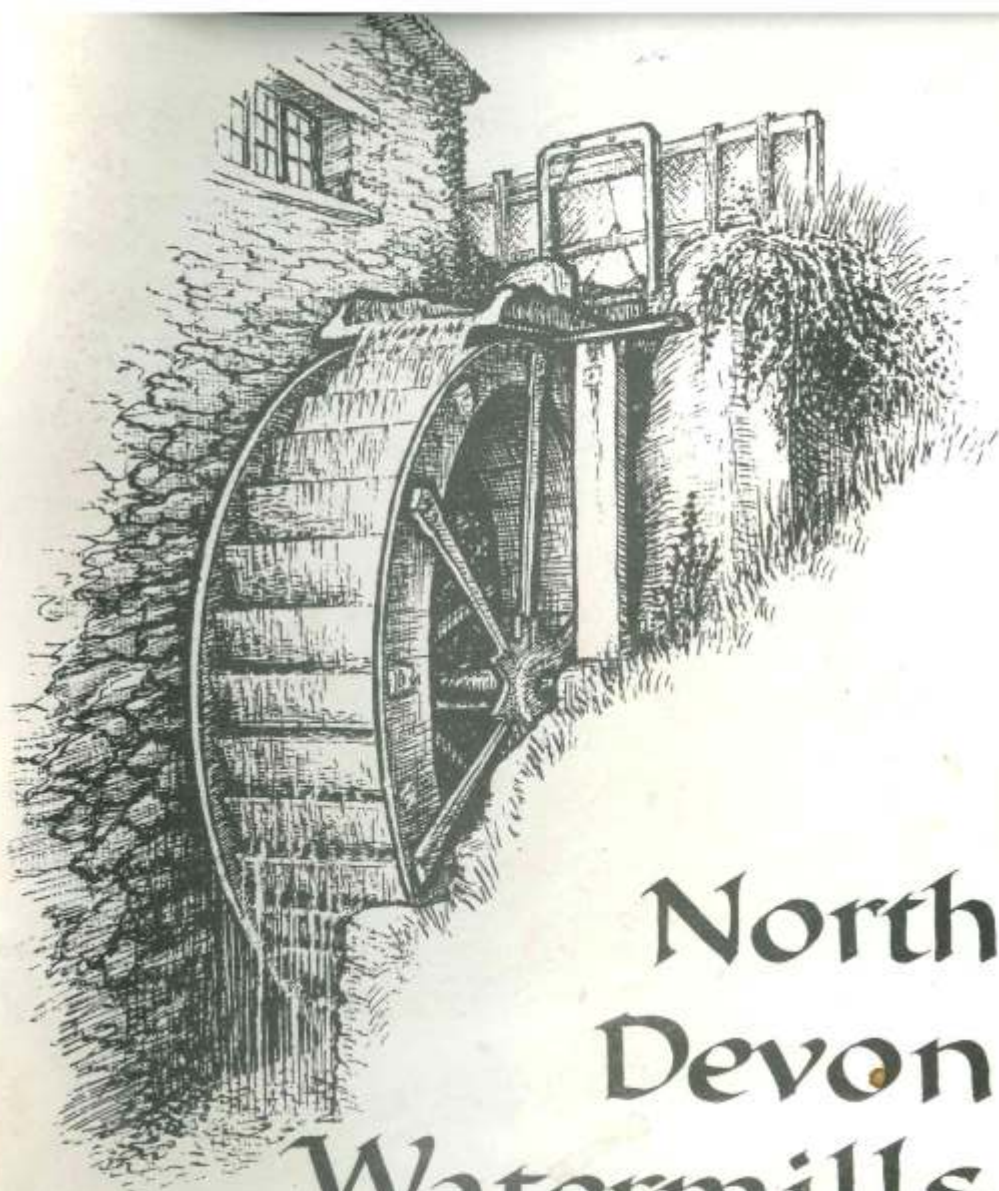


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North Devon Watermills

Based on a survey and record originally made
in 1971-75 of some of the many mills and sites
by members of the North Devon Archaeological
Society directed by THOMAS E. SPENCER

ISBN 0 9514681 0 3 North Devon Watermills. (pbk)

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directed by THOMAS E. SPENCER.
Revised, with historical and technical sections
and a further list of mills added in 1989.

Edited by JOSEPHINE THORPE.



North Devon Archaeological Society
Barnstaple 1989

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Front Cover. Water wheel at Landkey Town Mill.

*To those North Devonians
who built the watermills,
made and repaired the
water wheels and machinery
and dressed the millstones,
this report is dedicated
in admiration of their skill
and craftsmanship.*

*It is essentially the work
of many hands, and has given
great interest and pleasure
to us all.*

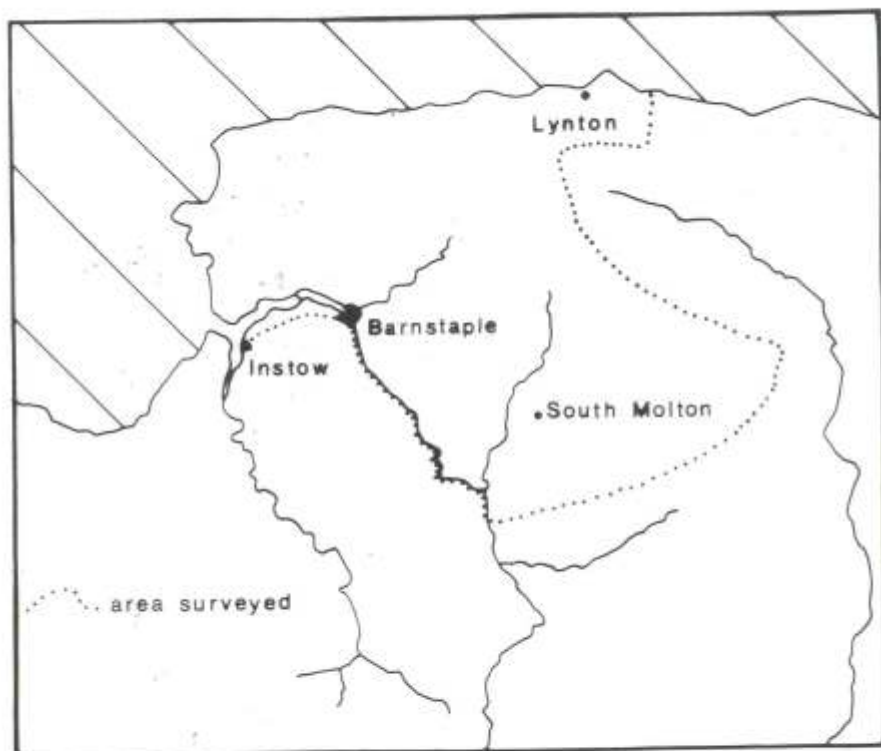


Fig. 1. Area of North Devon Covered by the Survey

ABBREVIATIONS

Coll.	Collection
DAT	<i>Transactions of the Devonshire Association</i>
DCNQ	<i>Devon and Cornwall Notes and Queries</i>
DCRS	Devon and Cornwall Record Society
DRO	Devon Record Office
NDA	North Devon Athenaeum
NDJ	<i>North Devon Journal</i>
NDRO	North Devon Record Office
pers. comm.	personal communication
PRO	Public Record Office
rpt.	reprint

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FOREWORD

FOR MANY hundreds of years, watermills were a common feature of North Devon valleys. Sometimes a string of mills were sited at intervals alongside the same stream or river on its way to the sea. The gentle swish of great wheels turning in the water, and the chatter and creaking of mill machinery were familiar sounds. High rainfall and hilly contours of the land have given birth to many rushing streams. These were put to work as free sources of power to turn the wheels which ground the corn and fulled the cloth woven from fleeces of the local sheep. The Industrial Revolution brought about mechanical changes and gradually put the watermills out of business. Now there are very few left in working order, though some water wheels have recently been restored by enthusiasts. Tumbledown buildings, rotting wheels, choked leats, and well trodden rights of way that were once packhorse trails ("mylleways") leading to the mills, bear witness to a way of local life that has disappeared. So this record is an epitaph for the mills, and the men who built and worked them, whose skills have vanished.

It was to record some of these mills before they are irretrievably lost and forgotten that members of the North Devon Archaeological Society carried out a limited survey of 78 mills, or sites of mills, in 1971 - 1975. This report is basically the result of our findings at that time. Since then, the notes have been revised, and a supplementary list of 34 mills has been added, giving a total of 112 mills and sites. We cannot claim complete coverage of all the mills in the Survey area outlined in fig. 1. Many have now tumbled to pieces, the wheels and the machinery and fittings have been sold for scrap, and the leats filled in. Even the sites of mills may be difficult to identify. Clues may sometimes be found in place names, field names (such as Tucker's, Webber's, Dyer's), and traces of leats. The glossary recalls some of the mill terms that have almost vanished from our vocabulary, and the extracts from Richard Huxtable's diary (Chapter 4) bring to life the work of the carpenters and other craftsmen who served the mills in days gone by.

Some of the old corn mills, and many of the medieval tucking mills were sited by streams in the remote countryside, away from the villages, where a suitable head of water was available to work the wheels. The sites were so skilfully chosen by the millwrights that they often continued in use for successive mills over the centuries. Some which started as corn mills were adapted as tucking mills (e.g. in the Pilton area) when the local woollen industry flourished, and reverted to corn mills to meet a changing demand.

While the sites of the country tucking mills may now only be known as dots on the map, they once supported a thriving rural industry. Little settlements of carpenters, wheelwrights, and other craftsmen, grew up around them. These mills were supplied by local spinners and weavers, giving them an alternative to farm work at slack times of the year.

In the course of the original survey, the Society found some particularly interesting and well preserved mills which we hoped might be saved as working museum pieces. We recommended to the Devon County Council that the three following mills should be grant-aided and preserved: North Molton Mill, Causey's Meethe Mill, near South Molton, and Ash Mill, Bishop's Nympton, near South Molton. The North Molton Mill could not be saved as a mill, but has been converted as a dwelling. Causey's Meethe Mill has been listed, together with some other mills included in this Survey, as buildings of historic interest and importance. It is hoped that Ash Mill will also be included in that category. The listing should save them from demolition without consent, but does not overcome the problem of natural decay from wind and weather, dry rot and woodworm, without provision for maintenance and repairs.

After they made their original surveys, small groups of members of the Society spent some memorable summer evenings exploring and scrambling about some of these old mills. Our thanks are due to all the owners and occupiers who answered our many questions and kindly gave us access to investigate and record the mills. This is a hazardous occupation, not to be lightly undertaken, and in every case where they are in private occupation, the owner's permission to visit should be sought.

The Society wishes to express special thanks to Mr. Thomas E. Spencer, who directed the Survey, co-ordinated the notes, and contributed research and technical help, also the diagram of Ash Mill. The report has been edited by the Chairman, Mrs. Josephine Thorpe. Dr. Alison Grant has kindly contributed the historical chapter. Help with drafting and revision, which is gratefully acknowledged, has been given by Ms. Linda Blanchard of the North Devon District Council Rescue Archaeology Unit, and Mr. Howard Meadows, with technical advice from Mrs. Rosemary Akers. We must also thank Mr. Simon Timms, Miss Frances Griffith, and Miss Louise Rose for their help. Diagrams have been contributed by Miss Felicity Halfpenny and Miss Jane Hewitt, to whom we are duly grateful. We should also like to thank all those members of the North Devon Archaeological Society, past and present, who visited the mills and provided some of the information for the Survey.

We wish to record our thanks to Mr. John Huxtable of Challacombe for permission to reproduce the extracts from Richard Huxtable's diary, also to the editor of *Devon & Cornwall Notes & Queries* in which they have been published.

The Society is indebted to the Barnstaple Bridge Trust, the Dartington Hall Trust, the Barnstaple Town Council, and North Devon Rescue Archaeology, for generous financial help towards the publication of this report.

J.E. THORPE

Chairman, North Devon Archaeological Society.

April 1989.

THE HISTORY OF NORTH DEVON WATERMILLS

WATERMILLS are often among the oldest and most interesting buildings in localities where they survive. Although many have vanished, they once played a considerable part in the social and industrial history of North Devon.

Corn Mills

The earliest references to watermills in North Devon are found in the Domesday Book of 1086. All were corn mills, including one at Barnstaple paying 20s a year, another at Heanton Punchardon paying 4s, and a third at Bishop's Nympton paying 40d. North Devon's meagre tally was completed by a mill at Lynton, perhaps on the site of Lyn Bridge Mill. The Domesday Survey indicates that Devon, with 98 mills spread over its large area, was comparatively undeveloped, with less than one-third of the number of mills found in Somerset, and other counties farther east. North Devon, like Cornwall which had only six mills, was a peripheral, economically backward area, difficult of access, although there had been some development in the late Saxon period, when Barnstaple emerged as a borough. Three of North Devon's Domesday mills may have been founded at that time, but Lynton's, described as a 'new mill', is likely to have been post-conquest.¹

From the late twelfth century until the early fourteenth, population increased rapidly, and peripheral areas were developed as more land was taken into cultivation. Hundreds of new farmsteads were founded in Devon at this time, new boroughs were set up, and market centres and ports grew in importance. Mills were an important part of this expanding economy, and their construction and use were jealously controlled and sometimes contested by lords of the manor, monasteries, town corporations, and others who wielded or sought local power. Early in the eleventh century, Judhael de Totnes, Lord of Barnstaple, founded the Priory of St. Mary Magdalen, and endowed it with a mill, perhaps the one mentioned in the Domesday Book. Townspeople owed 'grinding service' to the priory, which meant they had to use its mill, or pay for not doing so. As the borough grew more powerful, the corporation resented the priory's milling monopoly, and in 1320 broke it, with the help of Walter de Stapledon, Bishop of Exeter, who agreed to share the expenses and profits of erecting a new mill or mills on the Portmore Stream (Coney Gut). This served de Stapledon's interests, as the stream formed the boundary between Barnstaple and the recently-founded borough of Newport on his Bishop's Tawton manor. Barnstaple Corporation, perhaps reasoning that the priory would be unwilling to argue with the bishop, pressed home their advantage, and in 1327, the prior has to release the town from the old grinding service.²



Town Mills (also known as Port Mill), Barnstaple, painted by Joseph Kennedy, probably between 1880 and 1885 when the building was pulled down. It was the predecessor of the Victorian Watermill on Baker's Quay, and probably was on a slightly different site. Note the two waterwheels in tandem. (Reproduced by permission of Mr. J. Lomas).

Tenants of Barnstaple Priory's own estates still owed grinding service, so the corn mill remained a valuable source of income. The grant of the priory to Lord William Howard at the dissolution in 1538, shows that the farm (lease) of the mill was then worth £26. 3s 4d. This dissolution of religious houses in Devon, as elsewhere, brought many valuable mills under lay ownership and control. Barnstaple Priory's estates in Pilton were also granted to Lord Howard, to whom the farm of a mill at Bradiford was worth another 16s 8d. In 1613, when it passed into the possession of the Rolle family, this was described as a 'grist or corn mill'. Bradiford Mills were in a good position to serve both Barnstaple and Pilton, and there was usually at least one corn mill working there over the centuries. In 1888, at what was then called Lion Mills, there were five pairs of stones, four for flour and one for barley, turning out 400 sacks a week.³

In the countryside, most medieval mills were owned by lords of the manor. At Arlington for example, John Chichester leased 'land called Mill Land, with the houses built upon it', to Reginald Curry and Alice his wife, in 1416, 'together with the office of miller in the mill called Arlington Mill'. As watermills were valuable assets, lords sometimes retained their milling monopoly for centuries. In 1562, the Earl of Bedford's tenants of a place call Pill, which although in Landkey parish was part of the manor of Bishop's Tawton, had to 'do sute to the mille of the said Erle and of his heires within the said Maner with all such corne and grayne as shall be growen in and uppon the premisses.' As late as 1840, tenants of the Rolle estate in Landkey were similarly obliged to 'cause all the corn, grain or malt which shall be used on (their) premises to be ground at the mill of the said Lord Rolle within the Manor of Landkey'. In many places, however, lords sold freeholds or made over old rights, so as time passed, more mills were constructed and worked without feudal constraints.⁴

Work in a corn mill, whether medieval or modern, was heavy, unpleasant, and often dangerous. Rickety ladders, rotten floor boards, unprotected machinery, and rushing water could all cause serious accidents or death. Ann Aze, a millworker's 18-month-old child, who was drowned in the mill stream at Raleigh near Barnstaple in 1859, was one of many victims over the centuries. Occupational hazards included 'miller's lung' caused by flour dust, but fire was the greatest danger. An old man, who as a boy worked at Hele Mill, Ilfracombe, before the First World War, remembered how the miller would leave the mill working while he tended his garden. When the machinery speeded up, and became overheated and very noisy, he would be sent for in a hurry, for these were signs that the millstones had run out of grain and were striking sparks, with the risk of a serious fire. Any spark or naked light was dangerous in the dust-laden air, so fires were common, and some mills were completely destroyed. Lion Mills at Bradiford, for example, were burnt out in 1893.⁵

There may have been early tide mills in North Devon, but no records survive. At the end of the eighteenth century, however, one was working at Bideford, and another at Instow, where part of the dried-up mill pool, and a millstone in the garden of what used to be the mill house can still be seen. This mill was once the centre of a thriving trade, as shown by an advertisement in the *Exeter Flying Post* of 2 March 1797

To be lett... at Instow... a very good accustomed tidemill, which may be almost constantly employed from a back water or reservoir; lately built for shelling of oats, as well as for grinding corn; together with a large oven and baking room for bread and ship-biscuits.... There hath been, heretofore, custom sufficient for two mills. A windmill adjoining, which may be rebuilt at moderate expense.

