Office of Ordnance, 29th May 1801

Sir, The Lieutenant General and Board of Ordnance being desirous of ascertaining what is the best covering for the Floors of Powder Works and Magazines to prevent the bad effect of friction when work is performed therein. I am commanded to desire you will submit this question to the President and...to favour his Lordship and the board with such information upon the subject as it may be in their power to afford.

I am, etc R H Crewe

Resolved

That a committee be appointed to take the purport of the above letter and that Mr Cavendish, Mr Hatchett and Count Rumford be of the said committee. Also that the secretary write to Mr Crewe to acquaint him with this previous step and to desire him to lay before the Board of Ordnance the request of the President and Council to cause any information concerning the circumstances that have given rise to the enquiry to be communicated to the above mentioned Committee, which they may stand on need of in the prosecution of their enquiry

2nd July 1801

At a Council. Present 1 The President 2 Mr Best 3 Mr Cavendish 4 Mr Frere 5 Dr Gray 6 Mr Fland 7 Count Rumford 8 Mr Wigg

A communication from the Board of Ordnance, being an extract of a letter from Col. Congreve, the Comptroller of the Royal Laboratory to the said board, concerning the floors of Powder Magazines, was received and read and the same was referred to the committee appointed by the last Council to take that matter into consideration. Resoved that Sir Charles Blagdon be added to the above mentioned Committee

12th November 1801

A report of the committee appointed to take into consideration the question proposed by the Board of Ordnance respecting the Powder Magazines was read as follows....

23rd July 1801

At a Committee. present

1 The President 2 Sir Charles Blagdon 3 Mr Cavendish 4 Dr Gray 5 Mr Hatchett 6 Count Rumford

We the committee appointed by the Council of the Royal Society to take into consideration the questions proposed to them by the Lieutenant General and Board of Ordnance on the 29th May 1801 are of the opinion that no danger is to be apprehended from such electrical excitation as can be produced by walking or rolling barrels upon the hided as now used to cover the floor of the Magazines etc at the Royal Powder Works at Waltham Abbey, even when the said Hides are used without previously being wetted. We are also of the opinion that no danger of explosion from electrical excitation can arise rom the use of silk dusting reels in the manufacture of gunpowder. With respect to the question what is the best covering for the floors of powder Works and Magazines, we are of the opinion that the hides, as now used, have the disadvantage of affording a lodgement for the dust of the powder as they do not lie close upon each other or upon the floor; on which account we think that some uniform material, of sufficient size to cover the whole floor, (such as painted floor cloth without seams) would in that respect be preferable, and would be equally free from danger by electrical excitation.

It appearing that on account of the long vacation, this report had been communicated to the Board of Ordnance by the Committee, the council approved of that measure.

11 June 1301. to At Latrobe for his translations of two paper of Inofefor Guett, on the growth of plante in pure Water, and on the Good of Bornes Mo That & 8.18. 6 be spain to Mr Guller for his translations of Alf Schnoollers papers on the planet moroury, and on a lucid hobula. The list of sofaulter was need, and orders were given for the second Letter to be sent to dir becil Spifehopp and Holagard Al Lotter from MI Chowe , Decrotary to The Board of Ontnance to the Secretary of the Specify, was nead, as follows . Office of Ordnance 29 May 1801. The Livet; General and Board of Ordnance hing desirous of ascertaining what is the best covering for the Stoors of Souter Works and magazines to present the bad effect of Priction when work is performed therein. Van commanded to desire you will stubmit this question to the Resident and

to favour his Lord ship and the Board with such information upon the subject asit may be in their power to offerd. (Lyned) A. H. Cheeve. . Manta log! Presolved . That a Committee be af provided to take the purport of the above dellax into consideration, and that Ma Cavendich. MI Hatchell and Count Aumford be of the raid Committee a Ulso that the Secretary write. to MI Chowe to acquaint him with this previous step, and to desire him to day before the Board of Ordnance the request of the Dresident and Council to cause any information concurring the obscumstanced that have given nice to the anguing to be communicated to the above mentioned Committees, which they may sland in need of in the prosociation of their

2 July 1301. Al a Council Inevant. 1 the Revident 5. Dr Guay 2. Mi Bost 6. Martanta 3. Ald Carondich 7. Count Rumford 1. Mi Frene. 8. Mattingg. Il Communication from the Board of Ordnince, being an oxtract of a letter from Ed: Congresse, the Complete of the Royal Laboratory to the said Board, concerning the floore of Souter magazines, was received and nead, and the same. was referred to the Committee appointed by the last Council to take that matter into consideration. Mesobied, Shal dir Charles Blagden be added to the abovementioned Committee. Shal Ly .. 3 .. 2 / he haid by the Ireasurer to Thomas Hood, being one third of his Charge for Masons work done in ne pairing the footing in front of Somarvel

for the Kenith Sector, and also had had finer Wires of flied in the focus of the lilescope sing of about 1000 for inch in diamet instead of the wire wood before of 250 of an inch, by which he com ceived the telescoper to be considerably improved. He also acquainted the Visitor's that the Globe's belonging to the Obvervalory 17 inches in aframeter were very old and so much worm and to be unfil for use; and requested that a pair of new ones Hinches in diameter might be supplied in their shead to the Observatory, by Mi done of Hollown - and the Visitors approving of the destronome : Royals nequest. agreed to recommend it to the Sucredent and. Council at their freed meeting . The astronformer Royal delivered in to the Misters the Greenwich Bornations for the year 1300 converting of y's Sheets of Wansit, and 21/2 atherts of Lufdrant observations ... That applications be made tothe. Board of Ordnance for the Globes requested by the Wir onomer alloyal .. A Topal of the Committee of pointed to take

12 November 1801

into consideration the questions for posed by the Board of Ordnance newheating founds imaganines, was nead as follows

23 July 1801.

Ata Committees Present.

1. The President 1. De Gray

2. dir Char Blagden

3. Mr Ervendich

S. Montchett.

6. Count Aumford ..

Me the Committee appointed by the Council of the Royal Society to take into consideration The questions proposed to themity the Lioutenant General and Board of Ordnance con the 29 may 1901. are of opinion that no danger is to be afprehended from wuch electrical excitation as can be produced by walking or nothing hands upon the hides are now used to cover the floors of the Magazines De at the Royal Souder Weeks at Halsham abbey, even when the said Hides are used without being previously walted -We are also of opinion that no danger of explosion from electrical excitation con a rise.

