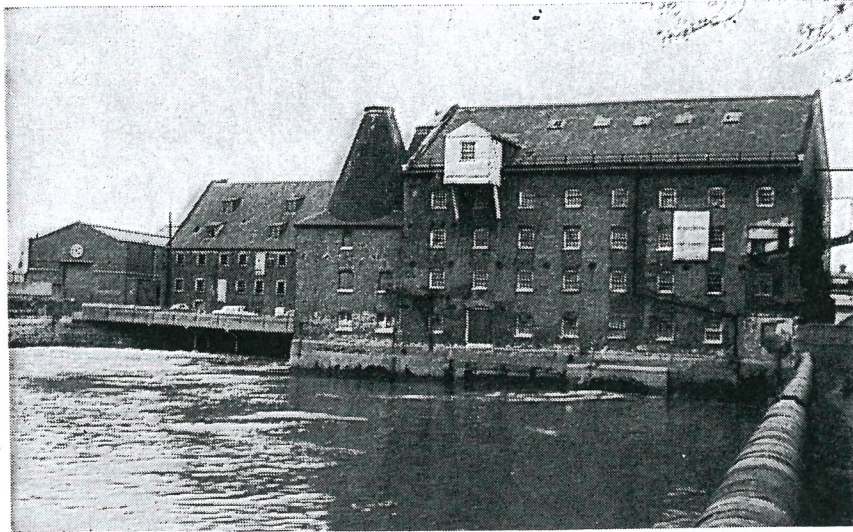


WASC 2355

WAI 657

ARTICLE FROM ESSEX
COUNTRYSIDE WATERMILLS
ON THE RIVER LEA INC.
DRAWING OF WALTHAM ABBEY
WATER DRIVEN OVERHEAD
GUNPOWDER IN CORROBATIVE
MILL FROM MISPARTTY
"CHEMISTRY"



The mills in Three Mills Lane, Stratford. The oast houses once used for malting are a prominent feature.

BEER, oil, flour, cloth, copper and gunpowder—today these would appear to have little in common, but in earlier times they all relied on wind or water power.

P. Tritton (ESSEX COUNTRYSIDE December 1968) rightly states that little has been written about watermills. The mills he describes in his interesting article are far removed from the River Lea, but an Essex Londoner need go no farther than West Ham to find what Nikolaus Pevsner describes as visually the most rewarding bit of Stratford, the three mills, a truly remarkable survival in the heart of busy East London.

Having had his curiosity thus aroused, our Londoner has only to examine a map to find many names that show how important a role was at one time played by the watermills of the River Lea. Moving in a northerly direction from Three Mills Lane, Stratford, we find Pudding Mill Lane, Temple Mill Lane (Leyton), Coppermill Lane (Walthamstow), Mill Marsh Lane (Enfield) and, in Waltham Abbey, Powder Mill Lane, Cornmill Stream and Mill Head Stream.

* * *

Of the many mills that once stood on this stretch of the River Lea, substantial remains survive of the three mills at Stratford, the copper mill, Walthamstow, and Chingford mill. Fortunately the old mill at Stratford is likely to be preserved, as it will provide a youth centre in the Lea valley regional park development, which should be completed before the end of the century.

The main building of the three mills bears the date 1776 and housed four water-wheels with eight pairs of grinding stones. An adjoining mill, the Clock mill, is dated 1817 and housed three water-wheels, fourteen pairs of grinding stones and two drying kilns for malting (oast houses). A polygonal clock tower dates from 1753. It is likely that these mills once had connections with Stratford Langthorne abbey, founded

in 1135 and long since vanished. The oast houses have an obvious connection with the transfer of the mill to a distillery in 1730, and there was a similar association until recently, as the mill was owned by Three Mills Bonded Warehouses Ltd. (see ESSEX COUNTRYSIDE October 1966).

* * *

Moving up the Lea, Chapman and André's map of 1777 shows Temple mill, then Leabridge mill, and we now arrive at an "oil mill" situated at the end of a

WATERMILLS ON THE RIVER LEA

From Stratford to
Waltham Abbey
watermills played a
prominent role in the
life of areas
surrounding them.

road which is now Coppermill Lane, so named because the old mill, after a series of changes, became a copper rolling mill. The history of this mill is quite well documented. Records dated 1659 show the conveyance of land and watermills within the manor of Walthamstow Toni to J. Samyne and George Chamberlyn. In 1669 the mill was described as a powder mill and in 1750 as an "oyl mill" used for crushing linseed for oil. According to local tradition Prince Rupert, noted for dash and daring in the Royalist cause, visited the mill to study processes for the improvement of gunpowder. From about 1809 to 1857 the mill became a copper mill, driven by a water-wheel eighteen feet in diameter and twenty feet wide with a flywheel weighing five and a half tons. Copper ingots were