The 'lately built' tide mill may have replaced an earlier one, or at least a watermill of some kind, for the windmill was obviously not working, although custom for two mills was mentioned. The word 'accustomed' may mean that there was plenty of custom, but is more likely to be used in an older sense to mean 'custom mill', one which belonged to the lord of the manor, whose tenants had to use it, paying a due (custom) for so doing. In 1842, Instow tide mill belonged to the lord of Instow Manor, Augustus Saltern Willett of Tapeley Park. The mill was presumably still in use, as Thomas Mill, a millwright, lived at the mill house. Within a few years, however, the mill dam had become the foundation of the railway embankment, and North Devon's last tide mill ceased to operate.⁶

By the eighteenth and nineteenth centuries, many millers were also properous corn and flour dealers, or bakers, as at Instow. They became very unpopular in times of scarcity, when they were suspected, rightly or wrongly, of holding back grain or flour until prices rose, or of exporting or selling supplies elsewhere, which, by creating a local shortage, had the same effect. Popular anger boiled over from time to time, notably in the 'hungry' 1840s, when corn mills were attacked by riotous mobs. In Barnstaple, in April 1847, for example, 'many hundreds' gathered outside Town Mills, and smashed the miller's windows, and the mayor had to read the Riot Act, and enrol special constables to restore order.⁷

Town Mills were again attacked in 1867, when the disturbances spread further. A mob of about 250 people marched out to Plaistow Mill, where they broke windows, smashed in the front door of the house, threatened to set fire to a rick in the yard, and shouted for the miller, a Mr. Davey, to come out. He did not, but his son appeared, and discharged his pistol over the heads of the crowd. As the situation became more threatening, he sought to appease them, dis-

tributing bread, cheese, and cider, and promising to meet their demands. This failed to satisfy them, and one of their leaders made a rousing speech accusing Davey of 'grinding down the poor'. The mob then left, intending to attack Bradiford Mills on the way home, but was dispersed by special constables under the command of officers of the militia. Some of the rioters were later sentenced to three months hard labour for their part in the affray. The watermill at Plaistow, which was still grinding corn in the 1930s, probably had a working life of over six hundred years, for it could have been founded some time before 'Hugh atte Mille de Pleystowe' was recorded there in 1332.⁸

Tucking Mills

The use of water-powered fulling mills — or tucking mills as they were called in Devon — spread rapidly through cloth-making districts after their appearance in England in about 1185. The first such mill recorded in the county was working by 1238, at Dunkeswell. Like the two recorded at Hartland in 1299, it probably owed its origin to the nearby abbey, for religious houses often owned pasture land, and so became engaged in the production of cloth. It is therefore probable that Barnstaple Priory, which owned most of the land on the Pilton side of Bradiford Water, established the tucking mills there. The Devon Lay Subsidy of 1332 shows that there was by then a thriving settlement at Bradiford, with a Walter Toukere among 23 property owners. It has been said that the surname Tucker listed in this tax assessment is good evidence of the sites of early tucking mills.⁹

With the advent of the tucking mill, cloth no longer had to be fulled by treading it in vats, so the speed, efficiency, and capacity of the textile industry improved, and it developed not only in towns, but wherever streams could be harnessed to drive watermills. A Richard le Touker was recorded at Kentisbury in 1332, and Gilbert and John Tokere of East Buckland may have carried out the trade associated with their name. The cloth industry expanded, and a 'tokynge mill' recorded at Bratton Fleming in 1502, was probably one of many to be found in rural North Devon by that time. The growth of the cloth industry in the countryside is thought to have led to the decline of some urban centres, but in North Devon, many of the earliest recorded tucking mills were in towns; at Chulmleigh, for instance, in 1292, South Molton in 1326, and North Molton, where there were two by 1317. The Portmore Stream, Barnstaple's boundary with the manor of Bishop's Tawton, was mentioned as a suitable site for fulling mills in the town's agreement with Bishop Walter de Stapledon in 1320, and Reginald Toker, living in Barnstaple twelve years later, may have had an occupational name. The town would also have been served by the mills at Bradiford and Raleigh in the adjacent parish of Pilton.¹⁰

The North Devon cloth industry and the port of Barnstaple were interlinked in the medieval and early modern periods, for small production centres around the tucking mills in inland towns and rural valleys would scarcely have been viable without the port's export trade, which in turn depended on them. In the late fourteenth century, Exeter was the most important textile centre in the county, but accounts kept by aulnagers, the off...cials appointed to measure and examine the standard of all cloth sold, show that North Devon was a close second, with much cloth made in the rural hundred of Shirwell, to the east of Barnstaple, where the remains of many watermills are still to be seen. Most are remembered as corn mills, but uses changed through the centuries, and it is likely that many once served small cloth-making communities as tucking mills. The cloth thus produced was sent to Barnstaple, where in 1394-5 three merchants sold, between them, well over one third of all cloth examined in Devon, excluding Exeter, almost as much as the amount recorded in that city. Production on such a scale would have been impossible without the degree of mechanisation provided by tucking mills, for at this time Devon wool was short, carding wool, which was fulled after weaving.¹¹

The main types of cloth produced in North Devon during the next two centuries were kerseys, fairly light cloths 20-24 yards long, and similar, but smaller cloths 12 yards long by one wide, known as dozens. There were also local specialities like South Molton whites, and Pilton cottons which in spite of the name were woollens, but of low grade. The fulling process could take three days before better quality cloth was completely felted, with all traces of the weave removed. Broadcloth, one of the heaviest cloths then produced, needed extensive fulling, but not much seems to have been made in North Devon, probably because there was not enough good local wool. Nevertheless, there was plenty of work for tucking mills, and in 1507, five, together with two mill workshops, were recorded at Raleigh on the River Yeo in Pilton parish.

As cloth production increased, wool was imported from Wales, Spain, and above all from Ireland, for which the port of Barnstaple was well situated. Much of this import was long combing wool, so 'new draperies' with combed warp and carded weft, appeared by the later sixteenth century. Locally the most important such cloth was Barnstaple bayes, a light cheap, somewhat coarse material, which by the early seventeenth century, formed a significant proportion of the cloth cargoes sent annually to La Rochelle, Bilbao, San Sebastian, Cadiz and the Atlantic islands, places where light materials were more popular than heavy woollens. In 1621, John Delbridge, a Barnstaple cloth merchant, and one of the town's M.P.s, claimed in the House of Commons that a few years earlier, in a period of prosperity, the production of cloth had occupied 'a thousand pair of looms in Barnstaple (and) many thousand people'. Unfortunately he did not enumerate tucking mills, but production on such a scale would not have been possible without them, for Barnstaple bayes were fulled.¹²

Depression and wars disrupted production and export in the seventeenth century, but the period from 1660 - 1700 was one of considerable overall expansion, when the export of Barnstaple bayes, kerseys, and Devon dozens, brought full employment for the fullers and mills of North Devon. Some serges were also exported from, and therefore probably made in North Devon. This cloth, although of much better quality than bayes, was also woven from combed warp and carded weft, and then fulled. Exeter was the great centre for serge making at this period, and the fulling process was seen and described by Celia Fiennes, who visited that city in 1698, when the industry was at its height. When the rolls of cloth arrived from the weavers

...they lay them in soak in urine, then they soap them and so put them into the fulling mills, and so work them in the mills dry till they are thick enough; then they turn water into them and so scour them; the mill does draw out and gather in the serges, it's a pretty diversion to see it, a sort of huge notched timbers like great teeth, one would think it should injure the serges, but it does not, the mills draws in with such a great violence that, if one stands near it and it catch a bit of your garments, it would be ready to draw in the person in a trice. When they are thus scoured, they dry them on racks strained out... and huge large fields occupied this way almost all round the town...

The name Rackfield survives in Barnstaple, a reminder that the processes observed by Celia Fiennes in Exeter would have been typical of North Devon too. The many tucking mills in the district at that time, must also have worked in the way she described.¹⁴

The first half of the eighteenth century was probably a period of decline for North Devon's tucking mills. Although in the early years cloth-making in Devon reached new heights, much of the Irish wool imported by Barnstaple merchants was now spun for the weavers of Exeter and its neighbourhood, who had their cloth fulled in the city. In the 1740s, war seriously affected foreign trade, and changing tastes reduced demand abroad for serges and bayes. Devon cloth may also have begun losing its home market to cheaper Yorkshire worsteds. Cloth making in North Devon was therefore depressed, and Barnstaple, with its shallow, silted river, had less foreign trade as ships grew larger, and other ports increased in importance.¹⁵

After 1750 markets began to recover, and 20 years later bayes was again 'the principle manufacture of the town', according to a man who began to manufacture it in Barnstaple in about 1774. He claimed, however, that his enterprise was held back by restrictive dues imposed by Barnstaple Corporation, many of whose members opposed newcomers. In another attempt to revive the cloth industry at this time, two water-powered mills together employing 1,000 people, were built

at Raleigh, which, being outside the town, was not under the corporation's jurisdiction. These new large factories, although water-powered, were not fulling mills, so any bayes or serges were probably still sent to the Raleigh tucking mill nearby. 'Things went very briskly... until after the breaking out of the war which succeeded the French revolution (1793), when it declined very materially'. The long wars virtually extinguished the foreign market, and helped to kill cloth manufacture in many parts of Devon.¹⁶

In the early nineteenth century, when the cloth trade was petering out, tucking mills were abandoned or put to other uses. Some may have been rebuilt or enlarged as textile mills; in South Molton the first wool factory to use machinery was set up in 1800, and others followed. The town was one of several in Devon which supplied cloth to the East India Company, which helped the industry to survive longer. Some tucking mills probably continued working for a time, for in 1838 there were still 200 looms weaving serges in North and South Molton. By 1861, however, when South Molton's old 'Tucky Mills' were burnt down, they were probably out of use. No fulling stocks have survived in North Devon, although some may be seen elsewhere, for instance at the Welsh Folk Museum at St. Fagan's, Cardiff.¹⁷

Farm and Industrial Watermills

Although North Devon's cloth industry had declined by 1815, watermills still had another century of useful life, and most surviving wheels and mill machinery date from this period, when iron water wheels, or 'hybrids', part iron, part wood, replaced almost all the old wooden ones. An advertisement of 1861 describes an iron water wheel 22 feet by 6 feet, with iron shafting and drums, at Raleigh Mills, where there was also, although not in use at the time, an 'iron and wood water wheel of large dimensions, with iron shaft'. By means of pinions, iron shafts, belts and pulleys, waterwheels could now drive all kinds of machinery, both on farms, and in factories appropriately called mills.¹⁸

After the decline of tucking mills, water wheels continued to work heavy hammers, for beating leather, for forges, and for stamping and crushing metal ore from the mines on Exmoor. Traces of a stamping mill survive at Combe Farm, West Anstey, together with one or two discarded ore-stamps, which were base-stones worn hollow as the hammers crushed the ore. At Woolhanger Manor, Sir Henry Palk Carew found an ingenious, non-industrial use for Exmoor water power, when he had a leat and water wheel constructed, with a long underground shaft connected to the bellows that blew the organ in his grandiose music room built in 1894. The organ has long since gone, and the great room is sadly decayed, but the iron water wheel, although 'lost' to another county, is being restored, and may yet turn again.¹⁹

Watermills played a significant part in agricultural 'improvement' in North Devon, for wherever there was a good water supply, farmers could build or adapt them to provide power for agricultural machines. Processes such as threshing, milling cattle food, crushing cake, pulping straw and roots, sawing wood, shearing sheep, and pumping water became speedier and more efficient, although hardship was caused among agricultural workers, when farmers saved money on labour. Water power was also used to make better agricultural tools. 'Mechanical ingenuity' — and pulleys — enabled John Huxtable, implement-maker, to attach a rotary grindstone, a drilling machine, a lathe connected with two circular saws, and a tool that made square links for harrows, to a shaft driven by an eighteen-foot iron water wheel. Huxtable's ploughs, and other tools made at his works near West Buckland, towards the end of the nineteenth century, were noted for their high quality.²⁰

John Huxtable's water wheel, like many other iron wheels and machinery of this period, was made by Messrs. Garnish and Lemon, a firm of millwrights in Pilton, where the mills provide interesting examples of the industrial use of water power. At the old tucking mill on the west bank of Bradiford Water, the fulling stocks were replaced by wood-turning machinery, first for the manufacture of rocking-horses and chairs, then for the felloes and spokes of coach wheels, and after about 1870 for the manufacture of brushes. By 1889, a thriving industry had been built up, with the help of new machinery installed by Garnish and Lemon. Water-powered circular saws cut poles into 'shapely little logs', which were turned at the lathe, then split down the centre by another saw to form brush heads, produced at the rate of 16,000 a week. Forty-two dozen handle-holes an hour were drilled by a boring lathe, and even the grindstone on which the lathe-tools were sharpened was worked by water power. The mill operated until 1930, when it was destroyed by fire.²¹

Across the road from the turning mill, Bradiford Mills were put to a variety of uses. In 1821, one was used to grind bark for tanning, and another part of the site was used for a short time by a woollen manufacturer. In the 1850s the tannery closed, and the bark mill was a toy factory. At Raleigh, fire, thought to have been deliberately caused, had destroyed one of the new woollen mills and its machinery in 1795. The other was used for making bobbin net for some years after 1821, then Frederick Maunder, a Barnstaple wool-stapler, acquired the premises, and used water-powered machinery to wash, sort, and comb wool. Next Henry Shapland and Henry Petter installed machinery for their cabinet-making and furniture business. This Raleigh factory was burnt down in 1888. It had used water-power, as shown by an advertisement five years later, for the sale of three water wheels, 'as used by Shapland and Petter', of 22, 20, and 12 feet diameter, together with their gearing. One mill at Raleigh escaped fire; miscellaneous items ranging from violin strings to sausage casings were manufactured at one time or another in the building that retained the name Raleigh Tucking Mill, although latterly the machinery was not water-powered.²²



Bradiford Mills. Lithograph published in 1830. Drawn and etched by Samuel Prout, a well-known Devon water-colourist.

'A good Paper Mill' was recorded by a visitor to Barnstaple in 1746, but its site is unknown. In the next century, however, paper made from rags and other waste, was produced at three mills on Bradiford Water. Blakewell Mill in Marwood was only used for this purpose in the 1850s and 60s, but at Blatchford Mill, in Shirwell, paper is thought to have been made as early as 1823. This mill later belonged to William List, who in 1873 was killed in the machinery. It was last recorded as a paper mill in 1897. 'Sugar paper, browns, royals, and general grocery papers' were made on machines there, and at Playford Mill in Pilton, which could have been the site of the mill mentioned in 1746. A paper-maker recorded in the Pilton registers of 1819 probably worked at Playford, which appears to have been in continuous use as a paper mill thereafter. New machinery installed by Garnish and Lemon in 1889, enabled Jabez Penny, who moved in from Somerset, to make quantities of coarse wrapping paper and paper bags, until 1906, when there were problems with the lease, and the new machinery needed would have been uneconomic to install. Playford became a sawmill for its few remaining years, and Blakewell, and Blatchford, like Bradiford Mills, reverted to the grinding of corn.²³

The Decline of Watermills

The survey shows that some North Devon watermills continued to be put to industrial use, up to and even after the Second World War, but these were the exceptions. Like most corn and farm mills, the rest were forced out of the market by changing circumstances.

Many small corn mills ceased working after transport improvements opened up isolated communities, whose grain could now be taken to larger, more efficient mills. At Instow, where the railway literally replaced the mill, it was obviously possible to do without it, especially as the turnpike road now ran through the parish, and river transport could also be used. As well as barges and coastal vessels, Barnstaple was served by turnpike roads and the railway, so the large cornmills in and near the town had their heyday in the later nineteenth century. The more enterprising owners of industrial concerns were also able to take advantage of better transport; Jabez Penny at Playford mills, for example, sent paper by sea to Bristol, and by rail to places as distant as Yorkshire, while Bradiford brooms and brushes were distributed throughout the west country, and even exported to Australia, although not direct from Barnstaple. After 1900, however, the other side of the transport equation was seen. Barnstaple, no longer an important port, and having no direct rail link with any great city, could not sustain its relatively insignificant water-powered industries. Railways bringing in cheaper, mass-produced goods from large industrial centres, made North Devon part of a national and international market, and many local industries like papermaking collapsed, as the cloth industry and its fulling mills had earlier, in the face of changing market forces, and competition from outside producers.

In the later nineteenth century imports of hard grain from North America posed another problem, for existing millstones could not grind it adequately. Steam-powered rolling mills were built to overcome this problem, and meet the demand for fine white flour from the ever-increasing population. In North Devon, Stanbury's Victoria Steam Mills built on Rolle Quay, Barnstaple, in 1899, put most of the remaining water-powered corn mills out of business over the next twenty or thirty years. Steam-powered machinery was not always practical on farms, but it was not long before watermills were superceded by petrol engines, for it took only a 5-7 h.p. motor to provide the same amount of power as an 18 foot water wheel. Electric power was increasingly used to work farm machinery, and although watermills could generate it, petrol engines were more convenient, and needed less expertise to run and maintain. In the Second World War, farmers who had milled any sort of corn, even for cattle feed, had to send it to a central depot for distribution, so most remaining farm mills went out of use. Many iron water wheels and other equipment were taken for scrap during the war, or sold off afterwards, when good prices could be obtained.

A few remaining water wheels and buildings were put to other uses, but most fell into disrepair or ruin in an age which had no further use for them. The demolition of Town Mills Barnstaple to facilitate a new road scheme in the 1960s, symbolised the end of the road for North Devon's watermills, after something like 1,000 years.

NOTES

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HOW WATER MILLS WORKED

THE USE of a water-powered wheel to work machinery was as important to industry as the original application of the wheel to transport. The watermill was of ancient origin, but it was not until Roman times that the prototype of the European medieval watermill was evolved. In the first century B.C., a Roman military engineer, Pollo Vitruvius, described the vertical undershot water wheel combined with a smaller wheel operating gearing which speeded up the process of grinding corn in mills. This type of mill remained basically unchanged for many centuries saving time and labour, and increasing the output of milled grain for humans and animals. It is likely that the Roman army brought the Vitruvian watermill to Britain, for the remains of two such mills have been tentatively identified at Chesters and Haltwhistle on Hadrian's Wall. Watermills were also in use in Britain in Saxon times. There are references to them in Saxon charters of the tenth century, for example a monastic mill near Dover in 983. No Saxon mills have been recorded in Devon, but some may have existed. Thereafter, watermills occupied an important place in medieval and early modern times, supplied power for the early stages of the Industrial Revolution, and continued in commercial use into the twentieth century.¹

In the cloth-manufacturing industry watermills were used for the 'tucking' or 'fulling' process. This required the woven cloth to be immersed in troughs, where the cloth was pounded by wooden hammers, known as 'stocks'. The stocks were usually in pairs and were operated by a wheel fitted with cams, which caused the stocks to rise and fall. The wheel was fitted to the axle of the water wheel, which supplied the power. The fulling process, which took upwards of twelve hours, had to be continuous, otherwise the fulling of the cloth would be uneven.

The operation of water mills relied on the skills of craftsmen: millwrights, carpenters and, in the case of corn mills, stone-dressers. The millwright planned the siting, design and construction of the mill, and of its leat and millpond. Much of the mill building, some parts of the water wheel, the buckets or paddles, and many of the mill's interior fittings were made of wood. After cast iron was introduced into the interior fittings of mills in the eighteenth century, a combination of wood and iron was often used in the gearing. Iron wheels with wooden teeth, usually of applewood — it is no accident that apple orchards were often found near old mills — were known as mortice wheels. Wooden teeth made for smooth running of the machinery, and were simpler and cheaper to replace than iron ones. The carpenter was responsible for this job, and the construction and maintenance of all wooden fittings, while the stone-dresser, often an itinerant expert, prepared the surfaces of the millstones with the various types of dressing needed for grinding corn. These were highly skilled craftsmen who derived their skills from inheritance and experience.