12 November 1801. from the use of sille dusting Hooks in the manufacture of Gunpowder. With nespect to the question what is the hest owering for the floors of powder Warks and magazines, we are of opinion that the Hides, armore used, have the disadvarlage, of affording a hodgement for the dust of the pounder, nothey do not lie close when each other, or when the floor; on which account we think that some uniform material, of inflicient vive to cover the whale floor, (which as prainted floor clothe without seams] would in that respect beforeferable, and would be equally face from. danger by electrical excitations. It offering that, on account of the long Oxeation, this Heport had been communicated to the Board of Ordnance by the Committeen. The Council approved of that measure :: The Salaries of the two Secretaries, the Loreign Secretary, the Librarian, the Block and the Poster west ordered by battot to be paid by the Iredourer. Also that & Quinoas be paid to & Goog

Pursuant to Board's orders, April 26th, 1796, and 5th and 19th May, 1801. The undermentioned widows and parents whose husbands have lost their lives in his Majesty's works on April 18th, 1801, viz.: Oct. 3rd, weekly pension—Mary Rook, husband drowned, 7s; Francis Hodgson, 13s 6d; Sarah Rickets, 12s; Sarah Bailey, 6s; Ann Bilton, 12s; Mary Edwards, 2s; Eliza Gibbs, 2s; Mary Martin, 2s; B. Mills, 2s: total. £2 18s 6d.

May 29th.—Report of the ages and No. of children of the widows of the unfortunate persons killed—Henry Hodgson, foreman of corning house, Francis Hodgson, wid., age 51; left two children. Reward half her husband's pay. Tho. Bilston—Ann Bilton, wid., aged 32; widow disabled from earning living. Seven children. Rich. Ricketts—Sarah Ricketts, wid., aged 32; left three children. The whole pay. John Bailey—Sarah Bailey, wid., aged 37; half pay; no children; with child. John Gibbs—Elizabeth Gibbs, mother, aged 47, chiefly supported by her son (killed). W. West—Mary West, mother, aged 46. John Milos—Benj. Miles, father, aged 60. Henry Martin—Mary Martin, aged 54. This woman's husband has left her seven years; supported by her son. John Lake. Nearest relation is a brother.

The following account is taken from the Gentleman's Magazine:—" April 18th, between three and four in the afternoon the corning mill,

cal sensibly felt all fround the imply men were blown to sught, men were blown to sught, men were blown to sught, men were found on the 3rd four the mill wheels; mail readent is ascribed to the overthe gridgeons of the mills, and the gridgeons of the mills was worked to be gridgeons of the mill was worked to be gridgeons was not 200 yards discovered to the mill in a before the blow up. Sixty-two years a planor, took place in the same are one of the men was so completely that only he cloths were found on

Jeron Col. Congreve, supporting
William paid \$15, 10s for glass
William Slove and Churchwardens.

Jest Coming House under repair;
And very much burnt. The exposed to have been caused by the
workmen employed therein. This
beau greatly injured by the blow on
Artis 1815, 1801.

June 25.—This accident by fire from the blow of a copper hammer on pit wheel. Decision of B. O. upon restoring the works to produce the same quantity as before, viz., 10,000 barrels.

July.—Letter informing Rex Officers that a committee of the Royal Society will visit Waltham Abbey on the 15th, to investigate matters which the Board have referred for the considera-

-New Grang House

1805.—The Mary Ann, Wm. Shelbourne,

1805.—The Earl of Chatham, Michael Stokes, master.

1805.—The Andrew Lighter, Thomas Benfield, master.

1825.-T. Andrews, of Hertford, contracts to build a new barge for the sum of £354 10s.

July 18th, 1799.—The erection of a stove near the house of Mr Scott. This stove may have been near the Refinery, or the very one now standing at the end of the "Horse Mill Island," between the Little Hoppett and Waltham Marsh.

July 19th.—Objections made by Mr Scott, attorney, to the Board erecting a stove near his house, consequent on a Dreadful Newspaper accident at Faversham Common. Mr Scott promises to meet Mr Denton, the churchwarden, and Mr Jessopp, and settle the business. Mr Scott, attorney, says that if the Board will give him £500 he will pull his house down and erect it in another place, and that the Board should receive no other opposition on his part. James Wright, Major Finlay, Commanding Royal Engineer, Faversham.

Feb. 26th.—Cylinder House men petitioned for additional pay. Labourers pay, 1s 6d; mill men, 2s 3d; for attending at night, carpenter, 2s 6d. [These were the Sussex men. This appeal was on account of the high price of provisions at the time. The appeal was supported

by James Wright, Esq.]

March 5th.—Gratification expressed by the Clerk of the B. O. that Rifle Powder similar to that made at Battle can be manufactured at

March 6th.—A sketch is given under this date in the old books of the fields belonging to the Royal Gunpowder Works, Waltham Abbey,

libraring the number of trees standing, viz., Green sines leading to Galley Hill, elm trees No. 1, 14 trees; No. 2, 27 trees; No. 3, 2 trees; Hosey lone, oak, ash, and pollards, 6 trees and 8 pollards.

July 28th Tanned leather considered better the copper plates used in Press. Cake made

2nd Cake found to adhere to leather and in Process.

De 19th.—Letter directing that two duties by undertaken at Waltham Abbey.

HORSE MILL ISLAND." APRIL 18TH.

1801.

April 18th Explosion of New Corning Nine lives lost and four horses; injury buildings. [This explosion occurred at i.co., Mill Island," in the Marsh, and the bodies of the poor men were buried high heap in the churchyard, without high heap in the churchyard, without memorial stone, near the path leading to Mr. King, house and in front of the Woollard tombs. Characteristics and infortunate men was John Bailey, code full to say, his posthumous son (born October following the explosion) is still the beadle of the parish, which has honourably sustained since the death A then Child, whom we knew in our child-hed. Mr Bailey has sons and grandsons in E. Royal Works in this town. His grandson, Hary Bailey, lost his life at the age of twenty-year, by falling off a powder boat in the all ad stream early in the present year (1886).

