

On Her Majesty's Service

WASC 320



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EXTRACTS FROM
FIRST REPORT
OF THE
WALTHAM ABBEY COMMITTEE,
APPOINTED BY THE HONOURABLE BOARD OF ORDNANCE

11th MARCH 1853 W
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UPON THE
EFFECT OF THE WATER BILLS NOW BEFORE PARLIAMENT.

ON THE
ORDNANCE ESTABLISHMENTS AT WALTHAM ABBEY AND ENFIELD.

DATED 21st. APRIL 1853.

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SECTION II.

THE WATER BILLS UNDER CONSIDERATION.

- 1st. The East London Waterworks Improvement of Supply Bill.
- 2d. The River Lea Trust Bill, to consolidate and amend former Acts.
- 3d. The New River Company Bill.

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WALTHAM ABBEY - GUNPOWDER WORKS.

SECTION XIX.

EXTENT OF BOARD'S PROPERTY.

The Ordnance first purchased the gunpowder manufactory from Mr. Walton in 1787, and in 1805 they purchased the Cheshunt corn-mill, for the sake of the water power; and in 1809 the Waltham Abbey corn-mill for the same object; and from 1803 to the present time they have purchased other lands and buildings about Waltham Abbey, including the Queen's Mead, and Edmonsea Mead, the Saltpetre Storehouses, the Cooperage, the Lower Island (where they formed the head of water), and other property in the town, and also lands near the Aqueduct and King's Weir, containing altogether about 140 acres of land, of which 15 acres are occupied by the buildings of the manufactory, 12 with private houses, 55 with pasture, and 58 with plantations of willow and alder trees.

SECTION XX.

PURCHASE OF BOARD'S RIGHT OF WATER.

They also purchased the whole right of water of the river Lea and all its branches, from King's Weir to the Black Ditch, below Waltham Abbey, a length of five miles, including the upper and lower mill-heads, the corn-mill-head, and also including the right of fishery.

SECTION XXI.

THE BOARD'S RIGHT OF WATER POWER.

That part of the above-mentioned property which is the water right consist of the whole of the River Lea which flows over the King's Weir; inasmuch as the Board of Ordnance have purchased the right of water on the River Lea and all its branches between King's Weir and Enfield Lock, and have therefore the power of diverting the water from any of the channels into their own mill-heads, the only restriction being the quantity required for the navigation, and the quantity required to keep up boundary ditches, and the quantity required for certain local rights, hereafter to be mentioned.

SECTION XXII.

EXISTING MILL-HEADS, AND POWER TO IMPROVE THEM.

Within these water rights, with the above exceptions, the Board have power to alter the channels, and to form mill-heads. The mill-heads at present existing within these rights are, 1st. The upper mill-head originally purchased, and having a fall of 6 feet; 2d. The Waltham corn-mill head, having a fall of $6\frac{1}{2}$ feet; 3d. The Lower Island mill-head, having a fall of 3 feet.

SECTION XXIII.

HEIGHT OF THE FALLS AT THE MILL-HEADS.

There is also a fall at Paine's Island from the main stream into the upper mill-head, which is generally calculated to be 1 foot 6 inches.

SECTION XXIV.

LOCAL WATER RIGHTS AT WALTHAM ABBEY.

The following local water rights exist within the Board's rights: 1st. The bore at Newton's Pool, secured by the Act of George III., 1767, delivering about 105 cubic feet of water per

Continued.

SECTION XXIV.(CONTD.)

minute, and supplying certain calico-printing ground, which have been purchased by the Board; 2d. The corn-mill bore, secured by Act of George III., 1767, delivering 12 cubic feet of water per minute, supplying other calico-grounds, now cress-beds, and which right is now in use; 3d. The Abbey Garden sluice, secured by the purchase-deeds of the corn-mill; this right is also still in use; 4th. The uses of the town of Waltham Abbey for sewerage and domestic purposes, which, though not secured by any act or agreement, must be considered as coeval with the existence of the town.

SECTION XXV.

DRAINAGE OF TOWN OF WALTHAM ABBEY.

The Board have lately consented, by letter dated 16th March 1853 ^E₃₇₉, to allow the drains of the town, as soon as they are completed by Local Board of Health, to be flushed whenever the water can be spared. The water for domestic purposes is partly supplied from artesian wells, but chiefly from the River Lea, or from shallow wells depending on that river for supply.

ENFIELD LOCK.

SECTION XLIII.

MR. LOVELL'S EVIDENCE - SEE MR. LOVELL'S REPORT TO BOARD, 8th DECEMBER 1823.

IMPORTANCE AND ORIGIN OF THE SMALL ARM MANUFACTORY.

"and Enfield being found to possess a sufficient power of water
"for all purposes, buildings were erected, and the barrel branch
"removed from Lewisham in 1816; the finishing branch being trans-
"ferred at the same time from the Tower to Lewisham.

" At the close of the war, when all the public establishments

Continued:-

SECTION XLIII (CONTD)

"were reconsidered, it was finally determined that the nucleus
of a manufactory of small arms should be retained; and in
the year 1818 the whole of the three branches were consolidated
at Enfield, on account of the superiority of its situation."

SECTION LII.

THE ACTUAL MARKET VALUE OF THE PROPERTY.

SEE MR. LOVELL'S REPORT, 1823, AND COLONEL MOODY'S, R.E.,
REPORT, 1830, TO BOARD.

In 1808 the Board purchased the water-right from the
junction of the Waltham Abbey water-right at Black Ditch,
to a point about two miles below Enfield Lock, being about
three miles in length. In 1812 they purchased the ground
on which the manufactory stands, containing about thirty-two
acres of meadow land; and between that time and this they
have formed the mill head, and erected two water-wheels, of
46 horse-power together, and workshops, offices, houses and
cottages for sixty-four families, and storehouses for gunstocks.

SECTION LIII.

THE BOARD'S WATER-RIGHTS.

SEE ABSTRACT TITLE DEEDS, ORDINANCE OFFICE.

The Enfield water-right of the Board commences at the
Black Ditch, half-way between Waltham and Enfield Lock on the
River Lea, and extends two miles below the small arm manufactory,
but on the old course of the River Lea only. It therefore includes
all the water coming from the tail streams of the Waltham Abbey
powder-mills and corn-mill, and also Cobbin Brook, which enters
at the foot of the Lower Island works, and also the channel called
the Little Lea, being the old Cheshunt Mill-stream, and which
comes in half a mile above Enfield Lock, and which is the property
of the Board. The only deductions from this water-right are the

Continued.-

SECTION LIII (CONTD.)

quantity required for the navigation and the quantity passing down the Silent Mill-stream, which commences at the entrance of the Enfield Mill-head on the left bank and exists into the tail stream just below the mill, and which belongs to the private mills next below. Below the small arm manufactory the water-right extends only along the old course of the River Lea, and therefore does not include the Sewardstone Mill-head or the quantity passing into the navigation just below the manufactory.

SECTION LIV.

MILL-HEAD.

The fall of the mill-head which the Board have constructed here, is estimated by Mr. Austin (late superintendent of machinery) to be $6\frac{1}{2}$ feet, which we consider to be the correct fall, the level of the head-water being determined by the upper level of Enfield Lock, fixed by Act of Parliament, the level of the tail water being the head of Sewardstone mill.