WATERWHEEL DRIVEN FULLING STOCKS

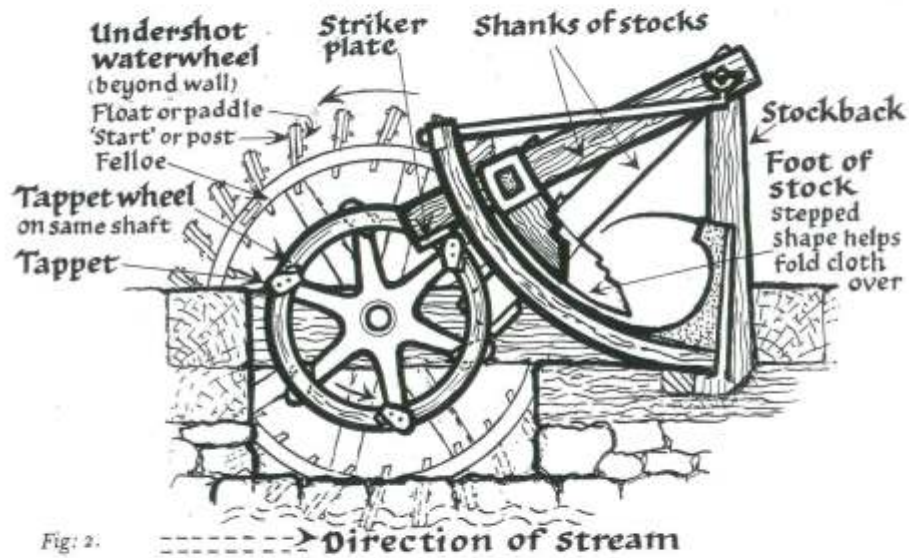


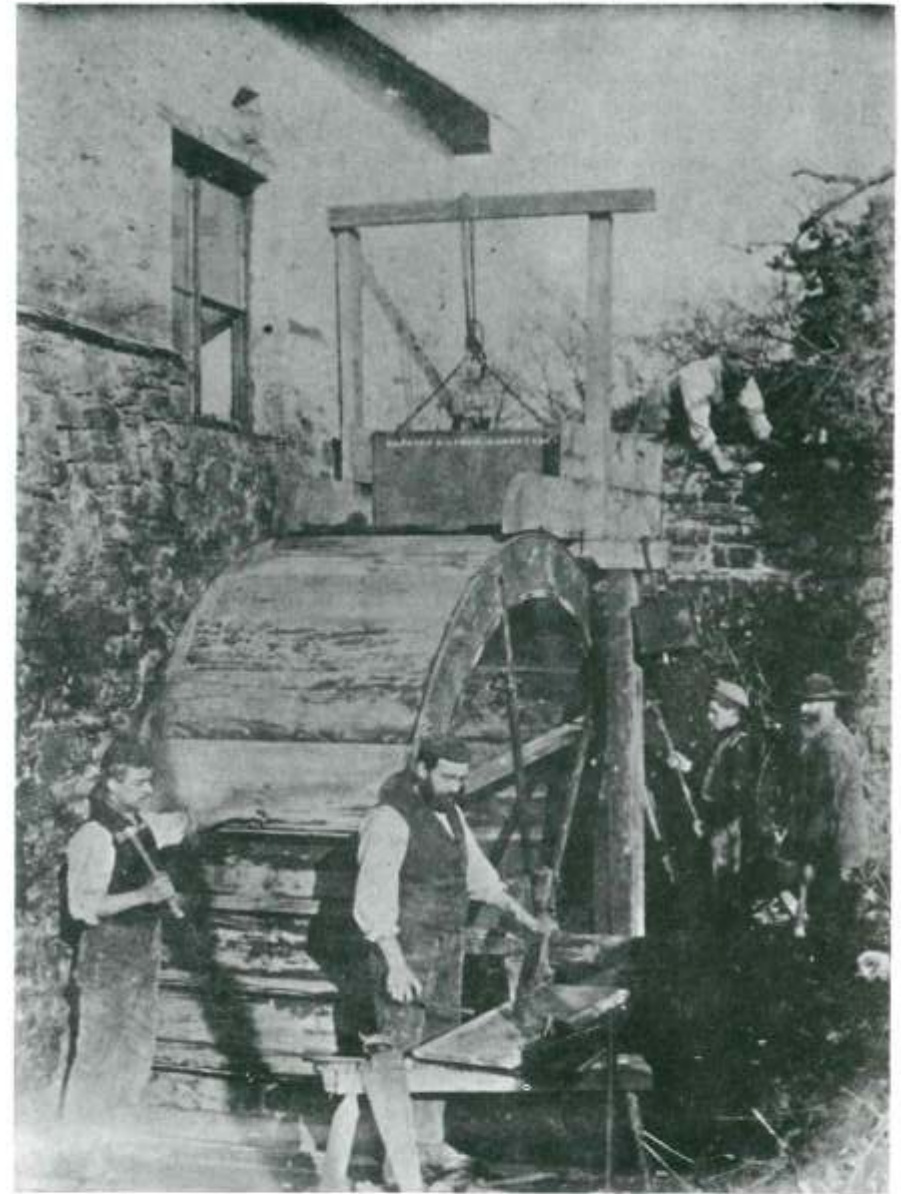
Fig: 2.

Construction of Corn Mills and their Machinery

Corn mills varied in size. In a three-storeyed mill the top or 'granary' floor contained the grain storage bins, filled by means of a sack hoist lifting the grain from ground level. The grain was gravity-fed into a hopper on the floor below, whence it was fed to the millstones. This intermediate floor was known as the stone floor. Bran and flour were conveyed by chute from the millstones into bins on the ground floor, where most of the mill machinery was situated. Most mills were constructed on this principle, though there were individual variations in lay-out and machinery.

The Water Wheel

The wheels at the mills included in this survey varied from six feet to twenty feet in diameter. A wheel had four main components: the shaft or axle from three to six inches in diameter, made of iron; the spokes or 'arms' made of wood or iron, which connected the axle to the rims; the 'rims' or 'shrouds', which carried the buckets (paddles in the case of undershot wheels) between them; and the buckets or paddles. The two rims were parallel circles of iron, each made up of sections from three-quarters to one and a half inches thick, and from six to twelve inches vertical measurement. The sections were bolted or rivetted together



Employees of Messrs. Garnish & Lemon repair the buckets of the waterwheel at Town Mill, Landkey Newland. The owner, Mr. John Darch Sr., is standing in the launder.

using fishplates. Inside each rim, at intervals of a foot or more, were slots or rivetted pieces of angle iron to hold the ends of the wooden buckets. Iron tie-rods a quarter to one and a quarter inches in diameter, and threaded to nuts at each end, held rims and buckets together. The bottom boards or 'sole boards' of the buckets were usually of wood, one and a half to two and a half inches thick. In a few instances the sole boards were lined with sheet iron. The axle's outer end rested in a lubricated bearing mounted on a wall.

The Working Machinery

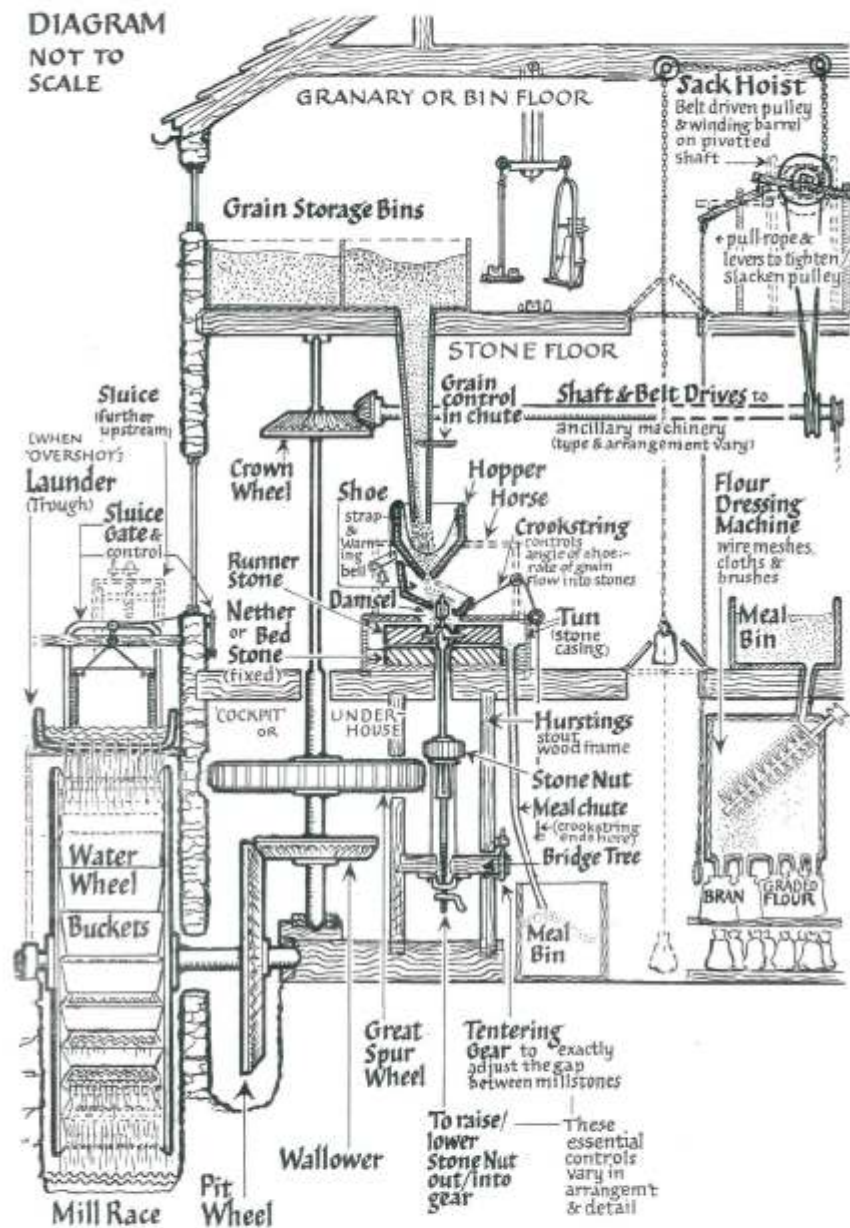
The purpose of the internal system of wheels and gearing was to translate the comparatively slow movement of the water wheel into much greater speed for grinding. The average speed of a water wheel was 10 revolutions per minute, but this could be transformed by the gearing mechanism of a cornmill to an average of 150 revolutions for the runner stones. It will be helpful to refer to figure 3 when reading the following description.

Immediately adjoining the water wheel inside the building was the sunken 'cog pit' or 'cock pit' or 'underhouse'. The axle of the water wheel came through the wall here, and turned the vertical iron pit wheel, five feet or more in diameter. The pit wheel had bevelled wooden cogs usually of apple, hornbeam or beech. The pit wheel turned a smaller horizontal wheel known as the wallower, which also had bevelled wooden cogs. The wallower turned the main shaft of the mill, which was made of iron and ran up vertically through the building. Immediately above the wallower on the main shaft was the great 'spur' wheel. This was 5 feet or more in diameter with vertical cogs. The great spur wheel turned a small cog wheel which finally imparted the drive to the millstone, and which was known as the 'stone nut'.

The stone nut could be disengaged from the spur wheel in order to put the machinery out of gear. This could be done only when the machinery was at a standstill. The stone nut was slipped up the splines on the spindle to which it was fitted. This could be done in different ways. At Ash Mill the stone nut was raised by means of a screw-jack mounted on the bridge-tree, as shown in diagram 8. At North Molton, the stone nut was raised by means of a forked lever or 'rigger'. It was essential to be able to put the machinery out of gear because of the danger of a sudden flash flood when the mill was not working, and other emergencies. All the heavy machinery in the cog pit was supported and held in place by a massive oak framework, known as the 'hursting'.

On the 'stone' floor above the cog-pit there were one or more pairs of millstones. The 'bedstone' or 'ligger', which did not turn, was fixed at floor level, and had a round hole in the centre. It was the upper stone, known as the 'runner'

How the mills worked.





The stone floor at Town Mill, Landkey, showing the tun covering the millstones, and above it the hopper and horse (enclosing the shoe) that fed the runner stone. This flour mill, like Bradwell Mill, Braunton, was run in conjunction with a bakery.

stone, which turned. Power was supplied by the spindle turned by the stone nut. The spindle came up through a bearing in the centre of the bedstone, and was fixed to the runner stone by means of a metal bar, called the 'rhynd', fitted across the hole or 'eye' in the centre of the runner stone.

The main shaft, on which the wallower and great spur wheel were fitted, went up to the top of the stone floor where sometimes another bevelled gear wheel, known as the 'crown' wheel, was fitted. This supplied power for other machinery such as a sack-hoist. Sacks of grain were hoisted to the granary floor where the grain went into the storage bins. From these it was fed down a chute into a hopper above the millstones. The hopper was supported by a wooden framework known as the 'horse' or 'cradle'. The hopper was about three feet square at the top and about two feet deep. It tapered to an opening about four inches square at the bottom, where there was sometimes a control gate or slide. It was most important to maintain a steady flow of grain and not allow the stones to 'run dry', which could be dangerous. To this end a safety device in the hopper

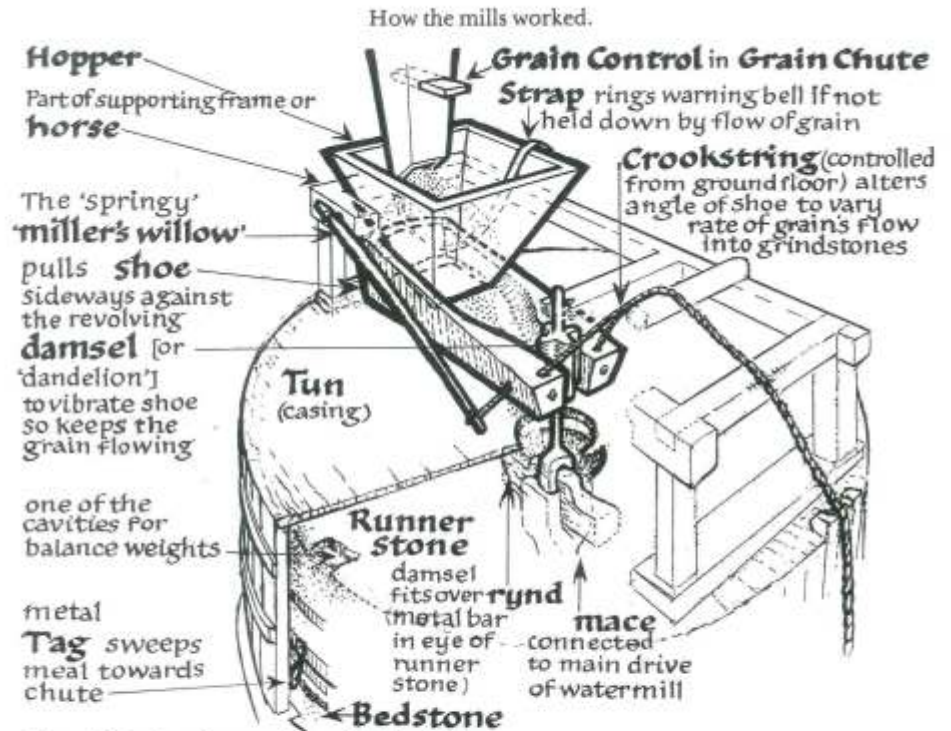


Fig. 4. Mechanism for conveying grain to the millstones

gave warning if the flow of grain into the hopper ceased. This consisted of a strap which ran through the hopper, and which had a bell on its outer end. The strap was held down by the flow of grain into the hopper, but if the flow ceased, the strap was released and the bell rang.

From the hopper the grain fell into an inclined wooden 'shoe' which by vibrating, fed the grain into the eye of the runner stone. The speed at which the grain flowed could be varied by altering the angle of inclination of the shoe. The miller on the floor below, watching the flow of meal, could adjust the angle of inclination by means of a cord, or 'crook string', attached to the shoe.

The vibration of the shoe was achieved by the combined operation of the 'miller's willow' and the 'damsel'. The miller's willow was a springy piece of wood (replaced later by a metal spring), which was attached to the shoe by a string, and which kept the shoe in contact with the damsel. The damsel, made of iron and of an irregular shape, was fixed on a spindle whose forked lower end fitted over the rhynd. Thus as the runner stone turned, so did the damsel. Its irregular shape caused the shoe to vibrate, thus causing the grain to flow into the eye of the runner stone.

The rapid turning of the runner stone caused the grain to work its way outwards from the centre. As it worked outwards it was ground more and more finely. When it reached the edge of the stone it was swept round to the meal spout down which it fell to the floor below. The flour was dressed out of the meal by a flour-dressing machine known as a 'bolter' or 'sifter'.

The Millstones and 'Dressing the Mills'

Timber and building stone for mills were usually available on the owner's estate, but millstones, made of harder fabric, came from a variety of sources. French millstones, traditionally regarded as the best for flour mills, may have been occasionally shipped direct to North Devon. However there is no evidence of this in the seventeenth century, when millstones were imported coastally, twenty grinding stones from Bristol (possibly conglomerates from the Mendips) in 1605, for example, and ten tons from Gloucester in 1679. Some of these may have been among the 'grindlestones', and 'burrs' that were exported from the port of Barnstaple, to places as diverse as Cornwall, Ireland, the Azores, and New England, but there may also have been a local source of supply, perhaps the granite quarries on Lundy.²

French burr, the most sought-after millstone for fine grinding, consisted of pieces of igneous stone (a type of quartz) trimmed, dressed and cemented together to form a circular stone. The joints were filled with plaster of Paris, and the whole was held together by iron bands fitted round the circumference.

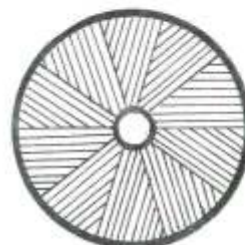
Millstones varied from three to five feet across and weighed up to a ton. They were enclosed in a 'tun', a stout round wooden casing with iron bands. Lifting gear was needed for moving the stones when they had to be dressed or replaced, but they were not discarded until they were worn down to about three inches thick. They were then often used as paving or steps around the mill.

The 'dressing' of a millstone meant the cutting of a series of grooves and furrows on the face of the stone. This was essential for the efficient grinding of the corn, to propel the grist to its exit at the edge of the stones, and to ventilate the working space between the stones and so prevent over-heating. The face of the stones wore away in use, which meant that the dressing process had to be repeated periodically. The pattern of the dressing varied at different periods, and also depended on the kind of grinding needed. Fine grinding was needed for flour, for example, coarse grinding for grist. Dressing of the millstones was one of the most expensive and time-consuming maintenance jobs in the mill, unless the miller could do this himself, as some of the later ones did. It took about three days to dress a pair of stones. This was usually done by specialist stone-dressers, millwrights or masons, although some of the local carpenters like Richard Huxtable could turn their hands to this too (see Chapter 4).

Before dressing, the surface of a millstone had to be perfectly level; a special proving stick or staff was used for this. Two other special steel tools were used for the cutting process — 'mill bills' (chisels), and 'bits' or 'bales' (picks), set in a wooden handle called a thrift. In the most usual form of dressing, the surface of the stone was divided by furrows into a number of triangles, the flat surfaces of which were known as 'lands'. The lands were in their turn grooved, either by more furrows or by fine lines known as 'harpstrings'. This latter process was known as 'cracking' the lands. 'Harp dress', 'sickle' or 'circular' dress, 'straight' or 'union' dressing were the names of some of the varieties of pattern used in the process of cracking.

The upper and lower stones were not allowed to touch each other. If they did, they would be damaged, and they could strike sparks and cause danger of fire. The space between them had to be very carefully adjusted to produce the quality of meal or flour required. This process of adjustment, which was carried out by the miller, was known as 'tentering'. Tentering involved raising or lowering the runner stone. This was done by raising or lowering the spindle which supplied power to the runner stone. The top of the spindle was fixed to the rhynd across the eye of the runner stone. The bottom of the spindle rested on a bearing located on the 'bridge-tree' which was part of the hursting. In some mills the bridge-tree was pivoted at one end and was capable of adjustment at the other

SOME MILLSTONE DRESSINGS



Late Roman



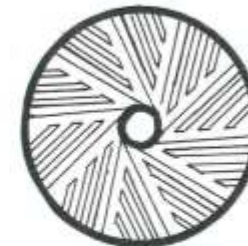
Mediæval - C18



C19 'Straight' or 'Union'

C19 '2-furrow' or
'2-quarter'

C19 '3-quarter'

Common dressing
for 4' diameter

end. In other mills where the bridge-tree was fixed at both ends, the raising or lowering of the spindle was done by means of fine gearing. The tentering gear was controlled on the ground floor, where the miller could watch the condition of the meal as it came through.