Core ment report, Waltham Abbey.]
April 19th A most serious explosion occurred yesterday (18) at 1 past 3 o'clock. I, James Wright, was standing in view of the new

00 0

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Abbey blew up with a dreadful explosion. Nine persons lost their lives.

attending at the field gate, Refining House [Sulphur Refining House] in High Bridge Street and upper part of the works" (Supply 5/217). A Return on the Marital Status of the Employees showed that he was a married man without issue (Supply 5/221). He continued to be employed as a Warder, and in May 1804, his pay had increased to 2/-d per day. As a Warder he received an additional allowance of 1/-d per night when it was his turn "to watch" - on average every 5th night (Supply 5/222). Edward was still a Warder in 1810, then in his 84th year, and was allowed to "round" every third night for which he received 2/-d (Supply 5/228).

Edward Heddy died in a tragic accident on the 19th November 1811 (Winters, op.cit. p.70). A Report to the Board dated the 2nd December described how Edward had left his post at the Refining House to wash his hands in the river when he became giddy and fell in the water. He was rescued, taken to the Wardhouse and lived for another 30 minutes. His wife, Mary, upwards of 67 years, asked for a small allowance "for the remaining years of her life" (Supply 5/229). On the 6th December the Board agreed to pay Mary 5/-d a week

"upon the charity list", commencing from the date of her husband's death (Supply 5/199).

J. Hedley worked as a Labourer in the "Engineers' Dept. Established" in May 1804. He was paid 1/6d per day, with "one day extra allowed per week agreeable to the Boards Order dated 12th March, 1801" (Supply 5/222).

George Herbert was employed as a Millman in August 1812 at 3/-d per day, in addition to which, he was allowed 6d per night when on duty (Supply 5/229). This was also the case in February 1814 (Supply 5/230).

William Hickman worked as a Saltpetre Refiner earning 2/8d per day in February 1814, and, when not working extra, he was allowed to "watch in turn" (Supply 5/230).

George Hicks (1) was born circa 1753 and started work at Faversham on the 1st November 1787. He transferred to Waltham Abbey on the 15th September 1788 (Supply 5/512), and at the Waltham Abbey Mills he was employed as a Sieve Puncher at 1/6d per day (Supply 5/212). In April 1789, in common with the rest of the workforce, he was "cutting and planting willow trees, cutting of canal at the new Corning House, removing earth to the store, unloading barge of coals & charring wood" (Supply 5/213). He had returned to his normal trade by September of 1789 "punching parchment bottoms and mounting sieves" (Supply 5/214).

A memorandum signed by William Congreve on the 26th December 1789 stated, "Hicks, the puncher and mounter of sieves, is to do that duty in the Proof House and have the care of that building" (Supply 5/189). He was still "punching sieves and at the proving house" in March 1790 (Supply 5/214) as he was in July 1795 (Supply 5/217). He enlisted as a Private in the Volunteer Company on the 7th May 1794 (Supply 5/217)).

In December 1795 George stole a considerable quantity of Saltpetre, which he took to London; he was subsequently tried at Chelmsford Assizes, and a cart was sent to Chelmsford after the trial to collect the stolen Saltpetre. In March 1796, he was sentenced to 7 years' transportation (Winters, op.cit. pp. 46/47).

George Hicks (2) was born circa 1769, and was first employed by the Board on the 18th July 1815 as a casual Labourer at 2/8d per day. He was then living in Enfield (WO54/516) but by February 1817 his daily rate of pay had been cut to 2/4d, and he had moved to Waltham Abbey (WO54/520).

Nathaniel Hicks was working as a Saltpetre Refiner in September 1810 earning 2/-d per day, and, in addition, he was allowed to "watch in turn" (Supply 5/228). By August 1812, his rate of pay had been increased to 2/8d per day and he was still allowed to watch (Supply 5/229). His pay and conditions were unchanged in February 1814 (Supply 5/230).

R. Hide was an extra Bargeman employed on three barges transporting gunpowder to Picket's Field and the Magazines in May 1804, for which he was paid £2.2.0d per week (Supply 5/222).

Richard Higgins was born at Preston-next-Faversham in 1791 and trained as a Cooper; he was employed in this capacity at Faversham in 1806, possibly serving an Apprenticeship there. His service record indicates that he left the Ordnance Board for a short while, perhaps to work in a dockyard, but that he was re-employed at Faversham as a Cooper on the 30th November 1808 until the 25th June 1824, when his occupation changed to that of a Charcoal Burner (FGPR p.44). A Return for April 1825 confirmed his new trade and that he was paid 2/4d per day. He was then a married man with 1 child (Supply 5/116). Between the 1st July and the 31st December of that year he was stopped 1/-d for medical attention, and during October 1826, he was suffering from "ague" (Supply 5/116).

t1826, his duties at Faversham were listed as moving millstones, repairing punts, carts, wagons, door windows, ladders and fences, etc., as well as sawing timber (Supply 5/113d). Between the 1st July and the 31st December 1825 he was stopped 2/-d for medical attendance (Supply 5/116). He was still at Faversham in 1832, and occupied 65. West Street.

Waltham Abbey Return WO54/587 of the 1st April 1833, records that he earned £91.5.10d per annum, that he had 38 years' service with the Board and that he was a married man, aged 60, with 6 children. On the 14th October 1834 Hayward was appointed as the Acting Foreman of Works (WO54/623). A Return of Domestic Properties dated the 20th December 1834 prepared by the Royal Engineers' Office at the Mills showed the tenements owned by the Board, and records that Thomas Hayward was living in one of three houses on Plot No. 64, paying a rent of £1.0.0d per annum (Supply 5/237). In October 1839 he was recorded as the Foreman of Works earning 5/10d per day, which gave him an estimated annual income of £91.11.8d. It was also recorded that he was then a widower (WO54/623). Another Return of Domestic Properties dated the 28th May 1840, shows that Mr Hayward, Foreman of Works, was living in one of three houses previously occupied by Thomas Tamkin, "pensioned" (WO44/133). Tamkin was the Master Bricklayer within the Engineers' Department who was retired on the 4th July 1833 (Supply 5/208). The 1825 Valuation for Waltham Abbey records that Tamkin was living in a property of some 12 perches with a rateable value of £9 (ERO D/DHf B29), and this, coupled with information in the 1840 Waltham Abbey Poor Rates (ERO D/P 75/11/16) clearly indicates that the house was in Powder Mill Lane at the northern end of Plot number 714 of the 1825 Parish Map.

The 1841 Census recorded that Thomas lived in Powder Mill Lane with Eleanor Hayward, aged 25, and Emma Hayward, aged 4; he is shown as a Carpenter, aged 60, with only Emma being born in Essex.

