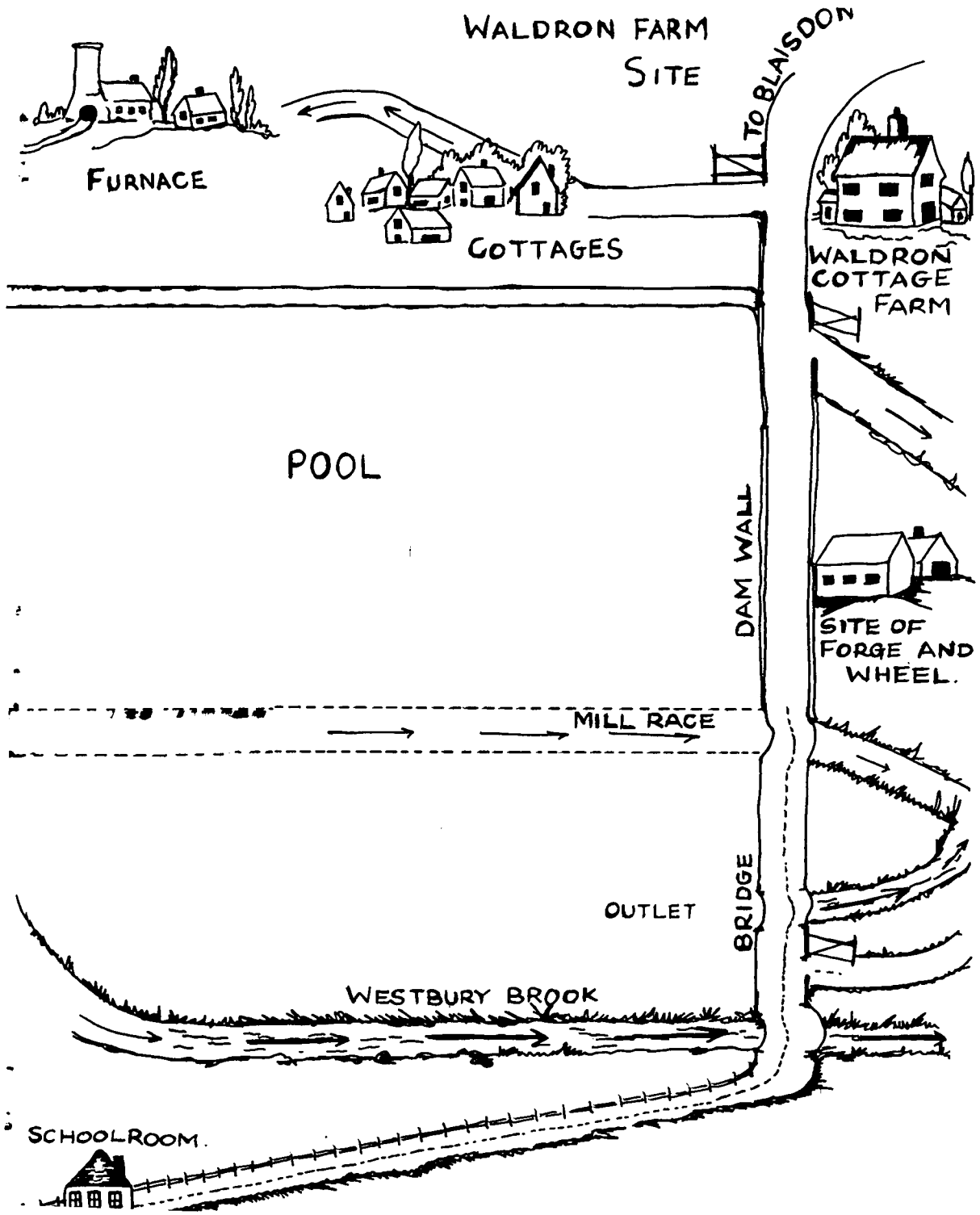
The size of the water wheel was probably 8' x 4'. If this was a forge it would make up the total to six on the brook although the number has usually been reckoned as five, two for John Typer and three for Mrs. Boevey, this would be a fourth for Mrs. Boevey.

It is possible however that the waste may have been dumped here from the furnace since this is a very short distance away.

In its similarity to those higher up the stream the site appears to be that of a forge, but since there is no certainty except that of the "Atkyns"print, it is impossible to be certain.

FLAXLEY IRON FORGE.

The Waldron Cottage Farm marks the site of the largest forge on the Westbury brook. It was supplied with iron from the Flaxley furnace just


WALDRON FARM
SITE
TO BLAISDON
FURNACE
COTTAGES
WALDRON
COTTAGE
FARM
POOL
DAM WALL
SITE OF
FORGE AND
WHEEL.
MILL RACE
BRIDGE
OUTLET
WESTBURY BROOK
SCHOOLROOM.

above. Two more forges above were also supplied with iron from the same furnace, but the whole complex presents a problem which is insoluble without further research.

The present road from Flaxley to Blaisdon runs along the top of what was then the dam. Earlier this was no more than a narrow track for the carriage of iron ore by pack mule from Broad Oak on the Severn where it had been imported from Lancashire.

The original bridge running East to West was stone built with a brick arch 11' in length 8' high and 7' wide. An additional length of 4' of brickwork was added at the West end. The original parapets seem to have been of stone but now they are of brick and this could have been altered when the bridge was lengthened.