Control of the Water

As the presence of weirs might hinder navigation, it was found necessary from early medieval times to control such obstructions to ensure free passage. Many manorial water mills and kiddles came under the control of the Lord High Admiral. He was empowered to survey and order the removal of any mills or kiddles which impeded navigation in streams and harbours. The first English law on the subject entered in the "Black Book of the Admiralty" was passed in about the year 1360, but navigation rights had been controlled since 1215.³

The many streams of North Devon gave ample opportunity for the establishment of mills. Tucking mills in particular needed a plentiful water supply for cleansing, scouring and other processes. Thus a pattern of small industrial communities, which have long since disappeared, was established in the countryside.

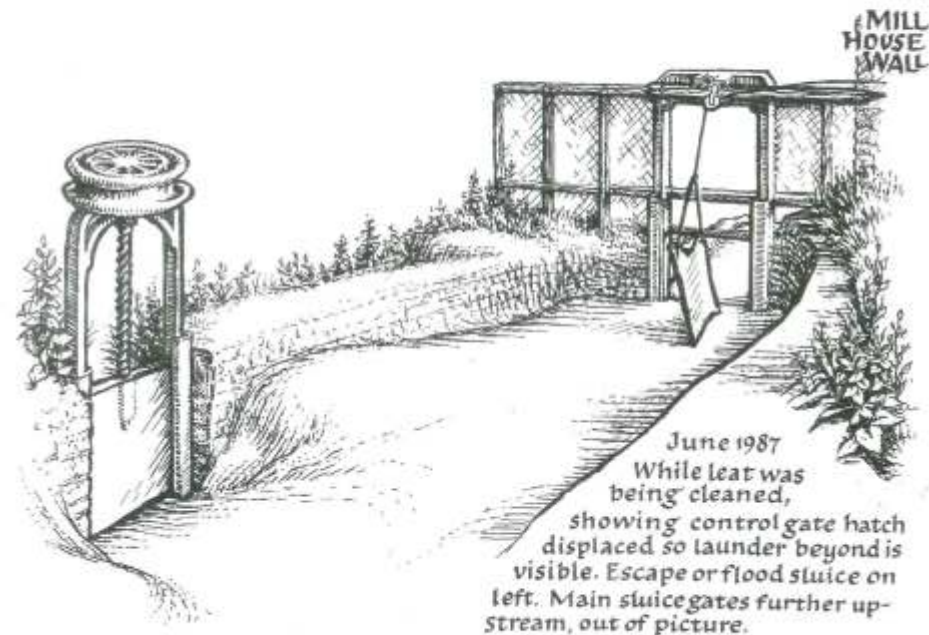
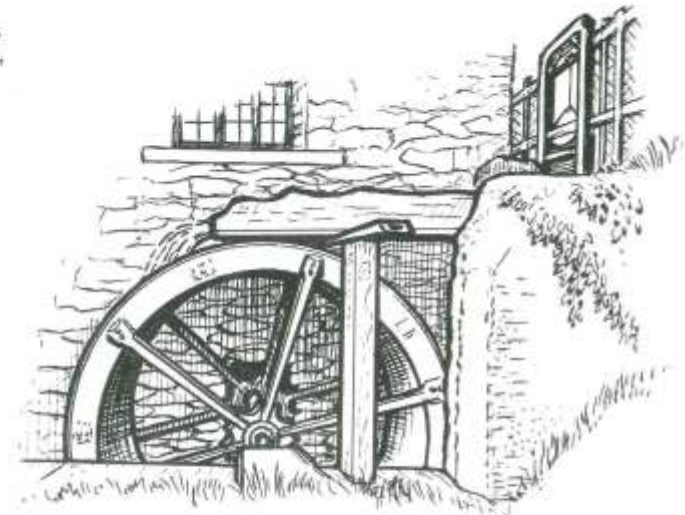
On some streams, mill ponds, created by dams or weirs, were needed to safeguard the water supply in dry weather. The impounding of water in this way could lead to disputes over flooding, fisheries or water rights. Mills lower down the same stream might be kept short of water and have their work disrupted. There is a hint of these difficulties in the note on Twitchen Mill.

A typical dispute about fishing rights and the construction of a leat arose in 1323 between the Bishop of Exeter's estate and the neighbouring landowner across the river in Tawstock. William Lord Martyn of Tawstock had made a leat ("gut") on the Bishop's land to convey water to his own mill at Tawstock without the Bishop's consent. A settlement provided that Lord Martyn should keep and maintain the leat on condition that he constructed two fish hatches in it to take salmon and other fish. The Bishop, who owned the valuable fishing rights in this part of the river, was to have a half share of the fish caught in these hatches and the mill leat, or under the mill. Nets could be placed in the leat provided that they did not interfere with the working of the mill.⁴

The water was conveyed to the mill from the millpond (or from the stream if there was no millpond) by means of a specially constructed channel known as a leat. At the entrance to the leat, gratings were fitted to keep out debris, and a sluice or 'penstock' to control the flow of water. Often a second sluice was fitted near to the wheel to regulate its speed by varying the flow of water. To stop the mill, the miller had first to cut off the water from the leat before putting the machinery out of gear.

How the mills worked.

Landkey Town Mill
Side view of launder,
overshot waterwheel,
part of leat wall,
control gate.



June 1987
While leat was
being cleaned,
showing control gate hatch
displaced so launder beyond is
visible. Escape or flood sluice on
left. Main sluice gates further up-
stream, out of picture.

Fig. 6.

The wear and tear on the water wheels was very great, so they needed frequent repairs and replacement. Thus many of the wheels visited in the course of this survey were of more recent construction than the machinery and other parts of the mills. Sometimes, as at Wistlandpound and Causey's Meethe Farm Mill, the wheelpit was covered for protection from the weather.

The amount of water needed to work a mill varied according to the type and size of the wheel. The earliest form — the undershot wheel — used the least water. It was constructed with paddles, not buckets, and was turned by the flow of water striking the wheel at the bottom. Undershot wheels were suitable for streams providing only a small head of water, and were not very powerful. They were generally used in tucking mills. Only two of the mills recorded in the survey were undershot. Of these, Causey's Meethe Mill is of special interest, as the two water wheels and internal gearing were constructed entirely of wood in the ancient manner. Only the small stub axles of the water wheels were of iron.

From the early Middle Ages, undershot wheels were used for tide mills, which needed a controlled tidal flow to work the wheel. These would have been corn or grist mills, as tucking mills required a continuous flow of water. Tide mills were sited where dams could be constructed across tidal creeks or part of a tidal estuary, leaving a channel for shipping. A system of non-return gates or sluices allowed the rising tide to pass through the dam into the millpool where it remained as the tide fell. When the water in the river had dropped sufficiently, a sluice was opened to release the impounded water and drive the mill wheel.

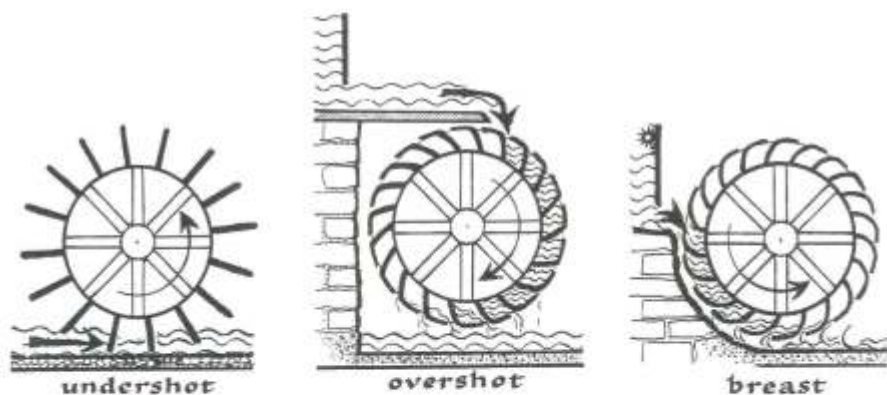


Fig. 7. Three types of water wheel

The commonest form of wheel used in North Devon — an improvement on the undershot version — was the overshot wheel. The water from the leat was carried in a trough made of wood or iron, known as a 'launder', over the top and beyond the highest point of the wheel, to where it poured into the buckets. The weight of the water caused the wheel to turn. One risk in the use of overshot wheels was a sudden flush of water from the leat or mill pond in very wet weather. This might start up the wheel and set the machinery in motion. That could be avoided by sending surplus water down through a trap door in the launder into the tailrace, before the water struck the wheel. If the water from the leat was not regulated properly, or the sluice was not working, a sudden flood might overwhelm a mill.

There was a later type of water wheel to be found in North Devon. This was the breastshot wheel, where the water from the leat struck the wheel at a point level with the axle. Some modifications were made in the shape and spacing of the buckets, as compared with those on overshot wheels. The breastshot was a more efficient wheel, but it required more water to run properly. The Town Mills at Barnstaple, served by a long and sizeable leat, made use of this sort of wheel in the later stages of their working life. One other mill in the survey — Bray Mill at High Bray — had a breastshot wheel. The breastshot wheel, like the undershot wheel, turned in the opposite direction to the flow of water, whereas the overshot wheel turned in the same direction as the water flowed.

NOTES

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2. PRO, E190, Barnstaple Port Books, 17th cent., *passim*.
3. Sir Travers Twiss, ed., *The Black Book of the Admiralty I* (London, 1871), 80-1, 152-3.
4. DRO, W1258M/D1/6, Deed of 1323.

THE WATERMILLS SURVEY

Introduction

THIS SURVEY is thought to cover a substantial proportion of the watermills that existed, or still partially exist, in the area of North Devon outlined in fig. 1. The mills or sites in Part I, first recorded in the course of the original survey, were all visited by members of the North Devon Archaeological Society between 1971 and 1975. No attempt was made, except in a few cases, to trace the history of these mills, or to determine whether they were manor mills. This, though of considerable interest, would involve much research.

The enumerators were asked to note the structural condition of the mills, the type and construction of the water wheels, the milling machinery and millstones, cleaning machinery, tools and equipment, and the use of the mill at the time of inspection. Where the notes cover all or most of these items, they have been edited to give a description first of the water wheels and machinery, followed by the buildings and leat. In some cases, incidental information about the history and use of the mill was obtained from local residents; this is included at the end of each note. A few members of the Society traced some of the documentary history of the mills and this, with the references, has been included in the notes. Unfortunately some references have been lost since the original survey was made. Where useful information without references has been included, it has been qualified. Where possible, mills and sites in Part I have been re-visited,

Supplementary information obtained from the Devon County Council Sites & Monuments Register is followed by the initials SMR. The Register contains information from a variety of sources, but is summarized in this Survey. A list of references is given at the end of this chapter on p. 57 and 58.

In February 1989 it was decided to widen the coverage by adding a further list of mills and sites in the area. These are listed in Part II. This gives less comprehensive information about the mills than Part I, as most of these mills have not been visited by our enumerators. Information about them is derived primarily from the Devon Sites & Monuments Register, though some has been gathered from other sources. It is hoped that with this supplementary list and information the Survey will give a reasonably complete picture of the condition and use of the watermills in the area of North Devon that has been investigated.

For convenience of reference, the lists of mills have been arranged in alphabetical order according to the name of the mill. It is followed by the Ordnance Survey grid reference.

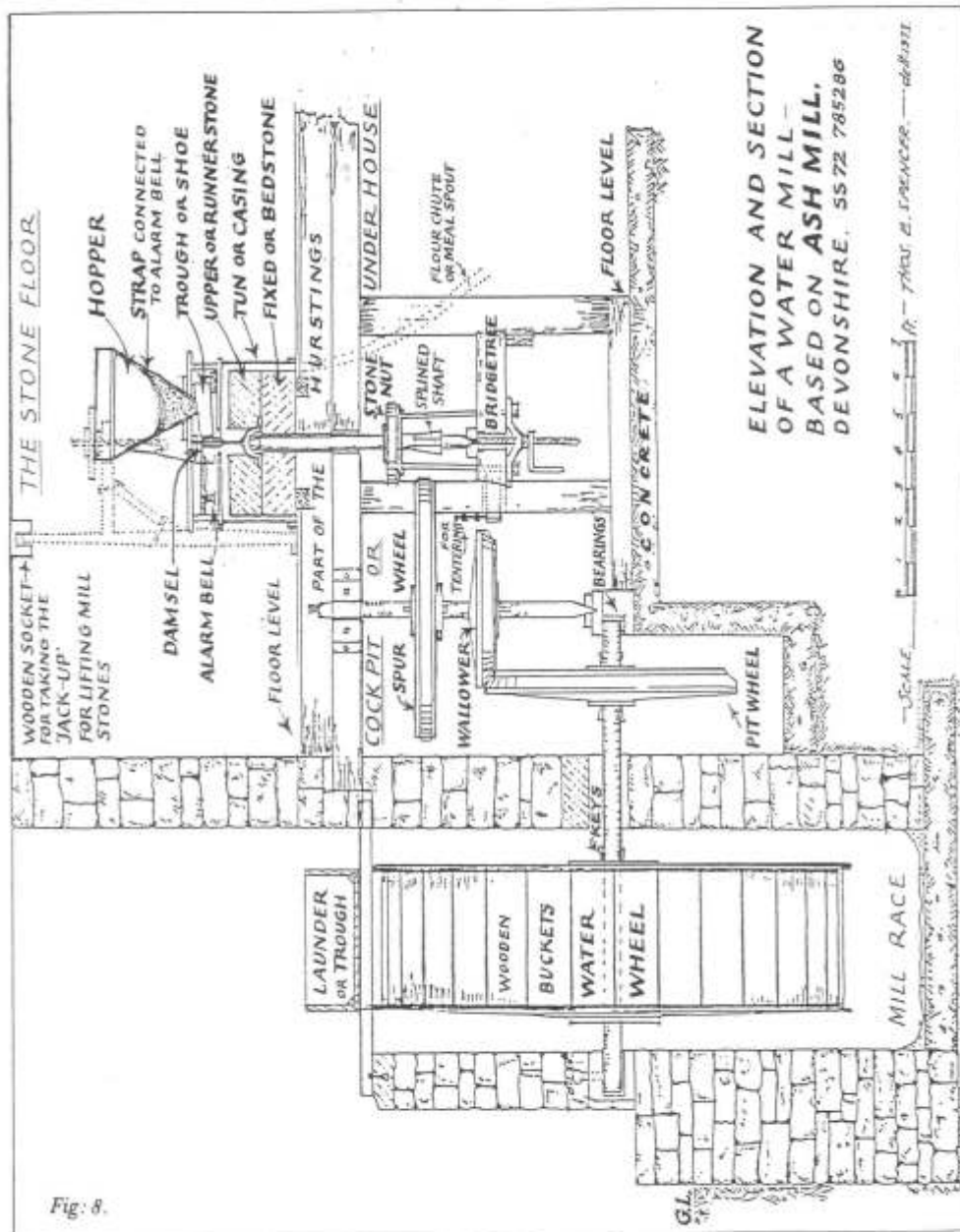


Fig. 8.

Of the mills originally visited, only Hele Mill, Ilfracombe, has since been fully restored, and is operating as a corn mill. It is the only working flour mill in North Devon which is still partially powered by water. The North Molton Mill was complete when inspected, but has since been sold, and the machinery installed at Hele Mill. The Westlandpound Mill was still grinding corn for cattle food, but this has now stopped working. Ash Mill was remarkably complete, but as the leat has now been filled in, the mill was not in working order.

Several water wheels have been adapted to drive electric generators. Bicclescombe Mill, Ilfracombe, has been reconstructed, and is open to the public. A trickle of water is insufficient to turn the wheel, and the machinery is incomplete.

The remaining mills were in varying stages of dilapidation. Some had their water wheels or remains of the ironwork, but the machinery was missing. In others the millstones were *in situ*, missing, or used in or around the mill house.

The majority of the remaining water wheels were overshot. A few were undershot, and one was breastshot. This ratio of undershot to overshot wheels may give a misleading impression, as the wheels of the tucking mills were undershot, with paddles, not buckets. None of the tucking mills, which contributed so much to the North Devon economy between the early Middle Ages and the eighteenth century, have survived. The only remains are a few tumbledown buildings.

Part I — Watermills inspected and recorded in 1971 to 1975

1) ALSWEAR MILL, ALSWEAR SS 723222

There are two overshot water wheels constructed of cast iron with wooden arms and buckets. The small wheel is 6 feet in diameter by 4 feet wide and the larger is 6 feet in diameter by 5 feet wide. No other machinery survives. The mill building and the mill cottage, both single storey, are dilapidated. The mill is believed to have last worked in about 1939. N.D.G., J.S. 1974.

The wheels are now missing but their positions are still apparent. The building is ruinous and leat is dry. L.B. 1989.

2) ANCHOR MILLS, BRADIFORD SS 545344

The overshot cast iron water wheel is 7 feet in diameter. The only other machinery to survive is the sluice which is made of iron, with an iron ratchet, and controlled by a handle in the mill house. The building and house adjoining are constructed of stone with red brick quoins and all are in good condition. There is a plaque on the building with an inscription which reads: 'Anchor Mills, rebuilt by W. Goss, to replace an earlier flour mill.' T.E.S. 1974.

It was formerly known as Halse Mill (situated at end of Halls Mill Lane) and was renamed Anchor Mill when it was rebuilt. William Goss and his son Austin were still

working the mill when I was young. The large mill pond and the leat were always in good condition. The mill was always busy with machinery working and sacks being hoisted. J.S. 1989.

Garnish & Lemon of Pilton, Barnstaple, are reported as having fitted out the mill. In 1981 the building was reported to be in good condition, and the names Joseph J. Armfield (of Ringwood) and W.C. Rafarel (of the Barnstaple foundry) appeared on the iron pillars that supported the floors. The leat was in poor condition with the flow cut off, and the mill pond had been filled in. The mill pond was due to be re-excavated to the original clay lining in the preparation of a nature sanctuary. S.M.R.

The mill has not been inspected recently, but its condition is believed to be unchanged. R.A. 1989.

3) ASH MILL, BISHOPS NYMPTON SS 785236

The overshot water wheel is of cast iron, including the arms, and is under the cover of a penthouse. It is 13 feet in diameter by 3 feet 9 inches wide with wooden buckets. With a few repairs to the buckets the wheel could be set in motion. There are two pairs of millstones, each 4 feet in diameter, complete with hoppers, shoes, damsels, bell alarms, and casing which surrounds the millstones. The beam scales, which weigh up to 3 cwts., are complete. The bits, with handles, for dressing the stones, the sack hoist, the spur wheel, the pit wheel, the wallower, and a slate for keeping records all survive. The miller's house, with a covered way, and the watermill are housed in a continuous long building. The leat supplying the water has been filled in. The mill is complete in every detail. J.G.M. 1974. (See fig. 8).

4) AVERCOMBE MILL, BISHOP'S NYMPTON SS 767231

The overshot wheel is constructed of cast iron with wooden buckets, and was made by Garnish & Lemon of Pilton, Barnstaple. It is 7 feet 6 inches in diameter and 3 feet 6 inches wide. No other machinery, apart from the millstones, survives. The mill is believed to have last worked in about 1940. It was a grist mill. N.D.G., J.S. 1974.

The mill wheel has been retained and the building renovated for holiday accommodation. R.A. 1989.

5) BARBROOK MILL, LYNTON SS716476

The water wheel, which was probably undershot, and the machinery were all destroyed in the 1952 floods. On the site there are a number of small buildings and a cottage which are all constructed of stone with slate roofs. The latter was occupied by Miss Irene Latham and her sister. The owner was John Latham who was also the miller, and lived at White House which was on the north east side of the mill. At one time, one of the buildings was occupied by the local blacksmith. A Mr J.G. Harris, a local resident, remembers the mill being used for grinding in 1878. C.W., T.E.S., D.E.B. 1974.