Thomas Henry Hayward was born circa 1809 and was possibly the son of Thomas Hayward referred to in the previous entry. He trained as a Carpenter and joined the Engineers' Department at Waltham Abbey on the 6th July 1830. As a 22-year-old bachelor he was paid 4/1d per day (WO54/570).

A Return of Persons Belonging to the Civil Establishment of the Ordnance at the Gunpowder and Small Arms Manufactories at Waltham Abbey, Faversham and Enfield, showing in detail the several points of information called for by the Master General and Board's Order dated the 31st January 1831, recorded that Thomas Henry Hayward was one of 7 Carpenters to be employed at Waltham Abbey Powder Mills and the Enfield Small Arms factory. It confirmed that he was to be paid 4/1d per day and employed to undertake general services as a Carpenter in the Manufactories, which required great care, attention and sobriety, etc. (WO54/575). The last Return to record his name was dated the 1st April 1834 and confirmed that he was paid the same monies and was still single (WO54/593).

Charles Hearn worked as a casual Labourer in the Engineers' Department in September 1812, earning 2/8d per day for a six-day week (WO54/512).

Thomas Heath was a general Labourer working within the Manufactory. He signed the Petition on Pay and Conditions within the Mills presented to the Board in February 1800, indicating that he was literate (Supply 5/220). A Return of the Marital Status of the Employees made in May 1801, notes that Heath was a married man without issue (Supply 5/221).

J. Heather was an extra Bargeman who was employed on three barges transporting gunpowder to Picket's Field and the Magazines in May 1804, for which he was paid £2.2.0d per week (Supply 5/222).

Edward Heddy, born circa 1728, worked for Mr. Walton as a Bargeman before the Mills were purchased in 1797 by the Government (Supply 5/229). He started work with the Board on the 28th May 1788 at 1/6d per day (Supply 5/217). Heddy may have transferred to the Engineers' Department between August and September 1790, since he worked as a Labourer within the Manufactory, with his wages submitted by William Spry, Colonel commanding the Royal Engineers, and paid for by the Storekeeper, James Wright. He signed for his pay with a cross (WASC 1382).

Edward had returned to work on the barges by December 1790, and continued to do so until at least March 1792 (Supply 5/215), but in July and September of that year he was "in the country charring wood" (Supply 5/216). He returned to the Mills and continued to work on the barges, but was replaced by John Turnham on the 30th September 1793 (Supply 5/217). The following day he was appointed as a Warder

maker, 2s 6d per day, 1808; assistant coppersmith, Tho. Gilleoun, 1808; W. Hillyard, collector of taxes for Holyfield, 1810; Robert Denton, overseer, 1810; Hen. Camps, first office-keeper, Feb., 1789; John Baker, first refiner, April 12th, 1789.

Manufactured 18,833 barrels in 1811.

July 10th.—Slight explosion at Lower Island, caused by the splitting of a runner during repairs.

Oct. 2nd.—Explosion, Mills Lower Island,

R. A. powder.

Nov. 18th.—All articles of brass required for Faversham and Waltham Abbey, to be cast at

the Brass Foundry, Woolwich.

Nov. 19th.—Edward Heady, Wardman at the Refinery House, aged 85, drowned. An appeal of his widow for help. Mary Heady, widow, received from the Board on Dec. 7th, 10 weeks and 6 days' pay, 5s per week of 7 days, £2 14s 3½d.

EXPLOSION AT THE LOWER ISLAND, NOVEMBER 27TH, 1811.

Nov. 27th.—Lower Island.—At 4 past 11 this day, No. 4 Press House exploded in a most tremendous manner, the fire from which communicated to the Corning House and Reel House, which exploded also in a manner equally dreadful. The complement of men belouging to these buildings amounted to nine (exclusive of boatmen), but one man out of the number being sick did not go to work this morning. Out of the eight men employed therein at the moment of the explosion, one only (the Foreman of the Reel House) has been saved, and it is yet a matter of doubt whether he can ultimately recover, being burnt in a shocking manner. [The Morning Chronicle, Nov. 29th, 1811, states that the Press House first exploded, and then the Corning

House, which accounted for the two shocks.] Buildings levelled to the ground. The Traverses though injured are servicable. Many windows in the town and neighbourhood broken. Thomas Wiltshire, Foreman, saved. Appeal for his pay during sickness. Nov. 28th, 1811. [The "Lower Island" was originally called "Lime Holmes," and was let to Mr Johnson, a relative to Joseph Clark, Esq., of Cold Hall, before purchased by the Government. He also possessed the "Island" at Enfield Lock, where the church now stands.] An appeal to the Board for money to bury the dead in a plain, decent manner.

Names of men killed:—Wm. Stevens, Foreman, Corning House, per day, 3s 6d; Benj. Parker, Thos. Belsham, Hen. Wakeland, John Grapes, Joseph Chapple, Daniel Goats, Corning House men, 2s 6d per day. Signed, H. J. Matthews and Will Breeze.

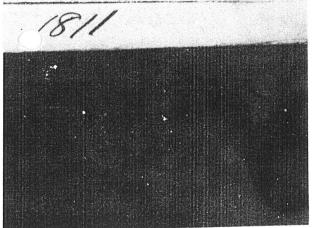
An Appeal to the Hon. Board for some reward of merit to William Peyton [or Paton], carpenter, who after the explosion extinguished a firebrand that fell near the door of the Magazine, which had a quantity of Powder in. The door had been forced open by the explosion. Reed. a donation of £20.

Thomas Wiltshire died 13th Dec., 1811. [The body of one of these poor men was not found

until some time after the explosion.]