The water wheel of the forge may have been either breast type or overshot, there is no evidence as the wheel chase has been filled in, and on the upper (pool) side the walling in of the two arches may be seen. That on the left fed the wheel and the original brook seems to have been used as the wheel chase. The only buildings would have been the forge built agains the dam wall. Stone walls survive now roofed with corrugated iron. The arch on the Right appears to have been a passage to control the level or perhaps to drain the pool. The dam was strongly constructed with stone walls, one on the pool side and another on the side of the water wheel with the forge buildings built against the latter adding strength to it.

This was possibly the deepest dam on the whole brook and it was there long before the farmhouse was built during the reign of William and Mary (1688/1702).

There seems to be a possibility that the present course of the brook here is not the natural one and that originally, before the dam was constructed, the course was that later taken by the mill race. If this is so it would account for a depression lower downstream which appears to have been either in the course of the brook or perhaps an overflow. It may even have been a part of the lane in line with the mill field gate.

The depression is to be found by following the brook from the forge to the point where it makes an "L" shaped bend, then, by ascending the bank some 8'/10' above the level of the brook, the depression will be reached. Its dimensions are about 250' in length and 16'/20' in width at the bottom.

This was not a part of the brook for excavations show no sand or gravel.

It can be assumed that this is part of a lane running from the Westbury-Blaisdon road. It ran by the side of Boseley Mill and followed the route of the present footpath closely, and it emerged at the gate of the Mill Field just below the building of Flaxley School.

If this depression is actually a part of the lane it would support the theory that the channel of the present brook is artificial and that the lane was cut in the process. The course of the original brook can be discerned containing water from other sources.

Just below the forge a quantity of pig iron slag still full of charcoal was found. It appears to have been put there to strengthen the bank a very long time ago since large trees have grown over and through it.

From the centre of the mill race to the centre of the culvert used for drainage is 40'9" and from this point to the centre of the road bridge is 45'. The width of the overflow culvert is 7' and that of the wheel chase is 8'6".

Though the culverts on the pool side have been walled in it is possible to see into the centre one and find the arched roof of brick going right under the road and sloping downwards towards the forge.

TUCK OR TICK MILL

The site of this mill is on the Westbury brook half way between Grove Farm and Boseley Mill approximately a mile from the Abbey.

The date of the mill is uncertain but it would probably be about the Thirteenth century. The Abbey, founded in 1154, was of course self supporting and among other commodities would have made material for clothing, and although at some distance, this might well have been a cloth mill.

Slight excavation has revealed signs of a building which further excavation might confirm. The wheel was probably of Breast type and a controlling sluice is indicated about 60'/70' upstream.

Had it been a forge there would have been remains of iron or dross but these do not appear. It is however significant that this is the only place in the valley between Guns Mills and Westbury where any growth of teazles has been observed indicating the processing of cloth.

BOSELEY CORN MILL.

This was known at one time as "Wake Mill" and was working as lately

as 1928 after which, with other portions of the Flaxley property, it was sold.

The house, built in Tudor times, though additions have been made, possesses in its dining room a panelled ceiling with a "Thistle" design. It may have been an addition in Jacobean or later times.

When the mill was taken down parts of the Water wheel were left and are still to be seen together with the remains of the pool.

A feature requiring some explanation is the remains of spillway showing that it was made of blocks of iron dross (18" x 9" x 5") These are also to be found in outbuildings at Flaxley Abbey. Similar blocks are plentiful in Newnham and elsewhere. The blocks appear to have been moulded from some kind of viscous scum arising from certain industrial processes and as well as for building were sometimes employed as ballast in boats.

A suggestion that these blocks contain copper is discounted except perhaps in the Redbrook on Wye district where copper was worked. It is suggested that the glassy appearance of the dross is due to a certain amount of sand which came to be inserted with the original ore.

In 1856 Anselm Bailey was the miller at Boseley Mill.

WESTBURY CORN MILL.

A photograph of Westbury Mill dated about 1900 shows a breast type wheel, but it was about this time that the wheel was taken out and turbine drive installed.

A part of the pool and the wall were included in the operation of widening the main road (A.48) and to improve the corner.

James Watson was listed as a miller in Westbury in 1856 though he might have operated in other premises in this large parish but John Grindon was the miller up to and in the years preceding 1920 when the property was sold by the owners, the Colchester Weymss estate to Alfred Lyland who continued as a miller until 1930. His son still resides there as a haulage contractor and coal merchant.

It is difficult to estimate the age of this mill but it could have been part of the property of the Baynham family during the Sixteenth century.

The turbine was removed for scrap metal during the 1939 war and the site of the wheel is now occupied by a lean-to garage. Some of

the millstones are still to be seen on the site, the water chase has been filled in and what is left of the pool is now a garden.

SEVERN MILL.

On the banks of the Severn near Garden Cliff, this was used as a corn mill and on the evidence of a former owner it was operated as a tide mill. Neither the date of the building, which is not remarkably old, nor that of its last use is readily ascertainable. In comparison with other buildings and especially considering the brickwork round the eaves, it may have been erected towards the middle of the Nineteenth century. A directory gives the name of William Hooper as being the miller in 1856.