6) BICCLESCOMBE MILL, ILFRACOMBE SS 518465

The overshot water wheel is constructed of cast iron with wooden buckets. It is 17 feet in diameter and 2 feet 8 inches wide. The water wheel, the interior wheels and the gearing are in working order though some machinery is missing. There is one pair of millstones. There are two possible mill ponds above the mill on the East Wilder brook. The watermill, built in the late 18th century, was completely rebuilt in the 1960's. I.A. 1974.

Outside the leat and the sluices are in good order and the wheel still turns. The mill is open as tea rooms in the summer. R.A. 1989.

7) **BISH MILL, BISHOPS NYMPTON SS 742253**

The undershot water wheel has gone. Of the machinery only four millstones survive. The mill building, of three storeys and a loft, is constructed of stone with a slate roof and is now dilapidated. The miller lived at Mill Farm. The mill is believed to have last worked in the 1950's. There was a Domesday Mill at Bishops Nympton (Nymetona). As the Bishops of Exeter owned the manor, this was probably originally called Bishop's Mill. (see page 5). N.D.G., J.S. 1974.

The building dates from 17th century. It is an L-shaped building with plastered walls, hipped roof and brick stacks. At the time of Listing some restoration was taking place. Immediately to the east of the mill is a three storey stone building of late 19th century date. This was probably a former warehouse. D.O.E. Listed Grade III 1984. S.M.R.

The course of the leat can still be followed, but the water is diverted back to the River Yeo approximately 100 yards above the mill. L.B. 1989.

8) **BLAKEWELL MILL SS 562356**

The overshot water wheel does not survive. All the machinery has gone except for three bedstones by Bodley Brothers of Exeter. These are 4 feet in diameter and 8 inches thick, and are still *in situ*. There are runner stones standing against the wall inside the mill house. W. Lock used to dress the stones. He was a journeyman who went from mill to mill doing this. His contracts were made at local public houses. T.E.S. 1974.

Blakewell Mill is constructed of shale rubble with a slate roof and is three storeys high. It is said to have been destroyed by fire in 1867 but was apparently rebuilt. It was a corn mill in 1867, and later a paper mill manufacturing sweet wrappers and wrapping paper and employed about 12 people. It later reverted to being a corn mill and is shown as such on the 6" OS map of 1905. D.O.E. Listed Grade III. S.M.R.

A water wheel from Taunton cider works was installed, back to front, and now operates as a breastshot wheel. No other machinery survives. Some wooden shutes and the doors of the sack hoists are preserved in the renovated building. R.A. 1989. (See page 13).

9) **BOTTREUX MILL, MOLLAND SS 823265**

The water wheel and the machinery have gone. There is one millstone on the site. The mill is a three storey building. The Combe, a tributary of the Yeo, supplies the water to the leat, which is 6 feet wide by 3 feet deep. It operated as a grist mill from 1920 to 1930, and as a saw mill between 1940 and 1950. It still operates as a saw mill but with different motive power. R.M. 1974.

10) **BRADIFORD MILL, BRADIFORD, BARNSTAPLE SS 548342**

The water wheel, machinery and buildings have gone. The leat exists and has an iron sluice, complete with ratchet and control cranked handles, which was made by Garnish & Lemon of Pilton, Barnstaple. It was a tucking mill which was subsequently used for making spokes for the wheels of coaches. ¹ T.E.S. 1974. (See page 12 and illustration).

I believe that this building was burned down in 1930. The fire probably started in the jappanning shed, and I remember this mill as a brush factory. In 1839 it was described as 'A fulling mill, formerly a grist mill and later becoming a turning mill and brush factory.' ² J.S. 1989.

11) **BRATTON MILL, BRATTON FLEMING SS 635378**

The water wheel, machinery and stones have gone. The mill is constructed of stone with a slate roof and is in fair condition. It was the manor grist and flour mill, DRO48/25/9/8 Deed of 1502 and DRO/CR1294 Manor Account Roll of 1501.

In 1841 there were four householders living at Bratton Mills: Anthony Huxtable, a master carpenter, two journeymen carpenters and a miller. Anthony was the son of Richard Huxtable, whose diary is reproduced in Chapter 4. In 1861 four households occupied the mill. ³ Last working before 1939. J.E.T. 1974.

12) **BRATTON FLEMING TUCKING MILLS, BRATTON FLEMING SS 627377**

The water wheel and machinery have gone. Only the dilapidated remains of the stone and cob buildings remain.

At the time of the 1841 Census, three families of agricultural labourers were occupying the mill. By the time of the 1881 Census, only one family occupied the buildings. ³ J.E.T. 1974.

According to Mr. G. Tribe, there was a second tucking mill in the parish, on the stream that served Chelfham Mill. This may have been near Hakeford Farm at SS 613352, adjoining Shoot Lane (might be Shute²). Nothing remains on the site, but there is an obstruction in the stream.

It was probably called Cuckoo Mill. A Deed of 23rd February 1502 DRO 48/25/9/8 refers to a "tokynge mill" and a "mylleway" from "Chelsame". (It is not clear to which of the tucking mills in Bratton Fleming this document refers). J.E.T. 1989.

13) **BRAY MILLS, CHITTLEHAMPTON SS 674256**

The undershot water wheel is constructed of cast iron. It is 13 feet in diameter and 4 feet 8 inches wide. It had paddles which were 16 inches wide at 15 inch centres. The wheel is in poor condition. The leat is 7 feet wide and 2 feet 6 inches deep and the flow to the wheel is controlled by 3 feet wide sluice. T.E.S. 1974.

14) **BRAY MILL, HIGH BRAY SS 692343**

The breastshot water wheel survives. It is 11 feet in diameter and 4 feet 4 inches wide with wooden buckets. There is no other machinery on the site. The mill building is constructed of stone with slate roof. The leat is 6 feet wide and 4 feet deep. It was a grist mill which last worked in 1960. W.T.B. 1974.

The buildings look in good condition. L.B. 1989.

15) **BRIGHTLEY MILL, CHITTLEHAMPTON SS 609223**

The water wheel does not survive but appears to have been about 16 feet in diameter. The mill, which is by the River Taw, is constructed of stone but the roof has gone. The owner lives in the mill house on the opposite side of the road.

Mr. W.J. Woolaway was born at the mill in 1888, and left this property in 1903 to go to Combe Farm, Chittlehampton. The charge at the time to grind 4 bushels of maize was 10/6d; that for grinding barley was slightly cheaper. According to the late Rev. J.H.B. Andrews, this mill has long been ruined but old people remember it working. Three horses were needed to take the produce of the mill up the hill. The lead horse, released at the summit, would find its own way back to the stables. T.E.S. 1974.

16) **BUCKLAND MILL, BUCKLAND HOUSE, BRAUNTON** SS 487378

The overshot water wheel and the machinery have gone, and the millstones are now at Buckland House. The mill building, 42 feet by 24 feet, is constructed of stone with a slate roof. It is now used as two cottages and is in good repair. It was formerly a grist and flour mill, but was last used to grind fish meal. Water from the River Caen entered an 8 feet wide leat at Knowle, which has now silted up.

The mill was built by Colonel Inledon Webber's great-grandfather as a corn mill in about 1835 to 1840. At this time, the corn was taken to Braunton by cart, and to avoid the toll gate a track was built through the mill owner's woods. It rejoined the road on the Braunton side of the toll gate (St. Brannocks Road where there is now a steep cutting) and thus saved the toll. In about 1860 the track was removed to make way for the railway. The wheel ceased to operate in the 1880's, but survived to about 1914. The mill was occupied by Mr. Richmond between 1904 and 1914. He was an expert trout breeder whose fish breeding tanks, further upstream, are still visible. I.A. 1974.

The mill building is in reasonable condition.

17) **CAWSEY'S MEETH MILL, KINGS NYMPTON** SS 677228

There are two undershot water wheels, placed side by side, in need of repair. They are constructed entirely of wood, including the arms and naves, and are each 9 feet in diameter with paddles. The stub axles, on which these wheels revolve, are of iron, and are 2.5 inches thick. The wooden spur wheels and the pit wheels are *in situ*. The two sets of millstones have gone.

The mill house is 50 feet long, close to the road, and stands in a field on the opposite side to the farm house. It is two storeys high, and is constructed of stone with a slate roof. It is in fair condition. Inside the building there is a beam carved with the initials and date "JH 1796". Through the centre of this building there is a vaulted passage, 10 feet wide, spanning the leat, which protects the two water wheels from the weather. The 10 feet wide leat which supplied water to these wheels has now silted up. This is the only mill that has been inspected where the water wheels and the machinery are constructed entirely of wood. There is a reeding machine for thatching in the building. T.E.S. 1974.

The mill building straddles the leat and has a single cell at each side. It is probably late 18th century in date. The hopper arrangement survives. D.O.E. Listed 1987. S.M.R.

The building and wheels are still intact, but are decaying. L.B. 1989.

18) **CHELFHAM MILL, CHELFHAM** SS 611357

The overshot water wheel is located on the outside of the building. It has wooden arms and buckets and an iron axle. The wheel is dilapidated but revolves. It is 15 feet in diameter and 6 feet wide. The remainder of the machinery comprises an 8 feet diameter

iron pit wheel with wooden cogs, a 6 feet diameter iron spur wheel with wooden cogs, one iron wallower 2 feet 6 inches in diameter, a bedstone and runner stone *in situ*, and one other bedstone *in situ*. The wooden tun surrounding these is 4 feet 8 inches overall. In the apex of the gable there is a hoist for loading and unloading sacks. There is one cider press on a rectangular base with two steel worms. The machinery is housed in a three storey building constructed of stone with slate roof. T.E.S. 1974.

The wheel survives but all the other machinery has gone. R.A. 1989.

19) **CLAPWORTHY OR CLAPPERY MILL** SS 676240

The water wheel and machinery do not survive, having been removed by Messrs. Hancock & Son who bought the mill in 1957. There are two sets of millstones, and one pair can still be seen in the garden. The mill is constructed of stone with a slate roof and, is in good condition. In 1880 it was a flour mill. It is now a cider and mineral water factory which is powered by two water turbines which are controlled by penstocks. T.E.S. 1974.

Still in the same condition. L.B. 1989.

20) **COMBE FARM MILL, LOXHORE** SS 627378

The overshot water wheel is constructed of cast iron with wooden buckets and placed on the outside of the building. It is 16 feet in diameter with cast iron cogs on the left of the perimeter of the wheel. These engaged in a 9 inch cog wheel, the spindle of which once turned the milling machinery. The arms of the wheel are of cast iron. The buckets were 3 feet wide but are missing. It was made by Garnish & Lemon of Pilton, Barnstaple. All that survives of the rest of the machinery is a cast iron gear wheel, 2 feet in diameter, which is connected to an iron shaft. The granary which housed the milling machinery is approximately 102 feet by 24 feet and is constructed of stone with a slate roof. The farmhouse is surrounded by a number of buildings built of stone with slate roofs. All the buildings are in good condition. The water from the leat was conveyed to the top of the wheel by a wooden launder. The mill was last working around 1955. J.E.T. 1974.

The machinery has gone and the mill building is now an extension to the house. R.A. 1989.

21) **CROSSCOMBE FARM MILL, CAFFYNS CROSS, LYNTON** SS 686479

The overshot water wheel is constructed of cast iron with wooden buckets. It is 12 feet 6 inches in diameter by 4 feet 6 inches wide. It has iron arms and is placed under the cover of an archway. It is in working order, but there is no other machinery on the site. The building is constructed of stone and has a slate roof. It is in fair condition. T.E.S. 1974.

22) **CUCKOO MILL, ROSE ASH** SS 788209

Nothing exists on this site. N.D.G. 1974.

23) **DAMAGE BARTON MILL, MORTEHOE** SS 472456

The remains of an overshot cast iron water wheel survive beside a round building in very poor condition. There is not much machinery left. The layout is the same as at Wistlandpound and Holwell. It was last used to grind cattle food for the farm. R.A. 1974.

Nothing remains on this site. R.A. 1989.

24) EAST BUCKLAND MILL, EAST BUCKLAND SS 682314

The grist mill on this site was demolished in 1970. It last worked in 1926.

25) FLITTON MILL, FLITTON BARTON, NORTH MOLTON SS718310

The wheel and the machinery have gone, but traces of the leat exist. It was last working in 1902 or 1903. K.M. 1974.

House in good condition. R.A. 1989.

26) FORD MILL, CHITTLEHAMPTON SS 617255

The water wheel does not survive and was sold before the present owner bought the site. The grinding machinery was on the first floor but all that now exists *in situ* is a bedstone. The runner stone has been lifted off and stands at the side of the bedstone. On the top (third) floor there is the sack hoist, with shaft, drum, wheel and two wooden hoppers which are not fixed. The mill and the mill house are in one unit, built of local stone with the window arches and the jambs in red bricks. The roof is slated, and the buildings are in good condition. The leat has been partly filled in around the site of the mill, and is completely blocked up on the road side of the mill. The mill was last working about 1946. Leases for Ford Mill from the 15th to the 19th century still exist. ⁴ T.E.S. 1974.

27) FREMINGTON MILL, FREMINGTON SS 513324

The mill survives and water still flows in the leat. It was originally a flour mill and was used as a saw mill and paper factory in this century. It is now used for storage. T.E.S. 1974.

The overshot wheel is of cast iron with wooden buckets and is attached to the rear gable wall. It is 20 feet in diameter by 2 feet wide. The 56 buckets have completely rotted away. All the machinery is intact apart from two stones. The building dates to the 19th century and is in good condition. It is constructed of stone rubble with brick dressings. The roof is partly pantiled and partly covered with corrugated asbestos. There is a hoist bar over two cambered arched windows to the left side of the building. D.O.E. Listed Grade III. S.M.R.

The mill is in much the same condition. It is the subject of a planning application for houses nearby, but the mill should remain largely intact. It is adjacent to a modern paper-mill. A.O. 1989.

28) FULLABROOK MILL, LITTLE COMFORT SS 514402

The water wheel and all the other machinery have gone. The wheel was situated between the mill house and the barn. The mill leat, which is stone ditched, was dry when inspected in October 1970. The earthenware chimney pot (which is square in section) on the chimney stack to the mill house bears the date 1793. The house and adjoining building are constructed of stone.

In times of heavy rain vast quantities of water ran off the highway at the rear of this property and discharged into the leat adjoining the mill house. The highway authorities have periodically, after heavy rain, cut gaps in the leat and the river bank to allow the water to drain away. They have also constructed an earth bank, parallel with the carriage way, the mill and the mill house, to channel off the water so that it runs further down the road. The deeds of the house stipulate that the leat must not be 'done away with, filled up,

or destroyed,' according to the present owner, Mr. Millichip. I.A., T.E.S. 1970.

29) GARLIFORD MILL, BISHOPS NYMPTON SS 755258

The wheel and machinery have gone. All that remains is the leat and the mill house. The mill was working around 1925. N.D.G. 1974.

An 18th century mill. D.O.E. Listed Grade III. S.M.R.

30) HEANTON MILL (HARDINGS), HEANTON PUNCHARDON SS 508362

The overshot water wheel and other machinery do not survive. There are three bedstones, 4 feet in diameter, *in situ* on the first floor. Outside there are four millstones leaning against the wall. There is one sack hoist. The mill building is about 96 feet by 33 feet wide. A lean-to building, 33 feet by 15 feet wide, is attached. The buildings are in good structural condition, having recently been repaired, and the roof retiled. The mill house is a detached building in good condition. The leat, which has been filled in, once took its water from the Knowle Water. It was formerly a cloth mill and is now being used for the manufacture of electric lamp fittings. T.E.S. 1974.

Also known as Acorn Mills (?). In 1850 it was run by Messrs. Would and Kent from Yorkshire who brought with them skilled workers. Here the wool was stapled and manufactured into worsted, serge and blankets. Some of the looms and machinery could still be seen in the early 1970's. In 1938 the millstones were grinding barley into cattle feed. S.M.R.

There was a Domesday Mill in Heanton Punchardon (Hantona). (See page 5).

The buildings are now converted to two houses and are well kept. The four millstones are still leaning against the side of the building. R.A. 1989.

31) HELE MILL, ILFRACOMBE SS 534475

The overshot cast iron water wheel survives in a dilapidated condition and there is much machinery inside. The building is constructed of colour-washed rubble and is two storeys in height with slate roof. It was a grist mill which was probably rebuilt in the 18th century. It is now used for storage. R.A. 1973.

The overshot wheel is made of cast iron with wooden buckets. The wheel is 18 feet in diameter and 3 feet 8 inches wide. The 46 buckets are made of elm. The mill machinery includes a smutter, a sifter, and elevator and a grain hoist. There are two sets of millstones of French Burr and conglomerate. There was originally a mill pond and three leats.

The present wheel was made by Garnish & Lemon of Pilton, Barnstaple in 1927 to replace the earlier wooden one. At this time most of the gearing was removed. After World War II, when the wheel drove a generator to supply electricity, the mill fell into decay and the mill pond and two of the three leats were filled in. The mill was restored by the present owner between 1973 and 1978, and is now the only operative watermill in North Devon. The one remaining leat does not supply sufficient water to power the mill in summer, and the water wheel is supplemented by a diesel engine and belting. Information about the mill and machinery are available at the mill, which is open to the public. The layout of the machinery differs from most of the other watermills in the area. The machinery was brought here from North Molton Mill. J.E.T. 1988. R.A. 1989.

D.O.E. Listed Grade II. S.M.R.

32) HEASLEY MILL, NORTH MOLTON SS 738322

The overshot water wheel is constructed of cast iron with wooden buckets, which are rotten. The wheel is 12 feet 6 inches in diameter, by 4 feet 6 inches wide. There are two pairs of millstones *in situ*. A sack hoist, a wooden pulley wheel, troughs and some small tools still exist. The leat is 3 feet wide by 1 foot 6 inches deep. The granary is constructed of stone with a corrugated iron roof in good condition. The mill is used as a plumbers' store. The house opposite was the mill house. R.A. 1974.

The iron wheel rims, axle and two spokes are still in place. No buckets survive. There is a sluice gate *in situ* at the leat above the wheel. The launder is blocked off but the leat is still running. The building has been recently repaired and re-roofed and is still used as a builders' store. R.A. 1989.

This is possibly the site of a medieval mill which was documented in 1314 and 1316. S.M.R.

33) HEDDON MILL, GEORGEHAM SS 490400

The overshot wheel and machinery do not survive. There are two millstones in a nearby field. The mill consists of ground floor and two storeys above. It is built of stone with slate roof supported by queen post trusses, all in fairly good structural condition. The mill and the house are in a continuous block. The leat is supplied by water from the Caen. The building is owned by Mrs. M.H.C. Slade, who has lived in the mill house since 1925. Before then it was owned by J. Stanbury, who had a mill at Woolacombe. The mill was last working in 1960, after which it was dismantled to make room for a grain drying plant. T.E.S. 1974.

The buildings are in the same condition. R.A. 1989.

34) HOLWELL FARM MILL, NEAR EAST DOWN, BARNSTAPLE SS 579422

The overshot water wheel is constructed of cast iron with wooden buckets, most of which are gone. It is 19 feet in diameter by 4 feet wide. The millstones and most of the machinery have gone. There is still a flywheel inside the building and two small cog wheels out in the field away from the buildings.

The mill is constructed of stone with slate roof and in good condition. R.A. 1974.