Royal Powder Mills, Waltham Abbey, 7th December, 1811. We, whose names are hereunto subscribed, do acknowledge to have received of H. S. Matthews, Esq., storekeeper, the sums of money set against our names, the same being the Honble. Board's allowance to us from 28th November, to the 7th December, 1811, both days included, as the widows of those who have lost their lives at this place. Per Board's order, dated 4th December, 1811:—Situation held by late husbands or relations: Foreman of Corning

Taltham Abbey.—We record with pain and read dreadful accident, which took place in the siy, at Waltham Abbey.—The powder inagazine iging to Government, together with the corning several other buildings, blew up with a trementhe shock was like the concussion of an earthouses in the town of Waltham Abbey were evere a pane of glass was left whole in any part of it explosion was not confined to the in mediate vihouses in the surrounding country, to a great considerable damage from the violence of the to the public by this calamitous accident is very we are given to understand that the whole of the en descroyed. We are ifflicted to add, that a sere lest on the occasion. Some accounts state ligh as 150, but we have reason to believe that it



morning about eleven o'clock, at the government powder-mills, at Waltham Abbey. The concussion was distinctly felt in and around the metropolis, more particularly in Steppey. Hackney, and Blackwall. Two nulls, together with a corning-bouse, and other buildings, were blown to atoms, and we lament to asy, eight valuable lives were involved in their destruction. The following are the names of the sufferers:—Parker, Stevings, Grapes, Goates, Belcher, Wakeling, Chappel, and Wilsher. The only surviving person, Thursday night, was Wilsher, but he was not expected to live. They were all married men with families, except Goates.

1811.

the aid of the new mills and one Corning House." It was further stated "that the quantity could be raised to 53,000 barrels by adding an horse mill: two double mills on Lower Island, four ditto at Upper Mill Yard, and four at Cheshunt inlet."

J. H. STAMP, Curate.

19th May, 1904.

WALTHAM ABBEY.

The 19th annual Church Parade of the local Friendly Societies was held on Sunday afternoon, July 3rd, when the service in the Abbey Church was conducted by the Vicar, the Rev. F. B. Johnston, who also preached an appropriate sermon on Exodus xxi. 19. In the concluding portion of the discourse an earnest appeal was made on behalf of the Tottenham Hospital, the Hertfordshire Convalescent Home at St. Leonards-on-Sea, and the Cheshunt Cottage Hospital. In referring to the Convalescent Home the Vicar alluded to the serious loss recently sustained by that institution through the death of Canon Burnside, its pious Founder and devoted manager. The collection in the Church and streets amounted to £25 7s. 8\frac{3}{4}.

On July 10th sermons in aid of the British and Foreign Bible Society were preached at the morning and evening services in the Abbey Church by the Rev. H. A. Raynes, Home Superintendent, who also preached in the afternoon at the Mission Church, Copt Hall Green.

The annual Festival of the Waltham Abbey Branch of the Mothers' Union took place on July 7th, when a special service was held in the Abbey Church at 3.30. An impressive sermon was preached by the Rev. W. Sydney C. Seacombe, Secretary to Missions to Seamen. After the service the members were entertained to tea by the lady associates in the Victoria Hall, kindly lent for the occasion by Mr. and Mrs. J. Parnell, who also generously provided tea for Associates and Friends on the beautiful lawn in front of their residence.

WALTHAM ABBEY CHURCH TOWER FUND.

At the meeting of the Ladies' Bazaar Committee on June 22nd it was decided that application should be made for the use of the new Town Hall about the third

or fourth week in October, and the application has since been granted by the District Council.

At a meeting of the General Committee on July 5th the Hon. Clerical Secretary reported that Mr. J. A. Reeve, the architect, had received tenders as follows from the three local firms invited to send in estimates: Mr. P. Paul, £2,090; Mr. E. J. Hanchel, £2,000; Mr. J. Bentley, £1,759. It was then unanimously agreed to accept Mr. Bentley's tender, and after a financial statement by Mr. J. Eve (one of the Lay Secretaries), in which he showed that the sum of £1,600 was practically assured, the Committee decided to guarantee to raise the five hundred pounds still needed to cover all expenses connected with the work of restoration, that there might be no further delay.

Donations to the Fund, and articles for the proposed Bazaar will be gladly received by the Hon. Secretaries, and by Miss M. B. Lee, Hon. Sec. to the Ladies' Committee.

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FOURTEENTH LIST OF SUBSCRIPTIONS.

1 OOK 1 DESCRIPTION					
Per Rev. F. B. Johnston-				. (
Sums already acknowledged		£1,74	3 1	I	7
Miss A. E. Francis					
Per Mrs. Bury—					
Mrs. Hyde Clark			3	0	0
Miss M. A. Tottenham					
Per Miss M. B. Lee-					
Rt. Hon. Sir Albert H. Him	ie, K.C.M	.G.	5	0	0
Mrs. Kingsley		• • •	5	0	0
Per Mrs. Renshawe-					
A Friend		• • •	1	0	0
Per Mrs. J. M. Bentley-					
Mrs. Bentley, Sen			1	1	0
Per Miss E. Dean, Collecting C	ard		()	5	6
Per Mr. A. G. Hubbard-					
Interest on money deposited in the Bank,					
and returned by J. Pa	rnell, Es	q	0	17	1
			20	2	7
Amount already acknowledged		1,74	13	11	7
		£1,7	63	14	2

The Abbey Church Bells were rung on June 24th in honour of the King's Birthday, which was celebrated on that day.

On the following day our local Ringers went on their annual outing to Hornchurch, and after a pleasant drive through the Forest rang upon the peal of eight bells in the steeple of that pretty Essex village. The Hornchurch Ringers paid a return visit on July 9th, when they ascended our ancient tower, and took part in some merry peals on the Abbey Church Bells.

from WALTHAM ABBEY CHURCH MONTHLY, MUGUST 1904

Steeple, agreeably to Mr. Saxon's advice in his letter of the 24th August last, and that the same be done as speedily as convenient."

The final settlement of the account, however, was not made until three years later, when the authorities resorted to drastic measures to raise the amount required to defray the expenses, as we learn from the Minutes of a sixth Vestry, held on 12th October, 1813, when the following paragraph occurs: "It appearing to this Vestry that there is a deficiency of £359 and upwards due and owing from the Churchwardens to the Surveyor, Builders, and others, for the repairs done to the Church Steeple, and that the arrears of the last Church Rate are not nearly sufficient to answer the same. It is therefore ordered that such arrears of the last Church Rate as are due from persons able to pay, be immediately enforced by legal measures, and that a Rate at sixpence in the pound be forthwith granted to the present Churchwardens, who are directed to make out and collect the same. Also ordered that the Churchwardens do employ the Vestry Clerk to enter the last Rate as are due from persons able to pay, be immean account of their payments and arrears.'

It is singular that the upper stage of the Tower, which was the cause of so much trouble and expense to our predecessors in the parish at the beginning of the 19th century, should again be the fruitful source of anxious solicitude at the beginning of the 20th century, but we trust that this dilapidated portion of the venerable structure may soon be repaired, and improved in such a manner that our successors in the next century may have no cause to complain of inferior style, material, or workmanship.