WRITTEN AND ILLUSTRATED

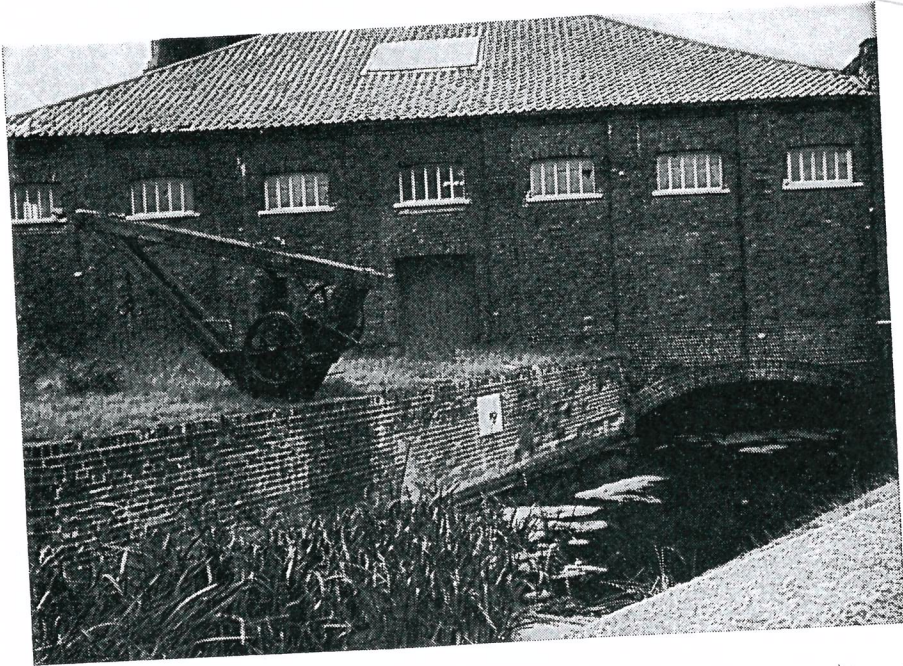
by C. O. Harvey

rolled into sheets, some of which were used between 1809 and 1814 to produce tokens (pennies and halfpennies). Preoccupation with the Napoleonic wars caused the government to renew permission to copper firms to produce such tokens for local use. The copper ingots for milling were brought by sea and river from South Wales. The wharf crane and a mooring ring are still intact. In 1860 the East London Water Co., in order to obtain complete control of the mill stream, took over the mill from Williams Foster and Co., and in 1904 the water company was absorbed by the Metropolitan Water Board, which now uses the building as a store and forge. It seems that the tower once housed a "Bull" type steam engine, installed in 1864-5, and the iron frame and sockets for a beam engine can still be seen. The copper mill is believed to be the oldest industrial structure in Walthamstow.

* * *

Turning once more to our ancient map we find, some two miles north of the copper mill, a "fulling mill" near Chingford Green on or near the site of another mill now owned by the Metropolitan Water

The copper mill, Walthamstow, where early in the nineteenth century copper sheet was produced. The copper ingots came by water from South Wales and an unloading crane and a mooring ring can still be seen, though the days when large craft could be moored here are long since past.



Board and known as Chingford mill. In days when the manufacture of cloth was a local industry "fulling" mills were needed for degreasing and thickening cloth after weaving. In 1637-8 there was litigation between John Russell, rector of Chingford, and William Clarke, who claimed that the rector had agreed to remit tithes on his mill on condition that he (the rector) and his friends had free passage over a toll-bridge controlled by the miller. John Russell seems to have been a rather boisterous character: in 1644 he was ejected when charged with cursing, gaming and swearing! The old mill building was demolished in 1886. The present small building was erected in 1896 to house turbines which were moved at that time to allow more water to pass down to the mill tail (see *ESSEX COUNTRYSIDE* March 1968).

* * *

Fisheries important to Essex folk, including the monastic houses, had inevitably some connection with the mills and a sixteenth- to seventeenth-century document mentions such a fishery in the mill stream near Chingford mill. Here, no doubt, around that time one might meet Izaak Walton plying his rod in his beloved Lea.

Our imaginary journey must end at Waltham Abbey, for generations the home of many mills, especially powder mills, once the source of black powder, the only explosive then known for military purposes. Waltham Abbey gunpowder factory was the centre for government supplies. Opened in the seventeenth century, the powder mill was taken over by the government in 1787 and greatly expanded during the nineteenth century. Guncotton manufacture at Waltham commenced in 1872 and cordite in 1891. Obviously less suitable for the manufacture of modern high explosives, the factory closed in 1943 and is now a research establishment.

* * *

Life was not uneventful for the townsfolk of Waltham Abbey. Thomas Fuller, incumbent of the abbey church during the

civil war, mentions in his *Worthies of England* mills "lately erected" and says that they had been blown up five times within seven years, "but, blessed be God, without the loss of any man's life." In later years some were less fortunate (see *ESSEX COUNTRYSIDE* October 1965). The effect of a spark during the grinding of a mixture of charcoal, sulphur and saltpetre is easily imagined. There would be less hazard in 1347, when Edward III had black powder made in the Tower, *Pro Gunnis Regis*. Mechanical methods of grinding brought increased danger, and watermills were favoured because steam involved the use of fire. In earlier times the preferred charcoal was made from willow, and no doubt the banks of the Lea would provide adequate material for the charcoal burner.

* * *

Other industries based on water power thrived around Waltham Abbey, but of these little is remembered save in the archives. The quaint little town, now suffering from growing pains, will always bring to mind gunpowder and its glorious abbey church.

For some of my information I wish to express my indebtedness to the Metropolitan Water Board and the Walthamstow Antiquarian Society.

A gunpowder mill as used at Waltham Abbey gunpowder factory. Copied from Muspratt's "Chemistry," dated 1860.