35) HOMEDALE MILL, COMBE MARTIN SS 575472

The water wheel, machinery and the millstones have gone. The mill house is still there and in fair condition. The mill was rented by William Somerville from Mr. Snell. Last worked about 1920. I.A. 1974.

Loverings' garage forecourt was the mill pond. A double leat is still piped under the road. R.A. 1989.

36) HORDENS MILL (BRAUNTON MILL) SS 486365

The water wheel and the machinery have gone, but the position of the wheel can be seen. Water from the Caen turned the wheel which is now filled in. The last date of operation is unknown. T.E.S. 1974.

Possibly the same site as the manorial mill of the Manor of Braunton Gorges noted in the S.M.R. R.A. 1989.

37) HOWARDS MILL or COLLEY LAKE, KINGS NYMPTON SS 675205

The overshot water wheel is constructed of cast iron with wooden buckets and placed on the outside of the building. It is 17 feet in diameter by 3 feet 6 inches wide. On the periphery of this wheel there are iron cogs which engage a spindle that drives a circular saw. The building is constructed of stone and timber. It has single and double pantiles on the roof, which is sagging in the centre, and oak shingles to the gable. It was formerly used for crushing stone for the Park Estate roads. T.E.S. 1974.

38) HUDLEY MILL, CHARLES SS 678324

The overshot water wheel, which came from Low Hall, High Bray, is constructed of cast iron with wooden buckets. It is 12 feet in diameter by 3 feet wide and in fair condition. The machinery has gone, apart from one millstone *in situ*. There is a dynamo. The mill was served by a leat and mill pond, with water being taken from Thorne Water. There is believed to be a lease of 1648 which refers to this site. The mill was last working in about 1930. W.T.B. 1974.

The dynamo is now disused. J.E.T. 1989.

39) IRON MILLS, BRAUNTON SS 488370

The overshot water wheel is constructed of cast iron with wooden buckets, and placed on the outside of the building. It is 12 feet in diameter by 5 feet 1 inches wide and is in excellent condition. It was made by C. Rafarel of Barnstaple. The machinery and millstones have gone. The mill building, and the mill house which is attached, are constructed of stone, in good condition. The leat, taken from the River Caen, is 4 feet 6 inches wide and from 3 feet deep. The mill no longer operates, and last worked as a flour mill in 1947. I.A. 1974.

In 1974 it was generating some electricity, and the river authority proposed to charge for water coming in and out of the leat. R.A. 1989.

40) KNOWLE MILL, BRAUNTON SS 491387

The overshot water wheel is constructed of cast iron with wooden buckets. It is 18 feet in diameter by 6 feet wide. The machinery has gone, apart from a damaged pit wheel, and an iron drive wheel which is 12 feet in diameter. The mill house has been incorporated in other buildings and nothing of the character of the original mill can be seen. The wheel is hidden beneath a new building. The mill is situated on the Caen, which is 5 feet wide, by 2 feet deep. It was last used in 1946. J.D. 1974.

The mill was probably maintained by the Dennis family (wheelwrights) and is believed to have been originally the manorial mill of the Manor of Knowle. J.E.T. 1989.

The site is in much the same condition. A local resident believes the mill was formerly used as a sawmill, and also to generate electricity for Knowle and part of Braunton. According to Mr. James Dennis of Braunton, this was some of the earliest electricity in use in North Devon. R.A. 1989.

41) KNOWSTONE MILL, KNOWSTONE SS 812232

The overshot water wheel and the buckets are constructed of wood. The drive wheel may be hidden in the rubbish in the building. There is one pair of millstones *in situ* and one dismantled. The leat is 4 feet wide by 1 foot 6 inches deep, and is channelled from the Crooked Oak stream. The building is constructed of stone and cob with a thatched roof,

in fair condition. The mill house is attached. The iron machinery of this mill, which last worked in 1939, was dismantled at the request of the Government in 1940. A ledger of 1903 to 1934 survives; it includes the charges for cracking and grinding grist and flour. R.M. 1974.

17th century mill, constructed of cob and plastered rubble with thatched roof and brick stacks. Two storeys high. Mill worked until 1972 when struck by lightning. D.O.E. Listed Grade III. S.M.R.

The reference to the machinery being removed during World War II is probably correct. It is likely that only the wheel was working until 1972. It was perhaps used for generating or pumping. R.A. 1989.

42) LANDKEY CASTLE MILL, LANDKEY NEWLAND SS 599312

The machinery and buildings are gone, and the leat is piped under the main road outside the Parish Hall. In about 1915 a man named Bill Rew worked the mill. He apparently rented this mill from Messrs. Berry & Son, Corn Merchants of Barnstaple. T.E.S. 1974.

43) LANDKEY TOWN MILLS (DARCH'S MILL OR MANOR MILLS), LANDKEY NEWLAND SS 595311

The overshot water wheel is constructed of cast iron with wooden buckets. It is 12 feet in diameter and 4 feet wide. It is still working. It develops 10 h.p. and at present drives a dynamo. There are two sets of millstones, one for barley and one for maize. The output is five sacks in eight hours. There are also five millstones forming a floor to a shed adjoining the mill. The sack hoist with hatches survives. The mill is three storeys in height and is constructed of stone and roofed with slates. The mill last operated as a flour mill in 1941. The mill house flanks the road and is occupied by Mr. Darch who carries on a baker's and confectioner's business on the premises, in a building adjoining this house. Over the fireplace in the drawing room, on the ground floor, there is a plaque showing the date 1659 and the initials 'E.H.'. A man named William Jones, who lived at Landkey, used to dress the stones.

North Devon Journal of 29 January 1852: "Landkey (Devon). To be let by Private Contract from Lady-Day next for a term of 5, 7 or 14 years as may be agreed upon, all that desirable Water Grist Mills called "Newland Mills", situated in the Parish of Landkey about three miles from Barnstaple and now in the occupation of Mr. Thomas Andrews, consisting of two Overshot Water Wheels, three pair of stones, viz, flour machine, spout machine and Grouther. With a Dwelling House and all other convenient Outbuildings and half-dozen acres of land if required." T.E.S. 1974.

The Darch family took over the mill and bakery in the 1920's and started generating electricity shortly afterwards. They were later connected to the mains supply because the irregular flow of water made it difficult to regulate the power. When the bakery closed, the mill and house were let. The wheel still turns and will be renovated shortly. I.D. 1989. (See illustrations).

44) LION MILL, PILTON, BARNSTAPLE SS 550344

The water wheel and machinery have gone. A plaque on the building records, 'ERECTED BY GEORGE DAVEY 1876'. The leat that powered this mill was fed from

Bradiford Water just below Tutshill Woods. The mill, which suffered from fire in 1893, had been converted to roller-grinding and was powered by a water wheel and a turbine with a gas engine in reserve. In a *North Devon Journal* of June 1893 the following was put up for sale: ⁶

One 12 feet Iron Water wheel 8 feet breast
One 20 feet Iron Water wheel 5 feet breast
One 22 feet Iron Water wheel 4 feet breast

Later, in 1920, it became Bradiford Engineering Works, but a 1932 map shows it as disused. T.E.S. 1974.

It was known as both Brush Mill and Lion Mill. There were two buildings, the furthest from the main road was being used as an ice factory when I remember it. J.S. 1989.

45) LITTLE SILVER MILL, KING'S NYMPTON SS 728215

The water wheel and all machinery have gone. The water wheel was 6 feet in diameter, constructed of wood with wooden buckets. The leat was 4 feet 6 inches wide. The house is in good condition, constructed of cob and stone, and the newer parts are of brick. The mill last worked in about 1924, and the leat was filled in in June 1967.

46) LYNBRIDGE MILL, OUTER LYNTON SS 722487

The wheel and most of the machinery have gone, apart from three bedstones and one runner stone which are still *in situ*. It is believed to have had an overshot water wheel made of cast iron with wooden buckets. The buildings are in a very dilapidated condition. There was previously a weir across the Lyn which headed up the water and diverted it into a culvert under the pathway to the launder discharging on the top of the wheel.

A former worker named Harris, who is now over 90 years old, worked as a boy of eight feeding the horses and taking the donkeys up to the woods at night. He does not remember the water wheel working after 1889. It was said to have been built by Mr. Bill Jones about 200 years ago. On certain days of the week it was used as a saw mill, and some of the timbers used in building Lynton Town Hall were prepared here. Jones was a builder and also owned a large stable with horses for hire. There was also a blacksmith's shop attached. After 1890 a water turbine was installed. A Mr. Weedon, a journeyman stonemason, used to dress the millstones. The mill was destroyed by the 1952 floods.

There was a Domesday mill at Lynton. D.E.B. & T.E.S. 1974. (See page 5).

47) MESHAW MILLTOWN, MARIANSLEIGH SS 757204

Nothing there.

48) METCOMBE MILL, METCOMBE SS 536399

The overshot water wheel is constructed of cast iron with some wooden buckets surviving. It is 18 feet in diameter and 3 feet 6 inches wide, and has 9 inch shrouds. The cogs are cast onto the wheel. The timber launder has rotted away and fallen onto the wheel. The farmhouse adjoins the mill buildings. The leat which conveyed the water to the launder is existing, but partly filled in. T.E.S. 1974.

49) MILLBROOK, NORTH MOLTON SS 760303

No evidence of a watermill on this site or in anyone's memory. K.M. 1974.

50) MILL FARM (CROYDE MILL), CROYDE SS 449392

The overshot water wheel does not survive. The machinery was dismantled in about 1925. The mill building was converted to give additional living accommodation to Mill Farm. A spring on the hill, on the right of the house, supplied a pond which has been filled in. The water, after turning the wheel, ran into a stream on the left. T.E.S. 1974.

51) MILL PARK, BERRYNARBOR SS 559472

The overshot water wheel was constructed of cast iron, with wooden buckets. It is 20 feet in diameter and 5 feet wide. The well to take the wheel is 5 feet 10 inches deep. There is one runner stone 4 feet 3 inches in diameter. Some evidence of the leat still exists. The mill house is constructed of stone with a slate roof. It was converted into a dwelling house in 1946. I.A. 1974.

Building well maintained. R.A. 1989.

52) MILL TOWN, MARWOOD SS 556387

The overshot water wheel and most of the machinery has gone. Three of the grinding stones are believed to be in the building. The mill building is detached from the residence. It is a two storey building constructed of stone, the roof being partly covered with corrugated iron; there are triple pantiles on the back addition. It is all in a very dilapidated condition. The leat is 4 feet wide but dry. The mill house appears to be an old building, and in reasonable condition. In the garden there is a well from which the villagers once obtained their water supply. T.E.S. 1974.

Little has changed. The millstones now form the gateposts. R.A. 1989.

53/54) MOLE MILLS (MOLE BRIDGE) SOUTH MOLTON (ONE* FORMERLY IN THE PARISH OF BISHOP'S NYMPTON) SS 723257* & SS 723259

One large 'woollen mill' (SS 723257) lies to the south of Mole Bridge. The water wheels and all the machinery have gone. The overshot wheel was probably about 14 feet in diameter. The light and spacious building is approximately 60 feet by 40 feet wide. It is three storeys high, and is constructed of stone with a slate roof. The floors are supported on 12 inch by 12 inch timber crossbeams at 7 feet centres. The roof has timber trusses with collars. A leat, which has been filled in, conveyed the water from the River Mole. The building is now used as a builder's workshop and store. The miller's cottage lies near the east side of this building. It is constructed of stone and cob with slate roof. The mill was in use as a grist mill in about 1955.

The second mill site lies to the north of Mole Bridge (SS 723259). The water wheel and all the machinery have been taken away. The wheel appears to have been about 16 feet in diameter. The building is two storeys high, constructed of random stone with slate roof. The floor above is supported on 18 inch timber beams let into 2 feet thick walls. There is a bell turret in the centre of the roof ridge complete with bell. At the rear of this building are the remains of a tall chimney shaft 25 feet high on a 6 feet by 4 feet base. Also at the rear, adjoining the mill and parallel with the leat, there is a building approximately 93 feet long, constructed of random stone. The leat, which is said to have originally flowed through the building, is partially filled in. The flow of water was controlled by an iron sluice, the iron frame and worm of which survive. The building, after the removal of the machinery, was used for generating electricity to supply local needs. The cases of two

dilapidated turbines survive, which suggests that the dynamos may have been driven by water turbines. The mill building is now used as a commercial garage, Northcotts.

The deeds of this property (which has twice been damaged by fire) date back to 1656.⁷ (See Appendix and illustration). J.S., N.D.G., T.E.S. 1974.

The two mills visited form part of an industrial complex of the woollen industry based on the River Mole. South Molton was one of the main textile producing towns of North Devon, and probably had at least three tucking mills working. (The sites of two are known — one at the end of Tucking Mill Lane, and the other at SS 723259. One was recorded in 1327; one was burnt down in 1861).⁸ It was considered one of the chief manufacturing towns of the County in the sixteenth century. The production of the woollen cloth fulled in the local tucking mills continued until the late eighteenth century. Coarse woollens were exported to Spain, Portugal, Italy and Germany. When this business declined, the manufacture of serges for the East India Company took its place. This great volume of business called for large numbers of spinners and weavers and great activity in the tucking mills.⁹

It was developments such as the woollen 'mill' at SS 723257, after new water powered machinery was installed in large factory-type buildings in South Molton from the beginning of the nineteenth century, that put an end to the work of the old-fashioned tucking mills. J.E.T. 1989.

55) NEW MILL, LYNTON SS 704479

Only the leat, which is two feet wide, survives. D.E.B. 1974.

56) NORTH MOLTON MILL, NORTH MOLTON SS 744298

The overshot water wheel is constructed of cast iron with wooden buckets, and placed on the outside of the building. It is 11 feet in diameter and 4 feet 6 inches wide and in good condition. All the machinery, including driving gears, hoists, elaborate sifting reels, flour cleaners, tools, platform scales, two pairs of millstones, etc, are *in situ*. The three storey mill building is constructed of stone with a slate roof, and is structurally good. However, water is gaining access, and may cause damage. The mill pond is visible, and was supplied by water from the River Mole. It was a nineteenth century flour mill, and was last working in 1954 as a saw mill. The site is now used as a fish hatchery by the Devon River Authority. T.E.S. 1973.

All the machinery and equipment was completely dismantled and removed in February 1974, and taken to Hele, Ilfracombe. The mill building is now well maintained as a house, and the wheel is visible. The leat, launder, and tail race are all well maintained. Water may be piped from the leat to some fish tanks. R.A. 1989.

57) OAKLANDS MILL, BRENDON SS 758474

The water wheel is made of cast iron with wooden buckets and arms. It is 21 feet in diameter by 3 feet 6 inches wide. Within the circumference of the main wheel there is another wheel, 14 feet in diameter, which has cogs on the periphery and engages another wheel shaft that apparently drove a circular saw. The buckets are beginning to rot, otherwise all is in fair condition. The millstones and machinery have gone. The granary or mill house is constructed of stone and wood with galvanised iron roof and is in fair to dilapidated condition. The owner's house is on the site.

The mill and water wheel were built by the present owner's grandfather in 1875. It was in use before the Lynmouth flood disaster in 1952. This flood destroyed sections of the wooden launder and filled in the small mill pond. There is no leat. R.A.B. 1974.

A considerable length of launder survives, and the general condition of the site appears unchanged. L.B. 1989.

58) **ODAM MILL, ROMANSLEIGH SS 738201**
No trace of a mill survives on this site. N.D.G., J.S. 1974.

59) **THE OLD MILL, LEE BAY, ILFRACOMBE SS 481468**
The overshot water wheel does not survive, but it is believed to have been made of cast iron with wooden buckets and to have been 14 feet in diameter by 3 feet 6 inches wide. It was sited at the sea side of the house. The remainder of the machinery, apart from the millstones, does not survive. The building is constructed of stone and cob with a slate roof. A stone-lined leat brought water to the wheel from a pond (now the garden) and was fed from the stream running through the valley. Until 1905 it was a flour mill grinding locally grown corn. Originally there was a barn, one cottage, and a bakehouse here. It is now a Tea Room. J.E.N. 1974.

The building is believed to date from 1560. (signboard). The centre of the mill has a massive stone chimney and porch beside it which may also date from 1560. It is an L-shaped two storey stone structure and is partly whitewashed. D.O.E. Listed Grade II. S.M.R.

The mill house is still in good condition. R.A. 1989.

60) **OSSABOROUGH MILL, MORTEHOE SS 482484**
The water wheel is made of cast iron with wooden buckets. It is 20 feet in diameter and 2 feet 6 inches wide. It is placed under cover between the two buildings and is in poor condition. There is a pit wheel with a bevel drive. The mill or granary is two storeys high, constructed of stone, and is cut back into the bank. The first floor is level with the leat and mill pond adjoining. On this floor all the milling machinery, now gone, was installed. The ground floor was used as stables and the adjoining building was a barn. The millstones are said to be at Barton Farm, Instow. H.P. 1974.

The building has now been renovated as a public house. There are three millstones in front and a small fly wheel on the wall. R.A. 1989.

61) **PARRACOMBE MILL, PARRACOMBE SS 669449**
The overshot water wheel is made of cast iron, including the arms, with buckets of elm wood. It is placed on the outside of the building and is 14 feet in diameter. The mill house and granary are constructed of stone with slate roof and all are in good condition. No other machinery survives. This watermill is believed to date from 1650, and was last in operation in October 1942. It does not operate as a grist mill now, but is used to generate electric power for private use. The wheel was re-conditioned in 1967. P.T. 1974.

The wheel still turns and the machinery is thought to be still there. R.A. 1989.

62) **PLAISTOW MILL, SHIRWELL SS 567378**

The overshot water wheel is constructed of cast iron with wooden buckets. It is placed on the end of the building and is 13 feet 6 inches in diameter by 5 feet 6 inches wide. The cast iron rims, 9.5 inches wide, are slotted to take the buckets, and are complete with $\frac{3}{4}$ inch diameter iron tie rods. The machinery comprises: one bedstone *in situ* made by W.R. Dell, Markland, London, 4 feet 2 inches in diameter by 9.5 inches thick and iron banded, a broken wooden tun, a sack hoist, an iron spur wheel 6 feet 10 inches in diameter, an iron pit wheel and an iron wallower. The mill building is built of stone with a slate roof. It has queen post trusses to the roof which are 9 inches by 3 inches. The principle rafters are 5.5 inches by 3 inches. The rafters are at 18 inch centres and all are in good structural condition. The mill residence is detached. The water is conveyed to the top of the wheel by wooden launder, all in good condition. The leat is in fair condition. The mill belonged to the Chichester Estate until 1919. T.E.S. 1974.

This mill has been partly repaired, and the water wheel put into working order. R.A. 1989. (See p 7-8).

63) **RALEIGH MILL, PILTON, BARNSTAPLE SS 564341**

The wheel, machinery and buildings were demolished in 1951. The mill was worked by a powerful overshot water wheel which worked 3 pairs of stones, flour and smut machines. The *North Devon Journal* of 19 August 1869 carried an advertisement seeking tenders for the valuable flour and grist mill called Raleigh Mills, including Dwelling House, Garden, Stable, Linhay, together with the western part of Pantile Meadow containing 2 acres 2 roods. (See illustration) T.E.S. 1974.



Raleigh Mill, Pilton. The launder that served this overshot wheel ran along the top of the wall to the left of the waterwheel.