Shortly after the repair of the Tower in 1810-11 a. disastrous explosion occurred at the Royal Gunpowder Factory, and resulted in the loss of eight lives. This fatal accident took place on the Lower Island below Waltham Lock, at a quarter-past eleven on the morning of November 27th, 1811, when No. 4 Press House first exploded, setting fire also to the Corning House and Reel House. Seven poor Workmen were killed on the spot, and Thomas Wiltshire, foreman of the Reel House, the only survivor, died on December 13th, from the effects of the terrible shock and burns which he had sustained. The names of the other victims were as follows: William Stevens, foreman of Corning House; Benjamin Parker, Thomas Belsham, Henry Wakeland, John Grapes, Joseph Chapple, and Daniel Goats, Corning House men. The following account of the disaster was published in the Cambridge Chronicle of November 29th, 1811:

"A DREADFUL ACCIDENT.

"A powder mill at Waltham Abbey was blown up on Wednesday last, eight lives lost, and seven of the persons left families. The whole of the town of Waltham was in great danger, as it was thought the magazine would have been blown up. A man was, in consequence, sent through the streets of Waltham to caution the inhabitants to leave their houses instantly. No further explosion had, however, taken place at the date of our last account. At Stepney a mirror

of plate-glass was broken by the shock; at Hackney several panes of glass were forced in; and at Black-wall the windows throughout the whole street were shattered. Near the New Road, Marylebone, several of the houses were much broken; and the labourers who were excavating in the park felt the ground shake where they were at work. Even ships on the river were shaken. Some of the morning papers mistook it for an earthquake. This seems singular that the shock should be felt so much more in London, while the damage done in the town was but trifling, excepting that the current of air at the time might have directed the concussion from the town."

The Funeral Service was solemnised in the Abbey Church, but not until December 16th, three weeks after the explosion, as the shattered remains of one of the poor men were not discovered for some time, and Wiltshire was not released from his sufferings until December 13th. The mutilated forms of the unfortunate victims were reverently laid in one grave in the Churchyard, the Rev. Thos. Pickthall officiating, and he records the interment as follows:

"Burials, 1811.—December 16th, Wiltshire Thomas, one of the eight poor men who were destroyed by the explosion of the Powder mills on the Lower Island. The names of the others are inserted from memory, as no proper account was transmitted to the Registrar." These names appear in the following order: "Stevens, Chappel, Parker, Wakeling, Goats, Grapes, Belsher." Below this sad list is appended a memorandum referring to the Burials of the whole year: "The above have been duly and faithfully entered by me,

"THOMAS PICKTHALL, Curate."

Donations and allowances were eventually granted to the bereaved relatives by the Board of Ordnance, and William Peyton, or Paton, a carpenter, also received a donation of £20, in recognition of his heroic act at the time of the accident in extinguishing a firebrand that fell near the door of the Magazine, which had been forced open by the explosion, thus securing the safety of the town and inhabitants. The demand for Gunpowder throughout the period of the Continental wars was so heavy that the men in the Factory were working at high pressure seven days a week. It is related* that "the horses (who set the machinery in motion) had bells on their harness, and when they passed round they struck against a spring which caused the ringing of a small bell, to let the heads of the Factory Department know if they performed their work regularly, and at the proper speed. These workbells were to be heard jingling from mill to mill all the way along each side of our marsh, at the same time as our Church bells were chiming for Divine

On November 23rd, 1812, it was reported that 22,000 barrels of 90 lbs. each had been made since the beginning of the year, and the hope was expressed "that 30,000 barrels would be manufactured in 1814 with

To be of other page.

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No further explosion had, however, taken place at the date of our last account. At Stepney a mirror Factory," by the late W. Winters, F.R.H.S., page 63.

gret a disastrous and dreadful accident, which took place in the at that place belonging to Covernment, together with the corning dous explosion. The shock was like the concussion of an earthcourse of Wednesday, at Waltham Abbey. The powder magazine Powder Mills, Waltham Abbey -- We record with pain and rehouses, mills, and several other buildings, blew up with a tremenquake. Several houses in the town of Waltham Abbey were everturned, and scarce a pane of glass was left whole in any part of it. The effect of the explosion was not confined to the in mediate vidistance, suffered considerable damage from the violence of the considerable, as we are given to understand that the whole of the buildfings have been destroyed. We are afflicted to add, that a cinity, as many houses in the surrounding country, to a great The loss to the public by this calamitous accident is very number of lives were lost on the occasion. Some accounts state the number as high as 150, but we have reason to believe that it does not exceed 11. The accident happened about one s'clock, Sarah Chapple humbly prays an allowance in consequence of the death of her late father, Joseph Chapple, who was killed by the explosion of a corning house, on the 27th November. The Board grants her a donation of £10 10s. [Not one of the above women could write.]

An account of the explosion from the Cambridge Chronicle, November 29th, 1811. "A DREADFUL ACCIDENT .- A powder mill at Waltham Abbey was blown up on Wednesday last, 8 lives lost, and 7 of the persons left families. The whole of the town of Waltham was in great danger, as it was thought the magazine would have been blown up. A man was, in consequence, sent through the streets of Waltham to caution the inhabitants to leave their houses instantly. No further explosion had, however, taken place at the date of our last account. At Stepney a mirror of plate glass was broken by the shock; at Hackney several panes of glass were forced in; and at Blackwall the windows throughout the whole street were shattered. Near the New-road, Marylebone, several of the houses were much broken; and the labourers who were excavating in the park felt the ground shake where they were at work. Even ships on the river were shaken. Some of the morning papers mistook it for an earthquake. This seems singular that the shock should be felt so much more in London, while the damage done in the town was but trifling, excepting that the current of air at the time might have directed the concussion from the town."

Dec. 18th.—Money due (Foreman of Reel House) Elizth. Wiltshire, widow, for 1 week 1 day, 19s 10d—£1 2s 8d.

ic, Bainer, 6s 6d per day;

11:15.

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1 12 ... 1 ... Merrapplied to the state of t

Hosti of Ordnance having the Oheshunt and Waltham the Water mills on the Old with the Oheshunt at the Waltham the Water mills on the Old with the Crown stones of the Charles of the Charles of Gunpowder.

27.11.18/1 No4 Reu Bu

Manufactured 18,833 barrels in 1811.
July 10th.—Slight explosion at Lower Island, caused by the splitting of a runner during repairs.

Oct. 2nd.—Explosion, Mills Lower Island,

Nov. 18th.—All articles of brass required for Faversham and Waltham Abbey, to be cast at the Brass Foundry, Woolwich.

Nov. 19th.—Edward Heady, Wardman at the Refinery House, aged 85, drowned. An appeal of his widow for help. Mary Heady, widow, received from the Board on Dec. 7th, 10 weeks and 6 days' pay, 5s per week of 7 days, £2 14s 3½d.

EXPLOSION AT THE LOWER ISLAND, NOVEMBER 27TH, 1811.

Nov. 27th.—Lower Island.—At 1 past 11 this day, No. 4 Press House exploded in a most tremendous manner, the fire from which communicated to the Corning House and Roel House, which exploded also in a manner equally dreadful. The complement of men belonging to these buildings amounted to nine (exclusive of boatmen), but one man out of the number being sick did not go to work this morning. Out of the eight men employed therein at the moment of the explosion, one only (the Foreman of the Reel House) has been saved, and it is yet a matter of doubt whether he can ultimately recover, being burnt in a shocking manner. [The Morning Chronicle, Nov. 29th, 1811, states that the Press House first exploded, and then the Corning

House, which accounted for the two shocks.] Buildings levelled to the ground. The Traverses House in juried are servicable. Many windows in the town and neighbourhood broken. Thomas Witahire, Foreman, saved. Appeal for his pay duting sickness. Nov. 28th, 1811. [The Lower Island" was originally called "Lime Holmes," and was let to Mr Johnson, a relative it Joseph Clark, Esq., of Cold Hall, before purchased by the Government. He also possessed the Island" at Enfield Lock, where the church now stands.] An appeal to the Board for money to bury the dead in a plain, decent manner.

Names of men killed:—Wm. Stevens, Foretion Corning House, per day, 3s 6d; Benj. Ther, Thos. Belsham, Hen. Wakeland, John Grapes, Joseph Chapple, Daniel Goats, Goring House men, 2s 6d per day. Signed, H.J. Matthews and Will Breeze.

An Appeal to the Hon. Board for some reward herit to William Peyton [or Paton], carpentho after the explosion extinguished a firemain that fell near the door of the Magazine, high liad a quantity of Powder in. The door highest forced open by the explosion. Reed. constitution of £20.

Thomas Wiltshire died 13th Dec., 1811. [The bid, of one of these poor men was not found not some time after the explosion.]

Royal Powder Mills, Waltham Abbey, 7th December, 1811. We, whose names are hereunto silectibed, do acknowledge to have received of H.S. Matthews, Esq., storekeeper, the sums of money set against our names, the same being the Honble. Board's allowance to us from 28th November, to the 7th December, 1811, both days fielded, as the widows of those who have lost their lives at this place. Per Board's order, dated 4th December, 1811:—Situation held by late husbands or relations: Foreman of Corning

27 11. 1811 No 4 hers.

Factory-one hundred years ago. The names of James Turnham, sen., and James Turnham. jun., appear on the first list of persons employed by the Government at Waltham Abbey in 1787; at which period both of these men were dignified as "labourers." Two years later the elder Turnham was appointed warder at the Refinery House, and died in 1797. Their present representatives are engaged in the Royal Works to-day. Daniel Cornish, "carpenter," who had been employed by the last merchant, Mr Walton, was directed in 1787 by Sir W. Congreve to "hire some of the best of the millmen and labourers who worked at Mr Walton's mills" for Government service. He had the promise of "fifteen shillings per week for one month, certain." At his death in 1825 he was in receipt of a pension amounting to £36 8s per annum. One of his descendants is in the factory at the present time. On the list of 1787 occur also the names of Edward Archer, William Purkis ("bricklayer for Mr Walton,") Benjamin Guinn and others whose names are familiar to us to-day. A little later on appear the names of some of the persons who were engaged in the works, and which names will be recognised by many "old hands" now in the factory, viz., W. Dyer, W. Carter, W. Turnham, Paul Gibbs, Benj. Archer, Thomas Martin, W. Mold, W. Dunn, James Cornish, Samuel Knowler (engaged at Faversham in 1787, and at Waltham Abbey in 1789) Henry Knowler, F. Simpson, John Speller, W. Speller, J. Watson, J. Bailey, E. Kippin (afterwards the town crier), T. Grayling, W. Adams, E. Jones, W. Webb (cooper for John Walton, before 1787), G. Hicks, J. Haynes, W. Dugard, J. Ferguson, B. Wall, J. Essex, J. Baldock, R. Jameson, H. Jones, J. Gibbs, W. West, J. Brown, B. Clark. W. Boswell, J. Rowley, S. Horwood, B. Parker, J. Newland, J. Adams, M. Summers, R. Want,

J. Wilson, Anth. Childs, W. Clark, A. Bell, W. Akers, Tim. Bates, J. Conyard, J. Chillis, J. Cannon, J. Luck, J. Perry, E. Rapley, B. Cornish, R. Perkis, J. Staker, R. Odwell, J. Ayis, D. Allsup, W. Nottage, C. Claydon, G. Bloomfield, J. Parker, J. Dye, J. Kent, G. Mitchell, T. Cole, J. Hunt, John Turnham, J. Oram, J. Aylen, C. Turnham, D. Holden, J. Ovenden, W. Passfield, G. Woodbridge, Jer. Betts, T. Carter, D. Goats, etc. This last-named person was killed by the explosion of November 27th, 1811, at the Lower Island. A coffin (as before stated) supposed to contain his remains was buried with the bodies of the rest of the unfortunate men. His body, however, we find, was not discovered until some time afterwards. A reward was paid to the person who found it as stated in the annexed extract from the Government record under date, 28th January, 1812, viz.:—" John Smith received Hon. Board's gratuity of £1 for recovering the body of Daul. Goats, who was unfortunately killed by the explosion of Corning House, per Board's order, dated 17th January, 1812; and Jas. Rowland was paid £2 8s 1d for funeral expenses of the said Danl. Goats, per Board's order same date."

Quinton Hill Farm, (in this parish) we understand, has recently (1886-7) been purchased by the Government, with the view of removing the gun-cotton works there from the "Refinery," Highbridge-street. The Government have also occupied of late a field in Honey-lane for the purpose of storing rye straw for charcoal.