64) ROWLEY BARTON MILL, PARRACOMBE SS 653440

The overshot water wheel (nearly rusted away) is constructed of cast iron and the wooden buckets have rotted. It is 13 feet 6 inches in diameter and 3 feet wide. On the left side of the wheel there are cast iron cogs, which engage another small gear wheel which turns a short shaft on which there is a 9 inch bevel wheel. This, when engaged, turns the overhead shaft which runs to the granary opposite. The water wheel is supported on two stone walls above ground. The launder has gone and part of the leat is filled in. This watermill stands detached on the side of the private road opposite a two-storied stone-built granary approximately 78 feet long by 22 feet wide, in which was once housed the grist milling machinery. The mill was last working in 1920, but is now in a dilapidated state. This may be the site of the farm known as "Rodelia" in the Domesday Book. J.E.T. 1974.

The wheel is still there. R.A. 1989.

65) SHIRWELL MILL, SHIRWELL SS 608377

The wheel and machinery do not survive. The overshot water wheel was believed to have been made of cast iron including the buckets. It was approximately 10 feet in diameter and 3 feet 6 inches wide. There was one pair of stones. One of these forms part of the floor in a lean-to shed adjoining. The mill house that housed the machinery is constructed of stone with slate roof and is in fair condition. The farmhouse, which is close to the mill house, is in good structural condition. Richard Huxtable carried out several repairs at this mill. (see page 59 and 60). The mill was last working in 1952, and all the machinery was sold as scrap in 1960. T.E.S. 1974.

Thought to have been part of Youlston Chichester Estate. R.A. 1989.

66) SLOLEY BARTON MILL, BARNSTAPLE SS 574373

The wheel, machinery and buildings have gone. The water wheel is believed to have been of cast iron with wooden arms, and wooden buckets. It is thought to have been about 13 feet in diameter and 4 feet wide and worked one pair of stones. There is a pond beside the road (Langeford Hill) which is fed by a small stream. The leat is about 250 yards long. The mill was probably last working in the early 1940's. R.A. 1974.

67) SWIMBRIDGE MILL, RIVERTON SS 635302

Only a dilapidated building remains. T.E.S. 1974.

The overshot wheel was destroyed by vandals in 1963, and two millstones are still to be seen amongst debris. It is mentioned as a grist mill in a survey of Acland properties of 1726. S.M.R.

68) TOWN FLOUR MILLS, BAKER'S QUAY, BARNSTAPLE SS 555833

There were two breastshot water wheels in parallel on this site up till about 1960. The mill building and machinery have been demolished, but the leat and one sluice exist. The leat may date back to Norman times. T.E.S. 1974.

This mill is near the site of the medieval priory of St. Mary Magdalen, which was endowed with Barnstaple Mill in 1107, but is unlikely to be on the same site. A document of 1881 attests that John Baker had 'at his own cost rebuilt the mills'. They were then renam-

ed the Town Mills and a plan shows the mills with bakery sheds. One wheel is said to have been taken to Orleigh Mill (Buckland Brewer). S.M.R.

The sluice gates, which had totally disintegrated, were removed during the construction of the Urban Relief Road. A watching brief was carried out during road works but only modern fill was noted. A greater length of the leat is now culverted. L.B. 1989.

There was a Domesday Mill at Barnstaple which probably worked off the same leat; it may have been sited near the outlet to the River Yeo. J.E.T. 1989. (See page 5 and illustration).

69) TWITCHEN MILL, TWITCHEN SS 788302

The water wheel does not survive, but its estimated diameter is 18 feet by 4 feet 6 inches wide. There are two pair of stones. The machinery was sold as scrap during the Second World War. Some small tools and equipment survive and many old stones are re-used in the walls, floors and steps. Water came from a large pond a quarter of a mile above the mill and from a smaller pond just above the buildings. There was a second leat, now blocked up. The owner said that these two ponds could hold all the water coming down the valley in dry weather, and stop the lower mills working until water was released. The mill house exists and adjoins the granary; the latter is used as a store. It is believed that this mill replaces one pulled down about 1875, and was last used in 1938. It was noted in the district for its good quality flour. The earlier mill was said to be about 500 years old. R.A. 1974.

70) UMBERLEIGH MILL, UMBERLEIGH SS 606226

The water wheel and all other machinery have gone. This mill, which lies on the banks of the River Taw, has been converted into a very attractive house. It is constructed of stone with thatched roof. This property was damaged by flood water in 1952. T.E.S. 1974.

The first documentary reference to a mill at Umberleigh is believed to be 1260. The present mill ceased operating after World War I. It is a two storey structure with attics and a thatched roof. There is also possibly some medieval masonry. D.O.E. Listed Grade II. S.M.R.

71) WADE MILL, MOLLAND SS 792266

The overshot water wheel is made of cast iron with wooden buckets. It is 13 feet in diameter by 5 feet 6 inches wide and the buckets have practically rotted away. The spur wheel, crown wheel and sack hoist shafting survive. Some other machinery including iron drive wheels, belting and some chutes has been sold to a Mr. Harris of Yeo Mill. One millstone and the sack hoist are *in situ*. The buildings are constructed of stone with slate roofs, all in good condition. The mill was formerly owned by a Mr. Brayley who was a cousin of the owner of the mill at Rose Ash. N.D.G. 1974.

An 18th-century mill of two storeys with an attic. It is constructed of random rubble with a slate roof. A jointed cruck was recorded. D.O.E. Listed Grade III. S.M.R.

72) WEST BUCKLAND MILL or TADDIPORT MILL, TADDIPORT SS 645318

There was a watermill for grist and flour on this site, but all that now remains is a heap of stones. It was last working in 1910. K.M. 1974.

73) WESTCOTT BARTON MILL, MARWOOD SS 532385

This overshot water wheel is constructed of cast iron with wooden buckets and is placed on the outside of the mill. It is 16 feet in diameter by 3 feet 6 inches wide. There are iron cogs on the periphery of the wheel. The two mill stones have been cut into four semi-circular pieces and used as steps.

The mill is built of random stone with slate roof and is in good condition. A building close to the mill is 75 feet long by 24 feet wide and has two buttresses on the north end. It is constructed of dressed and coursed stone with a good tiled roof. This may have been a Tithe Barn.

The discharge point to the wheel from the leat is blocked with concrete. Last used in 1930. An article about Westcott Barton appeared in *Country Life* about 1970. I.A. 1974.

The wheel is still present but decayed. R.A. 1989.

74) WHITE HALL FARM MILL, MARWOOD SS 534374

The undershot water wheel and machinery have gone. It was probably about 3 feet 6 inches wide and was placed between the house and the mill building. The mill building is about 60 feet long and has stone walls which are 18 inches thick. The roof is covered in part with pantiles and slates and has partly collapsed. The mill leat is 5 feet wide and discharges into a culvert under the road in front of the mill house. It was formerly a corn mill. It is said that the wheel and machinery were taken by an American after 1945. T.E.S. 1974.

It was previously under the same owner, a Mr. Herniman, as Heanton and Knowle (personal comment Mr. Steadman). It is now producing bottled spring water. R.A. 1989.

75) WISTLANDPOUND FARM MILL, KENTISBURY SS 655427

The water wheel is constructed of cast iron with wooden buckets (larch) and placed under cover at the side of the mill. It is 18 feet in diameter with wooden arms 3 feet wide. There is one set of millstones, 3 feet diameter, which is driven by an iron spur wheel, pit wheel with wooden cogs, etc. The machinery and the water wheel are housed in a large building and all is in good working order. Water is conveyed in a launder from a mill pond which is supplied by springs. It was a grist mill.

The farm formerly belonged to the Fortescue Estates, and was tenanted in the mid-nineteenth century by F.L. Smyth, agent of Frederick Knight, well known for his farming improvements on Exmoor. The farm was sold by the Fortescue Estates in the 1960's, when Lord Fortescue suggested breaking up and dismantling the water wheel. The purchasers decided to rebuild the water wheel, which is still in regular use for grinding cattle food. J.E.T. 1974.¹²

The wheel and machinery are thought to be still there, but not in use. R.A. 1989.

76) WOOLACOMBE MILL, WOOLACOMBE BARTON, WOOLACOMBE SS 457436

The overshot water wheel and the machinery have gone, and the 18th-century buildings are being demolished.

The original wheel was of wood, but was replaced in about 1927 with an all iron wheel

made by Garnish & Lemon of Pilton, Barnstaple. It was fed by a mill pond, leat, and overhead launders. The original launders were of wood, but were replaced by galvanised cast iron in about 1930. The wheel drove one pair of stones, one chaff cutter, one thresher and one root cutter. The mill took the place of an adjacent round house which was in existence in 1900. The mill was probably installed about 1870-80. From 1920 onwards, continuous trouble was experienced through loss of water from a leaky mill pond and leat, and the drying up of the stream feeding the mill pond. Farmer J. Pile installed a Petter petrol engine to drive all the farm machinery, and demolished the water wheel in 1954. H.P. 1974.

No trace of the mill or buildings could be found. R.A. 1989.

77) YEO MILL, BISHOP'S NYMPTON SS 761231

The water wheel machinery and buildings have gone.

78) YEO MILL, MOLLAND, WEST ANSTEY SS 843265

The overshot water wheel is constructed of cast iron with wooden buckets and placed on the outside of the building. It is 22 feet in diameter and 3 feet 6 inches wide. The iron rim bears the name Luxton(?), Hatherleigh. The wheel is in working order and only used for hoisting sacks. There are two pairs of millstones *in situ*. The mill is three storeys high with a house attached. It is constructed of stone, roofed with slates and is in good condition. The 4 feet by 1 foot 6 inches deep leat takes its water from the Yeo.

The grist and flour mill was working in about 1940. The buckets to the wheel have been recently repaired by Mr. Harris and his nephews with the aid of wooden sleepers from the disused Taunton to Barnstaple railway. Mr. Harris said that he would like to repair the grinding machinery, but did not know of any firm who could do the work. R.M. 1974.

Part II - Mills not included in the original survey**1) ARLINGTON MILL SS 609411**

A mill is mentioned in the Parish Records of 1571. S.M.R.

There is no wheel or machinery, but there is a possible mill house which is occupied and in good condition. R.A. 1989.

There are a number of early documents referring to mills at Arlington, and in 1416 there was a 'Mill' a 'grist mill' in 1571¹⁴ and a 'tucking or fulling mill' in 1581¹⁵. L.B. 1989. See p 6.

2) BERRYNARBOR SS 555449

A mill is shown on the O.S. 6 inch map 1932. S.M.R.

Possibly Bowen Farm. R.A. 1989.

- 3) **BERRYNARBOR SS 558475**
A mill is shown on the O.S. 6 inch map 1938. S.M.R.
- 4) **BISHOPS TAWTON SAWMILLS SS 566303**
Mr. Michael Beer remembers that an undershot water wheel survived until the late 1940's. The remains of the wheel pit can be seen from the bridge. It was used as a sawmill before World War II. The bungalow on the site was built at about the time of World War I as a changing room for skaters. It was customary to flood the marsh in winter by shutting the mill sluice, and the shallow lake would then freeze over. There is a description of the mill written by Miss Beer in the Townswomen's Guild scrapbook. Miss Beer has a photograph of this mill. A.G. 1989.
- 5) **BITTADON BARTON MILL, WEST DOWN SS 545415**
Mr. J. Weeks remembers an overshot water wheel constructed of cast iron made by Borne of Milltown. It was 18 feet in diameter with teeth around the outside which drove generating equipment.
- 6) **BLATCHFORD MILL SS 567358**
This site was described by Michael Bone¹⁶ in 1975. At that time the leat and some ruins could still be traced. This mill was worked by William List in 1857 and worked as a paper mill until the 1880's. It then became a grain mill. (See p 15).
- 7) **BRADWELL MILL, WEST DOWN SS 498428**
A mill is shown on the O.S. 6 inch map 1903. S.M.R.
This was a flour mill and bakery. Information supplied by Mr. James Dennis. J.E.T. 1989.
- 8) **BREMBRIDGE MILL, SOUTH MOLTON SS 687298**
A mill is shown on maps of 1672 and 1765. S.M.R.
- 9) **BRENDON MILL SS 768482**
A mill is shown on the O.S. 6 inch 1903 map. S.M.R.
- 10) **BUMSLEY MILL, PARRACOMBE SS 657459**
A mill is shown on the O.S. 6 inch 1905 map. S.M.R.
The remaining buildings seem a bit far above the river and are not obviously a mill. There are probable remains of tail race. The site is very near Higher Bumsley but seems to be called Westmill. R.A. 1989.
- 11) **CHALLACOMBE MILL SS 681403**
A corn mill is shown on the O.S. 6 inch 1905 map. S.M.R.
There are traces of a leat and a probable small mill building which is now used for livestock. R.A. 1989.
- 12) **COMBE MARTIN MILL SS 577471**
A saw mill is shown on the O.S. 6 inch 1905 map. S.M.R.

- The building is now the Old Sawmill Restaurant. The leat and sluices are still there. Two years ago there were several saws on the walls inside the restaurant. R.A. 1989.
- 13) **COUNTISBURY MILL SS 765482**
A mill is shown on the 6 inch O.S. 1903 map. S.M.R.
- 14) **DINNINGTON MILL, CHITTLEHAMPTON SS 649242**
There is believed to be a documentary reference of 1640 referring to this mill. S.M.R.
- 15) **EAST DOWN MILL SS 600349**
A mill is shown on the 6 inch O.S. 1905 map. S.M.R.
I believe this was the only farm mill in East Down. R.A. 1989.
- 16) **FILLEIGH SAW MILL SS 675279**
A mid 19th-century watermill. D.O.E. Grade II Listed. S.M.R.
It is now used as the estate timber mill. R.A. 1989.
- 17) **FORD MILL, ATHERINGTON SS 607240**
This is probably "Schynd's Mill" mentioned in the 1537 Manor Court Roll. Ceased to grind before 1962. S.M.R.
- 18) **HACCHE MILL SS 719272**
The wheel and machinery have gone, but the buildings are in good condition. There are remains of a leat. It was formerly a corn mill and later a saw mill. It is now occupied by Holsworthy Electrics. R.A. 1989.
- 19) **HEAD MILL, CHITTLEHAMHOLT SS 666182**
The breastshot wheel was 18 feet in diameter and unusually wide. All the machinery was intact and in working order in 1975. A substantial leat is still visible. It is an 18th-century mill. S.M.R.
2 water wheels and wooden buckets in tandem. Machinery gone. Fish ponds installed. Now used as a fish farm. J. E.T. 1989.
- 20) **HIGHER MILL, GEORGEHAM SS 454391**
A mill is shown on the 6 inch O.S. 1905 map. S.M.R.
The buildings look in reasonable condition. R.A. 1989.
- 21) **INSTOW TIDE MILL SS 474298**
A tide mill was mentioned in 1797. S.M.R.
The mill house stands and some timber from the mill probably remains in the structure. There is a millstone in the garden. The dam for the pond is now covered by the railway embankment. The 1841 Census records the millwright as Thomas Mill¹⁷. A.G. 1989. (See p 7).
- 22) **KENTISBURY MILL SS 619435**
A mill is shown on the 6 inch O.S. 1905 map. S.M.R.

The mill building seems to be converted to a house extension. R.A. 1989.

23) LOXHORE MILL SS 625376

The wheel, machinery and fittings have gone. The millhouse and leat are in good condition. This was probably a flour mill, as the previous owner, Mr. S. Bament, found a French Burr millstone when the buildings were cleared. J.E.T. 1989.

24) MARTINHOE MILL SS 657469

A mill is shown on the 6 inch O.S. 1905 map. S.M.R.

25) MARTINHOE TUCKING MILL SS 656475

A tucking mill is shown on the 6 inch O.S. 1905 map. S.M.R.

26) MILL COTTAGES, BISHOPS TAWTON SS 568303

Mr. Michael Beer, a local resident, remembers that there used to be a flour mill here. The mill leat may still be visible near the humpback bridge. A.G. 1989.

27) NORTH MOLTON FULLING MILL SS 744298

A fulling mill is believed to have been recorded in 1514. S.M.R.

28) PORTMORE MILLS GRID REF. NOT KNOWN

A mill, or mills, was established on 'Coney Gut' in the 14th century. (see p 5).

29) PLAYFORD MILL SS 562352

This was also known as 'The Paper Mill' and 'The Devon Rustic Oak and Wood Turning Company'. It later made garden furniture. The paper was possibly for sweet bags and for the grocery trade. Cotton rags were used in the manufacturing process. J.S. 1989.

This mill opened in 1889 and made thick and thin wrapping paper and carpet felt. It closed in 1906 owing to expense of installing new machinery and became a saw-mill after 1906. S.M.R.

30) RALEIGH TUCKING(?) MILL SS 564341

Referred to as being a corn mill in Deed of 1699. Has been put to many uses, presently a sausage casing firm. 1974. S.M.R.

The shaft for an undershot wheel can still be seen. The building is still in use for some industrial purpose. The leat is beginning to get silted up. It is not clear if the present building has ever been used for tucking but Bone refers to this as being a 'tucking' mill¹⁸. L.B. 1988.

31) STOKE MILL, STOKE RIVERS SS 630344

A mill is shown as disused on the 6 inch O.S. 1905 map. S.M.R.

Wheel and machinery gone. J.E.T. 1989.

32) TRENTISHOE MILL SS 634464

A mill is shown as disused on the 6 inch O.S. 1905 map. S.M.R.

There are some ruins on this site. N.D.G. 1989.

33) WEST STOWFORD MILL, WEST DOWN SS 534418

34) WHITEMOOR MILLS, BISHOPS TAWTON SS 579303

There is a documentary reference to Whitemoor Mills in 1605¹⁹. There is a date of 1674 on the fireplace. D.O.E. Grade III Listed 1960. Grist mill. S.M.R.

Michael Beer, a local resident, remembers that the water wheel was overshot and was working in the early 1950's to generate electricity for the house, which was then occupied by the two Miss Millards and later by Major Warner. Then Venn quarry bought the mill and some land, and the quarry manager lived in the house for some time. Later the mill was bulldozed and the house was buried by stone tips from the quarry. Now only the garden wall of the house and the bridge over the stream remain. A.G. 1989.

35) WOOLHANGER SS 701455

This was not a mill but a water powered organ. It is of considerable local interest and has therefore been included here. The music room is very dilapidated and the roof falling in. It is presumably empty. The wheel has gone and is being restored somewhere in Hampshire. The bellows for organ were driven by shaft from the water wheel. R.A. 1989.

NOTES

1. Morris & Co. *Commercial Directory & Gazette of Devonshire* (1870), 342.
2. DRO 1142B/T43/24
3. Census Returns for Bratton Fleming 1841 and 1861
4. NDRO 1239/T148-152
5. NDJ 29 January 1852
6. NDJ June 1893
7. Deeds in possession of Mrs. Hutchinson, owner of the property.
8. Pers. comm. Hoskins *Devon*, 125 J. Cocks, *Records of South Molton* (1893) 156
9. D. Lysons *Magna Britannia*, London 1822. Vol. 6 Part 1 303, Part 2 348
10. NDJ 19 August 1869
11. NDRO Barnstaple Castle Records /145/4

12. C.S. Orwin, *The Reclamation of Exmoor Forest*, Oxford University Press, 1929
13. NDRO 50/11/1/2
14. NDRO 50/11/4/6
15. NDRO 50/11/4/7
16. M. Bone, *Barnstaple's Industrial Archaeology* (Exeter 1973), 33
17. Census Return for Instow 1841
18. Bone, *Barnstaple's Industrial Archaeology*, 22
19. DRO1148/add 2/242/8

EXTRACTS FROM THE DIARY OF RICHARD HUXTABLE 1824/25

THE following transcript of the surviving pages of a Diary or Daybook covering part of the years 1824 and 1825, was kept by Richard Huxtable who was born at Bratton Fleming in 1770 and died at Challacombe in 1855. It was printed as appendix to an article on the Huxtable family of North Devon by the late Charles Whybrow in *Devon and Cornwall Notes and Queries* vol. XXX Part IV, October 1965.

Mr. Whybrow commented that Richard Huxtable, who was living at Challacombe at the time he kept his diary, was probably the principal millwright in the area. Transport was still primitive, but he covered long distances, working regularly at certain mills and farms. Several generations of his family lived at Bratton Mill.

1824

July

- | | |
|-------------|--|
| 1 | Martinaw droing timber (= Martinhoe throwing timber). |
| 2 | Home to work. |
| 3 | Soying geat stof for Axton (= Sawing gate stuff for Haxton in Bratton Fleming). |
| 5 | Soying plank for flor Stock. (? Stoke Rivers). |
| 6 | Mad hatch for John Weay (= Made hatch door for John Way). |
| 8,9,10 | North Molton to work mad to sifters and other gobs. (= made two sifters (bolters) a machine for sifting meal). |
| 12,13 | North Molton to work putting up sifters. |
| 14 | Hom moing (= at home mowing). |
| 15,16 | South weed soying (= South Wood, sawing). |
| 17 | Hom to hay (= at home haymaking). |
| 19,20,21,22 | Hom to hay. |
| 23 | South weed soying. |
| 24 | Boring turf and soying (= stoping or digging peat and sawing). |
| 26 | Axton Down making geats (= Haxton Down in Bratton Fleming, making gates). |
| 27 | Repaired a plow Wm. Ridd (= repaired a plough). |
| 28,29,30,31 | Shirwell Mill Watter Wheel. |
| August | |
| 2 | Mad axle for Ambras Dallyn & other gobs (= made axle for Ambrose Dallyn & other jobs). |
| 3,4,5,6,7 | Sherwill mill making water wheel. |
| 9 | Soying South Wood. |
| 10 | Mr. Ridd making cart. |

- 11 Spok & veled a well (= spoked and felloed a wheel = making curved pieces of wood to form the rim of the wheel).
 13 Mad a coffin for Susanna Joans.
 14 Wm. Ridd soying.
 16 Wm. Ridd mad derns & door (Derns are the hanging and locking posts to a door).
 17 Thomas Dallyn made a cart.
 18 Hom soying (Spelling of subsequent notes has been corrected)
 19-21 Shirwell hanging in the water wheel and backing (= providing sole or soffit boards to the buckets).
 23 Shirwell Mills bucketing the water wheel.
 24 Parsonage putting up lintels (Glebe farm & new rectory at Bratton Fleming).
 25 Mr. Wm. Ridd's to work.
 26,27 Linton New Mills and Barbrook, dress the mill (stones) and turned brasses (bearings).
 28 Parsonage - putting up lintels and soying couples (= principal rafters).
 30,31 Parsonage timbering.

September

- 1 Parsonage timbering.
 2 Hom soying.
 3,4 South Wood. Sawing roofing and gate timbers.
 6,7,8 Leworthy (Bratton Fleming) making gates.
 9,10 Parsonage sawing and laying barns door.
 11 South Wood sawing.
 16,17,18 Haxton, put in window seat and other jobs.
 20,21,22 Home. Spoke & felloed a wheel. Mr. Mogridge.
 23,24 Haxton Down hanging gates.
 25 South Wood sawing.
 27 Home. Spoking Mr. Brownscombe's wheel.
 28 Lynton. Dress New Mills & put in bolster (= a bolter is for sifting meal) & dress (stones) Barbrook Mill.
 29 Home to work.
 30 Mistress Ridd. Jointing planch (laying floor planks).

October

- Home, felloed a wheel.
 2 Swincombe laying planch (= laying floor).
 4,5,6 Home. Finished Mr. Brownscombe's wheels.
 7 Smays Wood sawing (N.B. Smay's Wood is in Stoke Rivers).
 8,9 Youston — sawing timber for a water wheel - Kentisbury.
 11 Mrs. Ridd Swincombe — laying planch.
 12,13 Sawing. Coxley Wood (Coxleigh Wood, Shirwell).
 14 Home to work.
 15 Kentisbury. Holing shaft (nave) (for a wooden water wheel, iron axle).
 16 Planing arms (or spokes for water wheel).
 18 Home.

- 19 Kentisbury making water wheel.
 20 Leworthy make window.
 21 Smay's Wood.
 22 Home.
 23 Kentisbury Mills.
 25 Home. Felloeing Mr. Mogridge's aheel.
 26 Setting inround the siding. (Kentisbury Mill).
 27,28,29,30 Kentisbury Mill. Hanging the arms and siding and backing (soffiting) and bucketing the wheel.

November

- 1 Home to work.
 2 Culbone Wood. Taking out timber for Thomas Lee.
 3,4,5,6 Kentisbury Mills to work. the 6th. we put Mill going.
 8 Kentisbury Mills. dress the mills (= millstones).
 9,10,11,12,
 13 South Wood. sawing for Mr. Brownscombe, Berry and Leworthy.
 15 Leworthy putting stairs.
 16 Martinhoe after stick (= a tree - or logs).



Mr. J. Weeks dressing a millstone with a mill bill at Calbourne Mill, Isle of Wight. The wedge-shaped tool for cutting the grooves is set in a thrift. This tool would have been used by Richard Huxtable.

- 17 Leworthy made door and hang gate.
 18 Haxton Down hanging gates.
 19 Bratton Mills. put in chuck and turn brass (bearings).
 20 South Wood sawing.
 22,27 Millslade making water wheel (= Millslade, Brendon).
 Nov. 29 -
 Dec. 6 Finished the mill. Millslade.
- December
- 7,8,9 Porlock. Mr. Ridler, put in chucks and dress the mills (= millstones).
 10 Selworthy. Mr. Baker. dress the mill.
 11 Made a sifter for Mr. Ridler (= for dressing meal).
 13-18 North Molton. Centre hang the little mill and put up sifter and made frame.
 20,21 New Mills dress the stones & put in 2 new brasses (bearings) and dress.
 Barbrook (millstones).
 22 Mr. Thomas Dallyn's, Challacombe Town.
 23,24 Sawing South Wood.
 27 Cut down stick (Chard).
 28 Sawing ceiling Parsonage.
 29 South Wood sawing.
 30,31 Home sawing & making derns (hanging and locking posts to door frame).
- 1825
- January
- 1 Parsonage sawing sycamores. Mr. Mould (the curate).
 Do. do.
 3,4 Home sawing.
 5,6 Parsonage putting joists and jointing (laying) flooring.
 7 Haxton cutting down 16 pollards (small trees).
 9 Home sawing.
 10 Millslade. Cogging the pit wheel of the mill and Lantern (= old type of gear wheel in wood).
 11 Home sawing.
 12 South Wood sawing.
 13 Bratton Mills put in chuck.
 14 Haxton hang 2 gates.
 15 South Wood sawing.
 17,18 North Molton turning neck pegs, & dress the mills and other jobs.
 19-22 New Mills and Barbrook.
 24,25 Home to work.
 26,27 Stock (? Stoke Rivers) Town timbering the house.
 28,29 Parsonage to work.
 31
- February
- 1 Parsonage, lying planching (floor boards) and other jobs.
 2 Bray. measuring timber.
 3 Put in four felloes in Mistress Ridd's wheel.
 4,5 Axen (Haxton) making gates and boarding the end of linhay (= small shed. open in front).

- 7 Home turning pair nets (= hubs or naves) of wheels for Mr. Dallyn.
 8 Haxton. cross cutting timber.
 9,10 Haxton sawing.
 11 Hanging gates Haxton.
 12 Home boxing nets (= the box is the hardened metal sleeve. Every nave or hub. is lined with an iron sleeve or box through which the axle runs).
 14,15,16,18 Spoke and felloed the same.
 19,20 New Mills punt in new set ronges (= paddles or floats) and other jobs (Mill must have been undershot).
 22 Home to work.
 23 Parsonage sawing.
 24 Home sawing.
 25 Parsonage making doors.
 26,27 Shirwell Mills made sifter (or bolter for sifting meal) and gate (to sluice) and other jobs.
 28 Trentishoe.
- March
- 1 Parsonage made door and hang the same.
 2 Stok (? Stoke Rivers) Town putting partition up.
 3 Home to work.
 4 Shorland (? in Bratton) casing derns (door frames) & putting shelves.
 5 P... righting planch (flooring) and casing derns (door frames).
 7 Haxton made door and hang the same & righting the planch (adjusting the floor boards).
 8 Sawing Haxton.
 9 Parsonage to work.
 10 Sawing Haxton.
 11 Home to work.
 12 Sawing Haxton Down.
 14 Lynton dress Barbrook Mill (stones).
 15 South Wood sawing.
 16 Haxton Down sawing.
 17,18,19 Home to work.
 21 Stoke town sawing (? Stoke Rivers).
 22 Sawing South Wood.
 23 Sawing Haxton Down - Mr. Dennis.
 24 Lynton dress New Mills (stones).
 26 Sawing South Wood and making gates and hang the same.

GLOSSARY OF MILL TERMS

Balancing	The process of balancing of the runner stone by running lead into grooves cut on the upper surface of the stone, or after c1850 by use of balance weights.
Bedstone	The fixed bottom stone of a pair of millstones.
Bell alarm	Indicated lack of grain in hopper.
Bill	Metal chisel used in dressing millstones.
Bit or Bale	Metal pick used in dressing millstones.
Bolter	Machine for separating flour out of meal.
Bosom	Recess around the eye on the grinding surface of the runner stone to facilitate the flow of grain to the lands.
Breastshot wheel	Water wheel with water reaching the wheel at a point level with the axle.
Bridge-tree	The beam supporting the stone spindle.
Buckets	Containers around the circumference of wheel into which water poured.
Casing	Wooden casing enclosing a pair of millstones.
'Click' mill	Ancient type of mill with horizontal water wheel.
Cog or Cock pit	Area on ground floor housing pit wheel, spur wheel etc.
Cradle	Wooden framework supporting the hopper.
Cracking	Process of cutting fine lines on surface of millstones.
Crook string	Cord used to adjust angle of inclination of shoe.
Crown wheel	Gear wheel at top of main shaft used to drive other machinery.
Damsel or Dandelion	An irregularly-shaped iron finnet at the top of the stone spindle, which caused the shoe to vibrate.
Dressing	The cutting of furrows and grooves on the millstones. (see also 'flour dressing').
Eye	The opening in the centre of the runner stone.
Flour dressing	Process of separating flour from bran.
French Burr	Type of millstone made in France.
Fulling	Finishing process in cloth manufacture after weaving.
Fuller's earth	Material used in fulling.
Furrowing	Process of cutting furrows on surface of millstones.
Hammer pond	Reserve water supply for mill which drove hammers.
Harpstrings	Grooves cut on surface of millstone in pattern similar to a harp.
Head-race	Water channel above the mill.
Helve	Wooden handle into which bills or picks were wedged.
Hopper	Wooden funnel which conveyed grain to millstones.
Horse	Same as cradle.
Hurst or Hursting	Heavy timber framework supporting mill machinery.
Lands	Flat areas between furrows on surface of millstones.
Lauder	Trough conveying water from leat to water wheel.
Leat	Channel feeding water to the mill
Ligger	Same as Bedstone.

Meal chute or spout	Chute conveying meal away from millstones.
Miller's willow	Springy piece of wood supplying tension to keep shoe in contact with the damsel.
Mill-race	Same as Head-race.
Mill-staff	Straight-edge used for testing the surface of the millstone for irregularities. It was coated with raddle (paint) which revealed the high-spots on the stones.
Netherstone	Same as Bedstone.
Overshot wheel	Mill wheel which recieved its water at the top of the wheel.
Paddles	Boards fixed around the circumference of undershot wheels.
Pick	Pointed metal tool used in stone-dressing.
Pit-wheel	The large main gear wheel driven by the water wheel.
Raddle	See Mill-staff.
Rigger	Device for putting the machinery out of gear by lifting the stone nut out of contact with the spur wheel.
Rims	The two rims of the water wheel which held the buckets or paddles between them.
Rhynd or rind	Metal bar let into the eye of the runner stone to take the drive from the stone nut spindle.
Runner stone	The upper millstone which revolved.
Screw-jack	Device fitted to bridge-tree in some mills for raising and lowering the stone nut spindle to put machinery in and out of gear.
Shoe	An inclined trough which carried the grain from the hopper into the eye of the runner stone.
Shrouds	Same as rims.
Sickle-dressing	Pattern of stone-dressing in shape of a sickle.
Sifer	Same as Bolter.
Smutter	Machine for removing impurities from the grain.
Sole Boards	Bottom boards of bucket on water wheel.
Splines	Projections or keys on the stone nut spindle to enable it to be moved up and disengaged.
Spur-wheel	Horizontal wheel on upright main shaft, which drove the stone nut.
Stone nut	Gear wheel driven by spur wheel and which drove the runner stone.
Swallow	Same as Bosom.
Tail race	Water channel below the water wheel.
Tentering	Process of adjusting the space between the millstones.
Tenterhooks	Hooks used to keep cloth to its full width during weaving or during drying process after fulling.
Thrift	Same as helve.
Tucking	Same as fulling.
Tun	Same as casing.
Underhouse	Same as cog pit.
Undershot wheel	Water wheel with paddles which were struct by the flow of water underneath the wheel.
Wallower	Cog wheel on main shaft turned by the pit wheel.

APPENDIX

A seventeenth century sale of watermills in North Devon

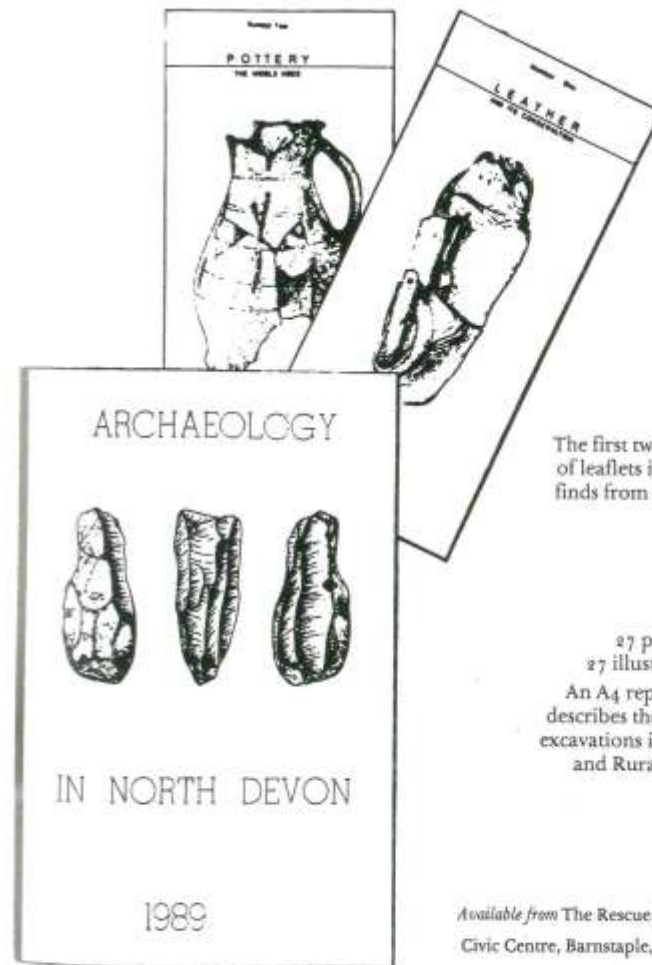
IN THE course of the survey, the Society came upon an interesting Deed of 1656, relating to the sale of watermills in the borough of South Molton and the parish of Bishop's Nympton. We are grateful to the owner of the Deed, Mrs. Hutchinson, for letting us have a copy to study and reproduce. Another copy has been lodged in the North Devon Record Office (NDRO P/12). It is believed to relate partly to property formerly on the site(s) of what is now known as Mole Mills.

The vendors of the watermills were several leading local landowners, who appear to have formed a syndicate to own, or take a financial interest in, several mills. They were Sir George Chudleigh "of Aishton (Ashton) in the County of Devon" Bart., Sir John Chichester of Hall, Knight, Sir Hugh Pollard of "King's Nimett", Bart., Sir John Northcott of Hayne, Bart., "Robert Pollard of King's Nimett, gentleman", and John Rodier of Chulmleigh, gentleman. The purchasers were Alexander Rolle of "Lyons Inn in the County of Middlesex, gentleman", and Henry Stevens of Veilston (Devon), gentleman. It is not known how many mills were involved in the sale, but it appears to cover several. One of the South Molton mills is specified as a fulling mill. All these mills were sold on a long lease for a term of two thousand years, with nominal rents payable, totalling eight pounds per annum for the South Molton mills, excepting the fulling mill, for which the rent was ten shillings per annum. The sum paid for the virtual freehold of the mills was £750 — a substantial figure at the time.

The sale covered "all those mills within the borough of South Molton ... with all their rights members and appurtenances whatsoever which sometime were in the tenure and occupation of Robert Lottiland ... now or late in the possession or occupation of the Lady Margaret Pollard, mother of Sir Hugh Pollard", together with an acre of land called Millholme "sometime in the tenure of John Hatch". They formed part of an area once known as Richmond Land. The Deed covered not only the land and buildings, but also specified property particularly relating to the mills: "waters, watercourses, weirs, stanges, mills, dams, pools, ponds, leats, suites and sokes to the said mills." 'Stanges' may be fenced enclosures in the river or stream forming a fish hatch — salmon, trout and eels were a useful by-product of the mills. 'Suits' and 'sokes' refer to the privilege attached to certain mills of grinding all the corn of a particular manor.

Also included in the sale, besides the fulling mill in South Molton, was "all that close or parcel of land called Kensham Ham", containing approximately two acres, in the parish of Bishop's Nympton and "all the mills thereon standing or lately built by Sir Lewis Pollard, Baronet, deceased father of ... Sir Hugh Pollard". These mills and other property sold there were in the possession of Lady Margaret Pollard, Sir Hugh's mother, and were believed formerly to have formed part of the manor of Grilstone.

Publications from North Devon Rescue Archaeology Unit



The first two of a series of leaflets introducing finds from Barnstaple.

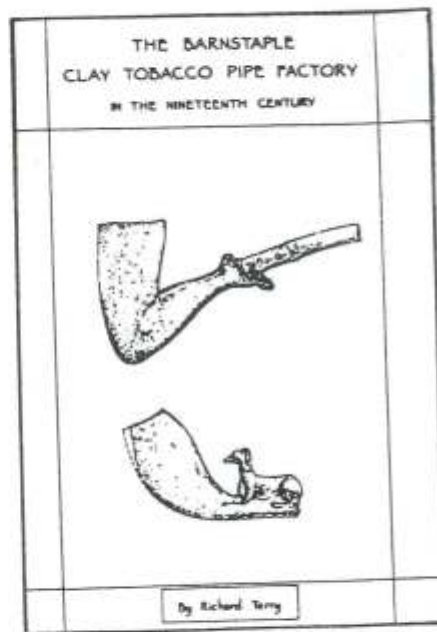
27 pages
27 illustrations
An A4 report which describes the 1988-1989 excavations in Barnstaple and Rural Devon.

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13 illustrations

An A5 booklet describing the excavation and finds at Seldon's Tobacco Pipe Factory



40 pages
29 illustrations

An A4 report which describes the 1987-88 excavations in Barnstaple and Bideford. It includes the 17th century pottery kilns site and examples of their products.