27-1(1811 No 4-P

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central buildings round the cloisters) so that it can be explored on the ground. This is of course a long term project but in the meantime it is vital that the integrity of the precinct should not be spoilt by piecemeal planning. The ultimate aim should be borne steadily in mind by those who find themselves the guardians for the time being of this priceless piece of Ken Barcombe 1972

PASTURE RIGHTS IN EPPING FOREST

Minnie Fenton

The ancient practice of pasturing animals goes back in records to the 8th Century, when reference to this was made by Ethelbald, who ruled Mercia 716 - 757.

Much treasured by the common folk was the 'Right of Pannage'. Pigs were allowed to range freely and feed on acorns, roots and beech mast. In fact they became effective ploughs and fertilisers as they grubbed through the leaf-mould. The pigs were ringed, and allowed on forest wastes from 15 days after Michaelmas (4th September - 8th November) when fruit was

A 1790 Forest Court order allowed two cows or one horse for 'every £4 rental per annum' But thanks to a charitable trust the poorer families were excluded from this payment. This helped towards preserving the privilege of every family in the Parish, to take advantage of the right of 'Common of Pasture.' However, between 21st June and 21st July a 'Fence Law' prevailed stating all cattle were to be removed from the forest whilst the deer were left to drop their young. Those who disobeyed, had their animals impounded during this period and

MEMORIES OF WALTHAM

The following poem, written in 1870, has recently been received from Derek Low a descendant of the Bligh family who were resident in Waltham at the end of the 18C and throughout the 19C.

There were at least three generations of Samuel Blighs. Samuel Bligh (1) 1777-1829, the father of the poet, trained as a watch maker in London. He moved to Waltham Abbey in 1801 and became a draper. On 27th December 1802 he married Elizabeth Stammers, whose sister Sarah was the wife of William Brackett, the Minister of the Baptist Church in Paradise Row from 1797 - 1802. In 1812 Samuel (1) was ordained as Minister at Potters Bar Baptist Church, later moving to Whitechapel as an

Samuel and Elizabeth Bligh had 4 children, Elizabeth, (b. 19.11.1804) Samuel (2), (11.2.1806) John (7.12.1807) and Sarah (24.3.1809) all born at Waltham, and registered in the register of nonconformist births at Dr Williams Library.

Samuel (2)'s poems were published privately just after his death in 1885, by his son Samuel **Edmund Bligh** (1842 – 1925)

WALTHAM ABBEY circa 1812

I remember, I remember the town where I was born, Its antiquated Market Place, its Abbey's ruined form. I remember, I remember the ivy-clad great tower, With its ancient Gothic gateway, that standeth to this hour; The ancient bridge that spans the stream - the millstream clear and bright Where oft I caught the sticklebacks by morn's enchanting light. I remember, I remember where I was taught to spell, Miss Canon's little Infant School - she lived to love me well; I remember, I remember that memorable day When with reports like thunder the mills were blown away.

I remember, I remember, my early youth's play-places And Bucknall's School upon Farm Hill, where oft I made wry faces. And never can my heart forget the Chapel, old and square, For twice on every Sabbath day our mother took us there. And never will my ear forget my father's heavy bass,

With full-toned sonorous depth and strength – it shook the very place. A well-known townsman comes to mind – powdered old Dr Carter¹ He very often bled the folk, and gave them physic 'arter.' Another I remember well, the beadle of the town, Old Starr², whose heavy knobbly stick could knock a bullock down.

I remember, I remember, the Green Yard, where content, Dear old John Thompson³ kept his shop, and there I often went. That shop is open still; his son now ninety years of age, Is brisk as any boy of twelve — I'll read to him this page. 'Old Bungy Mason'⁴ well I knew, Joe Jessop⁵ and his father, And Cox⁶ the butcher with bull head; and Law¹ the man of lather. I remember, I remember, John Brown 8the pastry cook; Oft when I passed his savoury shop, I stopped to have a look. Grand Mr Peake 9the auctioneer, 'Old buckish,' such a swell! He looked as if he'd knock boys down; sworn brokers knew him well. What is it to a stranger, the town where I was born? And what the places and the men that I have freely drawn? To me they shall have interest as lasting as my life, For there I spent my childhood's days, and there I won my wife.

¹ **Dr John Carter** 1760 – 1816 is described by William Winters as 'a surgeon of this town', he lived for some years in Sun Street. He and his wife Ann both attended the Baptist Church.

² So far no reference has been found to Starr the Beadle.

³There are at least two **John Thompsons** who had a grocers and tea dealers shop in Greenyard, the elder 1754 – 1838, and a son 1792 – 1845. Neither of these fits in with dates mentioned in the poem – maybe this is poetic licence, or maybe another generation. The Thompsons were also Baptists, and when the Strict and Particular branch broke away from the main church in 1824 they met at the house of John Thompson in Greenyard. After the Declaration of Indulgence in 1671 Protestant dissenters could apply to have houses licensed for public worship, and according to Winters 'John Thompson licensed his house in the Greenyard, and three sermons were preached there every Lord's day.'

⁴ 'Old Bungy' Mason is William Mason, a brewer who died in 1820 aged 78. He too was a Baptist, and his massive tomb, ornamented with heraldic bearings, is one of the few still visible in the graveyard on the south side of the Chapel.

⁵ Cox the Butcher is Philip Cox who according to the Piggotts Trade Directories for 1823-4, 1826-7, and 1832-4 had a shop in Highbridge Street.

⁶ Joe Jessop who died in 1859 aged 72 was an attorney of Highbridge Street, one of the family firm who practised in Waltham until late in the 20th century as Jessop and Gough Solicitors, (now Curwens)

⁷Law the man of lather had a barbers and hairdressers shop on the south side of Sun Street. It appears there were two Laws, Matthew and Robert - presumably father and son.

⁸ John Brown the pastry cook,- the location of this shop has not been established.

⁹ Grand Mr Peake the auctioneer died in October 1834 aged 58, he had premises in Sun Street.

TULIP TREE

Since his visit to Waltham for our 50th Anniversary Celebrations Sir Hereward Wake has expressed the desire to plant a tulip tree in the Lea Valley Park, on the site of the Old Denny Mansion, where the Wake family were resident in the 1730s. Arrangements are in hand with the relevant authorities. (We are sorry to hear that Sir Hereward has recently broken his arm, we wish him a speedy recovery).